



City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

Self-Certification Program Changes

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Deputy Director/ Building Official



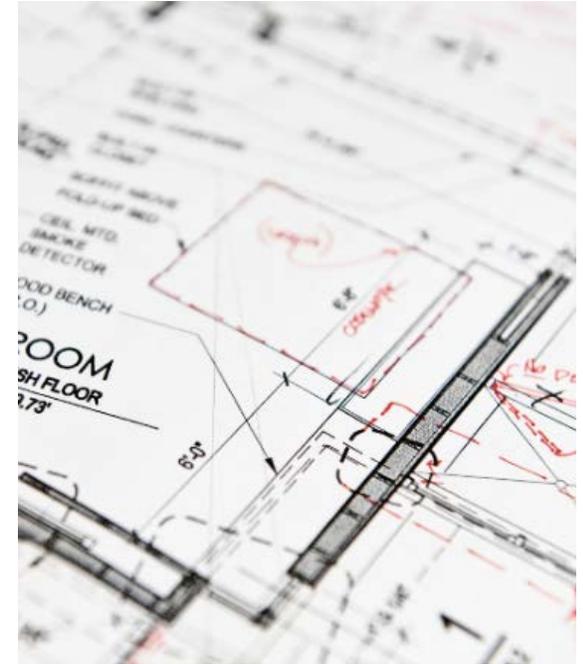
1. Revise audit timeframes

- **Revise the audit timeframes to match the standard plan review time frameworks for each project type, instead of the current 30-day turnaround time.**
- *Reason: This change will shorten the audit review times for tenant improvement projects, but will lengthen the audit review times for larger ground-up projects. This is beneficial for tenant improvements because the construction time is shorter and it is important to receive audit comments more quickly. Conversely, the longer construction time for larger projects allows for more flexibility for the audit review time. Also, these audits require more time to complete because these projects are more complex.*



2. Reduce the random audit frequency to 10%

- **Reduce the random audit frequency from 20% of projects to 10%. (These do not include projects subject to automatic audit.)**
- *Reason: The random audit frequency had previously been increased from 10% to 20%. But, we have not seen any significant change in the pass/fail rates as a result. Therefore, the reduction in the percentage of projects audited to 10% will save time for our customers and for our staff.*



2. Reduce the random audit frequency to 10%

Building Plans Audit Guidelines

Random Audit Guidelines	Automatic Audit Guidelines
<ul style="list-style-type: none"> All projects not subject to automatic audit Requires a structural peer review by a city-approved structural peer reviewer Requires electrical peer review by a city-approved electrical peer reviewer for installation or modifications to electrical systems that exceed 400 amperes or the available fault current exceeds 22,000 amperes. No audit fee assessed Generally, a 10% chance of audit 	<ul style="list-style-type: none"> Remodels – 25,000 sf and above¹ Shell buildings – 25,000 sf and above¹ New buildings – 10,000 sf and above¹ All new E and I occupancies² All new A occupancies with an occupant load of 300 or more² All medical marijuana facilities All ambulatory care facilities All standard plans No structural or electrical peer review required Audit fee is equal to half plan review fee per Planning & Development Fee Schedule <p>¹ Aggregate area of all buildings ² New = new building, addition, change of occupancy or initial tenant improvement</p>

Civil/Site/Landscape Plans Audit Guidelines

Random Audit Guidelines	Automatic Audit Guidelines
<ul style="list-style-type: none"> All landscape, civil grading and drainage, and parking lot plans up to 5 acres No audit fee assessed Generally, a 10% chance of audit 	<ul style="list-style-type: none"> Projects over 5 acres Landscape plans for projects located in the Downtown Code or Walkable Urban Code as established by the Phoenix Zoning Ordinance Civil grading and drainage/concrete combination plans Audit fee is equal to half plan review fee per Planning & Development Fee Schedule



3. Expand the scope to include minor ROW projects

- **Expand the scope of eligible, self-certified projects to include work in the rights-of-way on the grading and drainage plans. Work will be limited to existing concrete driveways, sidewalks, curb and gutter, and sidewalk ramps for commercial projects. The intent of this allowance is to remove and install driveways, repair existing sidewalks and curb and gutter, and update existing ADA ramps. Self-certified projects which include rights-of-way work will be automatically audited. This will not be applicable in the DTC and WU districts.**
- *Reason: This change will add minor ROW improvement projects to the list of project types that are eligible for the self-certification program. This will allow these projects to receive a building permit in 5 business days, without a plan review, thus saving the customer time and money.*



3. Expand the scope to include minor ROW projects

Civil/Site/Landscape Plans

Projects Eligible	Projects Not Eligible
<ul style="list-style-type: none">• New construction and improvements to parking lot site plans up to 5 acres• All new construction and alteration plans for landscape, salvage and inventory up to 20 acres (on-site and off-site)• Civil on-site grading & drainage plans, & storm water management plans for:<ul style="list-style-type: none">- Commercial projects up to 20 acres- Industrial and non-hazardous storage projects up to 80 acres- New residential single family home subdivisions up to 160 acres• Civil grading & drainage/concrete combination plans that meet the criteria above and limited to the following:<ul style="list-style-type: none">- Removal and installation of driveways- Repair/replacement of existing curb, gutter and sidewalk- Update existing curb ramps to meet ADA	<ul style="list-style-type: none">• Projects located in a Hillside Development Area• Projects in FEMA Special Floodplain Hazard Area• Civil grading & drainage/concrete combination plans for projects located in the Downtown Code or Walkable Urban Code as established by the Phoenix Zoning Ordinance• All other site and landscape plans• All other civil plans



4. Require automatic audits for landscape projects in the DTC and WU districts

- **Add Landscape Projects in the Downtown Code (DTC) and Walkable Urban (WU) districts to the list of projects that require automatic audits.**
- *Reason: Landscape elements that need to be incorporated in these zoning districts are especially complex, such as the preservation of existing shade trees. By requiring landscape projects in the DTC and WU districts to receive automatic audits instead of random audits, the probability of correcting design errors is greatly increased.*



4. Require automatic audits for landscape projects in the DTC and WU districts

Civil/Site/Landscape Plans Audit Guidelines

Random Audit Guidelines	Automatic Audit Guidelines
<ul style="list-style-type: none">• All landscape, civil grading and drainage, and parking lot plans up to 5 acres• No audit fee assessed• Generally, a 10% chance of audit	<ul style="list-style-type: none">• Projects over 5 acres• Landscape plans for projects located in the Downtown Code or Walkable Urban Code as established by the Phoenix Zoning Ordinance• Civil grading and drainage/concrete combination plans• Audit fee is equal to half plan review fee per Planning & Development Fee Schedule

5. Exclude projects with hazardous components from self-certification

- In addition to H (Hazardous) occupancy projects that are already excluded from the self-certification program, exclude projects that contain: (a) hazardous processes, (b) electrically hazardous locations, (c) medical marijuana extraction rooms, (d) hazardous exhaust systems and (e) refrigerant monitoring systems.
- *Reason: Hazardous (H) occupancy projects are already excluded from self-certification. However, hazardous components and systems may still occur in projects that are not classified as H occupancy. These are complex, more prone to design errors and represent an especially great hazard to life safety. Therefore, projects with these hazardous components should be excluded from the self-certification program.*



5. Exclude projects with hazardous components from self-certification

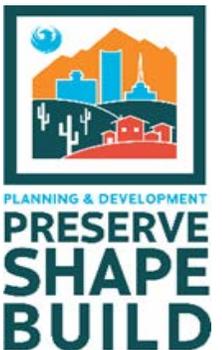
Building Plans

Projects Eligible	Projects Not Eligible
<ul style="list-style-type: none">All new building construction and alterations not included in the "Projects Not Eligible" list to the right	<ul style="list-style-type: none">Hazardous occupancies and projects that contain any of the following:<ul style="list-style-type: none">Hazardous processesElectrically hazardous locationsExtraction roomsHazardous exhaust systemsRefrigerant monitoring systemsNew high rise buildings (occupied floor more than 75' above Fire Department access)Projects located in a Hillside Development AreaExtra-large assembly occupancies (A4 & A5)Projects in FEMA Special Floodplain Hazard Area



5. Exclude projects with hazardous components from self-certification

- Hazardous processes:
 - Governed by IBC Sections 414, 415, 416, 417, 418 and 426
 - Governed by Phoenix Fire Code Sections 1205 & 1206 and Chapters 20, 22, 24, 25, 26, 27, 28, 29, 30, 32, 34, 38, 50 & 56
 - Processes whose descriptions would include the terms “combustible, flammable, hazardous and/or hazardous material”
- Electrically hazardous locations: as defined by NEC Article 500
- Extraction rooms: located in medical marijuana (MMJ) and industrial hemp growth and processing facilities
- Hazardous exhaust systems: as defined by IMC Section 510
- Refrigerant monitoring systems: as governed by IMC Section 1106 and Phoenix Fire Code Sections 605.8 and 605.17



6. Create a self-certification newsletter

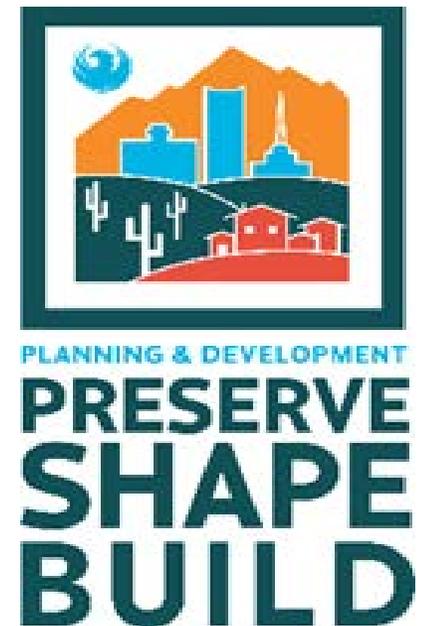
- **Create a regular newsletter to send to the self-certified professionals to make them aware of specific code subjects that require additional attention in the self-certification submittals. The content of these newsletters could be gathered from the various technical leads on a rotating basis.**
- *Reason: This newsletter will improve our communication with the self-certified registrants (architects and engineers) in the program. This will allow us to inform them of recurring issues that we are finding in our audits and inspections which will improve the program's performance.*





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Audit Findings



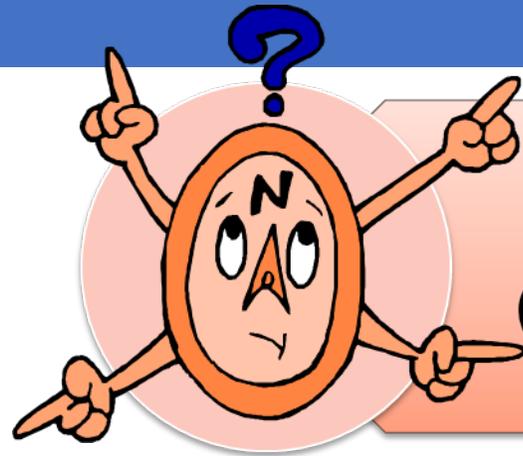
Audit Findings

- **The Most Common Audit Items**

Topping the list...



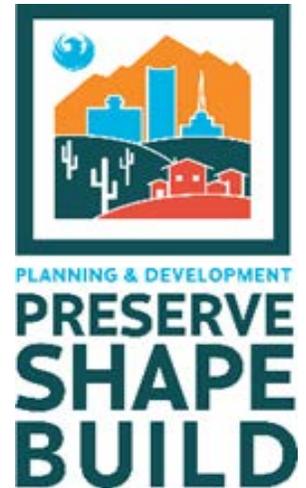
Audit Findings



Plans Lack
Coordination



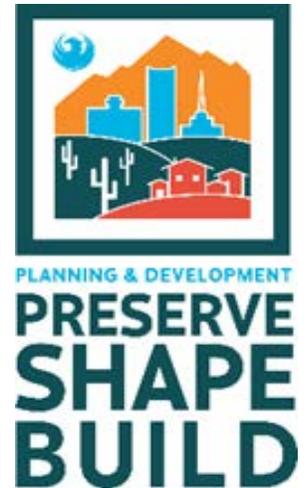
Plans are
Incomplete



Coordination

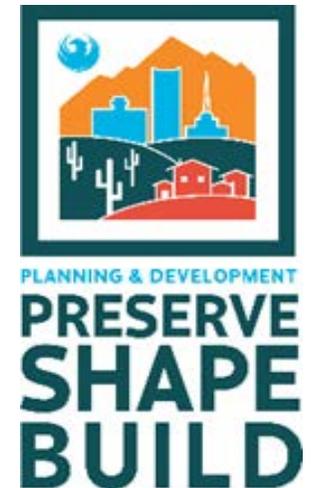
Responsibility for Coordination of Plans

- Phoenix Building Construction Code Section 107.3.4 Design Professional in responsible charge
- Prime Professional per Arizona Administrative Code – R4-30-101
- The Self-Certifier
- YOU



Complete Drawings

- Provide the Project Scope – BE SPECIFIC
- Code Modifications
- Fire Department Appeals
- Special Inspection Certificates
- Deferred Submittals



Coordination

- Plan Sheets
- Detailing
- Coordination between architectural and engineering drawings



Technical Accuracy

- Checklists (TRT documents online)
- Meet with consultants
- Read the codes
- Use the Code Commentaries
- CALL US!!!





ARCHITECTURAL DRAWINGS

Sealed by an architect registered in the State of Arizona.

2012 International Building Code (IBC) & other 2012 International Code Council (ICC) Codes referenced herein, with Phoenix Amendments, 2009 ICC/ANSI A117.1, 2010 ADA Standards, 2012 International Energy Conservation Code

1. General

- Architect's seal, signature, date signed & date of seal expiration, IBC 107.2.1 & State Board Rules
- Use and Occupancy Classification, Chapter 3
- Type of Construction, Chapter 6
- Fire-Resistance Requirements, Table 601
- Exterior Wall Rating & Fire Separation Distance, Table 602
- Opening protectives, 716
- Architectural Site Plan
 - Property lines shown, match Quarter Section map, replat
 - Imaginary property lines shown, 705.3
 - Site accessible route 1104.1
 - Between buildings and on site 1104.2

2. Building Height & Area, IBC Chapter 5

- Allowable height & area, IBC Table 503
 - Area increases, 506
 - Unlimited area, 507
 - Height increases, 504
 - Parking beneath occupancies (podium bldg concept), 510 Special Provisions
- Use of firewall to create separate buildings 706
- Mixed use and occupancy, 508
 - Non-separated, 508.3
 - Separated, 508.4

3. Accessibility

- See Accessibility Plan Review Checklist for a broader list
- Accessibility Chapter 11, 3411, ICC/ANSI A117.1, 2010 ADA Standards for Accessible Design
- Elevators, 1007.2.1, 1007.4

4. Fire-Resistance-Rated Construction

- Fire resistive assemblies shown, 703.3
 - Special Inspection Certificate required for spray applied fire proofing, 1705.13
 - Mastic/intumescent, 1705.14
- % protected opening vs. unprotected, Table 705.8
- Fire rated control joints, 715, 705.9
- Projections related to the property line, 705.2
- Occupancy separation 508, Table 508.4
- Structural members, 704
- Fire walls, 706
- Fire barriers, 707
- Shafts enclosures, 713
- Opening protectives, 716
- Flexible ducts/air connectors not allowed, 717.7

5. Special Uses & Occupancies, Chapter 4

- Covered Malls, 402
- High-rise buildings, 403
- Atriums, 404
- Underground buildings, 405
- Garages, 406
 - Public parking garage, 406.4
 - Open parking garage, 406.5
 - Enclosed parking garage, 406.6
 - Parking beneath occupancies (podium bldg concept), 510
 - Repair garages, 406.8
 - Flammable gas detection system for hydrogen & nonodorized LNG repair garages, 406.8.5
- Group I-2 Hospitals, 407
- Stages and Platforms, 410
- Special Amusement Buildings, 411
- Combustible Storage, IBC 413, International Fire Code (IFC) with Phoenix Amendments
 - High-piled stock
 - Rack storage
 - Attic, under-floor and concealed spaces

6. Smoke & Fire Control

- Smoke Control Systems Required, IBC/IFC 909
- Fire/Smoke dampers 717
 - Corridors, 717.5.4.1
 - Ducts and air transfer openings, IBC/IFC 909.5.2.1
- Smoke and Heat Vents, IBC/IFC 910
 - Increased travel distance Group F-1 or S-1, IBC/IFC ?????
- Ducts and Air Transfer Openings, 717

7. Exterior Walls & Roofs

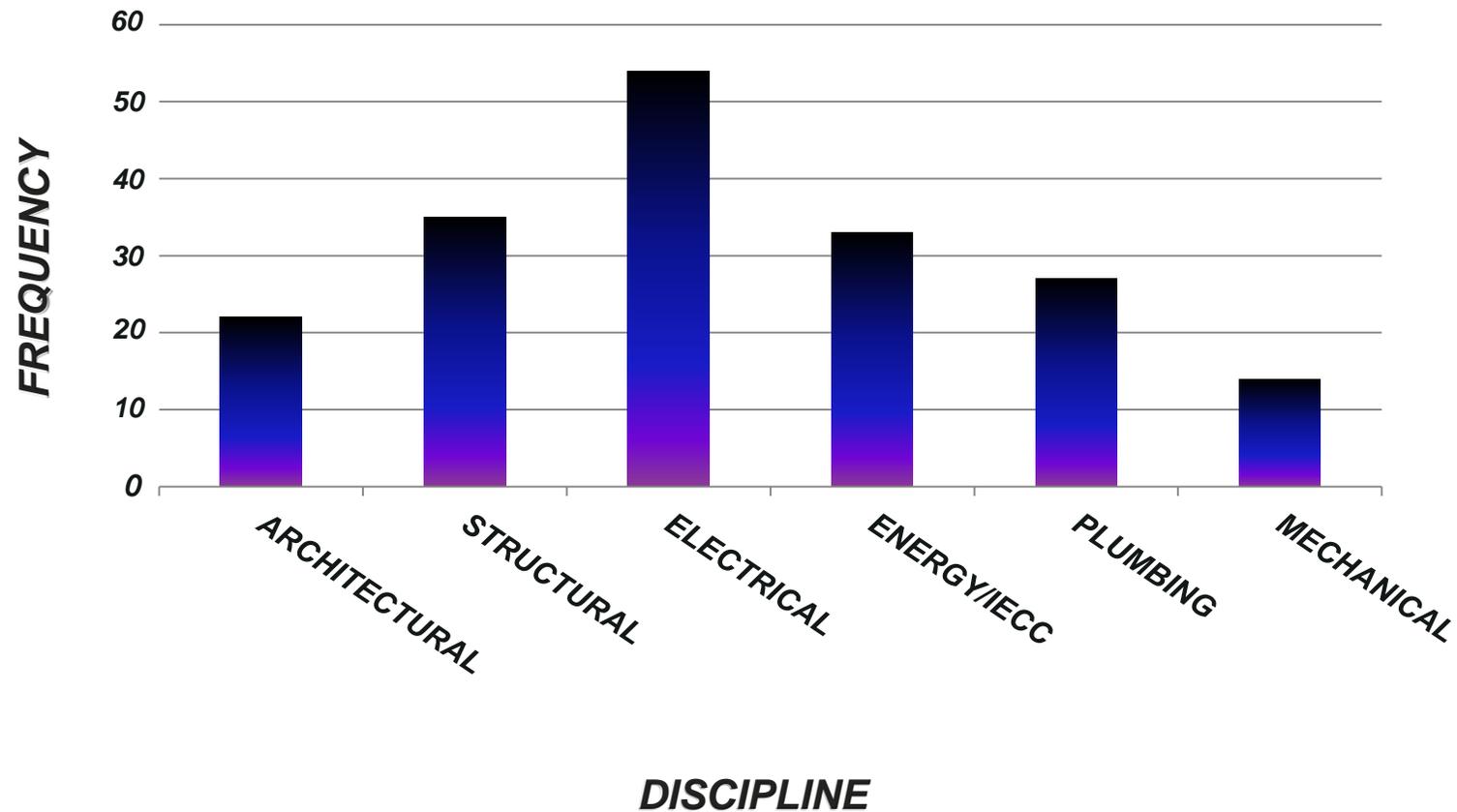
- Imaginary property lines shown, 705.3
- Parapets 705.11
- Fire wall at exterior wall, 706.5.1
 - Stepped buildings, 706.6.1
- Ducts & air transfer openings penetrating fire-rated exterior walls, 717.5.6
- Combustible materials on the exterior side of exterior walls, 1406
- Veneer 1405.10
 - Adhered veneer requires Special Inspection above 8', special cases
- ICBO# (skylight, EIFS, 1 coat stucco)
- Roof classification, Table 1505.1.
- Roof slopes 1507 varies by material (BU-.10, mod bit .11, Thermoset .12, TPO .13, poly U .14, Liquid .15)
 - Roof drain & overflow 1503.4 (now in IPC)
- Access to rooftop equipment/appliances required, IMC 306.5
- Stairway to roof, 1009.16

8. Interior Walls, Floors, Attics

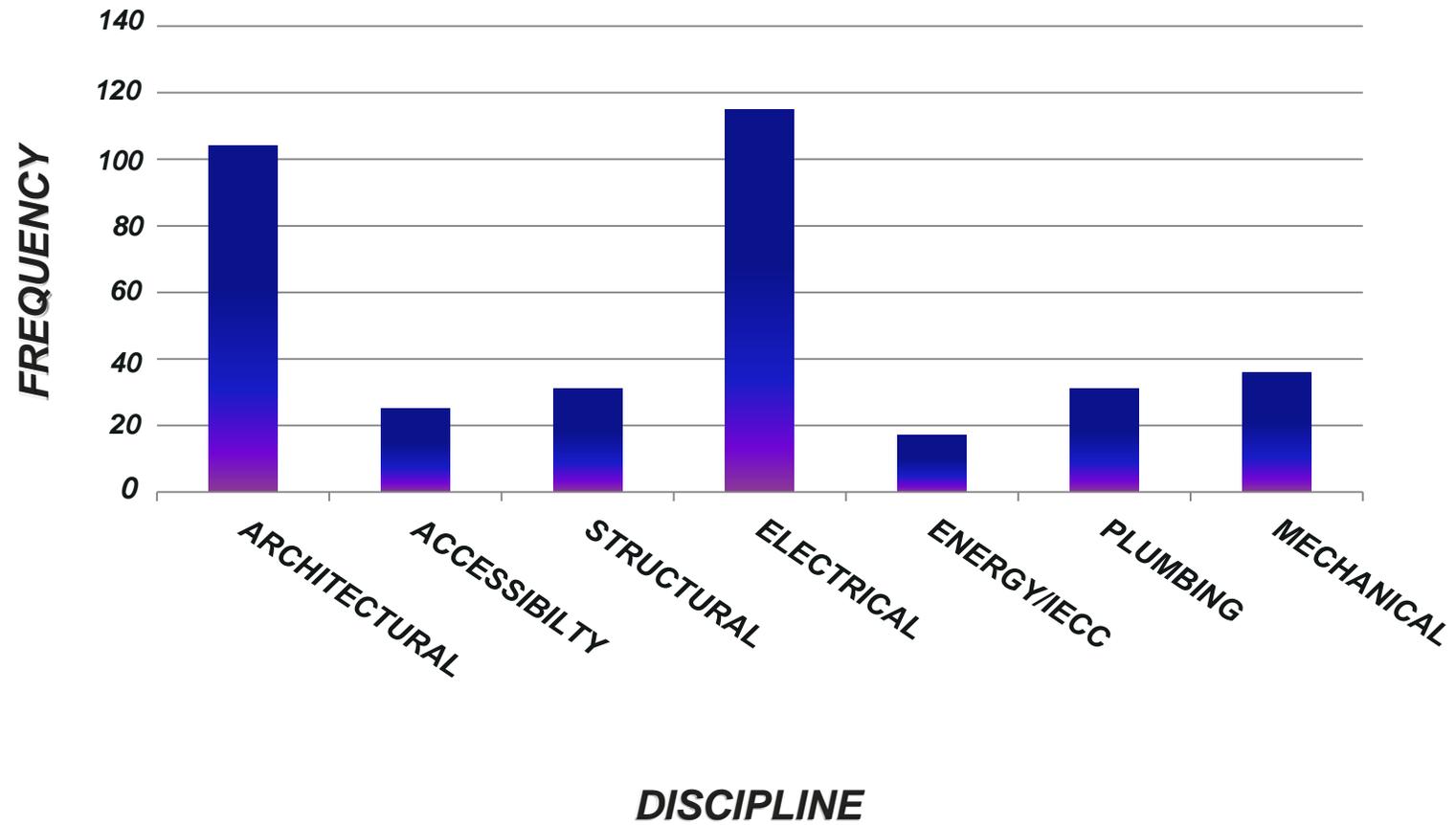
- Veneer 1405.10
 - Adhered veneer requires Special Inspection above 8', special cases
- Wall finishes, flame spread, 803, Table 803.9
- Toilet room walls and floors, 1210
- Gypsum board in showers and water closets, 2509
- Kitchen hood separation, IMC 506.3.10 / IBC 713
- Fire blocking 718.2
- Draft stops
 - Floors 718.3
 - Attics 718.4
- Attic ventilation 1203.2
- Attic access 1209.2



Residential Audits

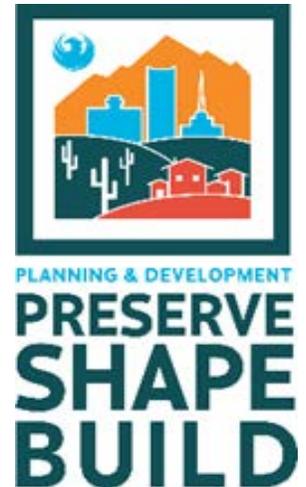


Commercial Audits



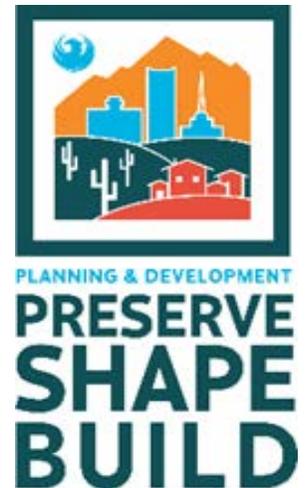
Architectural Comments

- Providing a complete architectural site plan; showing fire separation distances, projection distances, exterior wall openings allowed, path of exit discharge and accessible routes
- Showing the means of egress in sufficient detail; all components sized, number of occupants in each space
- Providing adequate fire-resistance rated detailing with actual listed assemblies and openings, joints and penetrations



Structural Comments

- Deferral of stair and guardrail design
- Showing all of the required design data from IBC Section 1603.1
- Providing a lateral force resisting system that is adequately detailed on the drawings and supported in the calculations to justify a complete load path



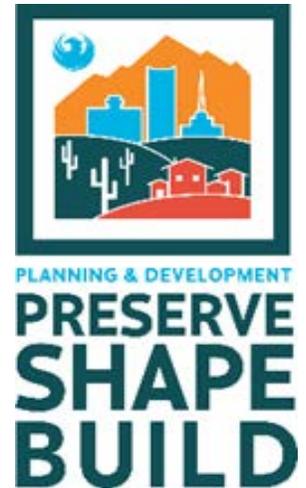
Mechanical/Plumbing Comments

- Civil drawings do not match plumbing drawings. Meter sizes and water and sewer line sizes are not coordinated.
- Missing or incorrect outside air mechanical ventilation calculations
- Incomplete information regarding Type 1 exhaust hoods



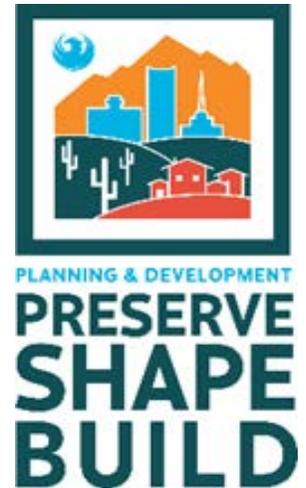
Fire Comments

- Inadequate hazardous materials and processes evaluation
- Listing of deferred life safety submittals; distinguishing NFPA 13 and 13R fire sprinkler systems



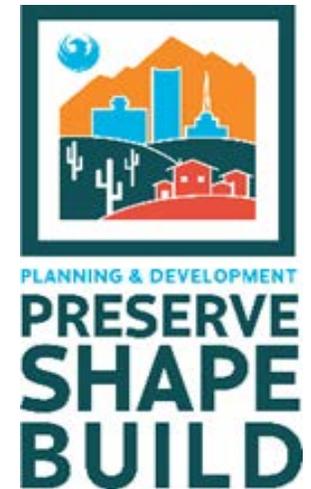
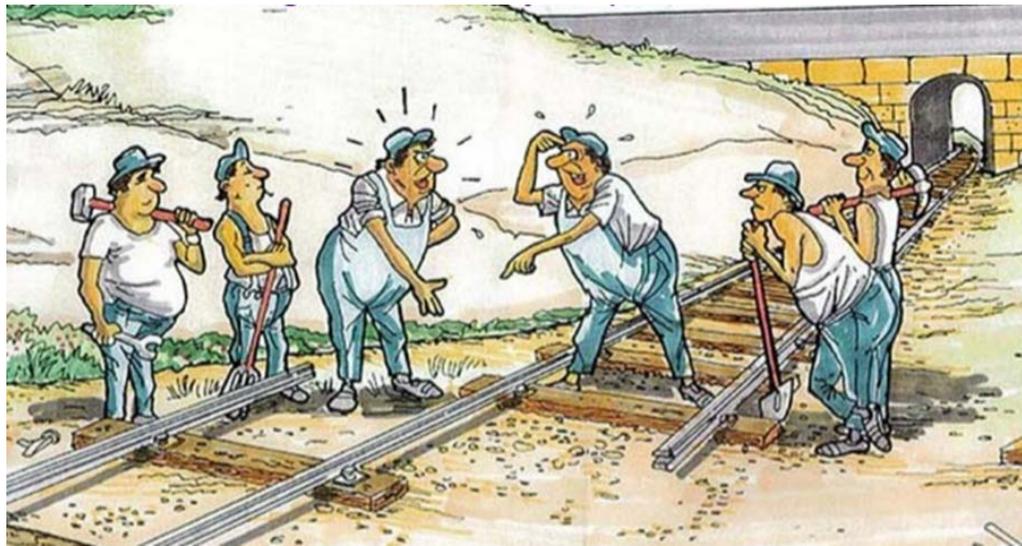
Electrical Comments

- Fault current calculations
- Load calculations
- Electrical feeder sizing
- Grounding/ bonding
- Healthcare-related occupancies; complex electrical systems
- Electrically classified (hazardous) locations



Civil Comments

- Address zoning stipulations
 - Include all zoning action stipulations
 - Consistency with the preliminary site plan
- Coordinate site, civil & landscape plan



Successful Plans

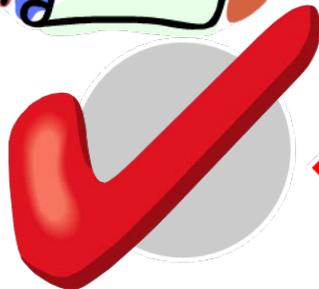
- Ingredients for a successful audit include....



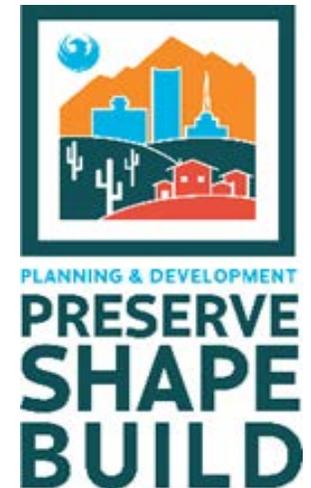
Quality Control



**Complete and
Coordinated Plans**



Technical Accuracy



Questions

