

DECK GUIDELINES

- Single level residential wood decks only. (Without roof loads)
- Decks supporting hot tubs shall be engineered
- Decks supporting sunrooms shall be engineered
- All decks not meeting the specifications in the Prescriptive Residential Wood Deck Construction Guide shall be reviewed and approved by a licensed structural engineer. (Available for download at www.awc.org)
- All deck post shall be 6 X 6 or larger with a max height of 14'
- All beams shall bear on top of the post and may overhang at each end up to ¼ of the beam span measured from post to post (See figure 3 of the constructions guide)
- Beams shall not be bolted to each side of the post
- Joist spans per Table 2 of the construction guide allows for a max overhang of ¼ of the joist span
- Joist shall not be attached to opposite sides of the same beam
- Rim joist shall be connected with three (3) #10 X 3" screws (See figure 11 of the construction guide)
- Frost line depth is 36"
- Handrails are required for all stairs with 4 or more risers. Height is 34" to 38". They shall be continuous and graspable
- Open risers are restricted to less than a 4" opening
- Provide drawings specific to your deck. Use Figure 5 as an example of how the drawings should look and to provide the required information
- Request a footing inspection prior to pouring concrete
- Request an inspection prior to installing all of the decking
- For questions call Dave Hall at 309-368-4460.

LEADER BOARD FASTENERS
 Only those fasteners noted below are permitted. LEAD ANCHORS ARE PROHIBITED.
 Deck ledger connection to band joist or rim board. The connection between a deck ledger and a 2-inch nominal lumber band joist (1-1/2" actual) or EWP rim board bearing on a sill plate or wall plate shall be constructed with 1/2" lag screws or bolts with washers per Table 5 and Figure 19 (see MINIMUM EQUIPMENTS).

Table 5. Fastener Spacing for a Southern Pine, Douglas Fir-Larch, or Hem-Fir Deck Ledger and a 2-inch Nominal Solid-Sawn Spruce-Pine-Fir^{7,8} Band Joist or EWP Rim Board⁹
 (Deck Live Load = 40 psf, Deck Dead Load = 10 psf)¹⁰

| Joist Span | Rim Board or Band Joist | | On-Center Spacing of Fasteners | | | | | |
|---|------------------------------|----------------|--------------------------------|------------------|------------------|------------------|------------------|--|
| | 6'-0" and less | 6'-1" to 8'-0" | 8'-1" to 10'-0" | 10'-0" to 12'-0" | 12'-0" to 14'-0" | 14'-0" to 16'-0" | 16'-0" to 18'-0" | |
| 1/2" diameter lag screw with 1/2" maximum sheathing | 1" EWP ⁶ | 24" | 18" | 14" | 12" | 10" | 8" | |
| | 1-1/4" EWP ⁶ | 28" | 21" | 18" | 14" | 12" | 9" | |
| | 1-1/2" Lumber ^{7,8} | 30" | 23" | 18" | 15" | 13" | 10" | |
| 1/2" diameter bolt with 1/2" maximum sheathing | 1" EWP ⁶ | 24" | 18" | 14" | 12" | 10" | 8" | |
| | 1-1/4" EWP ⁶ | 28" | 21" | 18" | 14" | 12" | 9" | |
| | 1-1/2" Lumber ^{7,8} | 30" | 23" | 18" | 15" | 13" | 10" | |
| 1/2" diameter bolt with 1/2" maximum sheathing and 1/2" stacked washers | 1" EWP ⁶ | 24" | 18" | 14" | 12" | 10" | 8" | |
| | 1-1/4" EWP ⁶ | 28" | 21" | 18" | 14" | 12" | 9" | |
| | 1-1/2" Lumber ^{7,8} | 30" | 23" | 18" | 15" | 13" | 10" | |

The up of the lag screw shall fully extend beyond the inside face of the band joist. The maximum gap between the face of the ledger board and face of the wall sheathing shall be 1/8".
 1 Lag screws and bolts shall be staggered per Figure 19.
 2 Deck ledgers shall be minimum 2x8 pressure-treated No. 2 grade lumber, or other approved materials as established by standard engineering practice.
 3 When solid-sawn pressure-preservative-treated lumber including laminated veneer lumber, the ledger attachment shall be structural panel band joist or structural composite lumber including laminated veneer lumber, the ledger attachment shall be designed in accordance with accepted engineering practice. Tabulated values based on 300 lbs and 350 lbs for 1" and 1-1/4" EWP rim board, respectively.
 4 A minimum 1"x9/16" Douglas fir-larch laminated veneer lumber rim board shall be permitted in lieu of the 2" nominal band joist. Wood structural panel sheathing, gypsum board sheathing, or foam sheathing not exceeding one inch thickness shall be permitted. Fastener spacing also applies to southern pine, Douglas fir-larch, and hem-fir band joists.

Table 4. Footing Sizes¹

| Beam Span, L _b | Joist Span, L _j | Round Footing Diameter | Square Footing Dimension | Footing ² Thickness ³ | |
|---------------------------|----------------------------|------------------------|--------------------------|---|-----|
| | | | | 6" | 8" |
| 6' | <10' | 15" | 13" | 6" | 6" |
| | <14' | 17" | 15" | 6" | 6" |
| 8' | <10' | 17" | 15" | 6" | 6" |
| | <14' | 20" | 18" | 8" | 8" |
| 10' | <10' | 19" | 17" | 7" | 7" |
| | <14' | 22" | 20" | 9" | 9" |
| 12' | <10' | 21" | 19" | 8" | 8" |
| | <14' | 24" | 22" | 10" | 10" |
| 14' | <10' | 22" | 20" | 9" | 9" |
| | <14' | 26" | 24" | 11" | 11" |
| 16' | <10' | 24" | 22" | 9" | 9" |
| | <14' | 28" | 26" | 12" | 12" |
| 18' | <10' | 24" | 22" | 9" | 9" |
| | <14' | 30" | 30" | 13" | 13" |
| 18' | <10' | 24" | 22" | 9" | 9" |
| | <14' | 30" | 30" | 13" | 13" |

1. Assumes 1,500 psi soil bearing capacity.
 2. Assumes 2,500 psi compressive strength of concrete.
 3. Coordinate footing thickness with post base and anchor requirements.

SIDING AND FLASHING: House siding or the exterior finish system must be removed prior to installation of the ledger board. Approved corrosion resistant flashing is required at any ledger board connection to a wall of wood framed construction (see MINIMUM REQUIREMENTS). See Figure 14 for continuous flashing with drip edge. The threshold shall be carefully flashed and caulked to prevent water intrusion due to splash from the deck or melting snow and ice.

Table 2. Maximum Joist Spans (L_J)

| Species | Size | Joist Spacing (o.c.) | | | | | |
|--|------|--------------------------------|-----------|-----------|---|----------|-----------|
| | | Without Overhangs ¹ | | | With Overhangs up to L _J /4 ² | | |
| | | 12" | 16" | 24" | 12" | 16" | 24" |
| Southern Pine | 2x8 | 13' - 8" | 12' - 5" | 10' - 2" | 10' - 9" | 10' - 9" | 10' - 2" |
| | 2x10 | 17' - 5" | 15' - 10" | 13' - 1" | 15' - 6" | 15' - 6" | 13' - 1" |
| | 2x12 | 18' - 0" | 18' - 0" | 15' - 5" | 18' - 0" | 18' - 0" | 15' - 5" |
| Douglas Fir-Larch, Hem-Fir, SPF ³ | 2x8 | 12' - 6" | 11' - 1" | 9' - 1" | 9' - 5" | 9' - 5" | 9' - 1" |
| | 2x10 | 15' - 8" | 13' - 7" | 11' - 1" | 13' - 7" | 13' - 7" | 11' - 1" |
| | 2x12 | 18' - 0" | 15' - 9" | 12' - 10" | 18' - 0" | 15' - 9" | 12' - 10" |
| Redwood, Western Cedars, Ponderosa Pine ⁴ , Red Pine ⁴ | 2x8 | 11' - 8" | 10' - 7" | 8' - 8" | 8' - 6" | 8' - 6" | 8' - 6" |
| | 2x10 | 14' - 11" | 13' - 0" | 10' - 7" | 12' - 3" | 12' - 3" | 10' - 7" |
| | 2x12 | 17' - 5" | 15' - 1" | 12' - 4" | 16' - 5" | 15' - 1" | 12' - 4" |

1. Assumes 40 psf live load, 10 psf dead load, L/360 deflection, No. 2 grade, and wet service conditions. See Figure 1B.
 2. Assumes 40 psf live load, 10 psf dead load, L/180 cantilever deflection with 220 lb point load, No. 2 grade, and wet service conditions. See Figure 1A and Figure 2.
 3. Including assumed for refractory species including Douglas fir-larch, hem-fir, and spruce-pine-fir.
 4. Design values based on northern species with no incising assumed.

Table 3. Deck Beam Spans (L_B)¹ for Joists Framing from One Side Only

| Species | Size ⁴ | Joist Spans (L _J) Less Than or Equal to: | | | | | | |
|---|-------------------|--|-----------|----------|----------|----------|----------|----------|
| | | 6' | 8' | 10' | 12' | 14' | 16' | 18' |
| Southern Pine | 2-2x6 | 7' - 1" | 6' - 2" | 5' - 6" | 5' - 0" | 4' - 8" | 4' - 4" | 4' - 1" |
| | 2-2x8 | 9' - 2" | 7' - 11" | 7' - 1" | 6' - 6" | 6' - 0" | 5' - 7" | 5' - 3" |
| | 2-2x10 | 11' - 10" | 10' - 3" | 9' - 2" | 8' - 5" | 7' - 8" | 7' - 3" | 6' - 10" |
| | 2-2x12 | 13' - 11" | 12' - 0" | 10' - 9" | 9' - 10" | 9' - 1" | 8' - 6" | 8' - 0" |
| | 3-2x6 | 8' - 7" | 7' - 8" | 6' - 11" | 6' - 3" | 5' - 10" | 5' - 5" | 5' - 2" |
| | 3-2x8 | 11' - 4" | 9' - 11" | 8' - 11" | 8' - 1" | 7' - 6" | 7' - 0" | 6' - 7" |
| | 3-2x10 | 14' - 5" | 12' - 10" | 11' - 6" | 10' - 6" | 9' - 9" | 9' - 1" | 8' - 7" |
| | 3-2x12 | 17' - 5" | 15' - 1" | 13' - 6" | 12' - 4" | 11' - 5" | 10' - 8" | 10' - 1" |
| | 3x6 or 2-2x6 | 5' - 5" | 4' - 8" | 4' - 2" | 3' - 10" | 3' - 6" | 3' - 1" | 2' - 8" |
| Douglas Fir-Larch ² , Hem-Fir ² , SPF ² , Redwood, Western Cedars, Ponderosa Pine ³ , Red Pine ³ | 3x8 or 2-2x8 | 6' - 10" | 5' - 11" | 5' - 4" | 4' - 10" | 4' - 6" | 4' - 1" | 3' - 8" |
| | 3x10 or 2-2x10 | 8' - 4" | 7' - 3" | 6' - 6" | 5' - 11" | 5' - 6" | 5' - 1" | 4' - 8" |
| | 3x12 or 2-2x12 | 9' - 8" | 8' - 5" | 7' - 6" | 6' - 10" | 6' - 4" | 5' - 11" | 5' - 7" |
| | 4x6 | 6' - 8" | 5' - 8" | 4' - 11" | 4' - 6" | 4' - 2" | 3' - 11" | 3' - 8" |
| | 4x8 | 8' - 5" | 7' - 3" | 6' - 6" | 5' - 11" | 5' - 6" | 5' - 2" | 4' - 10" |
| | 4x10 | 9' - 11" | 8' - 7" | 7' - 8" | 7' - 0" | 6' - 6" | 6' - 1" | 5' - 8" |
| | 4x12 | 11' - 5" | 9' - 11" | 8' - 10" | 8' - 1" | 7' - 6" | 7' - 0" | 6' - 7" |
| | 3-2x6 | 7' - 4" | 6' - 8" | 6' - 0" | 5' - 6" | 5' - 1" | 4' - 9" | 4' - 6" |
| | 3-2x8 | 9' - 8" | 8' - 6" | 7' - 7" | 6' - 11" | 6' - 5" | 6' - 0" | 5' - 8" |
| 3-2x10 | 12' - 0" | 10' - 5" | 9' - 4" | 8' - 6" | 7' - 10" | 7' - 4" | 6' - 11" | |
| 3-2x12 | 13' - 11" | 12' - 1" | 10' - 9" | 9' - 10" | 9' - 1" | 8' - 6" | 8' - 1" | |

1. Assumes 40 psf live load, 10 psf dead load, L/360 simply span beam deflection limit, L/180 cantilever deflection limit, No. 2 grade, and wet service conditions.
 2. Incising assumed for refractory species including Douglas fir-larch, hem-fir, and spruce-pine-fir.
 3. Design values based on northern species with no incising assumed.
 4. Beam depth must be equal to or greater than joist depth if joist hangers are used (see Figure 6, Option 3).



Figure 8. Post-to-Beam Attachment Requirements

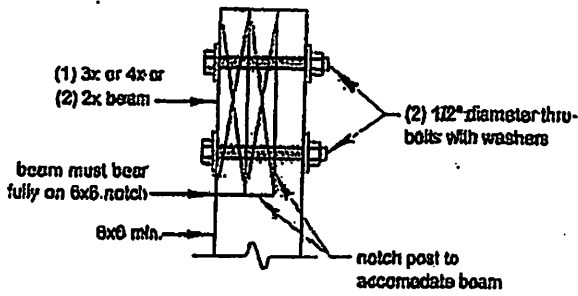
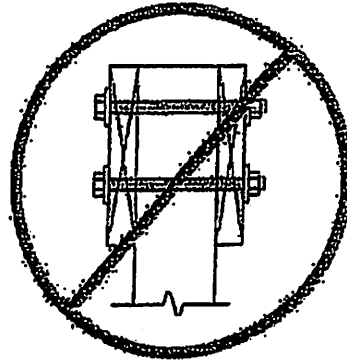


Figure 9. Prohibited Post-to-Beam Attachment Condition



RIM JOIST REQUIREMENTS

Attach a continuous rim joist to the ends of joists as shown in Figure 11. Attach decking to the rim joist as shown in Figure 11. For more decking attachment requirements, see **DECKING REQUIREMENTS**.

Figure 10. Alternate Approved Post-to-Beam Post Cap Attachment

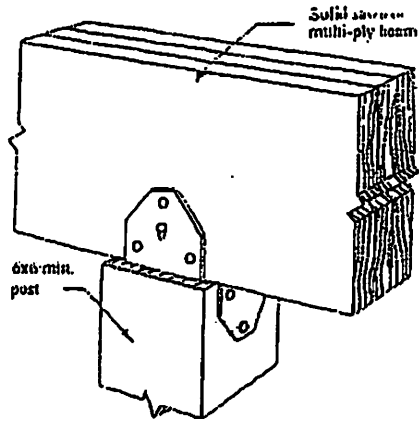
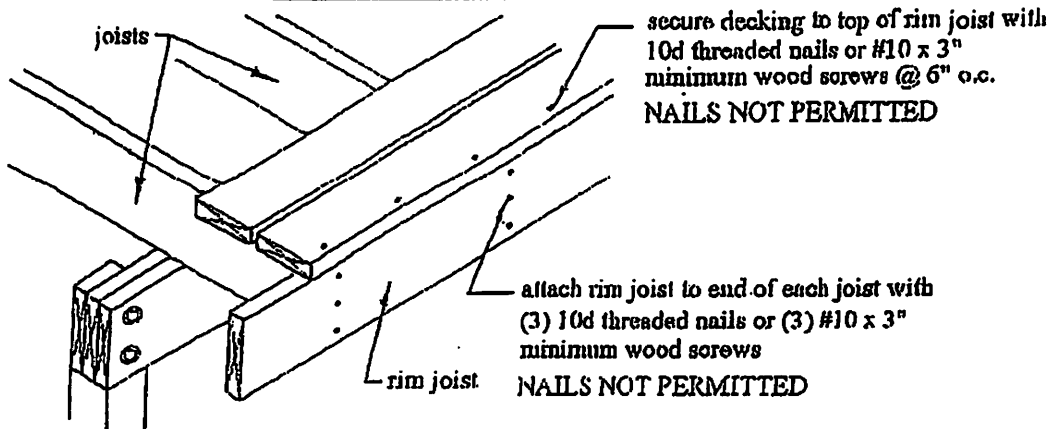
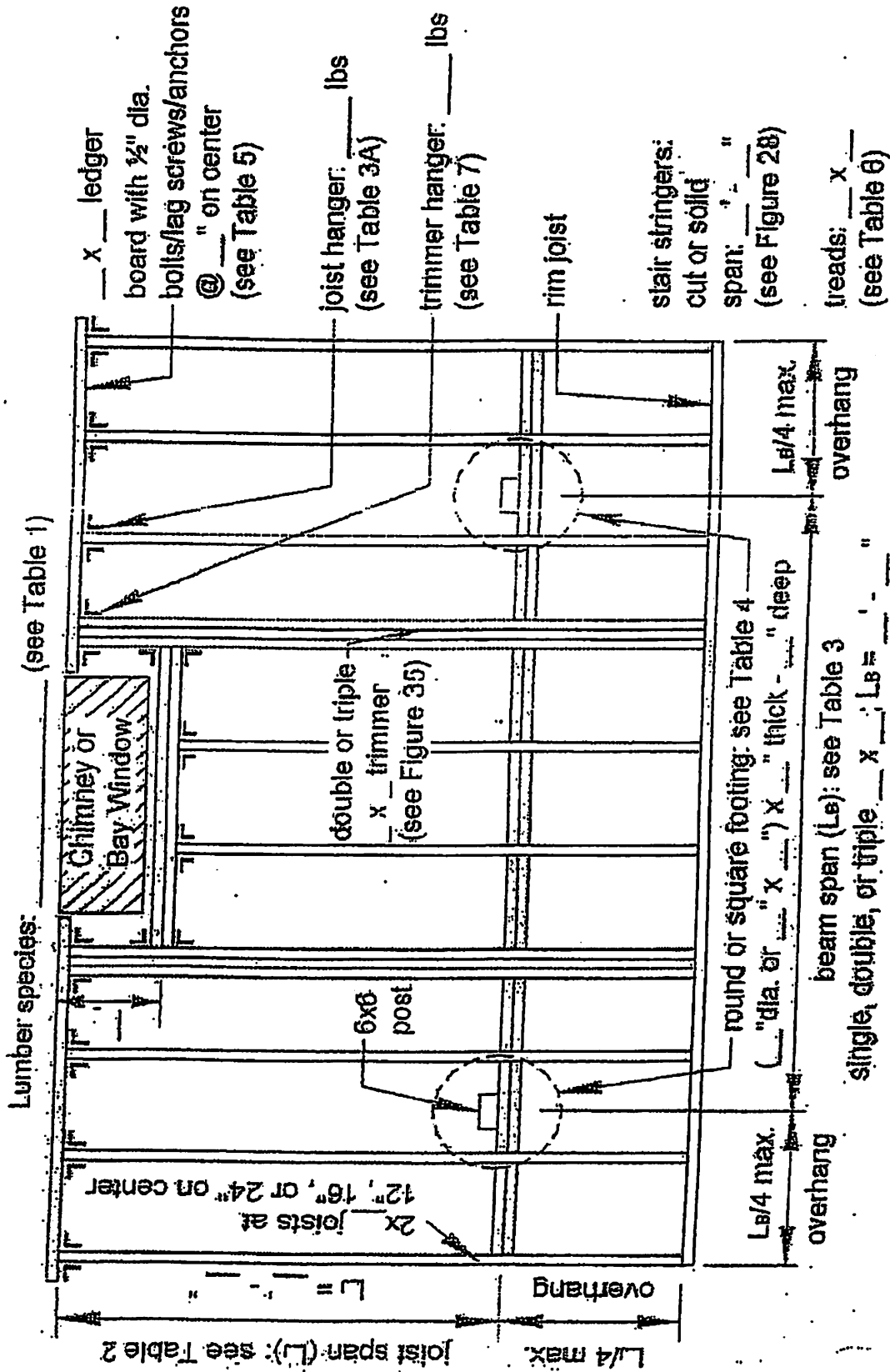


Figure 11. Rim Joist Connection Details



3

Figure 5. Typical Deck Framing Plan



GUARD REQUIREMENTS

All decks greater than 30" above grade are required to have a guard [R312.1] - one example is shown in Figure

24. Other methods and materials may be used for guard construction when approved by the authority having jurisdiction.

Figure 24. Example Guard Detail

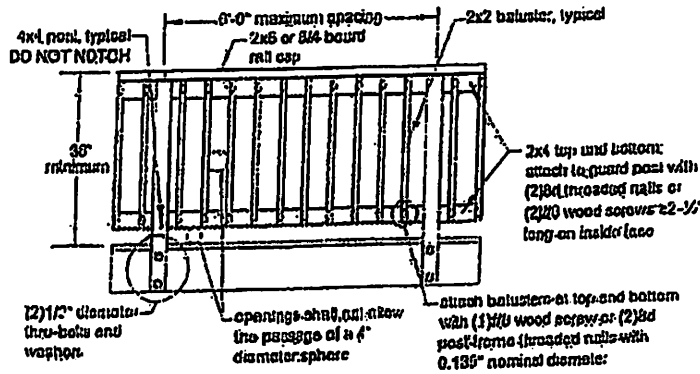


Figure 30. Stair Guard Requirements

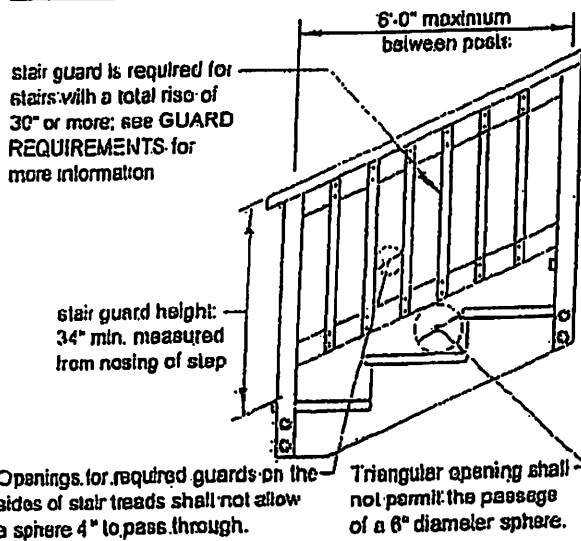


Figure 31. Stair Stringer Attachment Detail

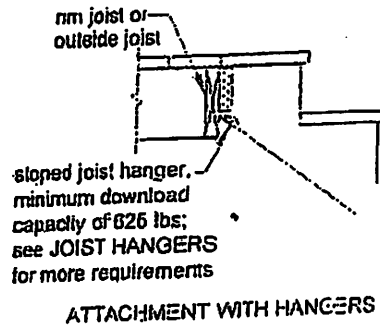


Figure 32A. Handrail Mounting Examples

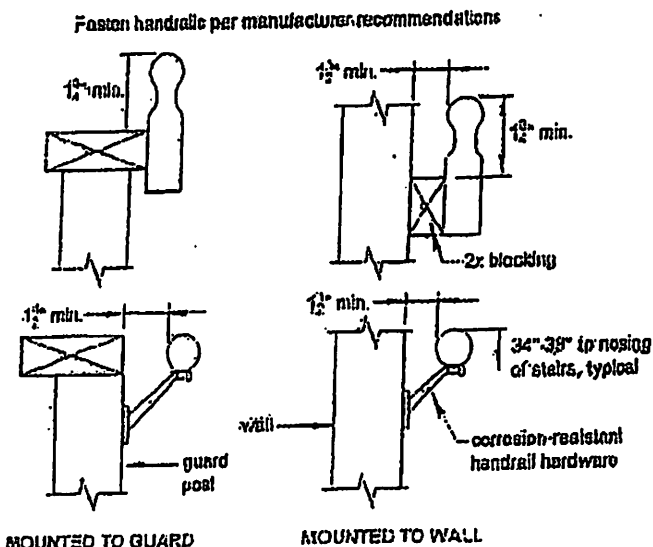
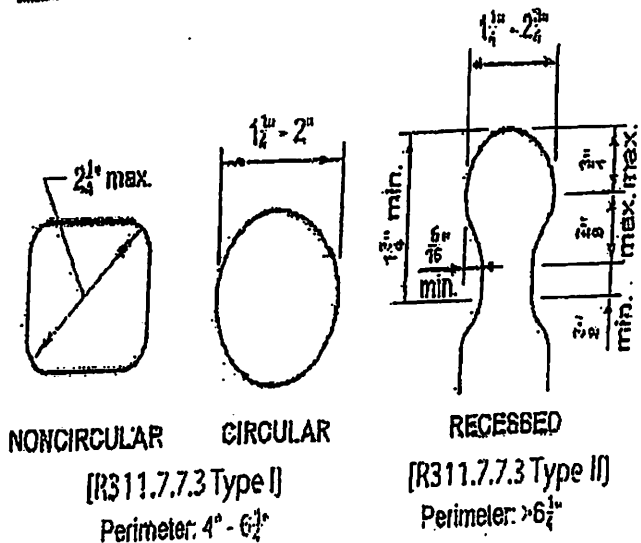


Figure 32B. Handrail Grip Size



PERMIT APPLICATION
CITY OF ELMWOOD
201 W MAIN STREET
ELMWOOD IL 61529-9111
309-742-2351

Applicable Building Codes (the following list of codes with amendments)

| | | |
|---|----------------------------------|--|
| 2006 International Building Code | 2006 International Fire Code | 2006 International Residential Code |
| 2006 International mechanical Code | 2006 International Fuel Gas Code | 2006 International Existing Building Code |
| 2004 Part 890 Illinois Plumbing Code | | 2006 International Property Maintenance Code |
| Illinois Energy Conservation Code current version | | Illinois Accessibility Code |
| National Electrical Code (NFPA70) current version | | |

Application for: _____ Residential Building Permit for: _____ Estimate of Value: \$ _____

Dwelling, Attached Garage, Detached
Garage, Porch, Carport, Decks

_____ Swimming Pool Permit Fee: \$ _____

_____ Fence (See Schedule Attached) NO REFUNDS

_____ Commercial Building

_____ Demolition State Roofing License # _____

_____ Sign

_____ *Alteration or Remodeling

(*Alteration" or "remodeling" of existing building or structure shall include any changes in structural members, stairways, basic construction, type, kind or class of occupancy, light or ventilations, means of egress and ingress or any other changes affecting or regulated by the Building code, except for minor repairs of changes not involving any of the aforesaid provisions)

Owner: _____ Address: _____

Contractor: _____ Address: _____

Applicant: _____ Address: _____

Applicant's Contact Number: _____

Construction Site Address: _____

Subdivision: _____
(Any subdivision covenants that apply are the individual's responsibility)

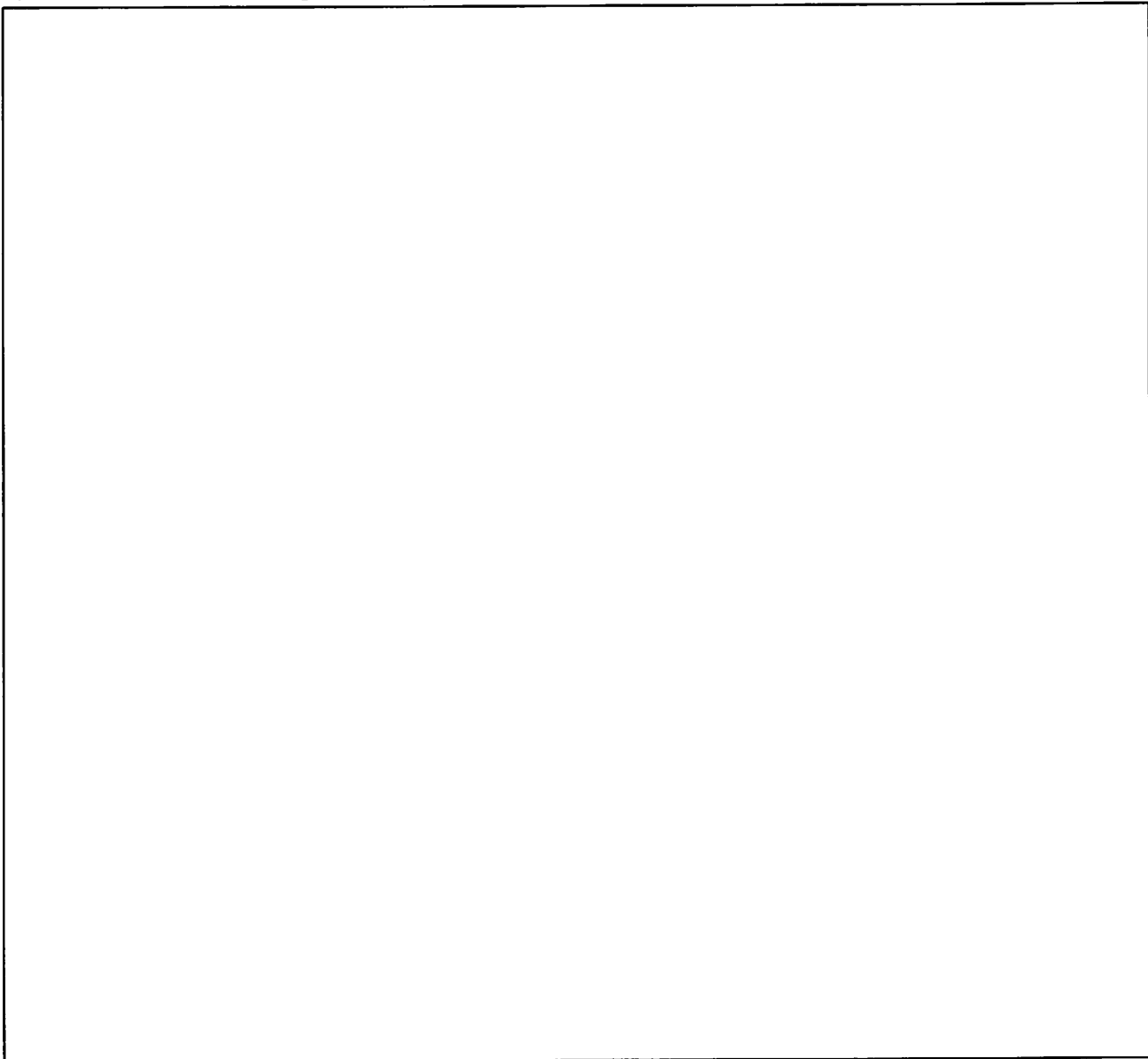
Zoning Classification: _____

Specify use type: _____
(dwelling, fence, etc.)

The layout shown below represents your lot. The dimensions of your lot, width and depth are required to be shown on the layout. Show the location of existing buildings on the lot, the footage from the four property lines, the location of the proposed building with the footage from the four property lines for the new construction. Also show any street and/or alley adjacent to the property as well as North arrow. The research and locations of all easements (e.g. sewer, electric, telephone, gas, water, etc..) is the responsibility of the property owner.

SKETCH ALL STRUCTURES ON THE PROPERTY WITH DIMENSIONS AND SETBACKS.

(IMPORTANT: Setback footage from the property lines should be accurate)



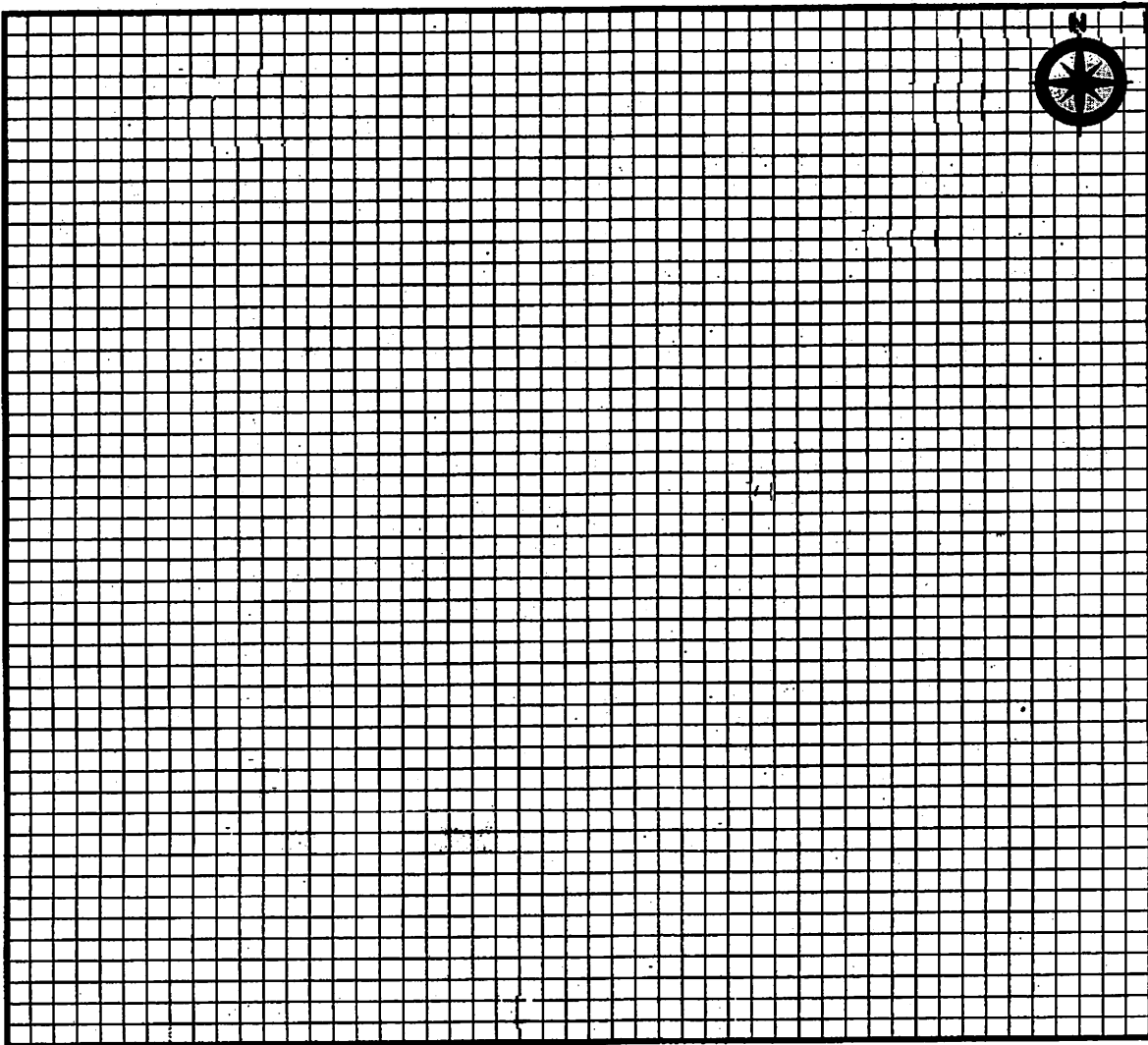
I have carefully read this application and understand and agree to abide by all provisions of the City of Elmwood's Municipal Code and all the State of Illinois laws. Further, I agree and understand the permit issued may be revoked without notice on any breach of representation or conditions.

Signature of Owner or Authorized Agent

Date

SITE PLAN

size of site: _____ acres or dimensions: _____ X _____





Complete the site plan using blue or black ink. Include the following information on the site plan above or attach a reproducible site plan with the same information:

- all existing and/or proposed buildings and structures and the dimensions of each
- topographical information such as roads, trees, ponds, hills, gullies, streams, etc...
- label all structures (e.g. house, shed, garage, etc...)
- label requests pertinent to this petition

LEGEND

Property line =

Existing structure = 

Proposed structure = 

Fence = 

Tree =

BUILDING PERMIT FEE SCHEDULE

ONE-FAMILY AND TWO-FAMILY RESIDENTIAL: NEW CONSTRUCTION, ADDITIONS AND ALTERATIONS

Fee per square feet.....\$0.50
Minimum fee, new construction.....\$1,000.00
Minimum fee, additions.....\$500.00
Minimum fee, major alterations.....\$250.00
Minimum fee, minor alterations.....\$75.00

COMMERCIAL

Fee per square feet.....\$0.75
Minimum.....\$1,000.00
Maximum.....\$7,500.00

ELECTRICAL, PLUMBING, HVAC (Including generators)

New construction, additions.....no additional fee
Alterations.....\$75.00 per additional permit

MISCELLANEOUS BUILDING PERMITS

Swimming pools:
Aboveground.....\$50.00
Partially or totally submerged.....\$100.00

Fences (front yard only).....\$55.00

Sign permit
No electrical.....\$50.00
With electrical.....\$105.00

Demolition permit.....\$50.00

Accessory buildings (other than garages)
< 100 sf.....\$50.00
≥100 sf.....\$100.00

Garages (detached)
<600 sf.....\$250.00
≥600 sf.....\$500.00

Decks.....\$250.00

**CITY OF ELMWOOD
REQUIRED BUILDING INSPECTIONS
(YOU MUST MAINTAIN A SET OF PERMIT DOCUMENTS AT THE SITE)**

1. **FOOTINGS/EXCAVATION, with**
 - a. Form set
 - b. Reinforcing installed
 - c. Erosion control in place
 - d. Temporary electrical service completed

NOTE: For underground/under-slab plumbing inspections contact the Illinois State Plumbing inspector at 217-782-3518.

2. **FOUNDATION WALLS (prior to backfill)**
3. **FRAMING, EXTERIOR ENVELOPE, MECHANICAL AND ELECTRICAL ROUGH-IN**

NOTE: Truss engineering package must be included with permit documents. For plumbing inspections contact the Illinois State Plumbing inspector at 309-210-8963.

4. **INSULATION**
5. **FINAL**

| | | | |
|-------------------------|------------------------|--------------------|---------------------|
| INSPECTIONS FOR: | BUILDING | RESIDENTIAL | DAVE HALL |
| | STRUCTURAL | | 309-368-4460 |
| | HVAC | | |
| | ELECTRICAL | COMMERCIAL | SCOTT WOLF |
| | FIRE PROTECTION | | 309-251-7346 |

| | | |
|-------------------------|-----------------|----------------------------|
| INSPECTIONS FOR: | PLUMBING | CALL: BRIAN MCGRATH |
| | | 309-276-6195 |

OTHER CONTACT INFORMATION:

| | |
|---------------------------|---|
| UTILITY LOCATIONS: | (JULIE) 811 OR 1-800-892-0123 or |
| | www.illinois1call.com |

| | |
|-------------------------------|---------------------|
| 911 ADDRESS ASSIGNMENT | 309-495-4886 |
|-------------------------------|---------------------|

| | |
|------------------------|---|
| AMEREN ILLINOIS | CARINA L. KAPRAUN capraun@ameren.com |
| | 309-693-4719 |
| | 309-360-5193 |

| | |
|-----------------|-----------------------|
| FRONTIER | 1-877-462-8188 |
|-----------------|-----------------------|

LIST OF CONTRACTORS

1. GENERAL CONTRACTOR: _____

2. FOUNDATION: _____

3. PLUMBING: _____

ILLINOIS STATE LICENSE# _____

4. HVAC: _____

5. ELECTRICAL: _____

6. ROOFING: _____

ILLINOIS STATE LICENSE# _____

ZONING CERTIFICATE APPLICATION

City of Elmwood

201 W. Main Street, Elmwood, IL 61529-9111

309-742-2351

The applicant is responsible for completing the application in its entirety, and submitting it to the City of Elmwood with the required fee. If the applicant is different from the property owner, an original owner's consent form must accompany the application at the time of filing. Office hours are 9am – noon and 1 – 5 pm, Monday through Friday. Staff is available to provide additional assistance if needed--- please call in advance to schedule an appointment.

Please complete this form in its entirety.

PROPERTY INFORMATION:

ADDRESS: _____ PARCEL ID: _____ - _____ - _____

CURRENT ZONING DISTRICT: _____ LOT SQUARE FOOTAGE/ACRES: _____

APPLICANT INFORMATION:

NAME: _____ DAYTIME PHONE: _____

____ Owner ____ Tenant ____ Contractor ____ Agent

ADDRESS, CITY, STATE, ZIP: _____

EMAIL: _____ FAX: _____

SIGNATURE: _____ DATE: _____

By signing this form, I certify that I have read and understand the application and the information provided is true and correct. I understand that the Zoning Certificate is being issued based upon information I have provided on the application; that the certificate will not be valid if the application is found to be untrue or incorrect; and that enforcement action will if the application or improvements are determined to be illegal.

OWNER INFORMATION:

If applicant is not owner, please provide owner's name, address, daytime phone number:

OWNER'S NAME: _____ DAYTIME PHONE: _____

OWNER'S ADDRESS, CITY, STATE, ZIP: _____

I am applying for a Zoning Certificate for:

- ____ Building permit, complete Attachment A ____ Sign permit, complete Attachment B
- ____ Home Occupation, complete Attachment C ____ Fence Permit, complete Attachment D
- ____ Non-conforming Use, complete Attachment E

The appropriate Attachment must be completed for your application to be processed.

ATTACHMENT A (Zoning Certificate Application)

ZONING CERTIFICATE APPLICATION FOR BUILDING PERMIT

No Zoning Certificate is required for alteration/remodeling that does not involve change of use or expansion of structure(s) and/or use or for demolition.

| DEVELOPMENT INFORMATION | CURRENT | PROPOSED |
|---|---------|----------|
| Use | | |
| Building square footage | | |
| Height | | |
| Total # parking spaces, including accessible parking spaces | | |
| Accessible parking spaces | | |

- Residential***
 Dwelling Attached garage Detached garage
 Porch/Deck Carport Swimming pool
 Expansion of structure(s)
- Non-residential****
 Signs – See Attachment B

*For residential, a site plan required for all applications. 8 ½ x 11’ plan drawn to identifiable engineer or architect scale that includes:

- North arrow
- All property lines
- Adjacent streets, alleys, sidewalks
- All parking areas & driveways, indicate surface material
- Exact location of all existing and proposed buildings, including attached garages, detached garages, decks, sunrooms, pools, & sheds
- The proposed structure (includes signs) & the distance the structure will be from all property lines & other structures.

**For non-residential, a site plan required for all applications that includes requirements above for residential plus full size plans drawn to identifiable engineer or architect scale that include:

- Exact locations of all buildings, structures, utility structures, streets, sidewalks, access facilities, including on-site vehicular geometry, proposed utility work in the right of way.
- Parking spaces and aisles with dimensions.
- Number and location of required and provided parking spaces, including accessible parking space and appropriate signs.
- Locations and dimensions of required yards and transitional buffer yards.

- Locations and dimensions of walks, fences, and exterior lighting structures.
- Dumpster, refuse, and recycling locations and screening treatments.
- A landscape plan showing exact location, size, quantity and type of all existing and proposed landscaping.
- Square footage of all existing and proposed buildings
- Signage plan for the project, showing all existing and proposed signage with locations dimensions, and numbers.
- For more intensive projects, the Zoning Administrator may require:
 - Existing and proposed topographic contours.
 - Easements – location, width, and purpose. Appropriate easement documents are required.
 - Method and calculations of stormwater retention.
 - Sanitary sewer calculations.
 - Locations/dimensions of fire hydrants and water mains.