
| | |
|--------------------------|---|
| Building Permits | Building permits are required for all decks and porches. |
| Permit Fees | Decks are set fee of \$100.00, plus \$1.00 state surcharge - 3-Season porches are based on construction cost, materials and labor, exhibit A of the City fee schedule. |
| Plan Requirements | Two (2) copies of the plans and one (1) copy of the site survey. (You may draw this yourself) Show all dimensions; specify types and sizes of materials - provide as much construction detail as you can. |
| Setbacks | Setbacks requirements vary by zoning districts. Please check with the Planning Department for the specific requirements for your property. In any case, no structure may encroach into any easement |
| Tree removal | Should grading or construction require tree removal, the city may require a tree preservation plan illustrating tree protection, removal, and replacement. Please check with the Planning Department for more information. |
| Live Load | Decks need to be designed for a 40-pound per square foot live load and balconies to a 60 pound per square foot live load. |
| Frost Footings | Frost footings are required for any deck or porch that is attached to a dwelling or garage that has frost footings. All footings must be 42 inches in depth - minimum. The number and size of the footing is determined by design and size of the deck. |
| Wood Required | All exposed wood used in the construction of decks/porches is required to be of approved wood of natural resistance to decay (redwood, cedar, etc.) Or approved treated wood. This includes posts, beams, joists and decking. Any composite or plastic decking materials must be approved by the Building Official prior to installation. Not all products are approved for use on stairs. Additional engineering may be required. |
| Overhang | Joists should not overhang beams by more than two (2) feet, nor should beams overhang posts by more than one (1) foot unless a special design is approved. |
| Flashing | All connections between the deck/porch and dwelling shall be weatherproof. Any cuts in exterior finish shall be flashed and caulked. |
| Joist Hangers | Header joist more than six (6) feet long and joists over twelve (12) feet long shall be supported by approved framing anchors such as joist hangers. |
| Guardrails | All decks that are 30" or more above grade must be protected by a guardrail. Such rails shall be 36" minimum in heights. Open guardrails shall have intermediate rails or an ornamental pattern such that a 4" diameter sphere cannot pass through. Stair guard rails are such that a 4-3/8" sphere cannot pass thru. Exception: On an open stairway, the triangular opening formed by the riser, tread and bottom element of a guardrail must be sized so that a six inch sphere cannot pass through. |
| Handrails | Stairways having four or more risers shall have at least one handrail with handrail ends returned or terminated in posts. The top shall be placed 34" to 38" above the tread nosing. Handrail grip size shall be between 1-1/4" to 2-3/4" in cross-sectional dimension or the shape shall provide an equivalent gripping surface. Handgrips shall have a smooth surface with no sharp corners. |

| | |
|---------------------|--|
| Stairs | Minimum width is 36 inches. Maximum rise tread to tread is 7-3/4 inches. Minimum tread width is 10 inches. Largest tread width or riser height shall not exceed the smallest by more than 3/8 inch. Open raisers are permitted provided a 4" sphere cannot pass through. |
| Illumination | All exterior stairways shall be illuminated at the landing to the stairway. Illumination shall be controlled from inside the dwelling or automatically activated. |
| Windows | Windows located within a 5' from bottom and 3' from the top stair AND the bottom of the window is less than 5' above the walking surface, the window glass IS REQUIRED TO BE TEMPERED. |
| Design Note | Some deck designs may not be appropriate should the placement of a screen porch or 3-season porch on the deck platform be a future consideration. Setbacks for porches are not the same as setbacks for decks. |

All inspections require a 24-hour notice to the Building Department.
Call 651-322-2024 to schedule inspections.

DECKS AND 3-SEASON PORCHES INSPECTIONS REQUIRED BY LAW:

1. **Forming for Footings or Postholes Inspected** before placing concrete or posts - below grade minimum depth 42".
2. **Electrical Wiring Rough-In Inspection** before framing inspection and before concealing (call Mr. David Jacobson at (651) 459-5158 between 7:00 a.m. and 8:30 a.m., Monday through Thursday, for electrical inspections.
3. **Framing Inspection** before exterior finish and roofing.
4. **Insulation and Vapor Barrier Inspection** prior to covering with interior finishes.
5. **Electrical Final Inspection** when all wiring and fixtures complete.
6. **Final Inspection** when complete.

POST INSPECTION CARD IN PROMINENT PLACE

Call before you dig. Gopher State One Call: 651-454-0002

Joist Span

Based on No. 2 or better wood grades.
(Design Load = 40#LL + 10#DL, Deflection= L/360)

| | Ponderosa Pine | | | Southern Pine | | | Western Cedar | | |
|------|----------------|-------|-------|---------------|-------|-------|---------------|-------|-------|
| | 12"OC | 16"OC | 24"OC | 12"OC | 16"OC | 24"OC | 12"OC | 16"OC | 24"OC |
| 2x6 | 9-2 | 8-4 | 7-0 | 10-9 | 9-9 | 8-6 | 9-2 | 8-4 | 7-3 |
| 2x8 | 12-1 | 10-10 | 8-10 | 14-2 | 12-10 | 11-0 | 12-1 | 11-0 | 9-2 |
| 2x10 | 15-4 | 13-3 | 10-10 | 18-0 | 16-1 | 13-5 | 15-5 | 13-9 | 11-3 |
| 2x12 | 17-9 | 15-5 | 12-7 | 21-9 | 19-0 | 15-4 | 18-5 | 16-0 | 13-0 |

Sample Calculations for Using Joist Span, Beam Size and Footing Size Tables

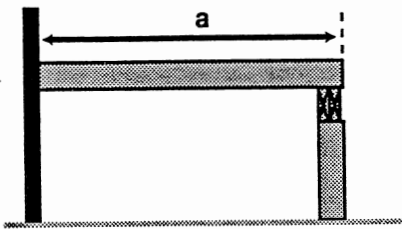
CASE I SOLUTION:

Refer to tables for joist, beam and footing size requirements.

Example: $a = 12'$; Post Spacing = 8'

Use the **Joist Span** table to find the acceptable joist sizes for a 12' span, 2x8s at 12" O.C., 2x10s at 16" O.C. or 2x12s at 24" O.C.

Use the **Beam and Footing Sizes** table and find the 8' post spacing column. With a 12' deck span, the beam may be either two 2x8s or two 2x10s, depending on wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 12", 10" or 9" for the corner post and 17", 14" or 12" for all intermediate posts.



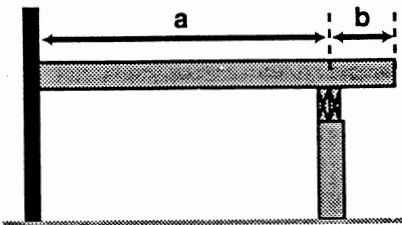
CASE II SOLUTION:

Use "a" to determine joist size and "a" + "b" to determine beam and footing sizes. The length of "b" is restricted by both the length of "a" and the size of the joists.

Example: $a = 8'$, $b = 2'$, Post Spacing = 10'

Refer to the **Joist Span** table. For an 8' joist span, either 2x8s at 24" O.C. or 2x6s at 16" O.C are acceptable.

For sizing the beam, use a joist length of 10' ($8' + 2'$) and a post spacing of 10'. The **Beam and Footing Sizes** table indicates that the beam may be either two 2x10s or two 2x12s, depending on wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 13", 11" or 10" for the corner post and 18", 15" or 13" for all intermediate posts. Note that because of the 2' cantilever all footing sizes were increased by 1" as required by footnote 2 at the end of the table.



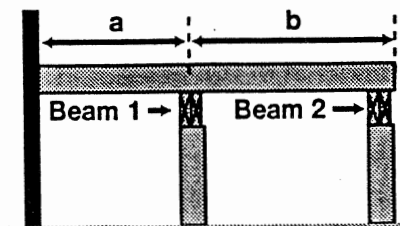
CASE III SOLUTION:

Use "a" or "b", whichever is greater, to determine joist size. Use "a" + "b" to determine the size of Beam 1 and the post footing size for the posts supporting Beam 1. Use joist length "b" to determine both the size of Beam 2 and the post footing size for the posts supporting Beam 2.

Example: $a = 6'$, $b = 7'$, Post Spacing = 9'

Joist size is determined by using the longest span joist (7'). The **Joist Span** table indicates that 2x6s at 24" O.C. would be adequate for this span.

For Beam 1 and footings, use a joist length of 13' ($6' + 7'$) and a post spacing of 9'. The **Beam and Footing Sizes** table indicates that the beam may be two 2x10s or two 2x12s, depending on the wood used. Depending on the type of soil, the footing diameters for Beam 1 posts shall be 13", 11" or 9" for the corner (outside) post and 19", 15" or 13" for all intermediate posts. For Beam 2 and footings use a joist length of 7' and post spacing of 9'. The beam may be two 2x8s or two 2x10s, depending on wood used. The footing diameters for Beam 2 shall be 10", 8" or 7" for the corner posts, and 14", 11" or 10" for all intermediate posts.



Beam and footing sizes

Based on No. 2 or better Ponderosa Pine and Southern Pine
(Treated for weather and/or ground exposure)

| | | Post spacing | | | | | | | | | | | |
|-----|----------------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | 4' | 5' | 6' | 7' | 8' | 9' | 10' | 11' | 12' | 13' | 14' | |
| 6' | Southern Pine Beam | 1-2x6 | 1-2x6 | 1-2x6 | 2-2x6 | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x10 | 2-2x10 |
| | Ponderosa Pine Beam | 1-2x6 | 1-2x6 | 1-2x8 | 2-2x8 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x12 | 2-2x12 | 2-2x12 | 2-2x12 |
| | Corner Footing | 6 5 4 | 7 6 5 | 7 6 5 | 8 7 6 | 9 7 6 | 9 7 6 | 10 8 7 | 10 8 7 | 10 9 7 | 11 9 8 | 11 9 8 | 11 9 8 |
| | Intermediate Footing | 9 8 7 | 10 8 7 | 10 9 7 | 11 9 8 | 12 10 9 | 13 10 9 | 14 11 10 | 14 12 10 | 15 12 10 | 15 13 11 | 16 13 11 | 16 13 11 |
| 7' | Southern Pine Beam | 1-2x6 | 1-2x6 | 1-2x6 | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x10 | 2-2x12 | 2-2x12 |
| | Ponderosa Pine Beam | 1-2x6 | 1-2x6 | 1-2x8 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x10 | 2-2x12 | 3-2x10 | 3-2x10 | 3-2x10 |
| | Corner Footing | 7 5 5 | 7 6 5 | 8 7 6 | 9 7 6 | 9 8 7 | 10 8 7 | 10 8 7 | 11 9 8 | 11 9 8 | 12 10 9 | 12 10 9 | 12 10 9 |
| | Intermediate Footing | 9 8 7 | 10 8 7 | 11 9 8 | 12 10 9 | 13 11 9 | 14 11 10 | 15 12 10 | 15 13 11 | 16 13 11 | 17 14 12 | 17 14 12 | 17 14 12 |
| 8' | Southern Pine Beam | 1-2x6 | 1-2x6 | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x12 | 2-2x12 | 2-2x12 |
| | Ponderosa Pine Beam | 1-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x10 | 3-2x10 | 3-2x10 | 3-2x12 | 3-2x12 |
| | Corner Footing | 7 6 5 | 8 6 6 | 9 7 6 | 9 8 7 | 10 8 7 | 10 8 7 | 11 9 8 | 11 9 8 | 12 10 9 | 13 10 9 | 13 11 9 | 13 11 9 |
| | Intermediate Footing | 10 8 7 | 11 9 8 | 12 10 9 | 13 11 9 | 14 11 10 | 15 12 10 | 16 13 11 | 16 13 12 | 17 14 12 | 18 15 13 | 18 15 13 | 18 15 13 |
| 9' | Southern Pine Beam | 1-2x6 | 1-2x6 | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x12 | 2-2x12 | 3-2x10 | 3-2x10 |
| | Ponderosa Pine Beam | 1-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x10 | 3-2x10 | 3-2x10 | 3-2x12 | 3-2x12 | 3-2x12 |
| | Corner Footing | 7 6 5 | 8 7 6 | 9 7 6 | 10 8 7 | 10 9 7 | 11 9 8 | 12 10 8 | 12 10 9 | 13 10 9 | 13 11 9 | 14 11 10 | 14 11 10 |
| | Intermediate Footing | 10 9 7 | 12 10 8 | 13 10 9 | 14 11 10 | 15 12 10 | 16 13 11 | 17 14 12 | 17 14 12 | 18 15 13 | 19 15 13 | 20 16 14 | 20 16 14 |
| 10' | Southern Pine Beam | 1-2x6 | 1-2x6 | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x12 | 2-2x12 | 3-2x10 | 3-2x10 | 3-2x10 |
| | Ponderosa Pine Beam | 1-2x6 | 1-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x12 | 3-2x10 | 3-2x12 | 3-2x12 | Eng Bm | Eng Bm |
| | Corner Footing | 8 6 6 | 9 7 6 | 10 8 7 | 10 8 7 | 11 9 8 | 12 10 8 | 12 10 9 | 13 11 9 | 14 11 10 | 14 12 10 | 15 12 10 | 15 12 10 |
| | Intermediate Footing | 11 9 8 | 12 10 9 | 14 11 10 | 15 12 10 | 16 13 11 | 17 14 12 | 17 14 12 | 18 15 13 | 19 16 14 | 20 16 14 | 21 17 15 | 21 17 15 |
| 11' | Southern Pine Beam | 1-2x6 | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x12 | 2-2x12 | 3-2x10 | 3-2x10 | 3-2x12 |
| | Ponderosa Pine Beam | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x12 | 2-2x12 | 3-2x10 | 3-2x12 | 3-2x12 | Eng Bm | Eng Bm |
| | Corner Footing | 8 7 6 | 9 7 6 | 10 8 7 | 11 9 8 | 12 9 8 | 12 10 9 | 13 11 9 | 14 11 10 | 14 12 10 | 15 12 10 | 15 13 11 | 15 13 11 |
| | Intermediate Footing | 12 9 8 | 13 11 9 | 14 12 10 | 15 12 10 | 16 13 11 | 17 14 12 | 17 14 12 | 18 15 13 | 19 16 14 | 20 16 14 | 21 17 15 | 21 17 15 |
| 12' | Southern Pine Beam | 1-2x6 | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x12 | 3-2x10 | 3-2x10 | 3-2x12 | 3-2x12 |
| | Ponderosa Pine Beam | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x12 | 2-2x12 | 3-2x12 | 3-2x12 | Eng Bm | Eng Bm | Eng Bm |
| | Corner Footing | 9 7 6 | 10 8 7 | 10 9 7 | 11 9 8 | 12 10 9 | 13 10 9 | 14 11 10 | 14 12 10 | 15 12 10 | 15 13 11 | 16 13 11 | 16 13 11 |
| | Intermediate Footing | 12 10 9 | 14 11 10 | 15 12 10 | 16 13 11 | 17 14 12 | 18 15 13 | 19 16 14 | 20 16 14 | 21 17 15 | 22 18 15 | 23 18 16 | 23 18 16 |
| 13' | Southern Pine Beam | 1-2x6 | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x12 | 3-2x10 | 3-2x12 | 3-2x12 | 3-2x12 |
| | Ponderosa Pine Beam | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x10 | 2-2x12 | 2-2x12 | 2-2x12 | 3-2x12 | 3-2x12 | Eng Bm | Eng Bm | Eng Bm |
| | Corner Footing | 9 7 6 | 10 8 7 | 11 9 8 | 12 10 8 | 13 10 9 | 13 11 9 | 14 12 10 | 15 12 10 | 15 13 11 | 16 13 11 | 17 14 12 | 17 14 12 |
| | Intermediate Footing | 13 10 9 | 14 12 10 | 15 13 11 | 17 14 12 | 18 15 13 | 19 15 13 | 20 16 14 | 21 17 15 | 22 18 15 | 23 19 16 | 24 19 17 | 24 19 17 |
| 14' | Southern Pine Beam | 1-2x6 | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x10 | 2-2x10 | 2-2x12 | 3-2x10 | 3-2x12 | 3-2x12 | 3-2x12 | 3-2x12 |
| | Ponderosa Pine Beam | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x12 | 3-2x10 | 3-2x12 | 3-2x12 | Eng Bm | Eng Bm | Eng Bm | Eng Bm |
| | Corner Footing | 9 8 7 | 10 8 7 | 11 9 8 | 12 10 9 | 13 11 9 | 14 11 10 | 15 12 10 | 15 13 11 | 16 13 11 | 17 14 12 | 17 14 12 | 17 14 12 |
| | Intermediate Footing | 13 11 9 | 15 12 10 | 16 13 11 | 17 14 12 | 18 15 13 | 20 16 14 | 21 17 15 | 22 18 15 | 23 18 16 | 24 19 17 | 24 20 17 | 24 20 17 |
| 15' | Southern Pine Beam | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x12 | 2-2x12 | 3-2x10 | 3-2x12 | 3-2x12 | Eng Bm | Eng Bm |
| | Ponderosa Pine Beam | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 3-2x10 | 3-2x10 | 3-2x12 | 3-2x12 | Eng Bm | Eng Bm | Eng Bm | Eng Bm |
| | Corner Footing | 10 8 7 | 11 9 8 | 12 10 8 | 13 10 9 | 14 11 10 | 14 12 10 | 15 12 11 | 16 13 11 | 17 14 12 | 17 14 12 | 18 15 13 | 18 15 13 |
| | Intermediate Footing | 14 11 10 | 15 12 11 | 17 14 12 | 18 15 13 | 19 16 14 | 20 17 14 | 21 17 15 | 22 18 16 | 23 19 17 | 24 20 17 | 25 21 18 | 25 21 18 |
| 16' | Southern Pine Beam | 2-2x6 | 2-2x6 | 2-2x8 | 2-2x8 | 2-2x10 | 2-2x12 | 2-2x12 | 3-2x10 | 3-2x12 | 3-2x12 | Eng Bm | Eng Bm |
| | Ponderosa Pine Beam | 2-2x6 | 2-2x8 | 2-2x10 | 2-2x10 | 3-2x10 | 3-2x10 | 3-2x12 | 3-2x12 | Eng Bm | Eng Bm | Eng Bm | Eng Bm |
| | Corner Footing | 10 8 7 | 11 9 8 | 12 10 9 | 13 11 9 | 14 11 10 | 15 12 10 | 16 13 11 | 16 13 12 | 17 14 12 | 18 15 13 | 18 15 13 | 18 15 13 |
| | Intermediate Footing | 14 11 10 | 16 13 11 | 17 14 12 | 18 15 13 | 20 16 14 | 21 17 15 | 22 18 16 | 23 19 16 | 24 20 17 | 25 21 18 | 26 21 18 | 26 21 18 |

Notes:

- Joist length is total length of joist, **including** any cantilevers.
- When joist extends (cantilevers) beyond support beam by 18 inches or more, add 1 inches to footing dimensions shown.
- Requirements for future 3-season porches or screen porches:
 - Increase corner footing size shown by 90%.
 - Increase center footing size shown by 55%.
 - Locate all footings at extremities of deck (no cantilevers).

d. Beam sizes indicated need not be altered.

4. All footing sizes above are base diameters (in inches) and are listed for THREE SOIL TYPES:



| | |
|----------------------|----------|
| Corner Footing | 10 8 7 |
| Intermediate Footing | 14 11 10 |

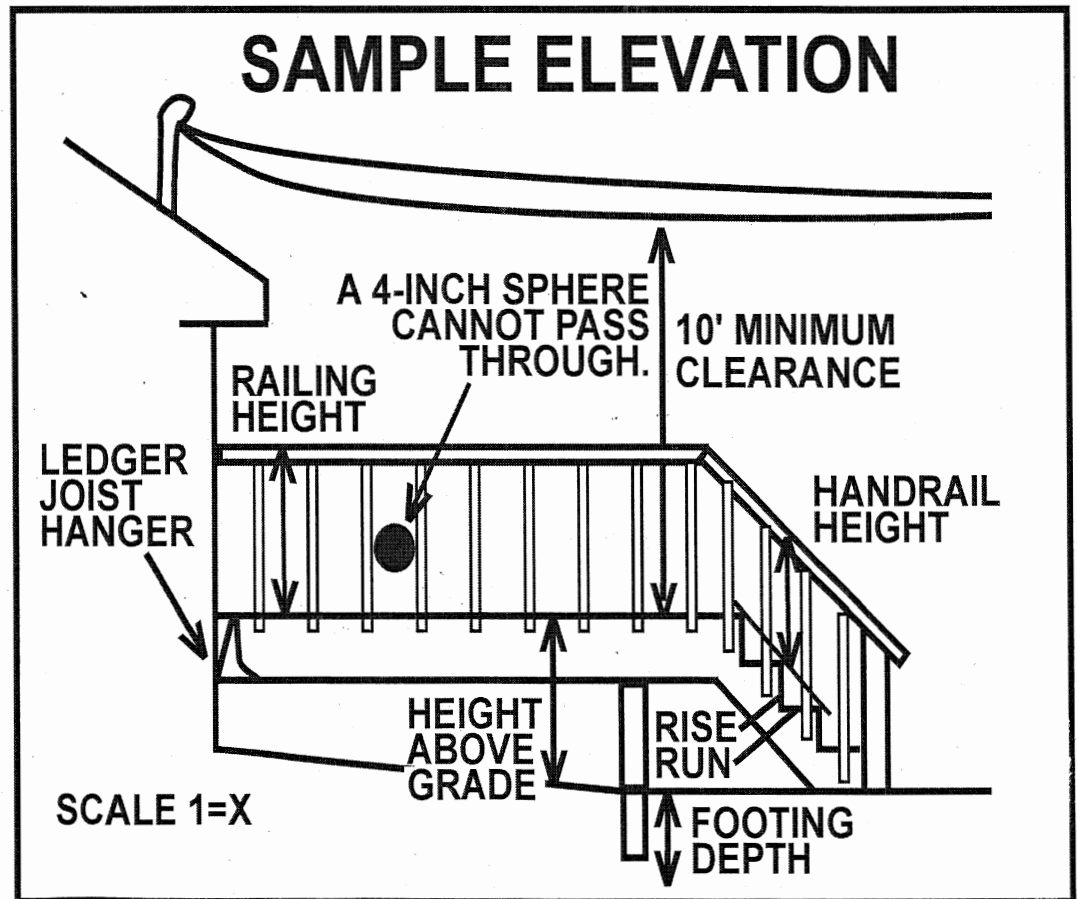
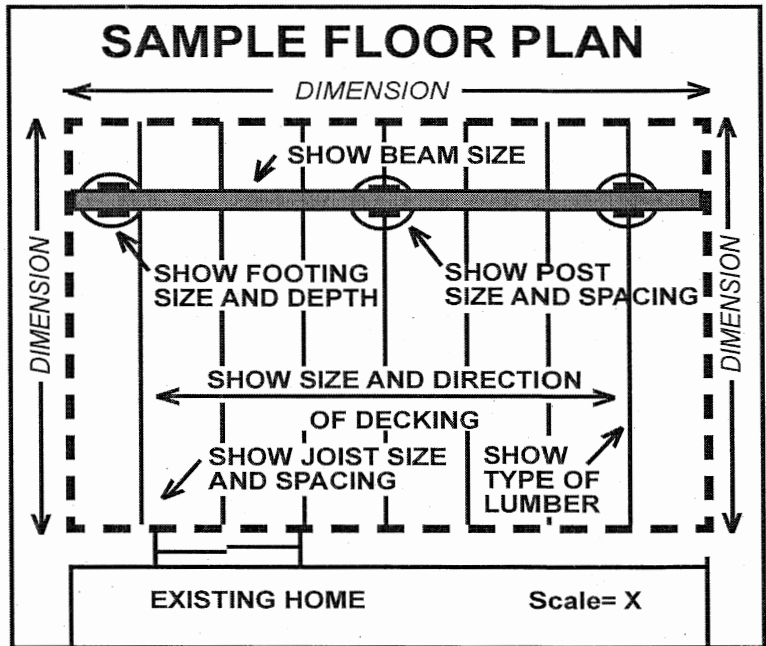
DECKS continued

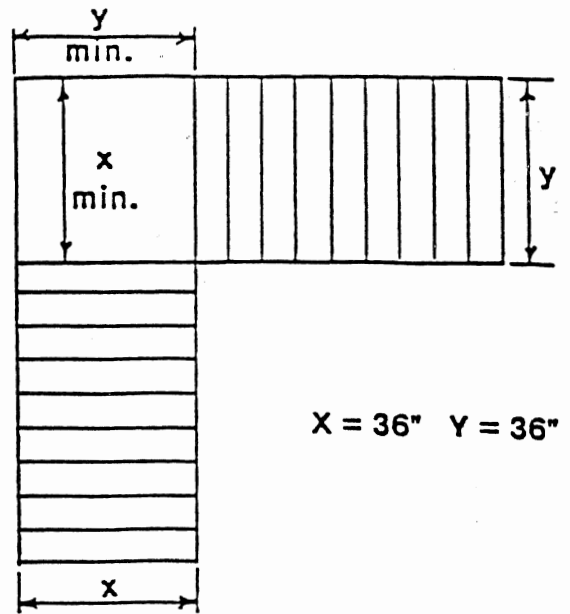
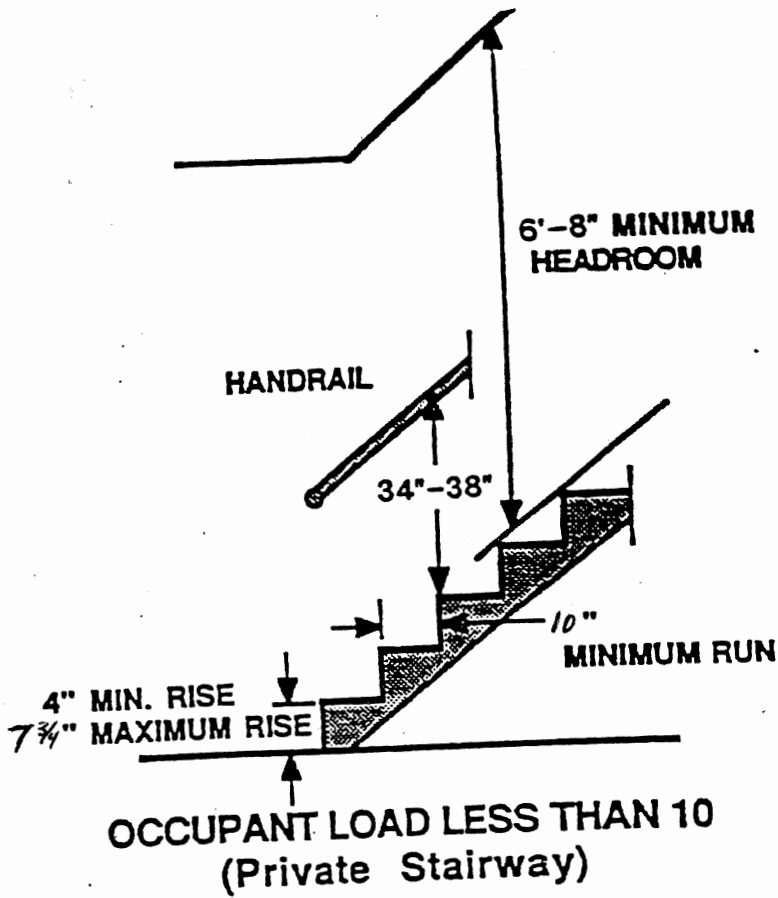
FLOOR PLAN

1. Proposed deck size.
2. Size and spacing of floor joists.
3. Size and type of decking material.
4. Size, type, location, and spacing of posts.
5. Size and type of beams.

ELEVATION PLAN

1. Height of structure from grade.
2. Size and depth of footings.
3. Guard height and spacing (if any).
4. Stairway rise/run and handrail height (if any).
5. Clearance of over-head wires (if applicable).

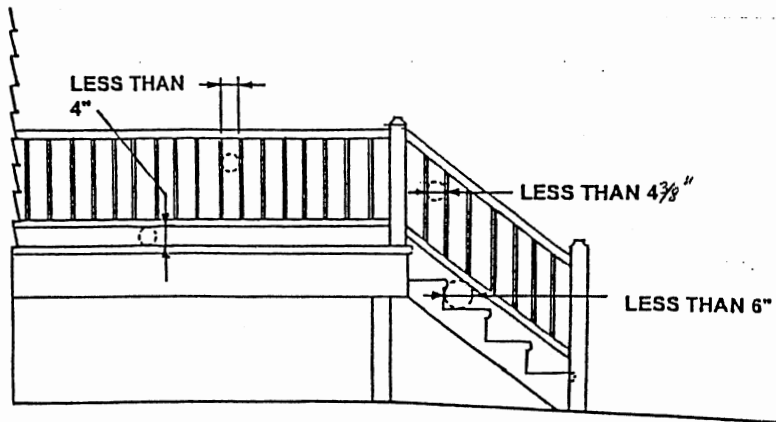




Stairways:

Stairs must be 36" minimum wide with a handrail on at least one side - continuous from top to bottom of stairs.

GUARDRAILS

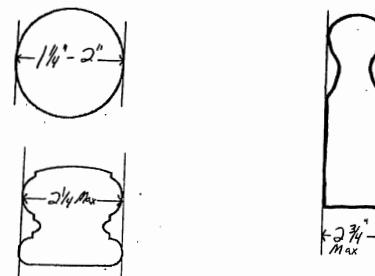


Open guardrails shall have intermediate rails or an ornamental pattern such that a sphere 4 inches in diameter cannot pass through.

EXCEPTION: The triangular openings formed by the riser, tread and bottom element of a guardrail at the open side of a stairway may be of such size that a sphere 6 inches in diameter cannot pass through

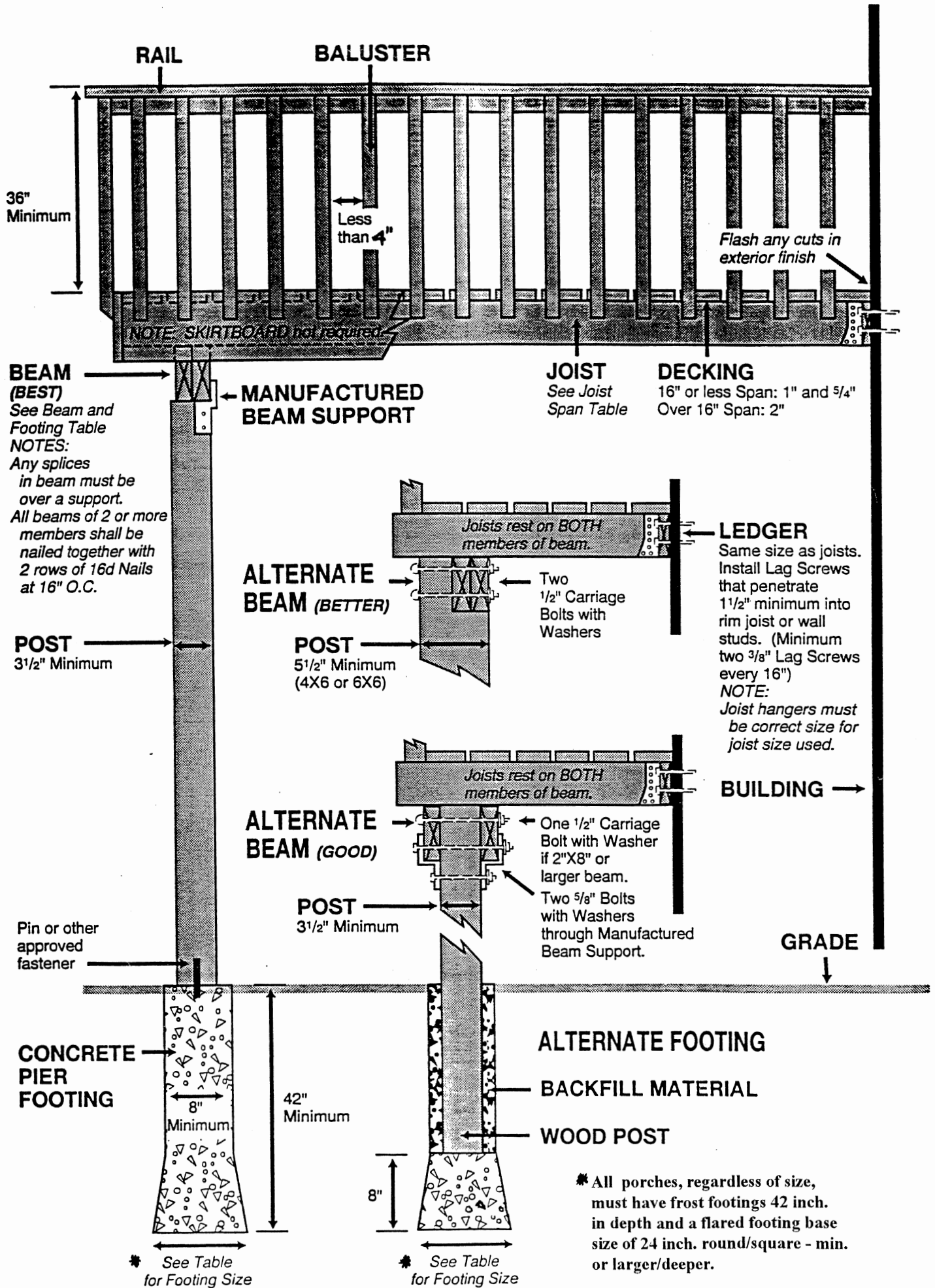
STAIRWAYS

Possible handrail solutions at stairs



GRASPABLE HANDRAILS

HANDRAIL ENDS MUST BE RETURNED (CLOSED)



36" Minimum

Less than 4"

Flash any cuts in exterior finish

NOTE: SKIRTBOARD NOT REQUIRED

BEAM (BEST)

See Beam and Footing Table
 NOTES:
 Any splices in beam must be over a support.
 All beams of 2 or more members shall be nailed together with 2 rows of 16d Nails at 16" O.C.

MANUFACTURED BEAM SUPPORT

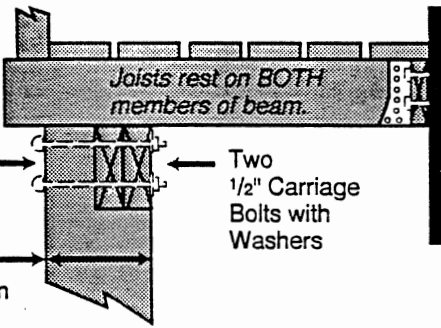
JOIST
 See Joist Span Table

DECKING
 16" or less Span: 1" and 5/4"
 Over 16" Span: 2"

POST
 3 1/2" Minimum

ALTERNATE BEAM (BETTER)

POST
 5 1/2" Minimum (4X6 or 6X6)



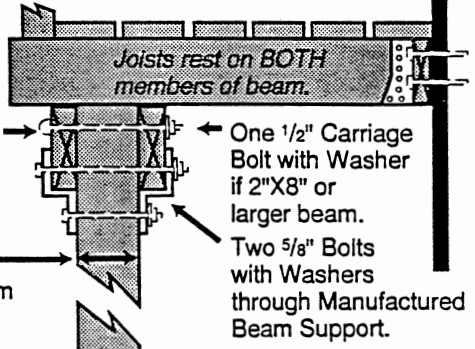
LEDGER
 Same size as joists. Install Lag Screws that penetrate 1 1/2" minimum into rim joist or wall studs. (Minimum two 3/8" Lag Screws every 16")
 NOTE: Joist hangers must be correct size for joist size used.

BUILDING

GRADE

ALTERNATE BEAM (GOOD)

POST
 3 1/2" Minimum



Pin or other approved fastener

CONCRETE PIER FOOTING

8" Minimum

42" Minimum

ALTERNATE FOOTING

BACKFILL MATERIAL

WOOD POST

8"

* See Table for Footing Size

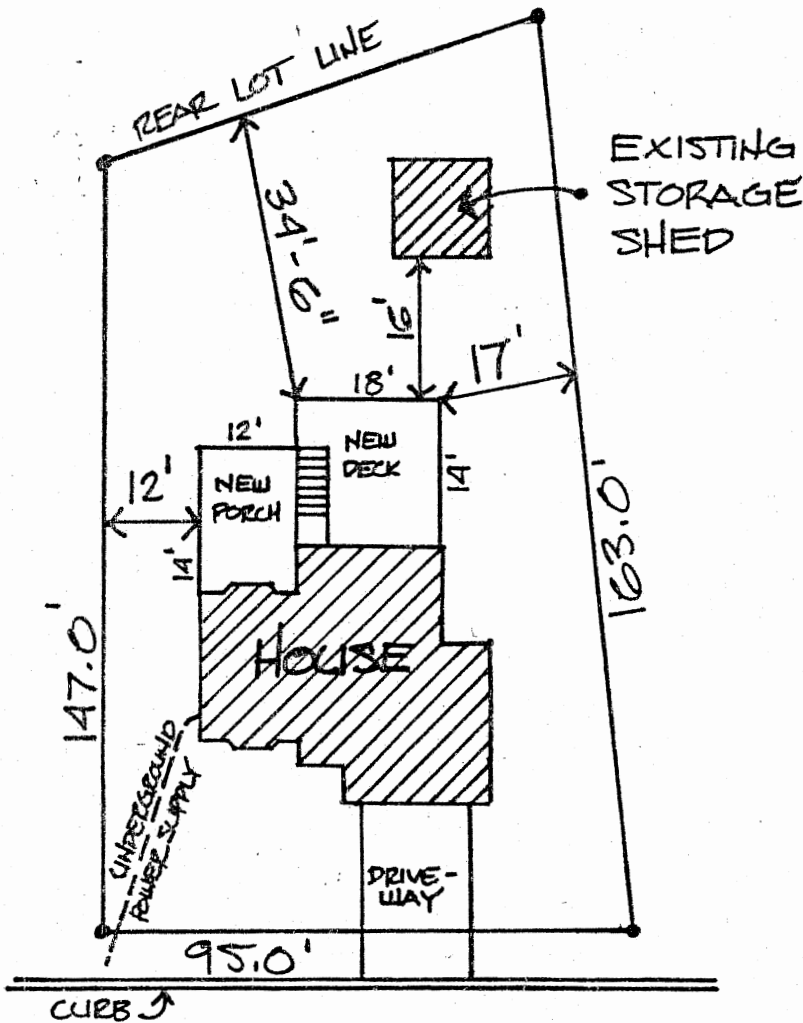
* See Table for Footing Size

* All porches, regardless of size, must have frost footings 42 inch. in depth and a flared footing base size of 24 inch. round/square - min. or larger/deeper.

CITY OF ROSEMOUNT

EXAMPLE SITE PLAN

PROPOSED NEW DECK/PORCH
LOCATION



PROVIDE 1 COPY
OF A SITE PLAN

SHOW - ON PLAN

- LOT SIZE
- STREET NAME
- ADDRESS
- OWNER NAME
- ALL EXISTING STRUCTURES
- DRIVEWAY
- POND/LAKE/STREAM
- SPECIAL EASEMENTS
- POWER SUPPLY
- LOCATION ON NEW STRUCTURE
- SIZE OF NEW STRUCTURE
- DIMENSIONS TO LOT LINES
- DIMENSIONS TO OTHER BLDGS.

NOTE: IF SITE
PLAN IS NOT
COMPLETE THE
PROCESS FOR
REVIEW OF
APPLICATION WILL
BE HELD UP.

5284-182ND ST. WEST
JACK & JILL SMITH

Gopher State | CALL
454-0002