

The following are some of the basic or frequently overlooked code requirements that must be detailed on plans for Single Family Dwellings and may be useful as a checklist for the designer. This list is not intended to be exhaustive of all possible requirements. The comprehensive list of requirements is contained in the Construction Code and City Code of Ordinances. Neither this list nor the code may be construed to allow deed restriction violations. Inconsistencies between details will be noted as needing to be corrected.

GENERAL REQUIREMENTS

CODE REFERENCE	REQUIREMENTS	✓
IRC R105.1	RESIDENTIAL PERMIT APPLICATION	
APPLICATION	Owner's Project Manager contact info	<input type="checkbox"/>
IRC R108.3	Cost of construction (material and labor at industry costs, permanent equipment, and overhead) documentation required if below minimum cost per square foot	<input type="checkbox"/>
IRC 105.3	Legal description	<input type="checkbox"/>
IRC 101.2	Number of Stories	<input type="checkbox"/>
ORD 10-551 to 10-556	Deed Restriction Unsworn Declaration	<input type="checkbox"/>

CODE REFERENCE	REQUIREMENTS	✓
ORD 47-18.1	WASTEWATER – TAPS & METERS	
ORD 47-8, 47-18	Water meter account	<input type="checkbox"/>
ORD. 47-316 – 47-326	Wastewater capacity application and fees or exemption form	<input type="checkbox"/>
ORD 47-7, 47-11	Utility connection locations	<input type="checkbox"/>
ORD 47-601 - 47-676	Water/Sewer – Storm Water	<input type="checkbox"/>
ORD 47-11, 47-12	Wastewater - Sewer	<input type="checkbox"/>
ORD 19	FLOOD (Federal Requirements)	<input type="checkbox"/>
ORD 40-82 - 40-99& IDM*	TRAFFIC	<input type="checkbox"/>

SPECIFIC REQUIREMENTS

CODE REFERENCE	REQUIREMENTS	✓
IRC R105.3 & R106.2	SITE PLAN W/ LEGAL DESCRIPTION	
IRC R106.2	Dimension	<input type="checkbox"/>
ORD 33-123-33-128	Landscape form for trees	<input type="checkbox"/>
ORD 42-180 – 42-184	Replat for multiple dwellings on one lot	<input type="checkbox"/>
ORD Storm Water, 47-601 – 47-676	Must be six (6) inches off property line if roof drains to one side (cannot drain onto neighbor's property) NOTE: Maintain minimum required clearance for electrical service panel	<input type="checkbox"/>
ORD 42-150 – 42-163	Building setbacks (building lines)	<input type="checkbox"/>
ORD 10-32	Easements	<input type="checkbox"/>
IBC Appendix E	Grading Worksheet - fill & excavation	<input type="checkbox"/>
	Res. Site Improvement Permit w/common area agreement (shared utility or egress)	<input type="checkbox"/>
IRC R106.1	ENGINEERS SEAL (When required)	
IRC R106.1	Required on foundations	<input type="checkbox"/>
IRC R106.1	Required on structural steel	<input type="checkbox"/>
IRC R106.1	Required for prefab trusses, & beams	<input type="checkbox"/>
IRC R106.1	Stairs & ramps	<input type="checkbox"/>
IRC R106.1	Required for masonry >2' and fences > 8'	<input type="checkbox"/>
IRC R106.1	Windstorm designs other than App. L	<input type="checkbox"/>
IBC 1704	Special inspections for welding, bolting, piers, and post-tension designs	<input type="checkbox"/>
Engineering Practice Act	Signed and dated after latest revision, by engineer responsible for those revisions	<input type="checkbox"/>
IRC R106.1.1	FLOOR PLANS (Sufficient clarity)	
IRC R106.1.1	Room labels "according to use"	<input type="checkbox"/>
IRC R106.1.1	Dimensions	<input type="checkbox"/>
IRC Chap. 4	FOUNDATION PLAN	
IRC R401	References on plans to specific details	<input type="checkbox"/>
IRC R403.1	Beam sections	<input type="checkbox"/>
IRC R404.1.2.3.7	Reinforcement details	<input type="checkbox"/>
IBC 1705	Drilled pier details "special inspection"	<input type="checkbox"/>
IRC Chaps. 5, 6 & 8	FRAMING PLANS	
Chap. 5-floors, 6-walls & 8 roof/ceil.	Wall Sections – Foundation to ridge Floor, ceiling & roof framing details	<input type="checkbox"/>
IRC R1101.1	Identify insulation R-values Ref. I.E.C.C.	<input type="checkbox"/>
IRC R302.6 Table 702.3.5	Garage separation – ½ inch gypsum board except ceiling below habitable space must be 5/8-inch Type X gypsum board	<input type="checkbox"/>
IRC Chaps. 5-floor, 6-walls & 8-roofs	Lumber <u>size, grade, species, and spacing</u> for studs, joists, rafters	<input type="checkbox"/>
IRC R301, and Appendix L	Windstrapping from Appendix L, or provide PE sealed engineered design	<input type="checkbox"/>
R602.10.4 wall R802.11 roof	Wind bracing details-Ref Section R301.2.1 and Table R301.2(1) 110mph wind speed	<input type="checkbox"/>
IRC R602.3.1	Nailing schedule	<input type="checkbox"/>
IRC R807 M1305.1.3	Attic access 22"x30" if no equipment; otherwise large enough to allow removal of the largest <i>appliance</i> & 350lb load ladder, if equip in attic	<input type="checkbox"/>
IECC 303.2	Framing dimension must be large enough to allow for R-value insulation thickness	<input type="checkbox"/>
IRC R106.1.1	Rafter layout and gutters at property line	<input type="checkbox"/>
IRC & IBC	RATED WALLS – PROTECTED OPENINGS	
IBC Tables 721.1 (1-3), UL or Gypsum Manual	Fire-rating and design numbers UL, USG, IBC Ch 7 (keyed to wall assemblies on plan)	<input type="checkbox"/>
IRC R302.1	Ext. wall <3' to property line must be 1hr fire-rated w/ protected overhang no closer than 2' to the property line.	<input type="checkbox"/>
IBC 2110.1.1(1)	45-minute fire-rated glass block masonry units, otherwise no openings	<input type="checkbox"/>
IBC 721.1 (1) struct. IBC 721.1 (2) walls IBC 721.1 (3) roofs	Attach photocopies of fire-rated design data from approved testing agency to the plans (<i>IE: UL, USG, or IBC Chap. 7</i>)	<input type="checkbox"/>
IRC R302.2.2	Townhouse roof parapets or class C roofing w/no penetrations within 4' of separation walls.	<input type="checkbox"/>

CODE REFERENCE	REQUIREMENTS	✓
IRC R314	SMOKE DETECTORS	
IRC R314.4	Must be hard wired and interconnected with battery backup.	<input type="checkbox"/>
IRC R314.3	Located in all bedrooms	<input type="checkbox"/>
IRC R314.3	Areas outside of bedrooms	<input type="checkbox"/>
IRC R314.3	On each floor level	<input type="checkbox"/>
IRC R1003.1	FIREPLACE DETAILS (Need type)	
Figure R1001.1 and IRC R1003.9	Chimney termination 2 feet higher than any portion of structure within 10 feet	<input type="checkbox"/>
IRC R1003 masonry R1001.9, 10 hearth	If masonry, full details w/ hearth dimension and floor material distinction	<input type="checkbox"/>
IRC R310 & R311	EXITS – EMERGENCY ESCAPE & RESCUE	
IRC R310	Egress windows from bedroom	<input type="checkbox"/>
IRC R310.1.1	5'-0" sq. ft. openable at grade and 5'-7" sq. ft. openable above grade	<input type="checkbox"/>
IRC R310.1.2	Minimum 24" high opening	<input type="checkbox"/>
IRC R310.1.3	Minimum 20" wide opening	<input type="checkbox"/>
IRC R310.1.4	Operational constraints	<input type="checkbox"/>
IRC R311.2	Exit Door (32" x 78")	<input type="checkbox"/>
IRC R311	Exit discharge continuation	<input type="checkbox"/>
IRC Chap. 3	STAIRS – GUARDS & HANDRAILS	
IRC 312.1.2 and 312.1.3	Guardrails – maximum 4" openings and 36" height	<input type="checkbox"/>
IRC R311.7.8.1	Handrails – 34" – 38" height	<input type="checkbox"/>
IRC R311.7.5	Maximum 7 3/4" rise, minimum 10" run	<input type="checkbox"/>
IRC R302.7	Enclosed useable space below stair must have ½"-thick gypsum board protection	<input type="checkbox"/>
R301.5 and Table 301.5	Live load design 200 lbs/sq. ft. guardrails	<input type="checkbox"/>
IRC R308	SAFETY GLAZING (Required at..)	
IRC R308.4.5	Shower and tub enclosures	<input type="checkbox"/>
IRC R308.4.1	Side hinged doors	<input type="checkbox"/>
IRC R308.4.6, 308.4.7	Adjacent to stairs and landings	<input type="checkbox"/>
IRC R308.4.2	Panels adjacent & within 24 inches of door	<input type="checkbox"/>
IRC R308.4.3	Panels with 9 square feet and bottom within 18 inches of floor and top 36 inches above the floor and within 36 inches of a walking surface	<input type="checkbox"/>
IRC 308.6	Skylights and sloped glazing	<input type="checkbox"/>
IBC 2407	Glass guardrails	<input type="checkbox"/>
IECC Chaps - 1-5	ENERGY CODE FORM – Information on form, plans & ResCheck report must match	
Can vary depending on method	Square footage of floors and walls noted	<input type="checkbox"/>
	Percent of glazing	<input type="checkbox"/>
	Energy glazing factors	<input type="checkbox"/>
	U factors and R-values	<input type="checkbox"/>
	HVAC efficiency rating – min. 14 SEER	<input type="checkbox"/>
City Code & IBC 3112	DRIVEWAYS & SIDEWALKS	
Traffic Drawing No. 02754-01A/B and IDM* Table 15.08.01	Width, Radius	<input type="checkbox"/>
IDM* Table 15.08.02	Driveway spacing criteria	<input type="checkbox"/>
Handout drawing T&T	Distance to both property lines	<input type="checkbox"/>
Traffic Guidelines	2nd approach must have traffic approval	<input type="checkbox"/>
IBC 3112.4.4	Sidewalks	<input type="checkbox"/>
2017 NEC	ELECTRICAL CODE	
NEC 110.26.A.1	Minimum 36" service panel clearance	<input type="checkbox"/>

* IDM = Infrastructure Design Manual

For further information and to check plan status, visit www.houstonpermittingcenter.org