

Residential Accessory/Garage Checklist

Hamilton County, Department of Building Inspections

803 County Administration Building, 138 East Court Street
(513) 946-4550 Cincinnati, OH 45202 Fax: (513) 946-4511

Application No.: 05-0000

Project Address:

Checklist No.: 1 2 3 4

Note: 1. The highlighted items on this checklist were either not found on the drawings or were found to be incorrect. The, "2005 Hamilton County Building Code" requires that the items on this checklist be added and/or corrected on the drawings before a plan approval may be granted. Simplify rereview by highlighting all plan changes.

2 Applications with unresolved plan review items remaining after 60 days from the date of Checklist No. 1 will expire, resulting in a voided application.

3 Applicants have the right to appeal items on Checklist No. 1 to the Board of Building Appeals. Appeals shall be filed within 30 days of the date of Checklist No. 1.

****Revised plans are reviewed on Tuesdays & Fridays only.****

Expiration Date: 03/12/05

APPLICANT INSTRUCTIONS / DEPARTMENT APPROVALS

CONSTRUCTION STANDARDS / FRAMING

1	Make all changes/corrections to the original drawings. See box 7. Submit 3 complete sets of revised/corrected drawings for review.
2	Make all changes/corrections to original site plan (boxes 9-13 below). Submit 3 revised site plans along with Zoning reapproval.
3	Provide a complete drawing index. All drawing sheets & attachments shall have sheet numbers & be accounted for on the index.
4	Indicate on each drawing sheet: (1) the name, address and phone no. of the building owner and building designer (2) the project address.
5	The drawings are insufficient for review. Obtain complete construction drawings by consulting with an Architect, Engineer or draftsman.
6	Architect/Engineer drawings shall have inked seal, signature & date applied to each sheet of the drawings. Architects shall also emboss.
7	Future drawings submitted for review shall be of a duplication process. Handwritten items on the plans are not permitted after duplication.
8	Pole structures (pole buildings, gazebos, etc.) require engineering. Submit engineered drawings (calculations &/or seal). See box 6.

27	Show all found. & floor plans: dimen., walls, window, doors, rooms, etc. Show wall section views of ea. wall type: heights, dimen., materials, etc.
28	Show on all elevation views: dimen., fin. grade, decks, roof pitches, etc. Match the grades on the elev. views w/ the fin. grades on the site plan.
29	Wall bracing shall be provided at each wall end (within 12.5') <u>and</u> every 25 ft. Wall bracing shall be located not < 16% of the braced wall line.
30	Spacing of braced wall lines shall not exceed 35' in either direction unless the building's length to width ratio < 3:1, then 50' max.
31	Braced wall lines shall not jog (stagger) more than twice <u>and</u> each jog not to exceed 4ft. Wall bracing beyond 4 ft. is not counted.
32	Show a 3'x3' landing/deck within one, 8-1/4" riser of the door threshold. Show outside/inside stairway & landing illumination.
33	Show inside/outside stair section: 8-1/4" riser, 9" tread, 6'-8" headroom, tread/riser/stringer materials, stringer anchorage at bottom end.
34	Show 2-1/4" max. handrails 34"-38" abv. nosing at 3 or more risers. Terminate handrail ends at wall/post. Show 3/4" to 1-1/4" tread nosings.
35	Show guardrails 34"-38" above nosing at all open stairs over 30" high. Show guardrails 36" min. above deck/porch/floor when over 30" high.
36	Guards located along the sides of stairs shall not permit the passage of a 4-3/8" dia. object. Stair risers not to pass a 4" dia. object.
37	Balusters used along stairs shall be <u>less than</u> 4-3/8" apart. Balusters used to surround decks/porches shall be <u>less than</u> 4" apart.
38	Show 36" finished width: openings, doorways, hallways, etc. Show min. door size: habit. room/basem. door=2668, bath/toilet=2468
39	Label tempered glass: glazing within 24" of any door edge, glazing greater than 9 sf & less than 18" above the floor, etc.
40	Identify the use of all rooms & spaces. Show the ceiling heights throughout all spaces.
41	Show/Correct lumber size(s): door / window headers, garage, rafters, bay, roof/floor beams, ceiling/floor joists, rafter ties, ridge beam, etc.
42	Show no. of support studs (or column size) under ends of headers, ridge beam, floor/roof beams that transfer the loads to the foundation.
43	Show lumber species/grade/spacing: garage/bay/door/window headers rafters, rafter ties, ridge beam, roof/floor beam, ceiling/floor joists, etc.
44	Show proper stud size & spacing for ext. walls >10 ft. (balloon framed). Show valley over-framing materials. Boxes 40 & 42 are also required.
45	Show bearing, connection & details: ridge beam (both ends), floor/roof beam (house end), floor/roof beam to column, column to footing, etc.
46	Show all furring & lumber within 6" of fin. grade as pressure treated. Show wall sheathing seams backed by blocking (equal to stud size).
47	Show dia., length & spacing of bolts; galvanized/stainless (if exposed). Studs, columns & ledger boards shall not bolt to brick veneer.
48	Show brick ties at 24"oc max. (horiz.) supporting no more than 2-2/3 sf & additional ties at 36" oc around all openings within 12" of the opening.
49	Show brick details: flashing & weeps (33"oc) above lintels, below sills & base course, weather resistant membrane, min. 3/4" air space.
50	Note on plans: Engineered floor/roof truss drawings with a layout sheet shall be furnished to the building inspector for the framing inspection.
51	Note on plans: All trusses shall be fastened to resist the uplift forces shown on the truss drawings, but for never less than 175 lbs.
52	Show the type & thickness of roof / wall sheathing materials. Show blocking (H-clips) at all roof sheathing seams (< 1/2" sheathing).
53	Show roof pitch, type of underlayment & type of roof covering materials. Asphalt shingles are not permitted on roof pitches < 2:12.
54	2 layers of underlay. (solid cemented btw. plies) req'd on pitches < 4:12. Solid cement between plies shall extend 24" min. inside the ext. wall.
55	

SURVEY / SITE PLAN INFORMATION REQUIRED

9	(1)The name, address & phone number of the designer (draftsperson), property owner and builder (2) the project address and (3) the date
10	Show existing & proposed grades at all building corners. Show walk & driveway widths. Note materials for each.
11	Show all floor level elevations: basement, first, second, garage Final grade shall slope 6" in the first 10 ft. from the bldg. (max. 3:1).
12	Show / correct site plan dimensions: foundation, attached garage, deck, porch, retaining walls, detached structures, etc.
13	Indicate the lengths, heights & locations of all retaining walls. Show exist. & proposed topography on high & low sides of all ret. walls.

FIRE SEPARATION / PROTECTION

14	Show a 2'-6" x 6'-8" (min.) side hinged door exiting all garages. Show a metal door between the garage & the adjoining space.
15	Garage floors shall slope towards a drain or main vehicle entry door. Show the destination of all garage floor drains (into sanitary sewer).
16	Show 1/2" drywall covering enclosed, accessible spaces below stairs.

FOUNDATION / STRUCTURAL (see back side)

17	Show min. design criteria: snow=20 psf, wind=90 mph, floor=40 psf, garage floor=50 psf. Show max. soil bearing capacity = 2000 psf.
18	Show max. deflection limits of members: floor joists/beams= L/360, roof beams= L/240, rafters w/ ceiling= L/240, rafters w/o ceiling= L/180
19	Found. wall thickness / maximum unbalanced fill: 8" / 7 ft., 10" / 8 ft. Unbal. fills exceeding 8 ft. must be engineered (calculated &/or sealed).
20	Show max. 48" of unbal. fill at step-down found. walls (walls not full height) or submit engineered found. design (calculated &/or sealed).
21	Show/Correct the foundation wall thickness & anchor bolt spacing. Show the size, spacing & embedment of anchor bolts (7" min.).
22	Show/Correct dimen. & thickness of footings: foundation wall footings, interior column footings, thickened slabs, deck, porch roof, etc.
23	Show 30" minimum frost protection to the bottom of footings. Retaining walls > 48" tall must be engineered (calculated &/or sealed).
24	Concrete strength (psi): ftgs./ int. flrs.=2500, fnd. walls=3000, ext.=4500 Found. walls, gar. floors & ext. concrete require 5%-7% air entrainment.
25	Show column anchorage at top / bottom. Show minimum monolithic slab requirements. See back side.
26	

SEE BACK FOR ADDITIONAL COMMENTS ()

PLAN EXAMINER

DATE

Applicant's Fax. Number: (?) ???-????

01/12/05

Building Code: 2005 Hamilton County Building Code. This document may be purchased at the permit counter.

DECK / PORCH COMMENTS:

MECHANICAL / ENERGY / VENTILATION

56	Show a full deck/porch section view: heights, floor/wall/roof materials, dimensions, connection details, height above grade, etc.
57	Show the dimen. from the door threshold down to the deck/porch floor. Show the height of deck/porch floor above fin. grade at all corners.
58	Show max. 8 ft. oc guardrail support post spacing. If > 8 ft. oc, submit calculations documenting allowable fiber stress & deflection limits.
59	Guardrail design load = a single 200 lb. concentrated load applied in any direction at any point along the top of the guardrail.
60	Show/Correct deck/porch lumber size(s): posts, floor/roof beams, rafters, rafter ties, floor/ceiling joists, ridge board, etc.
61	Show connection detail of ledger board to building: lumber size, dia./length/spacing/embedment of bolts, flashing, joist hangers, etc.
62	Show the type of wall at ledger board connect.: concrete, masonry (brick &/or block) , wood frame w/ siding, wood frame w/ brick veneer.
63	Show connect. details: post to ftg., post to floor beam, side roof beams to column/house, the floor joists below porch columns at house end.
64	Show diagonal bracing betw. all posts resisting side-to-side deflection. Detail all diagonal bracing connections. See top of box 44.
65	Show ledger/roof beam not bearing on nor connecting to brick veneer. Show full depth solid blocking 24"oc (max.) at separated beams.

66	Note on the plans: This garage/shed/accessory structure shall not be heated or cooled.
67	Correct/Complete line 13 on the application form involving the Btu input & output rating of the furnaces & the input rating of the water heaters.
68	Show all mechanical appliance locations: furnaces, water heaters, etc. Show drains near all air-conditioning components & water heaters.
69	Show exhaust fans in bath/shower/toilet rooms w/o operable windows. All exhaust fans must vent directly to the exterior of the home.
70	Show minimum access: attics, 22" x 30" / crawl space, 18" x 24" Show ventilation: 1sf vent/150sf attic, 1 vent 3' from ea. crawl sp. corner.
71	Show min. insulation R-values: roof=R-30, floor=R-19, ext. wall= R-13, slab edges= R-4, foundation walls=R-6, glazing: Uo = 0.50 max.
72	Slab edge insulation shall extend from the top of the slab, down 24". Fnd. wall insul. shall extend from top of wall down 30" below grade.
73	Model energy code analysis fails. Check sq. foot areas & wall types. The insulation R-values shown on the analysis must match the plans.
74	
75	

2005 HCBC Requirements for Footings & Foundations ¹

2005 HCBC Requirements for Deck Footings

Concrete Foundation Walls ²				Concrete Spread Footings ^{4,5,7,8}					
(h) Found. Wall Height (feet)	(b) Maximum Unbal. Fill (feet)	(t) Minimum Wall Thickness (inches)	(s) ³ Maximum Anchor Bolt Spacing (inches)	Minimum Footing Width (inches)					
				Wood Frame with Brick Veneer			Wood Framed		
				1-story	2-story	3-story	1-story	2-story	3-story
5	4	6	72	12	16	24	12	12	17
	5	6	72	12	16	24	12	12	17
6	4	6	72	12	16	24	12	12	17
	5	6	72	12	16	24	12	12	17
	6	8	60	12	16	24	12	12	17
7	4	6	72	12	16	24	12	12	17
	5	8	72	12	16	24	12	12	17
	6	8	60	12	16	24	12	12	17
8	7	10	36	14	16	24	14	14	17
	4	6	72	12	16	24	12	12	17
	5	8	72	12	16	24	12	12	17
	6	8	60	12	16	24	12	12	17
9	7	8	36	12	16	24	12	12	17
	8	10	32	14	16	24	14	14	17
	4	6	72	12	16	24	12	12	17
	5	8	72	12	16	24	12	12	17
	6	10	60	14	16	24	14	14	17

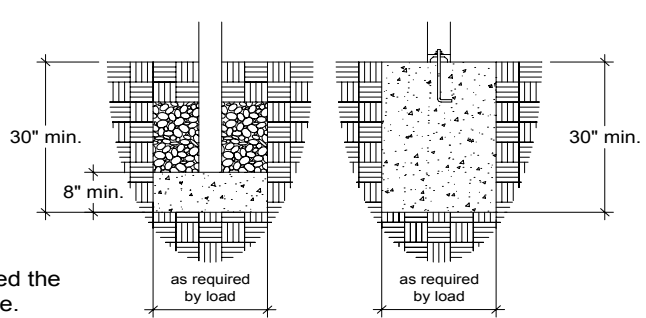
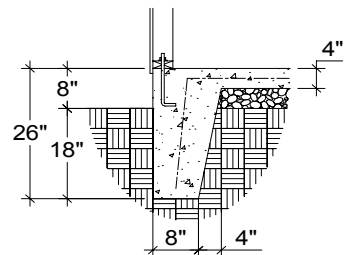
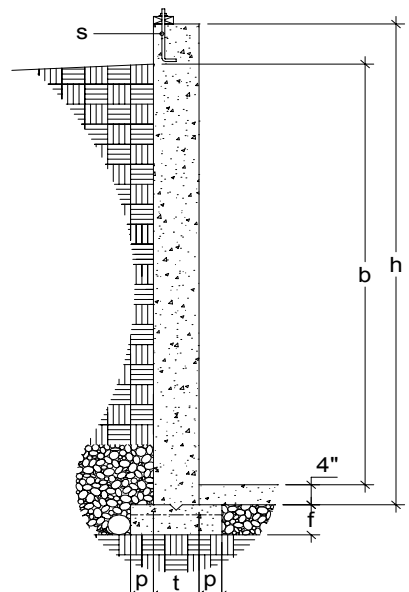
Cast-in-Place Concrete Deck Footings ^{1,2}			Maximum Tributary Floor Area Bearing on Each Post ^{3,4}
(w) Square (inches)	(d) Diameter (inches)	(t) Thickness (inches)	
8	8	6	10
11	13	7	20
14	16	8	30
16	18	9	40
18	21	11	50
20	23	12	60
22	25	13	70
25	28	14	90
28	31	16	110
30	34	18	130

- DR = Design Required
- Foundation walls are based on 3000 psi concrete with 5%-7% air entrainment.
- Spacing is based on 1/2 inch diameter bolts (minimum) embedded 7 inches (minimum) into concrete, or equal.
- All spread footings are unreinforced utilizing 2500 psi concrete (no air entrainment).
- 1-Story, 2-Story and 3-Story are based upon stories above grade only.
- Spread footing widths are based on an assumed soil bearing capacity of 2000 psf.
- The horizontal projection (p) of the footing beyond the face of the foundation wall (both sides) shall not be less than 2 inches.
- The minimum footing thickness (f), in inches, shall be calculated: $f = [(w-t)/2]$. (f) shall never be less than 6 inches.
- Footings are based on a max. assumed soil bearing capacity = 2000 psf.
- Concrete compressive strength is 2500 psi (no air entrainment).
- Maximum cantilever lengths: joists = 2 ft.; beams = 1 ft.
- Design load = 50 psf (40 LL+10 DL), no roof, hot-tub or spa loads.

FOOTING & FOUNDATION

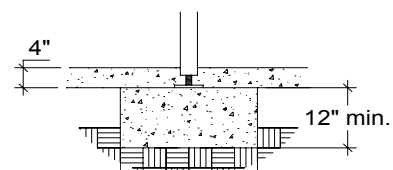
MONOLITHIC FOUNDATION ^{1,2,3}

DECK FOOTINGS

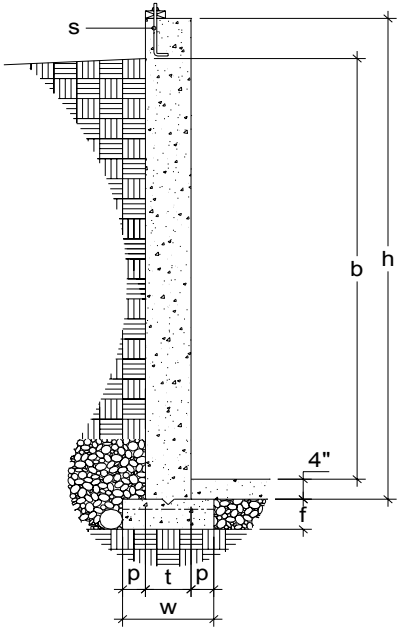


- All concrete dimensions are considered the minimum required by the building code.
- Monolithic foundations are permitted for non-habitable, detached structures of framed construction only (no masonry or masonry veneer).
- Sole plate anchorage to be 1/2" dia. bolts spaced a maximum of 72" on center with a minimum embedment of 7" into the concrete.

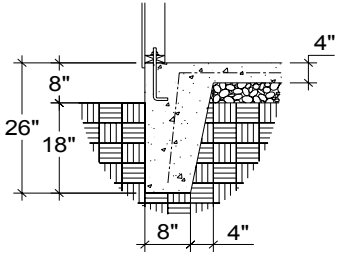
COLUMN FOOTINGS



FOOTING & FOUNDATION

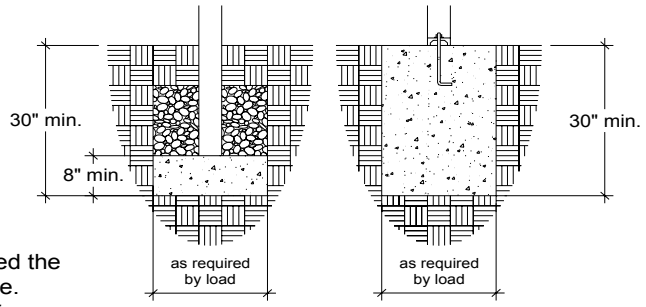


MONOLITHIC FOUNDATION^{1,2,3}



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DECK FOOTINGS



COLUMN FOOTINGS

