

**COLUMBIA
COUNTY**

Highway and Transportation



**COLUMBIA COUNTY
HIGHWAY & TRANSPORTATION DEPARTMENT
PROCEDURES MANUAL**

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ACRONYMS:

AASHTO	American Association of State Highway and Transportation Officials
ACP	Asphaltic Concrete Pavement
ADA	Americans with Disabilities Act
AADT	Average Annual Daily Traffic count
Ag CMV	Agricultural Commercial Motor Vehicle
ANSI	American National Standards Institute
ASP	Additional Special Provisions
ASTM	American Standard Testing Methods
ATTSA	American Traffic Safety Services Association
ATV	All-Terrain Vehicle(s)
BMP	Best Management Practice(s)
CCHD	Columbia County Highway Department
CCOrd	Columbia County Ordinance
CEF	Cost Effective Findings
CHIP	County Highway Improvement Program (a subset of LRIP)
CHIP-D	County Highway Improvement Program Discretionary (subset of LRIP)
CHIP-S	County Highway Improvement Program Supplemental (subset of LRIP)
CMM	Construction and Materials Manual
CRS-2	Cationic Rapid Set (Emulsion Oil)
CSO	Columbia County Sheriff's Office
CTH	County Trunk Highway
DBE	Disadvantaged Business Enterprise
DMA	Discretionary Maintenance Agreements
FDM	Facilities Development Manual (design guideline of WisDOT)
FHWA	Federal Highway Administration (U.S. government)
FT	Foot or Feet (plural)
FTE	Full Time Equivalent personnel
HMM	Highway Maintenance Manual (maintenance guideline of WisDOT)
IH	Interstate Highway (Federal)
IoH	Instruments of Husbandry
ISEA	International Safety Equipment Association
LFA	Local Force Account (department time and materials)
LRIP	Local Road Improvement Program (administered by WisDOT)
LTE	Limited Term Employee (or seasonal personnel)
MPH	Miles per Hour
MSIP	Municipal Street Improvement Program
MUTCD	Manual of Uniform Traffic Control Devices
NACE	National Association of County Engineers
NBI	National Bridge Institute
NHTSA	National Highway Traffic Safety Association
OSOW	Over Size and Over Weight
PASER	Pavement Surface Evaluation and Rating
PLE	Permanent Limited Easement

PPE	Personal Protective Equipment
PSC	Public Service Commission
PS&E	Plans, Specifications and Estimate (milestone date for design timeline)
ROW	Right of Way
§	Wisconsin State Statute (Section or Chapter)
SMA	Wisconsin State Municipal Agreement
STH	State Trunk Highway
STIP	State Transportation Improvement Program
TLE	Temporary Limited Easement
TRI	Town Road Improvement Program (subset of LRIP)
TRI-D	Town Road Improvement – Discretionary (subset of LRIP)
USH	United States Highway (federal highway)
WCHA	Wisconsin County Highway Association
WDNR	Wisconsin Department of Natural Resources
WisDOT	Wisconsin Department of Transportation
WISLR	Wisconsin Information System for Local Roads
VCT	Vision Clearance Triangle

DISCLAIMER

This manual is only intended to reflect Federal and State law, their applicable policies and regulations, and the Columbia County Code of Ordinances; it is not intended to create new law, policy, or regulation not already found therein. To the extent that there may be any contradiction within this Manual and any applicable Federal, State, or local law, policy, or regulation; this Manual shall not control, supplant, or influence any interpretation or application. This Manual does not waive any right, argument, or defense Columbia County may have as a matter of law and this Manual is not intended to create any third party right(s).

This Manual is not to be construed to create any ministerial duty to act or any duty to provide specifically for any one individual or entity of Columbia County, Wisconsin. See Wis. Stat. § 893.80. This manual does not provide any special protection or service to any particular individual or group and may be affected, in total or in part, as a result of acts of God, equipment breakdowns, weather conditions, inadequacy of equipment, State or Federal regulations, shortages of personnel, availability of funds, or any other unforeseen, uncontrolled, or unanticipated acts.

This Manual is a summary of written and unwritten procedures, methods, past practices and/or actions of CCHD. More detailed or specific information regarding Department response may exist within other documents of the Department; namely, county ordinance, safety manuals, department forms, personnel manuals, employee manuals, documents from WisDOT, WDNR, FHWA, NITSSA, FMCSA, ATSA, EPA, COE, or other references or directives in place.

At the discretion of the Highway Commissioner, this manual may be revised or modified at any time.

PURPOSE

This document summarizes the Procedures of CCHD. Policies lay the groundwork for the operations and approach of the Department when conducting business of the County; whether working on State Primary (interstate and USH), State Secondary (STH), County Trunk Highway (CTH), or Town and Local Roads (Locals). Policy is administered through a litany of Statutes, Ordinances, departmental policies, guidance documents, best management practices, and a host of other references. This document is a summary of common procedures and is not to be interpreted as the only or exclusive remedy of Department action. In the end, specific State legislation, County Policy, County Ordinance, Town Ordinance, Municipal Ordinance, or others would take precedence and dictate procedural action(s) the Department may take. Furthermore, CCHD utilizes a variety of sources to assist with the determination of action, inaction, direction, training, and a variety of other related outcomes. Some of those may include, but are not limited to:

- Annual, project, and/or program budget, financing, or contracts.
- County Ordinance, County Procedure Manuals or Codes.
- Wisconsin State Statutes, Administrative Code, Department of Transportation policy manuals.
- State or FHWA guidance or BMPs, directives of the MUTCD, MSHA, OSHA, DSPS, etc.
- Town Board directive or Ordinance.
- BMPs from a variety of industry references and guides (WCHA, WDNR, ATSSA, AASHTO, NHTSA, and others).

Our goal is Good, Safe Roads.

INTRODUCTION

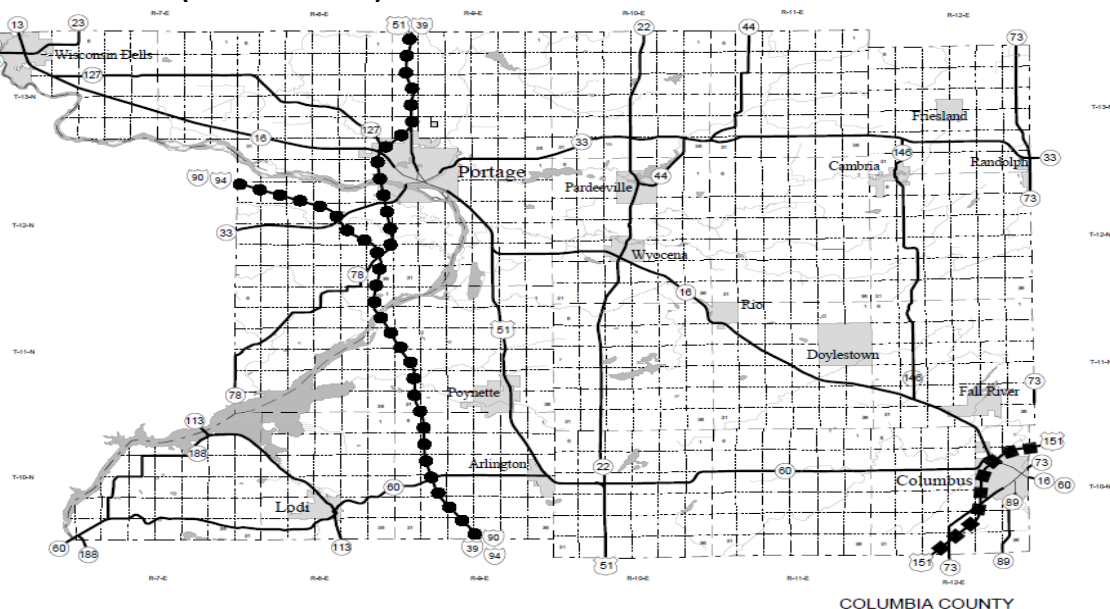
Columbia County Highway & Transportation Department (CCHD) maintains the equivalent of 1,670 miles of two-lane highway (equal to driving from Wyocena to Key West, FL and back). CCHD oversees the maintenance of 356 miles of the County Trunk Highway (CTH) system. CCHD annually contracts with the Wisconsin Department of Transportation (WisDOT) to maintain 801 lane miles of State Trunk Highway (STH), Federal Highway (USH), or Interstate Highway (IH) Systems. CCHD also works with 21 townships in the County to maintain 913 miles of town roads. All that right-of-way equates to maintaining more than 13,400 acres of land annually.

Highways are commonly classified by ownership or purpose. Jurisdictional responsibility refers to governmental ownership or responsibility of a particular road; however, governmental ownership does not necessarily reflect who conducts the on-going maintenance of the facility. CCHD is responsible for conducting routine maintenance and minor repairs on the Federal, Interstate, and State roads within the County. Major repairs and reconstruction are the responsibility of WisDOT. CCHD is responsible for all maintenance and construction for all County Trunk Highways in the county. CCHD is also responsible for various routine maintenance duties, minor repairs, and construction on town roads via various long-standing arrangements with most of the towns in the County. In addition, some municipal jurisdictions maintain urban sections of state roads (Portage and Columbus) through contract with WisDOT (a designation known as connecting limits).

State Roads

There are 283 centerline miles of state roads within the County which translate to over 801 “lane” miles of roadway. CCHD maintains all of them, from heavily travelled Interstate 39/90/94 with 45,000 AADT in winter and over 120,000 AADT in summer down to the lesser frequented STH 127 or STH 188. CCHD operates and maintains the Merrimac Ferry under contract with WisDOT since 1931 for that service. Ferry service initiates with “ice-out” on the Wisconsin River (around March 30th) and continues 24 hours per day, seven days per week until the river ices over (around January 1st).

Figure 1: State Roads (source WisDOT)



County Trunk Highway System

After 1848, roads laid out and opened by authorization of Wisconsin State Legislature were designated “state roads”. Since the State Constitution prohibited the state from “works of internal improvement”, these “state roads” that they traversed were the responsibilities of county, town, and village. In addition, legislature chartered many private turnpike and plank road companies. In 1908, the internal works prohibition of the constitution was amended, and the state was allowed to participate in construction and improvement of highways. Keeping in mind in 1900 only 8,000 automobiles existed in the U.S. and by 1915 that number grew to over 2.5 million.

In 1911, Wisconsin legislature created the State Highway Commission (1911 Act 337). The State Highway System followed 6 years later in 1917 (1917 Act 175). The County Trunk Highway System was formally set in place in 1925 (1925 Act 263); although, County’s had already established roads between counties as early as 1921. The remaining local roads that lacked connectivity became town roads or municipal in nature. In the early automobile years, Indian and pioneer trails were converted and sometimes straightened to be designated as an “auto trail”. Many early names reflected those designations (i.e., “Military Trail”, “Yellowstone Trail”) across Wisconsin (and across the country). In May 1918, Legislature realized a need to better distinguish multi-jurisdiction cross-boundary state and county roads from each other since all roads were maintained by the same entity (County Highway Departments). Thus, Wisconsin became the first state in the nation where all state roads became designated by a numeric identifier (STH 23, for example), their county counterparts soon adopted alphabetic identifiers for county road systems (CTH A), and towns, villages and cities implemented the traditional “named” roadways (Smith Road).

County highways form the secondary system of highways within Wisconsin and constitute the interconnecting highways supplementing the State Trunk Highway System. County Trunk Highways have historically provided farm to market routes and connected cities, villages and across county locations to each other and to (higher level) state highways. County Trunk Highways are meant to provide a high level of mobility to the traveling public. Roads providing primary access to commercial areas and residential areas should be located on the local road system. Local systems are comprised mainly of highways of secondary through-traffic importance and generally consists of highways that provide and facilitate local service. County highways within urbanized areas will have high levels of access control to ensure they meet the requirement of providing mobility with a minimum number of access points. The County Trunk Highway System is administered by CCHD as authorized under Section 83 of the Wisconsin Statutes.

The County Trunk Highway System includes all highways that have been selected by the Columbia County Board and approved by WisDOT in accordance with Section 83.025 of the Wisconsin Statutes. County highway marking and signing is uniform throughout the state. Improvements or construction of highways on the County Trunk Highway System must conform to minimum geometric design standards established in Trans. 205 of the Wisconsin Administrative Code and Chapter 11 of the Wisconsin Facilities Development Manual.

Town Roads

Twenty-One (21) townships have jurisdictional authority of over 900 miles of mostly 2-lane, rural local town roads within Columbia County. Town road authority is detailed in several Wisconsin State Statutes; albeit Wis. Stat. §82 is the predominant location of Town rights. CCHD provides a variety of services to all towns in the County as well as some Villages and Cities. For a comprehensive list by municipality type, please consult CCHD direct.

Arlington	Caledonia	Columbus	Courtland	Wyocena
Dekorra	Fort Winnebago	Fountain Prairie	Hampden	
Leeds	Lewiston	Lodi	Lowville	
Marcellon	Newport	Otsego	Pacific	
Scott	Springvale	Randolph	West Point	

Figure 2: Townships of the County (Source Columbia County)

TOWNSHIPS OF THE COUNTY

1:250,000
Columbia County
Land Information Department
January 26, 2023



CCHD provides right-of-way and road-based services for technical assistance, administrative functions, maintenance management, supervision, asset and inventory management, financial aid, construction management, field labor, equipment, materials, bidding, and various other services to other local units of government (town, village and city). CCHD conducts a variety of construction and maintenance work for these units, including but not limited to;

Road Maintenance	Snow & Ice Control	Vegetation Control	ROW Management
Shouldering	Bridge Maintenance	Bridge Inspections	Asset Management
Drainage Control	Planning	Emergency Response	Traffic Control
Road Construction	Bridge Repairs	Permitting	Materials Purchasing
Pavement Repairs	Resurfacing	Safety Devices	Signage
Guardrail	Painting	Grading	Ditching
Trees	Vegetation	Trimming	

Services are critical to maintaining a safe, convenient, and efficient transportation system serving communities, residents, businesses, and agriculture throughout Columbia County.

GENERAL DEFINITIONS

Back Slope is the farthest most area of the right-of-way, usually found between the ditch line and the right-of-way boundary line. Often an inclined or declined area can have a variety of cross slopes. For reconstructed roads with above 1,000 ADT, CCHD attempts to grade this area to a minimal slope of 3 feet horizontal to 1 foot vertical. Due to the vastly fluctuating terrain in Columbia County and subject to available funding, the goal may not be met, and other countermeasures may be employed. Those countermeasures may include:

- Guardrail,
- Retaining Walls,
- Curb-and-Gutter,
- Cable guard,
- Other options.

Clear Zone is the unobstructed (clear of hazards, fixed objects, obstructions) and a relatively flat area that extends outward from the edge of the traveled way toward the right-of-way line (the “Clear Zone”). Not pavement or shoulder, but the vegetated (can be graveled or paved if turning lane present) section of ROW reserved for errant drivers to regain control after a road departure. It is ideal for this segment to be free of obstructions for safe egress of vehicles.

- Speed > 60 MPH: 15 ft minimum to 20 ft typical from edge of pavement
- 45 MPH to 60 MPH: 10 ft minimum to 15 ft typical from edge of pavement
- 40 MPH or less: 8 ft minimum to 10 ft typical from edge of pavement

Fore Slope is the segment of roadway located between the shoulder and the ditch line (may extend to right-of-way line if there is no ditch line or back slope). Falling within the clear zone, this is the first vegetated area that vehicles will encounter if leaving the roadway. Most fore slope cross slopes within Columbia County are 2 horizontals to 1 vertical or flatter. Due to the varying terrain within the County, there are some lower volume roads which have steeper slopes. Guardrail and other protective countermeasures may be employed at some of these locations.

Highway is a very general term which includes all public ways and thoroughfares and all bridges on them (Wis. Stat. §990.01(12)). Furthermore, it includes the entire width between the boundary lines of every way open to the use of the public as a matter of right for the purposes of vehicular travel (Wis. Stat. §340.01(22)).

Right of Way (ROW) by common use, a “right of way” is understood to mean the entire width between the boundary lines of every public roadway. ROW can be

- owned (if by purchase in fee simple title or quit claim deed); or
- it may be an easement documented by relocation order of the jurisdictional authority (being either permanent or temporary in nature); or
- it can be a prescriptive easement that is either Permanent or Temporary in length; or
- it can be inferred due to the existence of the roadway (Wis. Stat. §82.18 when no width is specified in the highway order, the highway shall be 66 ft wide).

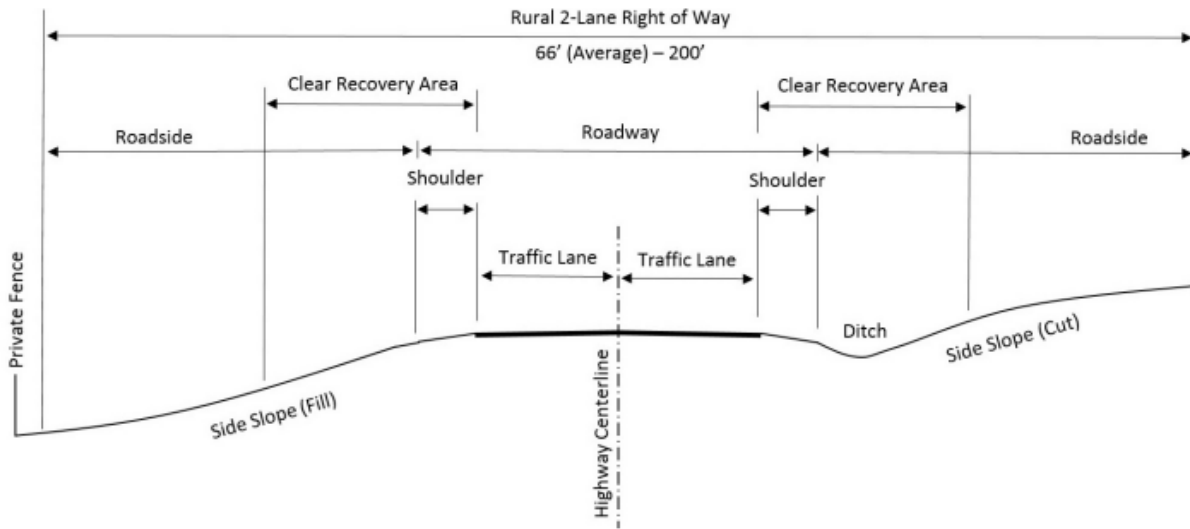
ROW is utilized for the public good to accommodate highways and roadways, traffic, and utilities. There are a lot of users that occupy this 66-foot corridor and encompasses a lot of different needs or uses; some examples of those,

Cars & Trucks	Electric	Sewer	Manure
Tractors	Cable	Water	Private Users
Bicycles	Gas	Storm Water	Drainage
ATV-UTV	Phone		
Horse & Buggy	Cellular		

Governance of the right-of-way is statutorily granted to the authority that has jurisdiction of it (Wis. Stat. §66.1037(1)). "...All lands acquired for highway purposes after June 23, 1931, may be used for any purpose that the public authority in control of the highway determines promotes the public use and enjoyment. The authority may improve such lands by suitable planting, to prevent the erosion of the soil, or to beautify the highway...". Thus, any or all work within the right-of-way for a County Road shall be required to have a permit issued by Columbia County Highway and Transportation Department. Further, private citizens are statutorily prohibited from engaging in conduct that alters the highway right-of-way (Wis. Stat. §66.1037).

Determining the location of the right-of-way "in the field" can be challenging and difficult at times. If an easement or deed exists, it will contain a legal description of its location (survey most likely will be required). A Certified Survey Map or project Plat or Relocation Order will typically involve both a map and a legal description (survey may or may not be necessary). Generally, if the land in question, lacks some form of legal documentation (deed, easement, etc.) or an occupancy of a greater or lesser width (utilities, road, drainage, etc.), ROW width is determined to be 66 ft in width or what is referred to as "4 rods" (which is a survey term, where 1 rod = 16.5 feet). There are some rare circumstances where ROW may be 49.5 ft in width (designation known as "3 rod road") and is identified by survey or other legal documentation (town resolution, town minutes, etc.). 3 rod roads are not common; but some do exist in the County, especially on town roads. If you are trying to determine the right-of-way location, CCHD can assist with determining its physical location.

Figure 3: Typical Right-of-Way Depiction (Source WisDOT)



Roadway means that portion of a highway between the regularly established curb lines or that portion which is improved, designed or ordinarily used for vehicular travel, excluding the berm or shoulder (§340.01(54)).

Traffic, then, means pedestrians, ridden or herded or driven animals, vehicles and other conveyances, either singly or together, while using any highway for the purpose of travel (§340.01(68)).

GOVERNANCE

CCHD is governed by a five (5) member committee (Highway & Transportation Committee), appointed by the County Board Chair and comprised of County Board Supervisor(s). The Committee (§83.015 and CCOrd Chap 9) establishes the policies and budget by which the Highway Commissioner (§83.01 and CCOrd Chap 9) or their designee will operate Highway Department functions and actions.

Committee establishes and reviews policies and procedures on:

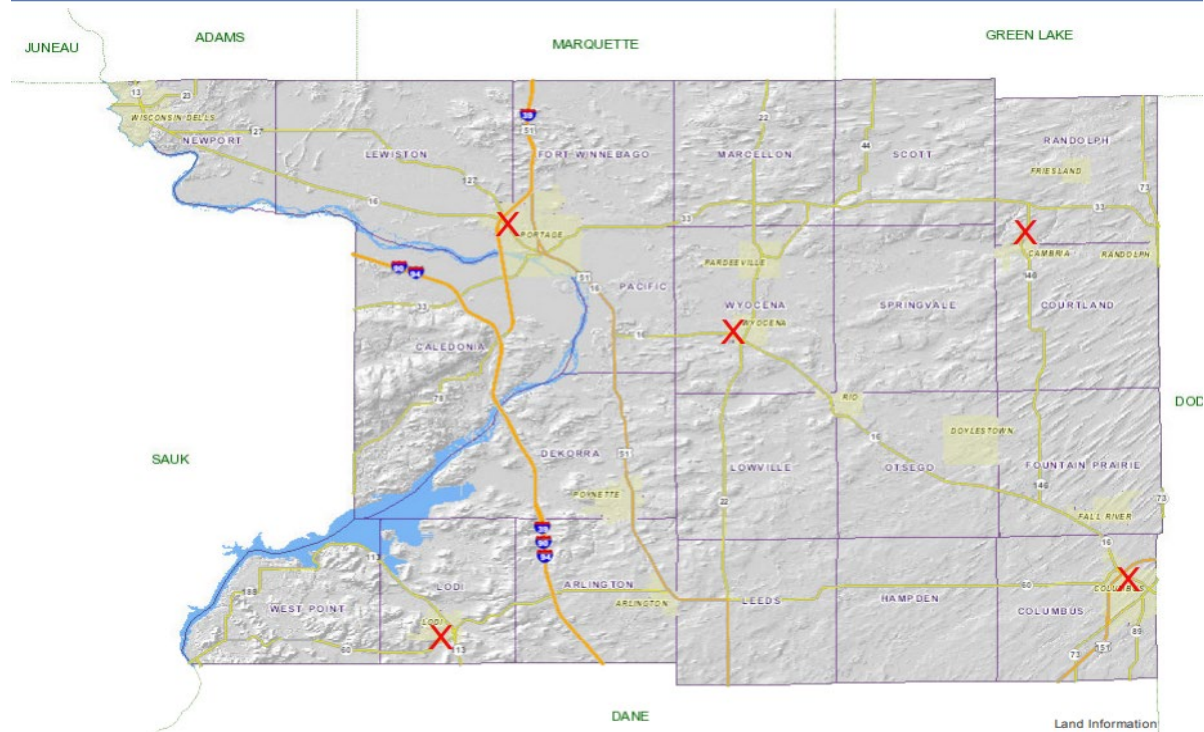
- Access to County highways and County ROW use.
- Budget and financial oversight of the Department including purchasing procedures and methods (subject to County policy).
- Work performance for County and outside agencies (town, village, city, state or other counties).
- Department asset management, procurement, maintenance and disposal.
- Inventory management and maintenance including; ROW, roads, bridges, culverts, signs, equipment and facilities.
- Year-round Department procedures; including summer and winter operations.
- Providing opportunities for public communication concerning Department operations.

Highway Commissioner has charge of the department functions including, but not limited to; the day-to-day operation, action, planning, safety, funding and performance as directed by County policy, State Statute(s), budget(s), contract(s), agreement(s), directive(s) and/or plan(s) subject to the oversight of the Highway Committee and County Board.

STRUCTURE:

CCHD base center of operations is located at the Highway Operations Center located in the Northwest quadrant of the intersection of STH 16 and STH 22 on the south end of Wyocena, Wisconsin. Located at this facility are the Committee Conference Room, Commissioner's Office, Accounting, Shop Operations, Dispatch, Construction, and Maintenance Supervision. Department effort is a central supervision and equipment core with response and effort expanding outward from the Wyocena location. The department operates four (4) satellite shops in the county at Cambria, Columbus, Lodi, and Portage.

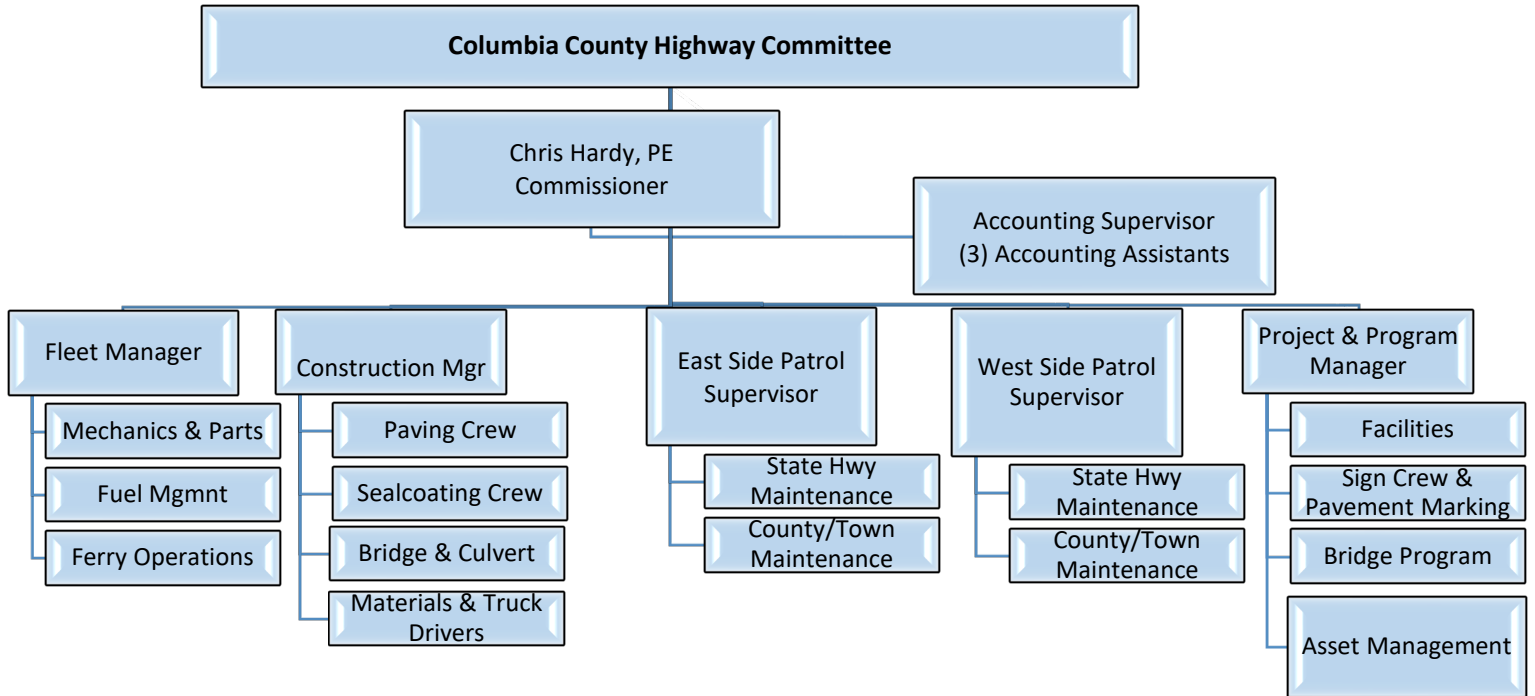
Figure 4: Shop Locations (Source Columbia County)



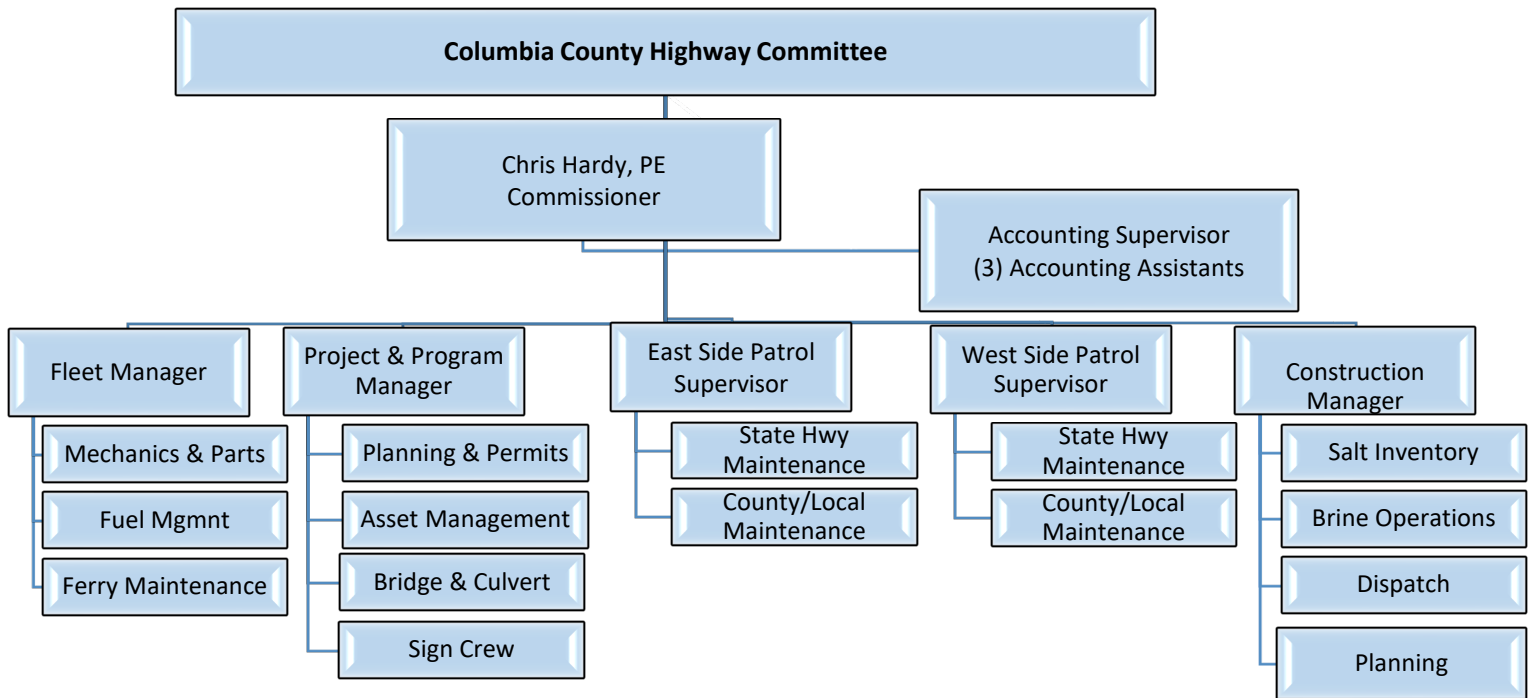
Each office having field staff and expertise to perform maintenance efforts for State, County and Town level jurisdiction(s) located in their section of the County. Most interstate functions are based at the Portage satellite shop due to proximity to roadways and size of effort that interstate can sometimes entail. Department has 79 FTE and 8 LTE personnel positions divided into a variety of tasks and responsiveness. In addition, there are 4 personnel from the County Accounting Office that are stationed in Wyocena.

Figure 5: Organizational Flow Charts (Source Columbia County)

SUMMER ORGANIZATIONAL FLOW CHART



WINTER ORGANIZATIONAL CHART



CONTACT INFORMATION:

CCHD operates normal business hours, which vary in the winter and summer, and operates behind the scenes through a matrix of on-call connections to respond to events in all types of weather on all days of the year 24 hours per day; 7 days per week continuously. As a result of this complex schedule and demand on services, there are a variety of ways to reach CCHD to request service or inquiry on questions.

Routine or General Inquiry:

General department concerns, comments, or questions can be addressed during normal business hours in any of the following options:

CONTACTS:

EMAIL:	Highway@columbiacountywi.gov
Dispatch Phone:	(608) 429-2156
Office Phone:	(608) 429-2136
Fax Number:	(608) 429-3750
After Hours:	Sheriff's Office or 911

HOURS:

Field Summer Hours:	from 1 st Monday in April until 1 st Monday in October OPEN: Monday – Thursday 6 am until 4 pm
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Field Winter Hours:	from 1 st Monday in October until 1 st Monday in April OPEN: Monday – Friday 7 am until 3 pm
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Accounting	Monday – Friday 8 am until 4:30 pm year round
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Shipments are ONLY received per the summer and winter field hour schedules, unless other arrangements are made ahead of time.

LOCATION AND INFORMATION:

Internet:	Visit the department webpage at Columbia County Highway Home Page www.co.columbia.wi.uscountywi.gov/ColumbiaCounty/highway
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Physical Address:	338 Old Highway 16 Road Wyocena, WI 53969
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U.S. Postal Service:	P.O. Box 875 Wyocena, WI 53969
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SERVICE REQUESTS, COMPLAINT, AND CLAIM PROCESS

Persons with a request for service, complaint or a claim submit those to the CCHD Dispatcher located in Wyocena office or by phone at 608-429-2156 or by email at Highway@columbiacountywi.gov or online at the Department webpage [Forms/Policies \(columbia.wi.us\)](https://www.columbia.wi.us/Forms/Policies).

There is a distinction between the three:

- Service Request =
 - “There’s a pothole that needs to be fixed”
 - “Stop sign is knocked over”
 - “My road needs to be plowed”
- Complaint =
 - “My mailbox got knocked over/hit”
 - “There is highway marking paint on my vehicle”
 - “A sealcoat chip chipped/broke my windshield”
 - “There is asphalt or oil on my vehicle”
- Claim =
 - “County truck backed into my parked car and County owes me \$\$\$\$”
 - “Rock hit my windshield from your mower and County owes me \$\$”
 - “Tractor ran into my fence and tore it out and County owes me \$\$\$

Requests, Complaints, or Claims can take many forms as exemplified above. For requests and complaints, we utilize similar processes as both are routed internally the same. Claims are handled in a more formal manner. For Requests &/or Complaints:

- Notify Dispatch in the Highway office (see contact information) or, for after-hours concerns, contract the Sheriff’s Dispatch Center to have your concern addressed.
- Provide as much information about the specific request/complaint as possible (i.e., what is the issue, location, seriousness, etc.).
- Sheriff’s office will contact representative of Highway to investigate the concern and triage it within the Department.

Filing a Claim

A complaint alleging some harm or damage to your vehicle, property, or person in any way is a **CLAIM**. Claims to CCHD have a formal process for that submittal to follow starting with the completion of the Public Complaint Request form:

- Time and date of alleged incident,
- Location of incident,
- Name, phone, address, email for person filing claim,
- Vehicle make, year, model, Vehicle Identification Number (VIN) or license plate,
- Signature of person filing the claim,
- Provide description of what happened (include, County unit #, what events transpired, all items pertinent to support your claim),
- Photos should be attached if you have them (required for any damage claim),
- Provide name, phone, address, email for any witnesses that you have,
- If financial restitution is being requested, provide copy of all estimates of damage,
- Attach any supplemental information that you feel is pertinent to the situation.

Upon receipt of a claim for damage, CCHD submits the form to the County insurance provider for an independent review. CCHD may provide supplemental department specific information to the provider as well. Insurance provider will review the Claim and decide based on their review of the merits of the claim. Insurer may contact claimant direct for supplemental information or clarification of items submitted. CCHD will review and determine decision based on insurer finding and recommendation.

CCHD reserves the right to deny any claim as it deems appropriate.

CLASSIFICATIONS

Functional classification (Figure 5) is a process by which streets and highways are grouped into classes according to the character of service they provide, ranging from a high degree of travel mobility to land access functions. Federal regulations require that each state classify roadways in accordance with the Federal Highway Administration's Highway Functional Classification: Concepts, Criteria and Procedures. The functional classification hierarchy is generally defined as:

- **Principal Arterials** serve corridor movements having trip lengths and travel density characteristics of an interstate or interregional nature. These routes generally serve all urban areas with populations greater than 5,000 or connect major centers of activity.
- **Minor Arterials**, like principal arterials, serve cities, large communities, and other major traffic generators providing intra-community continuity and service to trips of moderate length, with more emphasis on land access than principal arterials.
- **Collectors** provide both land access service and traffic circulation within residential neighborhoods, commercial areas, and industrial areas. The collector system distributes trips from the arterials through the area to the local streets.
- **Local Streets** comprise all facilities not on one of the higher systems. Local streets provide direct access to abutting land and access to the higher order of systems. Local streets offer the lowest level of mobility, and through-traffic movement on this system is generally discouraged.

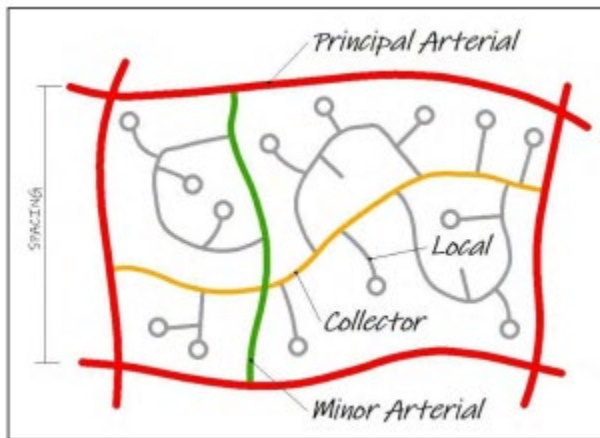


Figure 6: Classifications (Source WisDOT)

Several outside funding sources that CCHD utilize, will base funding programs on road classification. Thus, busier roads (arterial and major collector) have different funding programs than lesser travelled, lower traffic volume roads (minor collector and local). Funding sources and program criteria determine which roads might be eligible for those funding options. Sometimes, which road is being reconstructed is more a matter of funding source and opportunity than it is actual road condition.

CCHD uses classifications to assist with permitting determinations and how they might affect accessibility (not just for the abutting parcel but also for the roadway) and mobility.

Private Roads or Driveways

Not all “roads” are public or maintained by State, County, Towns, Villages, or Cities. There are roadways in the County which are part of a Home-Owners Association or Condominium Association or private subdivision group. These are private owned roads and therefore would be treated different than roads within this manual. This manual is to define and explain public owned or maintained roadways, only. Roads and the right-of-way associated with them as used in this book, refer to public highways, streets, roads, etc. that have been designated or formally adopted by a jurisdictional authority; be that Federal, State, County, Town, City, or Village. Residents of private roads and having concerns about their roadway need to discuss the concerns with the HOA group or oversight group of that Association.

Accessibility and Mobility

CCHD will review the County Trunk Highway System on a every other year (2 yr.) basis to ensure that the roadways are serving their intended purpose (i.e., mobility or accessibility). The primary criteria for defining County Trunk Highways includes functional classification, average daily traffic (ADT) volumes, posted and observed travel speeds, and access control. A highway network serves a dual role in providing (1) access to property, and (2) travel mobility. Access is a fixed requirement, necessary at both ends of any trip. Mobility, along the path of such trips, can be provided at varying levels, usually referred to as “level of service”. It can incorporate a wide range of elements (e.g., ride comfort, minimal speed changes); the most basic being operating speed or trip travel time. The functional classification of a roadway dictates the general level of accessibility vs. mobility (Figure 7).

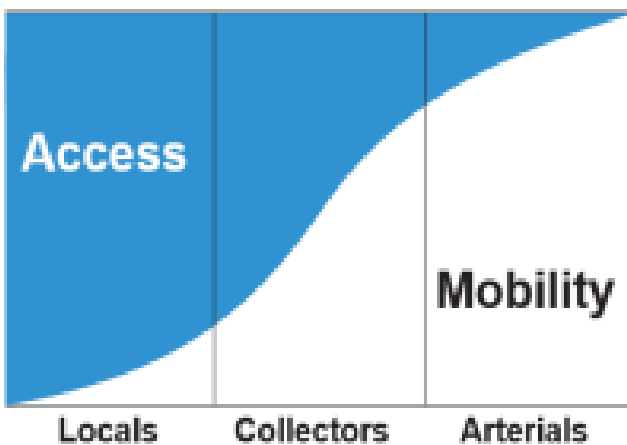


Figure 7: Access-Mobility (Source WisDOT)

At the upper limit of the system (e.g., principal arterials) are those facilities that emphasize traffic mobility (long, uninterrupted travel); whereas facilities at the lower limits (e.g., local roads) are designed to emphasize land accessibility. Collectors offer a compromise or transition between both functions.

The County Trunk Highway System connects cities, towns, and villages, frequently located in rural areas, to larger urban areas, or other major trip centers. How the County Trunk Highway System is intended to function within rural and urban areas is discussed in the following;

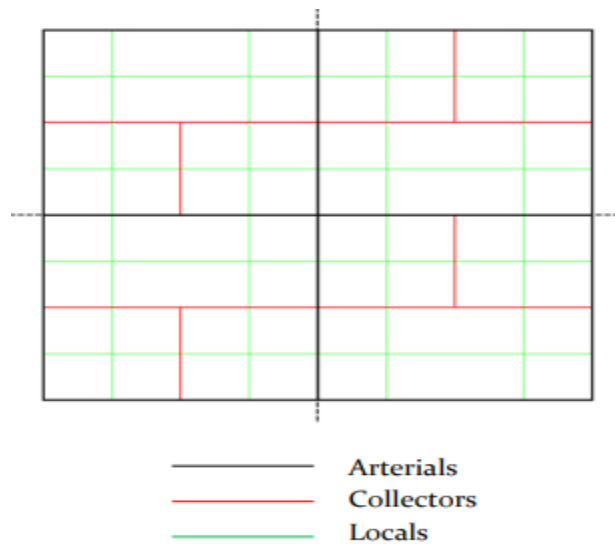


Figure 8: Connectivity (Source FHWA)

- In the rural area, larger cities are generally connected via arterial highways that provide direct service between the urban areas. These arterials are generally State, or County owned and CCHD is likely responsible for the maintenance of these roads (directly for County or through contract with WisDOT for State). The collector roadways in rural areas serve small towns and villages directly, connecting them to the arterial network. The collectors, generally speaking, gather traffic from the local roads, the lowest functionally classified roads which serve individual residences, farms, and other rural land uses.
- The same basic concepts apply within an urban area. However, because of higher intensity and varying land uses, other considerations (such as: access locations and spacing, ADT volumes, posted and observed travel speeds, and traffic control devices) become even more important in defining a logical and efficient County Trunk Highway System. It is not uncommon for a State or County highway to pass through an urban area. In fact, this is necessary for the County Trunk Highway System to function properly and ultimately accomplish its primary purpose of connecting cities and villages. When a County Trunk Highway passes through an urban area, it is critical that this facility provides a high level of access control to ensure that it is meeting the primary purpose of providing mobility with a minimum number of access points.
- When a segment of the County Trunk Highway System is no longer serving this purpose, it may be appropriate to evaluate the highway corridor, or segment in question, to determine what actions might be necessary to ensure that the facility serves the intended purpose.

As displayed in Figure 8, the principal arterial (State or County) in the urban area should have limited access generally connecting to minor arterials (local municipality) or collector streets. The minor arterials and collector streets in turn provide increasing levels of accessibility to commercial, office, and industrial land uses. The collector roads also provide the primary connection to local streets which provide direct access to neighborhoods and residential areas. Roadways serving a local function should be the local jurisdiction's responsibility and roadways serving a more regional function should be the responsibility of the State or County.

TRANSPORTATION TYPES

Roads within the county are used daily for all sorts of commerce, business, farming, tourism, recreation, bussing, errands, shipping, and other typical transportation. Users may travel by the more traditional and licensed users like; automobile, truck, bus, camper, semi-truck, and motorcycle. Users may be utilizing a variety of alternative transportation modes which are defined in a little more detail here. Users are granted all rights and susceptible to all the duties which state statute grants or applies to the operator of a vehicle; except those that are specifically limited by State Statute (Wis. Stat. §346 “Rules of the Road”).

Instruments of Husbandry (IOH) or agricultural or “farm” vehicles of all varying types are allowed to traverse roads in Wisconsin within the guidelines of State Statutes from Wisconsin Act 377 enacted in April 2014 (see also Wis. Stat. §347 and §348). This act provided for a definition of Agricultural Commercial Motor Vehicle (Ag-CMV) as well as codifying a definition for what qualifies as an Instrument of Husbandry (IOH) or farm equipment. Act 377 established height, length, weight, and width parameters to represent the size and use of modern machinery. Most are conditioned on the term of use or such that the operator or driver of those vehicles are “in the act of farming” or its varied definitions. There are requirements for width accommodation (at times requiring equipment breakdown and/or lighting requirements). Similarly, these users need to meet criteria for over-size and over-weight vehicles (see other sections of this manual). Farmers shall abide by bridge and road postings like all road users do. Suffice to say, Columbia County is an agriculture-based county and there are lots of these varied vehicles on the roads throughout the year.

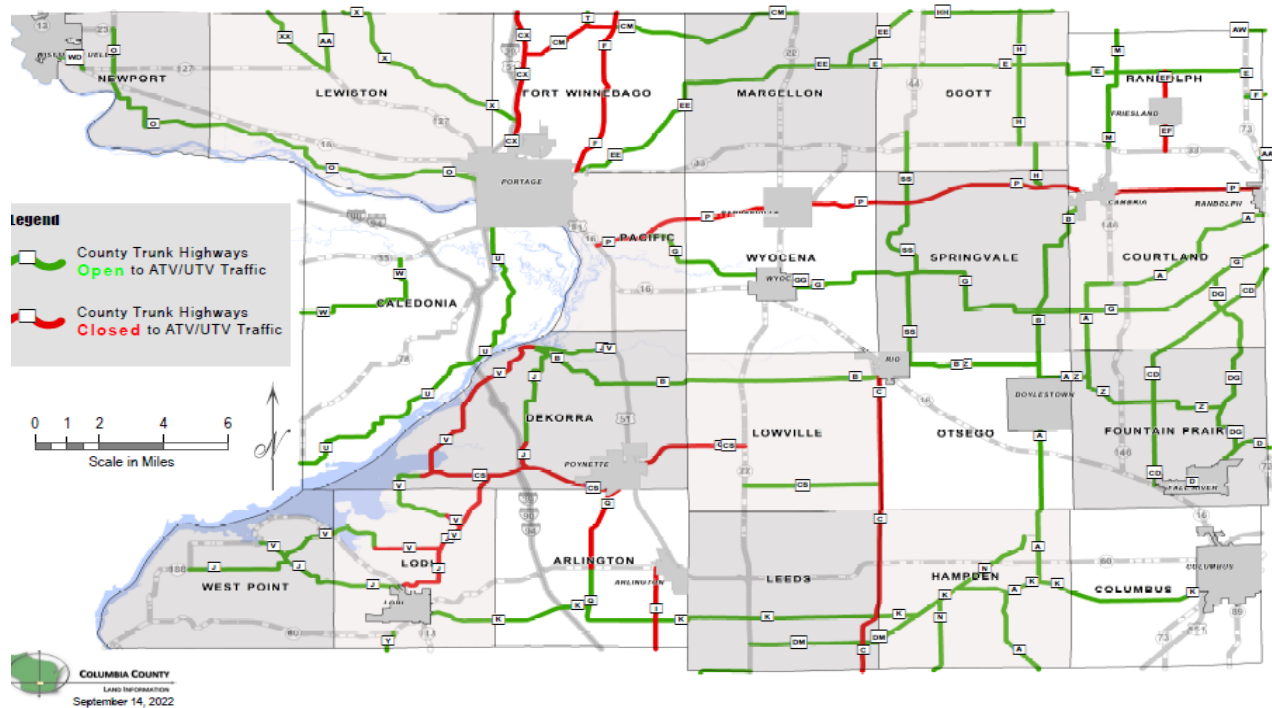


All-Terrain and Utility Terrain Vehicles (ATV/UTV) vehicles are allowed on some but not all county roads (CCOrd 9 and Wis. Stat. §23). Farm use is allowed by statute when used in the act of farming, farm to field transportation (§23.33(1) (ag)). Some city, town, and village districts within the County allow ATV/UTV on their jurisdictional roads. See local ordinances regarding use for specific township roads. County roads (approximately 70%) are approved for such use, see “green” in County map (see Figure 9). Roads may be restricted for varying concerns most notably; AADT levels, vision, volume truck traffic, accessibility, speeds, accident history, construction status, potential destinations, and reason for need.

Some general rules guiding ATV-UTV use in the County:

- Helmet mandatory for all under 18 riders and all UTV riders shall wear a seatbelt.
- 12 and older ATV operators shall carry WDNR safety certificate.
- UTV operators (drivers) on roadways shall be older than 16 years of age.
- Registration numbers shall be visible, and certificate shall be on the vehicle.
- When not posted, maximum ATV-UTV vehicle speed on roads shall be 35 m.p.h.
- ATV-UTV shall not operate during the hours of 10:00 p.m. to 5:00 a.m.
- Shall have functional headlights, taillights, and brake lights.
- Shall operate only on the paved portion, to the far right, and single file.
- May not harass or restrict travel for frightened or distressed animals.

Figure 9: ATV-UTV Routes (Source: Columbia County Highway & Transportation Dept)



Bicycles are allowed to operate on all roads of the County; except, limited access freeways and expressways which restrict their use. Likewise, for safety reasons it is best to not operate on busier roads and may be more enjoyable to ride on lesser travelled county and town roads. The County has identified several “bike friendly” routes within the County and maps of those locations are available at the Highway Department.

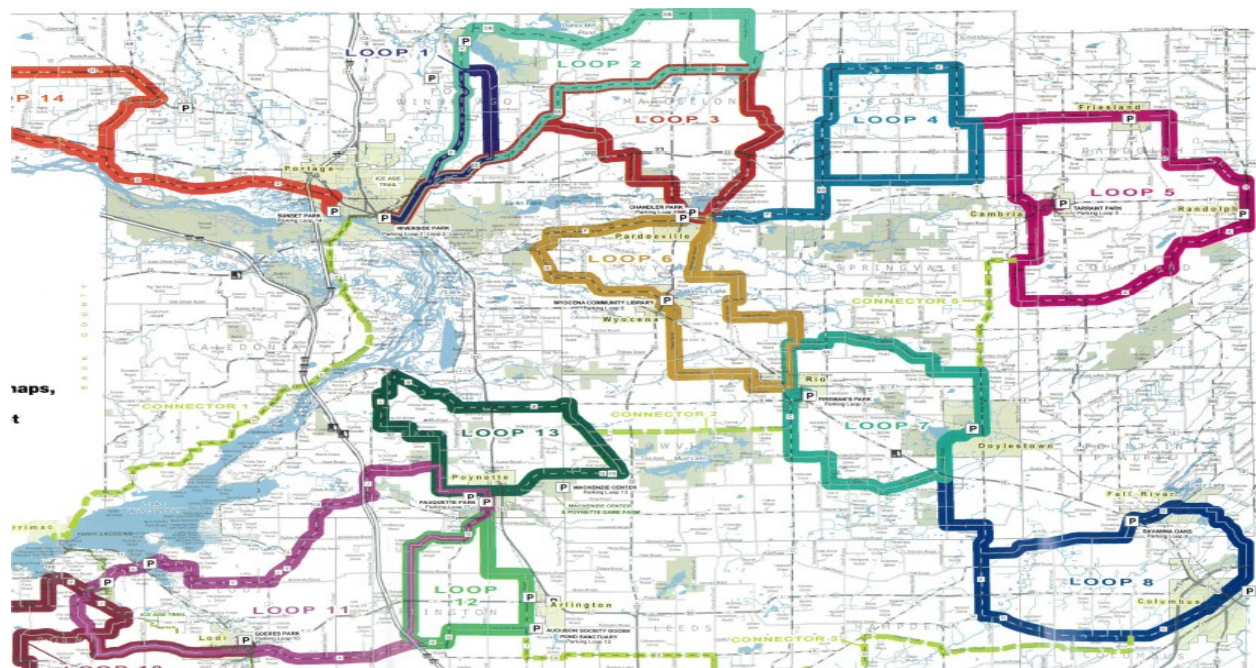


Figure 10: Bike Routes (Source: Columbia County Silent Sports Trails Committee)

Golf Cart Vehicles are not allowed on county roadways.

Horse & Buggy Several sections of the County are frequently used by horse and/or horse & buggy combination vehicles. Keep in mind those users are entitled to the same right of use and obligation for compliance with “Rules of the Road as others”. To go a step further, the harassment of animals working or traversing on a roadway is protected by Wis. Stat. §346.11. “Whenever a person riding, driving or leading an animal which is frightened gives a signal of distress to the operator of a motor vehicle by a raising of a hand or otherwise, the operator of the motor vehicle shall promptly stop the vehicle unless a movement forward is necessary to avoid an accident or injury, and shall, upon request, stop all motive power until such animal is under control.” Examples of a signal of distress could be; waive of hands, horse standing on rear legs, horse thrashing in its restraints, abrupt buggy movements. The point being quick, loud, abrupt positional changes in the vicinity of animals may cause them to startle or react in manners that are difficult to anticipate. Overtaking these types of road users should be conducted with caution and concern.

In wintertime, CCHD and the horse and buggy community have cooperated to provide some general expectations and understandings related to behavior for each. CCHD has agreed to minimize abrupt, loud engine noises, abrupt vehicular movements, temporarily suspend material placement when encountering each other. Horse and buggy community has agreed to move off the roadway, clearing a path for the plow truck to move through and complete our activities. While found occasionally throughout the County, Fort Winnebago, Marcellon, Pacific, Randolph, Scott, Springvale, and Wyocena are the predominant townships where those users frequent.

HORSE & BUGGY FREQUENT

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Columbia County
Land Information Department
January 17, 2023

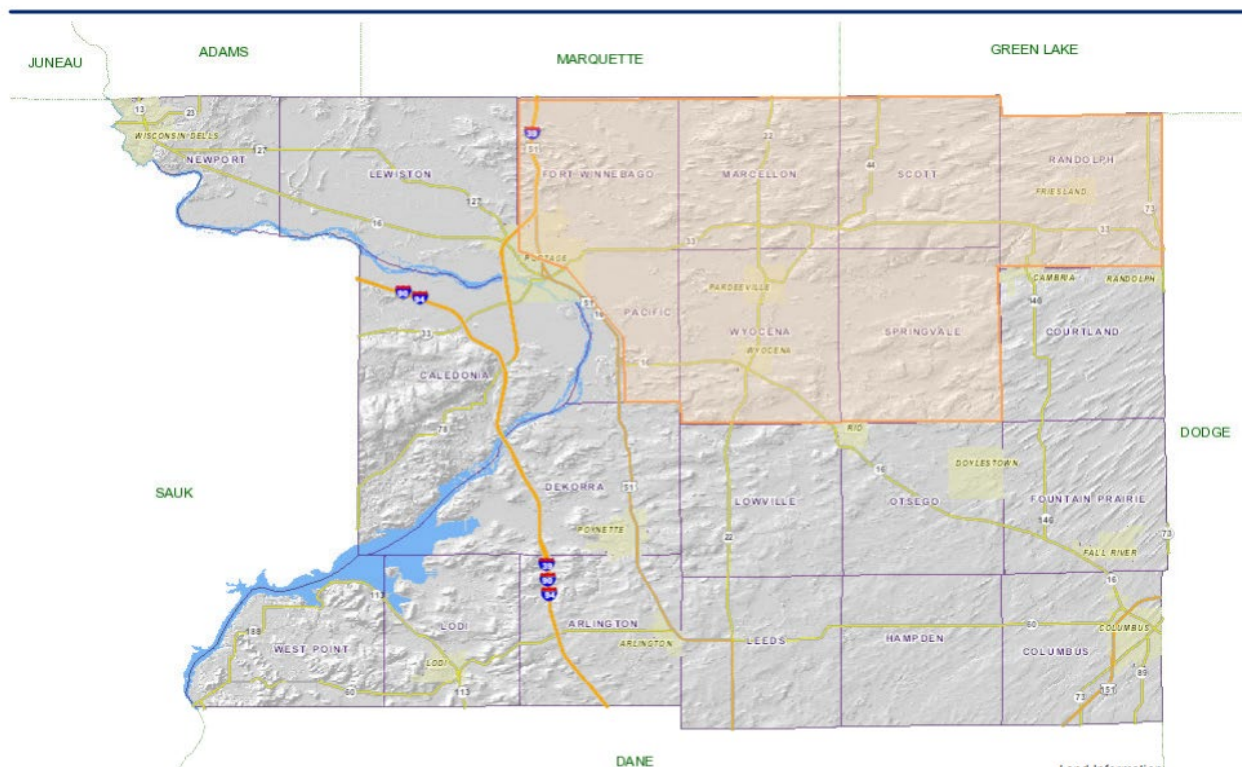


Figure 11: Frequent Horse & Buggy Users (Source Columbia County)

Snowmobile Allowance in Right-of-Way (Off Roadway)

Snowmobiles are allowed by both County ordinance (CCOrd §14) and State Statute (Wis. Stat. §350) for marked snowmobile routes. In short, snowmobiles are allowed within the right-of-way for highways that have been designated as a route and approved by the County in accordance with State law. Right-of-Way routes must be reviewed and approved by the Highway and Transportation Department in advance of route marking or installation.

As acting coordinator of the Snowmobile Trail Program, see Columbia County Land & Water Conservation Department for information related to trail closures and locations. Some of the general guidelines for snowmobiling within the right-of-way, when it is permitted:

- On roadway:
 - which is not normally maintained for other vehicular traffic by the removal of snow, or
 - to cross a bridge, culvert, or railroad right-of-way unless posted by the maintaining authority and shall yield to all vehicular traffic.
- Along town highways outside of the roadway.
- Along state or county highways at a distance of 10 feet or more from the roadway with due regard to safety.
- Night travel shall conform to the direction of vehicular traffic in the nearest lane unless on a designated and marked route.
- Under no circumstances is a snowmobile to be operated on the main-traveled portion of a highway or on the plowed road.

RIGHT OF WAY PERMITS REQUIRED

The owners of land abutting on any highway, street, or alley shall have a common right in the free and unobstructed use of the full width of the highway, street, or alley (Wis. Stat. §66.1035). However, the land does not revert from highway activity; “..no lands abutting on any highway, and acquired or held for highway purposes, shall be deemed discontinued for such purposes so long as they abut on any highways..” (Wis. Stat. §66.1037(1)). Furthermore, Wis. Stat. 66.1037(1) reads “All lands acquired for highway purposes after June 23, 1931, may be used for any purpose that the public authority in control of the highway determines promotes the public use and enjoyment”. Traffic safety and mobility are driving concerns for CCHD. As such, it is important that ROW issues be properly planned, discussed, reviewed, and conflicts be resolved timely. While most concerns may seem obvious to some, they are not in the case of others. State Statute and County Ordinance require that a permit be necessary for work to be conducted on STH, CTH, and Town roads.

Permit Authority

No person shall make any excavation or fill or install any culvert or make any other alteration in any highway or in any manner disturb any highway or bridge without a permit therefor from the highway authority maintaining the highway (Wis. Stats. §86.07(2) and County Ord 9.07). To help accomplish that goal, CCHD is charged with controlling right-of-way usage and planning. CCHD provides right-of-way oversight and permitting for several districts within the County:

State: WisDOT administers permitting and use, CCHD partners to monitor;

County: CCHD permits and administers all aspects;

Town: the town board is the jurisdictional authority (Wis. Stat. §82.03); however, CCHD does administer several aspects of permitting for different townships under their authority and direction. For those townships, County procedures and/or Ordinance are the policy that is followed for administration. Some of those towns that CCHD works with are:

Caledonia	Courtland	Lewiston
Lodi	Marcellon	Newport
Otsego	Randolph	Scott

CCHD does assist and work with all 21 townships for resolving right of way rules, issues, concerns, requirements and statutory performance and monitoring. For a detailed and current listing of service assistance, contact CCHD. CCHD strives to provide right-of-way(s) that are safe and free of unnecessary hazards for the traveling public.

PERMIT APPLICATION FORMS ARE AVAILABLE FROM CCHD;

- Highway Department webpage; or
- Main Office in Wyocena, see Dispatch or Administrative Office; or
- from one of the Patrol Superintendents; or
- By mail using Wyocena Office address.

Anyone planning on performing work within a county highway right-of- way shall contact CCHD prior to starting any work. Anyone who fails to contact CCHD and performs work within the county highway right-of-way may be subject to a fine that is twice the current fee AND may be responsible for any costs associated with correcting of any unauthorized work completed.

The following sections describe common issues that arise regarding use in the public right-of-way and potential conflicts with abutting private property. This list is by no means all-inclusive and is a guide to respond to “common occurrences or inquiries” that CCHD routinely addresses.

Entry on Private Land

From time to time, it is necessary for CCHD to enter private property in order to complete activities associated with protecting the highway. In those circumstances, CCHD will make multiple attempts to contact the property owner in advance and work with them regarding how to do that with minimal impact and in a safe manner. Communication methods to be utilized can include, but are not limited to; in person, U.S. mail, telephone and email, depending on the situation. In very rare cases, it may occur without prior notice when the circumstances dictate that speed and efficiency is necessary in order to protect the highway, drainage or open, safe travel. State Statutes, such as §82.03 and 83.18, confer power to the Highway Commissioner to enter private lands as necessary to maintain certain aspects of the ROW:

- Construct drains, ditches or embankments for the improvement or protection of the highway,
- Remove weeds or brush to keep highway reasonably safe for travel,
- Erect or remove snow fences to keep highway reasonably free from snow and open for travel during the winter season, and
- Erect on the ROW, fences other than snow fences.

CCHD will cooperate and work with abutting landowners to the extent practicable and using proper channels and timing; allowing a process for landowner appeal if needed.

Excavation

No structure, object, excavation nor growth shall be constructed, reconstructed, altered, placed, or planted within the ROW until an Access Permit has been granted. Excavation in new roadways (< 5 years old) will be allowed only in extreme emergencies, situations, or hardships. All excavation activities are to be conducted by individuals with proper experience and credentials; adhering to Federal, State, and Local rules, codes, regulations and guidelines including, but not limited to; OSHA competent person, MSHA, trench safety, Wisconsin Underground Contractors Standards and Methods, Utility Accommodation Policy, MUTCD, and applicable others.

Vegetation

Rural roadside vegetation management is important to motorists using the highway system as well as adjoining property owners. Safety, aesthetics, environmental impacts and financial limitations are all components of a complete management plan. Trees, shrubbery, flowers, native prairie and other plantings can provide an aesthetic quality that many find desirable. Plantings, crops, and other vegetation that is growing within the public right-of-way also has the potential to be a safety hazard, create a safety hazard, complicate routine maintenance performance or interfere with traffic control devices, traffic vision, and existing utilities. CCHD will act to correct safety obstructions and concerns; through planning, preparation and performance or by reaction and emergency action when the hazard is identified.



Visual Obstruction from Vegetation

CCHD performs routine mowing and other maintenance along most highways of the County throughout the growing season. Vegetative management is a commingling of contradicting concerns, namely; beautification, safety, and limited maintenance dollars.

- Woody vegetation is desirable from the driver's aspect as many prefer the shady covered canopy trees can provide. Shade, however, can limit sunlight and trap moisture which are 2 things that roadways need in order to achieve long term financial performance life. Moisture impacts road surface integrity and subsurface foundation support via declining soil strength (compaction problems) which can lead to increased maintenance and construction dollars (a budgetary impact).
- Trees are also hard, resistant obstacles. When growing too close to travel lanes or in the wrong locations, become a severe safety concern for errant drivers.
- Prairie and native species vegetation can be desirable for their bouquets of flowers and fragrant odors. Meanwhile, they can also attract wildlife and distract passersby which can lead to traffic safety concerns, accidents, or traffic disruptions. Growing in close proximity to the travel lane can create moisture, debris, and vision concerns.
- Invasive species and "weeds" can crowd out native vegetation, grow to excessive heights and are problematic for highway goals. These species create vision problems on curves and intersections. Some create severe skin irritations and are detrimental for maintenance

personnel and emergency responders when circumstances require that work be conducted while standing in them along the roadway.

- The least expensive method of management would be to not do anything and allow the ROW to grow unfettered and unmanaged. The outcome would likely be poor visibility, increased vehicle to animal accidents, increase vehicle accidents, increased severity of accidents, poor snow management (tall vegetation creates snow drifting on the travel lane), poor moisture control along roadways and likely an area that doesn't meet any goals; susceptible to erosion, rapid deterioration, subsurface saturation, and other negative concerns.

No Plantings without Permit

Please note that a permit is required when performing any excavation within the county right-of-way; so, no vegetation may be planted within ROW without a permit. It is unlawful for any person to plant, cause to grow, allow to grow, or maintain any trees, bushes, shrubbery or vegetation of any kind within ROW without prior permission from CCHD.

Farming in ROW

No person shall within the limits of any public highway; plow, cultivate or otherwise work any lands in such manner as to interfere with or obstruct the drainage of any public highway ditch (Wis. Stat. §86.021(1)). Plantings and harvesting within the ROW are restricted and shall not occur without obtaining a ROW permit from CCHD. In the case where this has occurred, CCHD has the right to mow or remove the plantings and return the ROW to its previous condition; subject to Commissioner approval. Individuals causing the growing to occur (if intentional) may be subject to cost of the corrective action and a financial penalty.

Mowing by Property Owner

A property owner may mow the portion of their property that abuts the highway and within the public right-of-way (Columbia Ord 9.07(3)(a)(4)). Property owners may also clear vegetation within the right-of-way. However, extreme caution should be taken when performing maintenance within the public right-of-way

- avoid the road shoulder, travel lane, and oncoming traffic,
- do not obstruct traffic or the travel way for any period of time without a permit from CCHD,
- no non-abutting property owner may cut or trim grass along any state highway without consent (Wis. Stat. §66.1037(2)).

Harvesting Roadside Plants

Harvesting of roadside plants would mean the use of right-of-way to harvest, collect, or remove products of nature which may include, but are not limited to; collecting seeds, flowers, wild vegetables, berries, fishing, trapping, or hunting. Activity is prohibited except for the abutting landowner or acting on behalf or with permission of the abutting landowner. Activities shall not interfere with the free flow of traffic or endanger individuals, motorists, or other users of the right-of-way.

Mowing Practices

Mowed ROWs are an outcome of holding the land in public trust, an obligation of good stewardship, and “clear zone” management. The “clear zone” is the spacing between the outside road shoulder and a distance outward (based on road type, ADT, speeds, etc.) toward the ROW boundary. The goal being to create an area “clear” of obstructions or restrictions which would allow errant drivers time and ability to recover the vehicle.



Un-Mowed Section



Mowed Section

For CCHD, vegetation management focuses on maintaining low, consistent vegetative height and eliminating woody vegetation in the “clear zone” and reducing woody vegetation out to the ROW boundary. In areas where this is accomplished, CCHD mows to maintain continuous vegetation height (6” minimum height) which aids vision improvement and snow control. Levels of service vary by road authority directive and road type as follows:

- State
 - Mowing width from shoulder outward 25 ft (and inward for median sections) for full length of interstate corridors.
 - Mowing width from shoulder outward 15 ft for full length of the corridor for most other state routes.
 - Mowing width from shoulder outward 10 ft for select narrower corridors (STH 113, 188 and 78).
 - Mowing from above “clear zone” widths, outward to the ROW boundary for all roads on a cycle of once per every 3 years (when possible, limited by tree occurrences).
- County
 - Mowing width of minimum 10 feet from shoulder outward for full length of corridors.
 - Mowing width from 10 ft “clear zone” outward to the ROW boundary (when possible due to trees) for all roads on a cycle of once per every 2 years.
- Town
 - Mowing width of minimum 10 feet from shoulder outward for full length of corridor.
 - Mowing width from 10 ft “clear zone” outward to as close to ROW boundary as possible for all roads on a cycle of once per every 2 years.

Figure 12: Clear Zone Mowing (Source Columbia County)



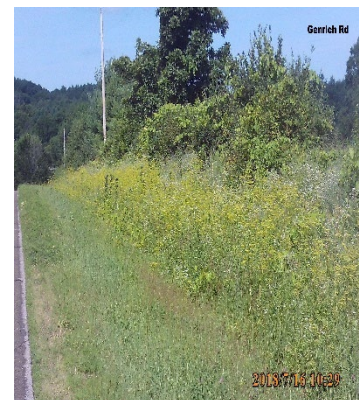
In the process of mowing, or other maintenance activities, the CCHD personnel may come upon plantings, crops, or other vegetation that encroaches on the public right-of-way. In extreme cases, the Highway Department personnel should notify the Highway Commissioner of the encroachment. The Highway Commissioner will inform the Highway Department personnel on how to proceed which may include the immediate clearing of the obstruction if it creates a potential safety hazard to the traveling public. If it is determined that the obstruction does not create an immediate hazard, the Highway Commissioner or designated department personnel may notify the property owner of the encroachment and request removal.

Native Prairie or Wetland Restoration Area(s)

CCHD monitors and keeps track of native prairie and wetland restoration areas within or adjacent to the ROW location. Proper procedures and methods are employed when working in these areas to preserve and protect the sensitive nature of the environment. Some lands under CCHD control do contain colonies or areas of native or wild plants and flowers. The goal is to maintain and protect these locations for future generations to enjoy in their current state or better. Modest seed harvesting may be possible when allowed by rule and in accordance with proper procedures with County approval. Requests can be submitted to CCHD for right-of-way areas or County Land & Water Conservation Department for County Park property consideration.

Invasive and Undesirable Species Control

Invasive species take a toll on Wisconsin's lakes, rivers, and landscapes. In 2009, the Invasive Species was implemented in Administrative Code, such as Wis. Adm. Chapter NR 40. CCHD works with WDNR, WisDOT, UW Extension, other counties, and commercial partners to manage invasive species in the ROW. There are a variety of BMPs that can be implemented and CCHD works to identify those alternatives while weighing maintenance level of service and costs. While Wis. Adm. NR40 has an extensive list of invasive species, for CCHD we deal with generally the same ones throughout state, county, and town ROW; Wild Parsnip, Buckthorn, Thistle, Loosestrife, and Nettles. In addition, CCHD has some native species that we address due to their nature and sensitivity or



Wild Parsnip

difficulty for workers within the ROW that must encounter these species, namely; poison ivy, poison oak, and wild cucumber. CCHD addresses these species in a variety of manners and practices:

Mowing Practice Controls

- CCHD attempts to comply with recommended seasonal mowing times from May to mid-July and October to November, as recommended by WisDOT, WDNR, and the WI Council on Forestry. Mowing activities can be very weather dependent as large, heavy equipment has difficulty traversing soft, wet ground. Mowing is the preferred, low-cost method of control for vegetation.
- Species migration can occur frequently with poor mowing practices. Mowing during the seeding phases of species can propagate or expand the range of species. Seeds fall off the plant while mowing and land on the mower deck. They then ride along on the deck some distance down the road where they fall off and eventually the seed can germinate and begin to grow. CCHD has methods in place to try and reduce this occurrence;
 - Monitor, identify and report areas of concentration without the ROWs.
 - Attempt to not mow during the seeding season.
 - Utilizing portable air blowers, crews will routinely clean off the mower deck after traversing an area of invasive or undesirable species identification; removing and leaving those seeds in a location of known concern.
 - Routinely cleaning of tractors and mower decks with water to remove any unseen or trapped seeds.
 - Mow prior to seed in order to reduce ability for plants to spread.
 - Mow full width of ROW in as many areas as possible in order to keep species at bay and minimize proliferation.

Spraying Practices. CCHD sprays for herbicide control (Escort, Reign, MSO). Employees conducting those activities on behalf of CCHD are certified for duty in accordance with Statute (Wis. Stat. §94.70) and act on our behalf. These are the general guidelines for those operations:

- Spraying is generally conducted in the first 15 feet from the edge of pavement (may allow a small area along the ROW to remain as a buffer from private property).
- Activity is only conducted on days for reasonable weather (no rain, minor wind levels) in order to maximize effort and resource while minimizing risk (potential of contamination or drift occurring).
- Spray efforts are restricted to ROW locations identified by the local authority.
- Treatment methods in compliance with manufacturer recommendations and guidelines are followed.
- Treatment locations, times, conditions, methods are logged daily to keep track of areas where work has been conducted.

Phragmites have been identified in a few, small, isolated locations within the County. Phragmite control is a long process involving both proper herbicide applications (Rodeo or AquaNeat) as well as specific, timed mowing activity. CCHD continues to work with our stakeholders in these areas to control the concern and eradicate them from the County.

Damage Concern or Complaint. If someone believes there is a situation where CCHD spraying practices have endangered a private parcel location adjacent to the ROW;

- Owner needs to notify CCHD of the concern, location, date, time in a timely manner (prior to death of plant(s)).

- CCHD will dispatch personnel to the site to investigate and gather evidence related to the impacted location, plants, condition, and situation.
- CCHD may send plant samples to outside sources for an independent judgement of the likely impact to the condition of the plant(s).
- CCHD will use independent judgement to assist to determine potential corrective action (if needed), from following alternatives;
 - Replace damaged plants,
 - Improve future methods to alleviate the concern in the future,
 - Do nothing (impact was from different unrelated source).

Burning in ROW

Generally, CCHD does not allow burning within the ROW. Burning in close proximity to moving, live traffic can create several traffic safety concerns and issues; smoke can obstruct visibility, smoke can be a safety concern for breathing in, un-guarded fire in close proximity to vehicles, etc. A permit from CCHD may be possible; however, applicant will need to describe methods for control of fire, expertise with fire control methods, proper notification procedures for travelling public, etc.

Trees

Questions such as “Who owns the trees?” and “Who is responsible for their care?” often arise when trees are located near or within the public right-of-way. The duty of caring for trees in the public right-of-way resides with CCHD.

CCHD has the authority to trim, prune, or cut down trees within a public right-of-way and is a power that the CCHD may exercise.

The authority shall remove, cut, or trim or consent to the removing, cutting, or trimming of any tree, shrub, or vegetation in order to provide safety to users of the highway (§66.1037(1)). For tree maintenance activity, CCHD will identify trees for trimming or removal prior to the event.



Tree Partial Blocking Road

Trees are identified by a variety of factors including, but not limited to;

- funding;
- staff and equipment availability;
- size and scope of work project(s) in the vicinity;
- degree of health, tree is in poor or dying condition;
- tree is within the “clear zone”;
- tree obstructs drainage; or
- deemed a safety concern for the traveling public.

CCHD marks trees with a water-based paint (paint wears off in 6 to 9 months);

- Pink “X” painted on tree trunk facing the road = marked for removal
- Blue “X” painted on tree trunk facing the road = marked for trimming
- No paint markings = no planned activity

Furthermore, CCHD will make efforts to contact the abutting property owner to discuss the anticipated activity and explain the progression of work. We will also provide some time for that conversation to take place:

- Provide written notice 14 days in advance of non-emergency removal or trimming;
- Meet with owner to discuss the project (for non-emergency situations);
- Owner may appeal the Supervisor decision to the Commissioner;
- Owner may appeal the Commissioner decision to the Highway Committee (after-the-fact for emergency situations).

In “emergency” or safety concern situations (roadway closed or travel obstructed), trees are removed from the travel way by CCHD. Frequently, this occurs without any conversation with the abutting property owner(s). Road blockage becomes the controlling concern and CCHD employees are charged to open the roadway to traffic. Trees and debris will be relocated to the roadside ditch or the back bank of the roadway. CCHD will return at a later date, non-emergency, and clean up the debris that was left from the emergency condition.

Trees originating in the right-of-way will be either chipped in place (chips spread throughout the right-of-way) or will be removed and disposed off-site by CCHD.

Trees that originate outside of the right-of-way belong to the abutting property owner and are dealt with differently:

- Cut off or terminated at the right-of-way and right-of-way portion is disposed of; or
- Layed along the boundary and outside of the right-of-way; therefore, it is the abutting property owner’s responsibility.

Figure 13: Leaning or Out of R-O-W Trees (Source Columbia County)



Construction Project Trees

Generally, when conducting major resurfacing or improvement projects, CCHD will remove trees from boundary line to boundary line within the ROW. This activity is conducted at that milestone due to the nature of conflicting occurrences;

- Projects, once initiated, are fully funded for the improvement scoped and being completed (funds are available).
- Tree management and removal can be labor intensive, utilize expensive equipment, disruptive to traffic flow (lane restrictions), and can be slow and dangerous work (worker safety).
- Older trees can deteriorate quickly resulting in increased use of maintenance time, effort and dollars for a segment of roadway that just received significant investment dollars (emergency response).
- Falling trees and debris can damage new roadway surfaces and improvements (protect investments).
- Major projects typically have a life of twenty (20) years or more. Current CCHD funding availability results in a 52-year road surface replacement cycle. Therefore, a long-term change is sought for management of the roadway in that area.

In situations where CCHD can plan or prepare for the removal of trees (non-emergency), the immediate adjacent and abutting property owner will have a first right of refusal for the wood from any ROW tree that is cut, trimmed, or removed adjacent to their parcel(s). Second right of refusal will be granted to the abutting property owner on the opposite side of the roadway in accordance with their common right in the free and unobstructed use of the full width of the highway, street, or alley (§66.1035). In the event neither party is interested in the wood, CCHD will remove and dispose of in the least expensive, least intensive manner available per CCHD determination. CCHD Superintendent and Dispatcher will document the disposal of trees including, but not limited to; origination, disposal method, disposal location, quantity, type and calendar date of activity.

An owner initiating their right of refusal will be interpreted to understand:

- Owner grants CCHD access to the site for storage of the woody product;
- Owner has a suitable, equipment accessible location within a reasonable distance of the work area (< ½ mile);
- Owner agrees that the ownership of the deposited wood will become their property and responsibility for proper lawful disposition;
- Owner agrees that they will not return any portion of the wood to the ROW;
- Owner agrees to indemnify County for any work provided by the County in fulfilling the obligation of turning the wood over to the Owner; and,
- Tree(s) is not diseased or of environmental concern (i.e., Ash bore, Oak wilt, etc.). In cases where the tree is diseased, CCHD will remove and dispose of the tree to prevent the potential spread of disease.

Private Property Trees

In some cases, it may be necessary for a tree that is located outside the public right-of-way to be cut down to improve safety for the traveling public or to eliminate potential conflicts with utility lines. Examples may include trees outside the public right-of-way that are severely leaning, dead, dying or diseased that could cause damage. The duty of caring for trees outside the public right-of-way resides primarily with the property owner. If a tree overhangs or extends into the public right-of-way, CCHD may trim or prune the tree to improve sight distance, may eliminate any obstruction of traffic control signs

or devices, and may remove for other reasons as determined by CCHD. If a tree falls onto the ROW from private property causing a safety or other related highway concern, CCHD may

- remove it,
- cut or chip it up, or
- leave it on site for owner when provided a reasonable accommodation for disposal (see ROW trees right of refusal obligations).

Ultimately, these trees are the property and responsibility of the property owner to dispose of. CCHD will utilize the method deemed most appropriate at the time in consideration of various roadway factors. If the owner is being charged for this activity, CCHD will make attempts to contact and notify the owner; allowing a brief opportunity for them to rectify the situation; up to fourteen (14) days pending CCHD perceived urgency of the situation. CCHD has some input into the resolution of these situations for road safety reasons and because travel cannot be restricted without a permit from the department. If CCHD has to step-in and correct the concern due to lack of action from the owner, CCHD will do so in accordance with State Statute and County Ordinance and CCHD may or may not charge the owner for the cost of completing this activity.

Utility Company Trees

Utility companies may on occasion clear trees, bushes, shrubbery or vegetation as well as chemically spray invasive species that might interfere with overhead and other utilities located within the public right-of-way. This practice is done to ensure safe and reliable provision of services throughout the County. Maintenance authority is granted to utilities via the Utility Accommodation Policy. Utility trimmed, cut or removed trees, limbs, or debris become the property of the Utility. As property of the utility, removed woody debris is to be lawfully disposed of by the Utility (owner may not have a right of refusal depending on timing).

ENCROACHMENTS

If any Highway right-of-way shall be encroached upon, under or over by any fence, stand, building or other structure or object, the County Highway Commissioner (in the case of a County Trunk Highway), may order the occupant or owner of the land through or by which such highway runs, and to which the encroachment shall be appurtenant, to remove the same beyond the limits of such highway within 30 days (Wis. Stat. §86.04). An encroachment is any prohibited use or activity within the right-of-way therefore restricting the full use or purpose for which the right-of-way was established; it may also include debris and other obstructions.

Furthermore, it shall be unlawful for any highway superintendent or any other person to leave any materials in the travelled portion of any highway not closed to public travel in piles or rows after sunset without placing, within one hour after sunset, a lighted lantern until daylight (Wis. Stat. §86.01). This is a broad statutory definition that is interpreted to mean any of a variety of materials including, but not limited to; topsoil, gravel, snow, corn, dirt, manure, water, overburden, or other transportable material.

These concerns typically will not be a hazard unless they are within the travel way of the road, located from shoulder to shoulder (inside the fog line paint). Those items that impede traffic (within the travel lane) will be addressed as soon as feasible once CCHD is notified. Items on the shoulder or outside the travel lane will be addressed as time, work, and manpower availability allow. That may occur during or outside normal business hours, pending availability and feasibility. If the item is significant in size and stature to create a “clear zone” concern for the roadway, CCHD may address it in a more emergent way. CCHD responds to a variety of debris calls and concerns including; emergent and routine, large and small, daytime and overnight. The more information that can be provided for this type of inquiry or response; the better able the department is to respond specifically to the request (tailor level of effort to level of service demand).

It is the policy of CCHD to review and correct ROW encroachments on a case-by-case basis. Encroachments may include, but are not limited to; abandoned vehicles, travel lane blockage, debris, down trees, improperly located mailboxes, signs, crops, fences, headwalls, containers, snow, soil, dirt or gravel piles, animals, buildings, etc. Following are examples of encroachments that are not allowed on County roadways.

Encroachments that are an immediate safety concern or are obstructing traffic, CCHD will correct that situation as soon as possible. In those cases, compensation may be sought; pending the cost of corrective action. Due to their nature, no notice is typical.

In situations where CCHD must issue a written order, ordering the removal of any encroachment. After 30 days from receipt of written order and pending an appeals timeline, the landowner shall remove the encroachment in question. If encroachment is not removed by landowner, the encroachment may be removed by County and cost of removal charged to the property owner. Failure by owner to pay, will result in the County billing the Town and the Town adding the amount due to their respective subsequent tax bill.

Debris in the Roadway

Debris in the roadway can be unsafe and hazardous to users of the system. CCHD works to keep roadways safe and clear of dangerous roadway obstructions such as storm debris, dead animals, construction and farm debris, accident debris, errant shipping debris and various other road obstructions.

Blocking Roadway

Blocking or obstruction of the public right of way is an unlawful activity governed by many statutes and forms. No person shall cause a vehicle (includes ATV or scooter per Wis. Stat. §287.81) to be abandoned on or along a highway (Wis. Stat. §346.94(13)). Any vehicle found to be abandoned on a roadway may be ordered removed in case of emergency by Sheriff's Deputy; towed and impounded (Wis. Stat. §342.40). During the winter season, if a vehicle is blocking the roadway resulting in a halting of snow and ice control operations, it will be moved by whatever means are necessary to reopen the roadway. Any damage incurred in such a move shall be the owner's responsibility.

Certain events may be permitted to occupy the roadway for a predetermined amount of time subject to a Special Events permit from Sheriff and CCHD (see section herein).

Litter or Debris in Right-of-Way

Wisconsin prohibits intentional littering. Most littering is not a road safety impact; however, it does greatly affect roadside aesthetics and can be a safety "clear Zone" concern. Littering can carry a fine up to \$500 for deposits or discharges of any solid waste on or along any highway, in any waters of the State, on the ice of any waters of the state, or on any other public or private property (Wis. Stat. §287.81(c)(2)(a)). Debris found in the right-of-way or removed from highway(s) is disposed of in an environmentally safe and proper manner. Trash and garbage picked up is disposed by landfill or County Solid Waste facility. Metals, cardboard, paper, and other recyclable materials are disposed of at a commercial recycler operation (revenue generated from sale is credited back to the jurisdictional authority of the road from where it originated). Concrete, gravel, asphalt, and other suitable construction debris are incorporated into CCHD inventory and re-used for the benefit of the public. It is illegal to dispose of rubbish, garbage, trash, recyclables, and other debris within the road right-of-way. The public is encouraged to report roadway obstructions as soon as possible. During normal business hours, passersby can contact Highway direct. After hours, passersby can call 911 or the Sheriff's Office to report incidents. These occurrences will be investigated and will be enforced to the level of the law.



Litter in Right-of-Way

Adopt-A-Highway

CCHD, recognizing the importance, need, and desirability of litter-free highways, manages an Adopt-A-Highway program. Through that program, volunteer and not-for-profit groups may apply for a section of roadway to "adopt" to keep clean. Keep clean means that the group will be primarily responsible for policing litter and trash within the vegetated (non-paved) portion of the road right-of-way for the road section that they apply.

For groups wanting to adopt a section of roadway, contact CCHD;

- Highway@columbiacountywi.gov, or
- (608) 429-2136 or (608) 429-2156
- In person at Wyocena.

Participating groups agree to police or pick up litter from CTH right-of-way up to three (3) times per year between April 1st and November 1st of each year for a minimum of a three (3) year period. Groups do not need to pick litter from travel lanes (paved areas), shoulders, medians, bridges, tunnels, overpasses or on other structures that pose a danger. Group participants shall have at least one designated adult leader per six volunteers. Volunteers shall be at least 11 years of age or in the 6th grade. Work can only be completed during daylight hours and not around the holidays of Memorial Day, Independence Day, or Labor Day.

CCHD will provide approved safety vests to be worn during activity (mandatory), traffic signage that is to be placed during field activity, garbage bags and supplies, as well as a designated location to leave filled bags. Upon contact from the group, CCHD will retrieve and dispose of all bags and rubbish collected and left at the designated area.

Storm Debris

Debris from storm events can create unsafe travel conditions on roadways throughout the county. CCHD will mobilize and address these concerns that limit or impact road travel. Public is advised to use caution around road hazards and areas where the roadway is blocked.

Storm damaged trees and down branches are frequent occurrences, often in the dark of night and with little or no warning. Use extreme caution around downed right-of-way trees and branches. Generally, downed or dangerous electrical wires will be entangled in these trees and branches, and it can be very serious, if not deadly.

Flooding on Roadway

Flooding in low-lying areas can occur quickly and without warning. Often, the road surface is submerged, not visible and hazardous conditions may exist which unknowingly until it is too late. These locations can occur on interstate, state, county, and town roads. Whenever



Partial Flooded Interstate



Flooded Town Road

barricades are placed with signage “Road Closed” or “Bridge Closed”, travel is prohibited. Flooded roads remain closed until after waters recede and CCHD has had an opportunity to inspect the roadway and shoulders. Often, road subgrade and shoulders become saturated during flood events and are highly susceptible to harm or damage. Vehicles are kept off these roads until such time that the roadway can support ALL traffic types without damage to the roadbed. Damaged roads are expensive to repair especially when budgets are tight, and funds may not be available to make timely repairs.

Bridges that are closed due to flooding will remain closed until CCHD personnel are able to make a proper inspection. Since the bridge closure is due to a high-water event, a bridge inspection is required by CCHD certified personnel prior to re-opening the bridge to traffic. Highway water can cause various issues with bridges depending on the type of bridge and the duration of inundation. For example, logs can become lodged between girders, piers, etc. Wood bracing can break or be torn away from the bridge substructure. Scour holes can develop which may have compromised the bridge foundation. There are lots of reasons why inspections are required prior to opening a bridge; safety to all users of the road is the primary priority.

Do not drive around, remove, or relocate these devices see Wis. Stat. §§346.04, 346.12, and 349.065). While floods can occur at any time and in virtually any low-lying location, Columbia County has some locations that are more frequently impacted than others. For State and Interstate, the predominant areas are in low lying areas along the Wisconsin River, the Baraboo River and the Fox River (IH 39, IH 90/94, STH 33, and STH 44). On County roads, the predominant areas are along the Wisconsin River, Neenah Creek, Big Slough, and the Fox River.

Animal Removals

Large animal removals are conducted by independent contractor for state and federal roads (WisDOT contractor) and by CCHD for county and most town roads. Dead animals within the roadway can be a road hazard. When they are a travel hazard, they will be removed. WDNR policy allows for many methods to be employed when dealing with dead animals.

For deer and large animals:

- Drag carcass to a remote roadside area, staying within the ROW and within proximity (< ½ mile) to the location encountered. This is called “abandoned in place”; and
- Cannot be “abandoned in place” within a residential, business, or commercial district (in front of structures); and
- Cannot be disposed of within a waterway or low-lying location(s) which are frequently wet (ditches, ponded areas or low depressions); and
- Once picked up from the roadway (placed onboard a vehicle), must be disposed of in a landfill or incineration disposal site.

Small animal removals are usually left in close proximity to their encountered location. If there is a significant visual or odorous concern with the disposal, the animal will be landfilled.

CCHD follows several protocols for animal removals based on segment of the County. Chronic wasting disease, tuberculosis, covid, and others warrant that proper protective equipment be worn during these activities (Tyvek suit, gloves, face shield, etc.) for safety reasons.

Camping in Right-of-Way

It is unlawful to camp within a road right-of-way, roadway or the land abutting the roadway in wagons, tents, or otherwise for either the highway or lands abutting it Wis. Stat. §86.025.



Manure, Dirt, Sand, Grain, and Snow and Ice

The pushing or spilling of manure, dirt, sand, grain, and other materials, even snow or ice, onto or across the highway, or into the public right-of-way, from side roads and driveways is prohibited by Wisconsin Statutes see Wis Stats. §§86.01, 86.07, and/or 346.94. Doing so may create potential safety concerns for the traveling public.

For snow and ice, it may impede the plowing process. This practice also can restrict snow/ice melt and storm water drainage from leaving the road surface and getting into the drainage system; causing icy unsafe roadways. Furthermore, snow shall not be stored in any manner which will obstruct or limit vehicular or pedestrian vision, movement, or access. Piles can become frozen and immobile which creates hazards for the traveling public and creates equipment concerns for the department. Hard, frozen roadside piles wreak havoc on front plows, wing plows, braces, rams, hoses, as well as mechanical, structural, and hydraulic systems. If the Highway Department becomes aware of a violation, the property owner may be subject to fine.



Snow Pushed Across Road = NO

Fences

No person shall build or reconstruct any fence within the public road right-of-way. Fences and other structures are required to be located outside the public right-of-way. Furthermore, CCHD has the authority to remove fences along the roadway Wis. Stat. §82.20. During road resurfacing and construction projects as well as some drainage projects, it becomes necessary for ROW fences to be removed for work to be completed properly and safely.

- CCHD will make several attempts to contact and work with the landowner prior to the work.
- For fences that are located within the ROW, CCHD will remove, and the landowner will be responsible for its relocation outside of the ROW.
- For fences that are located on the ROW or in close proximity and fence removal is necessary in order to accomplish work;
 - In most cases, CCHD can temporarily remove the fence, work completed, and CCHD will put fence back in its original location.
 - In rare situations, the fence condition is so poor that it is not of re-use caliber in which cases, landowner will be responsible to replace it.
 - In situations where the fence is in the wrong location, it will be removed, and landowner will be responsible for placing it back in the proper location (outside the ROW).

Structures (Buildings)

As time goes by, buildings in the right-of-way are increasingly rarer. Modern planning and zoning requirements have assured that many of these structures are removed or upon falling, are rebuilt in compliant locations. Structures that still exist within CTH right-of-way are not presumed to be “grandfathered in”, at least from a safety standpoint. Improvements or additions to these structures will not be allowed. Removal of these structures may be required, pending a safety determination from CCHD. Owners shall cooperate with CCHD in considering additions of safety countermeasures for them to remain.

Mailboxes

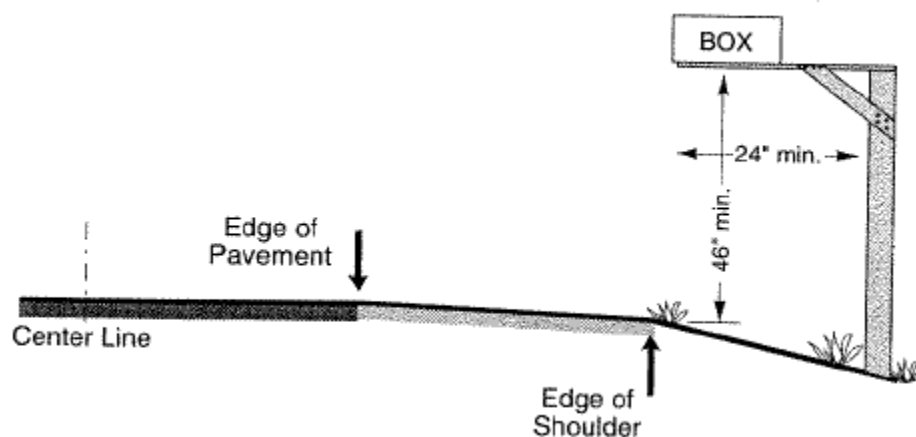
Mailboxes are the only structure that private owners are permitted to install within the public right-of-way without a permit see CCOrd 9.07(3)(a)(5). Neither the CCHD nor U.S. Postal Service issue written permits for the placement of mailboxes within the public right-of-way; however, mailboxes are required to be placed in a location that is agreeable to both parties and to standards as recommended by both parties.

The mailbox installation and support, along with the on-going maintenance, shall conform with current U.S. Postal Service standards and is the responsibility of the property owner. All mailboxes placed within the public right-of-way are owned by the property owner and are placed there at the owner’s risk. This section of the manual is not intended to and shall not be construed to create any affirmative duty on the part of the CCHD to locate and remove improperly installed mailboxes.

The proper location and installation of mailboxes can minimize potential hazards and provide for safe travel, convenient mail delivery, and effectively accommodate maintenance activities.

Figure 14: Mailbox Lateral Location on Roadway

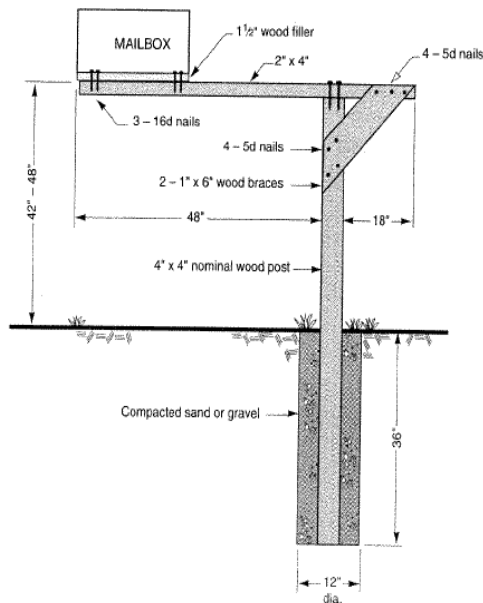
(Source UW-Madison Transportation Information Center)



Mailboxes should be located on the right-hand side of the road in the carrier’s travel direction and should be conveniently placed so the carrier does not have to leave the vehicle to deliver the mail. All mailboxes should be mounted at a height of 41 to 45 inches from the road surface to the bottom of the mailbox. The U.S. Postal Service recommends that property owners contact the postmaster or carrier before erecting or replacing mailboxes and supports as installation recommendations may vary due to road, shoulder, and curb conditions.

Figure 15: Mailbox Installation Cross-Section

(Source UW-Madison Transportation Information Center)



Mailbox supports must be designed so that if struck, it will bend or fall away from the striking vehicle to prevent severe damage to the vehicle or injury to the traveling public. Massive supports such as telephone poles, heavy metal posts, concrete posts, antique farm equipment, or other similar items are prohibited. No other objects, including, but not limited to, landscaping boulders or fences may be placed near the mailbox. If possible, all newspaper tubes and mailboxes shall be placed on the same post to avoid unnecessary posts within the public right-of-way.

The following illustrates examples of unacceptable mailbox installations and supports:

- Mailboxes or supports that encroach upon the travel way or shoulder of a roadway.
- Installations with more than one vertical support.
- A support using unsafe materials stronger than a wooden 4 x 4-inch post or a 2-inch diameter metal pipe that weighs more than three (3) pounds per lineal foot.
- A mailbox that is not U.S. Postal Service approved.

Mailbox Replacement

For mailboxes damaged during snow removal activities and damage is a result of the movement or action of snow and/or ice off the end of the plow, CCHD will not replace or repair the box or its supports. CCHD will repair or replace properly located and installed mailboxes and/or supports damaged by actual physical contact with a county highway department truck or equipment.

*Box Hit by Snow*

For situations when visible physical evidence proves CCHD caused damage to the mailbox by direct physical equipment contact, the Highway Department will replace those damaged mailboxes within seven (7) days of confirmation of the impact. However, weather conditions and/or maintenance activities (e.g., excessive snow piles, frozen ground, on-going snow removal) may delay repair or replacement of damaged mailboxes. If this occurs, a temporary mailbox may be installed until such time that the damaged mailbox can be adequately repaired or replaced.

The conditions for a replaced mailbox are as follows:

- CCHD does not pay for replacement nor pay “in-kind”;
- CCHD replaces the box and/or post (if effected);
- CCHD does not provide special mailbox installations or decorative designs;
- CCHD provides the more common black or grey colored standard metal rural box with wood post (in accordance with U.S Postal guidelines);

Mailbox that is repaired or replaced by CCHD does not imply a change of ownership, nor is it a guarantee or warranty of any kind.



Box Hit by Plow

The U.S. Postal Service states that Customers must remove obstructions, including vehicles, trash cans, and snow, that impedes the efficient delivery of mail. CCHD also encourages the removal of snow near mailboxes to help facilitate the safe and convenient delivery of mail, reduce potential conflicts between mail delivery vehicles and the traveling public, and to reduce the possibility of damaged mailboxes resulting from repeated snowplowing and pushing of snow toward the mailbox.

Roadside Memorials

Loss of life from a traffic crash has a devastating impact on families and friends of the victim. CCHD understands the distressing shock of such a loss of life and recognize that some people desire to grieve by placing a memorial within a highway right-of-way near the crash site. CCHD also recognizes that roadside memorials may be a safety hazard. It typically is not a good idea to place memorials in the right-of-way as they distract driver attention from the road. Memorials will not be allowed within the “clear zone” for a roadway. When thinking about a memorial placement, it is best to contact CCHD for some recommendations or feedback (permit is not required).

It is best to remove the memorial as soon as possible if it poses a safety concern, for example:

- If it is in a dangerous area (an accident already has occurred at this location),
- If it interferes with roadway safety features or vision,
- If it negatively impacts the free flow of traffic, or
- If it would be hazardous if it were hit.

A memorial may also be removed if:

- If it interferes with routine maintenance,
- It falls into disrepair,
- The department receives a complaint.

Individuals can find additional information on memorials and their placement at the following webpage:
www.dot.wisconsin.gov/business/rules/memorials.htm

Roadside Receptacles (Garbage Cans)

Refuse containers (including garbage and recycle containers) are not to be placed on the shoulder of roadways. They are best placed in the driveway to which they serve, beyond the shoulder line of the highway. Any encroachment should be brought to the attention of the local unit of government that holds the contract with the firms serving the refuse service (i.e., Town, Village, or City) for corrective action. Being portable, temporary in nature and not recommended for ROW placement, CCHD does not issue permits for the placement of containers.

As with other encroachments to a highway, if a “roadside receptacle” is accidentally damaged in the process of removing snow, mowing the right-of-way, graveling the shoulder, or any other act of maintenance or construction, it is the landowner’s or occupant’s obligation and responsibility to repair or replace the receptacles (the owner). CCHD does not take any responsibility for the care of these temporary devices.

Vision Corners & Setbacks

Vision corners or clearance triangles (VC) are intended to provide for proper sight distance at intersections, driveways, and roadway access locations to the roadway. Corner endpoints are determined based on the volume of the main roadway and the volume or use of the secondary pathway in combination with travelling speeds for both. Typically, VC involves a set distance above the center of the roadway (think visibility from sitting in a vehicle) from a specified distance from the intersection point (think stopping distance for the vehicle and roadway). The VC endpoint locations are referenced from the intersection location and based on the differing road conditions found in CCOrd. §9.07(4)(r):

- Driveways, generally smaller triangles; residential, commercial, or industrial;
- Intersections, generally larger triangles; alleys, town roads, county roads, or state roads.

Within a VC location, CCHD as the legal maintenance authority, enforces visibility in varying manners:

- Vegetation may be instructed to be pruned, trimmed, or removed. If not and it is severe enough of a perceived problem, it may be completed by CCHD with a bill of costs to the property owner.
- Buildings or structures that exist within a VC or have existed within a VC for a long period of time, may still need to be relocated or be removed; pending severity and consent of the maintaining authority.
- New buildings, plantings that exceed height considerations, or other structures are not allowed to be installed or constructed within the VC and will be ordered removed.

Buildings have minimum setback requirements from the road right-of-way. For Columbia County, those requirements are laid out in the County Zoning Ordinance, Chapter 12, Subsection 100. Requirements vary based on zoning district, parcel use, and other factors.

UTILITY ACCOMMODATION

ROW areas provide for an efficient transmission of public goods and services to a broad level of public users including, but not limited to; water, phone, electricity, gas, communications, data transfer. Each of these individual uses promote the public good and improve quality of life. CCHD assists the public and the utilities by accommodating and permitting the use of the ROW. Utilities seeking permission for installations within the CTH right-of-way shall seek a Utility Accommodation Permit from the Commissioner or their designee.

Adoption of WCHA Utility Accommodation Policy

CCHD has adopted and follows the Utility Accommodation Policy adopted by Wisconsin County Highway Association, most recent version see CCOrd. §9.07(3)(b). Utility permit, work, and use shall abide by the conditions of that document with respect to CCHD as the lawful maintenance authority.

Private Lines (or “utilities”)

Agriculture activities frequently require the private transport of water, electricity, waste, or other liquids and matter from origination or storage areas to farm fields. Transporting this material in vehicles is costly for farm operations and results in repeated heavy loads on County Highways. To reduce agricultural operating costs and reduce heavy loads on County Highways, it can be mutually beneficial for pipeline systems to be used for transporting material(s) to the farm fields or farm locations. Occasionally, this will require a crossing of a highway. This may be either a permanent or a temporary request for use. For temporary situations (not exceeding 30 days), existing culverts may be permitted to be used for these crossings. When an existing culvert is not available, the Department may work with farmers to install a culvert or a crossing to be used. Requests should be submitted to the Highway Commissioner.

Typically, requests will be approved if the following conditions are met;

- Is for private use only.
- The anticipated saving on the county’s infrastructure is greater than the cost of the culvert installation.
- The applicant cost shares 100% of the project costs.
- The installation won’t compromise highway safety.
- The installation won’t compromise the highway’s structural integrity.
- The installation will not cause extra, ponding or unwanted water flow onto adjacent parcels.
- The project is constructed with boring equipment if the roadway pavement is less than 5 years old.
- The crossing is more than 250’ from an existing culvert suitable for using as a temporary crossing.
- The crossing does not extend more than 250 ft longitudinally within the ROW.

Line crossing requests that do not meet the conditions above will typically be denied by Department staff. Applicants may appeal the decision, see the Appeals section of this manual.

Drainage tiles or lines are not considered within Private Utility (or Lines) distinctions. Drain tiles are considered along the same lines as storm water discharge and are regulated or permitted under right-of-way access. There is a full section within this manual that is specifically for addressing drain tile concerns, locations, or permit considerations.

HIGHWAY ACCESS CONTROL (DRIVEWAYS)

CCHD has the authority to restrict and regulate access onto county highways and right-of-way in order to promote the public safety, convenience, general welfare, economic viability and to protect the public investment of existing and proposed highways; prevent costly improvements, premature obsolescence and to provide for safe and efficient ingress and egress see Wis. Stats. §§66, 83, 86, and 346). Driveways shall not be constructed until an access permit is issued by CCHD (CCOrd 9.07(3)(a)). Applicant is responsible for all costs of driveway installation (and culvert if needed) including; permit, labor, materials, equipment.

Driveway permit review helps to monitor and improve access control placement, design, occurrence and other control measures. Goal being to eliminate or limit the potential for traffic conflicts; thereby increasing safety. Proper placement and spacing can improve traffic flow by reducing conflicts. Keeping in mind earlier conversations related to mobility and accessibility, County roads are made for moving traffic and connectivity. Permit decisions are a function of specific permit requirements as well as physical location, geographics, ADT, speed and other safety functions determined by CCHD. Meeting just the required minimum standards will not guarantee that a permit can be issued; consideration is given to the impact access will have on travelling public (mobility and safety). Safety shall not be interfered with due to location proximity to hills, curves or other locations.

Base required criteria are:

1. **Stopping Site Distance (CCOrd. 9.07(4))** Stopping site distance is the anticipated length and time it takes for a vehicle travelling at a specified speed to be reasonably able to identify an approaching object and to stop. The values per ordinance are based on this “reasonable” approach. The permit will be denied where there is a stopping distance concern and other options are available.

a.	55 MPH	-	500 feet
b.	45 MPH	-	350 feet
c.	35 MPH	-	275 feet
d.	25 MPH	-	225 feet
2. **Intersection Proximity (CCOrd 9.07(3)(f) (6, 8, or 9))** There is a minimal required distance for setback from adjacent neighboring driveways and abutting cross streets or roadways (corner lots for example). Distances are generally centerline to centerline.

a.	Rural roads	-	300 feet
b.	Semi-Urban roads	-	150 feet
c.	Urban roads	-	100 feet
3. **Access Point Frequency (CCOrd 9.07(3)(f)(7))** There is a maximum number of access points desired for each individual type of roadway. Density is based on measuring ½ mile from each side of the applied driveway location. The permit will be denied where the frequency cannot be attained and if an alternate location is possible. If the request is for a single owner or contiguous property, no more than 6 drives are allowed for either individual situation.

a.	Rural	-	6 drives
b.	Semi-Urban	-	12 drives
c.	Urban	-	36 drives
4. **Access Point Density (CCOrd 9.07(3)(f)(4))** For residential parcels, only 1 drive per parcel is allowed. For commercial or industrial parcels, multiple access points are possible provided other criteria are met.
5. **Traffic** Traffic volume, both current and future, is a factor in determining whether to grant access. Efforts are made to avoid the potential of having to buy back access as development

increases. It is a balancing act with understanding development tendency (accessibility) and the need for County roads to act as collectors and move traffic (mobility).

- 6. Maximum Surfaced Width of Access (CCOrd 9.07(4) (l, m, n))** Width of access is controlled both at the ROW line which is the restricted driveway width and at the edge of pavement (based on “return radius” of driveway to the road edge of pavement). Driveway width maximum(s) are based on type of development.

		Width	Return Radius
a.	Residential	- 24 foot width	20 foot “return radius”
b.	Agricultural	- 40 foot width	20 foot “return radius”
c.	Commercial	- 35 foot width	40 foot “return radius”
d.	Industrial	- 35 foot width	40 foot “return radius”

Culvert Replacements (CCOrd 9.07(4)(a)) Culvert size shall be determined by CCHD; by storm water design engineer if required for the commercial or industrial development project. Following are the minimum required criteria for culvert installation:

- Minimum size equivalent to at least 15 inches in diameter,
- Minimum length of 24 feet long plus end walls,
- Minimum depth of cover over top of pipe of 1 foot and side slopes not to exceed 4 horizontal to 1 vertical relief (4H:1V),
- End wall design shall not be a sheer vertical face; shall be sloped rise, approximately 6H:1V or equivalent.
- Constructed of corrugated metal or concrete; plastic pipe and/or plastic end walls are not allowed.

Culvert Endwalls, Aprons, and End Connections

Apron end walls are required for all culvert installations on CTH. End walls shall be made of the same material as the abutting pipe or structure with a flared end to allow water dispersion and dissipation from the end of the pipe. Retaining walls, boulders, plantings and other beautification practices are not allowed adjacent to culvert pipe discharges. Beautification items have been found to be disruptive to the travelling public and create a safety hazard. End walls are designed to accommodate a gradual cross-slope over the pipe end area. This allows errant vehicles to safely traverse the area without injury. Rigid obstacles are not allowed in these areas and will be ordered removed or removed individually for locations where compliance is not forthcoming.

Following are several examples of Culvert or Driveway situations that are NOT allowed.

**Protruding Concrete-Block Culvert
Apron**



**Driveway Retaining
Walls
& Boulders**



Cattle Passes

Agriculture activities or movement of animals may require cattle passes underneath the highway at various location(s) round the county. As part of an improvement project or as a stand-alone project, cattle passes may be considered. The Department may work with farmers to permit and install cattle passes, subject to Highway Committee approval (Wis. Stat. §86.12). 100% of the cost for the cattle pass materials and installation shall be the responsibility of the farmer making the request. If a culvert is required for drainage reasons, at the cattle pass location, CCHD may provide a credit for the drainage sized culvert as a method of cost sharing. Drainage sized culvert shall be understood to mean the culvert diameter and length that would be required to be in that same location based on the contributing watershed and CCHD determined drainage requirements.

Driveway Maintenance

Routine, annual maintenance of an existing driveway does not require a permit. The following activities are considered routine and annual maintenance activities:

- Grading of gravel surface,
- Hand shoveling or clearing of culvert end or end walls (no mechanical excavation or pipe replacement),
- Crack filling or surface treatment of an asphalt entrance.

The following conditions are considered a change or circumstance, or condition and a permit is required prior to conducting activity:

- Surfacing (either asphalt or concrete) of the driveway,
- Culvert replacement, addition, or up-sizing,
- Any excavation activity,
- Any work in ROW other than as outlined herein.

Driveway markers or headwalls, retaining walls, stone walls, decorative walls, boulders, wood, or other similar driveway markers or enhancements are not allowed within the ROW. Driveway access locations may be marked for nighttime visibility as outlined below and Wis. Stat. §346.41 and CCOrd 9.07(4):

- e. During construction and if encroaching on the “clear zone”, construction areas shall be distinguished with proper warning device, hazard marking and lighting to prevent an accident in accordance with the MUTCD.
- f. Permanent markers may be utilized for driveways provided they are:
 - i. Small (not exceed 3” diameter) round,
 - ii. blue in color,
 - iii. reflective in nature,
 - iv. mounted on a fiberglass rod of small diameter (3/4”) which would be break-away construction, and
 - v. are placed outside of the road ROW.
 - vi. Red or amber color are not allowed (except amber would be acceptable for temporary construction of the drive per ordinance and in accordance with the MUTCD).

Driveway Surfaces

Driveway surface shall slope down and away from the road shoulder; a minimum slope equivalent to the road shoulder cross slope (4% to 8%) for a suitable distance determined by CCHD. Driveway surface located within the ROW shall be completed with either asphalt or $\frac{3}{4}$ " gravel surface. On roads with an asphalt shoulder, asphalt driveway approach shall be installed at least to the ROW line. Concrete approach slabs will not be allowed within the ROW; unless in a curb and gutter section as approved by CCHD has been installed. Replacement or changing of the driveway surface will require a new driveway permit from CCHD.

Concrete driveway aprons within the right-of-way are not allowed. These structures cause large amounts of damage to CCHD plow equipment and trucks. Plows and plow wings get caught on the concrete edge and are catapulted up and into the body of the truck or truck door. Concrete drives extending from the right-of-way line toward the road edge, if encountered, will be ordered for removal from CCHD. Owner of such a drive will be required to either remove it per instruction or be subject to having it removed by CCHD. Removal shall be at the cost accounting methodology utilized by CCHD (a time and material basis + fringe benefits + administrative fee + equipment + materials).

Special Events in the Roadway

Any entity wishing to utilize the highway, roadway or right-of-way, for a special event shall be required to apply for a permit (CCOrd. 9.11). Permit(s) may be jointly reviewed by CCHD and County Sheriff's Office. Charity or non-profit organizations need not pay a permit fee; other organizations, business, or entities need pay a fee for the event. Depending on the size and complexity of the event, permit reviews can take up to 6 weeks to complete so please plan accordingly.

Organizer shall be responsible for the application, permit conditions, coordination and safety of the event and some of the particulars needed for the permit include;

- Date, time, location, duration, and hours of operation including any set-up or tear-down time;
- Parking plan which includes minimizing on-street parking;
- Provide reasonable, outside of ROW accommodations for sanitation, potable water, and rest area;
- Within 24 hours of event conclusion, remove all litter, refuse, debris, and facilities;
- Provide a severe weather or emergency action plan including notification methods and contact information;
- Insurance certificate;
- Provide security and traffic plans and controls; and
- Have a method to identify participants.

Due to the nature of special events and the use of public roadways, specific devices, control, or measures are typically necessary for a successful and safe event. County can assist with those requirements provided the organizer;

- Discusses what the need for extra-ordinary service might be well in advance of need,
- Agrees to pay for the cost of the service(s) requested,
- Traffic Control attendants, subject to availability and reimbursement, that meet requirements of statutes (Wis. Stat. §349.217) for directing traffic on highways and at intersections,
- County has resources available at the time of the request.

SNOW AND ICE CONTROL

Each storm has individual characteristics and climate factors (storm intensity, moisture type, duration, air temp, road temp, pressure, wind speeds, direction of storm tracking, dewpoint, and other factors) that affect the total amount of snow/ice accumulation as well as influence the methodology used to combat the resulting snow and/or ice related road conditions. Furthermore, department budget and availability of funds can also impact methods used during winter seasons. Therefore, exceptions to this policy may occasionally be necessary and departure from these general policies may be authorized. The Commissioner may order a departure from these general rules when, in their opinion, conditions warrant such action for the duration of a particular event (upon completion of said event, CCHD will revert to policy for guidance).



Drift Busting on the Prairie

Road Conditions Columbia County does not operate with a “Bare Roads” policy. CCHD will NOT guarantee that all CTHs and locals will be clear of snow and/or ice throughout the winter driving season. At times during the winter season (particularly during and up to 48 hours after a storm), roads may be snow covered and slippery. We function with the expectation that motorists will have their vehicles properly equipped and will operate in a safe and secure manner for winter travel, are aware of weather conditions and aware that winter driving conditions may be present. Motorists should limit winter travel when hazardous conditions exist. Motorists may drive their vehicles during winter conditions with additional caution and preparedness; especially with respect to reduced traction and/or visibility. They are advised to reduce their speed substantially below the posted speed limits during periods of adverse weather. Most winter accidents occur when there is less than 2” of snow on the roadway. Drivers need to pay attention to winter weather, pay attention to road surface conditions, and allow more time to get to their destination during winter weather events.

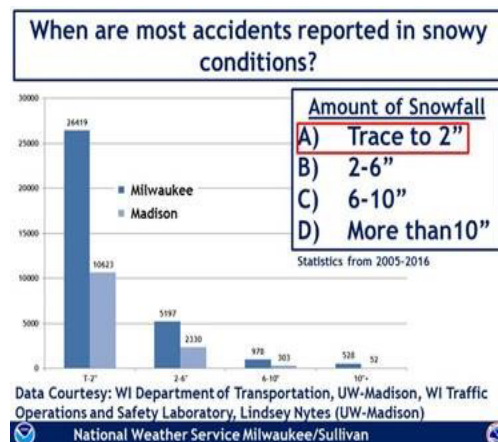


Figure 16: Winter Accident Frequency

CCHD will have a “white” shoulder policy for gravel and/or vegetated road shoulders. Plowing of the gravel or vegetated shoulder may NOT occur. Drivers will make every attempt to “carry their plow” during winging operations when the shoulders are not frozen. This policy will preserve gravel material on the shoulders and limit loss of shoulder surface.

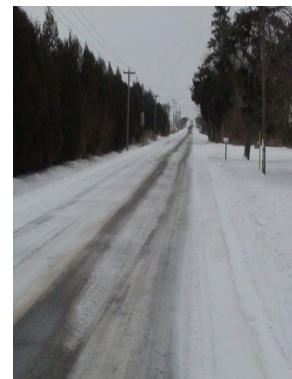
Classes of Winter Service Roadways within the County are divided into five (5) classes of roadway service. This classification system determines the level of service and priority for segments of roadway. Distinctions are based on jurisdictional authority, budget(s), Average Daily Traffic volumes (ADT), manpower, equipment availability, type of storm, time of season, and a host of other concerns.

- **CLASS 1** is defined as Interstate Highways
- **CLASS 2** is defined as State Highways or lower volume multi-lane roadways

Both classifications include roads under the jurisdiction of the Wisconsin Department of Transportation (IH and STH). Level of Service and methodology for these roadways are controlled by the WisDOT-CCHD Annual Routine Maintenance Agreement and specifics related to their service are found within the WisDOT Highway Maintenance Manual, Chapter 6 Winter Maintenance. Certain aspects are extracted and repeated here for ease of reference and communication (refer to manual for most up to date policy).

Generally:

- a) Plowing is primary method of control;
 - b) During storm events,
 - 1) Class 1 routes shall require 24 hour continuous service, and
 - 2) Class 2 routes shall require 18 hour continuous service;
 - c) "Passable Roadway" (surface free from drifts, snow ridges, ice, snowpack and can be travelled safely at a reasonable speed) conditions on driving lanes, ramps, passing lanes during the event (prevent snowpack formation, keep accumulation workable, minimize bonding with road);
 - d) "Reasonable speed" = speed vehicle can travel without losing traction;
 - e) Preferred winter material for use is SALT or brine;
 - f) Anti-icing pre-storm may occur;
 - g) Pre-wet salt treatment may be employed;
 - h) Travel lane expectation = "Bare Pavement" as soon as practical after the event.
- **CLASS 3** is defined as CTHs with 1,000 or more ADT and all Locals in Lodi, Pacific, and Randolph, as well as: WIBU Road, Bullen Road, and Johnson Road
 - a) Plowing is primary method of control;
 - b) Limited service will occur between the hours of 9 p.m. and 3 a.m.;
 - c) Material selection varies by event and conditions:
 - 1) Primary choice = SALT;
 - 2) Secondary choice = SAND;
 - d) Travel lane expectation = "2 Wheel Paths Bare" as soon as practical after the event;
 - **CLASS 4** is defined as CTHs with less than 1,000 ADT
 - a) Plowing is primary method of control;



Wheel Path Starting to Show

- b) Limited service will occur between the hours of 9 p.m. and 3 a.m.;
- c) Material selection leans toward sand mix as primary choice and salt in rare situations;
- d) “Hot Load Sand Mix” (add additional rock salt to existing sand mix pile) when conditions warrant;
- e) Place granular material at following locations: hills, curves, intersections, bridges and approaches, and some long straight sections with significant areas under tree canopy;
- f) “Center 5 Feet Bare” as soon as practical after the event.



Centerline Starting to Show

- **CLASS 5** is defined as Local Roads that serve rural districts (mostly Town Roads but a few CTHs). All Towns except Lodi, Pacific, and Randolph (Class 3); Lowville, Dekorra, and West Point (CCHD does not maintain). Plowing is primary method of control;

- a) Limited service will occur between the hours of 8 p.m. and 4 a.m.;
- b) Material selection is sand mix;
- c) “Hot Load Sand Mix” (add additional rock salt to existing sand mix pile) may be used;
- d) Sand placed at the following locations: hills, curves, intersections, bridges and approaches;
- e) Material is used to provide traction at locations of acceleration/deceleration, speed change, directional change, and other locales where ice may form or develop;
- f) Surface conditions will be mostly related to ambient conditions after event and may include: snow covered, centerline clear, 2 wheel paths, snowpack. Covered road driving is likely to last for several days after the event.



Variable Conditions Possible

Ice Storms and Conditions

Unusual and rare events which require a unique approach when compared to “normal” winter storm conditions. Often, CCHD vehicles will have chains on, and rapid response efforts are greatly diminished. Routes are followed with little deviation due to the difficulty in changing operations with large scale road issues. Roadway and/or bridges will, at times, have upon them ice and be in a hazardous slippery condition. Commissioner and Sheriff have the ability to declare Road Emergency and to close roads, if necessary due to declining conditions. Motorist abilities to travel will be greatly reduced due to poor traction, hazardous conditions, and other impairments.

Liquid Salt Brine may be used by CCHD. Salt brine is a soluble salt mixture with normal water that may be applied direct to pavement surfaces in advance of storm systems (anti-icing) or may be added to rock salt deployment during events (pre-wetting). Advantages to salt brine can include; lower cost, reduced impact to environment, easier to deploy, timing of deployment, buys storm response time. Brine consists of about 19% salt by volume (28% by weight) and deploys significantly less salt with use than straight rock salt (which is 98%+ salt). This reduces impacts to the environment and reduces salt use thereby limiting costs (brine is about \$0.15 per gallon versus rock salt at \$100 per ton).



Anti-Ice Deployment

Anti-Icing, direct application of brine on even sunny days, is easily identified by thin white streaks of salt deposit on roadways. Anti-icing can be deployed up to 4 days in advance of a storm system. The water evaporates, leaving salt deposited in the surface structure of pavement. When sleet or snow begin, the salt prevents a bond between snow and pavement from forming thereby reducing the potential for road icing to occur. This speeds up the snow-salt integration time period and assists with shorter action timeframes for certain storm conditions on specific class roadways. Starts working immediately with the falling of snow and is not reliant on “perfect timing” of crew response to varying and unknown storm start times.

Pre-Wetting, harder to identify, is the adding of brine to rock salt during or prior to deployment on the road surface. Salt cannot begin physical processes to lower water’s freezing point until the grain perimeter is covered with a layer of moisture and the crystal begins to break down. Adding brine, pre-wetting, to rock salt deployment will help the break down process begin faster and can result in less rock salt being needed to accomplish the end goal.

Additives (magnesium chloride, potassium, beet juice, etc.) may be implemented to assist with salt effectiveness in some situations. Additives have the effect of lowering the temperature at which salt is effective. Generally, rock salt is effective to about 8-degrees Fahrenheit. Certain additives may lower this temperature to near 0-degrees Fahrenheit or a little lower. Of course, this is a delicate balance as the additives add cost to operations and the cost benefit or impact to the budget may not be worth the minor result of effectiveness. At the current time, CCHD uses extensive amounts of brine but does not add additives to it. Generally, at temperatures below zero degrees or sustained periods below this point, CCHD will use sand mix or “hot load” sand mix to provide traction in extreme cold while providing some salt material for days where the temperature rises above zero and salt will start to break down the snowpack.

Plow Driver Rights

CCHD employees are trained in proper equipment operation and are knowledgeable of their routes, conditions, equipment, and expectations. They closely inspect and maintain equipment to be available to respond at a moment's notice in the worst possible conditions. They are familiar with existing conditions that would affect the speed or rate at which they plow and use precautions to avoid plowing practices that would cause damage to County, public, or private property. Equipment is operated in accordance with Department safety guidelines and training while complying with traffic regulations. Plowing and material deployment speeds are recommended based on industrial studies and practices.

- Class 1 or 2 Routes: speed of 45 MPH;
- Class 3, 4, or 5 Routes: speed of 35 MPH;

Often, for residents that encounter plow trucks, the perception is different than reality. Plow trucks are large pieces of equipment (between 20 ton and 40 ton in weight) that contain a lot of moving parts and vision restrictions, often they can appear to be moving at rates different than they are. For these reasons, there are requirements and several recommendations for motorists that encounter plow trucks and things they should or should not do:

- "Highway Maintenance or construction area" means, in the case of a moving vehicle engaged in maintenance or construction work, that section of roadway where traffic may return to its normal flow without impeding such work (Wis. Stat. §340.01(22e)). A plow truck conducting plowing or spreading winter materials with its lights operational, and functioning is a work zone;
- Drivers may not follow closer than 200 ft on a road with a speed limit of 35 MPH or greater (Wis. Stat. §346.915(2)(a)(1));
- Drivers may not follow closer than 75 ft on a road with a speed limit less than 35 MPH (Wis. Stat. §346.915(2)(a)(2));
- When approaching from the rear and stopping at an intersection, driver shall remain more than 20 ft from the rear of the plow truck and remain stopped until the plow truck resumes operation (Wis. Stat. §346.915(3));
- Motorists on multi-lane roads, encountering a highway maintenance vehicle, with lights on and sitting at side of the road, shall either move over into a lane the vehicle is not occupying or shall reduce speed to maintain control for safe traffic conditions until past the maintenance vehicle (Wis. Stat. §346.072(1));
- Plow trucks in the act of plowing or maintenance with maintenance lighting active, may operate on the left-hand side of the roadway (Wis. Stat. §346.05). Motorist shall exercise extreme caution in these situations.
- Motorists should use extreme caution if overtaking or passing an operational plow truck:
 - Blowing snow coming off the plow truck can reduce visibility or create a condition known as snow blindness where the overtaking driver will not be able to see.
 - Plow trucks often will have side wings that can (when deployed) extend an additional 10 ft or more outside the edge of the normal truck width.
 - Trucks may be turning, and driver will not be able to see your attempts due to poor weather or nighttime conditions.
 - Vision is greatly reduced, particularly at night.

Generally, the plow truck, with lights operating, has the right-of-way and caution should be used.

Unusual Situations

Certain actions on behalf of plow driving are routine occurrences but may surprise or catch an unsuspecting driver off guard. When encountering plow trucks in the act of snow or ice removal, exercise extreme caution in the following situations:

- CCHD operates 48 plow routes throughout the County. Generally, multiple plow trucks will appear on the more travelled roads (state and county), will have their plow, and do not appear to be doing plow activity. In fact, during these times, many of the trucks are “returning to the barn” to re-load with winter materials (salt, sand, or brine). They may;
 - Travel with their plow up = do not know last time material was placed on the busier road and do not want to plow it off the roadway;
 - Not deploy material = do not know the last time or amount of material that was placed and don’t want to impact what the routine route driver is doing for roadway control.
- Trucks will make multiple trips on their route during an event and conduct varying activities depending on the timing of the event;
 - Initial activity is focused on clearing the roadway to make the road passible and allow for deployment of material to initiate breaking of the snow-to-pavement bond;
 - Clean-up passes to remove excess material from roadway and shoulder to complete road opening, removal of excess material from melting activities, clearing or clean-up of crossroad intersections;
 - Winging or pushing snow back in preparation for subsequent events and to allow for additional snow storage capacity along the route.
- Trucks make frequent and abrupt stops and starts while traversing plowing sections, particularly during clean-up operations. Drivers need to watch for these situations and stay clear of backing or moving trucks;
- Trucks will make abrupt stops at railroad tracks in order to protect equipment. Railroad tracks are oftentimes at skew angles to roadways and often the rail can be a safety hazard for a deployed plow. CCHD has a practice of not plowing across railroad tracks (to prevent damage to plow equipment). In addition, passing trains can carry snow from the rural section and deposit it on the roadway in the travel lane. Minor amounts of snow may accumulate in the roadway at a railroad crossing. Traffic and materials deployment will eventually remove the excess material at the railroad tracks left from this practice.
- Horse and Buggy Users frequent Columbia County (particular the northern sections).
 - Plow operators cannot skip sections of roadway (will not pass buggy operators) as this could create a road safety hazard (frozen material left on roadway). Horse and buggy operators need to proceed to a safe area out of the plow truck travel lane as expeditiously as possible.
 - Plow trucks approaching horse and buggy operations will slow vehicle and maintain a consistent engine rpm (avoid excessive noise). They will turn off the material deployment equipment (not throw salt or sand at horse’s feet). They will continue forward in a safe and courteous manner.
 - If necessary and distress is evident from the buggy operation, the plow driver will stop and not resume until such time as it is safe (§346.11).
 - Motorists should use extreme caution in these situations.

Suspension of Operations Snow and ice control are considered emergency work and may be performed any time of the day or night. Because of the potential hazard to the public, the need for accessibility and the high incidence of overtime, careful planning and preparation must be conducted prior to the winter season. At any time when visibility declines to a point that it is hazardous for snowplow operators to be on the roads, snowplowing or ice control operations may be suspended. Suspended operations shall be resumed when visibility improves. Should road closure become necessary, the Commissioner or designee shall notify the Columbia County Sheriff's Department and WisDOT of the closing. An attempt will also be made to notify the media, Highway Committee Chair, and the chief elected official for a local road closing(s).

Snow Routes. All CTH and local roads are considered "Snow Routes". If abandoned vehicles are encountered on the CTHs or Locals, the Sheriff's Department will be contacted and requested to have the vehicle removed at the Owner's expense. If a vehicle is blocking one or more lanes halting snow and ice control operations, it will be moved by whatever means are necessary to reopen the roadway. Any damage incurred in such a move shall be the owner's responsibility.

Private Usage. Under no circumstances will the County use one of its pieces of equipment to push, pull, or tow a stranded, private vehicle from a roadway or ditch. In a life or health threatening situation, a county employee may provide emotional support and direct assistance or call for emergency response.

Private Plowing. County employees may not use a County Vehicle or piece of equipment to perform any snow or ice control operations on private or commercial property nor be allowed to use equipment for personal purposes.

Lawn or Turf Damage.

During the season, a certain amount of lawn or turf damage to County or personal property may occur along shoulders or the roadway. CCHD makes efforts to not plow shoulders when the ground is not frozen. This limits the amount of turf or lawn that is damaged during the winter season. On rare occasions, this procedure is not practicable due to extenuating travel concerns, like; safe turning, vision, etc. CCHD will not be responsible for damage to turf in lawns or for the deposition of gravel in roadside ditches, unless; the plow has been involved in an accident, in which case, CCHD will restore the affected area. Any damage sustained due to salt, salt brine, sand-salt mix or other de-icing chemicals placed on the roadway will not be treated or repaired by (CCHD).



Turf @ Edge of Shoulder Peeled Back

Mailbox Damage During Winter Events.

CCHD will make reasonable attempts by employing industrial standards and methods to avoid or minimize damage to fences or mailboxes. In the event damage occurs as a result of the force of snow or ice being discharged by the snow equipment, CCHD will not repair or replace the item in question. If a piece of CCHD equipment physically comes in contact with an appurtenance located in or immediately

adjacent to the roadway, CCHD may repair or replace the damaged property on a case-by-case basis. Special installations or decorative designs will be replaced with standard, conventional materials (boxes, wire woven, barb wire, etc.).

Emergency Services or Response for Services Provisions must be made for situations involving emergencies; therefore, in the event CCHD receives notification of an emergent situation from Sheriff or EMS; equipment necessary to handle the emergency will be dispatched when available to assist until the emergency has been resolved. Note the ability of the Department to dispatch personnel immediately may be limited by the hours of operation of the department. For after-normal-hours emergency responses, this means the response time may be up to a minimum of thirty minutes from the time of the call, as the Department does not always nor continuously staff operations outside of normal work hours.

OVER SIZE AND OVER WEIGHT (OSOW)

Wisconsin State Statute (Wis. Stat. §348) governs OSOW requirements and standards. CCHD functions on the principles of statute and does not have an ordinance to expand these requirements. For transport of OSOW on the county road system, a County permit is required as maintenance and legal authority with control of the roadways (Wis. Stat. §348.25). Permits will be issued in conformance with the Statutes; however, CCHD has the right to inquire about shipping specifics, recommend alternate routes, require load reductions or partial loads in situations where conditions warrant. This would include concerns related to overweight, over-width, over-height, and over-length vehicles. This section is a summary to assist carriers with interpretation of County requirements considering the statutes (single, multi-trip or annual permits are possible, contact CCHD to discuss). County permits are only for roads under CCHD jurisdiction (county roads and town roads in the county) and are not valid on State roads. The permit requirement emphasizes safety for the traveling public and helps minimize the potential damage that might be caused to County Highways, traffic control devices, public utilities, and other infrastructure. Items within the broader statute do have specific requirements, definitions and determinations.

Permit Required

A permit is required in order to transport a load that is OSOW within the County. Generally, permits will be required for all loads that exceed the following limitations for width, height, length, and weight. There are some exemptions or load relaxing allowances for some carriers. Specific cases may need refer directly to statute for proper interpretation of their legal requirements (specifically; agricultural commercial vehicles, Instruments of Husbandry, as well as carriers of corn, soybeans, vegetables, salt, forestry raw products, propane, heating oil and utilities). Permits are required for CCHD per the following.

Over-Width Permit required for vehicles that exceed a total width of 8'6" (Wis. Stat. §348.05) unless;

- IOH allows variations from this requirement provided;
 - Increase to 15 feet or if extends beyond centerline into opposite direction traffic must have lamp and reflector requirements within (Wis. Stat. §347.24(3));
 - Slow moving vehicle (SMV) emblem is required for speeds less than 25 mph (Wis. Stat. §347.245(1)); and
 - Cannot exceed 12 ft width unless contains either a 360-degree yellow/amber rotating strobe/beacon at centermost, highest point or contains 2 flashing yellow/amber flashing lights visible front and rear (Wis. Stat. §347.25(2g)); and
 - Light(s) are functional and activated.
- Agricultural Commercial Motor Vehicle is limited to 10' width.
- Pesticide, lime or fertilizer spreading (not including manure operations) are restricted to 12' width.
- Skidders, forwarders and foresters are restricted to 12' width, but cannot operate at night or for more than 0.5 mile distance.
- Urban buses limited to 8'8" width.
- Hay and Christmas Tree transport are restricted to either 12' or width of travel lane (9', 10' or 11').
- Pipeline, Utility and PSC approved are limited to 9' per travel lane.
- Furthermore, operators cannot carry load beyond the left fender nor more than 6" beyond right fender (Wis. Stat. §348.09).

Over-Height Permit is required for height exceeding 13'6" from travel lane immediately under point of conflict (Wis. Stat. §348.06).

- IOH does not require permit, except;
 - Operator is responsible to assure all clearance areas are acceptable.
 - Overhead electric lines over roadways shall comply with the state electrical code of Public Service Commission.
- Other unique situations by statute.



Low Clearance Overhead Utility

Over-Length Permit is required beyond 45 ft (single) and 70' combination vehicle, except;

- IOH single is allowed 60 ft and 2 vehicle IOH is allowed 100 ft.
- 2 vehicles trailered IOH is allowed 100 ft.
- Utility allowed 60 ft with 1 vehicle or 120 ft with 2 vehicles.
- Nothing can extend more than 3 ft in front of vehicle (§348.10).

Over- Weight Permit is required for all Class A highways (defined as State roads and all non-Class B roads by Wis. Stat. §348.15). Restrictions are established based on number of axles and axle spacing and are presented in table format (table is copied here but reference Statute for the current representation). Generally;

- 80,000# maximum load (provided correct axle spacing exists – see chart);
- Weight by 1 wheel on 1 end of axle < 11,000#;
- 1 axle maximum is 20,000# (23,000# for agricultural);
- Milk/dairy making farm to market delivery is limited 23,000# (steer axle varies between 13,000 and 20,000#);
- Septage haulers are allowed 1 axle of 21,500#.

Class B Roads are limited to loads or weights that are 60% of the permissible load (permit required above 60% load of tables in Wis. Stat. §348.15) with some exclusions for operators that are making pick-ups or delivery for the following specifics;

- IOH and Agricultural Commercial Motor Vehicle;
- Utility service outage;
- Propane and oil for heating purposes with an emergency declaration except;
 - 1 axle limited 30,000#,
 - 2 axles limited 40,000#,
 - Tank at < 50% capacity.

Frozen Roads During winter months when highways are so frozen that no damage may result thereto by reason of transportation, peeled or unpeeled forest products and abrasives or salt for winter maintenance are permitted to be hauled in excess of gross weight limitations (§348.175).

- May do so on Class "A" or Class "B" highways,
- Declaration is determined on a regional basis by WisDOT,
- Any person transporting any such product over any highway of this state under this section is liable to the maintaining authority for any damage caused to such highway.

Criteria of 98,000# on 6-Axle Loads

Important things to know with respect to permits involving 98,000 pounds on 6-axles:

- WisDOT is the only agency that may issue a “Raw Forest Products Permit” (RS Permit) (Wis. Stat. §348.27(9m) (a)4).
- The RS Permit authorizes transport of “raw forest products” at GVW of 98,000 lbs. on vehicles or vehicle combinations with six or more axles. None may exceed the axle weights in the statute.
- During the spring thaw period, the RS Permit is suspended on local roads, but the permit authorizes transport on the State Trunk Highway System and connecting highways as defined in state law.
- Local maintenance officials wish to allow operation of vehicles hauling “raw forest products” on roadways within their jurisdiction may issue a “General Permit” (Wis. Stat. §348.27(3)). When operating under this permission, the permit must be carried on the vehicle (Wis. Stat. §348.28).

Heavy Loads (>100,000#)

Permits over 100,000 pounds, or those that involve bridge crossings, will be processed as expeditiously as possible depending on proposed loading(s) and sufficiency of information provided. Permits for townships involving overweight loads on a town road that has bridges will require County approval for the bridge crossing. All loading information must be supplied for the crossing approval.

Temporary Seasonal Weight Limits

Roads that are posted with a specific seasonal weight restriction will require a seasonal permit and haulers cannot transport on those roads without a permit that specifically allows this conditional trucking. Temporary seasonal weight limits (Wis. Stat. §348.17 and §349.16) are implemented by CCHD on all county roads as well as township roads in the county. The limits are implemented when the winter frost begins to leave the roadbed. During these periods, road subgrades soften as they thaw out and moisture becomes trapped in the sub-strata by the lower level frozen or frost entrained soils. This moisture saturates roadbed soils and materials, causing the roadway to lose compressive strength and ability to support repeated or heavy loads. During this period (depending on arrival of spring but typically between March and May), CCHD staff monitor roadbed conditions for implementing and terminating these temporary weight limits. The dates for implementing the limits vary with weather conditions, however; it is typical for the postings to be implemented in March or April and terminated in April or May. For CCHD, during this period, all County and local roads in the county are posted with a 10-ton load limit. CCHD will issue some permits during this time period, however; emphasis is on protection of the roadway resource so adjustments and accommodations from carriers are anticipated;

- CCHD issued permit must be on the vehicle at all times of activity within the County.
- Focus is on alternate routes, methods, partial loads, time of day shipping, and other accommodation alternatives that may be possible to preserve the roadway.
- If permitted, the activity must cease when or if ordered to do so by CCHD.
- Even with a permit, shipper may still be liable for repair costs of damaged roads and/or facilities (bridge, culvert, etc.).
- Following can be approved if an energy emergency has been declared from Governor,
 - Not more than 30 days,
 - Limited to 26,000# propane or heating oil,

- Activity occurs at the time of day where roads are least vulnerable (determined by CCHD during the permit review process)

Figure 17 (credit Wisconsin Statute §348.15): Vehicle-Axle Weight Table

(Axles must be 42" apart min to qualify as separate axle and bear at least 8% of the GVW).

Distance (ft) bet. Fore and Rearmost Axle	2 axles	3 axles	4 axles	5 axles	6 axles	7 axles	8 Axles
4	39,500	45,000	51,500	58,500	65,000	72,000	79,000
5	40,500	46,000	52,500	59,000	66,000	72,500	79,500
6	41,500	47,000	53,000	60,000	66,500	73,500	80,000
7	43,000	47,500	54,000	60,500	67,000	74,000	80,500
8	44,000	48,500	54,500	61,000	68,000	74,500	81,500
9	45,000	49,500	55,500	62,000	68,500	75,500	82,000
10	46,000	50,500	56,000	62,500	69,000	76,000	82,500
11		51,000	57,000	63,500	70,000	76,500	83,500
12		52,000	57,500	64,000	70,500	77,500	84,000
13		53,000	58,500	65,000	71,500	78,000	84,500
14		53,500	59,500	65,500	72,000	78,500	85,500
15		54,500	60,000	66,000	72,500	79,500	86,000
16		55,500	61,000	67,000	73,500	80,000	86,500
17		56,500	61,500	67,500	74,000	80,500	87,500
18		57,000	62,500	68,500	75,000	81,500	88,000
19		58,000	63,000	69,000	75,500	82,000	88,500
20		59,000	64,000	70,000	76,000	82,500	89,500
21		60,000	64,500	70,500	77,000	83,500	90,000
22		60,500	65,500	71,500	77,500	84,000	91,500
23		61,500	66,000	72,000	78,000	84,500	92,000
24		62,500	67,000	72,500	79,000	85,500	
25		63,000	67,500	73,500	79,500	86,000	
26		64,000	68,500	74,000	80,500	86,500	
27		65,000	69,000	75,000	81,000	87,500	
28		66,000	70,000	75,500	81,500	88,000	
29			71,000	76,500	82,500	88,500	
30			71,500	77,000	83,000	89,500	
31			72,500	77,500	83,500	90,000	
32			73,000	78,500	84,500	90,500	
33			74,000	79,000	85,000	91,500	
34			74,500	80,000	86,000	92,000	
35			75,500	80,500	86,500		
36			76,000	81,500	87,000		
37			77,000	82,000	88,000		
38			77,500	83,000	88,500		
39			78,000	83,500	89,500		
40			79,000	84,000	90,000		
41			80,000	85,000	90,500		
42			80,500	85,500	91,500		
43			81,500	86,500	92,000		
44			82,500	87,000			
45			83,000	88,000			

Load Posted Bridges or Culverts

There are NO exemptions from any load posting on a highway bridge or culvert. Posted bridges shall NOT be crossed by a carrier/hauler in a vehicle that exceeds the load posted signage for the bridge or culvert in question. Bridge postings are established through a combination of inspections of major load components and a technical review of load member characteristics, mathematical determination, and engineering judgement for what may be a safe load condition with a slight factor of safety. Issuance of any permit does NOT allow the permit holder the right to override the posted limit or drive across a load posted bridge. Bridge posting limits are determined, maintained, and monitored by CCHD on a routine basis. Drivers share the responsibility of obeying signage that is in place.



Permit Exemptions The following general situations are exempted from CCHD permit requirements in addition to some of the more specific exemptions as presented above.

- Government snowplows are exempt from the over-width requirements (Wis. Stat. §348.05(b)).
- Government vehicles are exempt from OSOW during the removal, treatment, or sanding of snow and ice (Wis. Stat. §348.18).
- Government vehicles are exempt when their use is required as authorized emergency vehicles (Wis. Stat §348.18).
- Permits are NOT required for a vehicle of tow-recovery that is in the act of recovery for another vehicle (Wis. Stat. §348.02).
- From 8/1 to 12/1 of the calendar year, harvesters of corn, soybeans, potato, vegetables, and/or cranberry as well as manure haulers (running field to storage/processor) can run at load limits which are 15% above the table presented (referenced from Wis. Stat. §348.15).
- Seasonal limit exemptions (in accordance with Wis. Stat. §349.16):
 - Septic hauler if needed due to health reasons, route minimizes road impact, load is a direct haul pumping to disposal site (Wis. Stat. §349.16(3)(b));
 - Utility if acting in response to a service interruption for furnishing heat, light, power, or water to its members (public utility, telecommunication provider, cooperative association) (Wis. Stat. §349.16(3)(c));
 - Propane hauler if less than 30,000 lbs. for single axle or 44,000 lbs. for tandem axle AND tank reads less than 50%; still must deliver at opportune timing for road conditions. (Wis. Stat. §349.16(3)(d));

Permit Application Information

Permit requests are accepted during normal CCHD office hours:

Winter: Monday – Friday, 8:00 a.m. to 4:30 p.m. from October thru March

Summer: Monday – Friday 6:00 a.m. to 4:00 p.m. from April thru November

Permits must be submitted a minimum of 48 business hours prior to need, excepting; emergency needs which by their nature require more rapid consideration (if presenting an emergency need, document as such with proper justification). CCHD will work to expedite emergency requests as much as possible. All boxes on the permit form must be completed (i.e., axle weights, spacing, route, applier, etc.) accurately upon submittal. All permits must include a contact person that is available to answer questions. Applications can be submitted in person, electronically, by mail, or by fax. CCHD will issue the permit in the same manner which it's submitted.

Permit Issuance and Timing

- Permits for moves on Saturday, Sunday, or Monday, must be received by noon on the preceding Thursday.
- Permits received after noon on Thursday may not be valid for use until Tuesday.
- Typically, permits will be issued within 48 hours of receipt of a fully completed and accurate application.
- Failure of an operator of an OSOW vehicle to have a permit in his or her possession shall constitute a violation of the ordinance and permit coverage would not apply.

Applicant Responsibilities

Applicant is responsible for reviewing, planning, and addressing the following minimal items:

- Plan and review haul routes to identify bridge crossings, box culvert crossings, ability to make corners, special traffic control needs, and any other concerns that exist along the proposed haul route(s). For routes that are not on the County Trunk Highway System, the applicant shall contact the local municipalities including, if need be; WisDOT.
- Notify CCHD of any signs or other traffic control devices that might be impacted. Any signs that need to be relocated or removed will be completed by CCHD. Costs associated with sign removal and/or re-installation of the signs are the applicant's responsibility.
- Permit fees may be billed to the applicant monthly. Failure to pay the previous month's bill results in the withholding of additional permits and may require payment with all new permit requests.
- Identify any or all utility conflicts ahead of time and provide documentation supporting that conflicts have been coordinated with the impacted utility and resolved.
- In some cases, an escort vehicle may be required. Decision will be made on a permit-by-permit basis. If required, it will be applicant's responsibility to provide the escort vehicle.

Applicant Insurance Requirements

Applicant must provide a certificate of insurance. The certificate will be verified if the permit is to a private party. The applicant must have the following insurance coverage:

- Worker's Compensation & Employer's Liability: Statutory
- Contractor's General Liability:
 - Aggregate: \$2,000,000
 - Products Completed: \$2,000,000
 - Personal & Advertising Injury: \$2,000,000
- Automobile Liability: \$1,000,000
- Umbrella or Excess Liability: \$1,000,000
- Contractor's Pollution Liability (if applies): \$2,000,000
- Contractor's Professional Liability (if applies): \$2,000,000
- County shall be listed as "Additional Insured" on Contractor's commercial general liability, automobile liability, and umbrella or excess.

Non-Compliance

Applicants who do not comply with these requirements are subject to a penalty and may be denied future permits. CCHD may also refer the issue to the appropriate agency for further investigation which could result in additional fines and/or restrictions against the applicant. The applicant will also be responsible for any repair costs for any damage resulting from illegal hauling.

SURFACE WATERS AND DRAINAGE

Prior to statehood, in 1787, Wisconsin was a part of the “Northwest Territory”. The Treaty of the same name provided that all the navigable waters leading into the Mississippi and St. Lawrence Rivers and the carrying places between them would be “common highways” and forever free. Within the Wisconsin Enabling Act of 1846, the Northwest Territory language was adopted, and the people were allowed to form a constitution and State government. Within the Wisconsin Constitution Article IX, Section 1, the Public Trust Doctrine (as it has become known) ensured that the navigable waters of Wisconsin are public and are held in trust by the State to protect the public’s right to those waters. Following a series of Supreme Court cases in from 1868 up to 1911, the Court interpreted that a river is a highway if it can float the “products of the country, such as saw-logs or rafts of lumber” and if regularly recurring water levels “continue a sufficient length of time to make a waterway useful as a highway”. The “Saw-log Test”, as it became known, became the standard by which navigability of a waterway was determined. In 1911 State Statute, recreation use became a purpose as “all rivers meandered or non-meandered, which are navigable in fact for any purpose whatsoever...”. Again, the Supreme Court, this time in 1952, extended that “any stream is ‘navigable in fact’ which is capable of floating any boat, skiff, or canoe of the shallowest draft used for recreation purposes” and that the State has a duty to appear on behalf of the public.

Rivers, lakes, streams and a variety of other drainage structures can meet these conditions and may fall within Wisconsin Department of Natural Resources (WDNR) authority. CCHD works closely with WDNR liaisons on a routine basis whenever highway activities take us into or near waterways. Often times, CCHD work is merely replacing what already exists or an “in-kind” activity. Most “in-kind” activities fall within the guidelines of a WDNR General Permit which is a simpler application and approval process then starting a water crossing from scratch. CCHD will follow the “in-kind” replacement process in most cases where there are no documented past waterway concerns or where the existing (albeit failed or failing) structures are being replaced. Bridge replacements, in most cases, require a hydraulic analysis and more involved permitting process by their general nature.

Similarly, drainage of storm water (run-off, field tiles, etc.) in Wisconsin has both common law restrictions as well as regulatory restrictions. If drainage activities affect navigable waters or involve dredging of non-navigable streams, it may be subject to regulatory control of the WDNR. If drainage activities involve wetlands, it may be subject to wetland regulations of the US Army Corp of Engineers (USACE), WDNR, and/or local authorities. Many early water drains are private or a voluntarily cooperative effort. Some drains are organized as a Drainage District under Wisconsin Statute Chapter 88; in which case, regulation comes from County Drainage Boards, the Department of Agriculture, Trade, and Consumer Protection (DATCP), and in some cases from Town Boards or Sanitary Districts.

Prior to 1974, most diffused surface water (rains, springs, or melt waters that lie or flow on the surface of the earth) was viewed as a “common enemy” which could be discharged by private landowners with virtual impunity. Court case(s) in the early 1970s adopted the concept of reasonable use. For drainage, this means that persons can drain or direct diffused surface water on to another person’s land unless such drainage is “unreasonable”. Unreasonable is generally understood to mean:

- There is intentional invasion of another’s land AND either;

- The gravity of the harm caused by the discharge outweighs the utility of the conduct causing the discharge; OR
- The harm caused by the discharge is substantial and the financial burden of compensation for the harm does not render the conduct causing the discharge to become infeasible (for example, compensating for the harm would not put the discharger out of business).

Thus, there is a different presumption and nature of inquiry than had existed under the “common enemy” doctrine of previous years.

Drainage Work in Right-Of-Way, County Right-of-Way Permit Required

County roads generally run county line to county line or municipal region to region and often will cross several drains, drainage districts, streams, lakes, or other bodies of water. However, ROW is dedicated for the safe, mobility of the travelling public and is typically a narrow strip of land which makes it challenging and difficult to accommodate the drainage of large land tracts. Drainageways that abut road ROW need to be constructed and maintained in a certain methodology to protect the travelling public and errant vehicles. Steeply pitching, deep drainage ways are detrimental to safe roads. Furthermore, consistently wet side slopes can compromise the road structural integrity and lead to shoulder drop-off, busted pavement, or fore slope failures. Similar in that a County may:

- not being able to impede flow of a drainage way; and
- be consistent with sound engineering principles.

A private landowner must maintain drainage in order to protect upstream and/or downstream highway damage from occurring (Wis. Stat. §88.87(3)). Furthermore, CCHD has legal authority to enter private property and remove an obstruction if damage to the roadway is occurring or has occurred (Wis. Stat. §88.87(3)(c)). Any drainage work that occurs within the County Road ROW is required to obtain a ROW permit from CCHD prior to any work taking place.



Illegal Drainage Onto Roadway



Illegal Drainage in Right-of-Way

All drainage work within the County ROW requires a permit from CCHD (CCOrd 9.07(3)). There is a preference for drainage structures to remain outside of the right-of-way and water discharges to be limited in extent with the right-of-way. Creation of roadside ditches, enlarging roadside ditches, or saturating roadside ditches with farm tile or field drainage water cannot be allowed. This practice saturates the road sub-base materials and jeopardizes the long-term condition and cost to maintain the roadway. Further, these structures may, over time, alter the condition and use of the roadside ditch which can exacerbate CCHD reconstruction activity at a future point in time. Typically, the drainage area associated with the drain can encompass 100s or even 1,000s of acres of agricultural land. It seems there would be ample availability within those site(s) to accommodate surface water quality, treatment, and transport methods.



Unacceptable Installation

Drainage Districts

For Drainage Districts where CCHD crosses a defined district, CCHD will provide a plan of action prior to work taking place and will coordinate efforts for a successful project. Columbia County has nine (9) Drainage Districts across the County.

- District #10 in Town of Lewiston
- District #16 in Town of Hampden
- District #23 in Town of Courtland
- District #30 in Town of Hampden
- Blaen Y Cae District in Town of Randolph
- Leech Creek District in Town of Caledonia
- Lewiston District in Town of Lewiston
- Lower Baraboo River District in Town of Caledonia
- Newport/Lewiston District in Town of Newport

Drains cannot just be expanded, connected to Districts, traverse neighboring properties, or cross roadways or ROW, without following proper procedural or statutory requirements. Private drains cannot be connected to a District drain and private drains in a District cannot be extended without approval of the District (Wis. Stat. §88.92).

Private Drainage Disputes

For neighboring owner disputes over drainage and water disposal, landowners wishing to install a drain on not more than 80 acres can present a petition to the town supervisors for the town in which the land is on (if there is no Drainage District) and the town shall have a hearing to assist with resolution of the dispute (Wis. Stat. §88.94).

TRAFFIC SAFETY

Columbia County Board appoints a nine (9) member Traffic Safety Commission (TSC) in accordance with State Statutes (§83.013). This Commission generally meets at the County Law Enforcement Center (sheriff's office) in Portage on a quarterly basis to review traffic accident data and other traffic safety related matters. The Commission is advisory to the Sheriff's Department, Highway & Transportation Department, as well as Towns, Villages, and Cities within the County. The Commission also communicates concerns on the state road system with WisDOT. This may include, but is not limited to; traffic accident reviews, speed limit considerations and requests, school bus warning signage, special needs signage needs (deaf, blind, autistic, etc.) and associated requests.

Signage Requests

Signage location adjustment requests and signage type requests may be submitted to CCHD or CCTSC. CCHD will review the specifics of the signage request and compare the request with the required guidelines or standards that are in place. Signage type and placement locations are determined by CCHD and the MUTCD based on standard and engineering judgement. Signage need is determined in a variety of ways.

- **Regulatory Signage (not speed limit)** are determined through implementation of engineering guidelines, MUTCD manuals, and the specifics of the need. These signs are not changed or altered based on personal preference.
- **School Bus Advance Signage** need and location are based on the amount of visibility present for the location of concern. Vehicle speed and stopping distance are considered for each respective school bus stop request as well as vehicle height and horizontal and vertical displacement. Decisions are made by CCHD based on degree of visibility that is present at the location and consideration of documentation of the need.
- **Special Needs Signage** (blind, deaf, autistic, watch for children) is based on the location, roadway characteristics (traffic ADT, speed), available alternative methods, duration of need, and other similar variables. TSC input is considered by CCHD for the final decision of granting or denying the request. Signs are installed in accordance with MUTCD recommendations.

Speed Limit or Speed Zone Requests

Speed zone requests can be submitted to either CCHD or Sheriff's office. Requests need to be submitted in writing or electronic format with the specifics of what the concern is, days of the concern, specific locations of the concern, and any other information deemed pertinent. TSC will review the request with a recommendation for future action (if any).

Wisconsin Statute (§346.57) establishes base level speed limits for roads within the State as well as setting Local Government Authority (§349.11) for the adjustment of those levels. For rural County and Town roads that are outside of an urban area, speed limits are regulated to be 55 miles per hour (mph). The Local Government Authority has discretion to lower those speeds by 10 mph or less. Any speed adjustment of more than 10 mph is required to be considered only after completion of an Engineering Study. An Engineering Study generally looks at a variety of factors including, but not limited to; traffic counts, road geometrics (vertical and horizontal), curve design, corridor design speed, accident volume, accident frequency, accident severity, travel lane characteristics, shoulder characteristics, and additional features. Commonly, a speed study will be conducted by CCHD to determine traffic count, hourly totals,

vehicle speeds, 85th percentile speeds, peak traffic, and several other speed related conditions. Results of the speed study are entered into the engineering study and a recommendation is made to the TSC. The TSC will review the request, evaluate the information, review the reports, and make recommendations to CCHD or Sheriff to include, but not be limited to;

- Take no action,
- Review signage and zone placement,
- Educate public (warning display boards, signage, etc.),
- Increase enforcement,
- Target enforcement,
- Change speed limit.

For speed change request, CCHD will consider the financial impact of the request. The TSC recommendation is presented to the Highway Committee along with the financial impact, Engineering Study, and Speed Study for their consideration. Columbia Highway Committee has the final determination for whether a speed limit or speed zone is created, adjusted, or removed. Upon Highway Committee adjustment, CCHD will adjust the County Ordinance (CCOrd. §9.08) to reflect their decision. Highway Committee and County Board will both need to adopt any ordinance changes for speed limits to be adjusted on CTH. Speed limit additions, adjustments, or changes take place upon the approval of County Board, publication of the speed limit change, and the posting of the new speed regulation.

At Grade Railroad Crossings

Signalization for railroad crossings that are at grade with the roadway is determined by the respective railroad as well as the Wisconsin State Office of the Commissioner of Railroads (OCR). Columbia County has three (3) active railroads within the County including; Canadian Pacific (CP) paralleling STH 16 from Wisconsin Dells thru Columbus; Union Pacific (UP) operating diagonally thru the towns of Scott, Randolph, and Courtland from Green Lake County over to Dodge County; and Wisconsin Southern (WSOR) which operates several local lines near Portage, Poynette, and Arlington in the towns of Arlington, Dekorra, and Pacific.

Local maintenance authorities are authorized to determine the need for public safety on rural at-grade railroad crossings and can establish “Stop” conditions for unsigned, unsignalized crossings (Wis. Stat. §349.085). Upon identifying need, CCHD can determine a rural “Stop” condition is warranted, add the location to County Ordinance (CCOrd. §9.09), have ordinance approved by Highway Committee and County Board, install signage to complete the requirement. Generally, these locations are reviewed with TSC from time to time and as need arises.

Intersections

Intersection crashes on CTH are reviewed annually by CCHD and quarterly by TSC. Intersections found to develop a pattern of crashes or have a severity of crash injuries or death involving failure to yield at a sign-controlled intersection are reviewed by both CCHD and TSC as well. Those reviews can include;

- Visibility of approach from all directions,
- Location of existing signage,
- Conformity of existing condition(s) to MUTCD,
- Condition of signage,

- Road condition (bare, dry, ice, rain, weather, rutting, potholes, etc.).

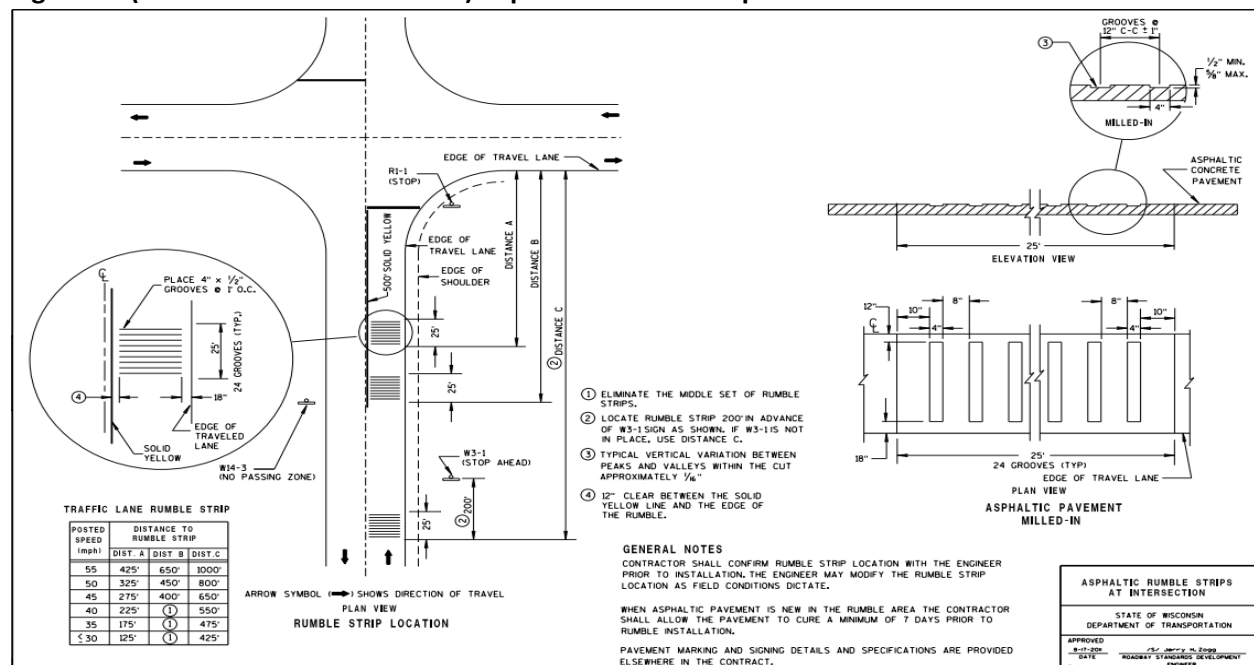
Crash reports are reviewed to determine what caused the crash and was it related to either a failure to yield or a failure to stop.

Based on the review of the intersection, crash reports, traffic study information, and other institutional knowledge, TSC may recommend that CCHD implement several different countermeasures such as:

- Relocation of signs (avoid visual clutter, improve visibility, make sign more prominent, avoid signage blending into background or environment),
- Installing flag devices to Stop or Advance Stop Warning sign(s),
- Convert intersection to four-way intersection or reduce approaching highway speeds (if warranted by traffic data or study),
- Install double advance stop warning signs and double stop signs in the intersection from the direction of travel for the accident(s) of concern,
- Install permanent rumble strips.

Rumble strips can be an effective means of alerting the public of an upcoming hazard when other means fail to achieve reductions in accidents or severity of accidents. To be effective, rumble strip implementation should be used in unusually hazardous locations. Rumble strips will be installed in accordance with WisDOT Standard Detail Drawing recommendations from the WisDOT Facility Design Manual based on roadway type and speed conditions. Rumble strips are milled into the asphalt road surface and maintained in such a manner as to preserve its presence and use. For CCHD surface replacement or improvement projects, existing rumble strips that are removed will be replaced at the most recent standard requirements.

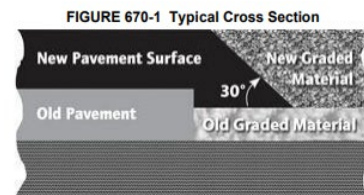
Figure 19 (credit WisDOT SDD 13A8-1) Asphaltic Rumble Strips at Intersection



Lane Departures

Lane departures occur when a vehicle leaves the lane of the roadway that it is travelling in and either 1) crosses the centerline or 2) crosses the shoulder. Both types of departure have their own specific and serious concerns related to accidents. Centerline crashes can often be severe due to the potential for high rates of speed involved between the colliding vehicles in addition to their head-on nature. Off roadway crashes can be dangerous if occurring in areas of clear zone issues or steep terrain. Lane departures have limited low-cost countermeasure options and high-cost options are restricted by budget and financial conditions. When examining solutions to lane departure occurrences, CCHD and TSC consider the following options for implementation:

- Wider lane markings (6" wide paint lines versus standard 4"),
- Install safety edge on paving machine to provide an angular edge of pavement profile versus the more traditional vertical pavement edge (reduce wheel "catch" when drivers attempt to recover from the travel lane run-off),
- Install rumble strips (generally high-volume roadways with limited residential density),
- Routine annual shoulder grading and maintenance to limit pavement "drop-offs",
- Add signage for curve sections (curve or chevron).



Vertical or horizontal re-alignment or engineering solutions are generally not employed due to their cost prohibitive basis and the competition for replacement funds.

Guardrail

Guardrail is a safety countermeasure device used to deter run-off accidents. Guardrail is installed to current industrial standards for differing road situations and conditions. Traditional forms are "W" shaped and most recent what is termed as "thrie-beam". Both styles are a galvanized steel construction typically fastened to wood posts and occasionally attached to short-galvanized metal posts. Ends are constructed such that they will collapse or divert away from the vehicle hitting them. Rails are set up to divert vehicle parallel to the roadway and away from the protected situation (vertical drop, power pole, etc.) such that the driver can either safely return to the road or vehicle can come to a safe and complete stop. CCHD installs guardrail at locations around the County based on several different functions:

- Clear zone has encroachment(s) or other safety concern (vertical drops) within a prescribed minimal distance of existing pavement which can cause a significant hardship to road users.
- Locations of repeated roadway departures and where countermeasure consideration makes sense according to standards and cost benefits.
- Other countermeasures are not effective for the issue of concern thus, guardrail is a priority countermeasure to consider.

TRAFFIC SIGNAGE

Roadway signs were standardized in 1935 when the U. S. government implemented the Manual of Uniform Traffic Control Devices (MUTCD). Since that time and about every 15 years or so, the MUTCD has been updated for newer standards and social changes. Signs can come in a variety of sizes, shape, color, and wording or symbol usage to convey messages related to traffic guidance. Columbia road signage is inventoried, monitored, and controlled by CCHD in accordance with guidelines established by the Federal Manual of Uniform Traffic Control Devices (MUTCD) and the applicable modifications as per the Wisconsin Supplement. Sign reflectivity standards are addressed within the MUTCD along with various other requirements for standard lettering, symbols, color specifications, size, type, placement, etc. Dimension drawings for signs can be found in the Standard Highway Signs book.



Regulatory Signs

Typically, white in color for a background with words or symbols in black or red, these signs will convey a message of importance or governance. Signs are related to regulatory conditions or enforcement requirements such as; “speed limit”, “yield”, “no left turn”, “no right turn”, etc. The most important or urgent regulatory sign(s) contain a red background with white lettering or symbols, for example; “stop”, “do not enter”, “wrong way”, etc. These signs are typically; circular (railroad crossing), rectangular (speed), square (load limit posting), octagonal (stop), or triangular (yield) in shape.

Warning Signs

Yellow signs, normally with black letters or symbols, are an indicator of caution a condition is approaching that requires your undivided attention. These signs can come in a variety of shapes and sizes and are used to convey a message or “warning”. They are usually diamond shaped (reduce speed), however; they can be rectangular (curve arrow), square (chevron), circular (railroad advance notice).

Guide Signs

Permitted traffic movement or directional guidance signage is needed to convey a message for a destination. Typically, these signs are green backing in color with white lettering. Usually seen on large multi-lane highways and used to provide directions or information related to an upcoming destination. Guidance signs can also be orange (construction), coral (traffic incident management), brown (public recreation or cultural interest), and blue (road user services, tourist information, and evacuation routes).

Temporary Traffic Control

Within the Department Safety Manual, CCHD follows industry standards and recommendations for Temporary Traffic Control which adhere to FHWA MUTCD, Wisconsin supplemental MUTCD, the 2021 Wisconsin DOT Work Zone Field Manual, and CCHD Safety Manual. MUTCD guidance and guidelines are followed for the County Trunk, Town Road, and local roads system(s) and the WisDOT Work Zone Field Manual is followed for work on State and Federal roads within the County. CCHD has several different industry standard layout designs for applicable roadways; in unusual conditions or not well-defined situations, CCHD will combine layouts or develop their own to meet a particular condition, situation, incident, work zone, location, or concern. CCHD work zone areas will comply with the requirements of the Department manual(s) and will be designed to meet the requirements of the guidance books and industrial standard.

Traffic Incident Management

Accident response by its nature is an emergency condition where time is of the essence and therefore normal traffic control requirements will not apply. CCHD participates and trains extensively on traffic control response for accidental or traffic incident response. These responses adhere to standards and requirements of the WisDOT Emergency Traffic Control and Scene Management Guidelines. This program was established within Wisconsin to provide incident responders with a uniform Wisconsin Approach to emergency traffic control and scene management. The equipment and devices for those short duration events can differ from Traffic Control devices for other CCHD projects and responses.

Tourism Oriented-Directional Signage (TODs)

TOD signage is usually white lettering included on a blue background. These signs are allowed in consideration of the tourism, recreation, and economic value to connect traveling motorists with various tourist destination opportunities in the County. TODs signs serve business service, activity groups or organizations that fit the following general areas:

- Gas (vehicle services with public restroom),
- Food (supper club, country club, restaurant),
- Lodging (hotel, motel, cabin, resort, cottage),
- Camping (campground, recreational vehicle park, religious camp, youth camp),
- Tourist attractions (antique shop, amusement shop, bait shop, museum, zoo, athletic facility, horseback riding, shooting range, ski trail, nature trail, conservation area, church, theatre, agricultural station, art center, etc.).

Signs require a permit and are considered based on application submittal, request from the business owner or operator, and subject to CCHD approval. Application fee is \$400 per location and includes the cost, installation, and ten (10) year maintenance of the sign.

Miscellaneous Signs

Any signs along roadways pose a potential traffic safety and/or “clear zone” hazard including, but not limited to; political, campaign, for sale, auction, rummage, missing, or similar in nature personal signage. Improperly placed signs can:

- Obstruct a motorist’s view,
- Distract a driver’s attention,
- Compound damages or injuries in the event of a crash,
- Endanger the safety of individuals who are erecting signs along busy highways,
- Endanger the safety of emergency responders, or
- Present obstacles to crews who maintain (mow, brush, spray) roadways.

Political/campaign signs, especially larger billboard-type signs, are particularly dangerous when placed in vision areas at intersections. Wisconsin Statute (§86.19) **does** provide for a \$10 to \$100 fine for signs that violate the law. Wisconsin Administrative Rule Trans 201.16-Political Signs and the WisDOT web site (political sign area) provide political sign and other miscellaneous sign information:

<http://legis.wisconsin.gov/statutes/Stat0086.pdf>

<http://legis.wisconsin.gov/rsb/code/trans/trans201.pdf>

<http://dot.wisconsin.gov/business/rules/property-signs-political.htm>

Typically, CCHD will remove political signs found and encountered within highway right of way; especially if the sign(s) pose a safety hazard. The Highway Department will make reasonable effort to preserve

campaign signs that are taken down and provide campaign offices an opportunity to claim the signs up to and including 5 days after the respective election or event (they can be gathered by contacting the Wyocena Highway Dispatch office). CCHD works to mirror guidelines noted for state highways regarding the placement of political signs along highways located on the web at:

<http://www.dot.wisconsin.gov/business/rules/property-signs-political.htm>

In rare circumstances, non-traffic signage may be allowed and permitted to exist within road right-of-way such as Tourism Oriented-Directional Signage (TODs). Signs placed along rural roads and located outside of the ROW, are regulated by the Columbia County Planning & Zoning Department or WisDOT.

Real Estate Signs

Columbia County zoning does allow some temporary, “on” and “off” premises signage; conditional that the property owner where the sign is placed has approved its placement. Highway recognizes that some signs are beneficial in terms of easily identifying locations for certain types of property, usually on a temporary basis. Those signs that are allowed by the Zoning department are generally allowed in the right-of-way provided they are:

- Temporary basis or short-term in nature (generally less than a few weeks),
- Property owner has allowed for the sign placement on the property,
- Signs meet all the requirements of County Ordinances (zoning and highway),
- Signs are minimal in size and ideal in location, so as, not to block or obstruct vision of sign, roadway, shoulder, or other driver vision concerns.

Local Municipal

Signs on CTH that are desired by a local municipality within the municipal jurisdictional are still regulated by CCHD. The Local municipality needs to apply for and receive a right-of-way permit for the type, location, and need of the sign. Regulatory and some advance warning signs are placed, maintained, and controlled by CCHD. Alternate locations and signs may be requested as determined by CCHD.

Pavement Marking

CCHD routinely refreshes traffic markings on pavement annually. Locations for painting are different every year as CCHD deploys a two-year rotation on road striping.

Paint is applied to the roadway surface to assist drivers with proper vehicle placement with the travel lane; either 1) white paint for edge line (or fog line or 2) yellow for centerline paint are used. In rare situations, black or dark grey may be used to temporarily hide a contradictory marking (in construction zones, mostly). Fog lines or edge lines are with a solid stripe, returning or breaking in intersection areas. Centerlines are painted either solid (for no-passing zones) or with a dash line (for passing zone locations). Passing and no-passing zones generally do not change from year to year. Sometimes adjustments are made during large-scale construction or resurfacing projects, however.



Paint Crew Advanced Signage

Paint crews travel at slower speeds (between 7 and 10 mph) in a “mobile operation” with multiple vehicles or a caravan. Frequent stopping, backing, turning and other truck movements can occur with minimal advance notice. In the paint process, vehicles need to move steady, with prepared action as to maximize visibility and quality of the work and minimize errors.

CCHD uses a multiple-vehicle convoy and deploys traffic control signage and warning devices for paint crew in accordance with MUTCD and WisDOT standards (depending upon the roadway). Vehicles are clearly marked “WET PAINT” being aided by additional signage, advance signage, flashing arrows, and lights. Traffic cones will frequent the lines being painted especially at the beginning of the work zone and at crossroads or intersections within the zone. However, if drivers

- get too close to the equipment, or
- try to pass or move ahead of the operation

the freshly placed paint will track onto the roadway or vehicle and wet paint can also splatter onto their vehicle (or passing vehicles). With clearly marked work zones, CCHD is NOT responsible for any paint that may track, spray, or splatter onto passing vehicles.



Wet Paint Signage

The paint used is a high-grade water-based mixture; meaning it is soluble in water. Typically, the paint will dry or set to non-tracking conditions within about 3 minutes of application for most days. Moisture and humidity can impact paint cure times so consider those weather conditions when encountering roadway paint crews during the summer when painting is occurring. Cloudy, damp, foggy, cold days will require more paint cure time than bright, sunny, dry days will.

Manufacturers of paint used by CCHD, have some general guidelines for how to remove or minimize the impact from driving through highway paint. However, if utilizing, the vehicle manufacturer instructions or recommendations or warnings will take precedence over any recommendations that are made here. Wet paint should be removed as soon as possible from the vehicle. Methods for paint removal will vary based on the condition that the paint and vehicle are in.

1. For wet, tacky, or not completely hardened paint (generally less than 24 hrs. old):
 - a. Pressure wash the vehicle as soon as possible (loosens and removes most).
 - b. Allow the rinse water to dry (do not rub or dry with towel).
 - c. Spray any residual paint with WD-40 and allow to remain for 1 – 2 hours.
 - d. Re-wash and rinse the vehicle again.
 - e. WD-40 will soften traffic paint without harming vehicle finishes. If there is a heavy concentration of traffic paint residue, repeat the WD-40 process.
2. For heavy accumulation or dried (hardened) paint conditions:
 - a. Apply a liberal coating of Vaseline to the dried paint areas and allow to remain overnight.
 - b. The following day, pressure wash the vehicle to remove Vaseline and errant paint.
 - c. If paint is resistant and still showing, repeat the above process another time.

3. CAUTIONS:

- a. After successfully removing paint via either of above processes, apply a quality car wax to the car finish at locations of the errant paint. Wax should remove any lingering signs of the paint on the finish.
- b. DO NOT scrub car finish with a solvent or scouring cleanser. Both will damage the finish of your vehicle.
- c. Wheel wells are very difficult to remove paint from since they are normally not a smooth surface.
 - i. Apply a liberal coating of Vaseline to the area(s) and allow to remain in place for several days.
 - ii. Pressure washing should, again, remove the paint in this area as well.
 - iii. Applying rubbing alcohol in the wheel well area may help to soften remaining residue. Again, DO NOT scrub the surface, apply with a wet rag or sponge.

4. ALTERNATE CONSIDERATIONS from paint manufacturers:

- a. Mix 1 cup of ammonia per gallon of hot water and dish soap. Area may need to be soaked multiple times until paint softens and can be wiped clean and rinsed.
 - b. Or use a citrus based cleaner from any auto parts store. Spray on per instructions and wipe it off with a soft rag or sponge. Be sure manufacturer use states that it is acceptable for your vehicles finish.
5. Consult manufacturers cleaning product specifications and recommendations prior to any use.

ROADWAY CONSTRUCTION AND MAINTENANCE MANAGEMENT

Roadway surface replacement, pavement condition prolongment, bridge replacement, and large culvert replacement are the largest, most expensive investments that CCHD undertakes. Maintaining these travel resources involves a series of complex decisions about how and when to conduct maintenance or construction activities and treatments to maintain the roadway performance at acceptable levels and costs at reasonable margins while striving to attain Good, Safe Roads. Doing so is conducted through CCHD's process of Pavement management and Bridge Management.

Decisions are made every day and at every level of CCHD related to travel lane surface condition, shoulders, performance, longevity, and a host of other factors that determine end costs for maintaining and replacing the roads of the County.

PAVEMENT MANAGEMENT

Pavement surface conditions are a factor of origination (design and initial construction quality), time, weather, traffic load, traffic volume, maintenance effort, drainage, amongst other things. Based on those variables and other factors, road surfaces have a life cycle. General industry practice is that asphalt surfaces have a life-cycle length of approximately 30 years. With a variety of well-timed, sometimes expensive intermediary treatments, pavement life can be extended for a period. Amount of extension time is based on the type of treatment, timing, quality, weather, and other factors inherent geographically, topographically, and structurally.

Figure 18 (credit UW-TIC PASER Manual): Asphalt Surface Life Cycle Graph



In addition to indicating the surface condition of a road, a given rating also includes a recommendation for needed maintenance or repair. This feature of the rating system facilitates its use and enhances its value as a tool in ongoing road maintenance.

RATINGS ARE RELATED TO NEEDED MAINTENANCE OR REPAIR

Rating 9 & 10	No maintenance required
Rating 8	Little or no maintenance
Rating 7	Routine maintenance, cracksealing and minor patching
Rating 5 & 6	Preservative treatments (sealcoating)
Rating 3 & 4	Structural improvement and leveling (overlay or recycling)
Rating 1 & 2	Reconstruction

With 356 miles of roadway, CCHD needs to replace about 12 miles of road surface per year to meet the industry practice. Current budget funding allows for a replacement cycle of about 8 miles, on average from 2012 – 2022, which translates to a 45 year surface replacement cycle. To accomplish that task, CCHD establishes a Pavement Management approach which consists of major components:

- Routinely collect pavement surface condition data,
- Track and monitor asphalt surface thickness,
- Store and sort data within a computer database,
- Monitor and analyze traffic crash data,
- Evaluate preservation, repair, and replacement strategies.

All of these are tracked and considered to identify cost-effective solutions for maintaining CTH roads. Information from this system provides an effective way to achieve performance while minimizing cost by providing valuable information to decision-makers on how and when to make roadway pavement repairs. The purpose is to maximize pavement life while minimizing maintenance costs of the roadways.

PASER

Pavement Surface Evaluation and Rating (PASER) is a group of visual and measurable scoring determination methods used to equate road surface conditions to a 10-point scale, with 1 being the lowest condition and 10 being the best condition (new or nearly new pavement). Methods are slightly different for differing road surface types, for example, asphalt, concrete, sealcoat, or gravel. The scale is gradient based on surface type with asphalt and concrete graded 1 - 10 while sealcoat and gravel are graded 1 - 5. Within the road surface life then, each respective level of rating is associated with an approximation for life of that rating (a life cycle). A summary of anticipated life per scale level with a summary of surface condition follows:

PASER	Life @ Scale	Condition
10	0.99 yrs.	New mat, no maintenance needed
9	0.99	New mat, no maintenance needed
8	2.94	Widely spaced cracks, sealcoat, new cold mix
7	3.85	Tight cracks, widely spaced transverse or longitudinal
6	2.94	Slight raveling, flushing, < 10 ft apart
5	1.96	Block cracks, raveling, flushing, patches
4	2.7	Slight rutting, extensive block cracking, raveling
3	2.94	Many cracks, 2" deep ruts
2	4.76	Severe distortion (gator cracks, ruts)
1	5.36	<u>Failed section</u>
29.43 yrs. total.		

Analysis

Different surface treatments, applied at the optimum point in the road life, may extend the over-all life cycle for the road by either, increasing the PASER score (improving the surface) or by extending the life @ scale (retaining the current score for a longer period). Choosing the right treatment for the right road at the right time has a lot of variables to be considered:

- Road surface, road sub-base, shoulder conditions (rutting, potholes, raveling, etc.).
- Clear zone, fore slope and back slope, guardrail, signage conditions.
- Drainage, bridges or culverts, ditch conditions.
- Traffic volume (ADT), accident history, traffic use (car, truck, farmer, etc.), traffic patterns.
- History of treatments or maintenance on the roadway.
- Other potential work coming up in the area (other state or town road work).

PASER ratings, collected biennially, are submitted to WisDOT and stored in an internet-accessible database called the Wisconsin Information System for Local Roads (WISLR). WISLR also has a computer program which will review all the factors within the database of road segments and provide recommended treatment and timing methods for several segments in the database (some segment conditions may rate as no treatment necessary). Data and recommendations from WISLR are reviewed by CCHD and a list of recommendations is created shortly after submission to WISLR. This revised look is then compared to the CCHD 10-year plan and adjustments are made. Even with this volumetric view, sometimes road repairs are determined by the type of road (arterial, collector, local) and availability of funding sources (levy, state grants, federal grants, other options).

An important aspect of choosing a treatment relates to the cost of improvement. Methods conducted earlier in pavement life generally are less expensive to conduct. Some roads are past the timing for certain treatments. In addition, if the pavement surface is too thick, it cannot be a candidate for an overlay as too much asphalt thickness is non-conductive to some of the popular, less expensive surface replacement methods. For example, for full-depth pulverization, the maximum penetration depth is around 10". Thus, there is limited long term benefit to overlaying a road once the surface thickness exceeds about 7". Based on CCHD historical costs, based on 2022 expense levels, treatment costs for different re-surfacing options will vary:

<u>Treatment</u>	<u>\$ per Mile Range (average)</u>
• Crackfilling	\$10,000 – \$25,000
• Sealcoat	\$17,500
• Asphalt Overlay (2")	\$85,000
• Road pulverization and resurface	\$150,000 to \$250,000
• Road milling and resurface	\$200,000 to \$300,000
• Road reconstruction (design-let process)	\$500,000 to \$1,000,000

The key to a cost effective and efficient evaluation program lies in identifying different types of pavement distress and linking them to a cause. Understanding the cause of current conditions and the potential for outcome with any proposed treatment method are extremely important in selecting an appropriate maintenance or rehabilitation technique. Sometimes the answer is to slowly allow the road to deteriorate to the point of replacement (from the chart above that can take years).

CCHD monitors several variables related to road condition when determining maintenance and construction treatments including, but not limited to; pavement thickness, surface condition, traffic use, other projects in the area, construction impacts, material availability, grading crew availability, material availability, potential funding sources, road safety metrics, and others. CCHD maintains a 10-year road surface plan including; resurfacing, overlaying, seal coating, crack filling, and patching. The project list from year to year is reviewed and confirmed annually by the Highway Committee, based on need and available funding.

Ratings

CCHD conducts a complete PASER re-rating for the surface condition of all CTH roads on a biennial basis (Wis. Stat. §86.302(2)). Towns, cities, and villages within Wisconsin are required to do the same. CCHD rating procedures are direction of the Construction Manager, subject to review and confirmation of the Highway Commissioner. CCHD has in the past and will upon request; conduct this activity for any local municipality in the County. It is in the best interest for an effective program to maintain consistency in rating procedures and methods from cycle to cycle.

Figure 19 PASER Ratings Visual Guide (UW Madison Transportation Information Center)



Paser = 7



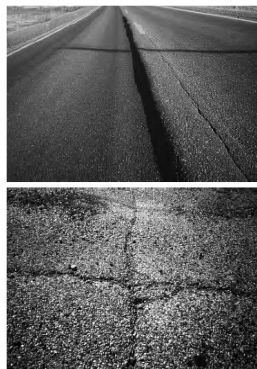
Paser = 6



Paser = 5



Paser 4



Paser = 3



Paser = 2



Paser = 1

Surface Maintenance Activities

PASER has an indirect relationship with pavement maintenance activities. Newer pavements (higher rank) need lesser levels of maintenance effort; meanwhile, older pavements (lower rank) need higher levels of maintenance. A typical road surface will require some form of maintenance about every five (5) years. Some roads require that sooner while some are longer. Most of this depends on age of surface, traffic volume, traffic type, etc. Typical Wisconsin pavement will experience extreme temperature ranges from sub-zero temperatures in long winter months to over 100-degree temperatures during peak summer months. These roads will see variable amounts of moisture types from several feet of snow to variable inches of rain, sleet, ice, mist, and fog; seeing on average about 120 days with 33" of equivalent rainfall. During the summer, there can be weeks of high humidity, above 65%. These extremes can have significant impacts on roadway conditions. To best handle these varying conditions, it is important to have a maintenance process in place. Following is a list of the most common methods employed by CCHD.

Crack Sealing

Crack sealing, the least invasive of asphalt repair methods, is the best method for early age pavement prevention maintenance. Crack sealing is, as it sounds, filling cracks with an adhesive rubberized or asphaltic material that will bond with the remaining asphalt to plug or fill in a crack. This plugging of the crack limits or eliminates water migration down in to the crack and subsequent asphalt surface or sub-surface materials. Once there, water can become susceptible to heave-thaw cycles which will exacerbate the pavement surface and increases the likely for deterioration and potholing to occur.

CCHD routinely conducts crack sealing activities on new pavements, in advance of chip seal coat operations, and when otherwise justified by its cost and placement efficiency. Generally employed at pavement temperatures above 40-degrees, crack filling is used for cracks that are wider than 1/8" in thickness and for cracks that are narrower than 1 1/2" in thickness. The technique is conducted as follows:

- Identifying cracks larger than 1/8" in width and smaller than 1 1/2" in width.
- Router cracks that fit the identification window, above. Router should be a minimum of 1/8" wide, 3/4" preferred, with a depth to 3/8" below surface or deeper.
- Routed cracks are next cleaned using compressed air blower techniques to blow as much dust and particles as possible from the crack.
- Hot lances are used when pavement temperature is below 40-degrees or where there is a lot of moisture within the pavement surface (to burn it off).
- Deploy crack filler material from the machine nozzle direct into the hole with a little amount spilling over the upper edges of the asphalt surface crack.
- Use flat squeegees to level or knock down the crack overflow of material, sealing crack surface.
- Wait enough time for crack filler to set up; then, open the area and allowing normal traffic.

Minor Patching

Minor patching includes the process of cleaning out and filling with bituminous materials, potholes in asphalt concrete pavements. This is a stop-gap maintenance in areas where asphalt is cracked and broken to the point where a hole has developed. Potholes form from severe asphalt cracking due to material deficiencies, placement issues, pavement age, traffic loading, weather, or from normal wear-and-tear. Primary purposes for minor patching are to prevent surface water infiltration into the pavement foundation and to prevent hazardous vehicular conditions due to large surface depressions. Typically, the technique is conducted as follows:

- Removal of excess water or debris from the pothole,
- Removal of cracked and loose asphalt from inside the pothole and around the edges,
- Insert bituminous patching material, level, rake, and compact to create a smooth, slightly mounded surface.



Severe Patching

In winter months and periods of cold weather, CCHD deploys patch materials with the use of "hot boxes" which are designed to heat the patch materials to a workable temperature.

CCHD deploys two (2) varieties of loose asphalt patch material; "cold patch" and "high performance". Quarry or local supplier purchased "cold patch" and "high performance" are mixtures of aggregate and bituminous material. Materials are capable of being stored in a stockpile while remaining uniform, workable, and holding satisfactory setting properties until incorporation into a road surface. Generally, "cold patch" is available and used during the warmer months as it retains its usefulness more readily than in colder environments. "High performance" patch is typically utilized during winter or colder months due to availability and workability in cold weather conditions. For the most part, aggregate sizes

can range from sand mix (100% < ¼ inch) to coarse (100% < 1 inch). Similarly, bituminous material percentages (including additives) can vary from 4% to 8% by weight. Material cost ranges from \$65 to \$80 per ton for “cold patch” and \$100 to \$115 per ton for “high performance” without including delivery or placement costs.

Dura-patching

“Dura-patching” is a machine operated patching method where the patch material is formed in the field in advance of patching. CCHD has a trailer mounted Cimline Dura-Patch machine. Device consists of a 250 gallon heated oil emulsion tank with blower, piping, and controls for pea gravel additives. Typically, employing CRS-II oil emulsion (same as some seal coating oils) which is heated to temperature (around 300-degrees). The dura-patch method requires more labor input than cold patching but not quite the crew size of crack filling. It is usually conducted with a three (3) person crew plus traffic control. Dura-patching is also employed for areas with more significant potholing or larger crack effected areas (severe block cracking or alligator cracking). Method of application includes;

- Clean and compressed air blowing of large cracks (>1 ½” in thickness) and pothole areas.
- Coat entire crack and pothole area with dura-patch oil. CRS-II is an oil emulsion which will become tacky and bond aggregates to each other and the sides of the hole.
- Spread dry, clean pea gravel throughout the opening over the areas that have been properly prepared as above to a depth of 1/3 the hole depth or about 1 ½”.
- Allow oil to “set” or cure.
- Repeat the process until the hole is filled up to the surface level; allowing about ½” heaping above the hole. Excess height will be pushed down and leveled by traffic as the patch cures out over time.
- Remember to leave excess, “clean” (non-oil covered) pea gravel over the entire area of the patch. This is done to prevent oil migration onto the road surface and passing vehicles.
- Some pea gravel migration is to be expected which is why “Loose Gravel” signs are deployed at areas of dura-patch activity.

Dura-patch provides a strong, adhesive patch which will typically last up to five (5) years depending on application location, traffic, and installation.

Lane Wedging and/or Rut Filling

Asphalt surfaces with large areas of surface deterioration or rutting can often be fixed on an interim basis with surface replacement treatments known as lane wedging when encompassing most of the travel lane width (6 ft or more in width) or by a practice known as rut filling when encompassing only the wheel path area of a travel lane (usually 2 ft to 6 ft in width).

- Rut filling is the depression of the asphalt layers by 1 ½” or more in depth. Resembling the width of a vehicle wheel at its center, rut depressions are caused by either traffic volumes or loads that are too great for the pavement design, subgrade characteristics or the age of the roadway. Depressions develop in-line with traffic flow directions usually at the width of vehicles and can run for miles in length for severe situations. Asphalt is overlaid across the defined rut area varying in thickness by the depth of the rut near the center to blending down to zero depth along the rut edges.
- Lane wedging is the application of wider asphalt overlays to an existing, deteriorated road surface conditions (asphalt, sealcoat, or gravel surfaces). Lane wedging is advantageous on low volume roads or segments where the surface pavement is raveled or deteriorated and is rough riding for larger segments (widths from 6 ft or more to, lengths of 100s of feet to miles). A thin layer of asphalt is overlaid above the existing surface usually from the centerline of the road

outwards toward the shoulder. Frequently, wedging will be used to place a crown back into the road in order to recreate positive drainage from the road surface (thus prolonging road life). Both methods are an interim gap method to repair localize problematic areas and allow the road life to be extended until larger sections of the road to fail. Methods of application typically will include;

- Mechanically sweep entire area to be covered with thin overlay HMA; removing larger and dust particles from the road surface.
- Spraying asphalt tack oil materials onto the areas to be covered with HMA.
- When tack oil sets, machine apply HMA to the areas to thin-lay overlayed for creation of the wedge. Thickness of wedges will vary from the deeper more central areas outward to the edge locations where the section matches the existing to remain surface. Depth of wedge can approach 2" of more for most severe locations.
- Roll and compact wedge areas as appropriate for the cooling temperatures of the HMA.
- Use care along match locations to prevent abrupt lips or edges from occurring due to the overlay placement.
- Allow area to cool as appropriate to standards, compacting as necessary to provide a smooth, compacted, finished surface.

Wedging and rut filling can be employed on a variety of traffic condition roadways. both are also employed on lower volume, older roadways where a chip sealcoat project is being implemented as a low-cost road extension method.

Spot Patching

Spot patching is a more control intense level of effort in relation to equipment, labor, and traffic. Typically, spot patching is employed in areas with significant amounts of congregated block cracking or alligator cracking and the depth of impact is greater (>3" +/-) or the pavement is buckling and failing (in addition to the severe cracking). Spot patching can be used in summer months and at areas where minor patching and dura-patching will be inefficient or cost prohibitive due to the size of area impacted or the level of roadway traffic is significant. Spot patching can include, but is not limited to; utility patches, culvert patches, lane patches. Activity includes:

- Lane reduction or re-direction traffic control (to allow workspace).
- Mark and sawcut surface to depth of desired patch.
 - Most cases, this will be a full depth cut of existing surface materials.
 - Upon occasion, cuts will only go to the layer level that has delaminated.

Sometimes asphalt surfaces (binder and surface) will separate due to lack of tack oil, oil failure, or other reasons. When this activity occurs, it is possible to remove the deficient upper layer, retain the lower layer and place a thin depth overlay patch.
- Remove all material that has been cut free of the surface to remain; including small pieces and broken edges.



Spot Patching (Wedging)

- Level subgrade material (typically gravel or cold mix) and compact surface smooth and level.
- Using paver machine or hand methods (depending on size of the patch), apply hot mix asphalt (HMA) materials (meeting WisDOT specifications for binder and or surface); light or medium traffic mix.
- Roll and compact asphalt insert by layers, generally not exceeding 2" in thickness. Place a minimum of 2" binder layer with 2" surface layer (unless placing only the upper layer for delaminated areas).
- Allow layered asphalt to cool to proper set temperature prior to introducing the surface layer (if conducting multi-layered patches).
- Repeat asphalt placement on subsequent layering (if needed) using either binder or surface mix HMA until surface is finished, level and smooth with surrounding surface.
- Roll, compact and allow surface to cool prior to re-opening to traffic.

Spot patching is typically conducted in warmer summer and fall months with the use of Hot Mix Asphalt materials and tack oil. Usually, spot patching will last 10 years or longer. Spot patching costs vary based on the size of the patch being installed and materials are in the range of \$45 per ton for HMA plus oil materials plus labor and equipment for preparation, installation, and traffic control.

Seal Coating and Chipseal

A sealcoat is an application of asphalt emulsion followed immediately with an aggregate cover material. Sealcoats can waterproof the surface, can provide low-severity crack sealing, can provide a smooth, durable surface for lower volume roads, and can restore surface friction. Sealcoat surfaces are relatively easy to maintain and repair, normally only requiring heat, oil emulsion, and pea gravel stone (dura-patch). A surface protected with only an emulsion oil overlay is a sealcoat. When stone materials (around 3/16" in size) are added over the top it is known as "chipseal". Sealcoat can be smooth surface finish which may be undesirable for roadway travel speeds and vehicles. Sealcoat can require hours for cure time to set up prior being able to handle traffic (usually applied in parking lot areas). Chipseal provides a protective coating over the oil which allows traffic to traverse the area quicker, limits oil migration on the roadway, shortens road downtime, and provides a friction surface finish. Primary purpose of chipseal and sealcoat is to protect the road from deterioration caused by sun and water. Both provide a waterproof membrane that helps prevent the pavement surface from becoming brittle and cracking. Also, assists to keep water from seeping through the pavement and causing problems to the base material.



Fresh Oil Sign



Oil Placement

Wisconsin County Highway Association (WCHA) and WisDOT have several Best Management Practice and Performance Based Maintenance specifications that cover common industry practices for installation of sealcoat and chipseal surfaces. CCHD utilizes those guidance documents when completing work for the state, towns, village, cities, and the county.

Chipseal and sealcoat can be performed at any time in the life of a pavement and lasts an average of five (5) to ten (10) years. Recent technical studies conducted by the State of Minnesota have recommended applying chipseal within a few years of the new pavement surface. Significant life cycle improvements were identified by chipseal earlier in the pavement life. Chipseal can be a relatively inexpensive treatment method compared to asphalt replacements (about \$18,000 per mile).



Placing Stone Chips

Slope Paving



Slope Paving Bank Behind Guardrail

Severe angular slopes can develop erosional issues. Due to the steepness of the drop, vegetation is not able to establish, and sometimes alternate solutions are not effective. To prevent ongoing erosion, to assist with low-cost maintenance, and to protect the surrounding features, slope paving can be an effective alternate. Slope paving involves the addition of HFRS sealcoat oil to an existing or recently installed gravel subgrade. Oil is installed at a heavier rate than a normal sealcoat process. After curing to the point of being easy to touch (not sticky in consistency), the sealcoat placement is deemed sufficient, and work is completed in this area. An effective solution for “holding” a moderate slope and minimizing erosional control problems. Minimal level of effort than is needed going forward since the slope cannot grow vegetation and now the sealcoat is preventing erosion.

Mill and Overlay

Several maintenance practices involve milling. Both edge and full width milling are typically 1½” to 2” thick but, can vary on a project-by-project basis. Completed milling can, after several passes, include up to full depth for the surface, even to 8” or more.

- Edge milling involves grinding old bituminous surface along the outer 8 feet of a roadway. Used to help establish a uniform cross-section or slope, especially in segments where the crown in the street is relatively flat.
- Localized milling is employed by small mechanical mills for locations adjacent to manholes, storm catch basins, water valve boxes, tie-in locations and other spots where smooth transitions are needed to fixed areas.
- Full width milling is necessary when the upper surface layer of pavement has deteriorated considerably, or width of travel lane layer separation or delamination has occurred. Significant surface pavement distresses and more extensive “thermal” cracking need to be removed and/or repaired with a full width and uniform depth milling process.

Milling creates an even surface to ensure a uniform overall thickness for a new overlay or surface. Asphalt overlays of 1½” to 2” in thickness over the entire pavement width provides a smooth surface with an established crown, renews the street surface, restores the structural capacity and proper drainage, and extends the life cycle of the original pavement. For roadways with an established crown, little drainage concerns and suitable surface, overlays can be installed without milling. Overlays cost in the range of \$80,000 per mile for CCHD, adding the milling aspect can push those projects to \$120,000 or more per mile.

Full depth milling can be used on a street that has already been reconstructed with a good base section, but the pavement has deteriorated to the point where sealcoat, chipseal, or a standard mill and overlay are not effective. A pavement section with significant cracking will end up reflecting through new pavement. The full depth mill grinds pavement completely and removes the old pavement. This may also involve some subgrade soil corrections and some removal of aggregate base material if it becomes contaminated or is sub-standard. The street gets paved with the same thickness of new asphalt as what existed prior. Full depth milling can be risky if the subgrade gravel has a lot of fracturing or cracking. The new surface can reflect those subbase cracks in a shorter period, thus, shortening pavement life. Full depth milling and resurfacing costs can vary between \$120,000 and \$175,000 per mile.



New Asphalt on CTH 55

Pavement can also be reclaimed, where approximately 8” of the existing asphalt and base are ground up, re-laid, and recompact in place. This forms a new more stable base without adding new material. The road is then paved with new asphalt. This is only recommended where there is no curb and gutter on the road since the existing materials stay in place and a higher road elevation is created once the new pavement thickness is added. Generally, this method is more expensive than pulverization with little differences in final pavement height.

Asphalt Pulverization

Asphalt pulverization is the process of breaking up the existing pavement and blending it in to the existing base. If unsuitable sub-base thickness is present, new gravel can be installed overlying the old

asphalt surface prior to the pulverization process. The new base is re-compacted, graded and made ready for new paving. Grade modifications can be possible depending if gravel needs to be added prior to pulverization or not and based on the road corridor profile. Pulverizing is a very cost-effective way to reconstruct existing pavement if no utility repairs are necessary and minimal grade modifications are possible or necessary. Consider asphalt pulverizing for a pavement that has failed, and a mill and overlay is not a feasible option. Pulverizing is also a good alternative for reconstruction projects needing modest shoulder, fore slope, and back slope corrections without need for line or grade changes, curve corrections, or other extensive work. Pulverizing is employed frequently by CCHD, and costs vary from \$150,000 to \$250,000 per mile; depending on extensiveness of off-roadway work is necessary for the shoulders and clear zone.

Cold In-Place Recycling

Cold-In-Place Recycling (CIR) is the process of milling and crushing the existing asphalt pavement, adding foamed asphalt or asphalt emulsion, and re-laying the mixture with a paving screed. A hot or warm mix surface layer is placed over the CIR layer. CIR is considered for highways that have adequate structures to support the CIR paving equipment and significant grade corrections are not required. CCHD has not employed CIR for reasons related mainly to cost and the “right” road opportunity.

Reconstruction

Reconstruction is usually required when a road has reached the end of its life cycle. When a road is fully reconstructed, the existing asphalt and base are completely removed and replaced. Reconstruction may also involve subgrade and soil, fore slope, back slope, drainage, shoulder, profile, alignment, vertical curve, horizontal curve, and/or clear zone corrections. For roads that do not meet current design standards for width, curb and gutter, drainage, and clear zone, an upgrade may also be incorporated. Depending on the extent of work planned, CCHD tends to fund this type of project with shared State-Federal funding and project costs can approach between \$500,000 to \$1,000,000 per mile.

Shouldering Policy

Construction projects with the County typically will not include large amounts of earthwork or re-grading. Shoulder widths, therefore, are generally not increased during project undertaken by CCHD. In rare circumstances where CCHD employs State and/or Federal funding on projects, shoulder widths may be adjusted. Similarly, in some instances, outside funding will require CCHD to meet design standards for certain high-volume roads. For those situations, CCHD will meet the new standard and the roadway will be widened in order to accommodate the wider requirements (usually both travel lane and shoulder). In some of those situations, the shoulder may be paved as a safety related countermeasure. As a rule, CCHD does not widen shoulders beyond statutory or policy guidelines due to financial restraints.

Liability

CCHD follows work zone and temporary traffic control guidelines and industry standards for construction and maintenance work. As such, work zones are clearly marked and identified as to the location and extent of work.

- Work zone signage depicting “Road Closed Local Traffic Only” specifically means that the only legal user of the road within the work zone are person(s) that either live or have a destination that lies within the boundary of the work zone. All other users should utilize the detour route or other local roads to avoid the work area.
- Shouldering, chipseal, and patching activities are accompanied with work zone signage depicting “Fresh Oil” or “Loose Gravel” to warn road users of the upcoming work activity and potential for vehicular harm or damage.

CCHD is not responsible for damage to vehicles that travel within work zones nor for damage caused by normal or routine maintenance activities.

MANAGEMENT OF WATERWAY AND GRADE SEPARATED CROSSINGS

Vertically opposed crossings are a vital part of the CTH system that directly impacts the travelling public. The functional loss of one of these crossings (regardless of size) impacts mobility and can reduce accessibility to business, industry, commerce, and residences. CCHD is responsible for the inspection and maintenance of 84 County and Township bridges, over 2,000 various sized culverts, and assists the Towns with another approximate 2,000 culverts. This management program focuses on efficient and effective proactive maintenance with goals of extending bridge and culvert life and minimizing traffic disruption. Providing safe and secure crossings throughout the County is a priority.

Bridge Program

Any roadway crossing structure that exceeds twenty (20) feet when measured from abutment to abutment (for traditional “bridge” structures) or from outside sidewall to outside sidewall (for traditional “culvert” structures) is considered a “bridge”. The definition is specific for identification and differentiation from either a “large” culvert (generally equivalent structures larger than 6 ft in diameter) and a “small” culvert (generally equivalent structures smaller than 6 ft in diameter). Equivalent being a subjective term related to the hydraulic equivalent capacity of the structure. Bridge as a term is used in two (2) distinct methods; based on the level of governance and based on a financial purpose.

- For FHWA and WisDOT, bridge refers only to structures that meet the definition as laid out above. Bridge in this use refers to structures for which WisDOT and/or FHWA will utilize shared funding mechanisms and therefore hold strict policies and procedures for their maintenance, including; inspection, monitoring, replacement, upkeep, and documentation.
- Bridge, in the local sense for County, Town, City, and Village, can mean any crossing that has an equivalent hydraulic carrying capacity of 36” in diameter or more (Wis. Stat. §82.08). For this reference, bridge can refer to culverts (36” up to 20 ft) which would qualify for shared levy funding via County Bridge Aid. For this document, all structures fitting this definition, will be referred to as either “large” or “small” culverts, are eligible (subject to statute) for County Bridge Aid funding, and will be discussed in the Culvert section of this manual.



P11-0072: CTH Z Bridge



P11-0049 CTH CM @ Fox River

CCHD is required to inspect all local bridges every two (2) years (Wis. Stat. 82.08). Some bridges that are newer in age, concrete, and single span, slab structures are allowed to be inspected on a four (4) year rotation. Others, by their nature and by policy, may be required to be inspected every year. Annual inspections are necessary for bridges that:

- Have lower or poor sufficiency ratings and likely have severe load postings (< 20 ton +/-) which by their nature need to have documented, more frequent inspection in order to confirm their condition is safe for use.
- Fracture critical bridges are, by their design nature, bridges that have minor structural components which, if failed, could have catastrophic results. More frequent inspection of these structures is necessary in order to confirm they are safe for travel. Effective in the fall of 2023, Columbia County will not have any Fracture Critical bridges on the local system.

All local bridges are inspected during the even years while the more frequent required inspections are conducted annually. CCHD maintains a record file of inspections and completed maintenance activity for all local bridges in the County, in addition to the electronic files maintained by WisDOT. CCHD shares a copy of all bridge reports with the local authority that has charge over the roadway on which the bridge is present.

Visual Inspections

Bridge inspections and condition assessments are the initial step in a bridge preventative maintenance program. Inspections are conducted by FHWA and WisDOT certified specialists and conform to a comprehensive methodology of ratings for several aspects of a bridge, including, superstructure, sub-structure, and foundation as well as roadway and waterway conditions. Routine inspections are usually conducted by a FHWA certified bridge inspection consultant hired and paid for by CCHD for all bridges on the local system; 82 in total. CCHD has certified inspectors in-house for bridges in emergency situations.

Bridges that have a flood impact, the bridge is either closed or inundated with water, must be inspected prior to re-opening the bridge, if closed. CCHD conducts the emergency inspections during flood events. By Statute, CCHD acts as the bridge program manager for all local bridges. Inspections help provide direction for potential maintenance or rehabilitation treatments but do not design specific treatments or actions. The inspection process consists of a visual evaluation of the structure to determine what deficiencies, if any, may exist. Given the unique details and conditions of each bridge, CCHD determines specific bridge repairs based on a case-by-case basis.

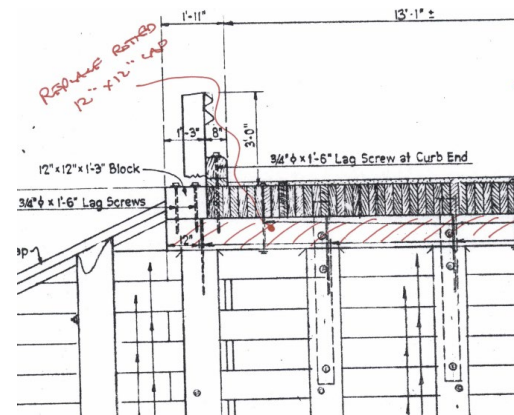
During the inspection process, a rating system is used to categorize bridge conditions and ultimately prioritize maintenance, repair, and/or replacement of specific structures. The rating system that is utilized conforms to FHWA and WisDOT structure inspection guidance, policies, and requirements.



Abutment Inspection

Bridge Maintenance

Areas of maintenance around a bridge may include signage, waterways, roadway approaches, substructures, superstructures, foundations, road surface, and bridge deck. These areas have potential to require either structural and/or non-structural maintenance. Many non-structural maintenance treatments are low-cost and directly contribute to extending the life of the bridge, when executed in regular intervals. Areas considered non-structural maintenance include; debris removal, cleaning, sweeping, joint cleaning and repair, scupper or drainage cleaning, crack filling, deck patching, and bridge rail or guardrail repair.



Abutment Cap Replacement Plan

Understand that bridges, like any infrastructure, will eventually need to be replaced. However, preventive maintenance can extend the life of a bridge in structural and non-structural areas. Non-structural preventive maintenance can alleviate the need for structural maintenance in some cases. Timing in these instances is of the utmost importance with savings benefits reaching into the thousands of dollars per bridge.

CCHD routinely reviews bridge sufficiency ratings for potential rehabilitation or replacement bridges. Rehabilitation work on bridges needs to be delicately reviewed. Rehabilitation projects can make sense when the life of a bridge can be extended at a benefit cost of more than 50%. In other words, if the rehabilitation project can add another 50% of life to the bridge and the project cost is less than 50% of the replacement cost, there may be a benefit to conducting the project. These are reviewed on a case-by-case basis and with other considerations in mind; for example, budget, road corridor condition, potential for other corridor needs, other bridge needs, etc.



Abutment Cap Replacement Complete

Bridge Rehabilitation or Replacement Projects

Projects of this nature are typically expensive and can take years to design and fund. Currently, WisDOT and FHWA have a funding program that cost shares majority of the cost for bridges that qualify for the program. For eligible and approved projects, funding is distributed as shared cost with 80% of eligible expenses funded by WisDOT or FHWA and 20% funded at the local level. For County bridges, CCHD is the “local level”. For town and municipal bridges, “local level” means an equal contribution by CCHD (10%) and the town or municipal authority over the road the bridge is on (10%). For more information on these types of projects, contact CCHD and the Highway Commissioner.



Rehabilitation



Replacement

Load Posted or Closed Bridges

Columbia County has seventeen (17) bridges on the county and local system that are either closed or have load restrictions. Bridges are closed when it is determined through structural analysis or inspection that they are deemed unsafe for travel. Currently, the following bridges in the County are closed to vehicular travel.



Closed Bridge Signage

Bridge #	Roadway	Location	Status
P11-0033	CTH A @ UPRR	1 mi W of STH 73	Replacing in 2024
P11-0044	Inglehart Rd @ UPRR	0.7 mi N of CTH E	Replacing in 2024
P11-0705	Mill St @ WSOR	City of Lodi	Closed permanently
P11-0703	Church St @ WSOR	City of Lodi	Closed permanently

Two (2) of the currently closed are in design to be replaced shortly. Both City of Lodi bridges have been deemed non-essential, are permanently closed, and will be removed at some point in the future.

Load restrictions are based on independent engineering analysis and ratings are determined by structural engineering calculations and determination for the safe load carrying capacity for the structure. Load posted bridges are still safe for vehicular passage, provided those vehicles do NOT exceed the bridge limit weight. Signs are placed in advance of load posted bridges with a rating that has been determined to be safe for traffic that does not exceed that limit. There is a factor of safety built into the determinations; however, that is not a license to ignore the sign postings for those structures that are signed. Postings are reviewed biannually or whenever inspection suggests that something has changed. Inspections are conducted more frequently for these structures, one inspection per year.



5 Ton Load Posted Bridge

Load posted bridges in the County are listed here (as of 2023):

P11-0043	Sterk Rd @ UPRR	1.1 mi S of CTH E	5 ton (replacing in 2024)
P11-0046	Kowald Rd @ Fox River	1.1 mi E of CTH H	15 ton (replacing in 2025)
P11-0092	Columbus-Fall River Rd @ Crawfish River		20 ton
P11-0038	CTH J @ Rowan Creek	2.5 mi N of CTH CS	25 ton
P11-0073	CTH DG @ Crawfish River	1 N of CTH D	30 ton
P11-0909	CTH Z @ Crawfish River	0.8 mi W of CTH CD	30 ton
P11-0064	W Hill Rd @ Duck Creek	0.25 mi N CTH G	40 ton
P11-0053	Muskrat Rd @ Neenah Creek	0.25 mi S Adam Cty	40 ton
P11-0049	CTH CM @ Fox River	0.1 mi E CTH T	40 ton
P11-0077	CTH CD @ Crawfish River	0.7 mi N of CTH Z	40 ton
B11-0799	E Bush Rd @ Duck Creek	2.1 mi S of CTH P	40 ton
P11-0061	E Bush Rd @ Duck Creek	1.5 mi E STH 22	40 ton
P11-0037	CTH JV @ Rocky Run	1.3 mi W of USH 51	40 ton

Replacement of these bridges can take many years. Traffic load is one consideration within the prioritization. For low volume roads, bridges can slowly downgrade in functionality (lower load postings) for many years before qualifying for replacement funding. From the time of identification of need, the competitiveness of funding, and design, a bridge replacement can take 10 years or more.

Culvert Asset Management

CCHD tracks, monitors, inspects, and maintains over 1,100 culverts on the CTH system. Culverts ranges from sizes of 18" diameter or box structures up to just short of 20 ft long free-span structures. Culvert materials include concrete, galvanized corrugated metal and steel pipes, boxes, free-standing, foundational, and pier supported structures.

CCHD inspects all culverts on the CTH system at a minimum of every four (4) years. Structures are rated by condition for end wall, end wall treatment, road surface, ditch, structure, drainage channel, vegetation, fore slope, visibility, markers, and other factors. Condition ratings of "good", "fair", and "poor" are utilized. Once individual site ratings are reviewed and confirmed or adjusted, corrections are made to the asset database.

Culverts are searched annually as part of the budget process.

CCHD targets one to two large culvert replacement projects per year, as budget allows. Culverts are chosen based on condition, inspection, and proximity to other ongoing projects. CCHD assists several townships in the County along the same lines as acted upon at the County level.



Large Diameter Culvert Pipe

County Bridge Aid

CCHD participates financially to construct or repair town and other municipal (village or city) culverts and bridges up to the structure equivalent size of 36" diameter in accordance with state statute (Wis. Stat. §82.08). All municipalities (towns, cities, villages) within the county are eligible for that program. The County Board, by resolution, approves projects on a case-by-case basis and if approved, levies 50% of the project costs across all county taxpayers. Bridge Aid process is explained within CCHD policies and is reviewed annually at the Highway Department Spring and Fall Municipal meetings. Projects are usually restricted to less than 100 feet in length along the centerline of the road.

Concurrent Action for Municipal Line Bridges

Unless a contrary written agreement exists, bridges on a roadway that is on the jurisdictional boundary between two (2) municipalities shall have their costs shared based on the ratio of last equalized valuation of the property within each adjoining respective district (Wis. Stat. §82.23)



Shared County/Town Bridge

MISCELLANEOUS ITEMS

Procurement

CCHD follows the procurement and dispersal procedures established by Columbia County and approved by the Highway & Transportation Committee.

- Portage Register is the newspaper of record for public notice required solicitations.
- Onvia DemandStar is the on-line source for attaining publicly let bid documents, request for proposals, and solicitations.
 - Registration on this site is free and without charge to attain documents in connection with the Wisconsin Association of Public Purchasers (WAPP): www.onvia.com/WAPP
 - Registration is required to assure receipt of any/all notice of addendums or change in the bids.
 - Registration assistance is available:
 - Toll free (800) 331-5337 or agency services@onvia.com
 - CCHD (608) 429-2136 or Highway@columbiacountywi.gov
 - Accounting office (608) 742-9645 or [Columbia County, Wisconsin - Vendor Information](#)
- Materials solicitations predominantly occur in the spring months (notably February, March, April, and May).
- CCHD dispersals are through multiple means and methods:
 - Inter-department transfer,
 - Scrap yard disposal,
 - Auction via Wisconsin Surplus Online Auction (<https://wisconsinsurplus.com>)
 - Auctions vary from year to year, generally occurring in spring (April) or fall (September).

Cooperative Agreements

CCHD may enter into cooperative work agreements with WisDOT, surrounding counties, inter-county municipalities (towns, cities, villages), and surrounding county municipalities concerning projects, equipment, materials, and operations. Work performed, equipment rented, or devices utilized for WisDOT, municipalities, villages, towns, and other counties, will be charged in accordance with Uniform Accounting Manual for WisDOT processes unless agreed to otherwise.

CCHD may not conduct work for private entities or owners excepting grading, ditching, paving, and culvert placements for abutting parcels that are adjacent to and directly impacted by ongoing work in the right-of-way or excepting an easement or other legal agreement specifically allowing or demanding the work be conducted.

Sales of Materials

CCHD cannot sell materials, supplies, or conduct work for private entities. This includes performance of work (excluding grading, ditching, paving, and culvert placements for abutting parcels that are adjacent to and directly impacted by ongoing work in the right-of-way) and sale of road materials (gravel, asphalt, recycled millings, salt, sand mix, culverts, etc.).

APPLICATION PROCESS, VARIANCES, AND APPEALS

Applicant

For all applications submitted to CCHD, “applicant” shall include the agent, property owner, employee, and/or other person with the necessary authority to seek the permit, variance, or appeal.

Applications

CCHD has individual applications for different types of permits. Here is a listing of the different CCHD applications needed and the specific form to utilize:

<u>Application Form</u>	<u>Purpose/Need</u>
Driveway Permit	Access to road, culvert, upgrading drive
Right-of-Way Permit	Drainage, lane closure, TODS, private use, crossings, plantings, etc.
Adopt-A-Highway	Groups seeking to assist by picking trash or litter from roadways
Special Events Permit	Use of roadway for festival, rally, parade, poker run (if services)
Utility Permit	ROW for installation of public utilities (some private)
Implements of Husbandry	IOH or agricultural equipment weight permits
Seasonal Weight Permit	1 trip permitting during spring load limits
OSOW Permit	Transporting large and heavy, size or weight limitations

Requirements:

Applicants should submit all pertinent information that they wish to have considered as part of the application request. Items to consider including with an application in order to reduce delays, wait times, and to assure a successful application process:

- Please provide an accurate account of specifically what you are seeking, why, how it will be used, where it is being proposed, when, and how big with what type of materials, etc.;
- Maps, drawings, sketch, certified survey map (if have one), site plans (if have one);
- Label applicable structures, setbacks, width, etc. of items depicting on maps or sketches;
- Indications for planned drainage locations, wetland areas, etc. for surface water conditions;
- Contact name, phone number, email, or way to get in touch with applicant to address concerns related to the submittal;
- Appropriate fee for permit being sought (see County Ordinance section 7.08).

Procedures:

- Applicants contact CCHD (phone, email, webpage, or in person) to acquire appropriate form.
- Applicants submit form to CCHD with appropriate fee (if applicable).
- Supervisor (County divided USH 51 into “West Side Supt” or “East Side Supt”) contacts Applicant.
 - If application incomplete; Supt may request or seek additional information to make decision.
 - If application is complete and meets ordinance requirements: Supt may issue permit on the spot.
- Denied application will be accompanied with reasoning for denial and options for proceeding with either:
 - Alternate request
 - Variance options (if available)
 - Appeal process

Keep in mind, the Applicant has the duty to provide the necessary items and information for what is being sought. CCHD is not responsible for providing maps and drawings of work that is being requested by a private citizen. The backside of the permit application forms provides additional supplemental information as well as directions and responsibilities if approved (be sure to read it).

Variances

A variance is necessary for situation where there is a unique situation within the application and the request cannot be approved as it does not meet the ordinance requirements. Example might be, driveways require a 150 ft separation distance for semi-urban developed areas, but lot sizes were established at 100 ft many years ago = variance can be issued since subdivision occurred prior to ordinance requirements. Variances are not the “norm” or are for unusual situations. Variances require proper justification for the need of the variance from ordinance procedures and requirements. Convenience is not a justification criterion. The Highway Commissioner has authority to grant variances to existing Columbia County Highway Ordinances (CCOrd. §9.07(5)(c)); subject to disclosure to the Highway Committee at the next subsequent meeting.

Process:

- Supervisor may notify Applicant that permit will require a Variance (identifies early on that justification exists and parcel will not meet simple application requirements or ordinance).
- Applicant feels that their situation is unique, and the situation cannot be avoided such that the original application cannot be modified in order to meet County Ordinance requirements.

Procedures:

- Acquire appropriate form from Highway Supervisor or CCHD office;
- Submit completed form with all necessary supplemental information and necessary fee (if required) to Highway Office in Wyocena;
- Highway Commissioner will either
 - Review variance request with Supervisor and if concur then the variance will be issued;
 - Contact Applicant to discuss the Variance request in more detail or understanding;
- Variance decision will be rendered to Applicant;
 - Approved Variance will have a permit issued subject to conditions (vary based on the application and situation); or
 - Denied Variance may have alternate options for things to do to complete a modified project (which could be permitted); or
 - Variance is denied with no further action in which case application is rejects and Applicant cannot proceed.

Appeals

Excepting those appeals made pursuant to Wis. Stats. § 86.16(5), any person aggrieved by a decision made in the administration of Highway Ordinance may appeal that decision to the Highway Committee.

- All appeals shall be made in writing and shall be filed within 30 (thirty) calendar days of the administrative decision with the Highway Commissioner. Each appeal shall include the legal description of the parcel, the administrative decision that is being appealed, and why the appellant is seeking the Highway Committee’s review. Applicant needs to be as clear and concise as possible, presenting all their reasons for the appeal in written form including; any maps, sketches, pictures, drawings, or other information necessary for the Highway Committee to render a decision on the matter.

- The Highway Committee shall hear each appeal at the next committee meeting following the receipt of the appeal. If the appeal is received after the Highway Committee's agenda has been posted, that appeal will be heard at the following committee meeting.
- The Highway Committee shall make a decision on each appeal. A decision shall be made by the majority present. If additional information is needed by the Highway Committee before it can make a decision, the Highway Committee may postpone its decision until the necessary information has been received and reviewed by the Highway Committee.
- Appeals of the Highway Committee shall be controlled by Wis. Stats. Chapter 68, unless otherwise specifically required by law.

Wisconsin Constitution Article IX, Section 1: Public Trust Doctrine

Navigable waters of the State are public and are held in trust by the State to protect the public's rights to those waters.

Supreme Court Decisions Affecting Waterways:

1868 Whisler vs Wilkinson: rivers capable of floating “the products of the country, such as saw-logs or rafts of lumber” are public highways under common law.

Olson vs Merrill: Regularly recurring water levels that “continue a sufficient length of time to make a waterway useful as a highway” are enough to render navigable and subject to public interest.

1952 Muench vs Public Service Commission: “any stream is ‘navigable in fact’ which is capable of floating any boat, skiff, or canoe, of the shallowest draft used for recreational purposes” and the State has a duty to appear on behalf of the public.

Statutes of 1911: “and all rivers and streams, meandered or non-meandered, which are navigable in fact for any purpose whatsoever...”

APPLICABLE WISCONSIN STATE STATUTES

Statute or Section	Topic Covered
23.33	All-Terrain Vehicles and Utility Terrain Vehicles
30	Navigable Streams
30.123(6)(r)(a)	WDNR Permit Exemption for “in-kind” Culvert Replacements (GP)
32	Eminent Domain
59	Counties
66	Municipal Public Works & Projects
66.0301	Intergovernmental Cooperation
66.0627(1)	Special Charge on Tax Bill
66.0407	Noxious Weeds
66.1003	Discontinuance of a Public Way
66.1031	Widening of Highways
66.1033	Curative Provisions
66.1035	Rights of Abutting Owners
66.1037(1)	Jurisdictional Tree Authority and Purpose
66.1037(2)	STH mowing only by abutting property owner
68	Municipal Administrative Procedure – Appeals of Highway Committee
82	Town Highways
82.03	Permission to Enter Private Land (protect highway travel and drainage)
82.05(3)	Town Supt or Chair Impassable Road to passable condition, or closure
82.08	Bridge Definitions and Inspection Required
82.18	Right-of-Way Width Default is 66 feet
82.23	Bridge Cost Sharing on a Town or Municipal Line
83	County Highways
83.015	Duties of Highway Committee
83.01	Duties of Highway Commissioner
83.013	Traffic Safety Commission

83.025(2)	County Trunk Highway maintenance limit in a municipality
83.18	Confer Town Land Entry Rights to Highway Commissioner
83.42	Rustic Roads
84	State Trunk Highways: Federal Aid
84.02	Adoption of Manual of Uniform Traffic Control Devices
85	Department of Transportation
86	Miscellaneous Highway Provisions
86.01	Illegal to Leave Materials Overnight on Travelled Portion of Roadway
86.02	Injury to Highway (persons liable for injury to highway)
86.021(1)	No Farming in Right-of-Way
86.022	Fines for Blocking Highway or Highway Drainage
86.025	No Camping in Right-of-Way
86.03(1)	Removal of Fallen Trees
86.04	Highway Encroachments
86.04(3)	Resolution for Disputes of Fence Removal Orders
86.06	Highways Closed to Travel: Penalties
86.07(2)	Permitting Authority
86.075	Notify Drainage Districts of Highway Projects Impacting Drains
86.12	Fences
86.16(5)	Utility Appeal Process
86.17	Right to Use Water from Highway Adjacent Streams
86.19	Penalties for Signage that Obstructs Vision
86.30	General Transportation Aids
86.302	Local Road Inventories and Surface Condition Rating Required
88.68	Construction/Drains Across Highways
88.87	Road Grades Not to Obstruct Drains
88.87(3)	Private Landowner Must Maintain Drainage to Protect Highway
88.87(3)(c)	Authority to Enter Private Property if Drainage Damaging Roadway
88.89	Roads Not to Obstruct Watercourse
88.92	Private Drains Cannot Connect to Drainage District
88.94	Town Board Rights to Resolve Private Drainage Disputes
91	Farmland Preservation - Ownership
94.70	Vegetation Spraying Certification
101	Department of Commerce
102	Workers Compensation
103	Employment Regulations
106	Equal Rights
108	Unemployment
287.81	346.94(13) Applies to ATVs and Scooters
287.81(c)(2)(a)	Fines for Solid Waste Disposal on or Along Highway
287.81(2)(a)	Illegal to Dispose of Trash, Rubbish, Recyclables in Right-of-Way
295	Non-Metallic Mining
340.01(22)	Right of Public Use
340.01(54)	Roadway Definition
340.01(68)	Traffic Definition
341.01(22e)	Definition of Highway Maintenance or Construction Area
342.40	Sheriff Remove Abandon Vehicles
343	Operators' Licenses

343.32	County Responsible for Improperly Equipped Vehicle
345.05	Municipal Liability for Vehicle Accidents
346	Rules of the Road
346.02	Obey Traffic Signs or Signals
346.05(4)	CDL Exemptions
346.05	Plow Truck Operating on Left-hand Side of Roadway
346.072	Passing Stopped Highway Machinery
346.11	Harassment of Animals Working or Traversing Roadway Prohibited
346.12	Driving Through Safety Zones Prohibited
346.27	Persons Working on Highway
346.41	Driveway Markers Shall be Blue (only) & Outside Right-of-Way
346.51	Stopping, Standing, Parking Outside Business
346.57	Speed Limits and Restrictions
346.915	Snowplow Following Distances
346.94(5)	injurious Substance on Highway (snow)
346.94(13)	Cannot Abandon Vehicles Along or On Highways
346.95	Penalties for Debris on Highway (snow)
347	Equipment of Vehicles
347.24	Instruments of Husbandry (IOH) Width Variations and Compliance
347.45(2)	Prohibited Tire Equipment
348	Vehicle Size, Weight, & Load
348.02	Tow Recovery Permit Exemption
348.05	Permit Required for Vehicle Widths Greater Than 8'6"
348.06	Over-Height Limit is 13'6"
348.09	Loads Cannot Extend Beyond Left Fender
348.15	Class "A" Roads
348.15	Axle-Vehicle Weight Table
348.16	Class "B" Roads
348.17	Special or Seasonal Weight Limits
348.175	Frozen Roads
348.18	Weight Limits Apply to Municipal Vehicles (except snow or ice)
348.27(3)	Local Authority for Raw Forest Products
349	Local Authority – Vehicle Powers
349.065	Work Zone, Uniform Traffic Control Devices, and Conform to MUTCD
349.085	Local Authority for Setting "Stop" Condition at Railroad Crossings
349.11	Setting Speed Limits by Local Authority
349.15	Modify Weight Limits & Classify Roads
349.16	Special/Seasonal Weight Limits
349.16(b)	Setting Bridge and Culvert Weight Limits
349.217	Appointing Traffic Control Attendants
350	Snowmobiles
893.80	Discretionary Immunity
893.83	No Snow Damage Liability for 3 Weeks
943.01	Damage to Property
985.07	Classes and Frequency of Legal Notices
990.01(12)	"Highway" Definition

ADMINISTRATIVE CODE AND RULES OF RELEVANCE

Code Reference	Topic Relevance
COMM 8	Mines, Pits, & Quarries
COMM 32	Public Employee Safety & Health
DWD Chapter 80	Workers Compensation (WC)
DWD Chapter 81	WC - Treatment Guidelines
DWD Chapter 82	WC - Mining Damage Claims
DWD Chapter 290	Public Works Contracts
Appendix A	
DWD Chapter 293	Public Works – Payment & Performance Assurance
DWD Chapter 294	Public Works – Debarment Contractors
NR 40	Invasive Species
NR 102	Water Quality Standards for Surface Waters
NR 135	Non-Metallic Mining Reclamation
NR 151	Run-Off Management
NR 300	Time Limits & Fees – Waterway Permit
NR 320	Bridges & Culverts – Navigable Waterways
NR 341	Grading – Banks of Navigable Waterways
NR 345	Dredging Navigable Waterways
NR 350	Wetland Compensatory Mitigation
TRANS RR1	Rustic Roads
TRANS 200	Erection Signs on Public Highways
APPENDIX A	Special Information Signs
APPENDIX B	Service (B/W) Signs
APPENDIX C	TODS Signs
APPENDIX D	General Directional Guide Signs
TRANS 201.16	Political Signs
TRANS 202	Wisconsin Scenic Byways
TRANS 204	Town Road Standards
TRANS 205	County Highway Standards
TRANS 206	Local Road Improvement Program (LRIP)
TRANS 207	Bridges & Culverts
TRANS 213	Local Bridge Program
TRANS 214	Town Road Bridge Standards
TRANS 220	Utility Relocation
TRANS 230	Permits for Oversize/Overweight (OSOW) Loads
TRANS 231	State Highway Driveway Permits
TRANS 250	Oversize & Overweight (OSOW)
TRANS 276	OSOW Vehicles and Combinations
TRANS 277	Salt Storage
TRANS 278	OSOW Exceptions
TRANS 280	Roadside Vegetation Management
TRANS 307	Standards for Load Securement
TRANS 510	TEA Program

APPENDIX A: DEPARTMENT FORMS

Driveway Application

Right-of-Way Access Application

Utility Accommodation Application

Right-of-Way Special Event Application

OSOW and Seasonal OW Application

Complaint Form

Accident Form

Variance Form

Appeal Request

Application Number: _____

Columbia County Highway & Transportation Driveway Permit

Chapter 86.07 (2) of the Wisconsin Statutes provides that the authority maintaining the highway issue a permit before any excavation or fill, installation of a culvert or any other alteration is made on a public highway. Therefore, a Columbia County Highway & Transportation permit is hereby requested, by the undersigned, for the purpose of approving:

ACCESS PERMIT _____ With a Culvert and End Walls _____ Without a Culvert*

Culvert Length _____ Feet and Dimension _____ Inches with Shape (Round Elliptical Square Rectangle).

** For a driveway without a culvert - if determined, by the County, at a later date a culvert is needed, the owner shall be responsible for all costs in the placement of such culvert.*

_____ New Driveway _____ Existing Driveway _____ Blacktop a Driveway

COMMENTS:

Area is located on the _____ N. _____ S. _____ E. _____ W. side of County Highway CTH _____ or Town Road

_____ Location _____
(Road Name) (Distance in Feet)

_____ N. _____ S. _____ E. _____ W. of _____ Sec. _____ T. _____ N., R. _____ E.
(Closest Intersection)

Township of _____ County of Columbia. Fire No. _____

GPS Coordinate Longitude _____ Latitude _____

Property Owner Information (please print clearly)

Name: _____ **Phone:** _____

Address: _____

Signature: _____ **Date:** _____

Office Use Only

Permit Type: A _____ B _____ C _____ AG Field _____ **Permit #:** _____

Amount Paid: \$ _____ **Check #:** _____ **TOWNSHIP FOR PERMIT:** _____

_____ Approved _____ Denied _____ Pending Variance (Hwy Commissioner) _____ Pending Appeal from Committee

Supervisor's Signature: _____ **Approval/Denial Date:** _____

Highway Commissioner's Signature: _____ **Approval/Denial Date:** _____

Access Permit Requirements Conditions of Issuance

1. The permittee, indicated on the reverse side, represents all parties in interest, and that any construction in the right-of-way by or for him/her is for the purpose of providing access, and not for the purpose of parking or servicing vehicles, or for advertising, storage, or merchandising of goods on the highway right of way.
2. Except in cases where the private use or indicated driveway access may be constructed by forces acting on behalf of the County in relation to a highway construction or reconstruction project, the permittee shall furnish all materials, do all work, and pay all costs in connection with the construction, use, installation of the access and its appurtenances on the highway right of way. In every instance, the subsequent maintenance of the access and of its appurtenances within the limits of the highway right of way shall be the responsibility of the indicated permittee, who shall be obligated to pay all costs and accomplish all works necessary in relation to the said maintenance of the access. Materials used and the type and the character of the work shall be suitable and appropriate for the intended purpose. The nature of construction shall be as designated and subject to approval of the Highway Commissioner. The installation shall be made without jeopardy to or interference with traffic using the highway. Highway surfaces, shoulders, ditches, and vegetation, which are disturbed by the installation, shall be restored to at least the pre-existing conditions by the permittee. Any such facilities disturbed by operations relating to the subsequent maintenance of the access shall be restored to the satisfaction of the Highway Commissioner by the permittee.
3. No revisions or addition shall be made to the access or its appurtenances on the right of way without the written permission of the Highway Commissioner.
4. The Columbia County Highway and Transportation Department reserves the right to make such changes, additions, repairs and relocations within statutory limits to the access, driveway, or its appurtenances on the right of way as may at any time be considered necessary to facilitate the relocation, reconstruction, widening, and maintaining of the highway, or to provide proper protection to life and property on or adjacent to the highway.
5. The permittee, successors or assignees agree to hold harmless Columbia County and its duly appointed agents and employees against any action for personal injury or property damage sustained by reason of the exercise of the permit.
6. The Columbia County Highway and Transportation Department does not assume any responsibility for the removal or clearance of snow, ice or sleet, or the opening of windows of such material, upon any portion of any driveway or entrance along any highway, even though snow, ice or sleet is deposited or wind rowed on said driveway or entrance by its authorized representatives engaged in normal winter maintenance operations.

Location, Design and Construction

The location, design, and construction of the access shall be in accordance with County Ordinance and limits are in no case to be exceeded unless specifically authorized by the Columbia County Highway and Transportation Department.

- (A) Access shall be located and restricted as to width as necessary so that the entire access and its appurtenances are contained within the frontage along the highway of the property served. At public highway intersections, access shall not provide direct ingress or egress to or from the public highway intersection area and shall not encroach on or occupy areas of the roadway or right of way deemed necessary for effective traffic control or for highway signs or signals.
- (B) Access shall be so located and constructed that vehicles approaching or using it will have adequate sight distance in both directions along the highway.
- (C) The number of Access points permitted serving a single property frontage along a county trunk highway shall be the minimum deemed necessary by the Highway Commissioner for reasonable service to the property without undue impairment of safety, convenience, and utility of the highway.
- (D) The island area on the right of way between adjoining driveways and the highway shoulder and right-of-way line shall remain unimproved for vehicular travel or parking. Such areas shall be considered as restricted and may be filled in or graded down only as provided in paragraph (H).
- (E) The surface of the driveway connecting with rural-type highway sections shall slope down and away from the highway shoulder a sufficient amount and distance to preclude ordinary surface water drainage from the driveway area flowing onto the highway roadbed.
- (F) The driveway shall not obstruct or impair drainage in highway side ditches or roadside areas. Driveway culverts, where necessary, shall be adequate for surface water drainage along the highway and in no case less than the equivalent of 15-inch diameter pipe. The distance between culverts under successive driveway shall be not less than 10 feet except as such restricted area is permitted to be filled in under the provisions of paragraph (H).
- (G) When curb and gutter is removed for constructing a driveway, the new connections shall be of equivalent acceptable material and curb returns provided or restored in a neat manner. The driveway curb surface shall connect with the highway pavement and the sidewalk, if any, in a neat manner. The driveway construction shall include replacement of sidewalks areas which are inadequate or become damaged by reason of vehicular travel across the sidewalk.
- (H) The restricted area between successive driveways may be filled in or graded down only when the following requirements are fully met:
 1. The filling in or grading down shall be to grades approved by the Highway Department and, except where highway drainage is by means of curb and gutter, water drainage of the area shall be directed away from the highway roadbed in a suitable manner.
 2. Culvert extension under the restricted area shall be of like size and equivalent acceptable materials of the driveway culvert, and intermediate manholes adequate for clean-out purposes may be required where the total culvert length exceeds 100 feet.
 3. Where no highway side ditch separates the restricted area from the highway roadbed, permanent provision may be required to separate the area from the highway roadbed to prevent its use for driveway or parking purposes by construction of a border, curb, rail, or posts deemed adequate by the Highway Commissioner.

All culverts shall be of the length and size specified herein. Culverts shall be constructed of either corrugated galvanized steel or of concrete. Plastic pipe shall not be allowed.

Residential or Agricultural - Rural

Rural-type highway cross section. Driveways serving farm, field, or residential establishments.

1. Width of Drive. No driveway except as provided shall have a width greater than 24 feet (residential) or 40 feet (agricultural) measured at right angles to the centerline of the driveway, except as increased by permissible radii. In no instance shall a driveway have a width greater than 40 feet, including flare of return radii, measured along a line 10 feet from and parallel to the edge of the highway pavement.
2. Return radii. No return radii projected between the edge of the highway pavement and the driveway shall be greater than 40 feet. Usually, these radii will be determined by the restrictions given in Sections 1, 3 and 4.
3. Angular Placement of Drive. The angle between the centerline of a driveway serving two-way traffic and the edge of the pavement shall not be less than 75 degrees. Where suitable precautions are taken or one-way operation along divided highway permits, only one-way operation of the driveways, the angle of the entrance drive to grantee's property may be decreased. The angle of the exit drive with the highway shall be at the right of way line.

The area within 10 feet of a property line shall be a restricted area over which no driveway may be developed. The 10-foot restriction shall be measured parallel to the pavement edge and shall be effective between the right of way line and line 10 feet from and parallel to the pavement edge. This is to serve, as an island area should the adjoining property owned request a permit for a driveway.

Noncommercial-Rural

Rural-type highway cross section. Driveway serving farm or residence property.

1. Width of Drive. No noncommercial driveway or combination of driveway shall have a width greater than 40 feet measured at right angles to the centerline of the driveway.
2. Return of radii. No return radii projected between the edge of highway pavement and the driveway shall be greater than 30 feet.
3. Angular Placement of Drive. The centerline of the part of the driveway lying on the county right of way shall always be at approximately right angles to the pavement.

Industrial/Commercial

Industrial type highway cross section. Driveway serving commercial or industrial establishment.

1. Width of Drive. No driveway shall have a width greater than 35 feet measured at right angles to the centerline on the driveway, except as increased by permissible radii.
2. Return radii. The return radii projected between the line of face of the curb of the highway and the driveway shall be determined by the Patrol Superintendent, basing his/her decision of the type of traffic and the restrictions given in Sections 1, and 4, in all cases, the entire flare shall fall within the right of way.
3. Angular Placement of Drive. The angle between the centerline of the driveway and the curb line shall be not less than 45 degrees.
4. Island Areas. Case I: Sidewalk adjacent to curb. An island of a minimum length of 6 feet, measured along the curb line, shall be placed between each entrance to a state highway. The curb shall be left intact for this length. Case II: Sidewalk remote from curb. An island of a minimum length of 10 feet measured along the right of way line shall be maintained between each entrance to a state highway. All flares shall be tangent to the curb line.

A curb length of not less than 3 feet shall be left undisturbed adjacent to each property line to serve as an island area should the adjoining property owner request a permit for an entrance.

Noncommercial-Urban

Urban-type highway cross section. Driveway serving residence property.

1. Width of Drive. No noncommercial driveway or combination of driveways shall have a width greater than 24 feet measured at right angles to the centerline of the driveway, except as increased by permissible radii.
2. Return radii. The radius of the return connecting the line of face of curb of the highway and the edge of driveway shall not exceed 10 feet. In all cases the entire flare shall fall within right of way.
3. Angular Placement of Drive. The centerline of the driveway may be either parallel to the property line of the lot for which access is requested, or at right angles to the curb line.

Other Provisions

No open cutting for a crossing will be allowed where the pavement is too narrow to maintain one-way traffic at all times, unless the Permitting Authority has granted permission for a detour.

Wherever the pavement is opened, the spoils shall be hauled away and the trench shall be backfilled with sand or gravel and compacted in layers to the satisfaction of the Permitting Authority. The pavement removed for a road crossing shall be replaced as per Permitting Authority specifications.

When one-way traffic or a detour is used, the Applicant shall provide ALL NECESSARY SIGNAGE, FLAGMEN, AND LIGHTING, required according to the "Manual of Uniform Traffic Control Devices". When a detour is allowed, local newspapers shall be notified by the Applicant in advance of the work being started.

Any trenching, tunneling, or excavating shall be performed in accordance with all applicable Statutory, Local, Federal, and State regulations.

Application Number: _____

Columbia County Highway & Transportation Right of Way Application Permit

Chapter 86.07 (2) of the Wisconsin Statutes provides that the authority maintaining the highway issue a permit before any excavation or fill, installation of a culvert or any other alteration is made on a public highway. Therefore, a Columbia County Highway & Transportation permit is hereby requested, by the undersigned, for the purpose of approving:

RIGHT-OF-WAY PERMIT

_____ Construction/Utility Temporary Access

_____ Drainage

_____ Lane/Road Closure

_____ Private Utility (short)

_____ Tourism Signage (TODs)

_____ Special Events

_____ Other

COMMENTS:

Area is located on the _____ N. _____ S. _____ E. _____ W. side of County Highway CTH _____ or Town Road

_____ Location _____
(Road Name) (Distance in Feet)

_____ N. _____ S. _____ E. _____ W. of _____ Sec. _____ T. _____ N., R. _____ E.
(Closest Intersection)

Township of _____ County of Columbia. Fire No. _____

GPS Coordinate Longitude _____ Latitude _____

Property Owner Information <small>(please print clearly)</small>

Name: _____ Phone: _____

Address: _____

Signature: _____ Date: _____

Office Use Only

Amount Paid: \$ _____ Check #: _____ TOWNSHIP FOR PERMIT: _____

_____ Approved _____ Denied _____ Pending Variance (Hwy Commissioner) _____ Pending Appeal from Committee

Permit #: _____ Approval/Denial Date: _____

Supervisor's Signature: _____

Highway Commissioner's Signature: _____

Access Permit Requirements Conditions of Issuance

1. The permittee, indicated on the reverse side, represents all parties in interest, and that any construction in the right-of-way by or for him/her is for the purpose of providing access, and not for the purpose of parking or servicing vehicles, or for advertising, storage, or merchandising of goods on the highway right of way.

2. Except in cases where the private use or indicated driveway access may be constructed by forces acting on behalf of the County in relation to a highway construction or reconstruction project, the permittee shall furnish all materials, do all work, and pay all costs in connection with the construction, use, installation of the access and its appurtenances on the highway right of way. In every instance, the subsequent maintenance of the access and of its appurtenances within the limits of the highway right of way shall be the responsibility of the indicated permittee, who shall be obligated to pay all costs and accomplish all works necessary in relation to the said maintenance of the access. Materials used and the type and the character of the work shall be suitable and appropriate for the intended purpose. The nature of construction shall be as designated and subject to approval of the Highway Commissioner. The installation shall be made without jeopardy to or interference with traffic using the highway. Highway surfaces, shoulders, ditches, and vegetation, which are disturbed by the installation, shall be restored to at least the pre-existing conditions by the permittee. Any such facilities disturbed by operations relating to the subsequent maintenance of the access shall be restored to the satisfaction of the Highway Commissioner by the permittee.

3. No revisions or addition shall be made to the access or its appurtenances on the right of way without the written permission of the Highway Commissioner.

4. The Columbia County Highway and Transportation Department reserves the right to make such changes, additions, repairs and relocations within statutory limits to the access, driveway, or its appurtenances on the right of way as may at any time be considered necessary to facilitate the relocation, reconstruction, widening, and maintaining of the highway, or to provide proper protection to life and property on or adjacent to the highway.

5. The permittee, successors or assigns agree to hold harmless Columbia County and its duly appointed agents and employees against any action for personal injury or property damage sustained by reason of the exercise of the permit.

6. The Columbia County Highway and Transportation Department does not assume any responsibility for the removal or clearance of snow, ice or sleet, or the opening of windows of such material, upon any portion of any driveway or entrance along any highway, even though snow, ice or sleet is deposited or wind blown on said driveway or entrance by its authorized representatives engaged in normal winter maintenance operations.

Location, Design and Construction

The location, design, and construction of the access shall be in accordance with County Ordinance and limits are in no case to be exceeded unless specifically authorized by the Columbia County Highway and Transportation Department.

- (A) Access shall be located and restricted as to width as necessary so that the entire access and its appurtenances are contained within the frontage along the highway of the property served. At public highway intersections, access shall not provide direct ingress or egress to or from the public highway intersection area and shall not encroach on or occupy areas of the roadway or right of way deemed necessary for effective traffic control or for highway signs or signals.
- (B) Access shall be so located and constructed that vehicles approaching or using it will have adequate sight distance in both directions along the highway.
- (C) The number of Access points permitted serving a single property frontage along a county trunk highway shall be the minimum deemed necessary by the Highway Commissioner for reasonable service to the property without undue impairment of safety, convenience, and utility of the highway.
- (D) The island area on the right of way between adjoining driveways and the highway shoulder and right-of-way line shall remain unimproved for vehicular travel or parking. Such areas shall be considered as restricted and may be filled in or graded down only as provided in paragraph (H).
- (E) The surface of the driveway connecting with rural-type highway sections shall slope down and away from the highway shoulder a sufficient amount and distance to preclude ordinary surface water drainage from the driveway area flowing onto the highway roadbed.
- (F) The driveway shall not obstruct or impair drainage in highway side ditches or roadside areas. Driveway culverts, where necessary, shall be adequate for surface water drainage along the highway and in no case less than the equivalent of 15-inch diameter pipe. The distance between culverts under successive driveway shall be not less than 10 feet except as such restricted area is permitted to be filled in under the provisions of paragraph (H).
- (G) When curb and gutter is removed for constructing a driveway, the new connections shall be of equivalent acceptable material and curb returns provided or restored in a neat manner. The driveway curb surface shall connect with the highway pavement and the sidewalk, if any, in a neat manner. The driveway construction shall include replacement of sidewalks areas which are inadequate or become damaged by reason of vehicular travel across the sidewalk.
- (H) The restricted area between successive driveways may be filled in or graded down only when the following requirements are fully met:
 1. The filling in or grading down shall be to grades approved by the Highway Department and, except where highway drainage is by means of curb and gutter, water drainage of the area shall be directed away from the highway roadbed in a suitable manner.
 2. Culvert extension under the restricted area shall be of like size and equivalent acceptable materials of the driveway culvert, and intermediate manholes adequate for clean-out purposes may be required where the total culvert length exceeds 100 feet.
 3. Where no highway side ditch separates the restricted area from the highway roadbed, permanent provision may be required to separate the area from the highway roadbed to prevent its use for driveway or parking purposes by construction of a border, curb, rail, or posts deemed adequate by the Highway Commissioner.

All culverts shall be of the length and size specified herein. Culverts shall be constructed of either corrugated galvanized steel or of concrete. Plastic pipe shall not be allowed.

Residential or Agricultural - Rural

Rural-type highway cross section. Driveways serving farm, field, or residential establishments.

1. Width of Drive. No driveway except as provided shall have a width greater than 24 feet (residential) or 40 feet (agricultural) measured at right angles to the centerline of the driveway, except as increased by permissible radii. In no instance shall a driveway have a width greater than 40 feet, including flare of return radii, measured along a line 10 feet from and parallel to the edge of the highway pavement.
2. Return radii. No return radii projected between the edge of the highway pavement and the driveway shall be greater than 40 feet. Usually, these radii will be determined by the restrictions given in Sections 1, 3 and 4.
3. Angular Placement of Drive. The angle between the centerline of a driveway serving two-way traffic and the edge of the pavement shall not be less than 75 degrees. Where suitable precautions are taken or one-way operation along divided highway permits, only one-way operation of the driveways, the angle of the entrance drive to grantee's property may be decreased. The angle of the exit drive with the highway shall be at the right of way line.

The area within 10 feet of a property line shall be a restricted area over which no driveway may be developed. The 10-foot restriction shall be measured parallel to the pavement edge and shall be effective between the right of way line and line 10 feet from and parallel to the pavement edge. This is to serve, as an island area should the adjoining property owned request a permit for a driveway.

Noncommercial-Rural

Rural-type highway cross section. Driveway serving farm or residence property.

1. Width of Drive. No noncommercial driveway or combination of driveway shall have a width greater than 40 feet measured at right angles to the centerline of the driveway.
2. Return radii. No return radii projected between the edge of highway pavement and the driveway shall be greater than 30 feet.
3. Angular Placement of Drive. The centerline of the part of the driveway lying on the county right of way shall always be at approximately right angles to the pavement.

Industrial/Commercial

Industrial type highway cross section. Driveway serving commercial or industrial establishment.

1. Width of Drive. No driveway shall have a width greater than 35 feet measured at right angles to the centerline on the driveway, except as increased by permissible radii.
2. Return radii. The return radii projected between the line of face of the curb of the highway and the driveway shall be determined by the Patrol Superintendent, basing his/her decision of the type of traffic and the restrictions given in Sections 1, and 4, in all cases, the entire flare shall fall within the right of way.
3. Angular Placement of Drive. The angle between the centerline of the driveway and the curb line shall be not less than 45 degrees.
4. Island Areas. Case I: Sidewalk adjacent to curb. An island of a minimum length of 6 feet, measured along the curb line, shall be placed between each entrance to a state highway. The curb shall be left intact for this length. Case II: Sidewalk remote from curb. An island of a minimum length of 10 feet measured along the right of way line shall be maintained between each entrance to a state highway. All flares shall be tangent to the curb line.

A curb length of not less than 3 feet shall be left undisturbed adjacent to each property line to serve as an island area should the adjoining property owner request a permit for an entrance.

Noncommercial-Urban

Urban-type highway cross section. Driveway serving residence property.

1. Width of Drive. No noncommercial driveway or combination of driveways shall have a width greater than 24 feet measured at right angles to the centerline of the driveway, except as increased by permissible radii.
2. Return radii. The radius of the return connecting the line of face of curb of the highway and the edge of driveway shall not exceed 10 feet. In all cases the entire flare shall fall within right of way.
3. Angular Placement of Drive. The centerline of the driveway may be either parallel to the property line of the lot for which access is requested, or at right angles to the curb line.

Other Provisions

No open cutting for a crossing will be allowed where the pavement is too narrow to maintain one-way traffic at all times, unless the Permitting Authority has granted permission for a detour.

Wherever the pavement is opened, the spoils shall be hauled away and the trench shall be backfilled with sand or gravel and compacted in layers to the satisfaction of the Permitting Authority. The pavement removed for a road crossing shall be replaced as per Permitting Authority specifications.

When one-way traffic or a detour is used, the Applicant shall provide ALL NECESSARY SIGNAGE, FLAGMEN, AND LIGHTING, required according to the "Manual of Uniform Traffic Control Devices". When a detour is allowed, local newspapers shall be notified by the Applicant in advance of the work being started.

Any trenching, tunneling, or excavating shall be performed in accordance with all applicable Statutory, Local, Federal, and State regulations.

COLUMBIA COUNTY HIGHWAY DEPT

**APPLICATION/PERMIT to CONSTRUCT, OPERATE,
and MAINTAIN UTILITIES WITHIN HIGHWAY
RIGHT-OF-WAY**

Applicant/Company: _____
 Address: _____
 Office Phone: _____
 Cell Phone : _____
 Plans Prepared By: _____
 Company: _____
 Email: _____
 Phone: _____

LOCATION INFORMATION

Highway(s): _____
 Town/Village/City of: _____
 _____ % of the _____ % Sec _____ T _____ N _____ R _____ E

ADDITIONAL INFORMATION

Annual Service Connection Permit? ☐ Yes ☐ No
 Utility Work Order # _____
 Fee Required? ☐ Yes ☐ No Amount \$ _____

DESCRIPTION OF PROPOSED WORK (Check and fill out all that apply)

UTILITY TYPE: ☐ Electric ☐ Gas/petroleum ☐ Communications ☐ Water ☐ Sanitary sewer ☐ Private line
☐ Transmission ☐ Distribution ☐ Service Facility Size/Capacity: _____
 (diameter, # fibers, psi, Kv, etc.)

ORIENTATION: ☐ Overhead ☐ Underground ☐ Parallel to Hwy centerline ☐ Hwy crossing ☐ Bridge attachment ☐ Tunnel

WORK TYPE: ☐ New construction ☐ Improve/repair existing ☐ Maintenance ☐ Removal ☐ Abandon in place

CONSTRUCTION METHOD(S): ☐ Plow ☐ Trench ☐ Bore ☐ Suspend on poles/towers ☐ Open cut Hwy ☐ Cased

☐ Tree cutting/removal ☐ Chemical treatment of trees/brush Erosion Control Designation: ☐ Major ☐ Minor

Provide additional narrative if needed: _____

NAME AND PHONE NUMBER OF UTILITY REPRESENTATIVE
 RESPONSIBLE FOR CONSTRUCTION: _____

Estimated Starting Date: _____ Estimated Completion/Restoration Date: _____

The Applicant understands and agrees that the permitted work shall comply with all permit provisions and conditions of the Utility Accommodation Policy of the above-named county in effect at the time of this application, and with any special provisions listed below or attached hereto, and any and all plans, details, or notes attached hereto and made a part thereof.

By: _____
 (Signature of Applicant/Company Authorized Representative) (Title) (Date)
 (Typed/Printed Name of Person Signing Above or Electronic Signature Code) (Authorized Applicant/Company Representative Telephone Number)

DO NOT WRITE BELOW THIS LINE**PERMIT APPROVAL BY PERMITTING AUTHORITY**

The foregoing application is hereby approved and permit issued by the Permitting Authority subject to full compliance by the Applicant with all provisions and conditions stated in the WCHA Utility Accommodation Policy of the above-named county including the Indemnification as included in 96.03 of the WCHA Utility Accommodation Policy in effect on the date of this application.

Supplemental Provisions Attached: ☐ Yes ☐ No

By: _____
 (Authorized Representative for County)

 (Title) (Date)

Date Revised: 1/18/2022 PERMIT NUMBER: _____

FEE RECEIVED: \$ _____

CHECK NUMBER: _____

DATE ISSUED: _____

HWY PROJECT #: _____

PERMIT PROVISIONS AND CONDITIONS OF ISSUANCE:

Pursuant to Wisconsin Statutes, WisDOT Highway Maintenance Manual, and other County Regulations, this permit is granted to allow performance of the specific work described or referenced herein. The following standard provisions and any included special provisions shall govern:

1. Comply with the conditions and requirements of the WCHA Utility Accommodation Policy (UAP); most current version.
2. Permitted facilities shall, if necessary, be altered at the expense of the Applicant/Owner to permit alteration, improvement, or maintenance of the highway as may hereafter be ordered. The entire cost of constructing and maintaining the permitted facilities shall be the obligation of the Applicant/Owner; unless a contract for such costs has been executed by County.
3. Permitted Utility location shall be installed at the furthestmost horizontal location from the centerline, shall maintain a consistent centerline offset, shall meet the minimal offset and cover requirements of the UAP, and shall not deviate in position from the approved Permit submittal documents without written COUNTY consent and approval.
4. No open cutting for a crossing will be allowed where the pavement is too narrow to maintain one-way traffic at all times, unless County has granted permission for a detour. Wherever the pavement is opened, spoil shall be hauled away and the trench shall be backfilled with sand, gravel, or structural fill (compacted in layers).
5. Pavement removed shall be replaced in accordance with County specifications.
6. Applicant shall provide ALL NECESSARY SIGNS, FLAGMEN, AND LIGHTS required per conformance with the "Manual on Uniform Traffic Control Devices". When a detour is allowed, local newspapers shall be notified, by the Applicant, in advance of the work being started.
7. All disturbed areas shall be returned to their present condition or better, subject to the satisfaction of County representative. Access to all private drives and public street intersections shall be maintained, and all areas completely restored.
8. Trenching, tunneling, or excavating shall be performed in accordance with requirements of OSHA, Wisconsin Department of Commerce, this policy, and any applicable local regulations.
9. Copy of the permit approval, along with any plans and special provisions, shall be available on the job site.
10. Upon completion of the work, Applicant/Owner shall file a written notice of completion with the County.
11. Other jurisdictions that may have permit authority are to be contacted; for example, WDNR, Township, County Land & Water Conservation.
12. Issuance of a Permit does not exempt Applicant/Owner from any other Federal, State, County, or Local Agency Permits or approval processes.

INDEMNIFICATION

1. APPLICANT shall indemnify, hold harmless and defend COUNTY, its boards, commissions, agencies, officers, employees, and representatives against any and all liability, loss (including, but not limited to, property damage, bodily injury, and loss of life), damages, costs, or expenses which COUNTY, its officers, employees, agencies, boards, commissions, and representatives may sustain, incur or be required to pay by reason of APPLICANT engaging in the activities authorized by the Permit or which arise out of or are connected with, or are claimed to arise out of or be connected with any of the work done by the APPLICANT, or the construction or maintenance of facilities by APPLICANT, pursuant to the Permit, on, under, or over highway right-of-way, provided, however, that the provisions of this paragraph shall not apply to liabilities, losses, costs, or expenses caused or resulting from the acts or omissions of County, its agents, boards, commissions, officers, employees, or representatives. Without limiting the generality of the foregoing, the liability, damage, loss, expense, claims, demands, and actions indemnified against shall include all liability, damage, loss, expense, claims, demands, and actions for damage to any property, lines, or facilities placed by or on behalf of the APPLICANT pursuant to the permit, for any loss of data, information, or material; for trademark, copyright, or patent infringement; for unfair competition or infringement of any other so-called "intangible" property right; for defamation, false arrest, malicious prosecution or any other infringement of personal or property rights of any kind whatever. APPLICANT shall at its own expense investigate all such claims and demands, attend to their settlement or other disposition, defend all actions based thereon and pay all charges of attorneys and all other costs and expenses of any kind arising from any such liability, damage, loss, claims, demands, and actions. The obligation of APPLICANT under this paragraph shall survive the expiration or termination of the Permit.
2. In order to protect itself and COUNTY, its officers, boards, commissions, agencies, employees, and representatives under the indemnity provisions of paragraph 1, above, APPLICANT will at all times during the term of the Permit keep in full force and effect comprehensive general liability and auto liability insurance policies issued by a company or companies authorized to do business in the State of Wisconsin and licensed by the Wisconsin Insurance Department, with liability coverage provided for therein in the amounts of at least \$1,000,000 Combined Single Limit (CSL). Covered afforded shall apply as primary. COUNTY shall be given ten (10) days advance notice of cancellation or non-renewal. Upon issuance of the Permit, APPLICANT shall furnish COUNTY with a certificate of insurance listing COUNTY as an additional insured and, upon request, certified copies of the required insurance policies. If APPLICANT insurance is underwritten on a Claims-Made basis, the Retroactive Date shall be prior to or coincide with the date of issuance of the Permit, and the Certificate of Insurance shall state that coverage is Claims-Made and indicate the Retroactive date. APPLICANT shall maintain coverage for the duration of the Permit and two years thereafter. APPLICANT shall furnish COUNTY, annually on the Policy renewal date, a Certificate of Insurance as evidence of coverage. It is further agreed that APPLICANT shall furnish COUNTY with a 30-day notice of aggregate erosion, in advance of the Retroactive Date, cancellation, or renewal. It is also agreed that on Claims-Made policies, either APPLICANT or COUNTY may invoke the tail option on behalf of the other party and that the Extended Reporting Period premium shall be paid by the APPLICANT. In the event any action, suit, or other proceeding is brought against COUNTY upon any matter herein indemnified against, COUNTY shall give reasonable notice thereof to APPLICANT and shall cooperate with APPLICANT attorneys in the defense of the action, suit, or other proceeding. APPLICANT shall furnish evidence of adequate Worker's Compensation Insurance.
3. In case of any sublet work under the Permit, APPLICANT shall furnish evidence that each and every subcontractor has in force and effect insurance policies providing coverage identical to that required of APPLICANT.

The parties do hereby expressly agree that COUNTY, acting at its sole option and through its Risk Manager, may waive any and all requirements contained in paragraphs 1-3, above, such waiver to be in writing only.

Columbia County Sheriff & Highway Depts Right-of-Way Special Access Permit Application

Chapter §349.185 of Wisconsin Statutes and County Ordinance (section 9.11) provides that the County regulate community events or celebrations, processions, or assemblages on the highways. Therefore, a Columbia County Highway & Transportation permit is hereby requested, by the undersigned, for the purpose of approving:

TYPE OF EVENT:

<input type="checkbox"/> Bike Ride	<input type="checkbox"/> Motorcycle Ride	<input type="checkbox"/> Marathon/Triathlon
<input type="checkbox"/> Walk	<input type="checkbox"/> Lane/Road Closure	<input type="checkbox"/> Other

Location:

Start Location: County Highway CTH _____ or Town Road _____
 Township of _____ Date: _____ Time: _____

End Location: County Highway CTH _____ or Town Road _____
 Township of _____ Date: _____ Time: _____

Notes: _____

Organization:

Name: _____ Phone: _____

Address: _____

Taxable Status: ☐ Profit or ☐ Non-Profit

24 Hour Contact (program manager):

Name: _____ Phone: _____ Must be available 24/7 on day of event.

Office Use Only

Permit Type: Fee _____ Exempt ☐ **Permit #:** _____

County Service Required?

Escort Vehicle: _____ Traffic Control: _____ Barricades: _____ Signage: _____

Other: _____

Estimated Cost of Services: _____ (in addition to the Permit Fee)

Sheriff's Reviewer: _____ Approval/Denial Date: _____

Highway Dept. Reviewer: _____ Approval/Denial Date: _____

Comments: _____

SPECIAL EVENT PERMIT
SUPPLEMENTAL INFORMATION NEEDED & CONDITIONS OF ISSUANCE

Supplemental information to be provided with application:

- Access location(s) and parking plans/discussion
- Sanitary facility(ies), water, rest area(s)
- Refuse removal and policing of waste
- Severe Weather coordination Plan (cancellation, reduced event, etc)
- Method of Participation Identification
- Security methods and plan
- Traffic control plan (including any identified County resource needs and method of course identification)

Conditions of Issuance:

- Provide insurance certificate to County
- Traffic control personnel knowledgeable in traffic control requirements and the MUTCD (ref St Statute §349.217)
- Organizer bears the full and complete responsibility for all risk of harm caused by, arising from, or resulting from the event. Organizer indemnifies, defends, and holds harmless Columbia County and its officials, officers, employees, volunteers, and agents against all claims, liability, loss, damage, or expense incurred on account of any injury to or death of any person or any damage to any property caused by, arising from, or resulting from the activities for which the permit is granted.
- Organizer shall procure and maintain insurance: types including but not limited to general bodily injury liability, property damage liability, and if vehicles are to be used by Organizer or as part of the event, comprehensive automobile bodily injury liability. Policy amount(s) shall reflect the size, scope, and nature of the event and shall be sufficient in coverage. Organizer shall add the County, its officials, officers, employees, volunteers, and agents as Additional Insured(s).

Email Special Events Permit Form

If you have any questions, please email Matthew Menard or call him at 608-742-4166 ext. 3304.

To: Columbia County Highway Commissioner
P.O. Box 875
Wyocena, WI 53969

Telephone: (608) 429-2136
Email: highway@columbiacountywi.gov

Application is hereby made for the use of a road posted with a specified temporary weight limit.

<u>Type of Vehicle</u>	<u>Load</u>
Check Type: Truck <input type="checkbox"/> Truck-Tractor <input type="checkbox"/> Other <input type="checkbox"/>	Article or articles to be transported _____
Make _____	Wt. of Articles _____
License No. & State _____	Total wt. of vehicles and load _____

Route: From _____

To _____

Via Highways _____

Date of Move _____	Insurance Co. _____
Time of Move – Start _____ End _____	Address _____
Number of Loads _____	Policy No. _____

The Columbia County Highway requires at **least a 72-hour advance** request. The costs for any damages to the road shall be the responsibility of the permittee. Due to the weather & road condition, this form can be voided at any time.

Respectfully Submitted,

Name _____	Signature _____
Address _____	Date of Submittal _____
_____	Telephone _____

Date _____	Permit No. _____	Date _____
Time _____		Time _____
County Authorization _____	Municipality Authorization _____	

Permit valid only on the date and time of move.

A copy of this permit must be kept in the vehicle at all times

Early AM 60% loads middle of roadway.

APPENDIX B: DEPARTMENT FORM LETTERS OR NOTICES

Tree/Trimming Notice

Notice of Right/Request for Wood from Removed Trees

Seasonal Weight Restrictions



COLUMBIA COUNTY

Highway and Transportation

608-429-2136
FAX: 608-429-3750
E-MAIL: highway@co.columbia.wi.us
WEBSITE: www.co.columbia.wi.us

338 Old Highway 16 West
P.O. Box 875
Wyocena, WI 53969-0875

March 12, 2021

Dear Neighboring Property Owner:

Columbia County Highway (hereafter referred to as "Highway") has determined that several trees along the right-of-way in this area need to be trimmed and/or removed for safety reasons. Highway has been granted this authority by Wis. Stat. § 86.03 and Columbia County Ordinance § 9.07.

Per Highway policy, this letter is to notify you, as an abutting property owner(s), that potential brushing and tree work will be performed near your property and to provide you with the opportunity to ask any questions or provide information you believe would be helpful in the preparation of this project. The work to be performed is related to vision and road safety concerns which could impact the public as they traverse county roads. To discuss this matter further, please call me at your earliest convenience and prior to 7 days from the date of this notice. My contact information: (608)429-####

As is relevant to this matter and for your awareness, please note the following:

1. Trees that are marked with "pink" paint, are being marked for complete removal;
2. Trees marked with "blue" paint are being marked for select trimming (tree is NOT being removed);
3. Unmarked trees will be left "as is"; and
4. The paint being utilized is a water-based paint and will "wear off" within 6 to 9 months.

Abutting owners may have the wood from the removed trees if desired. If you have an interest in the wood salvaged from this process, please complete the 2nd page of this letter within the 7-day deadline. Thank you in advance for your cooperation and interest in this work. I hope to hear from you soon.

(over)

Sincerely,

Superintendent

TREE REMOVAL NOTICE

1



**COLUMBIA
COUNTY**

Highway and Transportation

608-429-2136
FAX: 608-429-3750
E-MAIL: highway@co.columbia.wi.us
WEBSITE: www.co.columbia.wi.us

338 Old Highway 16 West
P.O. Box 875
Wyocena, WI 53969-0875

NOTICE OF RIGHT TO AND REQUEST FOR WOOD FROM REMOVED TREES

As an abutting owner, you have a right of refusal to the wood obtained through this project. Through this document, you may request that Highway provides you with this wood. If you wish to make this request, you, as an abutting owner initiating his/her right of refusal, agree to each the following:

- Owner asserts that he/she has the proper authority necessary to agree to these terms and make this request;
- Owner understands that Highway cutting is not for merchantable saw mill lumber. Wood is cut to size to be manageable on an equipment scale and not related to quality of end-use lumber considerations (cut in lengths of 10 to 12 ft +/-);
- Owner grants Highway access to the site for storage of the woody product;
- Owner has a suitable equipment-accessible location within a reasonable distance of the work area (less than ½ mile);
- Owner agrees that, upon Highway's transfer of the wood to the designated location, the ownership of the salvage wood will become his or her property and responsibility for any proper and lawful disposition;
- Owner agrees that he/she will not return any portion of the wood to the ROW;
- Owner agrees to indemnify and hold harmless the County and its employee for work, damage, or use of wood by Owner that the County provides and in fulfilling the obligation of transferring the wood to the Owner; and,
- Tree(s) is not diseased or of environmental concern (i.e., Ash bore, Oak wilt, etc.). In cases where the tree is diseased, CCHD will remove and dispose of the tree to prevent the potential spread of disease.

If you would like the wood from this activity, please provide direction as to where you would like it stockpiled, sign your name below, and return to my attention.

Signature: _____ Printed: _____

Date: _____

TREE REMOVAL NOTICE

2



608-429-2136
FAX: 608-429-3750
E-MAIL: highway@co.columbia.wi.us
WEBSITE: www.co.columbia.wi.us

338 Old Highway 16 West
P.O. Box 875
Wyocena, WI 53969-0875

NEWS RELEASE FOR IMMEDIATE RELEASE

Date: March 9, 2021

SEASONAL WEIGHT RESTRICTIONS TO BEGIN

Pursuant to Wisconsin Statute 349.16, the Columbia County Highway & Transportation Department will implement seasonal weight restrictions on County Trunk Highways and Town Roads beginning Tuesday, March 9, 2021. Restrictions become effective upon the placement of signs. Restrictions limit vehicle weight to 10 tons. Seasonal restrictions are enforced each spring in order to reduce damage to roadway (roadbed becomes unstable and susceptible to damage from moisture being trapped in upper layers of the subgrade due to frost conditions). Weight restrictions will remain in effect until moisture dries out, the roadbed becomes stable again, and the signs are removed.

Subpart 349.16(3) provides for exemptions to restrictions; operators meeting these criteria may contact the Highway & Transportation Department for further information. Other, emergency, single trip variances may be considered by Highway & Transportation Department on a case by case basis.

For further information, please contact the Department at 338 Old Highway 16 Road in Wyocena, P.O. Box 875, by phone (608)429-2136, or by email highway@co.columbia.wi.us.

Published by Order of the Commissioner,

Chris Hardy, PE

REFERENCES

Wisconsin Statutes and Annotations, Wisconsin Legislative Reference Bureau, 54th Edition, 2017-2018.

“History of Wisconsin Highway Development 1835-1945”, Highway Planning Survey, State Highway Commission of Wisconsin and Public Roads Administration Federal Works Agency.

“Highway Basics” Jim Thiel, WisDOT Office General Council, February 12, 2006.

Wisconsin County Highway Association (WCHA) www.wisconsinhighways.org

WisDOT Highway Maintenance Manual (HMM)

Wisconsin Highways website www.wisconsinhighways.org, copyright 1997-2016, Christopher Bessert, cartographer.

FHWA Functional Classification Guidelines

Columbia County Code of Ordinances (County Ord), March, 2021 version.

FHWA Manual of Uniform Traffic Control Devices

WisDOT Supplement to the Manual of Traffic Control Devices

Standard Highway Signs Book

WisDOT 2020 Work Zone Field Manual

WisDOT Road and Bridge Construction Specifications and Specials (“Blue Book”)

WisDOT Manual of Construction Materials and Management (CMM)

WisDOT Facilities Development Manual (FDM)

Wisconsin Water Law, A Guide to Water Rights and Regulations, 2nd edition, copyright 2001, Paul Kent and Tamara Dudiak, UW Extension Cooperative, UW Stevens Point, WI.

Local Road Assessment and Improvement Drainage Manual, UW-Madison Transportation Information Center

Asphalt Pavement Surface Evaluation and Rating Manual, UW-Madison Transportation Information Center

Pavement Surface Evaluation and Rating Sealcoat Manual, UW-Madison Transportation Information Center

Standards and Specifications for Sewer and Water Construction, Wisconsin Underground Contractors Association

WCHA) Best Management Practice documents for Chipseal, Crack filling.....

WisDOT Performance Based Management specifications for Chipseal, Crack filling, Concrete patching....

WisDOT Structure Inspection Field Manual, 2023 version.