



City of Phoenix
PLANNING & DEVELOPMENT DEPARTMENT

Audit Findings



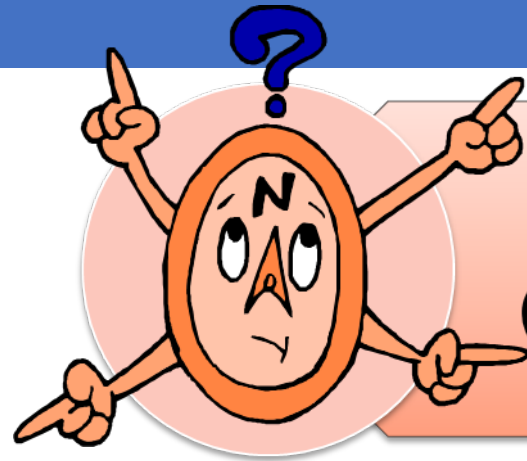
Audit Findings

- **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

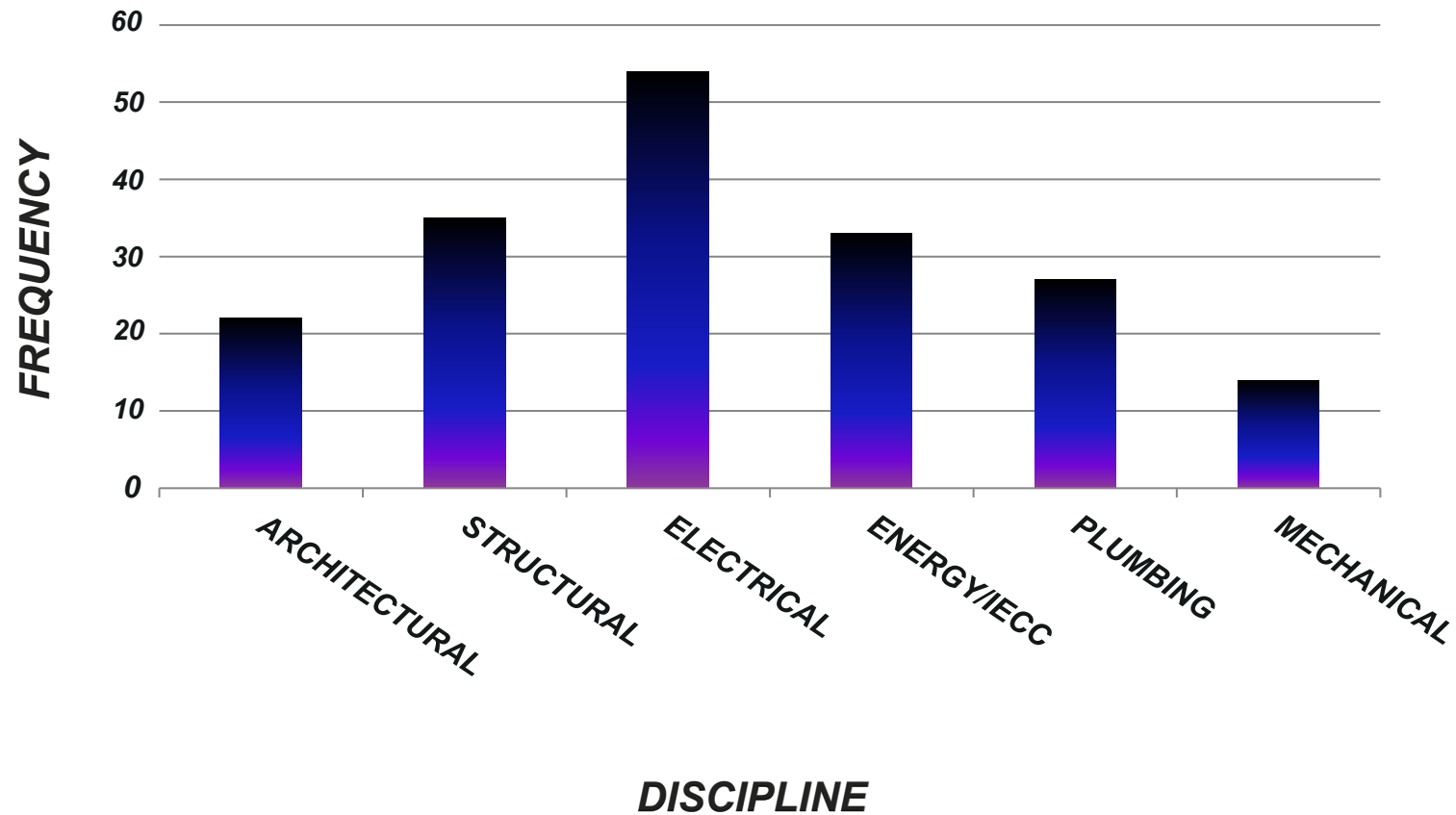
- Imaginary property lines shown, 705.3
- Parapets 705.11
- Fire wall at exterior wall, 706.5.1
 - Stepped buildings, 706.6.1
- Ducts & air transfer openings penetrating fire-rated exterior walls, 717.5.6
- Combustible materials on the exterior side of exterior walls, 1406
- Veneer 1405.10
 - Adhered 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

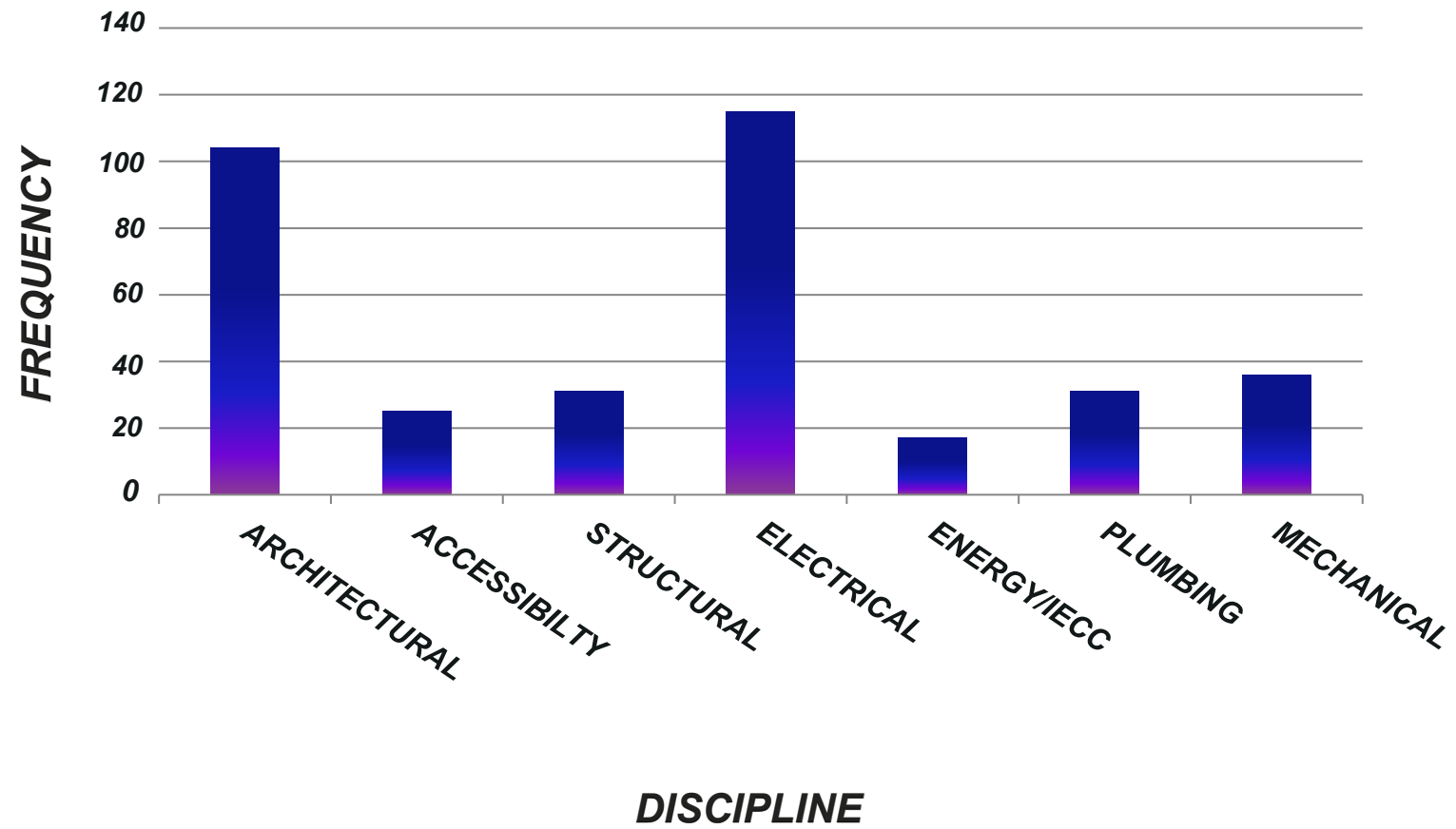
- Veneer 1405.10
 - Adhered veneer requires Special Inspection above 8', special cases
- Wall finishes, flame spread, 803, Table 803.9
- Toilet room walls and floors, 1210
- Gypsum board in showers and water closets, 2509
- Kitchen hood separation, IMC 506.3.10 / IBC 713
- Fire blocking 718.2
- Draft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



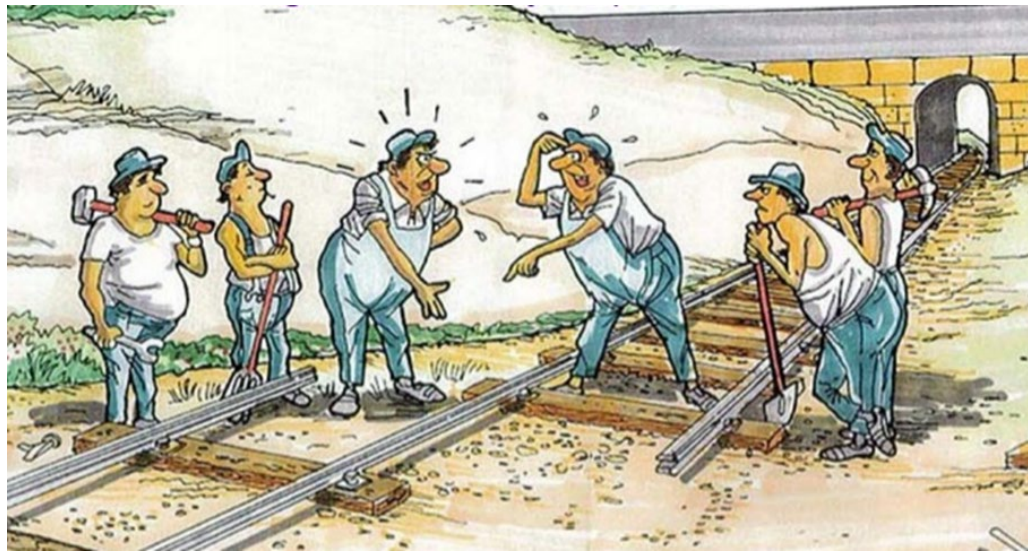
Electrical Comments

- 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

