



Zoning Permit Application Instructions

A Zoning Permit is required prior to obtaining a Village Building Permit. Permits from other regulatory agencies such as Dane County Land & Water Resources, Madison/Dane County Public Health, Dane County Highway Department, and/or State Department of Transportation may be needed **prior to the issuance of a Zoning Permit**.

Zoning Permits are required for any new building over 120 square feet in size, or any modifications or expansion of existing structures. **A change of use permit is required** if you are changing the use of any existing building on the property. (Example: barn to residence).

Permits may be obtained at the Village Hall or by mailing all appropriate information and fees to the Village of Windsor, 4084 Mueller Road, DeForest, WI 53532. Questions may be directed to Amy Anderson Scheppe, Planning & Development Coordinator, at (608) 846-3854 or amy@windsorwi.gov.

REQUIRED ITEMS To Obtain a Zoning Permit:

1. **Site Plan** – A scaled drawing showing the lot lines, lot dimensions, location and size of all existing and proposed structures or additions, and their distances from lot lines. The site plan shall include the location of any on-site septic systems and wells on the property. If the lot has wetlands or floodplain, the area may need to be delineated by a Registered Land Surveyor or consultant. The site plan must be signed and dated by either the owner or agent.

Please Note: Location surveys will be required if you are within 10 feet of any required setback.

2. **Building Plans** – Floor plans drawn to scale showing all rooms and overall layout.
3. **Elevations** – A front elevation is required to show the height of the structure as seen from the property road frontage.
4. **Required Permits/Information from other Agencies**
 - a. Driveway permit from Village, County, or State
 - Village Roads – Contact Kevin Richardson (608) 846-3854
 - County Highway – Contact Greg Peterson (608) 266-9081
 - State and Federal Highway – Contact Scot Hinkle (608) 246-5334
 - b. Sanitary permit (septic & well) from Madison/Dane County Public Health or sanitary permit (sewer & water) from Village Utility District
 - New home sites or any building with plumbing
 - Additions involving bedrooms or major renovations
 - c. Erosion control permit from Dane County Land & Water Resources
 - Construction within 1000 feet of a lake or 300 feet of a stream
 - Construction of a driveway more than 125 feet long
 - d. Shoreland Zoning permit from Dane County Planning & Development
 - e. Shoreland Erosion Control permit from Dane County Land & Water Resources
 - f. Shoreland Mitigation permit from Dane County Land & Water Resources
5. **Fee** – \$50.00 base fee and \$0.075 per square foot including porches, decks and all basement areas for residential projects; \$200 base fee and \$2.00 per \$1,000.00 of overall cost for commercial/industrial projects. Additional fees may apply.
6. **Additional Information may be Required** – Wetland Delineation Report, Floodplain Study, or Survey of Property to meet shoreland regulations.

YOUR PERMIT APPLICATION Will be Reviewed For:

- Setbacks (front, side, rear); height and actual land use.
- Environmentally sensitive areas (wetlands-floodplain-shoreland).
- Legal parcel status-determination of status may be needed by the Village Planning & Development Coordinator.

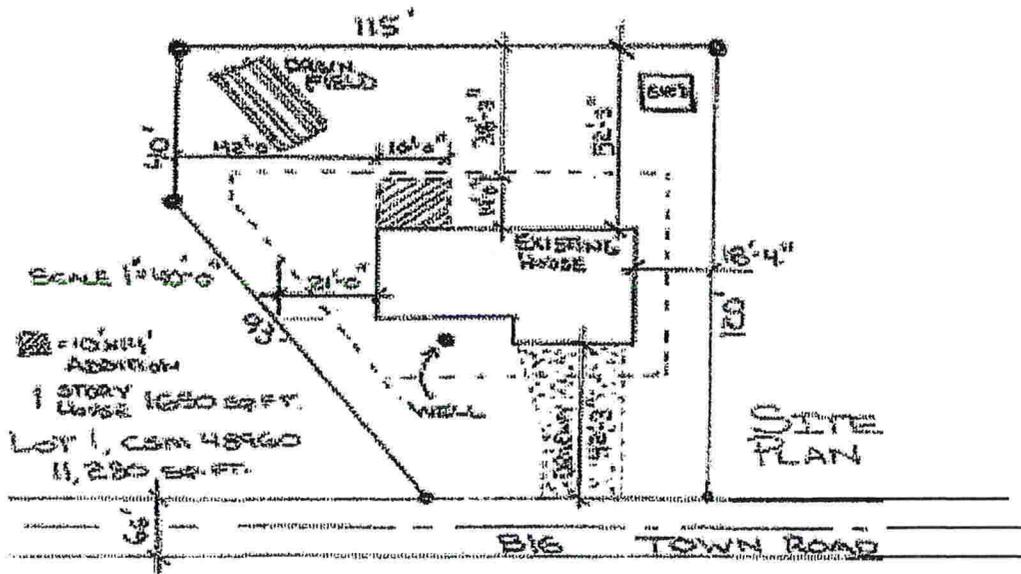
INSPECTIONS REQUIRED:

- First Inspection – When the foundation or basement walls have been constructed and before further construction begins – call Kelly Green, Building Inspector, at (608) 697-7771 or submit location survey if required.
- Second Inspection – When the building is substantially completed – call Kelly Green, Building Inspector, at (608) 697-7771.
- A Certificate of Compliance will be sent to you upon the completion of the second inspection if all zoning ordinance requirements are met.

QUESTIONS: Please contact Amy Anderson Schwappe, Planning & Development Coordinator, at (608) 846-3854 or by email at amy@windsorwi.gov with any questions.

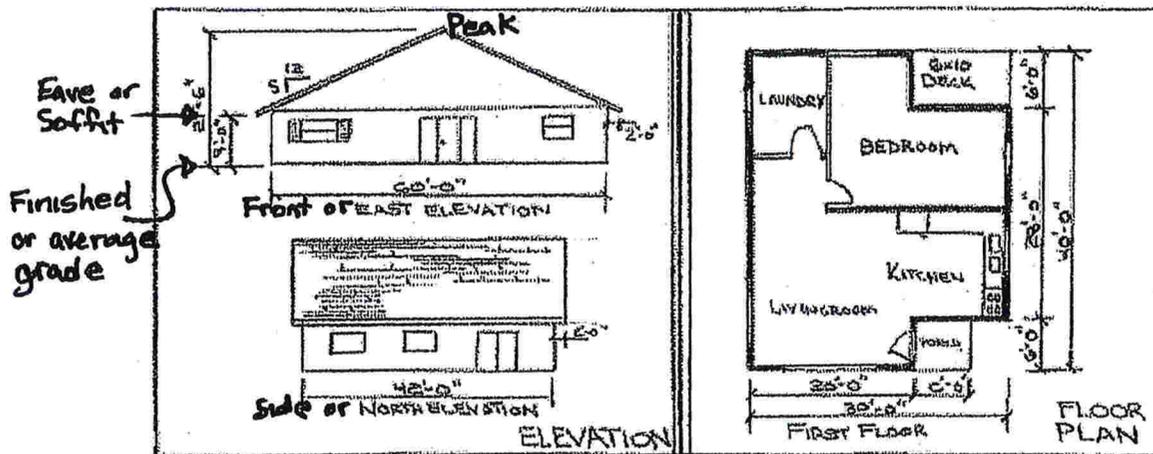
SAMPLE SITE PLAN:

1. Indicate the scale of the plan (must be Engineering Scale – 1 inch = 10 feet) and North location.
2. Show the dimensions and square footage of each of the following:
 - a. Existing and proposed buildings.
 - b. Addition(s) to dwelling or principal buildings.
 - c. Accessory structures (i.e. garage, storage, etc.).
 - d. Addition(s) to accessory structure(s).
3. Show the location, square footage and use of new structure(s). For new buildings to be served by septic systems, show the location and dimensions of both the primary and alternative drainfield areas. For alterations or additions, if location is not known, show the location of the septic tank and vent pipe.
4. Show location of all lot lines and their dimensions. Calculate the area of the site occupied by buildings (lot coverage) as a percentage of the total lot area.



SAMPLE BUILDING ELEVATION AND FLOOR PLAN:

1. Building elevation drawings are exterior views of the building, sometimes identified as front, rear, left or right, or North, South, East or West. Elevation drawings must be:
 - a. Drawn using an architect's or engineer's scale (i.e. $\frac{1}{4}$ inch = 1 foot or 1 inch = 10 feet).
 - b. Elevations show the level at which the ground (finish grade) meets the building, the overall height to peak, eave height, and/or roof pitches sufficient to calculate average height.
2. Floor plans are what you would see if you were to look straight down at the floor or basement with the roof or floors above removed. You will need to provide one floor plan for each level of the building on which work is being done. This plan must:
 - a. Drawn using an architect's or engineer's scale (i.e. $\frac{1}{4}$ inch = 1 foot or 1 inch = 10 feet).
 - b. Have all rooms labeled.
 - c. Provide exterior dimensions sufficient to calculate floor area (square feet) for each story and basement.



3. Additional information may be required.



Windsor

Growing Forward

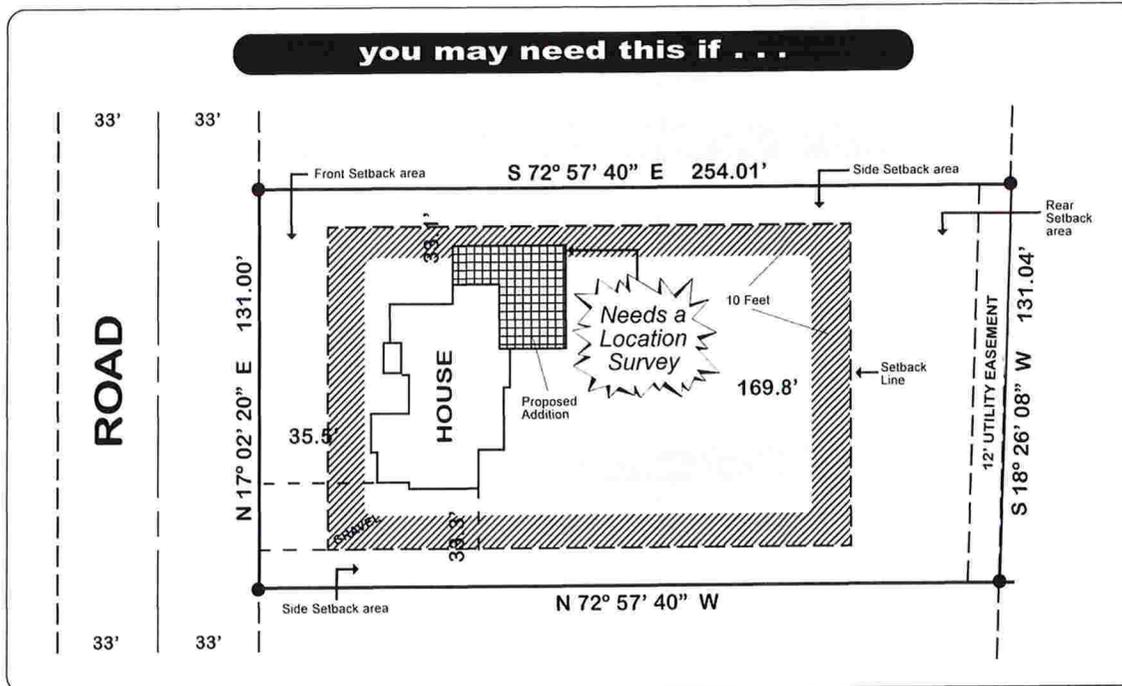
Zoning Permit Application

PROPERTY OWNER INFORMATION				Customer to Provide			
OWNER NAME:				<input type="checkbox"/> Zoning Status: CUP, Deed Restriction, CSM, Variance (# _____)			
OWNER ADDRESS (Number, Street, City, State, Zip):							
HOME PHONE:	CELL PHONE:	EMAIL ADDRESS:					
AGENT INFORMATION		CONTRACTOR INFORMATION		<input type="checkbox"/> Site Plan drawn to scale and includes dimensions <input type="checkbox"/> Site Plan including location of well/septic <input type="checkbox"/> Site Plan approval <input type="checkbox"/> Floor Plans to scale <input type="checkbox"/> Elevation of property frontage drawn to scale <input type="checkbox"/> Driveway permits (state, county, village) <input type="checkbox"/> Sanitary permits (public, private)			
AGENT NAME:		CONTRACTOR NAME:					
AGENT ADDRESS:		CONTRACTOR ADDRESS:					
CITY, STATE, ZIP:		CITY, STATE, ZIP:					
PHONE:		PHONE:					
EMAIL ADDRESS:		EMAIL ADDRESS:					
PROPERTY/LOCATION INFORMATION (http://accessdane.co.dane.wi.us)							
PARCEL NUMBER:		CURRENT ZONING:	ACREAGE:				
VILLAGE: VILLAGE OF WINDSOR		SECTION:					
ADDRESS:							
CSM:	LOT:	SUBDIVISION:	BLOCK/LOT:				
PROPOSED PROJECT INFORMATION				Staff Review			
PROJECT DESCRIPTION:				<input type="checkbox"/> Zoning District <input type="checkbox"/> Permitted Use? <input type="checkbox"/> Rural Address (new/existing) <input type="checkbox"/> Wetland/Floodplain/Shoreland (attachment) <input type="checkbox"/> Erosion Control Permit (slopes, disturbance, filling, access) <input type="checkbox"/> Review Location Survey and available options			
<input type="checkbox"/> This project is a new building or structure. <input type="checkbox"/> This project is an addition/alteration to an existing building or structure.							
SANITARY SERVICE: <input type="checkbox"/> SEWER <input type="checkbox"/> SEPTIC		PERMIT NUMBER:					
HEIGHT IN FEET:		NUMBER OF STORIES: (Not Including Basement)					
AREA TO NEAREST SQUARE FOOT: (Outside dimensions including unfinished area, attached garages, and above grade decks or porches)							
BASEMENT:	1 ST FLOOR:	↓ TOTAL SQUARE FOOTAGE ↓					
2 ND FLOOR:	3 RD FLOOR:						
ESTIMATED CONSTRUCTION COST: (Please round to nearest dollar) → → → → → → → → → →			\$				

- | | | | |
|---|------------------------------|-----------------------------|-------------------------------------|
| 1. The property is within 300 feet of a stream or 1,000 feet from a pond or lake? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't Know |
| 2. Is there a wetland or floodplain on or near the property? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't Know |
| 3. Is this project associated with a rezone/CUP/variance (petition/appeal # _____)? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't Know |
| 4. Is a location survey required? (see reverse) | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't Know |
| 5. Is this to correct a violation? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't Know |

A LOCATION SURVEY, BY A LICENSED SURVEYOR, IS REQUIRED IF YOUR CONSTRUCTION IS WITHIN 10 FEET OF A SETBACK LINE.

- You will need to hire a surveyor to prepare a location survey to verify the construction location.
- The survey shall be done at the time when foundations or basement walls are completed.
- A locations survey shall be submitted to the zoning office before continuing work on the project.
- Note: a location survey may add significant cost to your project. Please contact a Wisconsin Licensed Land Surveyor.



1. I, the undersigned, hereby make application for a zoning permit only for the location and the work described herein and certify to the accuracy of that information. I further certify I am the property owner, or a duly authorized representative, and may sign this permit application on behalf of the owner(s) of said property, and I have read and understand all of the conditions of this permit and will construct the project in compliance with those conditions. I understand that failure to provide accurate information or to comply with any provisions of the permit renders it null and void and may result in an enforcement action.
2. I, the undersigned, hereby consent to the entry on the permitted premises by zoning inspectors of the Village of Windsor to determine compliance with the Village's zoning ordinances. This consent is valid for the period commencing with issuance of this zoning permit and terminating with issuance of a certificate of compliance or until earlier revoked in writing by the owner of the property.

PRINT: Owner/Agent	DATE:
SIGNATURE: Owner/Agent	

Dept of Safety & Professional Services Industry Services Division Wisconsin Stats. 101.63, 101.73	<h2 style="margin:0;">Wisconsin Uniform Building Permit Application</h2> <p style="font-size: small; margin: 5px 0;">Instructions on back of second ply. The information you provide may be used by other government agency programs [(Privacy Law, s. 15.04 (1)(m))]</p>	Application No. Parcel No.
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PERMIT REQUESTED Constr. HVAC Electric Plumbing Erosion Control Other:

Owner's Name	Mailing Address	Tel.
Contractor Name & Type	Lic/Cert#	Mailing Address
Dwelling Contractor (Constr.)		
Dwelling Contr. Qualifier	The Dwelling Contr. Qualifier shall be an owner, CEO, COB or employee of the Dwelling Contr.	
HVAC		
Electrical		
Plumbing		

PROJECT LOCATION Lot area _____ Sq.ft. One acre or more of soil will be disturbed Town Village City of _____ 1/4, _____ 1/4, of Section _____, T _____ N, R _____ E/W

Building Address	County	Subdivision Name	Lot No.	Block No.
Zoning District(s)	Zoning Permit No.	Setbacks:	Front _____ ft.	Rear _____ ft.
			Left _____ ft.	Right _____ ft.

1. PROJECT	3. OCCUPANCY	6. ELECTRIC	9. HVAC EQUIP.	12. ENERGY SOURCE																					
<input type="checkbox"/> New <input type="checkbox"/> Repair <input type="checkbox"/> Alteration <input type="checkbox"/> Raze <input type="checkbox"/> Addition <input type="checkbox"/> Move <input type="checkbox"/> Other:	<input type="checkbox"/> Single Family <input type="checkbox"/> Two Family <input type="checkbox"/> Garage <input type="checkbox"/> Other:	Entrance Panel Amps: _____ <input type="checkbox"/> Underground <input type="checkbox"/> Overhead	<input type="checkbox"/> Furnace <input type="checkbox"/> Radiant Basebd <input type="checkbox"/> Heat Pump <input type="checkbox"/> Boiler <input type="checkbox"/> Central AC <input type="checkbox"/> Fireplace <input type="checkbox"/> Other:	<table style="width:100%; font-size: x-small;"> <tr> <td>Fuel</td> <td>Nat Gas</td> <td>LP</td> <td>Oil</td> <td>Elec</td> <td>Solid</td> <td>Solar Geo</td> </tr> <tr> <td>Space Htg</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Water Htg</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	Fuel	Nat Gas	LP	Oil	Elec	Solid	Solar Geo	Space Htg	<input type="checkbox"/>	Water Htg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Fuel	Nat Gas	LP	Oil	Elec	Solid	Solar Geo																			
Space Htg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																			
Water Htg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																			
2. AREA INVOLVED (sq ft)	4. CONST. TYPE	7. WALLS	10. SEWER	13. HEAT LOSS																					
<table style="width:100%; font-size: x-small;"> <tr> <th>Unit 1</th> <th>Unit 2</th> <th>Total</th> </tr> <tr> <td>Unfin. Bsmt</td> <td></td> <td></td> </tr> <tr> <td>Living Area</td> <td></td> <td></td> </tr> <tr> <td>Garage</td> <td></td> <td></td> </tr> <tr> <td>Deck/Porch</td> <td></td> <td></td> </tr> <tr> <td>Totals</td> <td></td> <td></td> </tr> </table>	Unit 1	Unit 2	Total	Unfin. Bsmt			Living Area			Garage			Deck/Porch			Totals			<input type="checkbox"/> Site-Built <input type="checkbox"/> Mfd. per WI UDC <input type="checkbox"/> Mfd. per US HUD	<input type="checkbox"/> Wood Frame <input type="checkbox"/> Steel <input type="checkbox"/> ICF <input type="checkbox"/> Timber/Pole <input type="checkbox"/> Other:	<input type="checkbox"/> Municipal <input type="checkbox"/> Sanitary Permit# _____	_____ BTU/HR Total Calculated Envelope and Infiltration Losses (available from "Total Building Heating Load" on Rescheck report)			
Unit 1	Unit 2	Total																							
Unfin. Bsmt																									
Living Area																									
Garage																									
Deck/Porch																									
Totals																									
	5. STORIES	8. USE	11. WATER	14. EST. BUILDING COST w/o LAND																					
	<input type="checkbox"/> 1-Story <input type="checkbox"/> 2-Story <input type="checkbox"/> Other:	<input type="checkbox"/> Seasonal <input type="checkbox"/> Permanent <input type="checkbox"/> Other:	<input type="checkbox"/> Municipal <input type="checkbox"/> On-Site Well	\$ _____																					

I understand that I: am subject to all applicable codes, laws, statutes and ordinances, including those described on the reverse side of the last ply of this form; am subject to any conditions of this permit; understand that the issuance of this permit creates no legal liability, express or implied, on the state or municipality; and certify that all the above information is accurate. If one acre or more of soil will be disturbed, I understand that this project is subject to ch. NR 151 regarding additional erosion control and stormwater management and the owner shall sign the statement on the back of the permit if not signing below. I expressly grant the building inspector, or the inspector's authorized agent, permission to enter the premises for which this permit is sought at all reasonable hours and for any proper purpose to inspect the work which is being done.

I vouch that I am or will be an owner-occupant of this dwelling for which I am applying for an erosion control or construction permit without a Dwelling Contractor Certification and have read the cautionary statement regarding contractor responsibility on the reverse side of the last ply of this form.

APPLICANT (Print): _____ **Sign:** _____ **DATE** _____

APPROVAL CONDITIONS This permit is issued pursuant to the following conditions. Failure to comply may result in suspension or revocation of this permit or other penalty. See attached for conditions of approval.

ISSUING JURISDICTION	<input type="checkbox"/> Town of <input type="checkbox"/> Village of <input type="checkbox"/> City of <input type="checkbox"/> County of <input type="checkbox"/> State →	State-Contracted Inspection Agency#:	Municipality Number of Dwelling Location
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FEES:	PERMIT(S) ISSUED	WIS PERMIT SEAL #	PERMIT ISSUED BY:
Plan Review \$ _____ Inspection \$ _____ Wis. Permit Seal \$ _____ Other \$ _____ Total \$ _____	<input type="checkbox"/> Construction <input type="checkbox"/> HVAC <input type="checkbox"/> Electrical <input type="checkbox"/> Plumbing <input type="checkbox"/> Erosion Control		Name _____ Date _____ Tel. _____ Cert No. _____

INSTRUCTIONS

The owner, builder or agents shall complete the application form down through the Signature of Applicant block and submit it and building plans and specifications to the enforcing jurisdiction, which is usually your municipality or county. Permit application data is used for statewide statistical gathering on new one- and two-family dwellings, as well as for local code administration.

Please type or use ink and press firmly with multi-ply form.

PERMIT REQUESTED

- Check off type of Permit Requested, such as structural, HVAC, Electrical or Plumbing.
- Fill in owner's current Mailing Address and Telephone Number.
- If the project will disturb one acre or more of soil, the project is subject to the additional erosion control and stormwater provisions of ch. NR 151 of the WI Administrative Code. Checking this box will satisfy the related notification requirements of ch. NR 216.
- Fill in Contractor and Contractor Qualifier Information. Per s. 101.654 (1) WI Stats., an individual taking out an erosion control or construction permit shall enter his or her dwelling contractor certificate number, and name and certificate number of the dwelling contractor qualifier employed by the contractor, unless they reside or will reside in the dwelling. Per s. 101.63 (7) Wis. Stats., the master plumber name and license number must be entered before issuing a plumbing permit.

PROJECT LOCATION

- Fill in Building Address (number and street or sufficient information so that the building inspector can locate the site.
- Local zoning, land use and flood plain requirements must be satisfied before a building permit can be issued. County approval may be necessary.
- Fill in Zoning District, lot area and required building setbacks.

PROJECT DATA - Fill in all numbered project data blocks (1-14) with the required information. All data blocks must be filled in, including the following:

2. Area (involved in project):
 - Basements - include unfinished area only
 - Living area - include any finished area including finished areas in basements
 - Two-family dwellings - include separate and total combined areas
3. Occupancy - Check only "Single-Family" or "Two-Family" if that is what is being worked on. In other words, do not check either of these two blocks if only a new detached garage is being built, even if it serves a one or two family dwelling. Instead, check "Garage" and number of stalls. If the project is a community based residential facility serving 3 to 8 residents, it is considered a single-family dwelling.
9. HVAC Equipment - Check only the major source of heat, plus central air conditioning if present. Only check "Radiant Baseboard" if there is no central source of heat.
10. Plumbing - A building permit cannot be issued until a sanitary permit has been issued for any new or affected existing private onsite wastewater treatment system.
14. Estimated Cost - Include the total cost of construction, including materials and market rate labor, but not the cost of land or landscaping.

SIGNATURE – The owner or the contractor's authorized agent shall sign and date this application form. If you do not possess the Dwelling Contractor certification, then you will need to check the owner-occupancy statement for any erosion control or construction permits.

CONDITIONS OF APPROVAL - The authority having jurisdiction uses this section to state any conditions that must be complied with pursuant to issuing the building permit.

ISSUING JURISDICTION: This must be completed by the authority having jurisdiction.

- Check off Jurisdiction Status, such as town, village, city, county or state and fill in Municipality Name
- Fill in State Inspection Agency number only if working under state inspection jurisdiction.
- Fill in Municipality Number of Dwelling Location
- Check off type of Permit Issued, such as construction, HVAC, electrical or plumbing.
- Fill in Wisconsin Uniform Permit Seal Number, if project is a new one- or two-family dwelling.
- Fill in Name and Inspector Certification Number of person reviewing building plans and date building permit issued.

INSPECTORS: PLEASE RETURN SECOND PLY WITHIN 30 DAYS AFTER ISSUANCE TO (You may fold along the dashed lines and insert this form into a window envelope.):

Industry Services Division
PO Box 7302
Madison WI 53707-7302

(Part of Ply 4 for Applicants)

Cautionary Statement to Owners Obtaining Building Permits

101.65(lr) of the Wisconsin Statutes requires municipalities that enforce the Uniform Dwelling Code to provide an owner who applies for a building permit with a statement advising the owner that:

If the owner hires a contractor to perform work under the building permit and the contractor is not bonded or insured as required under s. 101.654 (2) (a), the following consequences might occur:

(a) The owner may be held liable for any bodily injury to or death of others or for any damage to the property of others that arises out of the work performed under the building permit or that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.

(b) The owner may not be able to collect from the contractor damages for any loss sustained by the owner because of a violation by the contractor of the one- and two- family dwelling code or an ordinance enacted under sub. (1) (a), because of any bodily injury to or death of others or damage to the property of others that arises out of the work performed under the building permit or because of any bodily injury to or death of others or damage to the property of others that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.

Cautionary Statement to Contractors for Projects Involving Building Built Before 1978

If this project is in a dwelling or child-occupied facility, built before 1978, and disturbs 6 sq. ft. or more of paint per room, 20 sq. ft. or more of exterior paint, or involves windows, then the requirements of ch. DHS 163 requiring Lead-Safe Renovation Training and Certification apply. Call (608)261-6876 or go to the Wisconsin Department of Health Services' lead homepage for details of how to be in compliance

Wetlands Notice to Permit Applicants

You are responsible for complying with state and federal laws concerning the construction near or on wetlands, lakes, and streams. Wetlands that are not associated with open water can be difficult to identify. Failure to comply may result in removal or modification of construction that violates the law or other penalties or costs. For more information, visit the Department of Natural Resources wetlands identification web page or contact a Department of Natural Resources service center.

Additional Responsibilities for Owners of Projects Disturbing One or More Acre of Soil

I understand that this project is subject to ch. NR 151 regarding additional erosion control and stormwater management and will comply with those standards.

Owner's Signature: _____ Date: _____

Contractor Credential Requirements

All contractors shall possess an appropriate contractor credential issued by the Wisconsin Division of Industry Services. Contractors are also required to only subcontract with contractors that hold the appropriate contractor credentials.

Please Call 608-697-7771 for inspections:

24 Hours Notice is Appreciated

Wisconsin Administrative Code, SPS 320.10(2)(b)1: "The applicant or an authorized representative shall request inspections from the municipality ..."

Below are shown the required inspections you must call for:

NOTICE REQUIRED INSPECTIONS

**SEWER
EROSION CONTROL
FOOTINGS
(BEFORE POURING)
FOUNDATION & DRAIN TILE
(BEFORE POURING)
UNDERFLOOR PLUMBING
VAPOR RETARDER
(Under Basement Floor)
TEMPORARY ELECTRICAL SERVICE
ROUGH CONSTRUCTION
ROUGH PLUMBING
ROUGH ELECTRIC
ROUGH HEATING- A/C
SERVICE- PERMANENT ELECTRICAL
INSULATION
FINAL INSPECTION
(OCCUPANCY)**

Building a One or Two-Family Home in Wisconsin

- If applicable, you will need to obtain a **sanitary permit**, a **driveway permit**, and a **zoning permit** as required by your local municipality or county before a building permit can be issued; a copy of these permits will need to be submitted to the building inspector **prior** to a building permit being issued.
- Complete the latest version (R.6/10) of the **Wisconsin Uniform Building Permit Application** (attached) and return to the building inspector.
- Submit an **Erosion Control Plan** showing the locations of erosion control measures to be taken for sediment control, the location of the tracking pad for driveway access, and the locations of temporary soil storage piles. A copy of the Site Plan with the additional erosion control information may be used for the Erosion Control Plan.
- Submit your **Energy Calculations** to the building inspector; you may use the latest version (4.4.3) of the **RES Check Software** to calculate this number. This software can be downloaded for free at www.energycodes.gov. If you are uncertain how to obtain this calculation, please refer to your HVAC contractor.

Plan Submittal (Two Sets)

At least **two** sets of plans for all one and two-family dwellings need to be submitted to the building inspector for examination and approval at the time the **Wisconsin Uniform Building Permit** application is submitted. The required building plans must be legible and drawn to scale or dimensioned and must include **ALL** of the following:

Site Plan must show all of the following:

- The location of the dwelling and other buildings, wells, surface waters and dispersal systems on the site with respect to property lines and surface waters adjacent to the site.
- The areas of land-disturbing construction activity and the location of all erosion and sediment control measures to be employed in order to comply with SPS 321.125.
- The pre-construction ground surface slope and direction of runoff flow within the proposed areas of land disturbance.

Floor Plan must be provided for each floor and must show all of the following:

- The size and location of all rooms, doors, windows, structural features, exit passageways and stairs.
- The use of each room.
- The location of plumbing fixtures, chimneys, heating and cooling appliances and a heating distribution layout.
- The location and construction details of the braced wall lines.

Elevations must show all of the following:

- The exterior appearance of the building, including the type of exterior materials.
- The location, size and configuration of doors, windows, roof, chimneys, exterior grade, footings and foundation walls.

Storm Water Management Plan:

- Must be prepared for a site where one acre or more of land will be disturbed.
- Must delineate and describe the post-construction storm water management practices to be employed to comply with SPS 321.126.

All above Listed Materials MUST be Submitted PRIOR to the Issuance of a Building Permit

Standard Erosion Control Plan for 1- & 2-Family Dwelling Construction Sites

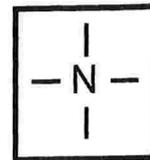
According to Chapters SPS 320 & 321 of the Wisconsin Uniform Dwelling Code, soil erosion control information needs to be included on the plot plan which is submitted and approved prior to the issuance of building permits for 1- & 2-family dwelling units in those jurisdictions where the soil erosion control provisions of the Uniform Dwelling Code are enforced. This Standard Erosion Control Plan is provided to assist in meeting this requirement.

Instructions:

1. Complete this plan by filling in requested information, completing the site diagram and marking appropriate boxes on the inside of this form.
2. In completing the site diagram, give consideration to potential erosion that may occur before, during, and after grading. Water runoff patterns can change significantly as a site is reshaped.
3. Submit this plan at the time of building permit application.

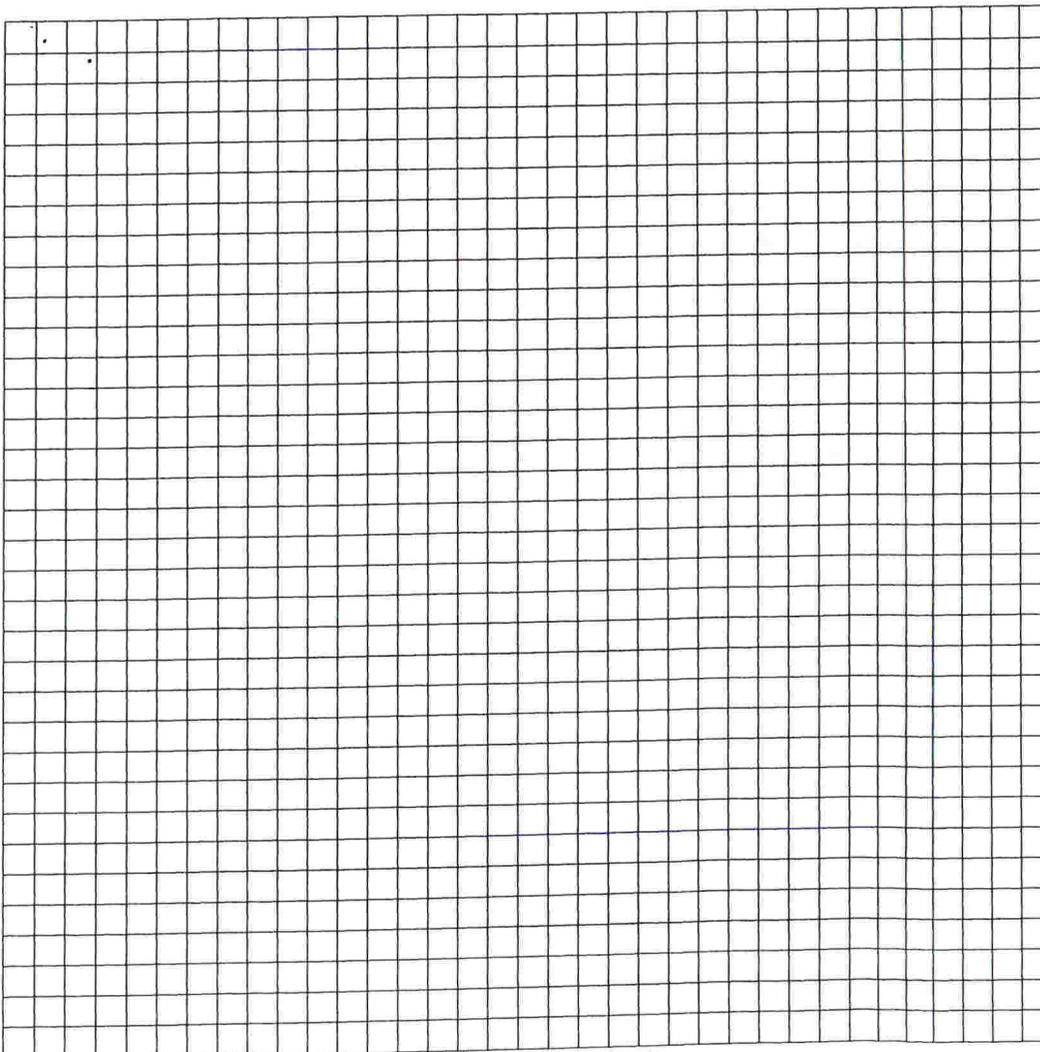
PROJECT LOCATION _____
 BUILDER _____ OWNER _____
 WORKSHEET COMPLETED BY _____ DATE _____

Please indicate north by completing the arrow.



SITE DIAGRAM

Scale: 1 inch = _____ feet



EROSION CONTROL PLAN LEGEND

-  PROPERTY LINE
-  EXISTING DRAINAGE
-  TD TEMPORARY DIVERSION
-  FINISHED DRAINAGE
-  LIMITS OF GRADING
-  SILT FENCE
-  STRAW BALES
-  GRAVEL
-  VEGETATION SPECIFICATION
-  TREE PRESERVATION
-  STOCKPILED SOIL

EROSION CONTROL PLAN CHECKLIST

Check (✓) appropriate boxes below, and complete the site diagram with necessary information.

Site Characteristics

- North arrow, scale, and site boundary. Indicate and name adjacent streets or roadways.
- Location of existing drainageways, streams, rivers, lakes, wetlands or wells.
- Location of storm sewer inlets.
- Location of existing and proposed buildings and paved areas.
- The disturbed area on the lot.
- Approximate gradient and direction of slopes before grading operations.
- Approximate gradient and direction of slopes after grading operations.
- Overland runoff (sheet flow) coming onto the site from adjacent areas.

Erosion Control Practices

- Location of temporary soil storage piles.
Note: Soil storage piles should be placed behind a sediment fence, a 10 foot wide vegetative strip, or should be covered with a tarp or more than 25 feet from any downslope road or drainageway.
- Location of access drive(s).
Note: Access drive should have 2 to 3 inch aggregate stone laid at least 7 feet wide and 6 inches thick. Drives should extend from the roadway 50 feet or to the house foundation (whichever is less).
- Location of sediment controls (filter fabric fence, straw bale fence or 10-foot-wide vegetative strip) that will prevent eroded soil from leaving the site.
- Location of sediment barriers around on-site storm sewer inlets.
- Location of diversions.
Note: Although not specifically required by code, it is recommended that concentrated flow (drainageways) be diverted (re-directed) around disturbed areas. Overland runoff (sheet flow) from adjacent areas greater than 10,000 sq. ft. should also be diverted around disturbed areas.
- Location of practices that will be applied to control erosion on steep slopes (greater than 12% grade).
Note: Such practices include maintaining existing vegetation, placement of additional sediment fences, diversions, and re-vegetation by sodding or seeding with use of erosion control mats.
- Location of practices that will control erosion on areas of concentrated runoff flow.
Note: Unstabilized drainageways, ditches, diversions, and inlets should be protected from erosion through use of such practices as in-channel fabric or straw bale barriers, erosion control mats, staked sod, and rock rip-rap. When used, a given in-channel barrier should not receive drainage from more than two acres of unpaved area, or one acre of paved area. In-channel practices should not be installed in perennial streams (streams with year round flow).
- Location of other planned practices not already noted.

Indicate management strategy by checking (✓) the appropriate box.

Management Strategies

Temporary stabilization of disturbed areas.

Note: It is recommended that disturbed areas and soil piles left inactive for extended periods of time be stabilized by seeding (between April 1 and September 15), or by other cover, such as tarping or mulching.

Permanent stabilization of site by re-vegetation or other means as soon as possible (lawn establishment).

- Indicate re-vegetation method: Seed Sod Other _____
- Expected date of permanent re-vegetation: _____
- Re-vegetation responsibility of: Builder Owner/Buyer
- Is temporary seeding or mulching planned if site is not seeded by Sept. 15 or sodded by Nov. 15? Yes No

Use of downspout and/or sump pump outlet extensions.

Note: It is recommended that flow from downspouts and sump pump outlets be routed through plastic drainage pipe to stable areas such as established sod or pavement.

Trapping sediment during de-watering operations.

Note: Sediment-laden discharge water from pumping operations should be ponded behind a sediment barrier until most of the sediment settles out.

Proper disposal of building material waste so that pollutants and debris are not carried off-site by wind or water.

Maintenance of erosion control practices.

- Sediment will be removed from behind sediment fences and barriers before it reaches a depth that is equal to half the height of the barrier.
- Breaks and gaps in sediment fences and barriers will be repaired immediately. Decomposing straw bales will be replaced (typical bale life is three months).
- All sediment that moves off-site due to construction activity will be cleaned up before the end of the same workday.
- All sediment that moves off-site due to storm events will be cleaned up before the end of the next workday.
- Access drives will be maintained throughout construction.
- All installed erosion control practices will be maintained until the disturbed areas they protect are stabilized.

EROSION CONTROL REGULATIONS

Erosion control and stormwater regulations can be complex. Local, state and, in some cases, federal regulations may apply. Before construction make sure you have the appropriate permits.

LOCAL ORDINANCES

Check with your county, city, village, or town for any local erosion control ordinances including shoreland zoning requirements. Except for new 1- & 2-family dwellings, local ordinances may be more strict than state regulations. They may also require erosion control on construction projects not affected by state or federal regulations.

UNIFORM DWELLING CODE (DEPT. OF COMMERCE)

CONTROLS REQUIRED

- Silt fences, straw bales, or other approved perimeter measures along downslope sides and side slopes.
- Access drive.
- Straw bales, filter fabric fences or other barriers to protect on-site sewer inlets.
- Additional controls if needed for steep slopes or other special conditions.

FOR MORE INFORMATION, CONTACT:

- Local building inspector
- Department of Commerce, Safety and Buildings Division, P.O. Box 7970, Madison, Wis. 53707-7970, (608) 267-5113.

STORMWATER PERMIT (DEPT. OF NATURAL RESOURCES)

CONTROLS REQUIRED

- Erosion control measures specified in the *Wisconsin Construction Site Best Management Practice Handbook*.
- Measures to control storm water after construction.

FOR MORE INFORMATION, CONTACT

- Department of Natural Resources, Storm Water Permits, P.O. 7921, Madison, WI 53707-7921, (608) 267-7694.

For more assistance on plan preparation, refer to the Wisconsin Uniform Dwelling Code, the DNR *Wisconsin Construction Site Best Management Handbook*, and UW-Extension publication *Erosion Control for Home Builders*. The *Wisconsin Uniform Dwelling Code* and the *Wisconsin Construction Site Best Management Handbook* are available through the State of Wisconsin Document Sales, (608) 266-3358.

Erosion Control for Home Builders (GWQ001) can be ordered through Extension Publications, (608) 262-3346 or the Department of Commerce, (608) 267-4405. A PDF version of *Erosion Control for Home Builders* (GWQ001) and *Standard Erosion Control Plan* are also available at <http://clean-water.uwex.edu/pubs/sheets>

This publication is available from county UW-Extension offices or from Extension Publications, 45 N. Charter St., Madison, WI 53715. (608) 262-3346 or toll-free (877) 947-7827. A publication of the University of Wisconsin-Extension in cooperation with the Wisconsin Department of Natural Resources and the Wisconsin Department of Commerce.



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GWQ001A Standard Erosion Control Plan for 1 & 2 Family Dwelling Construction Sites

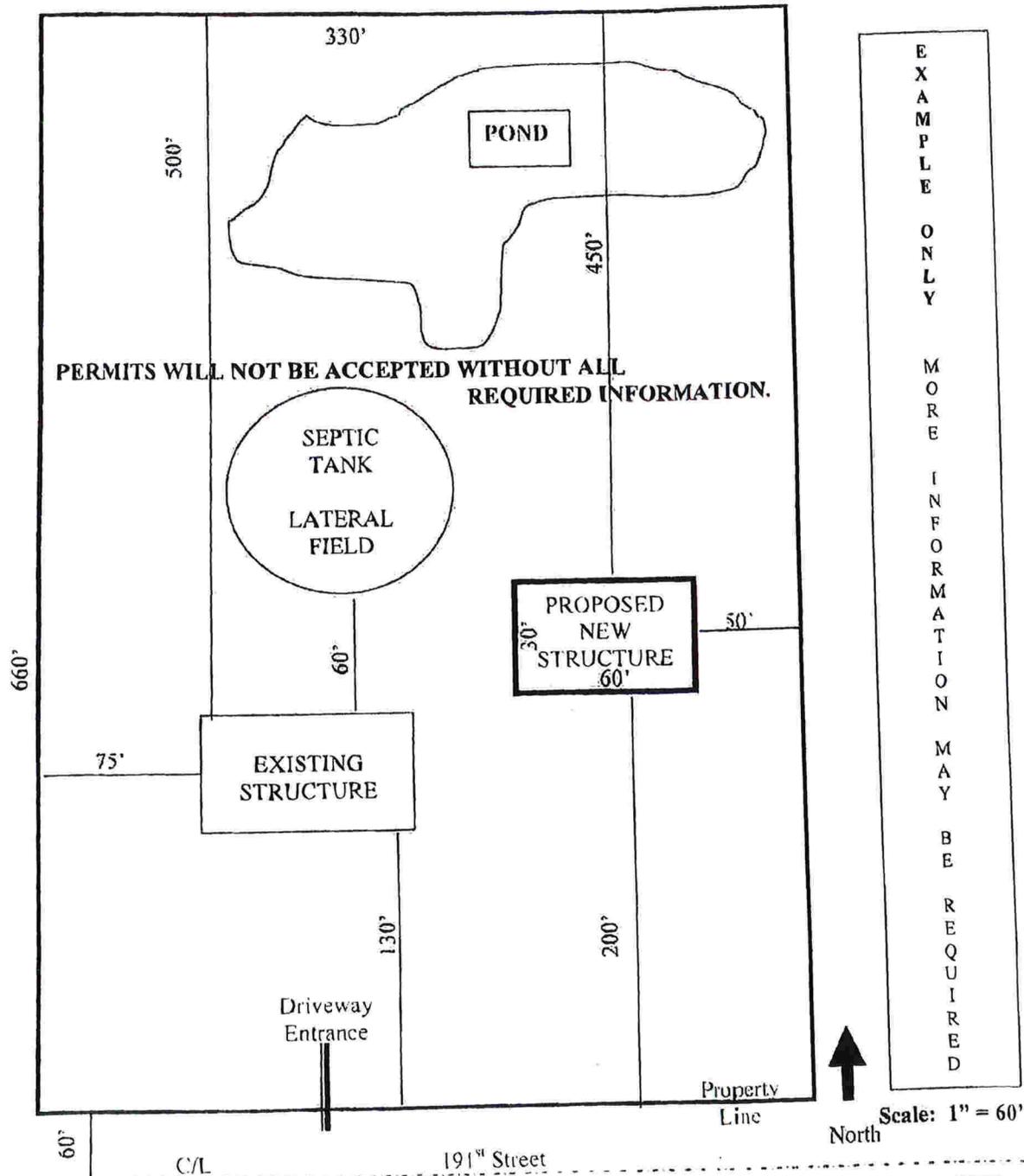
DNR WT-458-96

R-03-02-2M-10-S

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EXAMPLE ONLY
 MORE INFORMATION MAY BE REQUIRED

EXAMPLE SITE PLAN

NOTE ALL MEASUREMENTS IDENTIFIED ON THIS EXAMPLE SHOULD APPEAR ON THE SUBMITTED SITE PLAN. **THE SUBMITTED SITE PLAN MUST BE DRAWN TO SCALE.**

ALL MEASUREMENTS MUST BE TO SCALE

- Please indicate:
- The location of all existing and proposed buildings/structures.
 - The distance from each structure to nearest property line.
 - The distance from centerline of adjacent street to property lines.
 - The scale used to draw the Site Plan.

**TABLE 322.31-1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a**

Zone	Fenestration U-Factor	Skylight U-Factor	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement or Crawl Space Wall R-Value ^b	Heated Slab R-Value ^c	Unheated Slab R-Value ^d
1	0.35	0.60	49 ^e	19 ^f or 13+5 ^g	15	30 ^h	10/13	10/15	10
2	0.35	0.60	49 ^e	21 ^f	19	30 ^h	10/13	10/15	10

^a R-values are minimums. U-factors are maximums.

^b The first R-value applies to continuous insulation. The second R-value applies to framing cavity insulation. Either insulation meets the requirement.

^c The first R-value applies under the entire slab, regardless of depth below grade. The second R-value applies to the slab edge where the bottom of the slab is less than 12 inches below adjacent grade. Slab edge insulation shall extend downward from the top of the slab for a minimum of 48 inches or downward to at least the bottom of the slab and then horizontally to the interior or exterior for a minimum total distance of 48 inches. Also, see s. SPS 321.16 for protection against frost for slabs with supports less than 4 feet below grade.

^d The R-value applies to any slab, the bottom of which is less than 12 inches below adjacent grade. Also, see s. SPS 321.16 for protection against frost for slabs with supports less than 4 feet below grade.

^e See s. SPS 322.32 (1) for application and permitted reduced R-value.

^f R-19 and R-21 may be compressed into a 2X6 cavity.

^g "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. If structural sheathing covers 25% or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25% of the exterior, structural sheathing shall be covered with insulated sheathing of at least R-2.

^h Or insulation sufficient to fill the framing cavity with a minimum of R-19.

**TABLE 322.31-2
EQUIVALENT U-FACTORS**

Zone	Fenestration U-Factor	Skylight U-Factor	Ceiling U-Factor	Wood Frame Wall U-Factor	Mass Wall U-Factor	Floor U-Factor	Basement Wall U-Factor	Crawl Space U-Factor
1	0.35	0.60	0.026	0.060	0.060	0.033	0.065	0.065
2	0.35	0.60	0.026	0.057	0.057	0.033	0.065	0.065

**TABLE 322.31-3
WARM AIR FURNACES AND BOILERS, MINIMUM EFFICIENCY REQUIREMENTS**

Equipment Type	Minimum Efficiency	Test Procedure
Natural gas and propane furnace	90% AFUE	DOE 10 CFR Part 430 or ANSI Z21.47
Natural gas and propane hot water boilers	90% AFUE	DOE 10 CFR Part 430
Oil-fired furnaces	83% AFUE	DOE 10 CFR Part 430 or UL 727
Oil-fired hot water boilers	84% AFUE	DOE 10 CFR Part 430



Madison Gas and Electric Company
P.O. Box 1231
Madison, WI 53701-1231
(608) 252-7373

COMMERCIAL AND MULTIFAMILY SITE READINESS CHECKLIST

Please use the checklist below to be sure your site is ready for MGE to install your natural gas or underground electric service.

- Sign and return Electric Service Report to MGE (if required).
- Sign, notarize, and return easement to MGE (if required).
- Send deposit to MGE (if required).
- Install MGE-approved electric service entrance equipment.
- Install MGE-approved gas service entrance equipment.
- Provide a level 12-foot by 12-foot area for transformer (commercial and multifamily).
- Stake and identify all lot corners and property lines.
- Remove silt fence, trees, stumps, building materials, job trailers, signs, or other obstructions from proposed service route.
- Fill or cut proposed distribution and service routes to within six inches of final grade.
- Stake all customer-installed underground facilities (i.e., sprinklers, well water lines, septic tanks, drain fields, landscape lighting, etc.) that could be damaged by our equipment. Stakes should be marked with depth, size, and type of facility.
- Include MGE excavations in your erosion control permitting.
- Frequently notify all contractors and subcontractors of all gas and electric locations, existing and proposed, within and near the job site.
- Contact MGE's scheduling coordinator (608-252-4772) to provide frequent updates on the status of your site.

Contact Diggers Hotline at 811 or 1-800-542-2289 (TTY) at least three working days before you dig.



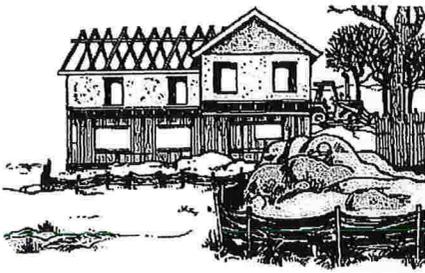
Madison Gas and Electric Company
P.O. Box 1231
Madison, WI 53701-1231
(608) 252-7373

DESIGN INFORMATION CHECKLIST

- Identify and document the location of any gas and electric facilities within and near the job site. Call Diggers Hotline at 811 or 1-800-542-2289 (TTY).
- Plan and design the project to meet all applicable code clearance requirements, governmental codes, and OSHA working clearances.
- Plan and implement proper erosion control. Locate silt fence away from utility easements.
- Frequently notify all contractors and subcontractors of all existing and proposed gas and electric locations within and near the job site.
- Site plan, full size to scale, showing locations of:
 - Where natural gas and electric service enter the building.
 - Regulators and relief valves on the outside of the building.
 - Gas and electric meters close to, but not within, three feet of each other and preferably outside the building.
- Natural gas service sizes:
 - BTU, CFH, PSI
- Electric service sizes:
 - Amperes (200, 400, 600, etc.)
 - Voltage (120/208V, 277/480V, etc.)
 - Single or three phase

While not required for all projects, the following information is important for most multifamily and commercial/industrial projects to enable MGE to design and install the best service for you.

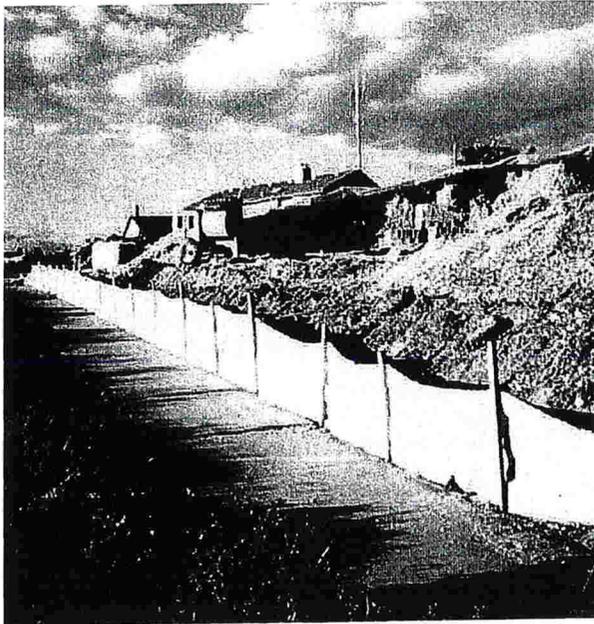
- Preferred transformer location:
 - Within 100 feet (preferably less) of the service entrance location.
 - Within 15 feet of a paved surface for truck access.
 - Meets all applicable building clearance requirements (see Wis. Adm. Code PSC 114-317 at <http://www.legis.state.wi.us/rsb/code/psc/psc114.pdf>).
- Site survey
- Grading plan
- Storm/water/sanitary sewer plan
- Landscaping plan
- Floor plans
- Building elevations
- Electrical plans including electric riser diagram
- Mechanical plans
- Parking lot lighting plan



Erosion Control for Home Builders

By controlling erosion, home builders help keep our lakes and streams clean.

Eroding construction sites are a leading cause of water quality problems in Wisconsin. For every acre under construction, about a dump truck and a half of soil washes into a nearby lake or stream unless the builder uses erosion controls. Problems caused by this sediment include:



Taxes

Cleaning up sediment in streets, sewers and ditches adds extra costs to local government budgets.

Lower property values

Neighboring property values are damaged when a lake or stream fills with sediment. Shallow areas encourage weed growth and create boating hazards.

Poor fishing

Muddy water drives away fish like northern pike that rely on sight to feed. As it settles, sediment smothers gravel beds where fish like smallmouth bass find food and lay their eggs. Soil particles in suspension can act like a sand blaster during a storm and damage fish gills.

Nuisance growth of weeds and algae

Sediment carries fertilizers that fuel algae and weed growth.

Dredging

The expense of dredging sediment from lakes, harbors and navigation channels is paid for by taxpayers.

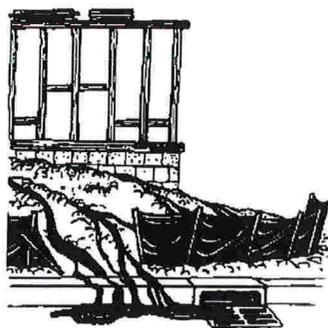
This fact sheet includes the diagrams and step-by-step instructions needed by builders on most home sites. Additional controls may be needed for sites that have steep slopes, are adjacent to lakes and streams, receive a lot of runoff from adjacent land, or are larger than an acre.

If you need help developing an erosion control plan or training your staff, contact your local building inspection, zoning or erosion control office.

Controlling Erosion is Easy

Erosion control is important even for home sites of an acre or less. The materials needed are easy to find and relatively inexpensive – straw bales or silt fence, stakes, gravel, plastic tubes, and grass seed. Putting these materials to use is a straightforward process. Only a few controls are needed on most sites:

- Preserving existing trees and grass where possible to prevent erosion;
- Revegetating the site as soon as possible;
- Silt fence or straw bales to trap sediment on the downslope sides of the lot;
- Placing soil piles away from any roads or waterways;
- Diversions on upslope side and around stockpiles;
- Stone/rock access drive used by all vehicles to limit tracking of mud onto streets;
- Cleanup of sediment carried off-site by vehicles or storms; and
- Downspout extenders to prevent erosion from roof runoff.



A poorly installed silt fence will not prevent soil erosion. Fabric must be buried in a trench and sections must overlap (see diagram on back of this fact sheet).

WARNING! Extra measures may be needed if your site:

- is within 300 feet of a stream or wetland;
- is within 1000 feet of a lake;
- is steep (slopes of 12% or more);
- receives runoff from 10,000 sq. ft. or more of adjacent land;
- has more than an acre of disturbed ground.

For information on appropriate measures for these sites, contact your local building inspection, zoning or erosion control office.

Straw Bale or Silt Fence

- Install within 24 hours of land disturbance.
- Install on downslope sides of site parallel to contour of the land.
- Extended ends upslope enough to allow water to pond behind fence.
- Bury eight inches of fabric in trench (see back page).
- Stake (two stakes per bale).
- Leave no gaps. Stuff straw between bales, overlap sections of silt fence, or twist ends of silt fence together.
- Inspect and repair once a week and after every ½-inch rain. Remove sediment if deposits reach half the fence height. Replace bales after three months.
- Maintain until a lawn is established.

Soil Piles

- Cover with plastic and locate away from any downslope street, driveway, stream, lake, wetland, ditch or drainageway.
- Temporary seed such as annual rye or winter wheat is recommended for topsoil piles.

Access Drive

- Install an access drive using two-to-three-inch aggregate prior to placing the first floor decking on foundation.
- Lay stone six inches deep and at least seven feet wide from the foundation to the street (or 50 feet if less).
- Use to prevent tracking mud onto the road by all vehicles.
- Maintain throughout construction.
- In clay soils, use of geotextile under the stone is recommended.

Sediment Cleanup

- By the end of each work day, sweep or scrape up soil tracked onto the road.
- By the end of the next work day after a storm, clean up soil washed off-site.

Sewer Inlet Protection

- Protect on-site storm sewer inlets with straw bales, silt fences or equivalent measures.
- Inspect, repair and remove sediment deposits after every storm.

Downspout Extenders

- Not required, but highly recommended.
- Install as soon as gutters and downspouts are completed to prevent erosion from roof runoff.
- Use plastic drainage pipe to route water to a grassed or paved area. Once a lawn is established, direct runoff to the lawn or other pervious areas.
- Maintain until a lawn is established.

Preserving Existing Vegetation

- Wherever possible, preserve existing trees, shrubs, and other vegetation.
- To prevent root damage, do not grade, place soil piles, or park vehicles near trees marked for preservation.
- Place plastic mesh or snow fence barriers around trees to protect the root area below their branches.

Revegetation

- Seed, sod or mulch bare soil as soon as possible. Vegetation is the most effective way to control erosion.

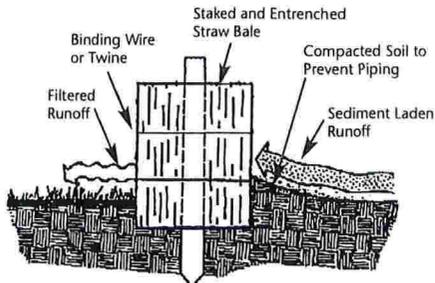
Seeding and Mulching

- Spread four to six inches of topsoil.
- Fertilize and lime if needed according to soil test (or apply 10 lb./1000 sq. ft. of 10-10-10 fertilizer).
- Seed with an appropriate mix for the site (see table).
- Rake lightly to cover seed with ¼" of soil. Roll lightly.
- Mulch with straw (70-90 lb. or one bale per 1000 sq. ft.).
- Anchor mulch by punching into the soil, watering, or by using netting or other measures on steep slopes.
- Water gently every day or two to keep soil moist. Less watering is needed once grass is two inches tall.

COMMONLY USED EROSION CONTROLS

Straw Bale Fences

Cross Section of Straw Bale Installation



Source: Michigan Soil Erosion and Sedimentation Control Guidebook, 1975.

How to Install a Straw Bale Fence



1. Excavate a 4" deep trench.



2. Place bales in trench with bindings around sides away from the ground. Leave no gaps between bales.



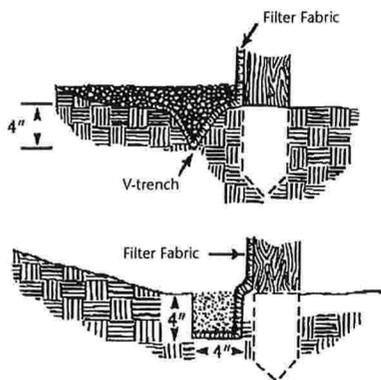
3. Anchor bales using two steel rebar or 2" x 2" wood stakes per bale. Drive stakes into the ground at least 8".



4. Backfill and compact the excavated soil.

Silt Fences

Cross Sections of Trenches for Silt Fences

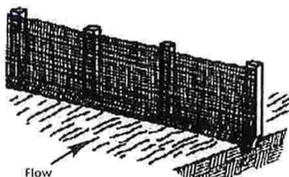


Sources: North Carolina Erosion and Sediment Control Planning and Design Manual, 1988.

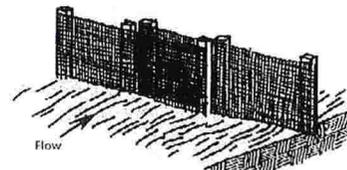
How to Install a Silt Fence



1. Excavate a 4" x 4" trench along the contour.



2. Stake the silt fence on downslope side of trench. Extended 8" of fabric into the trench.



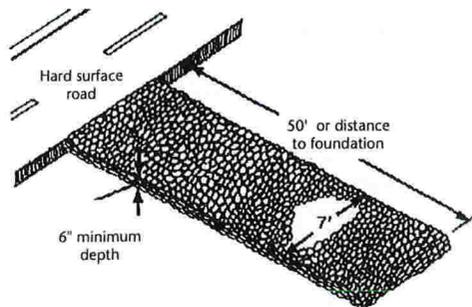
3. When joints are necessary, overlap ends for the distance between two stakes.



4. Backfill and compact the excavated soil.

Access Drive

How to Install an Access Drive



1. Install as soon as possible after start of grading.
2. Use two-to-three-inch aggregate stone.
3. Drive must be at least seven feet wide and 50 feet long or the distance to the foundation, whichever is less.
4. Replace as needed to maintain six-inch depth.

This publication is available from county UW-Extension offices or from Extension Publications, 630 W. Mifflin St., Madison, WI 53703. (608) 262-3346.

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GWQ01 Erosion Control for Home Builders

DNR WT-457-96

R-1-00-10M-25-S

Wall Bracing Compliance Worksheet

Complete this worksheet or provide equivalent information on the plans submitted with the permit application.

Sketch and dimension the building plan and the wall bracing rectangle(s) per 321.25(8)(c)1. and Figure 321.25-B. Provide and label additional sketches if the building plan/rectangles change at different floor levels.

Indicate applicable Wall Bracing Method for each level (see Table 321.25-G), each labeled rectangle if more than one [see 321.25(8)(c)], and amount of bracing (# of braced panels or length of braced wall required) per the respective table (provide additional worksheets for additional rectangles as needed):

Rectangle: _____ Wall Ht. = _____ Eave to Ridge Ht. = _____ Max. Opening Ht. = _____ Wind Exp. = _____

Walls Supporting:	Intermittent method (LIB, DWB, WSP, SFB, GB, PCP) and # of panels per Table 321.25-I Min. panel width (Table 321.25-G) =		Continuous method (CS-WSP, CS-SFB) and total length required per Table 321.25-J Min. panel width (Table 321.25-H) =		PF Method (see Figure 321.25-A). Indicate number of PF panels 16-24" wide provided. Min. PF width (Fig. 321.25-A) =	
	Long side	Short side	Long side	Short side	Long side	Short side
Roof and ceiling only						
One floor, roof and ceiling						
Two floors, roof and ceiling						

Rectangle: _____ Wall Ht. = _____ Eave to Ridge Ht. = _____ Max. Opening Ht. = _____ Wind Exp. = _____

Walls Supporting:	Intermittent method (LIB, DWB, WSP, SFB, GB, PCP) and # of panels per Table 321.25-I Min. panel width (Table 321.25-G) =		Continuous method (CS-WSP, CS-SFB) and total length required per Table 321.25-H Min. panel width (Table 321.25-H) =		PF Method (see Figure 321.25-A). Indicate number of PF panels 16-24" wide provided. Min. PF width (Fig. 321.25-A) =	
	Long side	Short side	Long side	Short Side	Long side	Short side
Roof and ceiling only						
One floor, roof and ceiling						
Two floors, roof and ceiling						

PF Method: For Intermittent bracing, per Table 321.25-I footnote 'h', each PF panel (16-24" wide per Figure 321.25-A) counts as 1/2 of a braced wall panel when determining compliance with Table 321.25-I. For Continuously Sheathed bracing, the actual length of each PF panel (16-24" wide per Figure 321.25-A) in feet counts toward the required total length of bracing required. For intermittent or continuous methods, each PF panel meeting min. required width of Fig. 321.25-A counts as a braced wall panel when evaluating panel spacing per Fig. 321.25-C.

Indicate the location and construction details of required braced wall panels determined above on each rectangle side as required by Figure 321.25-C on the floor plans submitted with the permit application.

UDC Wall Bracing Provisions Permanent Rule effective September 1, 2014

A 'How To' guide for use of the new provisions

Summary: Forget what you knew about the previous wall bracing provisions – this method is a different concept. The provisions are generally based on the 2012 IRC Simplified Wall Bracing Provisions. The new prescriptive Tables provide the number of braced wall panels required on a rectangle side (intermittent sheathing method) OR the total length of braced wall panels required on a rectangle side (continuously sheathed method) in wood frame walls parallel to the wind direction being considered.

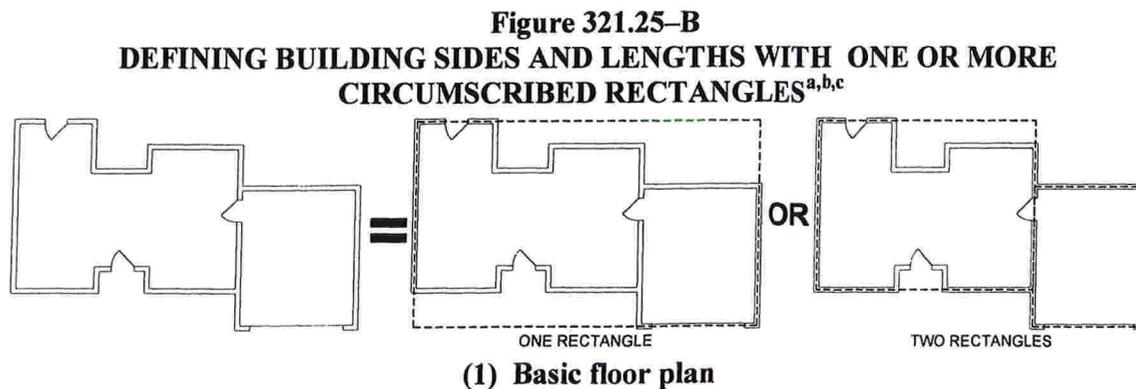
What hasn't changed? Generally the bracing materials and fastening in Table 321.25-G remain unchanged.

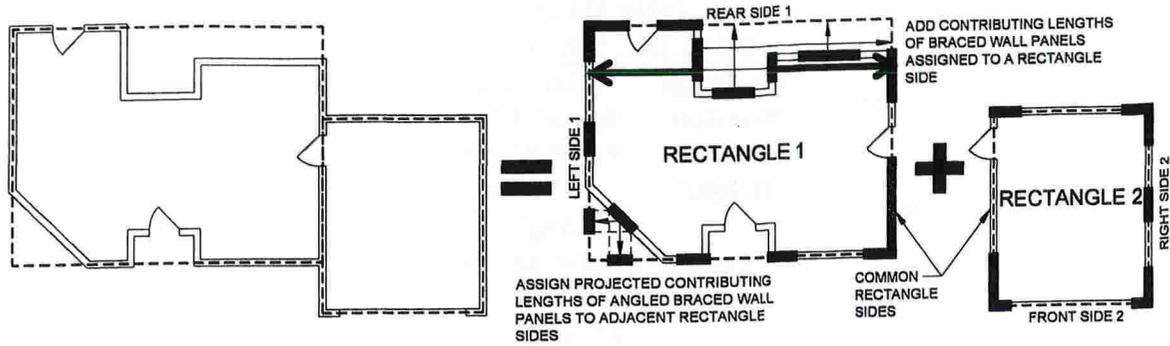
Major Assumptions/Defaults:

- Interior side of exterior walls are sheathed with ½" gypsum board
- 10' wall heights
- Wind Exposure category B
- For the intermittent bracing method roof eave (top of wall) to ridge height is 10'

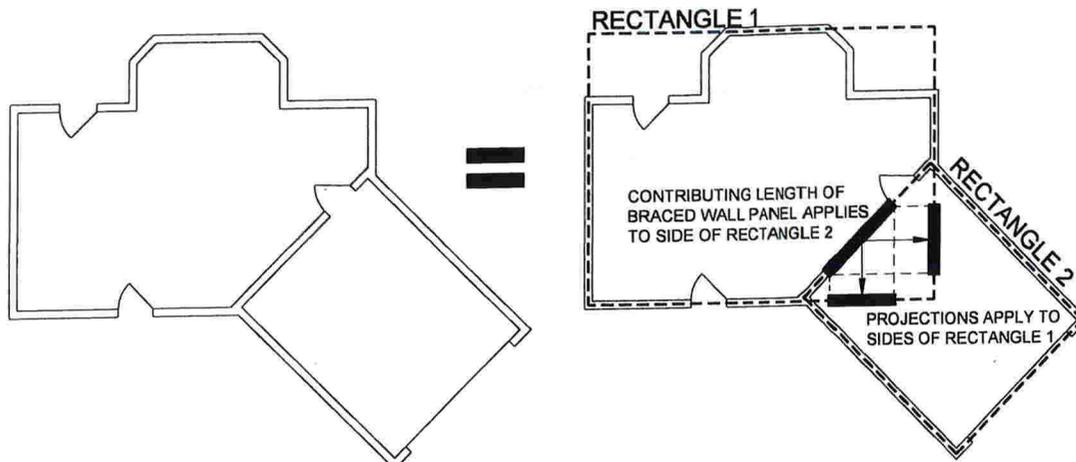
Starting with the topmost floor level ...

STEP 1: Define the rectangle sides by circumscribing the outermost extents of the building at each floor level with a rectangle. The maximum length of any side of the rectangle is 75' for intermittent bracing and 80' for continuously sheathed bracing. For either method the maximum length to width ratio of the rectangle is 3:1. If the length of the rectangle side exceeds the prescriptive limit of the respective table or the length to width ratio exceeds 3:1 the building must be circumscribed or divided with more than one rectangle or designed by engineering analysis. See examples below from the rules - Figure 321.25-B.





(2) Angled-building-side plan^d



(3) Angled floor plan^e

^aEach floor plan level shall be circumscribed with one or more rectangles around the entire floor plan at the floor level under consideration as shown. When multiple rectangles are used, each side shall be braced as though it were a separate building and the bracing amount added together along the common wall where adjacent rectangles overlap or abut.

^bRectangles shall surround all enclosed plan offsets and projections. Chimneys, partial height projections, and open structures, such as carports and decks, shall be excluded from the rectangle.

^cEach rectangle shall have a maximum rectangle length-to-width ratio of 3:1.

^dProjected contributing lengths of angled braced wall panels shall be assigned to the closest rectangle sides, as shown for the angled corner in the angled-building-side-plan shown above.

^eBraced wall panels located on a common wall where angled rectangles intersect, as shown in Figure 321.25-B(3), shall have their contributing length applied towards the required length of bracing for the parallel rectangle side and its projected contributing lengths towards the adjacent angled rectangle sides. Where the common side of rectangle 2 as shown in Figure 321.25-B(3) has no physical wall, the portion shall be designed in accordance with s. SPS 321.25 (8) (a).

STEP 2: Select the wall bracing method (intermittent or continuous), materials, and panel width (intermittent method) from Table 321.25-G. If using intermittent braced wall panels, in general most of the bracing methods are considered equivalent and the method simply tells you the NUMBER of panels required on a rectangle side. For continuously sheathed bracing the method yields the total LENGTH of braced wall required on a rectangle side.

**Table 321.25-G
BRACING METHODS^{a, f}**

Material	Minimum Brace Material Thickness or Size	Maximum Nominal Wall Height ^b	Minimum Braced Wall Panel Width or Brace Angle	Connection Criteria	
				Minimum Fasteners	Maximum Spacing
Intermittent Bracing Methods					
LIB ^c Let-in bracing	1x4 wood brace (or approved metal brace installed per manufacturer instructions)	10'	45° angle and maximum 16" o.c. stud spacing ^b	2-8d common nails or 3-8d box nails (2 3/8" long x 0.113" diameter)	Per stud and top and bottom plates ^e
DWB Diagonal wood boards	3/4" (1" nominal) for maximum 24" o.c. stud spacing	10'	48"	2-8d box nails (2 3/8" long x 0.113" diameter) or 2 - 1 3/4" long 16-gage staples	Per stud and top and bottom plates ^e
WSP Wood structural panel	3/8" for maximum 16" o.c. stud spacing; 7/16" for maximum 24" o.c. stud spacing	10'	48"	6d common nail or 8d box nail (2 3/8" long x 0.113" diameter); or 7/16"- or 1/2"-crown 16-gage staples, 1 1/4" long	6" edges, 12" field (nails) 3" edges, 6" field (staples)
SFB Structural fiberboard sheathing	1/2" for maximum 16" o.c. stud spacing	10'	48"	1 1/2" long x 0.120" diameter galvanized roofing nails or 1"-crown 16-gage staples, 1 1/4" long	3" edges, 6" field
GB Gypsum board (installed on both sides of wall)	1/2" for maximum 24" o.c. stud spacing	10'	96"	5d cooler nails, or #6 screws	7" edges, 7" field (including top and bottom plates)
Continuous Sheathed Bracing Methods					
CS-WSP ^d Continuous sheathed WSP	3/8" for maximum 16" o.c. stud spacing;	12'	Refer to Table 321.25-H	Same as WSP	Same as WSP

	7/16" for maximum 24" o.c. stud spacing				
CS-SFB ^d Continuous sheathed SFB	1/2" for maximum 16" o.c. stud spacing			Same as SFB	Same as SFB
Narrow Panel Bracing					
PF Portal frame	7/16"	12'	Refer to Figure 321.25-A	Refer to Figure 321.25-A	Refer to Figure 321.25-A

^aThe interior side of all exterior walls shall be sheathed with minimum 1/2-inch gypsum wallboard unless otherwise permitted to be excluded by this subsection. All edges of panel-type wall bracing, except horizontal joints in GB bracing, shall be attached to framing or blocking.

^bThe actual measured wall height shall include stud height and thickness of top and bottom plates. The actual wall height shall be permitted to exceed the listed nominal values by not more than 4 1/4 inches. Tabulated bracing amounts in s. SPS 321.25 (8) (c) are based on a 10-foot nominal wall height for all bracing methods and shall be permitted to be adjusted to other nominal wall heights not exceeding 12 feet in accordance with footnotes to Table 321.25-I or Table 321.25-J.

^cLIB is not permitted for walls supporting a roof and two floors. Two LIB braces installed at a 60° angle from horizontal shall be permitted to be substituted for each 45° angle LIB brace.

^dBracing with CS-WSP and CS-SFB shall have sheathing installed on all sheathable surfaces above, below, and between wall openings.

^eShall be attached to the top and bottom plates and any intermediate studs, in one continuous length.

^fEach braced panel may contain no more than one hole, having a maximum dimension of no more than ten percent of the least dimension of the panel, and confined to the middle three-fourths of the panel.

STEP 3: DETERMINE NUMBER OF PANELS OR REQUIRED TOTAL LENGTH OF BRACING REQUIRED USING ONE OF THE FOLLOWING METHODS

- A) Intermittent braced wall panels. Determine the NUMBER of braced panels required on each rectangle side using Table 321.25-I based on the length of the perpendicular side.
NOTE a minimum of 2 braced wall panels is required on each rectangle side.

Table 321.25-I
REQUIRED NUMBER OF INTERMITTENT BRACED WALL PANELS
ON WALLS PARALLEL TO EACH RECTANGLE SIDE
AT EACH FLOOR LEVEL^{a, b, c, d, e, f, h}

Wall Supporting:		Required Number of Brace Panels on a Building Side		
		Length of Perpendicular Side (feet) ^g		
		≤25	≤50	≤75
Roof and ceiling only		1 ⁱ	2	3
One floor, roof and ceiling		2	4	6

Two floors, roof and ceiling		3	6	9
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^aInterpolation is permitted. Extrapolation to buildings larger than addressed in this table is prohibited.

^bThis table applies to wind exposure category B. For wind exposure category C or D, multiply the number of braced wall panels required by 1.3 or 1.6, respectively.

Wind exposure category B is comprised of urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. Exposure B shall be assumed unless the site meets the definition of another type exposure.

Wind exposure category C is comprised of flat, open country and grasslands with scattered obstructions, including surface undulations or other irregularities, having heights generally less than 30 feet extending more than 1,500 feet from the building site in any quadrant. This exposure also applies to any building located within Exposure B type terrain where the building is directly adjacent to open areas of Exposure C type terrain in any quadrant for a distance of more than 600 feet.

Wind exposure category D is comprised of flat, unobstructed areas exposed to wind flowing over open water for a distance of at least 1 mile. This exposure applies only to those buildings and other structures exposed to the wind coming from over the water. Exposure D extends inland from the shoreline a distance of 1,500 feet or 10 times the height of the building or structure, whichever is greater.

^cTabulated values are based on a nominal wall height of 10 feet. For nominal wall heights other than 10 feet and not more than 12 feet, multiply the required number of brace panels by the following factors: 0.9 for 8 feet, 0.95 for 9 feet, 1.15 for 11 feet, or 1.3 for 12 feet.

^dTabulated values are based on a roof with a top-of-wall-to-ridge height of 10 feet. For top-of-wall-to-ridge heights other than 10 feet, multiply the required number of brace panels by the following factors for each floor level support condition:

Roof only – 0.7 for 5 feet, 1.3 for 15 feet, or 1.6 for 20 feet

Roof + 1 Floor – 0.85 for 5 feet, 1.15 for 15 feet, or 1.3 for 20 feet

Roof + 2 Floors – 0.9 for 5 feet or 1.1 for 15 feet.

^eWhere minimum ½-inch gypsum wallboard is not included on the interior side of the wall, multiply the number of braced wall panels by 1.7 for LIB bracing or 1.4 for all other bracing methods, except this increase is not required for the portal frame method.

^fAdjustments in footnotes b to e apply cumulatively. Fractions of panels shall be rounded to the nearest one-half braced wall panel.

^gPerpendicular sides to the front and rear sides are the left and right sides. Perpendicular sides to the left and right sides are the front and rear sides. See Figure 321.25–B.

^hThe following braced wall panel conditions shall be permitted to be counted as one-half a braced wall panel toward meeting the required number of panels: (1) one 60 degree LIB; (2) one 48" GB or one 96" GB with gypsum wallboard on one side; (3) one 36" WSP or SFB braced wall panel for wall heights not more than 9 feet; (4) a 48" WSP or SFB braced wall panel where there is no more than one unblocked horizontal joint; or (5) one PF brace panel complying with Figure 321.25–A.

ⁱThis value of less than 2 serves only as the beginning value for calculation purposes. The resulting value shall be 2 or greater, to be consistent with subd. 2.

OR

B) Continuously Sheathed braced walls. Determine the TOTAL LENGTH of braced wall panels on each rectangle side using Table 321.25-J based on the length of the perpendicular side.

Table 321.25–J
REQUIRED LENGTH OF CONTINUOUS BRACING ON WALLS PARALLEL TO
EACH RECTANGLE SIDE AT EACH FLOOR LEVEL ^{a,b,c,d,e,g,h}

Top-of-Wall-to-Ridge	Wall Supporting:	Total Required Length (feet) of Full-Height Bracing on Any Side of Rectangle
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Height (feet)			Length of Perpendicular Side (feet) ^f							
			10	20	30	40	50	60	70	80
10	Roof and ceiling only		2.0 ⁱ	3.5 ⁱ	5.0	6.0	7.5	9.0	10.5	12.0
	One floor, roof and ceiling		3.5 ⁱ	6.5	9.0	12.0	14.5	17.0	19.8	22.6
	Two floors, roof and ceiling		5.0	9.5	13.5	17.5	21.5	25.5	29.2	33.4
15	Roof and ceiling only		2.6 ⁱ	4.6	6.5	7.8	9.8	11.7	13.7	15.7
	One floor, roof and ceiling		4.0	7.5	10.4	13.8	16.7	19.6	22.9	26.2
	Two floors, roof and ceiling		5.5	10.5	14.9	19.3	23.7	27.5	32.1	36.7
20	Roof and ceiling only		2.9 ⁱ	5.2	7.3	8.8	11.1	13.2	15.4	17.6
	One floor, roof and ceiling		4.5	8.5	11.8	15.6	18.9	22.1	25.8	29.5
	Two floors, roof and ceiling		6.2	11.9	16.8	21.8	27.3	31.1	36.3	41.5

^aInterpolation is permitted. Extrapolation to buildings larger than addressed in this table is prohibited.

^bThis table applies to wind exposure category B. For wind exposure category C or D, multiply the required length of wall bracing by 1.3 or 1.6, respectively. Wind exposure categories are as defined in Table 321.25-I footnote b.

^cTabulated values are based on a nominal wall height of 10 feet. For nominal wall heights other than 10 feet, multiply the required length of bracing by the following factors: 0.90 for 8 feet, 0.95 for 9 feet, 1.05 for 11 feet, or 1.10 for 12 feet.

^dWhere minimum ½-inch gypsum wallboard interior finish is not provided, the required bracing amount for the affected rectangle side shall be multiplied by 1.4, except this increase is not required for the portal frame method.

^eAdjustments in footnotes b to d apply cumulatively.

^fPerpendicular sides to the front and rear sides are the left and right sides. Perpendicular sides to the left and right sides are the front and rear sides. See Figure 321.25-B.

^gContinuous sheathing shall be applied to all surfaces of the wall, including areas between brace panels and above and below wall openings.

^hWhen used on a wall line with continuous sheathing, each portal frame panel is counted for its actual length in contributing toward the length of continuous sheathing used on other portions of the same wall line, such as the building side at a given story level.

ⁱAny value of less than 4.0 in this table serves only as the beginning value for calculation purposes. The resulting value shall be 4.0 or greater, to be consistent with Table 321.25-H and subd. 2.

STEP 4: If required, apply any adjustment factors (adjustments may decrease or increase the required bracing amount) per the footnotes to the respective Table for the method used (intermittent or continuous). For example wall heights taller than 10' and wind exposure category C or D would both increase the bracing amount. Absence of interior ½" gypsum board sheathing increases the required bracing amount.

STEP 5: Repeat steps 2 through 4 considering wind in the perpendicular direction.

STEP 6: Determine the minimum required width of braced wall panels. For intermittent bracing method the minimum length of braced wall panel is given in Table 321.25-G (see step 2 above). For continuously sheathed bracing method the minimum width is determined using Table 321.25-H dependent on the maximum opening height adjacent to the panel and the wall height.

Table 321.25-H^{a, b}
MINIMUM WIDTHS OF CS-WSP AND CS-SFB BRACED WALL PANELS

Maximum Opening Height Adjacent to Braced Wall Panel	Minimum Width of Full-Height Braced Wall Panel (inches)			
	8' Tall Wall	9' Tall Wall	10' Tall Wall	12' Tall Wall
5' - 4"	24	27	30	36
6' - 8"	32	30	30	36
8'	48	41	38	36
9'	-	54	46	41
10'	-	-	60	48
12'	-	-	-	72

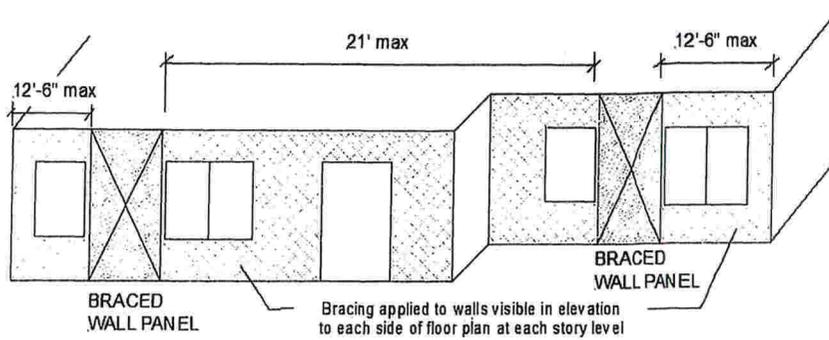
^aSheathing shall extend from the top of the top plate to the bottom of the bottom plate and may be multiple sheets. All joints shall be blocked.

^bInterpolation is permitted.

PF (Portal Frame) Method: Portal Frame narrow panel bracing may be used with either the intermittent or continuously sheathed bracing methods. For Intermittent bracing, per Table 321.25-I footnote 'h', each PF panel (16-24" wide per Figure 321.25-A) counts as ½ of a braced wall panel when determining compliance with Table 321.25-I. For Continuously Sheathed bracing, the actual length of each PF panel (16-24" wide per Figure 321.15-A) in feet, counts toward the required total length of bracing required.

STEP 7: Check that the location of braced wall panels meets Figure 321.25-C. A braced wall panel must start within 12 ½' from the end of the rectangle side and braced panels must be spaced a maximum of 21' edge to edge along the rectangle side. For intermittent or continuous methods, each PF panel meeting the minimum required width of Fig. 321.25-A counts as a braced wall panel when evaluating compliance with Fig. 321.25-C.

FIGURE 321.25-C
LOCATION OF BRACED WALL PANELS ALONG A BUILDING SIDE^a



^aA braced wall panel can be anything from one-half to one brace panel.

STEP 8: Repeat steps 1 through 7 for additional floor levels.

See also the One- and Two-Family Dwellings (Uniform Dwelling Code) Program web page for a Frequently Asked Questions document that provides further guidance and explanation on the use of the wall bracing permanent rule provisions.

Building In Radon Control

Radon is a tasteless, colorless and odorless gas

occurring naturally in soil and rock. Radon is a leading cause of lung cancer, second only to cigarette smoking.

Installing a radon system during construction of a structure doesn't cost a lot, and enhances the value of the property.

How a radon system works.

Crushed stone under the house provides an

easy pathway for the radon to migrate towards the vent piping, where it is drawn upwards and released safely into the atmosphere.

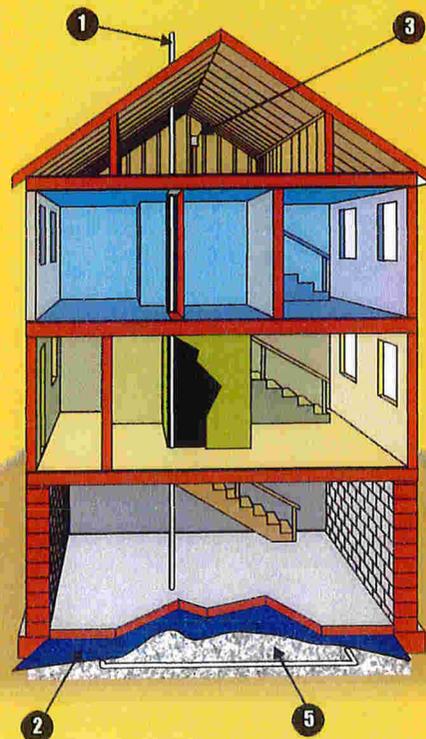
The mitigation system will lower radon levels even without a fan, but it may not be enough. A fan may be required. A simple radon test will provide the answer.

- 1 PVC Pipe** carries radon from under the slab to above the roof.

A straight run of piping reduces friction losses. Piping MUST NOT be in an exterior wall; interior locations allow the thermal conduction of heat to cause air in the pipe to rise. Attic section needs space for the fan if required. Proper venting requires the pipe to extend above the roof. Four inch PVC pipe is best for system quietness and efficiency.

- 2 Plastic Sheetting** is placed on top of the crushed stone. The plastic is part of an air barrier between the basement and the subslab, and also is a moisture blocking layer.

Ensure plastic is not punctured during pouring or working of concrete.



- 3 Electrical Junction Box** in case a radon fan is needed later.

NEC requires a plugged fan to be within 6 feet of an outlet. Vent pipe and junction box placement need to account for this.

- 4 Seal and Caulk** all openings in the concrete floor.

As part of an air barrier between the subslab and the basement, seal the floor-wall joints and control joints with urethane caulking, and the sump lids with silicon caulking. If a fan needs to be installed after testing, this barrier will prevent basement air from being drawn under the subslab.

- 5 Crushed Stone** under the slab allows radon to move freely underneath the house.

Four to six inches of washed and clean 2B stone is best.

Important. After the home is occupied, only home owners or state certified radon contractors may install fans or work on the radon system.

A radon test should be performed immediately after the house is occupied, and a fan installed if results are greater than 4 pC/L.

For fu
Pa. De
www.

South Central Radon Information Center
Dane County Public Health
(608) 266-4821

on, or
BRADON

772.012.109

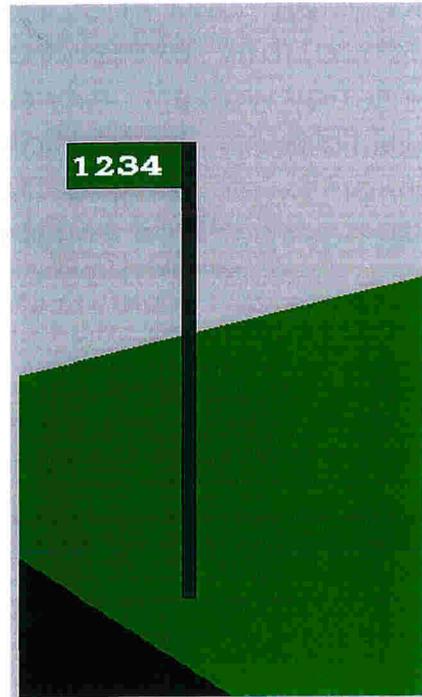


Dane County Planning & Development Zoning Division

FIRE NUMBER SIGN PLACEMENT INFORMATION

DCCO 76.07(1)(a):

The sign shall be installed so that the numbers are **perpendicular** to the roadway and the post shall be located not more than 10 feet from the right of way of the road and not more than 10 feet from the driveway serving the building. The sign shall be installed to be not less than 3 ½ feet nor more than 4 ½ feet from ground level and **shall not be concealed** from view of the road.



DIGGERS HOTLINE

**ALWAYS CALL
BEFORE YOU DIG**



Diggers Hotline: Wisconsin's One-Call Center

CALL 811 or (800) 242-8511
(262) 432-7910
(877) 500-9592 (emergency only)

DIGGERS HOTLINE

WWW.DIGGERSHOTLINE.COM

It's The Law. Wisconsin Statute 182.0175 requires all excavators — including homeowners and construction contractors — to call Diggers Hotline at least three working days before starting the work.

Plan ahead! Give Diggers Hotline a call at least three working days prior to the start date of your excavation. The call center is open 24 hours a day and 365 days a year, but the busiest times are Monday and Tuesday mornings.

NOTE: Compliance with the above listed instructions is very important with regard to emergency services. Ambulances, fire trucks, and other emergency response vehicles travel at high speeds and look for your address by using the green "fire number" sign with your address numbers printed on it. These numbers are assigned on a grid system, and when they are incorrect installed or out of sequence, they severely hamper the ability for quick response of our emergency workers. Any extra time spent looking for an address is crucial time lost. In addition, your address affects other neighbors' safety and well being for the same reasons. **Failure to install a number as specified could delay effective service.**

OWNERS RESPONSIBILITY

Section 76.10(3) Dane County Code of Ordinances provides that the owner of the land on which a numbering sign is located shall be responsible for the installation and maintenance of the number as specified by the ordinance.

Post must be located in the shaded area either side of the driveway:

