

Adaptive Reuse and the Building Code

Commercial to Housing Conversions

20
25

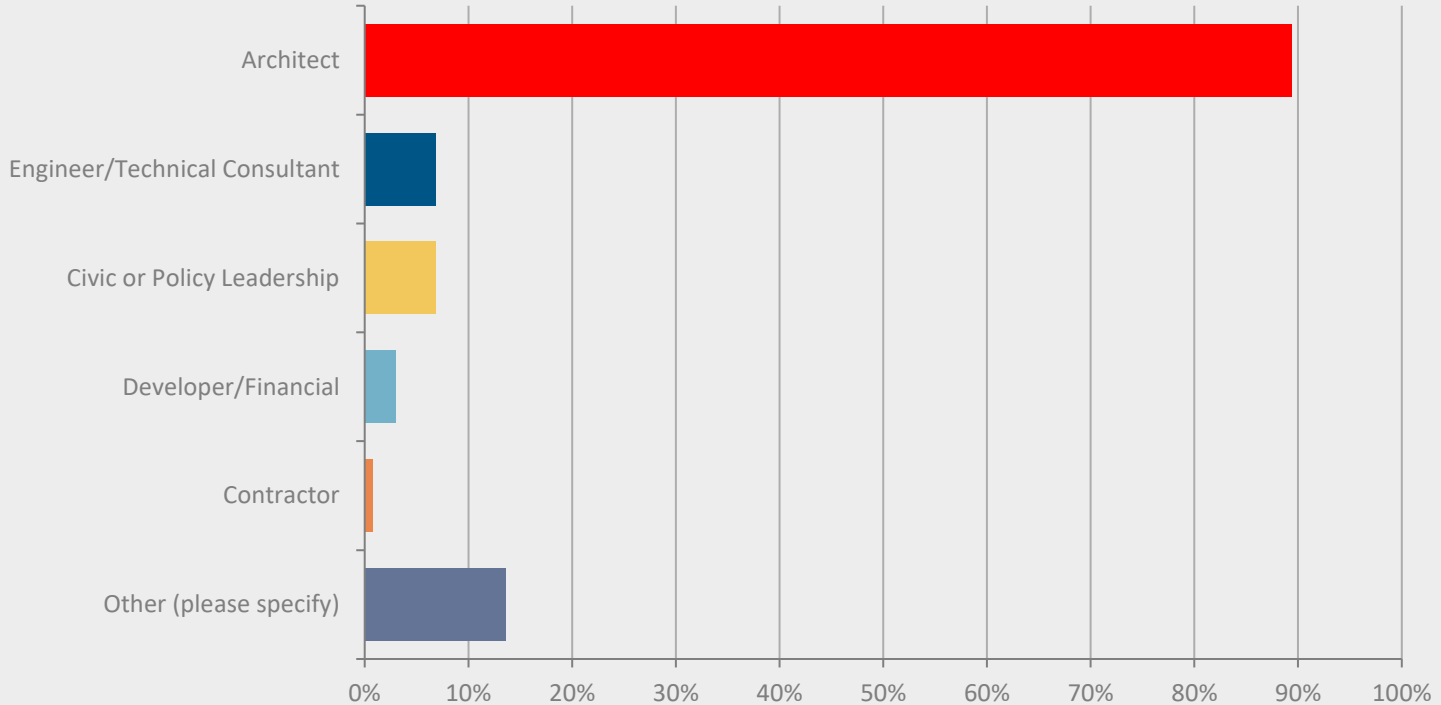
Adaptive Reuse and the International Existing Building Code (IEBC)

134 Respondents with a total of 402 completed commercial to housing adaptive reuse projects from across the United States. A table of percentage of respondents based on number of projects completed.

Note: Responses represented average of 'all respondents' unless noted otherwise

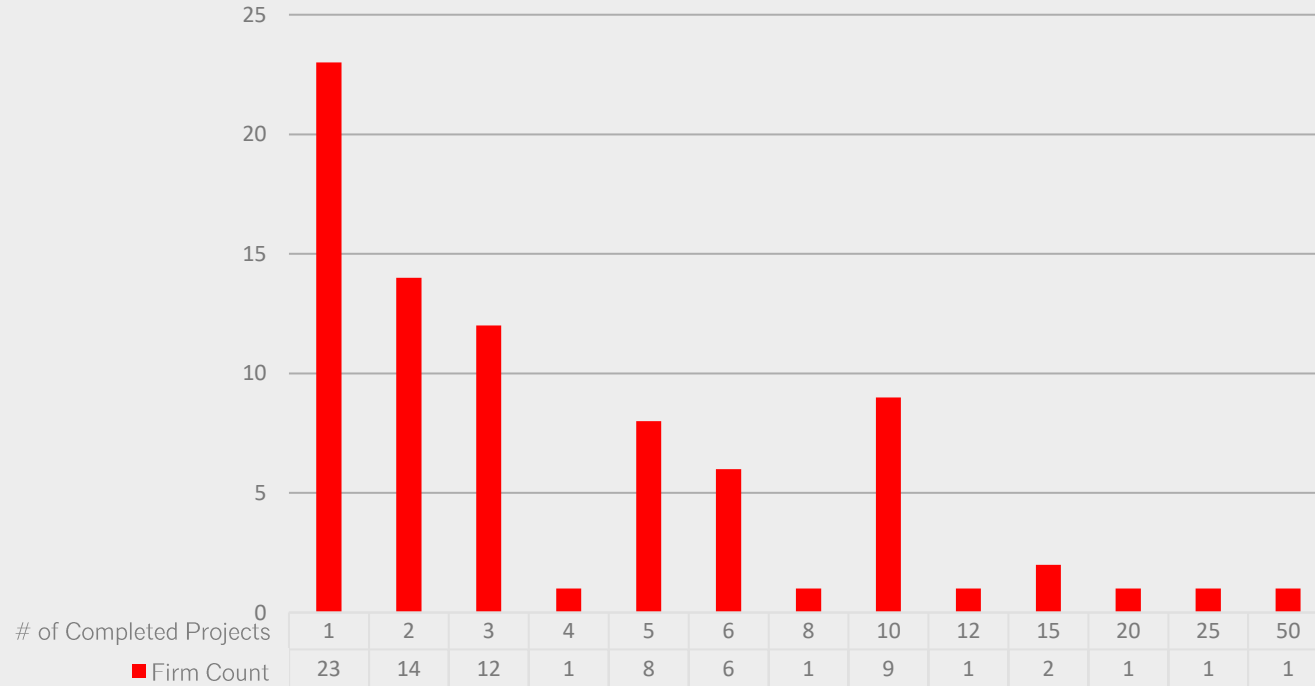
Q4: Expertise

Answered: 132 Skipped: 0



Q5: Approximately how many Office to Housing projects have you been involved with over the last few years?

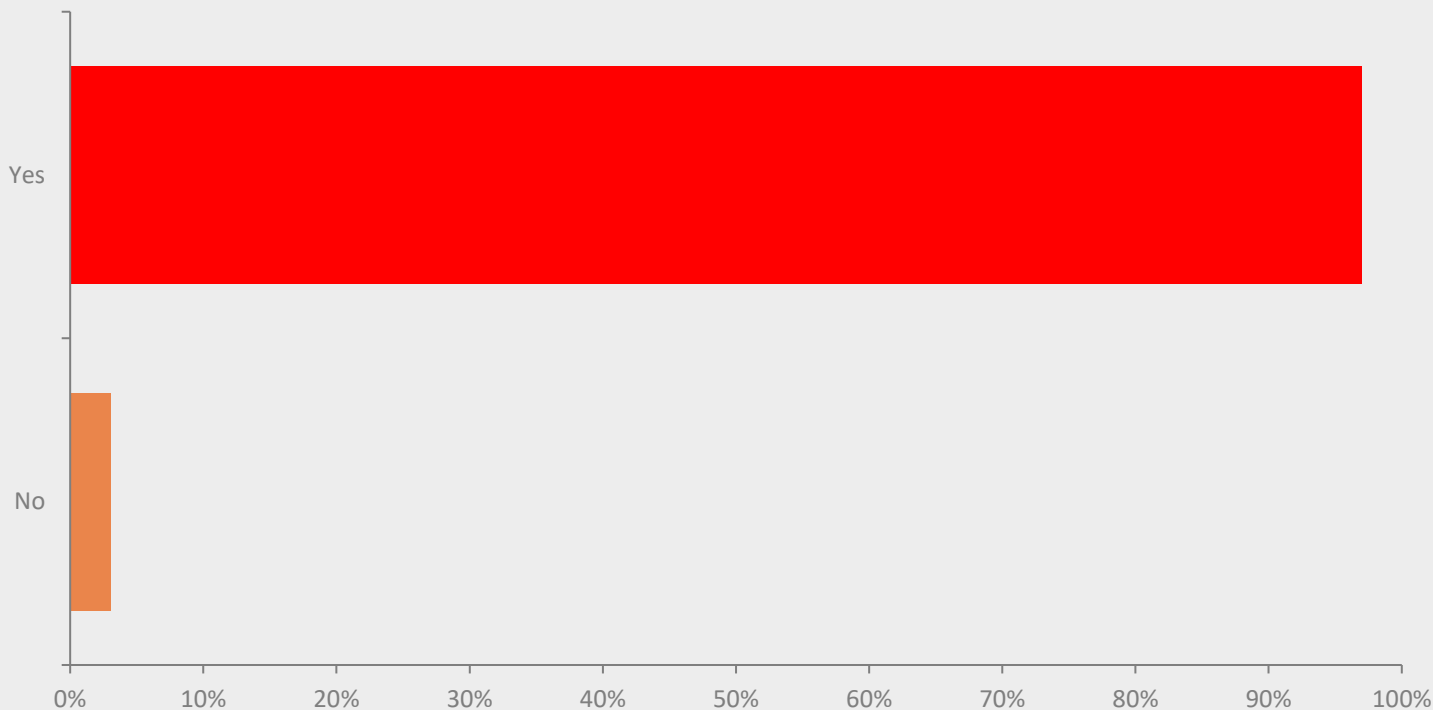
Answered: 80 Responded None: 52



Note: Average of 'all respondents' unless noted otherwise

Q8: Would you be interested in future updates and/or invitations to a workshop on this topic?

Answered: 132 Skipped: 0



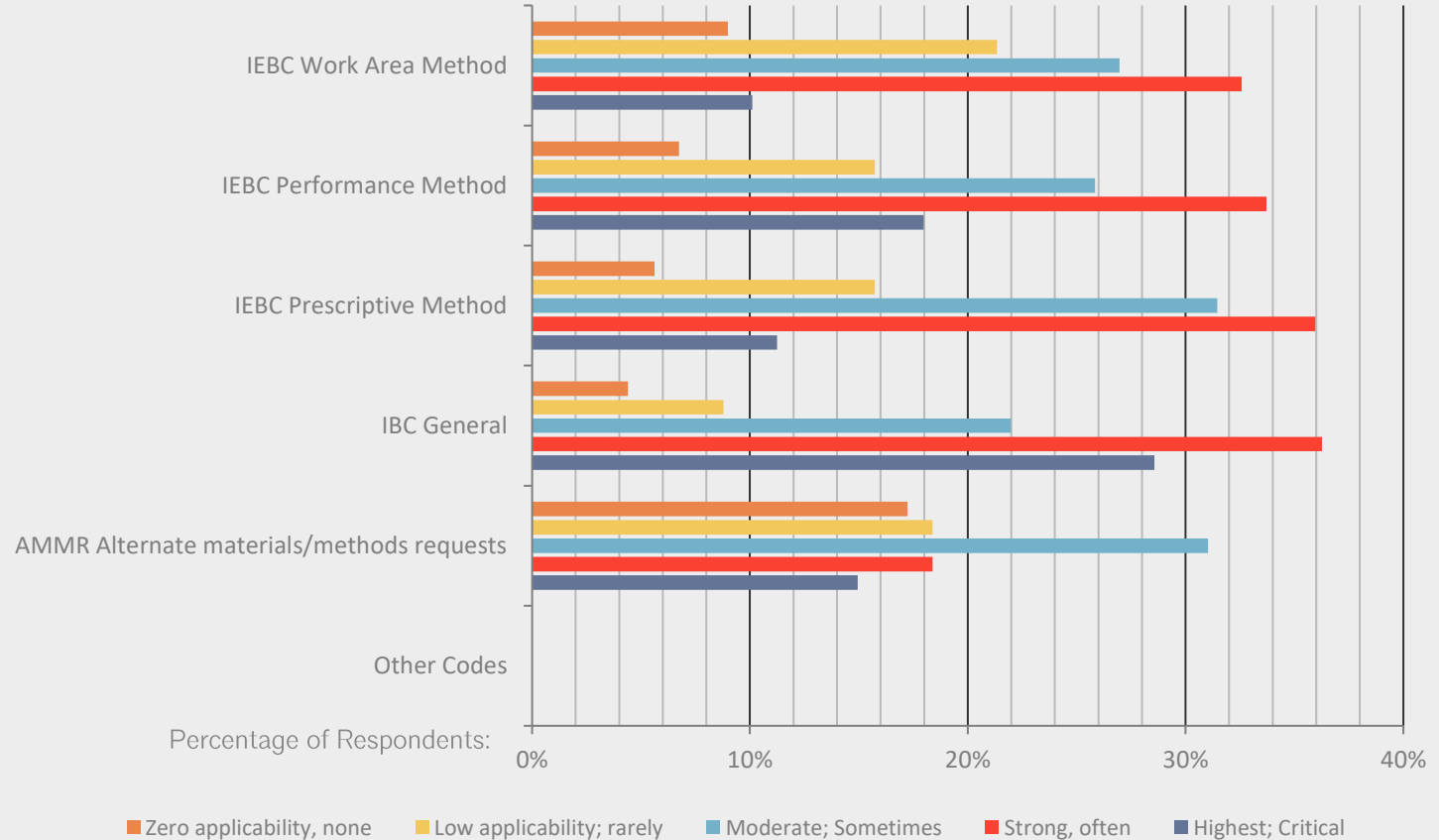
Q9: Code Compliance Method

How applicable are the listed code approaches in supporting conversion of existing commercial buildings to housing?

(On a scale 7 to 0, with 7 meaning the most applicable and 0 not applicable)

Q9: Code Compliance Method

Answered: 94 Skipped: 38



Q9: Code Compliance Method

Answered: 94 Skipped: 38

	All Respondents		Respondents with 1 or more Completed Commercial Housing Projects	
	Total Score	Average Rating*	Total Score	Average Rating*
IBC General	400	4.55	235	4.35
IEBC Performance Method	332	3.86	196	3.70
IEBC Prescriptive Method	315	3.66	180	3.33
IEBC Work Area Method	291	3.38	187	3.46
AMMR Alternate materials/methods requests	259	3.08	159	2.94

* Methods were scored on a scale of 7 to 0, with 7 meaning the most applicable and 0 not applicable

Q9: Code Compliance Method

Number of Office to Housing projects respondent has completed.

1-3 Projects

Item	Total Score	Average Rating*
IBC General	298	4.73
IEBC Performance Method	243	3.98
IEBC Prescriptive Method	246	3.97
IEBC Work Area Method	208	3.41
AMMR Alternate materials/methods requests	179	3.03

4-50 Projects

Item	Total Score	Average Rating*
IBC General	102	4.08
IEBC Performance Method	89	3.56
AMMR Alternate materials/methods requests	80	3.20
IEBC Work Area Method	83	3.32
IEBC Prescriptive Method	69	2.88

* Methods were scored on a scale of 7 to 0, with 7 meaning the most applicable and 0 not applicable

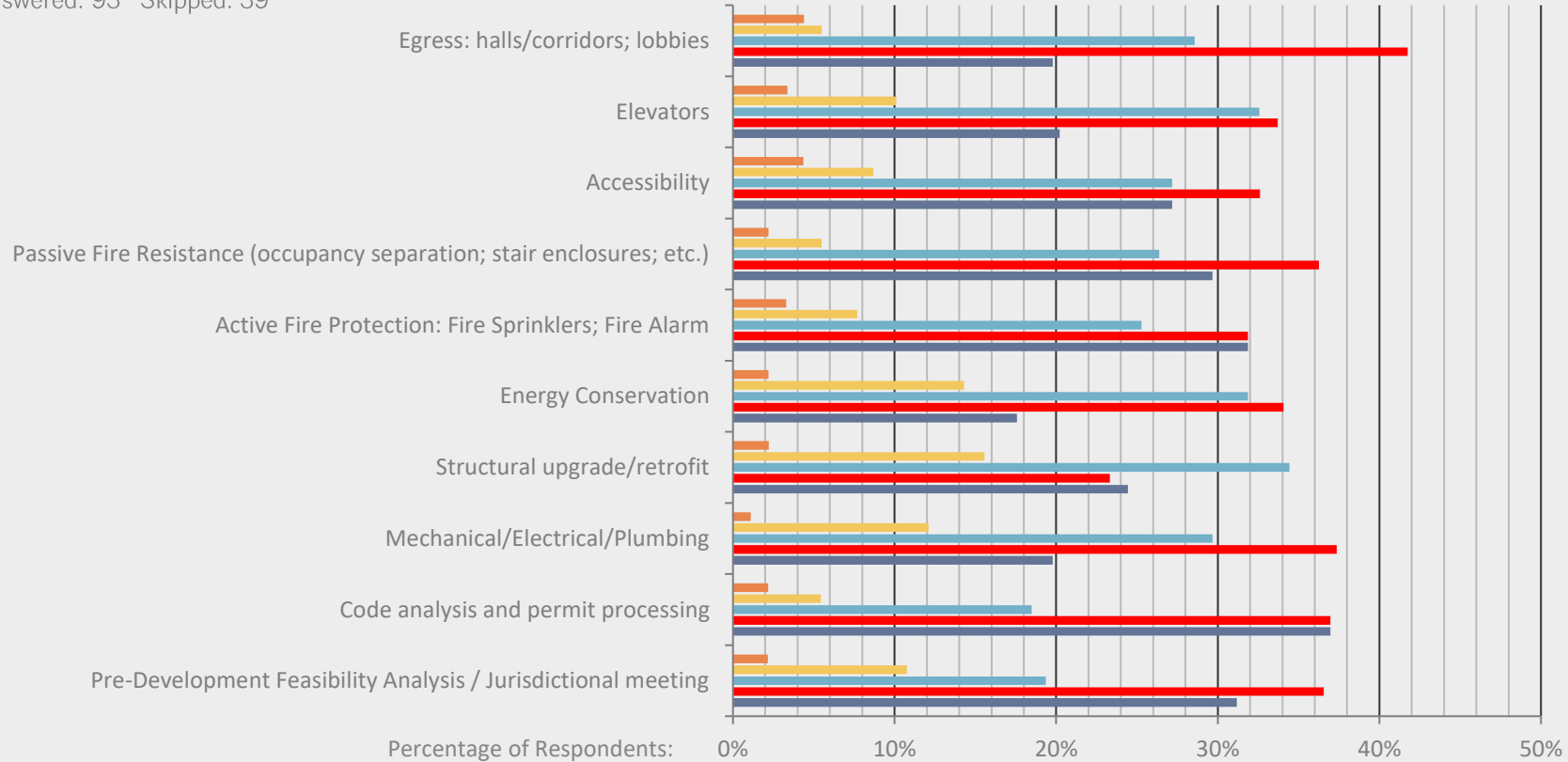
Q10: General Code Areas

Estimate the potential for code change to better support conversion of existing commercial buildings to housing.

(On a scale 7 to 0, with 7 meaning the most applicable and 0 not applicable)

Q10: General Code Areas

Answered: 93 Skipped: 39



Q10: General Code Areas | All Responses (include respondents with no completed projects)

Answered: 93 Skipped: 39

Potential for code and code tools to better support conversion projects, by Topic Area

Topic Area	Total Score	Average Rating*
Code analysis and permit processing	449	5.04
Pre-Development Feasibility Analysis / Jurisdictional initial meeting	426	4.73
Passive Fire Resistance (occupancy separation; stair enclosures; etc.)	418	4.75
Active Fire Protection: Fire Sprinklers; Fire Alarm	409	4.65
Accessibility	397	4.46
Egress: halls/corridors; lobbies	386	4.39
Mechanical/ Electrical/ Plumbing	373	4.24
Elevators	359	4.17
Energy Conservation	356	4.05
Structural upgrade/retrofit	353	4.06

* Methods were scored on a scale of 7 to 0, with 7 meaning the most applicable and 0 not applicable

Q10: General Code Topic Areas | Only respondents with completed reuse projects

Qualified: 75

Potential for code and code tools to better support conversion projects, by Topic Area

Item	Total Score	Average Rating
Code analysis and permit processing	283	4.96
Active Fire Protection: Fire Sprinklers; Fire Alarm	269	4.80
Pre-Development Feasibility Analysis / Jurisdictional meeting	269	4.72
Passive Fire Resistance (occupancy separation; stair enclosures; etc.)	262	4.68
Accessibility	254	4.46
Egress: halls/corridors; lobbies	236	4.21
Energy Conservation	230	4.04
Structural upgrade/retrofit	229	4.02
Mechanical/ Electrical/ Plumbing	220	3.93
Elevators	220	3.93

Q11:

Specific Opportunities or Challenges

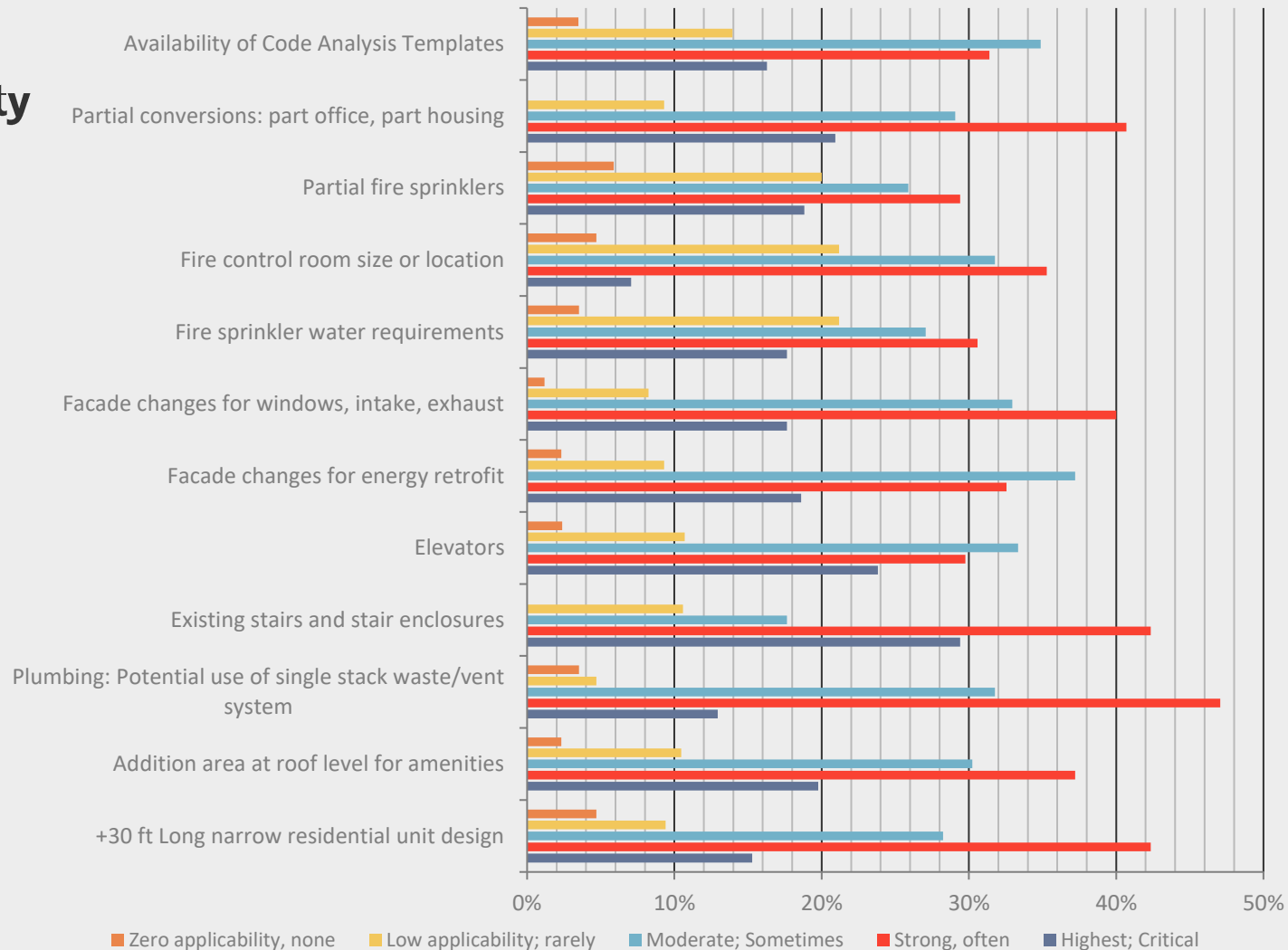
Estimate the importance of the listed issues for feasibility of commercial to housing conversions.

(On a scale 7 to 0, with 7 meaning the most applicable and 0 not applicable)

Q11: Specific Opportunity or Challenge

Answers Part 1

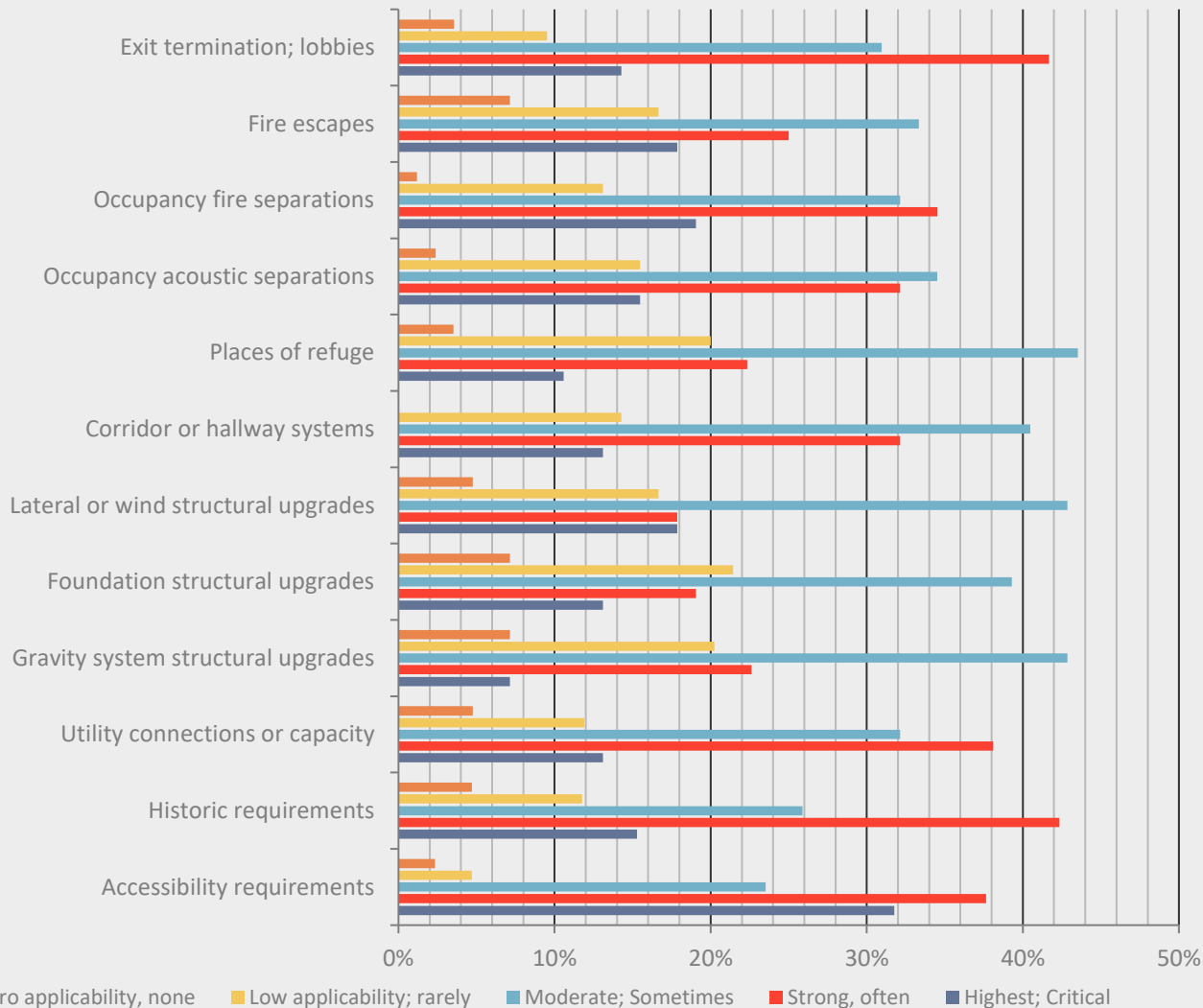
Answered: 87 Skipped: 45



Q11: Specific Opportunity or Challenge

Answers Part 2

Answered: 87 Skipped: 45



Q11: Specific Opportunities or Challenges

Item	All Respondents	
	Total Score	Average Rating*
Accessibility requirements	402	4.90
Existing stairs and stair enclosures	400	4.88
Partial conversions: part office, part housing	369	4.45
Facade changes for windows, intake, exhaust	353	4.30
Elevators	347	4.28
Plumbing: Potential use of single stack waste/vent system	349	4.26
Addition area at roof level for amenities	353	4.25
Occupancy fire separations	338	4.17
Facade changes for energy retrofit	343	4.13
+30 ft Long narrow residential unit design	338	4.12
Exit termination; lobbies	332	4.10
Historic requirements	334	4.07
Utility connections or capacity	319	3.94
Corridor or hallway systems	317	3.91
Occupancy acoustic separations	315	3.89
Availability of Code Analysis Templates	320	3.86
Fire sprinkler water requirements	313	3.82
Partial fire sprinklers	305	3.72
Fire escapes	297	3.67
Lateral or wind structural upgrades	289	3.57
Fire control room size or location	278	3.39
Places of refuge	275	3.35
Foundation structural upgrades	263	3.25
Gravity system structural upgrades	249	3.07

* Opportunities or Challenges were scored on a scale of 7 to 0, with 7 meaning the most applicable and 0 not applicable

Q11: Specific Opportunities or Challenges

Limited to responses from those who have completed projects

Qualified: 62

Item	Total Score	Average Rating*
Accessibility requirements	199	4.85
Existing stairs and stair enclosures	197	4.80
Partial conversions: part office, part housing	186	4.43
Facade changes for windows, intake, exhaust	181	4.41
Facade changes for energy retrofit	176	4.19
Addition area at roof level for amenities	176	4.29
Historic requirements	172	4.30
+30 ft Long narrow residential unit design	169	4.23
Plumbing: Potential use of single stack waste/vent system	165	3.93
Occupancy fire separations	164	4.10
Elevators	163	4.08
Exit termination; lobbies	161	4.03
Availability of Code Analysis Templates	157	3.74
Fire sprinkler water requirements	155	3.78
Utility connections or capacity	153	3.73
Occupancy acoustic separations	152	3.80
Corridor or hallway systems	146	3.65
Partial fire sprinklers	143	3.49
Fire escapes	134	3.35
Lateral or wind structural upgrades	132	3.22
Fire control room size or location	130	3.17
Places of refuge	128	3.20
Foundation structural upgrades	119	2.90
Gravity system structural upgrades	116	2.83

Q12:

Feasibility Obstacles

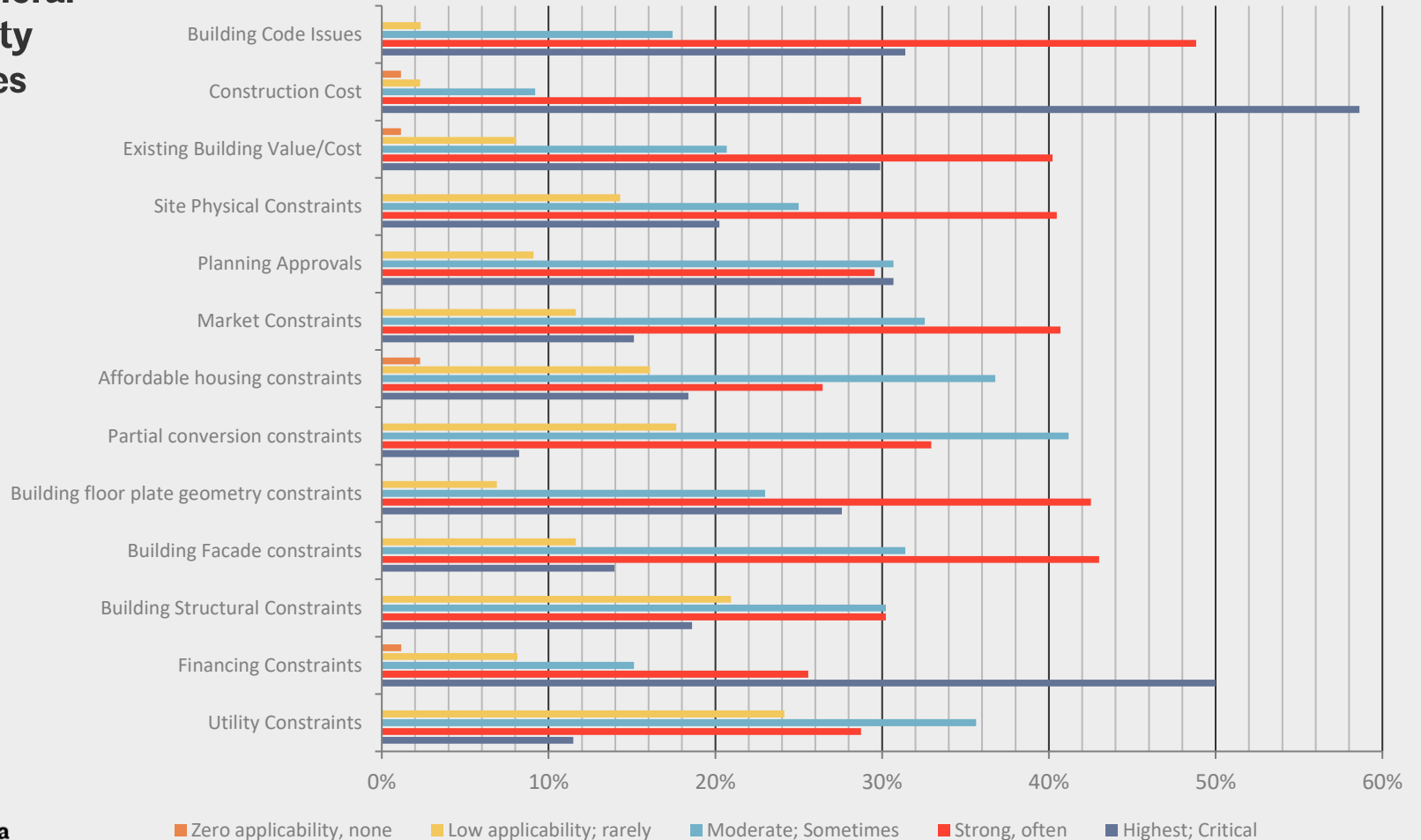
Rate the potential impact on project feasibility for commercial to housing conversions.

(On a scale 7 to 0, with 7 meaning the most applicable and 0 not applicable)

Q12: General Feasibility Obstacles

Answered: 88

Skipped: 44



Q12: Feasibility Obstacles

Item	All Respondents		Respondents with 1 or more Completed Commercial Housing Projects	
	Total Score	Average Rating*	Total Score	Average Rating*
Construction Cost	493	5.87	318	5.78
Financing Constraints	440	5.30	289	5.35
Building Code Issues	433	5.22	282	5.22
Building floor plate geometry constraints	408	4.86	248	4.59
Existing Building Value/Cost	403	4.80	252	4.58
Planning Approvals	393	4.62	245	4.45
Building Facade constraints	351	4.23	220	4.07
Site Physical Constraints	351	4.33	209	3.94
Market Constraints	345	4.16	218	4.04
Building Structural Constraints	327	3.94	208	3.85
Affordable housing constraints	322	3.83	206	3.81
Partial conversion constraints	296	3.61	193	3.64
Utility Constraints	296	3.52	183	3.33

* Feasibility Obstacles were scored on a scale of 7 to 0, with 7 meaning the most applicable and 0 not applicable