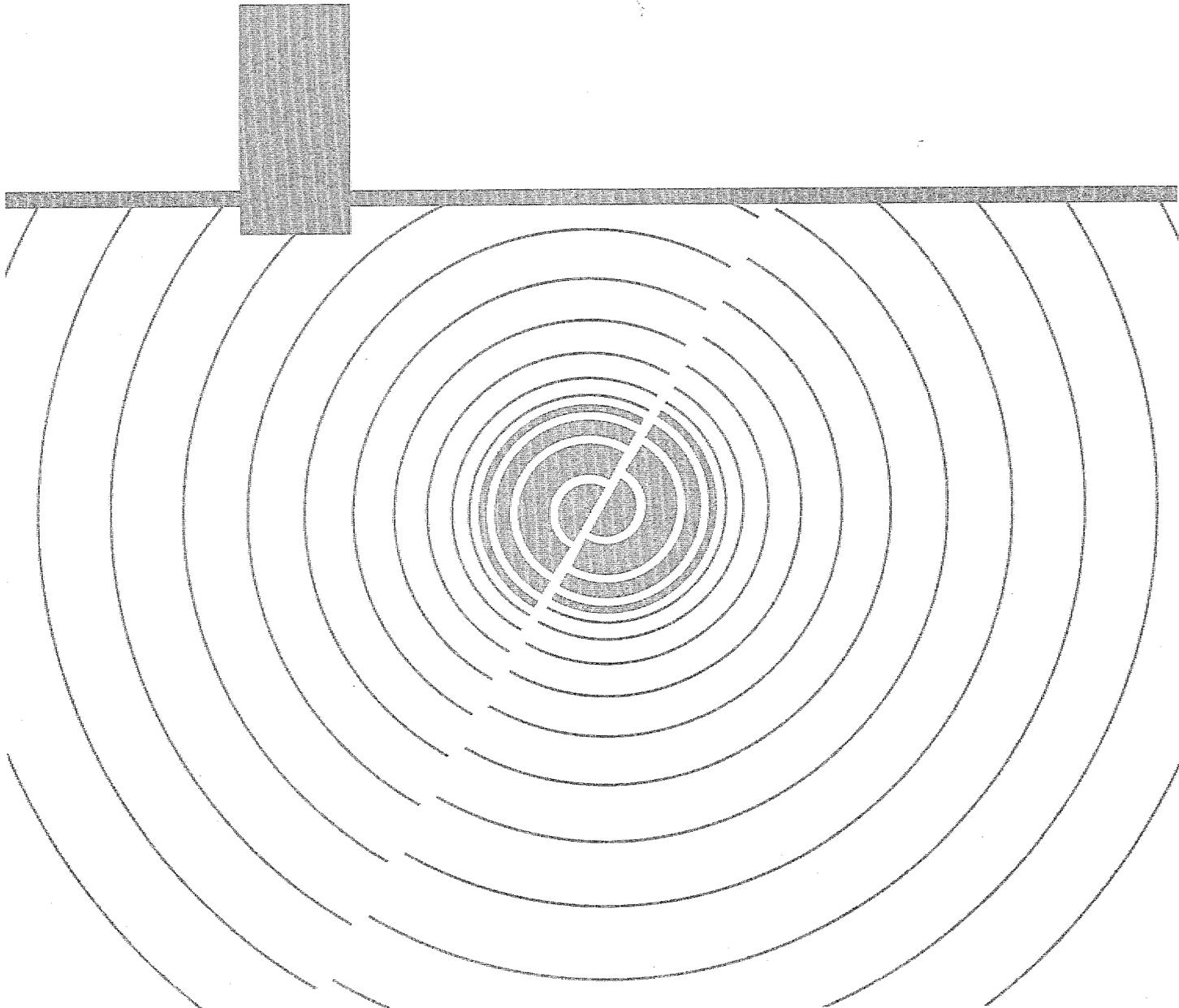


---

**Appendix C:  
Examples of Building Code Administration  
by Local Governments**



## Appendix C

### Examples of Building Code Administration by Local Governments

In order to illustrate the variety of local code administration practices, this appendix contains information from interviews conducted with officials from six cities and counties. The six examples include a large and small jurisdiction from each of the three code regions.

These case examples demonstrate the variety of practices used by jurisdictions across the United States. The seismic code requirements, plan review process, enforcement and inspection, procedures and fee schedules vary in each of these examples. The information presented here is to provide you with ideas on how to use model building codes in your locality.

Cities and counties in states that have adopted a model building code seem to have an advantage in that they can derive support from the state level. Cities in states with no codes find it harder to keep professionals in the building industry current with their code. This should be kept in mind as you convince your local governments to adopt a code or add seismic provisions. The

lessons provided in the examples should help you in this process.

This section also provides an in-depth review of how each jurisdiction deals with enforcement, inspection, and review. Without these elements, the model building code will be ineffective. The six examples cover this in depth and will provide you with a starting point in your area. This information is critical in having a model building code that saves lives.

The case study information was collected primarily through a series of interviews. A list of interviewees is included at the end of this appendix.

#### **Carbondale, Illinois (BOCA, Small)**

Carbondale is a city of 25,000 people located in southern Illinois. The city has one inspector, who also serves as the plan reviewer for the city. The Department of Building and Neighborhood Services' total annual budget is \$378,000. This office handles commercial and multifamily construction.

**Table C.1 Overview of Local Building Code Administration by Local Governments**

City/County	Population	Model Code	State Code Requirement	# of Inspectors
Carbondale, IL	25,000	BNBC	No building code req.	1
St. Louis County, MO	1,001,000	BNBC	No building code req.	10
Jonesboro, AK	50,000	SBC	Yes, Act 1100 (1991)	2
Memphis/Shelby Co., TN	850,000	SBC	Yes, since 1982	21
Pacifica, CA	40,000	UBC	Yes, since 1933	2
Clark County, NV	417,000	UBC	Yes, Nev. State Fire Marshal Reg.	79

### Seismic Code Requirements

The city uses the *BOCA National Building Code* (BNBC), which incorporates seismic provisions.

Carbondale enforces the latest BOCA seismic building codes and standards. Seismic-resistance standards have always been required in Carbondale, and the city has been involved in a process of educating construction and design professionals as to the importance of seismic design, primarily through cooperation with the media. The media has assisted in stressing the potential danger of noncompliance. Ten years ago seismic provisions were not taken seriously by contractors, but practice is now much improved.

Carbondale's greatest limitation in enforcing building and seismic codes is the state of Illinois' weak support for requiring architects and engineers to stay current with codes. The state has no building code requirement, although the state does require seismic design of state-funded buildings. The state also requires licensing of structural engineers, who must demonstrate knowledge of seismic design. Carbondale makes sure its architects and engineers are following the rules, but most small cities in Illinois do not have the same ability, and the state is not assisting them.

### Plan Review Process

Application must include building details as well as a site plan showing the location of the building on the site, lighting, disabled access, parking requirements, and water and sewer requirements. Building plans are required to be sealed by a professional, registered structural engineer from Illinois. The Department of Building and Neighborhood Services distributes the plans to other departments for review and approval. These other municipal departments include the Departments of Water and Sewer, Develop-



ment Services, Fire, Police, Public Works/Engineering, and Planning. The plan is checked not only for compliance with the BNBC but also for other requirements, such as zoning, disabled access, electrical codes, and so forth.

Upon review and approval from these departments, the plan is sent back to Building and Neighborhood Services, and a meeting is scheduled with the owner of the proposed site and a representative of each department. Final approval must be received from the city council. Once the plan has been approved, a building permit can be issued. The director of Development Services stamps and approves the final permit.

A plan review usually takes a month from submission of the necessary documents to final approval. Following review, a building permit can usually be issued in two or three days to one week, depending on the complexity of the building.

If an applicant wants to appeal a decision, he or she first talks to staff members and can then appeal to the Building Code Board of Appeals. The owner must first pay a \$15 fee to schedule a hearing. Carbondale uses the appeals process outlined in the BNBC.

FIGURE C.1 Main corner in downtown Carbondale, Illinois, a city of 25,000 people. Carbondale uses the BOCA National Building Code, which incorporates seismic provisions. (Photo: Planning Services Division, City of Carbondale)

### **Code Enforcement and Inspection**

The present plan reviewer has experience in the construction trade, has three years toward an engineering degree, and has been certified by the Council of American Building Officials and BOCA for building inspector, building code official, and master code official. He is only responsible for nonstructural reviews. Architects and engineers are responsible for structural requirements. If any questions arise during the review process, the city requests the calculations of the architects or engineers for verification. The inspector states that BOCA is very supportive in answering or clarifying questions, as is the state architect's office.

Inspections are scheduled with the on-site construction manager depending on the progress of work. The required inspections include:

1. Designated location of building
2. Footing forms and steel
3. Foundation steel and anchor bolts
4. Framing
5. Rough electrical
6. Mechanical
7. Plumbing (by state plumbing inspector)
8. Final inspection

A few rough inspections to check for fire walls, plumbing, electrical, and mechanical requirements may be conducted prior to the final inspection. On larger construction sites unannounced visits may occur. The cost of inspections is covered by the building permit fee.

The number of staff members is adequate for the amount of work, except during summer construction. During this busier time, the inspector requests the assistance of housing inspectors in Carbondale.

### **Fee Schedule**

Fees are established by the Department of Building and Neighborhood Services. The site plan review costs \$25. Building and electrical permit fees vary depending on the valuation of the building: \$2 for every \$1,000 of final construction costs. Plumbing fees are \$14 plus \$2 for every fixture in the building.

Additional costs are associated with noncompliance or postponement of construction requirements. In order to occupy a building prior to completion of site items, the owner must post a performance bond in the amount of the uncompleted items. If building code requirements are not met, the building inspector can stop work or issue an appearance in court. Court judges then set the fines. An owner may pay up to \$500 for a first offense. If the violation is not corrected after the first guilty finding, a fine of \$500 per day for every day of violation is set.

### **St. Louis County, Missouri (BOCA, Large)**

The jurisdiction of St. Louis County covers the unincorporated area plus several municipalities that contract with the county for code enforcement. The county has ten inspectors per discipline (e.g., building, plumbing, mechanical, electrical) and nine plan reviewers in the building code review section. Two of these nine are licensed engineers and two are licensed architects. The supervisor of the building code review section is a licensed architect. Other plan review staff members have degrees in engineering or architecture. The annual budget for the permit division (including application processing and plan review staff) of the Public Works Department is \$1,780,000.

### Seismic Code Requirements

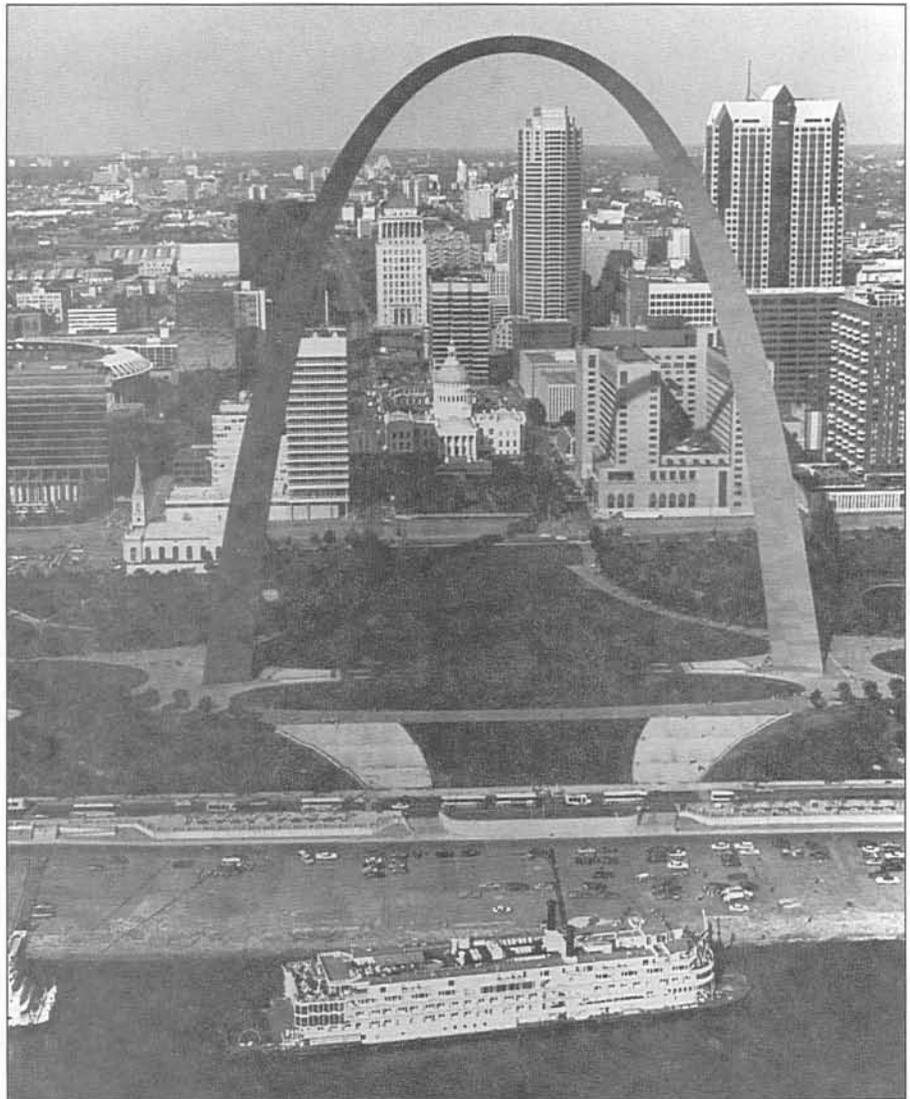
St. Louis County's seismic enforcement began with the adoption of the 1987 *BOCA National Building Code* in 1988. The 1993 BNBC was adopted in April 1994. New commercial structures are the projects that are primarily affected by seismic regulations, and single-family homes are exempt.

Missouri has no statewide building code requirement. It does, however, require seismic design in the 47 counties considered most seismically hazardous. The Geologic Hazard Preparedness Act (1990) requires that all new private buildings larger than 10,000 square feet and all new public buildings in the counties must "comply with the standards for seismic design and construction" of the BNBC or UBC.

### Plan Review Process

Prior to submitting an application for a building permit, a preliminary meeting with plan reviewers is available. Applicants can also submit their plans for a preliminary review. This eases the review process, especially for larger projects.

Applications for a building permit are submitted to the Permit Application Center of the Permits Division, which serves as the central point within the submittal process. Four sets of complete drawings are required. The building code reviewer acts as the lead person in coordinating reviews from other review sections within the department. The building reviewer releases the projects back to the Permit Application Center, which coordinates approvals from outside departments and agencies and awards the permit once all requirements are met. Plan reviewers compute the permit fees based on estimated construction costs. Each plan reviewer has the authority to sign off on permits.



*FIGURE C.2 The City of St. Louis, as well as St. Louis County, Missouri, is protected by the BOCA National Building Code. (Photo: St. Louis Convention and Visitors Commission)*

The first round of review, which results in each discipline's request for revisions, takes about five to ten working days. Once revisions are requested, the process is normally accomplished in three to four weeks, unless the design team is slow in responding.

There are two different appeals processes for someone who disagrees with a code requirement or decision. First, all individual plan reviewers have the authority to grant alternative solutions or equivalencies that would provide equal standards. Second, if the problem is beyond the plan reviewer's latitude or expertise, the director and/or the deputy of the Public Works Department can

review the decision. If the problem is not resolved, it is referred to the board of appeals, an appointed body of five citizens, four of whom must either be licensed professionals or have construction experience.

### **Code Enforcement and Inspection**

Regarding seismic enforcement, structural calculations are requested and reviewed for compliance. Enforcement is left primarily up to the structural engineers, who stand behind their calculations and designs with their signature. Many staff are still learning about the seismic requirements, as are design professionals in the area. Some of the larger firms have experience in California, so they are familiar with seismic design.

All new entry-level plan review staff members must have at least a college degree in a related field. The county is in the process of encouraging all plan reviewers to become certified within the next two to three years under the BOCA certification exams and to work toward their professional licenses. This drive for certified plan reviewers is due to the insurance industry's code effectiveness grading schedule, as described in chapter 6. In addition, staff attend local AIA- and BOCA-sponsored seminars.

The inspection process is a computerized call-in system in which contractors call to request an inspection. Unannounced visits do not normally occur. The types of inspections conducted include excavation (before the pouring of footings), forms of foundations, foundation, rough framing, rough frame-in for each of the disciplines, and a final inspection for each of the disciplines. There are also special inspections that are conducted by outside professionals. These professionals must be certified and approved by the inspection staff. Larger commercial projects require several inspection visits for each

category. Inspection costs are covered by the application fee. However, if an inspector is called out for something that is not ready for inspection, a charge of \$25 is assessed. There is also a \$500 minimum penalty or 1 percent of the project cost (whichever is greater) when violations occur, such as working without the proper permit, not following the approved plans, or not following code. Work load often exceeds staff availability, especially in inspections.

The department publishes a quarterly newsletter for the public. The newsletter details department procedures, code interpretations, code questions and answers, and enforcement policies. The newsletter is sent to professional organizations, who then distribute them to local municipalities and neighboring areas, such as St. Charles, Jefferson County, and Arnold. The county is trying to improve standards in the region.

Unfortunately budget cutting and reorganization have resulted in reduced personnel levels. However, a benefit is that the average quality and performance of staff have improved. The department enjoys strong support by county government in its goal of attaining code compliance.

### **Jonesboro, Arkansas (SBCCI, Small)**

The Jonesboro Department of Planning and Inspection has two building inspectors and one plan reviewer for a city population of 50,000. Jonesboro is in an unusual building boom and has just recently added the second inspector. The department has an annual budget of \$300,000.

### **Seismic Code Requirements**

The Standard Building Code applies to all buildings in Arkansas. Code updates are determined administra-

tively, by the State Fire Marshal. The importance of seismic design is underscored by Act 1100 (1991), which requires that all public structures be designed to resist seismic forces, in accordance with the latest SBC. It establishes zones more specific than those in the SBC, is self-updating, and sets forth penalties for noncompliance. It puts much of the responsibility on professional engineers, who enforce the Act by their signatures on plans.

Jonesboro enforces seismic building requirements. The municipality is in seismic zone 3. Jonesboro and the state of Arkansas have found that the state's relatively new seismic requirements have not stifled construction, as many builders and designers had feared. New construction has increased dramatically, and the state has experienced none of the problems anticipated. Today, seismic enforcement is taken very seriously and is viewed as a priority. Architects, engineers, and the building enforcement officials are making sure that every plan approved complies with seismic regulations.

Architects in Arkansas are beginning to become more knowledgeable of seismic provisions and back up Jonesboro officials in their decisions. Jonesboro staff members try to be alert to stamps by unqualified engineers and contact the state board if necessary. Jonesboro staff members attribute their success to their reliance on a written code upon which to base decisions. This reduces the use of personal opinions and political pressure to make exceptions.

### **Plan Review Process**

An applicant for a building permit must submit a plan stamped by an architect and structural engineer. The structural engineer makes a statement regarding compliance with building and seismic codes. For single-family homes, duplexes, and triplexes the department does



not need as much detail, and the state has exempted these residential uses from seismic regulations. The department conducts all plan reviews, as well as zoning and fire inspections. Training for reviewers and inspectors is provided by SBCCI's services and certification programs.

It normally takes four to five days for permit approval. Jonesboro recommends that architects and engineers consult with the department before the application is submitted. This reduces problems and speeds the formal review process. Permits for residential structures are issued within one visit.

If an applicant wishes to appeal a decision, he or she contacts the board of appeals. The board consists of local citizens familiar with construction issues. The board is rarely used for building code appeals, however, since disputes arise more often from electrical and plumbing problems. A major way that building staff reduce potential problems is through the services of SBCCI. SBCCI has a phone consultation service to help determine if a ruling is accurate. This service is independent of the community, thereby providing professional, objective, and consistent advice.

### **Code Enforcement and Inspection**

One of the inspectors acts as the building official. His or her signature must accompany the signatures of

*FIGURE C.3 New construction in Jonesboro falls under the statewide Arkansas Standard Building Code. (Photo: City of Jonesboro)*

electrical, plumbing, and mechanical inspectors on a sheet passed along with the plans prior to issuing the permit.

The inspection process is structured around three scheduled visits. The contractors and/or owner must contact the building officials when they reach the stages of foundation, framing, and final inspection. The electrical inspector also has scheduled reviews. Unannounced visits occasionally occur, typically for projects involving an untrustworthy contractor or for very large projects.

#### **Fee Schedule**

There is no initial application fee. A final permit fee based on construction valuation is charged after the plans have been reviewed and accepted. Jonesboro uses the SBCCI chart for estimating the average cost of each building type.

The fees for all building inspections are included in the permit fee. The building officials have authority to write citations to courts in case of noncompliance or postponement of construction. The building inspectors use the citation as a last resort, preferring to resolve problems more cooperatively. Stop work orders may be issued when a project does not have the proper permit for work being constructed.

## **Memphis, Tennessee (SBCCI, Large)**

Memphis and Shelby County Building Departments were consolidated in February 1984. Since that date, the department has functioned as the Memphis and Shelby County Office of Construction Code Enforcement (CCE). CCE issues construction permits and trade licenses for all of Shelby County's unincorporated areas and the incorporated areas of Memphis, Germantown, Arlington, and Lakeland. Its jurisdiction area encompasses 850,000 residents.

The state of Tennessee has had a mandatory state building code since 1982. The state uses the latest version of the SBC and supports a staff of plan reviewers and inspectors. The state allows local governments to adopt and implement the SBC themselves, provided that the locally adopted version is not more than six years old.

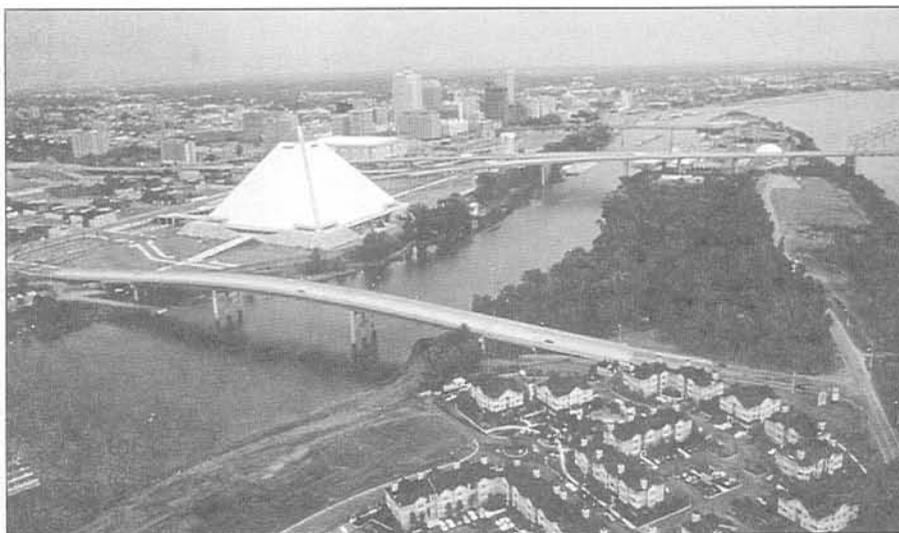
CCE operates under the Division of Planning and Development, which is a joint city/county division. CCE is funded totally by fees for permits, licenses, exams, and reinspection fees. The fiscal year 1990-91 budget totaled \$5,684,324, including personnel, operation, and maintenance. The department is staffed with 123 employees, including clerical, field inspectors, plan reviewers, supervisors, and administrators.

CCE has six plan reviewers, eighteen building inspectors, three senior building inspectors, and one building chief. There are twelve mechanical inspectors with one senior and chief. Plumbing and electrical units both have eighteen inspectors, two seniors, and a chief. CCE reviews 143 plans per month.

#### **Seismic Code Requirements**

Memphis enforces seismic building codes and standards. Obtaining seismic provisions was a four-year-long struggle. Seismic codes were adopted in Memphis in April 1990

*FIGURE C.4 Aerial view of downtown Memphis. (Photo: Memphis Convention & Visitors Bureau)*



and gave professionals and the community a one-year grace period to comply. According to the building official, the added costs have proven to be minimal, as projected by NEHRP reports. The building department has had numerous seminars to train engineers, architects, and contractors about the seismic regulations. With the 1994 Standard Building Code, Memphis was brought up to a seismic zone 3 designation.

Implementation of seismic design has been a slow process, involving the training of builders, design professionals, and department staff. In some ways the community still is resistant to seismic design, which makes it difficult for the city/county to be able to expend resources for training. But much progress has been made over the past few years, and seismic design is becoming more widely accepted.

### **Plan Review Process**

The first step in the process for obtaining a residential building permit is to present an application, two copies of the site plan, and one copy of the floor plan to the clerk specialist A. This clerk calculates the permit fee (based on square footage), verifies the proper zoning, enters the information onto the computer, and then refers the application and plans to the plan reviewer. The plan reviewer checks for proper zoning, legality of the lot, setback requirements, building code requirements, and subdivision requirements. The plan reviewer then approves or rejects the permit application. With approval by the plan reviewer, the clerk issues the permit and routes the applicant to the cashier.

An application for a permit for a commercial building is required to be accompanied by four complete sets of plans; one set of specifications signed, sealed, dated, and drawn to scale by an architect or engineer who is licensed by the state

of Tennessee; and a plans review fee. The application is entered by the clerk specialist A. The plans are given to the clerk specialist B, who routes the plans to the Building Plans Review Section, building inspector, city or county fire department, Plumbing Section, Mechanical Safety Section, city traffic engineer, and public works or the county engineer. A copy of each review is returned to the clerk specialist B. The clerk copies the reviews of each section, and the total review is mailed to all parties listed on the application (i.e., owner, architect, and contractor). It normally takes one to three weeks to receive a permit, depending on the size of the job. The staff levels in Memphis/Shelby County are usually adequate for the workload. The load varies, however, and it is not always possible to plan ahead.

If someone wishes to appeal a building code decision or has other requests, he or she may contact the building official. Problems are usually settled without requiring a formal meeting of the board of appeals, although that mechanism is available if needed.

### **Code Enforcement and Inspection**

Memphis/Shelby County seeks Standard Building Code (SBC) certification in plan reviewers and building inspectors, but it is not mandatory. The building inspector, however, must be certified. The city cannot afford licensed engineers as plan reviewers, though it would be desirable.

The Office of Construction and Code Enforcement has a monthly volume of 4,170 inspections. The building inspection process is initiated by a call from the contractor or owner. Memphis conducts reinspections on every job (foundation, slab, final, etc.) every month to check on progress. The inspections are covered by the application fee. Permits and inspections are programmed on a mainframe computer, which gener-

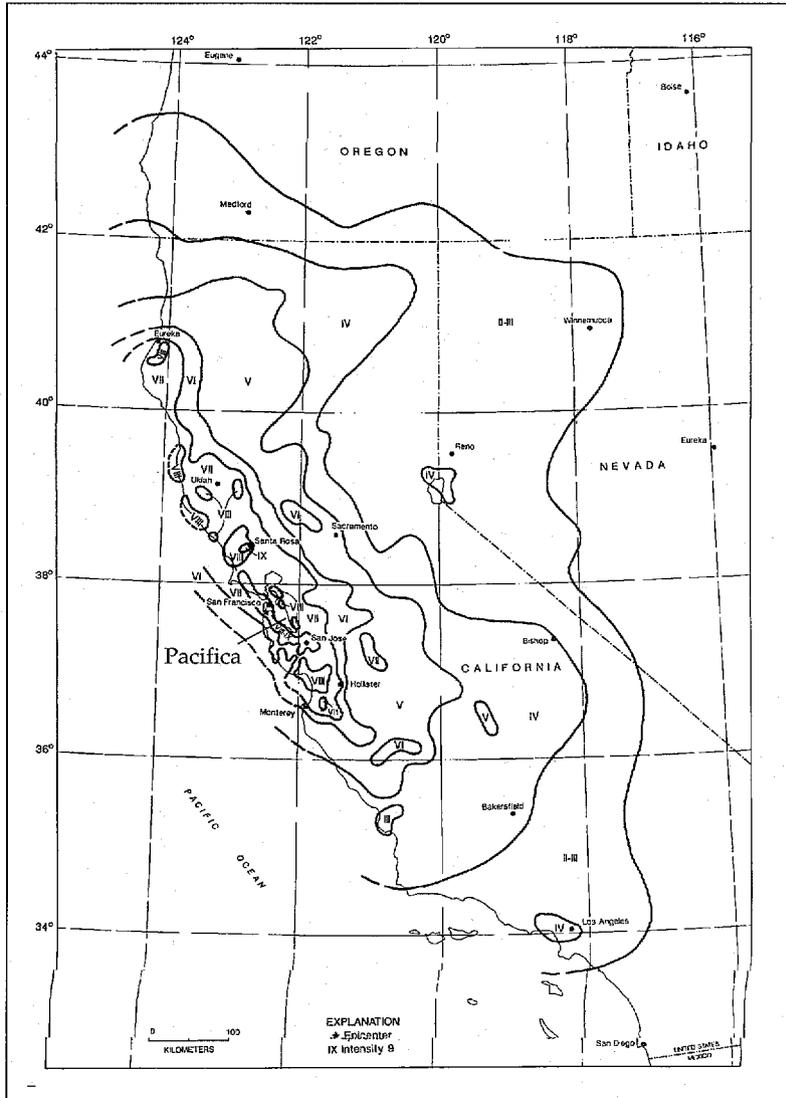


FIGURE C.5 The City of Pacifica, California, is located close to the San Andreas Fault, in an area that was severely shaken by the great San Francisco Earthquake of 1906. (Source: U.S. Geological Survey Professional Paper 1527, 1992)

ates monthly management reports regarding permits, inspections, and fees.

Memphis/Shelby County seeks to work with applicants by scheduling predesign conferences and offering other services. No new procedures are enforced without advance notice to practitioners.

If noncompliance or postponement of construction occurs, the department has standard actions it may take. The first step is to issue a courtesy citation, which cites the specific code violations and date of abatement. It requires abatement within thirty days or else a summons to court will be administered. Generally this achieves compliance.

The building official says that the news media have been very helpful in getting accurate information out to the public. The building department has developed a working relationship with the media, which has helped to reduce the potential for negative publicity. The department has worked at developing a professional, open process and cooperative relations with the public and the building community. These aspects are very important in this potentially contentious field.

### **Pacifica, California (ICBO, Small)**

Pacifica has one plan reviewer and two building inspectors for a population of 40,000. The Building Department's annual budget is approximately \$300,000. Staff levels are adequate for the work load, although the summer construction season can get quite busy.

#### **Seismic Code Requirements**

Seismic provisions have been part of the code since Pacifica's incorporation in 1956. Seismic design and enforcement are among the highest priorities facing the building department, because Pacifica is located in seismic zone 4 and is quite close to numerous active faults.

California has had seismic provisions since the 1933 Long Beach earthquake. Currently, the state uses the UBC and has refined the code over the years to reflect practices and experiences in California.

#### **Plan Review Process**

The process of seismic enforcement starts with plan review. To receive a building permit one first must submit plans and documents to the planning, engineering, and building departments. The planning department checks for compliance with zoning ordinance regulations. The engineering department reviews for

off-site issues, such as setbacks and sidewalks. The building department handles reviews of plumbing, electrical, structural, and mechanical elements. Once all approvals are received, the building official signs the building permit. The average time to receive permit approval is three weeks.

If an applicant wishes to appeal a decision, she or he first talks with the building official. There is a board of appeals, but its power is limited. The building official has the final word on code compliance.

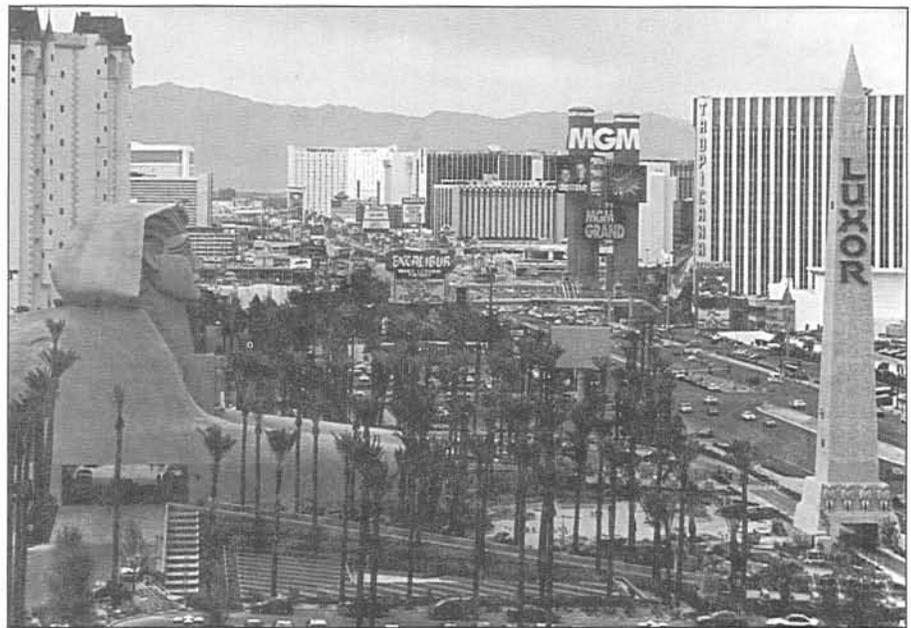
### **Code Enforcement and Inspection**

When the building permit is issued, applicants are given a job card that details the inspection process and schedule. The owner must schedule at least twenty-four hours ahead of when they wish to be inspected. Building inspectors occasionally conduct unannounced visits on large projects.

During construction there are specific inspections for seismic compliance, such as the nailing schedule and hold-down systems. Staff training concentrates on ensuring that the building official, reviewers, and inspectors are knowledgeable about seismic provisions. Field staff also work at educating contractors on the purposes behind the code provisions.

The initial permit fees cover inspections, except for reinspections: the third visit on the same issue requires an additional fee. Stop work orders are administered when someone is working without a permit, and these can result in a charge of ten times the initial permit fee. Some lenience is given to homeowners, who may be unaware of the permit requirements.

The only formal training requirement for plan reviewers and inspectors is certification from ICBO. Staff reviewers are also recommended to have engineering training.



### **Fee Schedule**

The building official sets the permit fees using the *Uniform Building Code's* (UBC) Chapter 3 fee schedule. The Uniform Administrative Code sets the fees for plumbing, electrical, and mechanical permits. The engineering reviewers set their own fees based on an hourly rate.

### **Clark County, Nevada (ICBO, Large)**

The Clark County Department of Building regulates construction in the unincorporated areas of the county, a jurisdiction with a population of 417,000. It includes many areas adjacent to Las Vegas, including the huge hotels on the Las Vegas Strip. Clark County is one of the most active construction areas in the country, with growth continuing at about five percent per year.

Including direct supervisors, the county has seventy-nine building inspectors and fourteen plan reviewers, several of whom are engineers and architects. The department's approximate annual budget is \$10,000,000, including a \$500,000 plan review contract to supplement staff. The department consists of the Plan Check Division, Inspection

FIGURE C.6 Large parts of Las Vegas fall under the jurisdiction of the Clark County Department of Building. (Photo: Las Vegas Convention and Visitors Authority)

Division, and Permit Application Center.

### **Seismic Code Requirements**

The county adopted the ICBO *Uniform Building Code* approximately forty years ago and has always used its seismic provisions. Clark County is in seismic zone 2 and integrates seismic and structural reviews. Seismic provisions and dynamic loads, such as wind and snow, are evaluated in the structural analysis. Staff members are familiar with seismic enforcement through plan review and inspection. The department also is involved with state and national seismic committees.

Nevada has adopted the 1991 UBC as the statewide code. They allow local amendments to be more restrictive than the state code, but not less restrictive. Most localities used some version of the UBC before the state adopted the UBC.

### **Plan Review Process**

The process for receiving a building permit is as follows. First an application must detail the scope and type of construction activity, identify the principal design professional for the project, and include site plans. The Department of Building manages the review and distributes copies to each department, such as planning, fire, and public works, to make sure it meets county code requirements.

Plan reviewers are continually trained so as to remain abreast of current building code and enforcement policies. Checklists, supervisor critiques, and inspection classes are a few of the ways reviewers are audited.

The amount of time it takes to get a permit approved varies by the size of the project. Single-family dwellings take approximately three weeks from the time the application is submitted to the final permit approval. Commercial projects can take about four to six weeks. The

numerous large hotels of Las Vegas take much longer to obtain a permit.

Plan reviewers have permission as part of their assignment to sign all permits, after which their supervisors critique. The director gets involved when problems arise or when there is a need for complex interpretations.

Problems or complaints regarding permit denial are first handled administratively. One of the two designated plan check supervisors first tries to resolve the problem. If unresolved, it goes to the director of the Department of Building, who serves as the building official. Finally, the applicant may file a complaint with the board of appeals, which is appointed by the county commissioners to make interpretations of the code and grant appeals.

### **Code Enforcement and Inspection**

Inspections are scheduled as required by the Department of Building and the code to check on different phases of construction, such as foundation, slab, framing, roofing, sheathing, and so on. The inspections are arranged after the builder contacts the department to notify it of the readiness of the construction. Inspections must be conducted before further construction can continue. Certain projects require continual or special inspection. If required, the owner of the site/project must hire an outside inspector or testing agency that has been pre-approved by the Department of Building. This organization conducts all required inspections and deals with structural requirements such as concrete, steel, masonry, soils, and grading issues. The owner of the site/project pays directly for third-party inspection services.

The Department of Building will sometimes conduct unscheduled inspection visits, most commonly for large projects that require such attention. Inspection costs by the

department are covered by the permit fee.

Although the department's workload has increased substantially, the department has incorporated methods for adjusting to these heavy loads, such as hiring more plan checkers and using third-party inspectors. The approved third-party inspector agencies total about fifty firms with about 350 certified inspectors.

### Fee Schedule

Clark County's permit fee schedule is slightly less than ICBO's guide. The fee schedule is based on the value of project construction. The plan review fee is 65 percent of the building permit fee derived from the chart. Fast-track projects or projects requiring phased design and construction are charged a higher cost for plan review. Subsequent review of resubmitted plans requires an additional fee. The building permit fee is charged upon issuance of the permit. The fees are only used to fund the services for which they are charged. The funds are placed in an enterprise fund and do not go into the county's general account.

Noncompliance or postponement of construction require additional costs. The Department of Building does not usually charge for additional reinspection on the same issue until the third visit. This charge is \$45. If a "red tag" or stop order is issued, an investigation is conducted and the owner is charged a fee ranging from \$120 to \$2,000. The charge is based on the cost of work at completion of the investigation. The department also can cite a project as a misdemeanor. Finally, the department can file a complaint with the contractors board if a contractor has abused his or her position.

## INTERVIEWS

### Carbondale, Illinois:

Steve Larson, City of Carbondale (Spring 1994)

### St. Louis County, Missouri:

Dave Casl, Building Permit Division, Department of Public Works, Clayton (Spring, 1994)

### Jonesboro, Arkansas:

Joe D. Tomlinson, Department of Planning and Inspection (Spring 1994)

### Memphis, Tennessee:

Terry Hughes, Building Official, Memphis and Shelby County Construction Code Enforcement (October 16, 1991; Spring 1994); William Walmsley, Director of Engineering, Department of Commerce and Insurance, Division of Fire Prevention, Nashville (May 7, 1991)

### Pacifica, California:

Steve Branvold, Plans Examiner and Building Official (Spring 1994)

### Clark County, Nevada:

Robert Weber, Director, Department of Building (Spring 1994)

## Survey Instrument

The following pages reproduce a form used by the Illinois Emergency Management Agency to survey communities' building code practices in southern Illinois. Such an inventory is an essential first step toward targeting municipalities or regions for code adoption or improving code enforcement. The data can also be used to help encourage the state to adopt a statewide code.

The Illinois survey, which was accomplished by a graduate student assistant over the course of one summer, began with the identification of 300 municipalities and counties in the area of highest seismic hazard. Using the Illinois Municipal League directory, a master list was created of the addresses, contact phone numbers, and populations of all relevant jurisdictions. Most of the surveys were completed by telephone. Counties were surveyed first, so that they could also confirm the list of cities, towns, villages, and townships within the county. This ensured that all jurisdictions were adequately identified. Where available, the building inspector was surveyed. In jurisdictions without building codes, the mayor or city clerk was surveyed. In small communities, where no telephone response was received after several tries, the surveys were mailed out, using systematic survey procedures. The data were analyzed using spreadsheet software.

The survey concluded that 78 percent of the municipalities have not adopted building codes. Fortunately, most of the larger municipalities, where most of the new construction is occurring, are covered by codes. Still, municipalities encompassing 31 percent of the population of southern Illinois are

not protected by building codes. Of the communities that have codes, most have adopted the most recent version; but some have not; and several communities have a code but no building department to enforce it.

By use of the spreadsheet database, the data could be sorted by various characteristics, providing the Emergency Management Agency with an easy way of identifying communities with adoption or enforcement deficiencies. The data were sorted in nine different ways: (a) addresses of all communities, (b) municipalities without building codes, (c) municipalities with building codes, (d) code updating methods of municipalities, (e) building permit use in municipalities with codes, (f) municipalities with codes but no building departments, (g) types of construction regulated by municipal building departments, (h) building departments' plan review standards, and (i) building department staff composition.

Copies of the full report, *Seismicity and Building Code Use in Southern Illinois*, by Lisa C. Morrison, October 1995, may be obtained for the cost of copying by contacting the Department of Urban and Regional Planning, University of Illinois at Urbana-Champaign, (217) 333-3890.

## Southern Illinois Building Code Survey: Survey Form

### *Opening:*

My name is \_\_\_\_\_. I am conducting a survey on building codes in Southern Illinois for the Illinois Emergency Management Agency.

- a. Could you direct me to someone with information about \_\_\_\_\_ (jurisdiction's) building codes?
- b. Can I take a few moments of your time to ask you about building codes in \_\_\_\_\_ (the jurisdiction)?

### *The Survey:*

1. **Jurisdiction:** \_\_\_\_\_
  
2. **Has \_\_\_\_\_ (jurisdiction) adopted any building codes?**  
(If yes, continue. If no, go to 3.)
  - a. What is the name of the building code in use? \_\_\_\_\_
  - b. What was the year of the last revision? \_\_\_\_\_
  - c. How are the building codes updated? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  - d. Is a building permit required prior to construction? \_\_\_\_\_  
\_\_\_\_\_
  - e. If yes, is a licensed architect or engineer's seal required on an applicant's construction document to obtain a building permit? \_\_\_\_\_  
\_\_\_\_\_
  
3.
  - a. **Does \_\_\_\_\_ (jurisdiction) have a code enforcement authority or building department to regulate building codes?**  
(If yes, continue. If no, go to end.)
  - b. What is the department name? \_\_\_\_\_  
What is the department address? \_\_\_\_\_  
\_\_\_\_\_

What is the telephone number? \_\_\_\_\_

c. What types of construction does the department regulate (residential, commercial, etc.)? \_\_\_\_\_

d. Is a plan review by the building department required for obtaining a building permit? \_\_\_\_\_

If yes, who performs the review? \_\_\_\_\_

If yes, does the reviewer have any of the following?

BOCA Certification \_\_\_\_\_

ICBO Certification \_\_\_\_\_

Professional Engineer's License \_\_\_\_\_

SBCCI Certification \_\_\_\_\_

Professional Architect's License \_\_\_\_\_

Other Certification \_\_\_\_\_

e. During construction, who ensures compliance with the building code? \_\_\_\_\_

f. How many staff members are employed by the building department? \_\_\_\_\_

g. How many of the following does the building department have?

Architects \_\_\_\_\_

Certified Planners \_\_\_\_\_

Engineers \_\_\_\_\_

Field Inspectors \_\_\_\_\_

4. (If no to 2 and 3) Is new construction regulated in any way? \_\_\_\_\_

5. a. Could I have your name? \_\_\_\_\_

b. Title? \_\_\_\_\_

c. Mailing Address? \_\_\_\_\_

d. Phone Number? \_\_\_\_\_

*Closing:*

*That completes our survey. Thank you for your time.*