City of Waukesha
Department of Public Works
130 Delafield Street
Waukesha, WI 53188
Waukesha-wi.gov

Application for Stormwater Management and Erosion Control

Form P106
(Rev 12/18)

Project Name: 2005 Pewaukee Road (Walbec Building)

Project Location: 2005 Pewaukee Road

Project Type (From Fee Schedule): Commercial Building

The following contacts are required at the time of application: (Enter on page 2)

- Applicant: The person or entity holding fee title to the property or their representative. The applicant shall sign the initial permit application form in accordance with the items 1 -- 5 listed below, after which the applicant may provide written authorization for others to serve as the applicant's representative: **1)** In the case of a corporation, by a principal executive officer of at least the level of vice-president or by the officer's authorized representative having overall responsibility for the operation of the site for which a permit is sought; **2)** In the case of a limited liability company, by a member or manager; **3)** In the case of a partnership, by the general partner; **4)** In the case of a sole proprietorship, by the proprietor, or; **5)** For a unit of government, by a principal executive officer, ranking elected official or other duly authorized representative.

- Engineer (or Preparer): The primary contact for the preparation of erosion control and Storm water management plans. All plan review comments will be addressed to this Contact. For all storm water plans and other engineering, this person must: **1)** be a licensed P.E. in Wisconsin; **2)** stamp P.E. number and sign all plans submitted as part of permit; and **3)** oversee and verify construction of all practices.

- Erosion Control Coordinator: The person(s) responsible for maintaining records of EC inspections and for maintaining or scheduling maintenance of the EC measures.

OFFICE USE ONLY

Permit Fee: _____ Permit Number: _____

Permit Issued: _____ Permit Expires: _____

Items submitted:

- ☐ 1. Signed Application
- ☐ 2. Application Fee
- ☐ 3. Site Plan Map
- ☐ 4. Erosion Control Plan
- ☐ 5. Storm Water Mgt. Plan (including inspection plan)
- ☐ 6. Maintenance Agreement
- ☐ 7. Financial Assurance

Permit Approved

_____
By

_____
Date

Application for Storm Water Management & Erosion Control Permit (Page 2)

Applicant Contact Information: *(required to process application)*

Name: Angel Gonzalez-Torres Company: Payne + Dolan, Inc.

Mailing Address: N6W23673 Bluemound Road

City: Waukesha State: WI Zip Code 53188

Daytime Phone #: 262-524-1748 Fax:

E-mail Address: agonzalez-torres@walbecgroup.com

If the box is checked below, I hereby authorize the contact(s) identified to serve as my representative(s).

I understand by submitting this application, City staff may enter upon the subject site to obtain information necessary to administer the ordinance.

Signature of Applicant: Date: July 26, 2021

Engineer Contact Information: *(required to process application)*

☒ **Authorized as applicant representative**

Name: Jaimi Lapp Company: Payne + Dolan, Inc.

Mailing Address: N6W23673 Bluemound Road

City: Waukesha State: WI Zip Code 53188

Daytime Phone #: 262-933-8429 Fax:

E-mail Address: jlapp@walbecgroup.com

Primary Erosion Control Coordinator: *(required to process application)*

Name: Angel Gonzalez-Torres Company: Payne + Dolan, Inc.

Mailing Address: N6W23673 Bluemound Road

City: Waukesha State: WI Zip Code 53188

Daytime Phone #: 262-524-1748 Fax:

E-mail Address: agonzalez-torres@walbecgroup.com

Secondary Erosion Control Coordinator:

Name: Company:

Mailing Address:

City: State: Zip Code

Daytime Phone #: Fax:

E-mail Address:

STORM WATER PERMIT – GENERAL REQUIREMENTS

Subject to Chapter 32 of the City of Waukesha Municipal Code, storm water permits are subject to all the requirements listed below. The City may include other permit requirements that it determines are necessary to ensure compliance with the ordinance. **Signing this form is required before a permit will be issued**. Violation of any permit requirement shall cause the permit holder and any other responsible party (as defined) to be subject to enforcement action.

(Definition: "Responsible party" means any person or entity holding fee title to the property or acting as the Owners' representative, including any person, firm, corporation or other entity performing services, contracted, subcontracted or obligated by other agreement to design, implement, inspect, verify or maintain the Best Management Practices (BMPs) and other approved elements of erosion control and storm water plans and permits under this ordinance.)

1. **Other Permits**. Compliance with a storm water permit does not relieve the permit holder or other responsible party of the responsibility to comply with other applicable federal, state, and local laws and regulations. The City may require the applicant to obtain other permits or plan approvals prior to issuing a storm water permit.

2. **Approved Plans**. All best management practices (BMPs) shall be installed and maintained in accordance with approved plans and construction schedules. A copy of the approved plans shall be kept at the construction site at all times during normal business hours.

3. **Plan Modifications**. The City shall be notified of any significant modifications proposed to be made to the approved plans. The City may require proposed changes to be submitted for review prior to incorporation into the approved plans or implementation. Any modifications made during plan implementation without prior approval by the project engineer under sub. 6 below and the City are subject to enforcement action.

4. **Notification**. The City shall be notified at least 2 working days before commencing any work in conjunction with approved plans. The City shall also be notified of proposed plan modifications under sub. 3 above and within 1 working day of completing construction of a storm water BMP. The City may require additional notification according to a schedule established by the City so that practice installations can be inspected during construction.

5. **Access**. The City or its designee shall be permitted access to the site for the purpose of inspecting the property for compliance with the approved plans and other permit requirements.

6. **Project Engineer/Landscape Architect**. The permit holder shall provide an engineer licensed in the state of Wisconsin to be responsible for achieving compliance with approved construction plans, including the implementation of the approved inspection plan and verification of construction in accordance with the city ordinance. If warm season or wetland plantings (as defined) are involved, the permit holder shall also provide a landscape architect or other qualified professional to oversee and verify the planting process and its successful establishment.

   (Definition: "Warm season and wetland plantings" means seed or plant stock that is native to a prairie or wetland setting. These types of plantings usually take a couple of years to get established and require diligent removal of invasive species during this time. Upon maturity, warm season plants generally have a deep root system, which enhances infiltration.)

7. **Inspection Log**. The permit holder shall provide a qualified professional to conduct inspections and maintain an inspection log for the site. All BMPs shall be inspected within 24 hours after each rain event of 0.5 inch or more, and at least once each week. The inspection log shall include the name of the inspector, the location, date, and time of inspection, a description of the present phase of construction, the findings of the inspection, including an assessment of the condition of erosion and sediment control measures and the installation of storm water management BMPs, and any action needed or taken to comply with this ordinance. The inspection log shall also include a record of BMP maintenance and repairs conducted under subs. 9 and 9 below. The permit holder shall maintain a copy of the inspection log at the construction site and the City may view or obtain a copy at any time during normal business hours until permit termination.

8. **BMP Maintenance**. The permit holder shall maintain and repair all best management practices within 24 hours of inspection, or upon notification by the City, unless the City approves a longer period due to weather conditions. All BMP maintenance shall be in accordance with approved plans and applicable technical standards until the site is stabilized and a permit termination letter is issued by the City. The permit holder, upon approval by the City, shall remove all temporary erosion control practices such as silt fence. The permit holder, in accordance with approved plans and applicable technical standards, shall maintain permanent storm water management practices until maintenance responsibility is transferred to another party or unit of government pursuant to the recorded maintenance agreement.

9. **Other Repairs**. The permit holder shall be responsible for any damage to adjoining properties, municipal facilities or drainage ways caused by erosion, siltation, runoff, or equipment. The City may order immediate repairs or clean-up within road right of ways or other public lands if the City determines that such damage is caused by activities regulated by a permit under this ordinance. With the approval of the landowner, the City may also order repairs or clean-up on other affected property.

10. **Emergency Work**. The permit holder authorizes the City, in accordance with the enforcement procedures under section 32.14 of the ordinance, to perform any work or operations necessary to bring erosion control or storm water management practices into conformance with the approved plans and consents to charging such costs against the financial assurance retained or to a special assessment or charge against the property as authorized under subch. VII of ch. 66, Wisconsin Statutes.

11. **Permit Display**. The permit holder shall display the storm water permit in a manner that can be seen from the nearest public road and shall protect it from damage from weather and construction activities until permit termination by the City.

I have read and understand the above noted permit requirements. I also understand that a violation of any permit requirement is subject to enforcement action.

Applicant's Signature: _____ Date: July 26, 2021

Print Name: Angel Gonzalez-Torres

Title: Project Manager

Wood Wall Form - ASD Check

Desired Pour Pressure	750	PSF	2250 lbs swl	Dayton A3
			3350 lbs swl	Dayton A3 Heavy
Assumed Waler Spacing	80	IN	4500 lbs swl	B1 Coil
Layers of 3/4" Plywood Sheething	1	EA	6750 lbs swl	B1 Coil Heavy
Assumed Tie Capacity	3000	LBS		
Assumed Tie Spacing	24	IN		
Assumed Tie Plate Washer Bearing Width	2	IN	*Assumed to cover entire waler height*	

SHEATHING

Req Support Spacing	8.0	IN	
Allowable Capacity	1592.2	PSF	Passes

Acceptable - Exceeds Pour Pressure Requirement

Allowable Pressure (2x Supports)

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Allowable Pressure (psf)**
4	3.5	3.75	[illegible]	4140	[illegible]	[illegible]	[illegible]	[illegible]	4140
8	[illegible]	[illegible]	1647	1592	[illegible]	[illegible]	[illegible]	[illegible]	1592
12	10.5	10.75	732	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	14.5	14.75	412	714	[illegible]	[illegible]	[illegible]	[illegible]	412
20	18.5	18.75	263	559	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	22.5	22.75	183	[illegible]	[illegible]	[illegible]	[illegible]	149	149

STUDS

Span	80.0	IN	Size	2x12		
Loading	41.7	LB/IN	Duration	7 days		
			#/Loc	1.0		
I	178.0	in^4	Cf-Fb	1.00		
E	1600.0	ksi	Cfu	1.00		
Sx	31.6	in^3	Cr	1.15		
b	1.5	in	Cd	1.25		
d	11.3	in	Ccondit	1.00		
Fv	175.00	psi				
Fb	975.00	psi				
Fcp	0.00	psi				
Fb' =	1401.6	psi				22.5
Fv' =	218.8	psi				103.09178
Fcp' =	0.0	psi		Allowable		
Deflection	0.0413	in	Passes	0.063	in	l/360, 1/16" is limit
Vmax	1500.0	lb	Passes	2461	lb	3+ span assumed
Mmax	2222.2	lb-ft	Passes	3696	lb-ft	3+ span assumed

Three-span continuous $\Delta_{max} = \frac{wl^4}{145EI}$

$V_{max} = 0.625wl - w\left(d + \frac{l_b}{2}\right)$

$M_{max} = \frac{wl^2}{10}$

Acceptable - Exceeds Pour Pressure Requirement

Waler

Span	24.0	IN	Size	2x4		
Loading	416.67	LB/IN	Duration	7 days		
			#/Loc	2.0		
I	5.36	in^4	Cf-Fb	1.50		
E	1500.00	ksi	Cfu	1.00		
Sx	3.06	in^3	Cr	1.00		
b	1.50	in	Cd	1.25		
d	3.50	in	Ccondit	1.00		
Fv	135.00	psi	Fcp			
Fb	875.00	psi				
Fcp	480.00	psi				
Fb' =	1640.6	psi				
Fv' =	168.8	psi				0.0625
				Allowable		
Deflection	0.119	in	FAILS	0.063	in	l/360, 1/16" is limit
Vmax	4125	lb	FAILS	1181	lb	3+ span assumed/l=assumed tie spacing/lb=tie washer width
Mmax	2000	lb-ft	FAILS	838	lb-ft	3+ span assumed/l=assumed tie spacing/lb=tie washer width

Three span continuous $\Delta_{max} = \frac{wl^4}{145EI}$

$V_{max} = 0.625wl - w\left(d + \frac{l_b}{2}\right)$

$M_{max} = \frac{wl^2}{10}$

[illegible]

Uniform load assumed - If waler spacing is more than double stud spacing, check point loads of stud reactions.

Waler Spacing 80 in Stud Spacing 8.0 in

Tie Capacity

Loading	416.67	lb/in	(equals waler loading)
Max Tie Spacing	6.55	in	(tie capacity/waler loading)
Assumed Tie Spacing	24.00	in	Fails

[illegible]

Bearing Check

ww=washer/waler	Lbww	2	in
sw=stud/waler	Lbsw	2	in
	Cbww	1.19	
	Cbsw	1.25	

For Lb<6" (3"+ from end)

$C_b = \frac{l_b + 3/8"}{l_b}$

Else Cb 1

Fcp' Washer/Waler	570	psi		
Fcp' Stud/Waler	0	psi		
Washer/Waler Bearing Stress	1833	psi	Fails	1.1 x wloading x tie spacing / (dw x #w x bearing width)
Stud/Waler Bearing Stress	741	psi	Fails	sloading x waler spacing / (#w x #s x bs x bw)

[illegible]