



CITY OF MARSHFIELD  
**MEETING NOTICE**

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**AGENDA**  
**BOARD OF PUBLIC WORKS**  
**CITY OF MARSHFIELD, WISCONSIN**  
**MONDAY, APRIL 14, 2014 at 5:30 PM**  
**COUNCIL CHAMBERS, CITY HALL PLAZA**

1. Call meeting to order – Chairman Feirer
2. Approval of minutes of March 31, 2014 Board of Public Works meeting
3. Citizen Comments
4. Action on Motion PW14-53 to recommend implementation of a temporary closure of Maple Avenue from Depot Street to Veterans Parkway effective May 1, 2014 for a minimum length of two months – Presented by Dan Knoeck, Director of Public Works
5. Approval of Cemetery Maintenance Contracts – Presented by Mike Baltus, Cemetery Coordinator
6. Approval of revisions to Chapter 25 of the Municipal Code – “Construction Site Erosion Control” – Presented by Tom Turchi, City Engineer
7. Consideration of Construction Manager Services for the Library & Community Center Project – Presented by Dan Knoeck, Director of Public Works
8. Review of Parking Restrictions on Arnold Street from Chestnut Avenue to Walnut Avenue – Presented by Tom Turchi, City Engineer
9. Closed Session: Pursuant to Wisconsin Statute Chapter 19.85(1)(e) Deliberating or negotiating the purchasing of public properties, the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session.
  - Purchase of right-of-way for Hume Avenue Street Opening
10. Reconvene in Open Session
11. Action on matter discussed in closed session, if appropriate
12. Recommended items for future agendas
13. Adjournment

**Posted this 11<sup>th</sup> day of April, 2014 at 4:00 PM by Daniel G. Knoeck, Director of Public Works**

*NOTE*

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*It is possible that members of and possibly a quorum of other governmental bodies of the municipality may be in attendance at the above-stated meeting to gather information; no action will be taken by any governmental body at the above-stated meeting other than the governmental body specifically referred to above in this notice.*

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*Upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, contact Mary Anderson, Public Works Department at 630 South Central Avenue or by calling (715) 387-8424*  
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## **BOARD OF PUBLIC WORKS BACKGROUND**

**04/14/14**

1. Call meeting to order – Chairman Feirer
2. Approval of minutes of March 31, 2014 Board of Public Works meeting
3. Citizen Comments
4. Action on Motion PW14-53 to recommend implementation of a temporary closure of Maple Avenue from Depot Street to Veterans Parkway effective May 1, 2014 for a minimum length of two months – Presented by Dan Knoeck, Director of Public Works  
This item was postponed from the March 31, 2014 Board of Public Works meeting to allow time for staff to contact area businesses. Additional information will be presented at the meeting.
5. Approval of Cemetery Maintenance Contracts – Presented by Mike Baltus, Cemetery Coordinator  
See attached memo. **Recommend approval.**
6. Approval of revisions to Chapter 25 of the Municipal Code – “Construction Site Erosion Control” – Presented by Tom Turchi, City Engineer  
See attached revised ordinance. **Recommend approval and refer to the Common Council for consideration.**
7. Consideration of Construction Manager Services for the Library & Community Center Project – Presented by Dan Knoeck, Director of Public Works  
See attached memo. **Recommend that a construction manager be hired and that a selection committee be established to develop a Request for Proposals and undertake the selection process.**
8. Review of Parking Restrictions on Arnold Street from Chestnut Avenue to Walnut Avenue – Presented by Tom Turchi, City Engineer  
See attached memo. **Recommend posting ‘No Parking – When Band Shell is in Use’ on the south side of Arnold Street from Chestnut Avenue to 50’ west of the west line of Walnut Avenue.**
9. Closed Session: Pursuant to Wisconsin Statute Chapter 19.85(1)(e) Deliberating or negotiating the purchasing of public properties, the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session.
  - Purchase of right-of-way for Hume Avenue Street Opening
10. Reconvene in Open Session
11. Action on matter discussed in closed session, if appropriate
12. Recommended items for future agendas
13. Adjournment

**BOARD OF PUBLIC WORKS MINUTES**  
**OF MARCH 31, 2014**

Meeting called to order by Vice-Chairman Cummings at 5:30 PM in the Council Chambers of City Hall Plaza.

**PRESENT:** Tom Buttke, Gary Cummings, Gordon Earll and Ed Wagner

**EXCUSED:** Mike Feirer

**ALSO PRESENT:** City Administrator Barg; Director of Public Works Knoeck; City Engineer Turchi; Assistant City Engineer Cassidy; Street Superintendent Panzer; Police Chief Jepsen; City Assessor Spencer; Jack Blume, Zimmerman Architects; the media; and others.

**PW14-48** Motion by Earll, second by Buttke to recommend approval of the minutes of the March 17, 2014 Board of Public Works meeting.

**Motion Carried**

**Citizen Comments – None**

Jack Blume, Zimmerman Architects, presented the City Hall and Police Station Facilities Study reports. The report for City Hall identifies two options for getting the entire Finance Department on 5<sup>th</sup> floor, including cost estimates. It also identifies future capital needs with cost estimates and provides a cost estimate for construction of a new building for sake of comparison. The Police Station report identifies the garage expansion as the highest priority and provides a cost estimate.

**PW14-49** Motion by Wagner, second by Earll to recommend receiving and placing on file the City Hall Facilities Study Report and the Police Station Facilities Study Report.

**Motion Carried**

**PW14-50** Motion by Buttke, second by Earll to recommend approval of the low bid submitted by Haas Sons, Inc. of Thorp, WI for Contract 2014-01 - Street Improvement Projects, at a cost of \$723,655.52 and authorize execution of a contract, and further request a budget resolution be prepared to transfer funds within the Capital Project Fund (401) to balance funding for this project and refer to the Common Council for consideration.

**Motion Carried**

**PW14-51** Motion by Wagner, second by Buttke to recommend approval of the bid submitted by American Asphalt of Wisconsin of Mosinee, WI for 2014 Asphalt Paving at a cost not to exceed budgeted funding and authorize execution of a contract.

**Motion Carried**

**PW14-52** Motion by Buttke, second by Earll to recommend approval of the low quotation submitted by Utility Sales and Service of Appleton, WI for the purchase of a 2015 Versalift VST-6000 aerial truck for the Street Department at a cost of \$162,795 and authorize execution of a purchase agreement.

**All ‘Ayes’ Motion Carried**

Knoeck presented a recommendation from the Office of the Commissioner of Railroads that the City of Marshfield consider a temporary closing of the railroad crossing on Maple Avenue to assess whether or not this crossing could be closed permanently.

**PW14-53** Motion by Wagner, second by Earll to recommend implementation of a temporary closure of Maple Avenue from Depot Street to Veterans Parkway effective May 1, 2014 for a minimum length of two months.

**PW14-54** Motion by Earll, second by Buttke to recommend that action on a temporary closure of Maple Avenue from Depot Street to Veterans Parkway be postponed until the April 14, 2014 Board of Public Works meeting.

**Wagner voted 'No', Motion Carried**

City Engineer Turchi presented the Annual Storm Water Management Report. He will be giving an update to the Common Council on April 22, 2014 with more detail on the future of TMDL and what impacts that might have on the City. He will also draw names for a rain barrel to give away at the meeting.

**PW14-55** Motion by Buttke, second by Wagner to recommend receiving the Annual Storm Water Management Report and placing it on file.

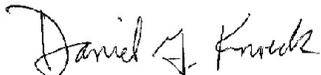
**Motion Carried**

**Recommended items for future agendas:**

- Earll requested that parking on West Arnold Street by Columbia Park be discussed at a future Board of Public Works meeting.

Motion by Wagner, second by Buttke that the meeting be adjourned at 6:58 PM.

**Motion Carried**



Daniel G. Knoeck, Secretary  
BOARD OF PUBLIC WORKS



City of  
Marshfield

# Memorandum

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**TO: Board of Public Works**  
**FROM: Dan Knoeck, Director of Public Works**  
**DATE: March 28, 2014**  
**RE: Update on the Maple Avenue Railroad Crossing at Veterans Parkway**

## **BACKGROUND**

On March 19<sup>th</sup>, 2014, a meeting was held at the Fire Station with representatives of the Office of the Commissioner of Railroads (OCR), Canadian National Railroad (CN), Federal Railroad Administration (FRA), Marshfield Fire and Rescue, Marshfield Police Department, the Mayor, City Administrator, Director of Public Works, City Engineer, and the Wisconsin Department of Transportation (WisDOT). The purpose of the meeting was to discuss mutual concerns regarding the number of recent train/vehicle crashes at the Maple Avenue railroad crossing. From these discussions it was strongly suggested by the OCR that the City of Marshfield implement a temporary closure of the railroad crossing on Maple Avenue to assess whether or not this crossing could be closed permanently. Based on a review by the OCR, they believe that there are enough other crossing locations and a good local street network in the area that this crossing could be closed permanently. The OCR does have the authority to order a crossing to be closed, however the temporary closure approach would allow the City to evaluate the impact of a closure prior to a permanent closure. Additionally, if the City and the Railroad can negotiate a crossing closure without an order from OCR, there may be funding available to offset the cost of the closure. If the OCR orders a crossing closed, there is no opportunity for funding. The consensus at the meeting on the 19<sup>th</sup> was that a temporary closure would be a reasonable approach in response to the recent crash history. Staff is suggesting that a temporary closure be put into effect as of May 1, 2014 and continue for a period of time of not less than 2 months.

## **ANALYSIS**

In order to implement the temporary closure, Staff proposes the following steps:

- Meet with businesses in the immediate area to understand access implications, particularly for truck traffic.
- Create a public outreach campaign to inform the public of the upcoming closure.
- Collect traffic count data at key locations prior to the closure to better assess changes in traffic patterns that result from the closure.
- Evaluate the likely alternative routes that traffic will use to determine if any improvements are necessary.

During the closure, we would anticipate collecting additional traffic count data to evaluate changes in traffic patterns. In addition, staff will develop cost estimates for implementing a permanent closure, including pavement removal, traffic signal modifications, and improvements that may be needed elsewhere. These cost estimates will then be used to begin negotiations with the CN and WisDOT for cost sharing, should the crossing be closed permanently.

Upon completion of the temporary closing, we anticipate that there will be a follow up meeting with the same group that met on March 19<sup>th</sup> to assess the temporary closure and determine if a permanent closure is a workable solution.

In addition, the final determination at Maple Avenue will likely have an impact on the city's 24 hour quiet zone. If the Maple crossing remains open, the recent crash history will increase the risk factor of the quiet zone and will trigger a review by the FRA. If the Maple crossing is closed the recent crash history will not be considered in the quiet zone review.

**RECOMMENDATION**

I recommend that the Maple Avenue railroad crossing at Veterans Parkway be closed temporarily starting on May 1, 2014 for a period of time of not less than 2 months to assess the possibility of a permanent closure of the crossing.

Concurrence:



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Steve Barg, City Administrator

April 7, 2014

To: Board of Public Works Members

From: Mike Baltus, Cemetery Coordinator

Re: Catholic and Lutheran Cemetery Maintenance Contracts

The City is nearing the end of its five year contracts with the Catholic and Lutheran Cemeteries. Per the current contracts, a six month notice is needed to except or terminate them. The current contracts are due to expire on December 31, 2014. I have had some conversation with both of the cemetery representatives. They are pleased with our past efforts and would like to consider renewing the contracts with us. Below please find a breakdown of the last three year revenues from these contracts.

	Catholic	Lutheran
2011	\$53,832.00	\$7,093.00
2012	\$54,837.00	\$7,278.00
2013	\$57,022.00	\$7,691.00

**Recommendation**

I would recommend this board authorize staff to pursue the renewal of these maintenance contracts with both Catholic and Lutheran Cemeteries, as they greatly enhance the revenues for Hillside Cemetery.

Respectfully Submitted

Mike Baltus, Cemetery Coordinator



City of  
Marshfield

# Memorandum

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**TO:** Board of Public Works  
**FROM:** Tom Turchi, City Engineer  
**DATE:** April 11, 2014  
**RE:** Revised Stormwater Ordinance – Chapter 25

## **BACKGROUND**

As a part of the city's stormwater permit it is necessary to review and complete updates as the technical standards for the DNR change.

## **ANALYSIS**

The City of Marshfield has partnered with Marathon County, the Cities of Wausau, Schofield, Merrill, Stevens Point, and Wisconsin Rapids, The Villages of Weston, Kronenwetter, Mosinee, and Rothschild, and the Town of Rib Mountain with the purpose to develop and implement consistent informational outreach programs that can be utilized by all agencies meeting the requirements of NR 216.07. The group is known as the North Central Wisconsin Storm Water Coalition (NCWSC). All party's within this coalition have partnered to create an update to our stormwater ordinances.

There are numerous differences between the current ordinance and the ordinance being proposed to be consistent with the revised technical standards of the DNR. The sections that have changed are as follows:

### ***Article I. Construction Site Erosion Control***

Sec. 25-03	Purpose
Sec. 25-06	Technical Standards
Sec. 25-07	Performance Standards for Construction Sites Under One Acre
Sec. 25-08	Performance Standards for Construction Sites of One Acre or More
Sec. 25-09	Permitting Requirements, Procedures and Fees
Sec. 25-11	Fee Schedule
Sec. 25-12	Inspection

### ***Article II. Post-Construction Storm Water Management***

Sec. 25-24	Applicability and Jurisdiction
Sec. 25-26	Technical Standards
Sec. 25-27	Performance Standards
Sec. 25-28	Permitting Requirements, Procedures and Fees
Sec. 25-29	Storm Water Management Plan
Sec. 25-2	Fee Schedule

Upon completion of this draft ordinance by the NCSWC, the group submitted the document to the Wisconsin DNR for review and comments. Following DNR's review of the proposed ordinance the NCSWC received a request from the DNR to allow them to use our proposed ordinance as a template to be shared with other communities within the state.

## **RECOMMENDATION**

I recommend that the revised ordinance - Chapter 25 CONSTRUCTION SITE EROSION CONTROL Article I. Construction Site Erosion Control and Article II. Post-Construction Storm Water Management be forwarded to the Common Council for their approval.

Respectfully submitted,

*Thomas R. Turchi*

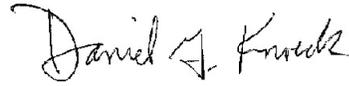
Thomas Turchi

Concurrence:



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Steve Barg, City Administrator



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Daniel G. Knoeck, P.E. Director of Public Works

Chapter 25

**CONSTRUCTION SITE EROSION CONTROL**

**Article I. Construction Site Erosion Control**

Sec. 25-01	Authority
Sec. 25-02	Findings of Fact
Sec. 25-03	Purpose
Sec. 25-04	Applicability and Jurisdiction
Sec. 25-05	Definitions
Sec. 25-06	Technical Standards
Sec. 25-07	Performance Standards for Construction Sites Under One Acre
Sec. 25-08	Performance Standards for Construction Sites of One Acre or More
Sec. 25-09	Permitting Requirements, Procedures and Fees
Sec. 25-10	Erosion and Sediment Control Plan, Statement and Amendments
Sec. 25-11	Fee Schedule
Sec. 25-12	Inspection
Sec. 25-13	Enforcement
Sec. 25-14	Appeals

**Article II. Post-Construction Storm Water Management**

Sec. 25-21	Authority
Sec. 25-22	Findings of Fact
Sec. 25-23	Purpose and Intent
Sec. 25-24	Applicability and Jurisdiction
Sec. 25-25	Definitions
Sec. 25-26	Technical Standards
Sec. 25-27	Performance Standards
Sec. 25-28	Permitting Requirements, Procedures and Fees
Sec. 25-29	Storm Water Management Plan
Sec. 25-30	Maintenance Agreement
Sec. 25-31	Financial Guarantee
Sec. 25-32	Fee Schedule
Sec. 25-33	Enforcement
Sec. 25-34	Appeals
Sec. 25-35	Severability
Sec. 25-36	Effective Date

## CONSTRUCTION SITE EROSION CONTROL

### Article I. Construction Site Erosion Control

#### Sec. 25-01. AUTHORITY.

- (1) This ordinance is adopted under the authority granted by s. 62.234, Wis. Stats. This ordinance supersedes all provisions of an ordinance previously enacted under s. 62.23, Wis. Stats., that relate to construction site erosion control. Except as otherwise specified in s. 62.234 Wis. Stats., s. 62.23, Wis. Stats., applies to this ordinance and to any amendments to this ordinance.
- (2) The provisions of this ordinance are deemed not to limit any other lawful regulatory powers of the same governing body.
- (3) The Common Council hereby designates the Director of Public Works or his designee to administer and enforce the provisions of this ordinance.
- (4) The requirements of this ordinance do not pre-empt more stringent erosion and sediment control requirements that may be imposed by any of the following:
  - (a) Wisconsin Department of Natural Resources administrative rules, permits or approvals including those authorized under ss. 281.16 and 283.33, Wis. Stats.
  - (b) Targeted non-agricultural performance standards promulgated in rules by the Wisconsin Department of Natural Resources under s. NR 151.004, Wis. Adm. Code.

#### Sec. 25-02. FINDINGS OF FACT.

The Common Council finds that runoff from land disturbing construction activity carries a significant amount of sediment and other pollutants to the waters of the state in City of Marshfield.

#### Sec. 25-03. PURPOSE.

It is the purpose of this ordinance to further the maintenance of safe and healthful conditions; prevent and control water pollution; prevent and control soil erosion; protect spawning grounds, fish and aquatic life; control building sites, placement of structures and land uses; preserve ground cover and scenic beauty; and promote sound economic growth, by minimizing the amount of sediment and other pollutants carried by runoff or discharged from land disturbing construction activity to waters of the state in the City of Marshfield.

#### Sec. 25-04. APPLICABILITY AND JURISDICTION.

##### (1) APPLICABILITY.

- (a) This ordinance applies to the following land disturbing construction activities except as provided under sub. (b):
  1. Construction sites for which the Wisconsin Department of Natural Resources received a notice of intent in accordance with subch. III of ch. NR 216 on or after [reviser replace with date of adoption].
  2. Construction sites for which a bid has been advertised or construction contract signed for which no bid was advertised, on or after [reviser replace with date of adoption]. ..

(b) This ordinance does not apply to the following:

1. A construction project that is exempted by federal statutes or regulations from the requirement to have a national pollutant discharge elimination system permit issued under chapter 40, Code of Federal Regulations, part 122, for land disturbing construction activity.
2. Nonpoint discharges from agricultural facilities and practices.
3. Nonpoint discharges from silviculture activities.
4. Routine maintenance for project sites under 5 acres of land disturbance if performed to maintain the original line and grade, hydraulic capacity or original purpose of the facility.

(c) Notwithstanding the applicability requirements in paragraph (a), this ordinance applies to construction sites of any size that, in the opinion of the Director of Public Works or his designee, are likely to result in runoff that exceeds the safe capacity of the existing drainage facilities or receiving body of water, that causes undue channel erosion, that increases water pollution by scouring or the transportation of particulate matter or that endangers property or public safety.

(2) **JURISDICTION.**

This ordinance applies to land disturbing construction activity on construction sites located within the boundaries and jurisdiction of the City of Marshfield.

(3) **EXCLUSIONS.**

This ordinance is not applicable to activities conducted by a state agency, as defined under s. 227.01 (1), Wis. Stats., but also including the office of district attorney, which is subject to the state plan promulgated or a memorandum of understanding entered into under s. 281.33 (2), Wis. Stats.

**Sec. 25-05. DEFINITIONS.**

- (1) “Administering authority” means a governmental employee, or a regional planning commission empowered under s. 62.234, Wis. Stats., that is designated by the Common Council to administer this ordinance.
- (2) “Agricultural facilities and practices ” has the meaning in s. 281.16(1), Wis. Stats.
- (3) “Average annual rainfall” means a typical calendar year of precipitation as determined by the department for users of models such as SLAMM, P8, or equivalent methodology. The average annual rainfall is chosen from a department publication for the location closest to the municipality.
- (4) “Best management practice” or “BMP” means structural or non-structural measures, practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to waters of the state.
- (5) “Business day” means a day the office of the Director of Public Works or his designee is routinely and customarily open for business.
- (6) “Cease and desist order” means a court-issued order to halt land disturbing construction activity that is being conducted without the required permit.
- (7) “Construction site” means an area upon which one or more land disturbing construction activities occur, including areas that are part of a larger common plan of development or sale where multiple separate and distinct land disturbing construction activities may be taking place at different times on different schedules but under one plan. A long-range planning document that describes separate construction projects, such as a 20-year transportation

improvement plan, is not a common plan of development.

(8) “Division of land” means the creation from one parcel, two or more parcels regardless of size where such creation occurs at one time or through the successive partition within a 5 year period.

(9) “Erosion” means the process by which the land’s surface is worn away by the action of wind, water, ice or gravity.

(10) “Erosion and sediment control plan” means a comprehensive plan developed to address pollution caused by erosion and sedimentation of soil particles or rock fragments during construction 25-09.

(11) “Extraterritorial” means the unincorporated area within 3 miles of the corporate limits of a first, second, or third class city, or within 1.5 miles of a fourth class city or village.

(12) “Final stabilization” means that all land disturbing construction activities at the construction site have been completed and that a uniform perennial vegetative cover has been established, with a density of at least 70 percent of the cover, for the unpaved areas and areas not covered by permanent structures, or that employ equivalent permanent stabilization measures.

(13) “Governing body” means Common Council of the City of Marshfield.

(14) “Land disturbing construction activity” means any man-made alteration of the land surface resulting in a change in the topography or existing vegetative or non-vegetative soil cover, that may result in runoff and lead to an increase in soil erosion and movement of sediment into waters of the state. Land disturbing construction activity includes clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities.

(15) “MEP” or “maximum extent practicable” means a level of implementing best management practices in order to achieve a performance standard specified in this chapter which takes into account the best available technology, cost effectiveness, geographic features, and other competing interests such as protection of public safety and welfare, protection of endangered and threatened resources, and preservation of historic properties. MEP allows flexibility in the way to meet the performance standards and may vary based on the performance standard and site conditions.

(16) “Performance standard” means a narrative or measurable number specifying the minimum acceptable outcome for a facility or practice.

(17) “Permit” means a written authorization made by the Director of Public Works or his designee to the applicant to conduct land disturbing construction activity or to discharge post-construction runoff to waters of the state.

(18) “Permit administration fee” means a sum of money paid to the Director of Public Works or his designee by the permit applicant for the purpose of recouping the expenses incurred by the authority in administering the permit.

(19) “Pollutant” has the meaning given in s. 283.01 (13), Wis. Stats.

(20) “Pollution” has the meaning given in s. 281.01 (10), Wis. Stats.

(21) “Responsible party” means any entity holding fee title to the property or performing services to meet the performance standards of this ordinance through a contract or other agreement.

(22) “Runoff” means storm water or precipitation including rain, snow or ice melt or similar water that moves on the land surface via sheet or channelized flow.

(23) “Sediment” means settleable solid material that is transported by runoff, suspended within runoff or deposited by runoff away from its original location.

(24) “Separate storm sewer” means a conveyance or system of conveyances including roads with drainage

systems, streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all of the following criteria:

- (b) Is designed or used for collecting water or conveying runoff.
- (c) Is not part of a combined sewer system.
- (d) Is not part of a publicly owned wastewater treatment works that provides secondary or more stringent treatment.
- (e) Discharges directly or indirectly to waters of the state.

(25) "Site" means the entire area included in the legal description of the land on which the land disturbing construction activity is proposed in the permit application.

(26) "Stop work order" means an order issued by the Director of Public Works or his designee which requires that all construction activity on the site be stopped.

(27) "Technical standard" means a document that specifies design, predicted performance and operation and maintenance specifications for a material, device or method.

(28) "Type II distribution" means a rainfall type curve as established in the "United States Department of Agriculture, Soil Conservation Service, Technical Paper 149, published 1973". The Type II curve is applicable to all of Wisconsin and represents the most intense storm pattern.

(29) "Waters of the state" has the meaning given in s. 283.01 (20), Wis. Stats.

**Sec. 25-06. TECHNICAL STANDARDS.**

(1) DESIGN CRITERIA, STANDARDS AND SPECIFICATIONS. All BMPs required to comply with this ordinance shall meet the design criteria, standards and specifications based on any of the following:

(a) Design guidance and technical standards identified or developed by the Wisconsin Department of Natural Resources under subchapter V of chapter NR 151, Wis. Adm. Code.

(b) For this ordinance, soil loss is calculated using the appropriate rainfall or runoff factor, also referred to as the R factor, or an equivalent design storm using a type II distribution, with consideration given to the geographic location of the site and the period of disturbance. The following year and location has been selected as average annual rainfall: Green Bay, WI, 1969 (Mar 29 – Nov 25).

(2) OTHER STANDARDS. Other technical standards not identified or developed in sub. (1), may be used provided that the methods have been approved by the Director of Public Works or his designee.

**Sec. 25-07. PERFORMANCE STANDARDS FOR CONSTRUCTION SITES UNDER AN ACRE**

(1) RESPONSIBLE PARTY. The landowner of the construction site or other person contracted or obligated by other agreement with the landowner to implement and maintain construction site BMPs is the responsible party and shall comply with this section.

(2) EROSION AND OTHER POLLUTANT CONTROL REQUIREMENTS.

(a) EROSION AND SEDIMENT CONTROL PRACTICES. Erosion and sediment control practices at each site where land disturbing construction activity is to occur shall be used to prevent or reduce all of the following:

1. The deposition of soil from being tracked onto streets by vehicles.

2. The discharge of sediment from disturbed areas into on-site storm water inlets.
  3. The discharge of sediment from disturbed areas into adjacent waters of the state.
  4. The discharge of sediment from drainage ways that flow off the site.
  5. The discharge of sediment by dewatering activities.
  6. The discharge of sediment eroding from soil stockpiles existing for more than 7 days.
  7. The discharge of sediment from erosive flows at outlets and in downstream channels.
  8. The transport by runoff into waters of the state of chemicals, cement, and other building compounds and materials on the construction site during the construction period. However, projects that require the placement of these materials in waters of the state, such as constructing bridge footings or BMP installations, are not prohibited by this subdivision.
- (3) LOCATION. The BMPs used to comply with this section shall be located prior to runoff entering waters of the state.
- (3) IMPLEMENTATION. The BMPs used to comply with this section shall be implemented as follows:
- (a) Erosion and sediment control practices shall be constructed or installed before land disturbing construction activities begin.
  - (b) Erosion and sediment control practices shall be maintained until final stabilization.
  - (c) Final stabilization activity shall commence when land disturbing activities cease and final grade has been reached on any portion of the site.
  - (d) Temporary stabilization activity shall commence when land disturbing activities have temporarily ceased and will not resume for a period exceeding 14 calendar days.
  - (e) BMPs that are no longer necessary for erosion and sediment control shall be removed by the responsible party.

**Sec. 25-08. PERFORMANCE STANDARDS FOR CONSTRUCTION SITES OF ONE ACRE OR MORE**

- (1) RESPONSIBLE PARTY. The responsible party shall implement an erosion and sediment control plan, developed in accordance with Sec. 25-10 that incorporates the requirements of this section.
- (2) PLAN. A written plan shall be developed in accordance with Sec. 25-10 and implemented for each construction site.
- (4) EROSION AND OTHER POLLUTANT CONTROL REQUIREMENTS. The plan required under sub. (2) shall include the following:
- (a) EROSION AND SEDIMENT CONTROL PRACTICES. Erosion and sediment control practices at each site where land disturbing construction activity is to occur shall be used to prevent or reduce all of the following:
    1. The deposition of soil from being tracked onto streets by vehicles.
    2. The discharge of sediment from disturbed areas into on-site storm water inlets.

3. The discharge of sediment from disturbed areas into adjacent waters of the state.
4. The discharge of sediment from drainage ways that flow off the site.
5. The discharge of sediment by dewatering activities.
6. The discharge of sediment eroding from soil stockpiles existing for more than 7 days.
7. The discharge of sediment from erosive flows at outlets and in downstream channels.
8. The transport by runoff into waters of the state of chemicals, cement, and other building compounds and materials on the construction site during the construction period. However, projects that require the placement of these materials in waters of the state, such as constructing bridge footings or BMP installations, are not prohibited by this subdivision.
9. The transport by runoff into waters of the state of untreated wash water from vehicle and wheel washing.

(b) **SEDIMENT PERFORMANCE STANDARDS.** In addition to the erosion and sediment control practices under par. (a), the following erosion and sediment control practices shall be employed:

1. BMPs that, by design, discharge no more than 5 tons per acre per year, or to the maximum extent practicable, of the sediment load carried in runoff from initial grading to final stabilization.

2. No person shall be required to employ more BMPs than are needed to meet a performance standard in order to comply with maximum extent practicable. Erosion and sediment control BMPs may be combined to meet the requirements of this paragraph. Credit may be given toward meeting the sediment performance standard of this paragraph for limiting the duration or area, or both, of land disturbing construction activity, or for other appropriate mechanisms.

3. Notwithstanding subd. 1), if BMPs cannot be designed and implemented to meet the sediment performance standard, the plan shall include a written, site-specific explanation of why the sediment performance standard cannot be met and how the sediment load will be reduced to the maximum extent practicable.

(c) **PREVENTIVE MEASURES.** The plan shall incorporate all of the following:

1. Maintenance of existing vegetation, especially adjacent to surface waters whenever possible.
2. Minimization of soil compaction and preservation of topsoil.
3. Minimization of land disturbing construction activity on slopes of 20% or more.
4. Development of spill prevention and response procedures.

(4) **LOCATION.** The BMPs used to comply with this section shall be located prior to runoff entering waters of the state.

(5) **ALTERNATE REQUIREMENTS.** The Director of Public Works or his designee may establish storm water management requirements more stringent than those set forth in this section if the Director of Public Works or his designee determines that an added level of protection is needed for sensitive resources.

**Sec. 25-09. PERMITTING REQUIREMENTS, PROCEDURES AND FEES.**

- (1) **PERMIT REQUIRED.** No responsible party may commence a land disturbing construction activity subject to this ordinance without receiving prior approval of an erosion and sediment control plan for the site and a permit from the Director of Public Works or his designee.
- (2) **PERMIT APPLICATION AND FEES.** At least one responsible party desiring to undertake a land disturbing construction activity subject to this ordinance shall submit an application for a permit and an erosion and sediment control plan that meets the requirements of Sec. 25-09 and shall pay a non-refundable application fee as set by the Board of Public Works to the Director of Public Works or his designee. By submitting an application, the applicant is authorizing the Director of Public Works or his designee to enter the site to obtain information required for the review of the erosion and sediment control plan.
- (3) **REVIEW AND APPROVAL OF PERMIT APPLICATION.** The Director of Public Works or his designee shall review any permit application that is submitted with an erosion and sediment control plan, and the required fee. The following approval procedure shall be used:
  - (a) Within twenty (20) business days of the receipt of a complete permit application, as required by sub. (2), the Director of Public Works or his designee shall inform the applicant whether the application and plan are approved or disapproved based on the requirements of this ordinance.
  - (b) If the permit application and plan are approved, the Director of Public Works or his designee shall issue the permit.
  - (c) If the permit application or plan is disapproved, the Director of Public Works or his designee shall state in writing the reasons for disapproval.
  - (d) The Director of Public Works or his designee may request additional information from the applicant. If additional information is submitted, the Director of Public Works or his designee shall have ten (10) business days from the date the additional information is received to inform the applicant that the plan is either approved or disapproved.
  - (e) Failure by the Director of Public Works or his designee to inform the permit applicant of a decision within thirty five (35) business days of a required submittal shall be deemed to mean approval of the submittal and the applicant may proceed as if a permit had been issued.
- (4) **SURETY BOND.** As a condition of approval and issuance of the permit, the Director of Public Works or his designee may require the applicant to deposit a surety bond or irrevocable letter of credit to guarantee a good faith execution of the approved erosion control plan and any permit conditions.
- (5) **PERMIT REQUIREMENTS.** All permits shall require the responsible party to:
  - (a) Notify the Director of Public Works or his designee within 48 hours of commencing any land disturbing construction activity.
  - (b) Notify the Director of Public Works or his designee of completion of any BMPs within 14 days after their installation.
  - (c) Obtain permission in writing from the Director of Public Works or his designee prior to any modification pursuant to Sec. 25-10(3) of the erosion and sediment control plan.
  - (d) Install all BMPs as identified in the approved erosion and sediment control plan.
  - (e) Maintain all road drainage systems, stormwater drainage systems, BMPs and other facilities identified in the erosion and sediment control plan.
  - (f) Repair any siltation or erosion damage to adjoining surfaces and drainage ways resulting from land disturbing construction activities and document repairs in a site erosion control log.

(g) Inspect the BMPs within 24 hours after each rain of 0.5 inches or more which results in runoff during active construction periods, and at least once each week, make needed repairs and document the findings of the inspections in a site erosion control log with the date of inspection, the name of the person conducting the inspection, and a description of the present phase of the construction at the site.

(h) Allow the Director of Public Works or his designee to enter the site for the purpose of inspecting compliance with the erosion and sediment control plan or for performing any work necessary to bring the site into compliance with the control plan. Keep a copy of the erosion and sediment control plan at the construction site.

(6) **PERMIT CONDITIONS.** Permits issued under this section may include conditions established by Director of Public Works or his designee in addition to the requirements set forth in sub. (5), where needed to assure compliance with the performance standards in Sec. 25-07 or Sec. 25-08.

(7) **PERMIT DURATION.** Permits issued under this section shall be valid for a period of 180 days, or the length of the building permit or other construction authorizations, whichever is longer, from the date of issuance. The Director of Public Works or his designee may extend the period one or more times for up to an additional 180 days. The Director of Public Works or his designee may require additional BMPs as a condition of the extension if they are necessary to meet the requirements of this ordinance.

(8) **MAINTENANCE.** The responsible party throughout the duration of the construction activities shall maintain all BMPs necessary to meet the requirements of this ordinance until the site has undergone final stabilization.

**Sec. 25-10 EROSION AND SEDIMENT CONTROL PLAN, STATEMENT, AND AMENDMENTS.**

(1) **EROSION AND SEDIMENT CONTROL PLAN.**

(a) An erosion and sediment control plan shall be prepared and submitted to the Director of Public Works or his designee.

(b) The erosion and sediment control plan shall be designed to meet the performance standards in Sec. 25-07, Sec. 25-08 and other requirements of this ordinance.

(c) The erosion and sediment control plan shall address pollution caused by soil erosion and sedimentation during construction and up to final stabilization of the site. The erosion and sediment control plan shall include, at a minimum, the following items:

1. The name(s) and address(es) of the owner or developer of the site, and of any consulting firm retained by the applicant, together with the name of the applicant's principal contact at such firm. The application shall also include start and end dates for construction.
2. Description of the site and the nature of the construction activity.
3. A sequence of construction of the development site, including stripping and clearing; rough grading; construction of utilities, infrastructure, and buildings; and final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.
4. Estimates of the total area of the site and the total area of the site that is expected to be disturbed by construction activities.
5. Calculations to show compliance with the required performance standards.
6. Existing data describing the surface soil as well as subsoils.

7. Depth to groundwater, as indicated by Natural Resources Conservation Service soil information where available.

8. Name of the immediate named receiving water from the United States Geological Service 7.5 minute series topographic maps.

(d) The erosion and sediment control plan shall include a site map. The site map shall include the following items and shall be at a scale not greater than 100 feet per inch and at a contour interval not to exceed five feet.

1. Existing topography, vegetative cover, natural and engineered drainage systems, roads and surface waters. Lakes, streams, wetlands, channels, ditches and other watercourses on and immediately adjacent to the site shall be shown. Any identified 100-year flood plains, flood fringes and floodways shall also be shown.

2. Boundaries of the construction site.

3. Drainage patterns and approximate slopes anticipated after major grading activities.

4. Areas of soil disturbance.

5. Location of major structural and non-structural controls identified in the plan.

6. Location of areas where stabilization practices will be employed.

7. Areas which will be vegetated following construction.

8. Area and location of wetland acreage on the construction site and locations where storm water is discharged to a surface water or wetland within one-quarter mile downstream of the construction site.

(e) Each erosion and sediment control plan shall include a description of appropriate controls and measures that will be performed at the site to prevent pollutants from reaching waters of the state. The plan shall clearly describe the appropriate control measures for each major activity and the timing during the construction process that the measures will be implemented. The description of erosion controls shall include, when appropriate, the following minimum requirements:

1. Description of interim and permanent stabilization practices, including a practice implementation schedule. The erosion control plan shall ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized.

2. Description of structural practices to divert flow away from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from the site. Unless otherwise specifically approved in writing by the Director of Public Works or his designee, structural measures shall be installed on upland soils.

3. Management of overland flow at all sites, unless otherwise controlled by outfall controls.

4. Trapping of sediment in channelized flow.

5. Staging construction to limit bare areas subject to erosion.

6. Protection of downslope drainage inlets where they occur.

7. Minimization of tracking at all vehicle and equipment entry and exit locations of the construction site.

8. Clean up of off-site sediment deposits.
9. Proper disposal of building and waste material.
10. Stabilization of drainage ways.
11. Control of soil erosion from dirt stockpiles.
12. Installation of permanent stabilization practices as soon as possible after final grading.
13. Minimization of dust to the maximum extent practicable.

(f) The erosion and sediment control plan shall require that velocity dissipation devices be placed at discharge locations and along the length of any outfall channel, as necessary, to provide a non-erosive flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected.

(2) **EROSION AND SEDIMENT CONTROL PLAN STATEMENT.** For each construction site identified under Sec. 25-04 (1)(c), an erosion and sediment control plan statement shall be prepared. This statement shall be submitted to the Director of Public Works or his designee. The control plan statement shall briefly describe the site, including a site map. Further, it shall also include the best management practices that will be used to meet the requirements of the ordinance, including the site development schedule.

(4) **AMENDMENTS.** The applicant shall amend the plan if any of the following occur:

- (a) There is a change in design, construction, operation or maintenance at the site which has the reasonable potential for the discharge of pollutants to waters of the state and which has not otherwise been addressed in the plan.
- (b) The actions required by the plan fail to reduce the impacts of pollutants carried by construction site runoff.
- (c) The Director of Public Works or his designee notifies the applicant of changes needed in the plan.

**Sec. 25-11 FEE SCHEDULE.**

The fees referred to in other sections of this ordinance shall be established by the Board of Public Works on an Annual Basis. A schedule of the fees established by the Board of Public Works shall be available for review in the office of the City Engineer.

**Sec. 25-12 INSPECTION.**

If land disturbing construction activities are being carried out without a permit required by this ordinance, the Director of Public Works or his designee may enter the land pursuant to the provisions of ss. 66.0119(1), (2), and (3), Wis. Stats.

**Sec. 25-13 ENFORCEMENT.**

- (1) The Director of Public Works or his designee may post a stop-work order if any of the following occurs:
  - (a) Any land disturbing construction activity regulated under this ordinance is being undertaken without a permit.
  - (b) The erosion and sediment control plan is not being implemented in a good faith manner.

(c) The conditions of the permit are not being met.

(2) If the responsible party does not cease activity as required in a stop-work order posted under this section or fails to comply with the erosion and sediment control plan or permit conditions, the Director of Public Works or his designee may revoke the permit.

(3) If the responsible party, where no permit has been issued, does not cease the activity after being notified by the Director of Public Works or his designee, or if a responsible party violates a stop-work order posted under sub. (1), the Director of Public Works or his designee may request the City attorney to obtain a cease and desist order in any court with jurisdiction.

(4) After posting a stop-work order under sub. (1), the Director of Public Works or his designee may issue a notice of intent to the responsible party of its intent to perform work necessary to comply with this ordinance. The Director of Public Works or his designee may go on the land and commence the work after issuing the notice of intent. The costs of the work performed under this subsection by the Director of Public Works or his designee, plus interest at the rate authorized by Common Council shall be billed to the responsible party. In the event a responsible party fails to pay the amount due, the clerk shall enter the amount due on the tax rolls and collect as a special assessment against the property pursuant to subch. VII of ch. 66, Wis. Stats.

(5) Any person violating any of the provisions of this ordinance shall be subject to a forfeiture of billable damages plus a penalty as provided by Sec. 1-05 of the City of Marshfield Municipal Code, together with the costs of prosecution for each violation. Each day a violation exists shall constitute a separate offense.

(6) Compliance with the provisions of this ordinance may also be enforced by injunction in any court with jurisdiction. It shall not be necessary to prosecute for forfeiture or a cease and desist order before resorting to injunctive proceedings.

**Sec. 25-14. APPEALS.**

(1) Zoning Board of Appeals.

(a) Shall hear and decide appeals where it is alleged that there is error in any order, decision or determination made by the Director of Public Works or his designee in administering this ordinance except for cease and desist orders obtained under Sec. 25-12 (3).

(d) Upon appeal, may authorize variances from the provisions of this ordinance which are not contrary to the public interest and where owing to special conditions a literal enforcement of the provisions of the ordinance will result in unnecessary hardship; and

(e) Shall use the rules, procedures, duties and powers authorized by statute in hearing and deciding appeals and authorizing variances.

(2) WHO MAY APPEAL. Appeals to the Zoning Board of Appeals may be taken by any aggrieved person or by any office, department, board, or bureau of the City of Marshfield affected by any decision of the Director of Public Works or his designee.

**POST-CONSTRUCTION STORM WATER MANAGEMENT**

**Article II. Post-Construction Storm Water Management**

**Sec. 25-21. AUTHORITY.**

- (1) This ordinance is adopted by the Common Council under the authority granted by s. 62.234, Wis. Stats. This ordinance supersedes all provisions of an ordinance previously enacted under s. 62.23, Wis. Stats., that relate to storm water management regulations. Except as otherwise specified in s. 62.234, Wis. Stats., s. 62.23, Wis. Stats., applies to this ordinance and to any amendments to this ordinance.
- (2) The provisions of this ordinance are deemed not to limit any other lawful regulatory powers of the same governing body.
- (3) The Common Council hereby designates the Director of Public Works or his designee to administer and enforce the provisions of this ordinance.
- (4) The requirements of this ordinance do not pre-empt more stringent storm water management requirements that may be imposed by any of the following:
  - (a) Wisconsin Department of Natural Resources administrative rules, permits or approvals including those authorized under ss. 281.16 and 283.33, Wis. Stats.
  - (b) Targeted non-agricultural performance standards promulgated in rules by the Wisconsin Department of Natural Resources under s. NR 151.004, Wis. Adm. Code.

**Sec. 25-22. FINDINGS OF FACT.**

The Common Council finds that uncontrolled, post-construction runoff has a significant impact upon water resources and the health, safety and general welfare of the community and diminishes the public enjoyment and use of natural resources. Specifically, uncontrolled post-construction runoff can:

- (1) Degrade physical stream habitat by increasing stream bank erosion, increasing streambed scour, diminishing groundwater recharge, diminishing stream base flows and increasing stream temperature.
- (2) Diminish the capacity of lakes and streams to support fish, aquatic life, recreational and water supply uses by increasing pollutant loading of sediment, suspended solids, nutrients, heavy metals, bacteria, pathogens and other urban pollutants.
- (3) Alter wetland communities by changing wetland hydrology and by increasing pollutant loads.
- (4) Reduce the quality of groundwater by increasing pollutant loading.
- (5) Threaten public health, safety, property and general welfare by overtaxing storm sewers, drainage ways, and other minor drainage facilities.
- (6) Threaten public health, safety, property and general welfare by increasing major flood peaks and volumes.
- (7) Undermine floodplain management efforts by increasing the incidence and levels of flooding.

**Sec. 25-23. PURPOSE AND INTENT.**

- (1) PURPOSE. The general purpose of this ordinance is to establish long-term, post-construction runoff management requirements that will diminish the threats to public health, safety, welfare and the aquatic environment. Specific purposes are to:
  - (a) Further the maintenance of safe and healthful conditions.
  - (b) Prevent and control the adverse effects of storm water; prevent and control soil erosion; prevent and control water pollution; protect spawning grounds, fish and aquatic life; control building sites, placement of structures and land uses; preserve ground cover and scenic beauty; and promote sound economic growth.

(c) Control exceedance of the safe capacity of existing drainage facilities and receiving water bodies; prevent undue channel erosion; control increases in the scouring and transportation of particulate matter; and prevent conditions that endanger downstream property.

(2) INTENT. It is the intent of the City of Marshfield that this ordinance regulates post-construction storm water discharges to waters of the state. This ordinance may be applied on a site-by-site basis. The City of Marshfield recognizes, however, that the preferred method of achieving the storm water performance standards set forth in this ordinance is through the preparation and implementation of comprehensive, systems-level storm water management plans that cover hydrologic units, such as watersheds, on a municipal and regional scale. Such plans may prescribe regional storm water devices, practices or systems, any of which may be designed to treat runoff from more than one site prior to discharge to waters of the state. Where such plans are in conformance with the performance standards developed under s. 281.16, Wis. Stats., for regional storm water management measures and have been approved by the Common Council, it is the intent of this ordinance that the approved plan be used to identify post-construction management measures acceptable for the community.

**Sec. 25-24. APPLICABILITY AND JURISDICTION.**

(1) APPLICABILITY.

(a) Where not otherwise limited by law, this ordinance applies after final stabilization to a site of land disturbing construction activity meeting any of the criteria in this paragraph, unless the site is otherwise exempt under paragraph (b).

1. A post construction site that had 1 or more acres of land disturbing construction activity.

(b) A site that meets any of the criteria in this paragraph is exempt from the requirements of this ordinance.

1. A post-construction site with less than 10% connected imperviousness based on complete development of the post-construction site, provided the cumulative area of all parking lots and rooftops is less than one acre.

2. Nonpoint discharges from agricultural facilities and practices.

3. Underground utility construction but not including the construction of any above ground structures associated with utility construction.

(c) Notwithstanding the applicability requirements in paragraph (a), this ordinance applies to post-construction sites of any size that, in the opinion of the Director of Public Works or his designee, is likely to result in runoff that exceeds the safe capacity of the existing drainage facilities or receiving body of water, that causes undue channel erosion, that increases water pollution by scouring or the transportation of particulate matter or that endangers property or public safety.

(2) JURISDICTION.

This ordinance applies to post construction sites within the boundaries and jurisdiction of the City of Marshfield.

(3) EXCLUSIONS.

This ordinance is not applicable to activities conducted by a state agency, as defined under s. 227.01 (1), Wis. Stats., but also including the office of district attorney, which is subject to the state plan promulgated or a memorandum of understanding entered into under s. 281.33 (2), Wis. Stats.

**Sec. 25-25. DEFINITIONS.**

(2) “Administering authority” means a governmental employee, or a regional planning commission empowered under s. 62.234, Wis. Stats., that is designated by the Common Council to administer this ordinance.

- (3) "Agricultural facilities and practices" has the meaning given in s. 281.16, Wis. Stats.
- (4) "Average annual rainfall" means a typical calendar year of precipitation as determined by the Wisconsin Department of Natural Resources for users of models such as SLAMM, P8, or equivalent methodology. The average annual rainfall is chosen from a department publication for the location closest to the municipality.
- (5) "Best management practice" or "BMP" means structural or non-structural measures, practices, techniques or devices employed to avoid or minimize sediment or pollutants carried in runoff to waters of the state.
- (6) "Business day" means a day the office of the Director of Public Works or his designee is routinely and customarily open for business.
- (7) "Cease and desist order" means a court-issued order to halt land disturbing construction activity that is being conducted without the required permit.
- (8) "Combined sewer system" means a system for conveying both sanitary sewage and storm water runoff.
- (9) "Connected imperviousness" means an impervious surface connected to the waters of the state via a separate storm sewer, an impervious flow path, or a minimally pervious flow path.
- (10) "Design storm" means a hypothetical discrete rainstorm characterized by a specific duration, temporal distribution, rainfall intensity, return frequency, and total depth of rainfall.
- (11) "Development" means residential, commercial, industrial or institutional land uses and associated roads.
- (12) "Division of land" means the creation from one parcel of two or more parcels or building sites of two or fewer acres each in area where such creation occurs at one time or through the successive partition within a 5 year period.
- (13) "Effective infiltration area" means the area of the infiltration system that is used to infiltrate runoff and does not include the area used for site access, berms or pretreatment.
- (14) "Erosion" means the process by which the land's surface is worn away by the action of wind, water, ice or gravity.
- (15) "Exceptional resource waters" means waters listed in s. NR 102.11, Wis. Adm. Code.
- (16) "Extraterritorial" means the unincorporated area within 3 miles of the corporate limits of a first, second, or third class city, or within 1.5 miles of a fourth class city or village.
- (17) "Final stabilization" means that all land disturbing construction activities at the construction site have been completed and that a uniform, perennial, vegetative cover has been established, with a density of at least 70% of the cover, for the unpaved areas and areas not covered by permanent structures, or employment of equivalent permanent stabilization measures.
- (18) "Financial guarantee" means a performance bond, maintenance bond, surety bond, irrevocable letter of credit, or similar guarantees submitted to the Director of Public Works or his designee by the responsible party to assure that requirements of the ordinance are carried out in compliance with the storm water management plan.
- (19) "Governing body" means Common Council of the City of Marshfield.
- (20) "Impervious surface" means an area that releases as runoff all or a large portion of the precipitation that falls on it, except for frozen soil. Rooftops, sidewalks, driveways, gravel or paved parking lots and streets are examples of areas that typically are impervious.
- (21) "In-fill area" means an undeveloped area of land located within existing development.

- (22) “Infiltration” means the entry of precipitation or runoff into or through the soil.
- (23) “Infiltration system” means a device or practice such as a basin, trench, rain garden or swale designed specifically to encourage infiltration, but does not include natural infiltration in pervious surfaces such as lawns, redirecting of rooftop downspouts onto lawns or minimal infiltration from practices, such as swales or road side channels designed for conveyance and pollutant removal only.
- (24) “Karst feature” means an area or surficial geologic feature subject to bedrock dissolution so that it is likely to provide a conduit to groundwater, and may include caves, enlarged fractures, mine features, exposed bedrock surfaces, sinkholes, springs, seeps or swallets.
- (25) “Land disturbing construction activity” means any man-made alteration of the land surface resulting in a change in the topography or existing vegetative or non-vegetative soil cover, that may result in runoff and lead to an increase in soil erosion and movement of sediment into waters of the state. Land disturbing construction activity includes clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities.
- (26) “Maintenance agreement” means a legal document that provides for long-term maintenance of storm water management practices.
- (27) “MEP” or “maximum extent practicable” means a level of implementing best management practices in order to achieve a performance standard specified in this chapter which takes into account the best available technology, cost effectiveness, geographic features, and other competing interests such as protection of public safety and welfare, protection of endangered and threatened resources, and preservation of historic properties. MEP allows flexibility in the way to meet the performance standards and may vary based on the performance standard and site conditions.
- (28) “New development” means development resulting from the conversion of previously undeveloped land or agricultural land uses.
- (29) “Off-site” means located outside the property boundary described in the permit application.
- (30) “On-site” means located within the property boundary described in the permit application.
- (31) "Ordinary high-water mark" has the meaning given in s. NR 115.03(6), Wis. Adm. Code.
- (32) “Outstanding resource waters” means waters listed in s. NR 102.10, Wis. Adm. Code.
- (33) “Percent fines” means the percentage of a given sample of soil, which passes through a # 200 sieve.
- (34) “Performance standard” means a narrative or measurable number specifying the minimum acceptable outcome for a facility or practice.
- (35) “Permit” means a written authorization made by the Director of Public Works or his designee to the applicant to conduct land disturbing construction activity or to discharge post-construction runoff to waters of the state.
- (36) “Permit administration fee” means a sum of money paid to the Director of Public Works or his designee by the permit applicant for the purpose of recouping the expenses incurred by the authority in administering the permit.
- (37) “Pervious surface” means an area that releases as runoff a small portion of the precipitation that falls on it. Lawns, gardens, parks, forests or other similar vegetated areas are examples of surfaces that typically are pervious.
- (38) “Pollutant” has the meaning given in s. 283.01(13), Wis. Stats.
- (39) “Pollution” has the meaning given in s. 281.01(10), Wis. Stats.

- (40) "Post-construction site" means a construction site following the completion of land disturbing construction activity and final site stabilization.
- (41) "Pre-development condition" means the extent and distribution of land cover types present before the initiation of land disturbing construction activity, assuming that all land uses prior to development activity are managed in an environmentally sound manner.
- (42) "Preventive action limit" has the meaning given in s. NR 140.05(17), Wis. Adm. Code.
- (43) "Redevelopment" means areas where development is replacing older development.
- (44) "Responsible party" means any entity holding fee title to the property or other person contracted or obligated by other agreement to implement and maintain post-construction storm water BMPs.
- (45) "Runoff" means storm water or precipitation including rain, snow or ice melt or similar water that moves on the land surface via sheet or channelized flow.
- (46) "Separate storm sewer" means a conveyance or system of conveyances including roads with drainage systems, streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all of the following criteria:
- (a) Is designed or used for collecting water or conveying runoff.
  - (b) Is not part of a combined sewer system.
  - (c) Is not part of a publicly owned wastewater treatment works that provides secondary or more stringent treatment..
  - (d) Discharges directly or indirectly to waters of the state.
- (47) "Site" means the entire area included in the legal description of the land on which the land disturbing construction activity occurred.
- (48) "Stop work order" means an order issued by the Director of Public Works or his designee which requires that all construction activity on the site be stopped.
- (49) "Storm water management plan" means a comprehensive plan designed to reduce the discharge of pollutants from storm water after the site has undergone final stabilization following completion of the construction activity.
- (50) "Storm water management system plan" is a comprehensive plan designed to reduce the discharge of runoff and pollutants from hydrologic units on a regional or municipal scale.
- (51) "Technical standard" means a document that specifies design, predicted performance and operation and maintenance specifications for a material, device or method.
- (52) "Top of the channel" means an edge, or point on the landscape, landward from the ordinary high-water mark of a surface water of the state, where the slope of the land begins to be less than 12% continually for at least 50 feet. If the slope of the land is 12% or less continually for the initial 50 feet, landward from the ordinary high-water mark, the top of the channel is the ordinary high-water mark.
- (53) "TR-55" means the United States Department of Agriculture, Natural Resources Conservation Service (previously Soil Conservation Service), Urban Hydrology for Small Watersheds, Second Edition, Technical Release 55, June 1986.

(54) “Type II distribution” means a rainfall type curve as established in the “United States Department of Agriculture, Soil Conservation Service, Technical Paper 149, published 1973”. The Type II curve is applicable to all of Wisconsin and represents the most intense storm pattern.

(55) “Waters of the state” has the meaning given in s. 283.01 (20), Wis. Stats.

**Sec. 25-26. TECHNICAL STANDARDS.**

The following methods shall be used in designing the water quality, peak flow shaving and infiltration components of storm water practices needed to meet the water quality standards of this ordinance:

(1) Technical standards identified, developed or disseminated by the Wisconsin Department of Natural Resources under subchapter V of chapter NR 151, Wis. Adm. Code.

(2) Where technical standards have not been identified or developed by the Wisconsin Department of Natural Resources, other technical standards may be used provided that the methods have been approved by the Director of Public Works or his designee.

(3) In this ordinance, the following year and location has been selected as average annual rainfall: Green Bay, 1969 (Mar. 29-Nov. 25).

**Sec. 25-27. PERFORMANCE STANDARDS.**

(1) RESPONSIBLE PARTY. The landowner of the post-construction site or other person contracted or obligated by other agreement with the landowner to implement and maintain post-construction storm water BMPs is the responsible party and shall comply with this ordinance.

(2) PLAN. A written storm water management plan in accordance with Sec. 25-29 shall be developed and implemented for each post-construction site.

(3) REQUIREMENTS. The plan required under sub. (2) shall include the following:

(a) TOTAL SUSPENDED SOLIDS. BMPs shall be designed, installed and maintained to control total suspended solids carried in runoff from the post-construction site as follows:

1. BMPs shall be designed in accordance with Table 1., or to the maximum extent practicable as provided in sub. (3). The design shall be based on an average annual rainfall, as compared to no runoff management controls.

<b>Development Type</b>	<b>TSS Reduction</b>
New Development	80 percent
In-fill development	80 percent
Redevelopment	40 percent of load from parking areas and roads

2. MAXIMUM EXTENT PRACTICABLE. If the design cannot meet a total suspended solids reduction performance standard of Table 1., the storm water management plan shall include a written, site-specific explanation of why the total suspended solids reduction performance standard cannot be met and why the total suspended solids load will be reduced only to the maximum extent practicable. No person shall be required to exceed the applicable total suspended solids reduction performance standard to meet the requirements of maximum extent practicable.

3. OFF-SITE DRAINAGE. When designing BMPs, runoff draining to the BMP from off-site shall be taken into account in determining the treatment efficiency of the practice. Any impact on the efficiency shall be compensated for by increasing the size of the BMP accordingly.

(b) PEAK DISCHARGE.

1. By design, BMPs shall be employed to maintain or reduce the 1-year, 24-hour, 2-year, 24-hour, 10-year, 24-hour, 25-year, 24-hour, 50-year, 24-hour and the 100-year, 24-hour post-construction peak runoff discharge rates to the 1-year, 24-hour, 2-year, 24-hour, 10-year, 24-hour, 25-year, 24-hour, 50-year, 24-hour and the 100-year, 24-hour pre-development peak runoff discharge rates respectively, or to the maximum extent practicable. The runoff curve numbers in Table 2. Shall be used to represent the actual pre-development conditions

Table 2 – Maximum Pre-Development Runoff Curve Numbers				
Pre-development condition	Hydrologic Soil Group			
	A	B	C	D
Woodland	30	55	70	77
Grassland	39	61	71	78
Cropland	55	69	78	83

2. This subsection of the ordinance does not apply to any of the following:

- a. A post-construction site where the discharge is directly into a lake over 5,000 acres or a stream or river segment draining more than 500 square miles.
- b. A redevelopment post-construction site.
- c. An in-fill development area less than 5 acres.

(c) INFILTRATION.

1. BMPs shall be designed, installed, and maintained to infiltrate runoff in accordance with the following or to the maximum extent practicable:

- a. *Low imperviousness.* For development up to 40 percent connected imperviousness, such as parks, cemeteries, and low density residential development, infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 90 percent of the pre-development infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than one percent of the post-construction site is required as an effective infiltration area.
- b. *Moderate imperviousness.* For development with more than 40 percent and up to 80 percent connected imperviousness, such as medium and high density residential, multi-family development, industrial and institutional development, and office parks, infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 75 percent of the pre-development infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than 1 percent of the post-construction site is required as an effective infiltration area.
- c. *High imperviousness.* For development with more than 80 percent connected imperviousness, such as commercial strip malls, shopping centers, and commercial downtowns, infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 60 percent of the pre-development infiltration volume, based on an average annual rainfall. However, when designing appropriate infiltration systems to meet this requirement, no more than 2 percent of the post-construction site is required as an effective infiltration area.

2. Pre-development. Pre-development condition shall be the same as specified in Table 2 of the Peak Discharge section of this ordinance.

3. Source areas.

*a. Prohibitions.* Runoff from the following areas may not be infiltrated and may not qualify as contributing to meeting the requirements of this section unless demonstrated to meet the conditions of Wisconsin Department of Natural Resources groundwater standards in NR151.124(6):

- i. Areas associated with a tier 1 industrial facility identified in s. NR 216.21(2)(a), including storage, loading and parking. Rooftops may be infiltrated with the concurrence of the regulatory authority.
- ii. Storage and loading areas of a tier 2 industrial facility identified in s. NR 215.21(2)(b).
- iii. Fueling and vehicle maintenance areas. Rooftops of fueling and vehicle maintenance areas may be infiltrated with the concurrence of the regulatory authority.

*b. Exemptions.* Runoff from the following areas may be credited toward meeting the requirement when infiltrated, but the decision to infiltrate runoff from these source areas is optional:

- i. Parking areas and access roads less than 5,000 square feet for commercial development.
- ii. Parking areas and access roads less than 5,000 square feet for industrial development not subject to the Prohibitions under par a. of this ordinance.
- iii. In-fill development areas less than 5 acres
- iv. Roads on commercial, industrial and institutional land uses, and arterial residential roads.

4. Location of Practices.

a. *Prohibitions.* Infiltration practices may not be located in the following areas:

- i. Areas within 1000 feet upgradient or within 100 feet downgradient of direct conduits to groundwater.
- ii. Areas within 400 feet of a community water system well as specified in s. NR 811.16(4) or within the separation distances listed in s. NR 812.08 for any private well or non-community well for runoff infiltrated from commercial, including multi-family residential, industrial and institutional land uses or regional devices for one- and two-family residential development.
- iii. Areas where contaminants of concern, as defined in s. NR 720.03(2), are present in the soil through which infiltration will occur.

b. *Separation distances.*

- i. Infiltration practices shall be located so that the characteristics of the soil and the separation distance between the bottom of the infiltration system and the elevation of seasonal high groundwater or the top of bedrock are in accordance with Table 3:

Table 3. Separation Distances and Soil Characteristics		
Source Area	Separation Distance	Soil Characteristics
Industrial, Commercial, Institutional	5 feet or more	Filtering Layer

Parking Lots and Roads		
Residential Arterial Roads	5 feet or more	Filtering Layer
Roofs Draining to Subsurface Infiltration Practices	1 foot or more	Native or Engineered Soil with Particles Finer than Coarse Sand
Roofs Draining to Surface Infiltration Practices	Not Applicable	
All Other Impervious Source Areas	3 feet or more	Filtering Layer

ii. Notwithstanding par. b., applicable requirements for injection wells classified under ch. NR 815 shall be followed.

c. *Infiltration rate exemptions.* Infiltration practices located in the following areas may be credited toward meeting the requirements under the following conditions, but the decision to infiltrate under these conditions is optional:

- i. Where the infiltration rate of the soil measured at the proposed bottom of the infiltration system is less than 0.6 inches per hour using a scientifically credible field test method.
- ii. Where the least permeable soil horizon to 5 feet below the proposed bottom of the infiltration system using the U. S. Department of Agriculture method of soils analysis is one of the following: sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay.

5. *Alternate Use.* Where alternate uses of runoff are employed, such as for toilet flushing, laundry, or irrigation or storage on green roofs where an equivalent portion of the runoff is captured permanently by rooftop vegetation, such alternate use shall be given equal credit toward the infiltration volume required by this section.

6. *Groundwater Standards.*

a. Infiltration systems designed in accordance with this section shall, to the extent technically and economically feasible, minimize the level of pollutants infiltrating to groundwater and shall maintain compliance with the preventive action limit at a point of standards application in accordance with ch NR 140. However, if site specific information indicates that compliance with a preventive action limit is not achievable, the infiltration BMP may not be installed or shall be modified to prevent infiltration to the maximum extent practicable.

b. Notwithstanding par. a., the discharge from BMPs shall remain below the enforcement standard at the point of standards application.

7. *Pretreatment.* Before infiltrating runoff, pretreatment shall be required for parking lot runoff and for runoff from new road construction in commercial, industrial and institutional areas that will enter an infiltration system. The pretreatment shall be designed to protect the infiltration system from clogging prior to scheduled maintenance and to protect groundwater quality in accordance with sub. 6. Pretreatment options may include, but are not limited to, oil and grease separation, sedimentation, biofiltration, filtration, swales or filter strips.

8. *Maximum Extent Practicable.* Where the conditions of subs. 3. and 4. limit or restrict the use of infiltration practices, the performance standard of s. NR 151.124 shall be met to the maximum extent practicable.

(d) PROTECTIVE AREAS

1. Definition. In this section, “protective area” means an area of land that commences at the top of the channel of lakes, streams and rivers, or at the delineated boundary of wetlands, and that is the greatest of the following widths, as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface. However, in this section, “protective area” does not include any area of land adjacent to any stream enclosed within a pipe or culvert, so that runoff cannot enter the enclosure at this location.

- a. For outstanding resource waters and exceptional resource waters, 75 feet.
- b. For perennial and intermittent streams identified on a U.S. Geological Survey 7.5-minute series topographic map, or a county soil survey map, whichever is more current, 50 feet.
- c. For lakes, 50 feet.
- d. For wetlands not subject to par. e. or f., 50 feet.
- e. For highly susceptible wetlands, 75 feet. Highly susceptible wetlands include the following types: calcareous fens, sedge meadows, open and coniferous bogs, low prairies, coniferous swamps, lowland hardwood swamps, and ephemeral ponds.
- f. For less susceptible wetlands, 10 percent of the average wetland width, but no less than 10 feet nor more than 30 feet. Less susceptible wetlands include: degraded wetland dominated by invasive species such as reed canary grass; cultivated hydric soils; and any gravel pits, or dredged material or fill material disposal sites that take on the attributes of a wetland.
- g. In pars. d. to f., determinations of the extent of the protective area adjacent to wetlands shall be made on the basis of the sensitivity and runoff susceptibility of the wetland in accordance with the standards and criteria in s. NR 103.03.
- h. Wetland boundary delineation shall be made in accordance with current Wisconsin Department of Natural Resources procedures. This paragraph does not apply to wetlands that have been completely filled in compliance with all applicable state and federal regulations. The protective area for wetlands that have been partially filled in compliance with all applicable state and federal regulations shall be measured from the wetland boundary delineation after a fill has been placed. Where there is a legally authorized wetland fill, the protective area standard need not be met in that location.
- i. For concentrated flow channels with drainage areas greater than 130 acres, 10 feet.
- j. Notwithstanding pars. a. to i., the greatest protective area width shall apply where rivers, streams, lakes and wetlands are contiguous.

2. Applicability. This section applies to post-construction sites located within a protective area, except those areas exempted pursuant to sub 4.

3. Requirements. The following requirements shall be met:

- a. Impervious surfaces shall be kept out of the protective area entirely or to the maximum extent practicable. If there is no practical alternative to locating an impervious surface in the protective area, the storm water management plan shall contain a written, site-specific explanation.
- b. Where land disturbing construction activity occurs within a protective area, adequate sod or self-sustaining vegetative cover of 70 percent or greater shall be established and maintained where no impervious surface is present. The adequate sod or self-sustaining vegetative cover shall be sufficient to provide for bank stability, maintenance of fish habitat, and filtering of

pollutants from upslope overland flow areas under sheet flow conditions. Non-vegetative materials, such as rock riprap, may be employed on the bank as necessary to prevent erosion such as on steep slopes or where high velocity flows occur.

c. Best management practice such as filter strips, swales, or wet detention ponds, that are designed to control pollutants from non-point sources, may be located in the protective area.

4. Exemptions. This section does not apply to any of the following:

a. In-fill development areas less than 5 acres.

b. Structures that cross or access surface water such as boat landings, bridges, and culverts.

c. Structures constructed in accordance with s. 59.692(1v), Stats.

d. Areas of post-construction sites from which the runoff does not enter the surface water, including wetlands, without first being treated by a BMP to meet the local ordinance requirements for total suspended solids and peak flow reduction, except to the extent that vegetative ground cover is necessary to maintain bank stability.

(e) **FUELING AND VEHICLE MAINTENANCE AREAS** . Fueling and vehicle maintenance areas shall have BMPs designed, installed, and maintained to reduce petroleum within runoff, so that the runoff that enters waters of the state contains no visible petroleum sheen, or to the maximum extent practicable

(f) **SWALE TREATMENT FOR TRANSPORTATION FACILITIES**.

1. Requirement. Except as provided in sub 2., transportation facilities that use swales for runoff conveyance and pollutant removal are exempt from the requirements of local ordinance requirements for peak flow control, total suspended solids control, and infiltration, if the swales are designed to do all of the following or to the maximum extent practicable:

a. Swales shall be vegetated. However, where appropriate, non-vegetative measures may be employed to prevent erosion or provide for runoff treatment, such as rock riprap stabilization or check dams.

b. Swales shall comply with the Wisconsin Department of Natural Resources technical standard 1005 “Vegetated Infiltration Swales”, dated May 2007, or a superseding document.

2. Other requirements.

a. Notwithstanding sub 1., the Director of Public Works or his designee may, consistent with water quality standards, require that other requirements, in addition to swale treatment, be met on a transportation facility with an average daily traffic rate greater than 2,500 and where the initial surface water of the state that the runoff directly enters is an of the following:

i. An outstanding resource water.

ii. An exceptional resource water.

iii. Waters listed in section 303 (d) of the Federal Clean Water Act that are identified as impaired in whole or in part, due to non-point source impacts.

iv. Water where targeted performance standards are developed pursuant to s. NR 151.004.

b. The transportation facility authority shall contact the Director of Public Works or his designee to determine if additional BMPs beyond a water quality swale are needed under this subsection.

- (4) GENERAL CONSIDERATIONS FOR ON-SITE AND OFF-SITE STORM WATER MANAGEMENT MEASURES. The following considerations shall be observed in managing runoff:
- (a) Natural topography and land cover features such as natural swales, natural depressions, native soil infiltrating capacity, and natural groundwater recharge areas shall be preserved and used, to the extent possible, to meet the requirements of this section.
  - (b) Emergency overland flow for all storm water facilities shall be provided to prevent exceeding the safe capacity of downstream drainage facilities and prevent endangerment of downstream property or public safety.
- (5) LOCATION AND REGIONAL TREATMENT OPTION.
- (a) The BMPs may be located on-site or off-site as part of a regional storm water device, practice or system.
  - (b) Post-construction runoff within a non-navigable surface water that flows into a BMP, such as a wet detention pond, is not required to meet the performance standards of this ordinance. Post-construction BMPs may be located in non-navigable surface waters.
  - (c) Except as allowed under par. (d), post-construction runoff from new development shall meet the post-construction performance standards prior to entering a navigable surface water.
  - (d) Post-construction runoff from any development within a navigable surface water that flows into a BMP is not required to meet the performance standards of this ordinance if:
    - 1. The BMP was constructed prior to the effective date of this ordinance and the BMP either received a permit issued under ch. 30, Stats., or the BMP did not require a ch. 30, Wis. Stats., permit; and
    - 2. The BMP is designed to provide runoff treatment from future upland development.
  - (e) Runoff from existing development, redevelopment and in-fill areas shall meet the post-construction performance standards in accordance with this paragraph.
    - 1. To the maximum extent practicable, BMPs shall be located to treat runoff prior to discharge to navigable surface waters.
    - 2. Post-construction BMPs for such runoff may be located in a navigable surface water if allowable under all other applicable federal, state and local regulations such as ch. NR 103, Wis. Adm. Code and ch. 30, Wis. Stats.
  - (f) The discharge of runoff from a BMP, such as a wet detention pond, or after a series of such BMPs is subject to this chapter.
  - (g) The Director of Public Works or his designee may approve off-site management measures provided that all of the following conditions are met:
    - 1. The Director of Public Works or his designee determines that the post-construction runoff is covered by a storm water management system plan that is approved by the City of Marshfield and that contains management requirements consistent with the purpose and intent of this ordinance.
    - 2. The off-site facility meets all of the following conditions:
      - a. The facility is in place.

b. The facility is designed and adequately sized to provide a level of storm water control equal to or greater than that which would be afforded by on-site practices meeting the performance standards of this ordinance.

c. The facility has a legally obligated entity responsible for its long-term operation and maintenance.

(h) Where a regional treatment option exists such that the Director of Public Works or his designee exempts the applicant from all or part of the minimum on-site storm water management requirements, the applicant shall be required to pay a fee in an amount determined in negotiation with the Director of Public Works or his designee. In determining the fee for post-construction runoff, the Director of Public Works or his designee shall consider an equitable distribution of the cost for land, engineering design, construction, and maintenance of the regional treatment option.

(6) **ALTERNATE REQUIREMENTS.** The Director of Public Works or his designee may establish storm water management requirements more stringent than those set forth in this section if the Director of Public Works or his designee determines that an added level of protection is needed to protect sensitive resources.

(7) **MAINTENANCE OF EFFORT:** For redevelopment sites where the redevelopment will be replacing older development that was subject to post-construction performance standards of NR 151 in effect on or after October 1, 2004, the responsible party shall maintain the existing level of control for TSS, infiltration and peak flow reduction, or meet the redevelopment standards of ss. NR 151.122 to 151.125, whichever is more stringent.

#### **Sec. 25-28. PERMITTING REQUIREMENTS, PROCEDURES AND FEES.**

(1) **PERMIT REQUIRED.** No responsible party may undertake a land disturbing construction activity without receiving a post-construction runoff permit from the Director of Public Works or his designee prior to commencing the proposed activity.

(2) **PERMIT APPLICATION AND FEES.** Unless specifically excluded by this ordinance, any responsible party desiring a permit shall submit to the Director of Public Works or his designee a permit application made on a form provided by the Director of Public Works or his designee for that purpose.

(a) Unless otherwise excepted by this ordinance, a permit application must be accompanied by a storm water management plan, a maintenance agreement and a non-refundable permit administration fee.

(b) The storm water management plan shall be prepared to meet the requirements of Sec.25-27 and 25-29, the maintenance agreement shall be prepared to meet the requirements of Sec.25-30, the financial guarantee shall meet the requirements of Sec.25-31, and fees shall be those established by the Common Council as set forth in Sec. 25-32.

(3) **REVIEW AND APPROVAL OF PERMIT APPLICATION.** The Director of Public Works or his designee shall review any permit application that is submitted with a storm water management plan, maintenance agreement, and the required fee. The following approval procedure shall be used:

(a) Within twenty (20) business days of the receipt of a complete permit application, including all items as required by sub. (2), the Director of Public Works or his designee shall inform the applicant whether the application, plan and maintenance agreement are approved or disapproved based on the requirements of this ordinance.

(b) If the storm water permit application, plan and maintenance agreement are approved, or if an agreed upon payment of fees in lieu of storm water management practices is made, the Director of Public Works or his designee shall issue the permit.

(c) If the storm water permit application, plan or maintenance agreement is disapproved, the Director of Public Works or his designee shall detail in writing the reasons for disapproval.

(d) The Director of Public Works or his designee may request additional information from the applicant. If additional information is submitted, the Director of Public Works or his designee shall have ten (10) business days from the date the additional information is received to inform the applicant that the plan and maintenance agreement are either approved or disapproved.

(e) Failure by the Director of Public Works or his designee to inform the permit applicant of a decision within thirty five (35) business days of a required submittal shall be deemed to mean approval of the submittal and the applicant may proceed as if a permit had been issued.

(4) **PERMIT REQUIREMENTS.** All permits issued under this ordinance shall be subject to the following conditions, and holders of permits issued under this ordinance shall be deemed to have accepted these conditions. The Director of Public Works or his designee may suspend or revoke a permit for violation of a permit condition, following written notification of the responsible party. An action by the Director of Public Works or his designee to suspend or revoke this permit may be appealed in accordance with Sec. 25-34.

(a) Compliance with this permit does not relieve the responsible party of the responsibility to comply with other applicable federal, state, and local laws and regulations.

(b) The responsible party shall design and install all structural and non-structural storm water management measures in accordance with the approved storm water management plan and this permit.

(c) The responsible party shall notify the Director of Public Works or his designee at least three (3) business days before commencing any work in conjunction with the storm water management plan, and within three (3) business days upon completion of the storm water management practices. If required as a special condition under sub. (5), the responsible party shall make additional notification according to a schedule set forth by the Director of Public Works or his designee so that practice installations can be inspected during construction.

(d) Practice installations required as part of this ordinance shall be certified "as built" by a licensed professional engineer. Completed storm water management practices must pass a final inspection by the Director of Public Works or his designee or its designee to determine if they are in accordance with the approved storm water management plan and ordinance. The Director of Public Works or his designee or its designee shall notify the responsible party in writing of any changes required in such practices to bring them into compliance with the conditions of this permit.

(e) The responsible party shall notify the Director of Public Works or his designee of any significant modifications it intends to make to an approved storm water management plan. The Director of Public Works or his designee may require that the proposed modifications be submitted to it for approval prior to incorporation into the storm water management plan and execution by the responsible party.

(f) The responsible party shall maintain all storm water management practices in accordance with the storm water management plan until the practices either become the responsibility of the Common Council, or are transferred to subsequent private owners as specified in the approved maintenance agreement.

(g) The responsible party authorizes the Director of Public Works or his designee to perform any work or operations necessary to bring storm water management measures into conformance with the approved storm water management plan, and consents to a special assessment or charge against the property as authorized under subch. VII of ch. 66, Wis. Stats., or to charging such costs against the financial guarantee posted under Sec. 25-31.

(h) If so directed by the Director of Public Works or his designee, the responsible party shall repair at the responsible party's own expense all damage to adjoining municipal facilities and drainage ways caused by

runoff, where such damage is caused by activities that are not in compliance with the approved storm water management plan.

(i) The responsible party shall permit property access to the Director of Public Works or his designee or its designee for the purpose of inspecting the property for compliance with the approved storm water management plan and this permit.

(j) Where site development or redevelopment involves changes in direction, increases in peak rate and/or total volume of runoff from a site, the Director of Public Works or his designee may require the responsible party to make appropriate legal arrangements with affected property owners concerning the prevention of endangerment to property or public safety.

(k) The responsible party is subject to the enforcement actions and penalties detailed in Sec. 25-33, if the responsible party fails to comply with the terms of this permit.

(5) **PERMIT CONDITIONS.** Permits issued under this subsection may include conditions established by Director of Public Works or his designee in addition to the requirements needed to meet the performance standards in Sec. 25-27 or a financial guarantee as provided for in Sec. 25-31.

(6) **PERMIT DURATION.** Permits issued under this section shall be valid from the date of issuance through the date the Director of Public Works or his designee notifies the responsible party that all storm water management practices have passed the final inspection required under sub. (4)(d).

#### **Sec. 25-29 STORM WATER MANAGEMENT PLAN.**

(1) **PLAN REQUIREMENTS.** The storm water management plan required under Sec. 25-28 (2) shall contain at a minimum the following information:

(a) Name, address, and telephone number for the following or their designees: landowner; developer; project engineer for practice design and certification; person(s) responsible for installation of storm water management practices; and person(s) responsible for maintenance of storm water management practices prior to the transfer, if any, of maintenance responsibility to another party.

(b) A proper legal description of the property proposed to be developed, referenced to the U.S. Public Land Survey system or to block and lot numbers within a recorded land subdivision plat.

(c) Pre-development site conditions, including:

1. One or more site maps at a scale of not less than 1 inch equals 50 feet. The site maps shall show the following: site location and legal property description; predominant soil types and hydrologic soil groups; existing cover type and condition; topographic contours of the site at a scale not to exceed 2 feet; topography and drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; watercourses that may affect or be affected by runoff from the site; flow path and direction for all storm water conveyance sections; watershed boundaries used in hydrology determinations to show compliance with performance standards; lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site; limits of the 100 year floodplain; location of wells and wellhead protection areas covering the project area and delineated pursuant to s. NR 811.16, Wis. Adm. Code.

2. Hydrology and pollutant loading computations as needed to show compliance with performance standards. All major assumptions used in developing input parameters shall be clearly stated. The geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).

(d) Post-development site conditions, including:

1. Explanation of the provisions to preserve and use natural topography and land cover features to minimize changes in peak flow runoff rates and volumes to surface waters and wetlands.
2. Explanation of any restrictions on storm water management measures in the development area imposed by wellhead protection plans and ordinances.
3. One or more site maps at a scale of not less than 1 inch equals 50 feet showing the following: post-construction pervious areas including vegetative cover type and condition; impervious surfaces including all buildings, structures, and pavement; post-construction topographic contours of the site at a scale not to exceed 2 feet; post-construction drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; locations and dimensions of drainage easements; locations of maintenance easements specified in the maintenance agreement; flow path and direction for all storm water conveyance sections; location and type of all storm water management conveyance and treatment practices, including the on-site and off-site tributary drainage area; location and type of conveyance system that will carry runoff from the drainage and treatment practices to the nearest adequate outlet such as a curbed street, storm drain, or natural drainage way; watershed boundaries used in hydrology and pollutant loading calculations and any changes to lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site.
4. Hydrology and pollutant loading computations as needed to show compliance with performance standards. The computations shall be made for each discharge point in the development, and the geographic areas used in making the calculations shall be clearly cross-referenced to the required map(s).
5. Results of investigations of soils and groundwater required for the placement and design of storm water management measures. Detailed drawings including cross-sections and profiles of all permanent storm water conveyance and treatment practices.

(e) A description and installation schedule for the storm water management practices needed to meet the performance standards in Sec. 25-27.

(f) A maintenance plan developed for the life of each storm water management practice including the required maintenance activities and maintenance activity schedule.

(g) Cost estimates for the construction, operation, and maintenance of each storm water management practice.

(h) Other information requested in writing by the Director of Public Works or his designee to determine compliance of the proposed storm water management measures with the provisions of this ordinance.

(i) All site investigations, plans, designs, computations, and drawings shall be certified by a licensed professional engineer to be prepared in accordance with accepted engineering practice and requirements of this ordinance.

(2) **ALTERNATE REQUIREMENTS.** The Director of Public Works or his designee may prescribe alternative submittal requirements for applicants seeking an exemption to on-site storm water management performance standards under Sec. 25-27 (5).

**Sec. 25-30. MAINTENANCE AGREEMENT.**

(1) **MAINTENANCE AGREEMENT REQUIRED.** The maintenance agreement required under Sec.25-30 (2) for storm water management practices shall be an agreement between the Director of Public Works or his designee and the responsible party to provide for maintenance of storm water practices beyond the duration period of this permit. The maintenance agreement shall be filed with the County Register of Deeds as a property deed restriction so that it is binding upon all subsequent owners of the land served by the storm water management practices.

(2) **AGREEMENT PROVISIONS.** The maintenance agreement shall contain the following information and provisions and be consistent with the maintenance plan required by Sec. 25-29(1)(f):

(a) Identification of the storm water facilities and designation of the drainage area served by the facilities.

(b) A schedule for regular maintenance of each aspect of the storm water management system consistent with the storm water management plan required under Sec. 25-28 (2).

(c) Identification of the responsible party(s) responsible for long term maintenance of the storm water management practices identified in the storm water management plan required under Sec. 25-28 (2).

(d) Requirement that the responsible party(s) shall maintain storm water management practices in accordance with the schedule included in par. (b).

(e) Authorization for the Director of Public Works or his designee to access the property to conduct inspections of storm water management practices as necessary to ascertain that the practices are being maintained and operated in accordance with the agreement.

(f) A requirement on the Director of Public Works or his designee to maintain public records of the results of the site inspections, to inform the responsible party responsible for maintenance of the inspection results, and to specifically indicate any corrective actions required to bring the storm water management practice into proper working condition.

(g) Agreement that the party designated under par. (c), as responsible for long term maintenance of the storm water management practices, shall be notified by the Director of Public Works or his designee of maintenance problems which require correction. The specified corrective actions shall be undertaken within a reasonable time frame as set by the Director of Public Works or his designee.

(h) Authorization of the Director of Public Works or his designee to perform the corrected actions identified in the inspection report if the responsible party designated under par. (c) does not make the required corrections in the specified time period. The City Clerk shall enter the amount due on the tax rolls and collect the money as a special charge against the property pursuant to subch. VII of ch. 66, Wis. Stats.

**Sec. 25-31. FINANCIAL GUARANTEE.**

(1) **ESTABLISHMENT OF THE GUARANTEE.** The Director of Public Works or his designee may require the submittal of a financial guarantee, the form and type of which shall be acceptable to the Director of Public Works or his designee. The financial guarantee shall be in an amount determined by the Director of Public Works or his designee to be the estimated cost of construction and the estimated cost of maintenance of the storm water management practices during the period which the designated party in the maintenance agreement has maintenance responsibility. The financial guarantee shall give the Director of Public Works or his designee the authorization to use the funds to complete the storm water management practices if the responsible party defaults or does not properly implement the approved storm water management plan, upon written notice to the responsible party by the Director of Public Works or his designee that the requirements of this ordinance have not been met.

(2) **CONDITIONS FOR RELEASE.** Conditions for the release of the financial guarantee are as follows:

(a) The Director of Public Works or his designee shall release the portion of the financial guarantee established under this section, less any costs incurred by the Director of Public Works or his designee to complete installation of practices, upon submission of "as built plans" by a licensed professional engineer. The Director of Public Works or his designee may make provisions for a partial pro-rata release of the financial guarantee based on the completion of various development stages.

(b) The Director of Public Works or his designee shall release the portion of the financial guarantee established under this section to assure maintenance of storm water practices, less any costs incurred by the

Director of Public Works or his designee, at such time that the responsibility for practice maintenance is passed on to another entity via an approved maintenance agreement.

**Sec. 25-32. FEE SCHEDULE.**

The fees referred to in other sections of this ordinance shall be established by the Board of Public Works on an annual basis. A schedule of the fees established by the Board of Public Works shall be available for review in office of the City Engineer.

**Sec. 25-33. ENFORCEMENT.**

(1) Any land disturbing construction activity or post-construction runoff initiated after the effective date of this ordinance by any person, firm, association, or corporation subject to the ordinance provisions shall be deemed a violation unless conducted in accordance with the requirements of this ordinance.

(2) The Director of Public Works or his designee shall notify the responsible party by certified mail of any non-complying land disturbing construction activity or post-construction runoff. The notice shall describe the nature of the violation, remedial actions needed, a schedule for remedial action, and additional enforcement action which may be taken.

(3) Upon receipt of written notification from the Director of Public Works or his designee under sub. (2), the responsible party shall correct work that does not comply with the storm water management plan or other provisions of this permit. The responsible party shall make corrections as necessary to meet the specifications and schedule set forth by the Director of Public Works or his designee in the notice.

(4) If the violations to a permit issued pursuant to this ordinance are likely to result in damage to properties, public facilities, or waters of the state, the Director of Public Works or his designee may enter the land and take emergency actions necessary to prevent such damage. The costs incurred by the Director of Public Works or his designee plus interest and legal costs shall be billed to the responsible party.

(5) The Director of Public Works or his designee is authorized to post a stop work order on all land disturbing construction activity that is in violation of this ordinance, or to request the City Attorney to obtain a cease and desist order in any court with jurisdiction.

(6) The Director of Public Works or his designee may revoke a permit issued under this ordinance for non-compliance with ordinance provisions.

(7) Any permit revocation, stop work order, or cease and desist order shall remain in effect unless retracted by the Director of Public Works or his designee or by a court with jurisdiction.

(8) The Director of Public Works or his designee is authorized to refer any violation of this ordinance, or of a stop work order or cease and desist order issued pursuant to this ordinance, to the City Attorney for the commencement of further legal proceedings in any court with jurisdiction.

(9) Any person, firm, association, or corporation who does not comply with the provisions of this ordinance shall be subject to a forfeiture of billable damages plus a penalty as provided in Sec. 1-05 of the City of Marshfield Municipal Code, together with the costs of prosecution for each violation. Each day that the violation exists shall constitute a separate offense.

(10) Compliance with the provisions of this ordinance may also be enforced by injunction in any court with jurisdiction. It shall not be necessary to prosecute for forfeiture or a cease and desist order before resorting to injunctive proceedings.

(11) When the Director of Public Works or his designee determines that the holder of a permit issued pursuant to this ordinance has failed to follow practices set forth in the storm water management plan, or has failed to comply with schedules set forth in said storm water management plan, the Director of Public Works or his designee or a

party designated by the Director of Public Works or his designee may enter upon the land and perform the work or other operations necessary to bring the condition of said lands into conformance with requirements of the approved plan. The Director of Public Works or his designee shall keep a detailed accounting of the costs and expenses of performing this work. These costs and expenses shall be deducted from any financial security posted pursuant to Sec. 25-31 of this ordinance. Where such a security has not been established, or where such a security is insufficient to cover these costs, the costs and expenses shall be entered on the tax roll as a special charge against the property and collected with any other taxes levied thereon for the year in which the work is completed. In the event the responsible party fails to pay the amount due, the City Clerk shall enter the amount due in the tax rolls and collect as a special assessment against the property pursuant to subchapter VII of ch. 66, Wis Statutes.

**Sec. 25-34. APPEALS.**

(1) Zoning Board of Appeals. The Zoning Board of Appeals of the City of Marshfield ordinances pursuant to s. 62.23(7)(e), Wis. Stats, shall hear and decide appeals where it is alleged that there is error in any order, decision or determination made by the Director of Public Works or his designee in administering this ordinance. The board shall also use the rules, procedures, duties, and powers authorized by statute in hearing and deciding appeals. Upon appeal, the board may authorize variances from the provisions of this ordinance that are not contrary to the public interest, and where owing to special conditions a literal enforcement of the ordinance will result in unnecessary hardship.

(2) WHO MAY APPEAL. Appeals to the Zoning Board of Appeals may be taken by any aggrieved person or by an officer, department, board, or bureau of the City of Marshfield affected by any decision of the Director of Public Works or his designee.

**Sec. 25-35. SEVERABILITY.**

If any section, clause, provision or portion of this ordinance is judged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the ordinance shall remain in force and not be affected by such judgment.

**Sec. 25-36 EFFECTIVE DATE.**

This ordinance shall be in force and effect from and after its adoption and publication. The above and foregoing ordinance was duly adopted by the Common Council of the City of Marshfield on the [number] day of [month], [year].

Approved: \_\_\_\_\_  
Attested \_\_\_\_\_  
Published on [day, month, year].

The foregoing rules were approved and adopted by the Common Council on {date of adoption}.

The rules shall take effect **Corporate Council to complete.**

Dated at {Municipal location}, Wisconsin \_\_\_\_\_

By \_\_\_\_\_

(SEAL)



City of  
Marshfield

# Memorandum

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April 10, 2014

TO: Board of Public Works

FROM: Dan Knoeck, Director of Public Works

SUBJECT: Consideration of Construction Manager for the Library & Community Center Project

## **BACKGROUND**

At the March 25, 2014 Common Council meeting, this item was referred to the Board of Public Works for a recommendation. A construction manager was used very successfully to represent the City on the Fire Station project and should be considered for the Library & Community Center project. In addition, Alderman Wagner asked that a design-build option also be evaluated.

## **ANALYSIS**

Attached is a good summary of different types of project delivery methods that was prepared by AIA Minnesota. Not all of the options mentioned are available to Wisconsin municipalities, but the background may be helpful.

A summary of pros and cons that I have assembled from various sources is attached for reference and discussion. The summary focuses only on the traditional general contractor approach versus the construction manager – agent (the CM does not self-perform any of the work).

To evaluate the design-build option, I first contacted the League of Wisconsin Municipalities to see if this alternative is available for Wisconsin municipalities. I learned that it is not, as detailed in the attached response by Curt Witynski of the League.

## **RECOMMENDATION**

I recommend that a construction manager be hired for the Library & Community Center project and that a selection committee be established to develop a Request for Proposals and undertake the selection process.

Concurrence:   
Steve Barg, City Administrator



## Understanding Project Delivery for the Design and Construction of Public Buildings

**T**he programming, design and construction of important public buildings require the coordinated efforts of a large number of professionals and organizations.

Critical to the successful delivery of a complex building project is effectively guiding these diverse parties into a productive and responsive force that represents the interests of public agencies, institutions and taxpayers. Five primary project delivery systems have evolved to organize the design and construction work:

1. **Design-Bid-Build**
2. **Construction Management-Agent**
3. **Construction Management-Contractor or Construction Manager at Risk**
4. **Design-Build**
5. **Contractor Pre-Selection**

The first two delivery systems utilize an open, competitive bidding process and are therefore generally available for public sector projects under current law. Design-Build, Construction Manager-Contractor and Contractor Pre-Selection do not include competitive bidding and therefore require special legislation.

Each of these systems has a unique decision-making structure with distinct advantages and disadvantages.

Identifying the optimum delivery method for public projects depends on how public institutions value their own input; project cost and schedule; overall project quality; short-and long-term goals; and the accountability of the project participants.

### **Contractual Relationship Agent-Vendor**

When evaluating the opportunities and constraints of each delivery method, it's important to identify how a project benefits from an agent-contractual relationship or from a vendor-contractual relationship.

Agents, by definition, act in the owner's interest, providing professional services for compensation. They typically have special expertise and are expected to adhere to a professional standard of performance - that is, to exercise reasonable care in their services. In selecting an agent, the owner normally considers qualifications, experience and integrity as most important. Architects, engineers and construction managers put their professional expertise to work on behalf of their clients. As agents, they take responsibility for overseeing that the owner's needs and intentions are fully identified, defined and accommodated.

# Opportunities and Constraints of Project Delivery Methods

Vendors, by definition, supply a specified product for a fixed price. Vendors are expected to adhere to a standard of performance established in the construction documents. When selecting a vendor, the owner usually considers the cost of the product being supplied, its delivery, warranty and, only in cases of disqualification, the experience and reputation of the vendor. A contractor who is constructing a building for a specific price determined through an open bidding process is acting as a vendor. If specifications are met and drawings adhered to, the contract is satisfied.

## Design-Bid-Build

In this traditional method of project delivery, a design team of architects and engineers is hired to work with an owner to develop plans for a building to fit the goals, budget and aspirations of the owner. Based on completed construction plans, a contractor is selected through a bidding process to build the building for a set price. During the construction period, the architect works to see that the

contractor builds according to the plans and specifications, and that the owner meets financial and other obligations to the contractor.

Design-Bid-Build is an effective project-delivery system that, for many years, has helped public owners achieve quality in the design and construction of public projects. The architect is typically selected at the onset of the project based on qualifications and experience, and represents the owner's interests during both design and construction, delivering professional service as the owner's "agent". The building contractor that is successful in bidding will then contract with the owner as a "vendor" to construct the specified design for the lowest responsible price.

## Advantages of Design-Bid-Build

1. Contractors bid competitively, based on complete design documents to maximize the built product for the price.
2. The owner selects the architect on the basis of qualifications or ability. The architect's role is that of owner's advocate.
3. The architect is active in construction administration so design intentions are followed.

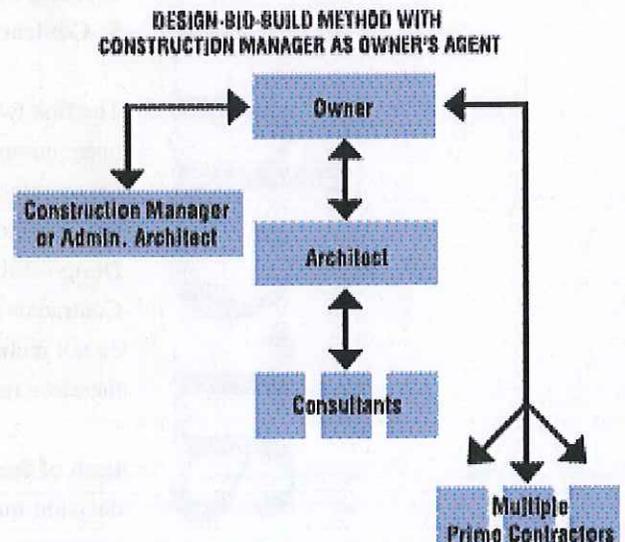
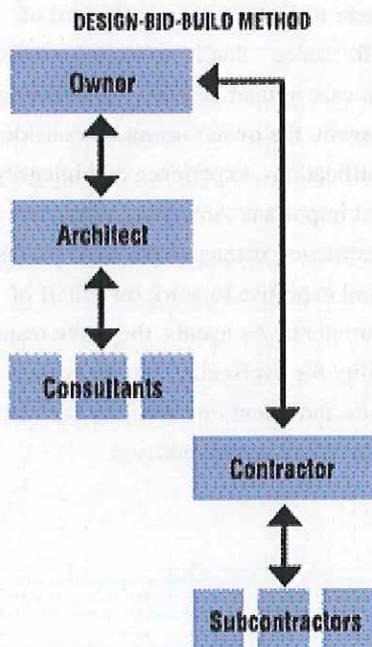
4. Design and construction roles are clearly defined, and responsibilities and liabilities clear.
5. Owner is an active participant in design process.

## Disadvantages of Design-Bid-Build

1. Design-Bid-Build construction phases are sequential and may require more time.
2. Owner is at risk for final construction cost. Actual construction costs are not known until design and bidding are complete.

## Construction Management

Some owners or public agencies planning construction of complex projects may not have resources in-house to manage planning, design and construction of a major building project. To support this need, Construction Management services can be provided in two different ways to an owner.



In one form of Construction Management, the owner contracts separately with an architect, a Construction Manager as Agent (CM-Agent) and—through a competitive bid process—one or more prime contractors. The CM-Agent provides early cost estimating, scheduling and assistance to the owner throughout the bidding and construction phases of the project. Additional cost control and condensed scheduling are the two main benefits of this method. The CM-Agent approach can be beneficial for large, complex projects where construction alternatives and solutions can positively impact the overall budget. The Construction Manager-Agent performs as an additional representative of the owner's interests.

**Advantages of Construction Manager-Agent**

1. CM-Agent with construction expertise gives the owner an agent, in addition to the architect, to supervise the project, reducing the owner's management burden in large or complicated projects.
2. CM-Agent's project scheduling and capability to competitively fast track some items may speed process and save owner money.
3. CM-Agent's cost estimating and construction expertise at design phase assists in monitoring construction costs.

**Disadvantages of Construction Manager-Agent**

1. CM-Agent is added cost. Owner is at risk for final construction cost; actual construction costs are not known until design is complete.
3. Multiple prime contracts increase paperwork and administrative time, and increase potential for construction disputes and claims.
4. CM-Agent typically has less clout to resolve design-construction issues than a general contractor and serves only as a mediator.

In the second form of Construction Management, the owner contracts separately with an architect and a Construction Manager at Risk or Construction Manager as Contractor (CM-Contractor). In this vendor form, the construction manager is "at risk" since he provides both contractor services and construction management services for the project. Construction Contractor services are provided to the owner based on a guaranteed maximum price, fixed price, cost plus or other means of defining a contract. This creates a major conflict of interest since the CM is no longer acting as an agent providing professional services to the owner, but now is a vendor delivering a contractually defined product to the owner for a price.

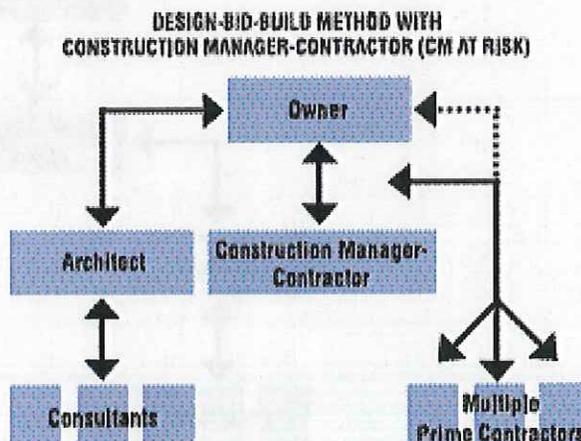
**Advantages of Construction Manager as Contractor (vendor)**

1. Architect still acts as agent protecting owner's interest and architect's early involvement with owner addresses building quality and function.

2. Early cost commitment gives owner project cost security.
3. At Risk entity is responsible for managing construction process and has more clout with subcontractors.
4. CM-Contractor can reduce owner's burden in management of large or complicated projects.
5. CM-Contractor reviews project for constructability, cost and schedule, potentially reducing change orders and delays.
6. Fast-tracking and multiple prime contracts may speed construction.

**Disadvantages of Construction Manager as Contractor (vendor)**

1. Management role of CM-Contractor is added cost.
2. CM-Contractor may provide less building than a bid approach to protect margin of profit. Major conflict of interest with role as both construction manager and contractor.



# Opportunities and Constraints of Project Delivery Methods

## Design-Build

In the Design-Build delivery approach, the owner contracts with a single entity for both design and construction. The owner has one contract assigning single-point responsibility for the project. The Design-Build entity may be a single organization with both architectural and construction staffs, or a construction organization that hires or affiliates with an architect as part of a Design-Build team. The design-build entity usually proposes the design and construction price simultaneously, and the construction commitment is made. Design and construction may or may not be fast-tracked.

In a Design-Build delivery system, the architect is part of the Design-Build entity and not the agent of the owner. Thus, uniquely in the Design-Build system, there is no one in an agency relationship with the owner who is obligated to work in the owner's best interests. The design-build team is placed in a vendor relationship with the ultimate end user groups and public owner. When dealing with public sector building projects where much involvement, interaction and

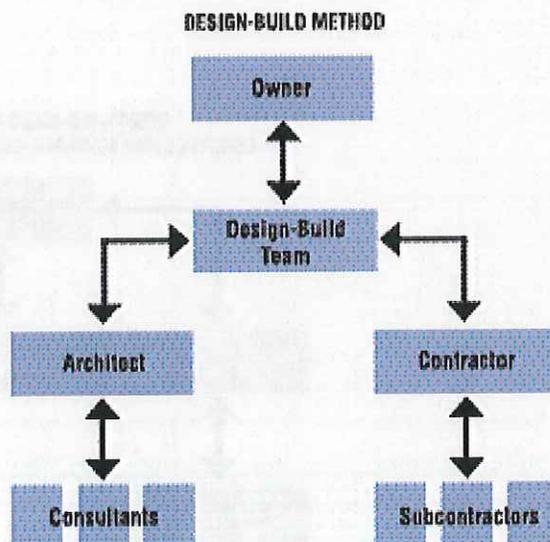
negotiation between agencies, officials and constituent communities is expected or required, a vendor led project delivery process may minimize the opportunities for user involvement. The design-build entity is focused on the delivery of a contractually defined product. Since single point responsibility leaves no independent agent representing the owner's interests, the owner will often be required to engage an administrative architect to assist in defining the building program, writing performance requirements, selecting the design-build entity and administering the design-build contract for the owner. The owner will often also hire a separate construction management entity to monitor its interests. Without early additional program/ design/specification development, the owner is likely to get less building for the price.

## Advantages of Design-Build

1. Generally fastest project delivery system.
2. Single entity responsible for design and construction.
3. Early cost and scheduling commitment.
4. Conflicts between project professionals internalized; may not involve owner.

## Disadvantages of Design-Build

1. Design-Builder may provide less building than a bid approach to protect margin of profit. Construction costs are non-competitive.
2. Involvement of owner is generally limited to early stages of project.
3. Hidden reductions in quality are possible when cost-savings and design changes are determined by design-builder. Short-term construction savings may outweigh life-cycle costs.
4. Construction documents not complete when cost commitment made. Disagreements about quality and design intentions may arise later.
5. Major conflict of interest with role as designer and contractor.
6. No objective agent to represent owner's interests.



## Contractor Pre-Selection

Contractor Pre-Selection has evolved from Design-Build in order to obtain the benefits of an independent designer, shortened schedule and early cost commitment. The owner holds separate contracts with the architect, who functions as an independent owner's agent, and with the contractor, with whom he negotiates a construction price. Final construction cost may be negotiated to provide for bids from subcontractors, with cost savings going partially to the owner. The owner/user is involved in programming and design decisions. A construction manager may be added to the team if required.

### Advantages of Contractor Pre-Selection

1. Provides early cost and scheduling benefits and saves time.
2. Architect acts as agent protecting owner's interest.
3. Architect's involvement with owner addresses building quality and function.

### Disadvantages of Contractor Pre-Selection

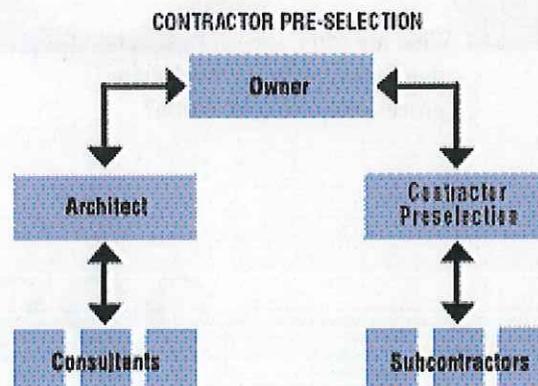
1. Without competitive bidding from the contractor, owner may not obtain lowest construction price, but this can be mitigated by mandatory subcontractor bidding.

## Balancing Cost, Time, Quality and Accountability

When evaluating the ideal project delivery system, a building owner should prioritize project cost, time, quality and accountability. Design-Build and Contractor Pre-Selection can overlap design and construction to address a tight time schedule. Straightforward projects with known requirements are often suited to Design-Build project delivery. Design-Build schedules require participants to make decisions quickly. Changes to plans become increasingly difficult and expensive as work rapidly progresses. And there is a limit to the amount of time that may be squeezed out of a project, no matter how many people are working at the task or which approach is used.

If the proposed building is programmatically complex or of a monumental quality, it may require additional design effort and input from many stakeholders. The traditional Design-Bid-Build project delivery system encourages a thorough and interactive design process. Public entities are also directly accountable to their constituents and may favor approaches where construction is competitively bid in an open market as with Design-Bid-Build or Construction Management.

Design and construction of public buildings, like most complicated human endeavors, requires thoughtful review and consideration of how they will best function and endure to provide valuable service over many, many years. If public architecture is seen as the handwriting of a civilization, then it must be the best it can be because it is truly the people's architecture.



# 20 Questions to Ask in the Delivery of Public Projects

Many issues arise in the early stages of a project involving construction and the shaping of new or renovated space. Often the most challenging task, when large cost and complexity of construction is involved, is having enough information available, in a timely manner, for key decision makers to reach the best decision. Some questions that arise in these early stages include the following:

1. Who needs to be involved in making decisions?
2. Will you assign staff to oversee the project? Do they have experience in building projects?
3. What are the goals of your project? What are the constraints?
4. Have you clearly defined the scope of the project?
5. Have you done this type of project before?
6. How will the project be funded or financed?
7. What are the critical limits of the schedule?
8. Has a site been selected and purchased?
9. How do you obtain the best value for your unique requirements? What are the qualities you value in your facilities?
10. What are some special considerations that may emerge in the design process requiring attention?
11. Do you have concerns about the life-cycle and operational costs of the building?
12. Can we be responsible to the limited resources of our environment? (Sustainable Design)
13. What are some of the special technologies a project may require?
14. What is the financial commitment and risk on this project? Are there options?
15. How do you identify the construction cost of the building?
16. What is the role of the design professional in representing the owner's interests?
17. What is the role of the contractor in representing the owner's interests?
18. What is project delivery?
19. When might an owner need to select a particular project delivery method?
20. Which project delivery system is best suited for our project?

Questions



# Some Terms Defined

## **Bid**

- A signed proposal to do the work for the amount stipulated.

## **Construction Administration**

- Administration of the owner's contract for construction during construction period until final payment to the contractor is due.

## **Construction Cost**

- The cost of the construction work to the contractor and their subcontractors. Does not include other costs referred to in the Project Cost (compare with project costs).

## **Construction Documents**

- Drawings and specifications detailing the requirements for the construction of a project.

## **Construction Management**

- This is a broad term covering a variety of project delivery systems in which a construction manager is added to the building team.

## **Construction Manager (CM)**

- Additional consultant such as an architect, contractor, engineer or developer added to project team to oversee scheduling, cost control, constructability, project management, building technology, and the bidding or negotiating of construction contracts or construction.

## **Contractor (general contractor)**

- The primary contractor who oversees and is responsible for all the work performed on the site and to whom any subcontractors on the same job are responsible.

## **Contractor Pre-Selection**

- Selecting the contractor on qualifications, not price, early in the process to team with the architect for time savings.

## **Cost Plus Fee**

- The contractor in an owner-contractor agreement is reimbursed for the direct and indirect costs of performance of the agreement and, in addition, is paid a fee for services.

## **Design-Bid-Build**

- The most common form of project delivery. Architect and contractor hold separate contracts with the owner. It is characterized by three phases: design, bidding and construction.

## **Design-Build**

- A project delivery method that offers an owner the ability to contract with a single entity to provide both design and construction services.

## **Design-Builder**

- Entity that contracts with a building owner to provide design and construction services through a single contract.

## **Design Development Phase**

- The second phase of an architect's basic service, which includes developing structural, mechanical and electrical drawings and specifying materials and the probable cost of construction.

## **Fast-Tracking**

- Construction delivery approach which overlaps design and construction, thereby shortening project schedule.

## **GMP**

- Guaranteed maximum price.

## **Lump Sum**

- A contract in which a specific amount is set forth as the total payment for performance of the contract.

## **Performance Specification**

- Standards for product quality, construction methods or building systems to be used in a building project.

## **Prime Contractor**

- A contractor who has a direct contractual relationship with the owner for of work, as distinguished from a subcontractor whose contractual relationship is not with the owner, but with a general or prime contractor.

## **Program**

- A written statement setting forth design objectives, constraints, and criteria for a project, including space requirements and relationships, flexibility and expandability, special equipment and systems, and site requirements.

## **Project Costs**

- The total funds budgeted for the project, including construction cost, design fees, furnishings and equipment, fees and permits, and contingencies (compare with construction costs).

## **Project Delivery System**

- A formalized contractual approach which allows an owner to secure planning and design services and build a project, assuring effective management throughout.

## **Schematic Design Phase**

- The phase of the project in which the architect consults with the owner to ascertain the requirements of the project and prepares schematic design studies consisting of drawings and other documents illustrating the scale and relationship of the project components to the owner. The architect also submits to the owner a statement of probable construction cost.

## **Subcontractor**

- A person or entity who has direct contact with the contractor to perform any of the work at the site.

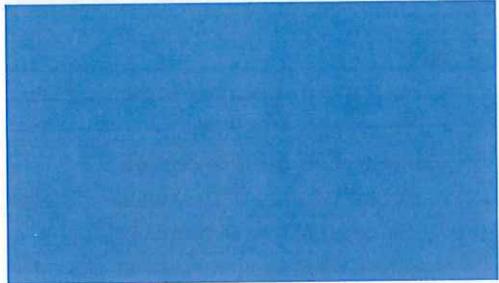
## **Value Engineering**

- The process of reviewing elements of the project design in terms of cost benefit. Value engineering involves substitution of less costly systems or materials without changing the function or overall appearance of the building.

# AIA Minnesota

A Society of The American Institute of Architects

275 Market Street, Suite 54  
Minneapolis, MN 55405-1621  
612-338-6763  
www.aia-mn.org



AIA Minnesota is a not-for-profit organization that represents the interests of architects in Minnesota. It is a part of the American Institute of Architects, a national organization of architects. AIA Minnesota provides a variety of services to its members, including advocacy, education, and networking. It also provides a platform for architects to express their views on public policy and to participate in the legislative process. AIA Minnesota is committed to the highest standards of professional conduct and to the advancement of the architectural profession in Minnesota.

The AIA Minnesota Board of Directors is responsible for the overall management and operation of the organization. The Board is composed of members elected by the membership. The Board's primary responsibility is to ensure that the organization operates in the best interests of its members and the public. The Board also sets the organization's strategic direction and approves its budget. The Board is supported by a staff of professional and administrative personnel. The organization's activities are carried out through a variety of committees and task forces. These groups focus on specific areas of interest, such as legislative advocacy, education, and public policy. The organization's success is dependent on the active participation of its members and the support of the public.

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## Comparison of General Contractor vs Construction Manager for Project Delivery

GENERAL CONTRACTOR (GC)	CONSTRUCTION MANAGER (CM)
Design Phase – no involvement.	Design Phase – assists owner & architect with constructability review, cost estimating, material selection, etc.
Bidding – typically one bid package with GC controlling selection of sub-contractors, owner is not aware of subcontractor costs.	Bidding – multiple prime bids allowing for sub-contractors to bid competitively with full disclosure, may allow for better local participation. No mark up on sub-contractors.
Project Management – GC is responsible for managing all subs. Costs for project management built in to bid price but not disclosed to owner.	Project Management – CM manages subs on behalf of the owner. Cost for project management clearly defined in CM contract.
Efficiency – cost saving measures identified by GC shared between owner and GC or tend to benefit the GC.	Efficiency – cost saving measures identified by the CM benefit the owner.
Schedule Control – GC controls schedule and subs so typically has tighter control over schedule.	Schedule Control – CM must coordinate subs without direct control through contractual arrangement. Correcting poor performance can take longer than GC.
Project Record Keeping – all interaction is through the GC. Owner has limited involvement in subcontractor relations.	Project Record Keeping – owner, through the CM, has full disclosure of all subcontractor records and interactions.
Quality Control – GC manages quality but balances against profit margin. Architect provides occasional onsite inspections but is typically not full time.	Quality Control – CM provides daily onsite inspection, quality control and troubleshooting with only the owner’s interests in mind.

## Knoeck, Dan

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**From:** Curt Witynski <witynski@lwm-info.org>  
**Sent:** Monday, April 07, 2014 11:20 AM  
**To:** Knoeck, Dan  
**Cc:** Claire M. Silverman; Gail Sumi  
**Subject:** RE: Design/Build Contracts for construction of Municipal Buildings

Hi Dan: Design/Build is generally not an authorized option for municipalities in Wisconsin. We address this issue in the following Legal FAQ, which is posted on our Website:

### Can municipalities in Wisconsin enter into design/build public construction contracts?

Generally speaking, no. Under a design/build approach to public construction, the municipality contracts with a single entity to provide both the design and construction. Such an approach is not consistent with the requirement that cities and villages award public construction contracts to the lowest responsible bidder using a competitive bidding process. See Wis. Stat. sec. 62.15 (cities), and sec. 61.55 (villages). As the Wisconsin Court of Appeals stated in *J.F. Ahern Co. v. Wisconsin State Building Commissioner*, 114 Wis.2d 69, 77, 336 N.W.2d 679 (Ct. App. 1982), "The design/build process differs from the conventional procedure by which a building is first designed and contractors then submit bids to construct it, based on the plans, as provided in [the state competitive bid statute]."

However, a municipality can use the design/build process if specifically authorized by statute to use such an approach or if the work falls within an exemption from the competitive bidding requirements. Municipalities are expressly authorized, for example, to use the design/build approach when contracting for acquisition of any element of a resource recovery and recycling facility. Wis. Stat. secs. 61.57 and 62.155. In addition, the courts have recognized that competitive bidding is unnecessary, and a design/build approach is permissible, when it is truly impractical or impossible to draft specifications. See *Waste Management Inc. v. Wisconsin Solid Waste Recycling Authority*, 84 Wis.2d 462, 267 N.W.2d 609 (1978).

\*\*\*\*\*

Curt Witynski  
Assistant Director  
League of Wisconsin Municipalities  
122 West Washington Ave.  
Madison, WI 53703

(608) 267-2380

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**From:** Knoeck, Dan [<mailto:Dan.Knoeck@ci.marshfield.wi.us>]  
**Sent:** Monday, April 07, 2014 10:52 AM  
**To:** Curt Witynski  
**Subject:** Design/Build Contracts for construction of Municipal Buildings

Hi Curt,  
Has the League put out any information on design/build as an option for municipalities to consider for construction of new municipal buildings? (in our case, a new library)

Thanks Curt,  
Dan

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City of  
Marshfield

# Memorandum

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**TO:** Board of Public Works  
**FROM:** Tom Turchi, City Engineer  
**DATE:** April 10, 2014  
**RE:** Request to review parking restrictions West Arnold Street

## BACKGROUND

The city received a request to review parking restrictions on West Arnold Street adjacent to Columbia Park.

## ANALYSIS

Events held at Columbia Park during the summer months have the tendency to create traffic issues as visitors park on both sides of Arnold Street. It has been noted that parking congestion has created issues for emergency vehicles with the narrow width that remains during these events. To solve this issue it will be necessary to restrict parking on one side of Arnold when events are being held.

By restricting parking on the south side of Arnold during events when the band shell is in use will be less convenient for residents as they will not be allowed to park directly in front of their homes. The upside to this is that users of Columbia Park will not have to cross Arnold Street traffic if parked on the north side for these events thus increasing the safety of the public using the park.

Current parking restrictions on Arnold Street are as follows:

*"No Parking" - On both sides of Arnold Street from Central Avenue to Chestnut Avenue.*

## RECOMMENDATION

I recommend that "NO PARKING - WHEN THE BAND SHELL IS IN USE" be posted on the south side of Arnold Street from Chestnut Avenue to 50 feet west of the west line of Walnut Avenue.

Respectfully submitted,

*Thomas R. Turchi*

Thomas Turchi

Concurrence:

*Steve Barg*

Steve Barg, City Administrator

*Daniel G. Knoeck*

Daniel G. Knoeck, P.E. Director of Public Works