

Lessons Learned from the Building Department Accreditation Program and Major Jurisdiction Committee







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Senior Vice President, Secretary RAJ NATHAN We thank you for choosing to spend your time in attending this short-course on best practices in building departments. This will be an excellent opportunity for you to learn about new and innovative procedures as well as to discuss those taking place in your own department and in those around you.

In this course, we'll discuss tried-and-true best practices accepted and promoted by the ICC Major Jurisdictions Committee as well as new ideas, from jurisdictions of all sizes, discovered by the International Accreditation Service (IAS) during the building department accreditation process.

Best practices have been defined as "professional procedures that are accepted or prescribed as being correct or most effective." In this short-course, we'll focus on recognized best practices ( as well as noteworthy practices currently being tested) in specific areas of plan review, inspections, permitting, management/administration, legal, customer service, and information technology.

The best practices that will be discussed in the presentation are organized, by the above topics, in this publication for your reference and study. The organization style is shared with AC251—the IAS Accreditation Criteria for Building Code Regulatory Agencies and Third-party Service Providers— which is the global standard for building department accreditation.

We hope that this course will leave you inspired to implement applicable best practices as well as to culture, refine and share a few of your own.

Sincerely yours,

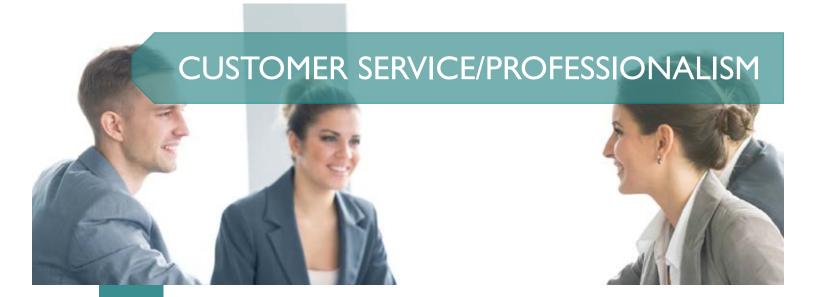
Chuck Ramani, P.E., CBO

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**IAS President** 

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Building Departments are moving toward a consensus -building and compliance model and leaving behind the old model of "starting with 'no'." Today, great customer service is the trend. For example, some departments have established a concierge service that helps applicants pilot their plans through the approval process. Pre-application meetings are also becoming common so that builders can identify all potential stumbling blocks prior to application.

The establishment of service goals for plan review, permitting, and inspection allows departments to gauge the professionalism of their staff as perceived by their customers. Development of these service goals with stakeholder input shows the importance that the department places on customer service.

Great customer service also includes:

- Awareness programs and community outreach activites (AC251 Clause 4.2.1.1.19),
- Making documents available to the public (AC251 Clause 4.2.1.1.20),
- Establishing a procedure for customers to file complaints against the department (AC251 Clause 4.2.5).

# CITY OF AURORA BUILDING AND PERMITS DIVISION

65 Water Street Aurora, IL 60505 (630) 256-3131

Aurora, IL's Building and Permits Division issues a monthly newsletter to contractors, design professionals, developers, and repeat customers as a resource. The newsletter communicates changes in federal or state laws, opportunities for training, changes in department policy, and any key development timeframe metric accomplishments.

See Appendix A for City of Aurora's Department Newsletter.

### **CITY OF SAN ANTONIO**

1901 S Alamo St San Antonio, TX 78204 (210) 207-5097

San Antonio, TX's Development Service Department publishes multiple Information Bulletins as a customer service initiative to assist customers in understanding the department's submittal and technical review requirements. The Information Bulletins save customers time in the review and inspection process.

The Department has a dedicated call center that answers general questions regarding the development process, status of permits and inspections, and schedules inspections. The call center staffing level is 14 FTE's and they answer approximately 600 calls a day.

San Antonio utilizes their Completeness and Assignment Review (CAR) Team as a one-stop service for customers submitting commercial building permit applications. The CAR team provides a completeness review of construction plans and documents. This review takes three days and allows for early detection of missing items so the plan review team is using complete documents for their reviews.

The Department has invested in training for their staff through the delivery of the annual San Antonio Building Codes Academy and their customers through monthly Learning at Lunch sessions.

The Service Department also posts "real time" plan review and inspection results on its website. The department also has an Event Notification System that customers can sign up to receive real time plan review and inspection results by email and text message.

See Appendix Q for City of San Antonio's Standard Operating Procedures (SOP), Call Center, Completeness and Assignment Review Team (CAR) for Commercial Intake, Training Programs, and Posting of Plan Review and Inspection Results.

# CITY OF SALEM OREGON BUILDING AND SAFETY DIVISION

555 Liberty St SE Room 320 Salem, OR 97301 (503) 588-6256

Salem, OR's Building and Safety Division assigns a project coordinator on a voluntary basis to projects valued less than 10 million dollars and mandatory for those with a greater valuation. The project coordinator is the applicant's single contact for the entire permitting process with the city.

The Division guarantees a ten working day turn-around for plan review of single-family dwellings or your money back. The Division has established criteria for this guarantee to ensure plans received are complete and include the necessary elements.

See Appendix P for City of Salem's Project Coordinator Program and 10 Day Guaranteed Turn Around.

#### MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY

700 North Tryon Street Charlotte, North Carolina (704) 336-2831

Mecklenburg County, NC's Code Enforcement section introduced Consistency Teams for each inspection discipline to address the decrease in office time achieved by moving inspectors to 95% field-based. Office time can allow inspectors to match notes on interpretations of codes. Where issues on consistency arise, the Consistency Teams meet with industry to understand the issues and then render decisions on the correct local interpretation of the code. These interpretations are then distributed to the field inspectors and industry.

They make available online interpretations of code requirements for commercial, residential, electrical, and mechanical disciplines. These interpretations are developed by the county's Consistency Teams based on issues being raised by industry.

Mecklenburg County offers a Residential Technical Answer Center and Commercial Technical Answer Center in-person and by phone, fax, or email for projects that do not yet have an assigned plan reviewer or inspector.

They allow customers to schedule commercial plan reviews months in advance to ensure their turnaround time. The OnSchedule system also includes plan review comments applicants can use.

See Appendix G for Mecklenburg County's Consistency Teams, Electronic Interpretation, Technical Answer Center, and OnSchedule System.

## CLARK COUNTY BUILDING DEPARTMENT

4701 W. Russell Rd Las Vegas, NV 89118 (702) 455-5842

Clark County, NV's Building Department makes numerous efforts to gauge the level of service being provided to and the changing needs of their customers. The department takes a multi-pronged approach which includes such activities as interview of lobby customers after they have received services, monthly meetings with the homebuilders, general contractors, and facility managers association, email blasts to the customers, and inspection phone audits.

See Appendix B for Clark County's Public Outreach.



In today's cities and counties, citizens and users of government services are demanding online access and service delivery.

If the department uses a computer program for plan checking, there should be evidence of validation of this program through activities such as hand calculations (AC251 Clause 4.2.1.1.16).

It is important for a department to access to the IT systems it needs to support these demands (AC251 Clause 4.2.1.1.15).

#### **CITY OF GREENSBORO**

300 West Washington St Greensboro, NC 27402 (336) 412-6216

Greensboro, NC's Development Service Division built an in-house software with two parts: building and trade permit entry and building and trade inspections. The inspections portion is referred to as the field unit. The ability of inspectors to access the field unit remotely has increased the number of inspections they are able to conduct each day.

See Appendix C for City of Greensboro's custom written in-house software package.

### CITY OF ROANOKE BUILDING INSPECTIONS DIVISION

215 Church Ave SW Room 170 Roanoke, VA 24011 (540) 853-6877

Roanoke, VA's Building Inspection Division adds quick response (QR) codes to permit placards for new building activity. These QR codes allow contractors, applicants, and the public to view daily inspections calendars via smartphones or tablets. The QR code also links to the City's Online Permit Center which includes inspection results, the ability to request inspections, and which inspections will be needed in the future.

See Appendix M for City of Roanoke's Quick Response (QR) Codes.

#### CLARK COUNTY BUILDING DEPARTMENT

4701 W. Russell Rd Las Vegas, NV 89118 (702) 455-5842

Clark County, NV's Building Department has developed a one-stop virtual department titled Constructions Services Online.

The Building Department also developed a Shear Wave Velocity Map which provides seismic shear wave velocity data for the County. Information contained within the map is useful for the design community and also for researchers.

See Appendix B for Clark County's Construction Services Online and Shear Wave Velocity Map.

#### **CITY OF SAN ANTONIO**

1901 S Alamo St San Antonio, TX 78204 ((210) 207-5097

San Antonio, TX's Development Service Department posts "real time" plan review and inspection results on its website. The department also has an Event Notification System that customers can sign up to receive real time plan review and inspection results by email and text message.

See Appendix Q for City of San Antonio's Call Center.

# CITY OF AURORA BUILDING AND PERMITS DIVISION

65 Water Street Aurora, IL 60505 (630) 256-3131

Aurora, IL's Building and Permits Division notifies customers of inspection results immediately upon their being entered. The automated email is broadcast to the entire private sector team and includes the results, which inspector performed the inspection, a link to a customer service survey, and a link to the on-line software for further transparency.

See Appendix A for City of Aurora's Automated Emails.

## MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY

700 North Tryon Street Charlotte, North Carolina (704) 336-2831

Mecklenburg County, NC's Code Enforcement has a fully electronic and totally paperless special inspection reporting process. Special inspections are conducted for nineteen different construction types in the county. Meck-SI.com ensures requires steps are not missed and that the mandated document retention is followed.

See Appendix G for Mecklenburg County's Special Inspection Program.

### CITY OF HOUSTON BUILDING INSPECTION DIVISION

611 Walker Houston, TX 77002 (832) 395-2511

Houston, TX's Building Inspection Division developed the TeleWork Inspection program to allow for field download of inspections and upload of inspection results. Inspection assignments are transmitted automatically to the inspectors' handheld devices each morning and updated throughout the day, as needed. Results can be transmitted to contractors in numerous ways (e.g. email and cellphone text messaging).

See Appendix D for City of Houston's TeleWork Inspection Program.

#### CITY OF PLANO BUILDING INSPECTIONS DEPARTMENT

1520 Ave K Suite 140 Plano, TX 75074 (972) 941-7212

Plano, TX's Building Inspection Department uses Bluebeam PDF Revu to conduct electronic plan review. Using pdf as the document format, the copyright of design professionals is maintained. Plans that are received electronically can be marked up with comments. If a paper plan is received, it is scanned upon arrival and then reviewed electronically. A paper copy is sent to the field for use by contractors and inspectors. Plano took a measured approach to implementation both from the process and equipment standpoint.

See Appendix L for City of Plano's Electronic Plan Review.

#### **CITY OF PHOENIX**

200 W Washington St Phoenix, AZ 85003 (602) 262-6011

Phoenix, AZ has an electronic plan review service in addition to an online construction permit service.

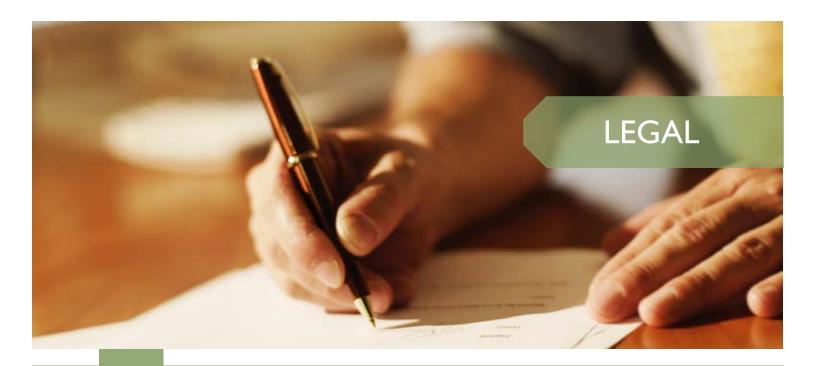
See Appendix K for City of Phoenix's Online Construction Permit Services and Electronic Plan Review Services.

# **CITY OF JACKSONVILLE**

Ed Ball Building 214 N. Hogan St. Jacksonville, FL 32202 (904) 630-1100

Jacksonville, FL's Building Inspection Division ensures timely inspections of projects within the 180 day requirement through their on-line permitting system. Contractors are given a dashboard where they can monitor permits that have gone 120 days without inspection. After 180 days without inspection, permits are suspended and contractors pay a fee to have these permits unsuspended.

See Appendix E for City of Jacksonville's 180 Day Permit Process.



AC251 addresses legal aspects of the building department through numerous criteria sections:

- It is essential that departments adopt current national construction codes and know their procedures for making administrative and technical amendments locally (AC251 Annex A, Clauses A4-A6).
- Departments need to have adequate access to legal counsel and prosecution support (AC251 Clause 4.2.1.1.18).
- Policies or statutes which provide code officials freedom from external/internal pressures and influences that may impair the enforcement of codes need to be in place (AC251 Clause 4.2.1.1.3).

### **NEW YORK STATE**

**Albany Location:** One Commerce Plaza, 99 Washington Ave Albany, NY 12231-0001 (518) 474-4073

State of New York's Division of Code Enforcement and Administration has an email service that allows any

interested party to receive frequent updates regarding the codes in New York State. Individual jurisdictions can adopt higher or more restrictive standards by petitioning the Code Council for a determination. These standards are available for the entire state. See Appendix I for New York State's Division of Code Enforcement and Administration.



Useful tools in this section (AC251 Clause 4.2.1) include:

- A comprehensive quality assurance plan, internal audits and management review meetings.
- These activities serve to determine conformity and effectiveness of operations, improve existing procedures, better manage risk, and provide critical inputs for continuous quality improvement.

The establishment of standard operating procedures further drives effectiveness.

#### CITY OF ROCHESTER HILLS

1000 Rochester Hills Dr Rochester Hills, MI 48309 (248) 841-2445

Rochester Hills, MI's Building Department utilizes their Quality Control Manual to monitor, identify, and improve the quality and efficiency of their operations. They have established 9 goals for the plan review function addressing timeliness, customer satisfaction, and accuracy. To determine the accuracy they conduct peer review of plan review letters and quarterly random reviews of reviewed plans.

See Appendix N for City of Rochester Hills' Quality Control Manual.

#### **CITY OF ROSEVILLE**

311 Vernon St Roseville, CA 95678 (916) 774-5332

Roseville, CA's Building Division established a policy to control their procedures and handouts. The policy ensures consistency in implementation and provides an opportunity for each procedure and handout to be reviewed, and updated if necessary, on an annual basis.

The Division audits a representative sample of permits issued, plan reviews, and building inspections performed annually. These audit look at the quality of work performed as well as the consistency amongst staff. The audits include how life safety items were reviewed and inspected.

Roseville also maintains records of continuing education of staff through a procedure that entrusts each employee with maintaining their own records but allows for the records to be maintained in one place.

See Appendix O for City of Roseville's Continuing Education Policy on Procedures and Documents, and Auditing Policies.

# NEW YORK CITY DEPARTMENT OF BUILDINGS

280 Broadway, 7th Floor New York, NY 10007 (212) 566-5000

New York, NY's Department of Buildings conducted an intensive study of three high risk construction operations (crane and hoist, excavation, and concrete) and developed 66 recommendations on areas for further study and ways for the departments to improve construction safety and regulation.

See Appendix H for New York City's High Risk Construction Oversight Initiative.

#### **CITY OF SAN ANTONIO**

1901 S Alamo St San Antonio, TX 78204 ((210) 207-5097

San Antonio, TX's Development Service Department publishes Standard Operation Procedures (SOP) to provide staff with clear guidance on the department's processes and procedures and to ensure consistency across the department. Where possible, prior to publishing the SOPs, they are shared with staff to gather their feedback and support.

San Antonio has invested in training for their staff through the delivery of the annual San Antonio Building Codes Academy and their customers through monthly Learning at Lunch sessions.

The Department has a quality control program to evaluate staff's job performance. Field inspectors, permit staff, and call center staff are audited on a monthly basis. Plan reviewers are subject to random audits on a quarterly basis. Managers and supervisors use an audit checklist to perform their audits and will determine the number of major, minor and/or coaching opportunities to calculate staff's score.

See Appendix Q for City of San Antonio's Standard Operating Procedures (SOP), Training Programs, and Quality Control Programs.

#### CITY OF PHILADELPHIA

1401 John F. Kennedy Boulevard Concourse Level Philadelphia, PA 19102 (215) 686- 8686

Philadelphia, PA's Department of Licenses and Inspections conducted a comparative survey of building inspections across numerous jurisdictions taking into account city size, construction activity indicators, building inspection organization, cost comparisons and productivity comparisons.

See Appendix J for City of Philadelphia's Building Inspection Survey.

## CLARK COUNTY BUILDING DEPARTMENT

4701 W. Russell Rd Las Vegas, NV 89118 (702) 455-5842

Clark County, NV's Building Department outreaches to their community in multiple ways including donating more than 200 teddy bears to the Clark County Fire Department's Trauma Teddy program. The trauma teddies are given to children at accident and fire scenes.

See Appendix B for Clark County's Development Service Community.

### MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY

700 North Tryon Street Charlotte, North Carolina (704) 336-2831

Mecklenburg County, NC's Code Enforcement provides a recap sheet showing the number of inspections and failures per trade at the Certificate of Occupancy. A project code defect rate is calculated and compared to an established fee adjustment schedule. Either a charge or credit is calculated based on the original permit fee and applied to the contractor's account.

See Appendix G for Mecklenburg County's Re-Inspection Fees.

## CITY OF JACKSONVILLE

Ed Ball Building 214 N. Hogan St. Jacksonville, FL 32202 (904) 630-1100

Jacksonville, FL's Building Inspection Division ensures timely inspections of projects within the 180 day requirement through their on-line permitting system. Contractors are given a dashboard where they can monitor permits that have gone 120 days without inspection. After 180 days without inspection, permits are suspended and contractors pay a fee to have these permits unsuspended.

See Appendix E for City of Jacksonville's 180 Day Permit Process.

### **CITY OF KELOWNA**

1435 Water St Kelowna, British Columbia Canada, VIY-1J4 (250) 469-8630

Kelowna, BC's Building & Permitting Branch Performance Management System ensures all branch services, processes, procedures, and policies are consistently performed to the highest standards. It encompasses 11 areas and some of its goals include identifying, addressing, and eliminating problem areas and creating a management tool for continuous enhancement of services.

See Appendix F for City of Kelowna's Quality Assurance Program.



AC251 addresses requirements for Administrative and Permitting Staff requiring departments to demonstrate their hiring, training, certification, and performance evaluation processes.

Permitting Information (AC251 Clause 4.2.1.3) is similar to the plan review section.

- Data collection of permit volume and type allows jurisdictions to understand the development trends in their community.
- Building departments can use this information to identify their staffing needs based on the amount and complexity of construction being proposed.
- As with the previous category, procedures allow for consistency and predictability. Among the documents required, there is a need to have a procedure in place for inactive permits, and safeguards against unsafe and incomplete projects in the community.
- Service goals are useful for gauging and improving performance of permitting. Goals may include: intake and issuance timeliness, quality performance and/or customer satisfaction.
- Internal audits are a tool for monitoring how well a department is meeting its established goals.

## CITY OF JACKSONVILLE

Ed Ball Building 214 N. Hogan St. Jacksonville, FL 32202 (904) 630-1100

Jacksonville, FL's Building Inspection Division ensures timely inspections of projects within the 180 day requirement through their on-line permitting system. Contractors are given a dashboard where they can monitor permits that have gone 120 days without inspection. After 180 days without inspection, permits are suspended and contractors pay a fee to have these permits unsuspended.

The Division works with the Jacksonville Electric Authority on collection of fees and coordination of electrical approvals. The process is initiated in the division's permitting system and notifies the electric authority within 3 hours of the finaling of a temporary power pole so the power hookup can be made.

See Appendix E for City of Jacksonville's 180 Day Permit Process and Temporary Flat Rate Pole.

### CLARK COUNTY BUILDING DEPARTMENT

4701 W. Russell Rd Las Vegas, NV 89118 (702) 455-5842

Clark County, NV's Building Department has developed a one-stop virtual department titled Constructions Services Online. Customers of various county departments are able to manage their constructions projects online. The site allows applicants to apply for and receive certain non-plan permits.

See Appendix B for Clark County's Electronic Permits via Construction Services Online.

#### **CITY OF SAN ANTONIO**

1901 S Alamo St San Antonio, TX 78204 (210) 207-5097

San Antonio, TX's Development Service Department utilizes their Completeness and Assignment Review (CAR) Team as a one-stop service for customers submitting commercial building permit applications. The CAR team provides a completeness review of construction plans and documents. This review takes three days and allows for early detection of missing items so the plan review team is using complete documents for their reviews.

See Appendix Q for City of San Antonio's Completeness and Assignment Review Team (CAR) for Commercial Intake.

# CITY OF SALEM OREGON BUILDING AND SAFETY DIVISION

555 Liberty St SE Room 320 Salem, OR 97301 (503) 588-6256

Salem, OR's Building and Safety Division offers an enhanced permit service which tailors the permitting process to an applicant's construction schedule. Options available to customers include deferred plan review submittals, expedited plan review, phased permitting, pre-submittal review or assignment of a project coordinator.

Salem also assigns a project coordinator on a voluntary basis to projects valued less than 10 million dollars and mandatory for those with a greater valuation. The project coordinator is the applicant's single contact for entire permitting process with the City.

See Appendix P for City of Salem's 10 Day Guaranteed Turn Around for Single Family Dwelling, Customized Permitting Process, and Project Coordination.



Two distinct areas of AC251 are dedicated to Plan Review: 4.2.1.2-Personnel and 4.2.2-Plan Reviews.

The requirements in AC251 Section 4.2.1.2 have been developed to ensure accredited building departments have an adequate number of qualified staff including plan reviewers. During the document review and on site evaluations of applicants for accreditation, IAS observes the hiring, training, certification, and performance evaluation processes in place. The participation of plan reviewers in code development activities and their preparation to perform post-disaster assessments are also reviewed.

The focus of Section 4.2.2 is data collection, procedures, and performance.

- By requesting departments to provide the number of annual reviews, the
  number of reviews that resulted in rejection or correction, and the typical
  reasons for rejection or correction (4.2.2.4), IAS is seeking to confirm that departments
  have a good handle on their workload and workflow.
- Documented procedures ensure consistency among department staff and predictability for customers. Procedures for partial plan approvals, deferred submittals, and alternate materials and methods approvals, among others, are required.
- Service goals are defined as goals set for performance in each area of service offered by the building department. Goals must be quantified (expressed as a number, rating, or grade) and established in cooperation with users of department services (citizens, architects, engineers, contractors, etc.) as well as elected and appointed officials. A system must be in place to regularly measure progress in meeting service goals. As part of this system, targets should be established for three separate areas of overall service: timeliness (turnaround time); quality (error rate); and professionalism (quality of interactions with staff [e.g. knowledge, attitude, responsiveness and helpfulness of staff members] as perceived by users of department services).

#### CITY OF PLANO BUILDING INSPECTIONS DEPARTMENT

1520 Ave K Suite 140 Plano, TX 75074 (972) 941-7212

Plano, TX's Building Inspection Department uses Bluebeam PDF Revu to conduct electronic plan review. Using pdf as the document format, the copyright of design professionals is maintained. Plans that are received electronically can be marked up with comments. If a paper plan is received, it is scanned upon arrival and then reviewed electronically. A paper copy is sent to the field for use by contractors and inspectors. Plano took a measured approach to implementation both from the process and equipment standpoint.

See Appendix L for City of Plano's Electronic Plan Review.

#### CLARK COUNTY BUILDING DEPARTMENT

4701 W. Russell Rd Las Vegas, NV 89118 (702) 455-5842

Clark County, NV's Building Department has developed a one-stop virtual department titled Constructions Services Online. Customers of various county departments are able to manage their construction projects online. The site allows construction plans for certain projects to be submitted and reviewed electronically as well as monitoring of plan review status.

See Appendix B for Clark County's Paperless Plan Submittal & Review.

### **CITY OF SAN ANTONIO**

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San Antonio, TX's Development Service Department utilizes their Completeness and Assignment Review (CAR) Team as a one-stop service for customers submitting commercial building permit applications. The CAR team provides a completeness review of construction plans and documents. This review takes three days and allows for early detection of missing items so the plan review team is using complete documents for their reviews.

See Appendix Q for City of San Antonio's Completeness and Assignment Review Team (CAR) for Commercial Intake.

#### **CITY OF ROCHESTER HILLS**

1000 Rochester Hills Dr Rochester Hills, MI 48309 (248) 841-2445

Rochester Hills, MI's Building Department established a Special Inspection Program to provide a clear and understandable path for architects, engineers, and special inspection companies to follow. The program includes a special inspection and testing agreement and a statement of special inspections to be submitted by the applicant as well as the qualifications for special inspectors and special inspection agencies.

See Appendix N for City of Rochester Hills' Quality Control Manual and Overview of Special Inspection Program.

# CITY OF SALEM OREGON BUILDING AND SAFETY DIVISION

555 Liberty St SE Room 320 Salem, OR 97301 (503) 588-6256

Salem, OR's Building and Safety Division coordinates with the Fire and Life Safety Division of the Fire Department to have designated Deputy Fire Marshals work within the scope and authority of the Building Official. The work of the Fire Marshals is further coordinated through participation in pre-application conferences, field inspections, and tracking of activity in the building permitting software.

They hold daily plan review roundtables to determine if other reviewing departments need to have plans routed to them. This roundtable is facilitated by each morning laying out in a central conference room all plans received the prior day. Representatives from other reviewing departments attend, indicate a need to review, if applicable, and then the plans are routed to them by Building and Safety Division permit staff.

The Building and Safety Division guarantees a ten working day turn-around for plan review of single-family dwellings or your money back. The Division has established criteria for this guarantee to ensure plans received are complete and include the necessary elements.

Salem offers an enhanced permit service which tailors the permitting process to an applicant's construction schedule. Options available to customers include deferred plan review submittals, expedited plan review, phased permitting, pre-submittal review or assignment of a project coordinator.

They also begin the review of proposed tenant improvements in the field to help clarify how the proposed new construction relates to the existing construction.

See Appendix P for City of Salem's Fire Personnel Plans Examiner, Plan Review Roundtable, 10 Day Guaranteed Turn Around for Single Family Dwelling, Customized Permitting Process, and On-Site Plan Review of Tenant Improvement.

# MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY

700 North Tryon Street Charlotte, North Carolina (704) 336-2831

Mecklenburg County, NC's Code Enforcement section allows customers to schedule commercial plan reviews months in advance to ensure their turnaround time. The OnSchedule system also includes plan review comments applicants can use.

See Appendix G for Mecklenburg County's OnSchedule System.

#### **CITY OF PHOENIX**

200 W Washington St Phoenix, AZ 85003 (602) 262-6011

Phoenix, AZ has an electronic plan review service in addition to an online construction permit service.

See Appendix K for City of Phoenix's Online Construction Permit Services and Electronic Plan Review Services.

## **CITY OF JACKSONVILLE**

Ed Ball Building 214 N. Hogan St. Jacksonville, FL 32202 (904) 630-1100

Jacksonville, FL's Building Inspection Division utilizes interactive checklists for inspections and plan review specific to a particular trade. Each item on the checklists includes a code reference and link to access the code section text online.

See Appendix E for City of Jacksonville's Interactive Checklist.



AC251 Section 4.2.1.2-Personnel also addresses requirements for Inspectors and requires departments to demonstrate their hiring, training, certification, and performance evaluation processes. Section 4.2.4 is on Inspections.

Data collection allows a department to confirm that departments have a good handle on their workload and workflow.

- Departments must track the number and types of inspections, the reason for rejections on an individual inspector basis, and the most common reasons for rejection or correction.
- Determining trends in failed rejection allows the department to educate its stakeholders in order to increase compliance.
- Documented procedures ensure consitency among department staff and predictability for customers. Procedures for approving special inspectors and fabricators, overseeing work done by these groups, and final inspections, among others, are required. Unless excluded from adopted code, the use of and compliance with IBC Chapter 17, Special Inspections is required.
- Inspections are often the most visible activity conducted by the building department. Establishing and monitoring service goals for this function ensures inspections are performed on time, with minimal error, and in a professional manner.

#### **CITY OF GREENSBORO**

300 West Washington St Greensboro, NC 27402 (336) 412-6216

Greensboro, NC's Development Service Division built an in-house software with two parts: building and trade permit entry and building and trade inspections. The inspections portion is referred to as the field unit. The ability of inspectors to access the field unit remotely has increased the number of inspections they are able to conduct each day.

See Appendix C for City of Greensboro's Building and Trade Inspections "Field Unit".

#### CITY OF ROANOKE BUILDING INSPECTIONS DIVISION

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Roanoke, VA's Building Inspection Division adds quick response (QR) codes to permit placards for new building activity. These QR codes allow contractors, applicants, and the public to view daily inspections calendars via smartphones or tablets. The QR code also links to the City's Online Permit Center which includes inspection results, the ability to request inspections, and which inspections will be needed in the future.

See Appendix M for City of Roanoke's Quick Response (QR) Codes.

### CLARK COUNTY BUILDING DEPARTMENT

4701 W. Russell Rd Las Vegas, NV 89118 (702) 455-5842

Clark County, NV's Building Department has developed a one-stop virtual department titled Constructions Services Online. Customers of various county departments are able to manage their construction projects online. The site allows customers to schedule or cancel inspections and view what inspections are required as well as the results of inspections that have been completed.

See Appendix B for Clark County's Management of Inspections via Construction Services Online.

#### **CITY OF ROCHESTER HILLS**

1000 Rochester Hills Dr Rochester Hills, MI 48309 (248) 841-2445

Rochester Hills, MI's Building Department established a Special Inspection Program to provide a clear and understandable path for architects, engineers, and special inspection companies to follow. The program includes a special inspection and testing agreement and a statement of special inspections to be submitted by the applicant as well as the qualifications for special inspectors and special inspection agencies.

See Appendix N for City of Rochester Hills' Overview of Special Inspection Program.

# CITY OF AURORA BUILDING AND PERMITS DIVISION

65 Water Street Aurora, IL 60505 (630) 256-3131

Aurora, IL's Building and Permits Division notifies customers of inspection results immediately upon their being entered. The automated email is broadcast to the entire private sector team and includes the results, which inspector performed the inspection, a link to a customer service survey, and a link to the on-line software for further transparency.

See Appendix A for City of Aurora's Inspection Resulted Automatic Broadcast E-mail.

#### CITY OF HOUSTON BUILDING INSPECTION DIVISION

611 Walker Houston, TX 77002 (832) 395-2511

Houston, TX's Building Inspection Division developed the TeleWork Inspection program to allow for field download of inspections and upload of inspection results. Inspection assignments are transmitted automatically to the inspectors' handheld devices each morning and updated throughout the day, as needed. Results can be transmitted to contractors in numerous ways (e.g. email and cellphone text messaging).

See Appendix D for City of Houston's TeleWork Inspection Program.

## CITY OF JACKSONVILLE

Ed Ball Building 214 N. Hogan St. Jacksonville, FL 32202 (904) 630-1100

Jacksonville, FL's Building Inspection Division utilizes interactive checklists for inspections and plan review specific to a particular trade. Each item on the checklists includes a code reference and link to access the code section text online.

See Appendix E for City of Jacksonville's Interactive Checklist.

#### CITY OF KELOWNA

1435 Water St Kelowna, British Columbia Canada, VIY-1J4 (250) 469-8630

Kelowna, BC's Geographic Assigned Areas Inspection Services Map offers a one stop shop to both internal and external customers by dividing the City into 5 areas with a designated plan checker, building inspector, plumbing and gas inspection, and development engineering technologist. The assigned inspection areas are cost effective and the team approach ensures consistency throughout the permitting process.

See Appendix F for City of Kelowna's Geographic Assigned Areas Inspection Services Map.

#### MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY

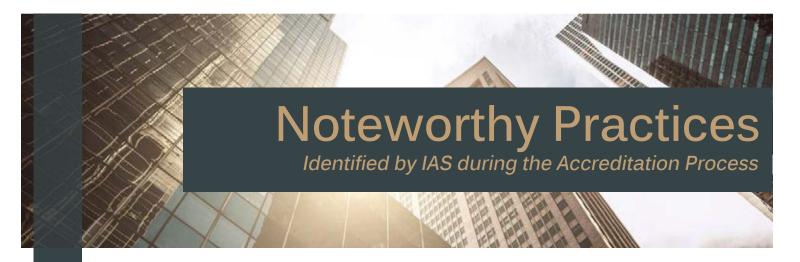
700 North Tryon Street Charlotte, North Carolina (704) 336-2831

Mecklenburg County, NC's Code Enforcement section introduced Consistency Teams for each inspection discipline to address the decrease in office time achieved by moving inspectors to 95% field-based. Office time can allow inspectors to match notes on interpretations of codes. Where issues on consistency arise, the Consistency Teams meet with industry to understand the issues and then render decisions on the correct local interpretation of the code. These interpretations are then distributed to the field inspectors and industry.

Mecklenburg County has a fully electronic and totally paperless special inspection reporting process. Special inspections are conducted for nineteen different construction types in the county. Meck-Sl.com ensures requires steps are not missed and that the mandated document retention is followed.

They also provide a recap sheet showing the number of inspections and failures per trade at the Certificate of Occupancy. A project code defect rate is calculated and compared to an established fee adjustment schedule. Either a charge or credit is calculated based on the original permit fee and applied to the contractor's account.

See Appendix G for Mecklenburg County's Consistency Teams, Special Inspections, and Re-Inspection Fees.



#### From the City of Port St. Lucie, FL, Building Department (BDA-155)

- The City of Port St. Lucie Building Department created a red tag elimination program to reduce
  the number of failed inspections by 60 percent in six months. The department exceeded that
  goal by an additional 15 percent after they began sending monthly notifications to registered
  contractors to make them aware of the most common code violations for each trade.
- In an effort to establish an on-going collaborative relationship with real estate professionals in the community, the City of Port St. Lucie Building Department created the Realtor Assist program. In this program, real estate professionals are invited to learn about the services provided by the building department and advised of relevant rules, regulations and changes to ordinances or building codes. In addition, the sessions are meant to help Realtors identify red flags which may identify work that has been done improperly or without permits—adding value to the services they provide to homebuyers.
- Port St. Lucie's Building Department created a concierge position to receive all visitors in the lobby. The concierge is well informed of the functions of each co-located department and is able to correctly direct customers to Permitting, Plan review, Inspections, Contractor Licensing, Engineering, Utilities, Planning and Zoning and/or Business Tax rather than allow them to wait in an incorrect line. Customers can pick up permits, drop off documents, receive public records or ask a question of the concierge. This change has drastically reduced wait times in permit office lines and feedback shows that customers are pleased with the high level of customer service.
- The City of Port St. Lucie Building Department is committed to regular community outreach
  activities and the following examples demonstrate the ways in which they engage and educate
  the public:
  - They offer a free eight-week class called "City University" which is designed to help residents learn about their city government. City University is offered two times per year and is free for anyone living or working in Port St. Lucie.
  - A video "Hiring a Contractor" was created to provide homeowners with tips on what to look for when hiring a contractor. The video is featured online (www.cityofpsl.com) and on their local channel PSL TV20.

#### From the City of McKinney, TX, Building Inspections Department (BDA-157)

- The City of McKinney Building Inspections Department communicates their permitting process via an interactive flowchart that is maintained on the City's website. There are two types of flow charts: One for developers and another for homebuilders. Each flowchart guides the customer through the entire process, step by step. At each step, the customer can click on a link to see a clear set of instructions for the required activity.
- McKinney boasts a notable resource for historic buildings in the community. The City publishes
  their Historic Resource Inventory Survey online which starts with a map of the City of McKinney
  and features interactive markers for each historic property. The interactive markers link to interesting historical background information and photos of each structure. The site goes further
  by providing educational information about different types of historical architecture and other
  information of note.

#### From the Town of Easton, MD, Building Inspection Division (BDA-150)

The Building Inspection Division (BID) has developed an innovative way to stay on top of permits that are in danger of lapsing prior to finalization of work. In addition to the typical practices of (1) establishing an expiration date of a permit when work has not commenced and (2) requiring the permit holder to call and schedule inspections at designated points in the construction process, BID sets a "projected" completion date for the project and, when that date approaches prior to completion, a notification to the permit holder is automatically generated to inform them of the potential expirations of the permit. The notification then directs them to call for an immediate inspection. This process will help determine whether the permit should be allowed to stay in effect or expire.

#### From City of Kennesaw, GA, Building Services Department (BDA-134)

Residential inspectors carry educational materials in their vehicles in order to explain code and life-safety requirements to homeowners.

#### From City of Jacksonville, FL, Building Inspection Division (BDA-148)

The Building Inspection Division (BID) collects an additional nominal fee for new residential or commercial construction permits and forwards this fee to the Jacksonville Electrical Authority (JEA). In exchange, a temporary construction power pole is provided to the jobsite at no additional fee to the contractor. Upon final eletrical inspection and approval, the BID's system automatically informs JEA. This service provided by BID exhibits a streamlined approach to facilitating the construction process and minimizes delays in providing temporary electrical service during construction.

# APPENDIX

- City of Aurora, IL (A)

  \*Clark County, NV (B)

  \*City of Greensboro, NC (C)

  City of Houston, TX (D)
- \*City of Jacksonville, FL (E)
  - \*City of Kelowna, BC (F)
- Mecklenburg County, NC (G)
  - New York City, NY (H)
    - New York State (I)
  - \*City of Philadelphia, PA (J)
    - City of Phoenix, AZ (K)
      - \*City of Plano, TX (L)
    - \*City of Roanoke, VA (M)
- \*City of Rochester Hills, MI (N)
  - \*City of Roseville, CA (O)
    - \*City of Salem, OR (P)
  - \*City of San Antonio, TX (Q)

#### **Appendix A**

# CITY OF AURORA BUILDING AND PERMITS DIVISION

65 Water Street Aurora, IL 60505 (630) 256-3131

Contact Information:

John P. Curley AIA, CBO

Director Building and Permits Division - City of Aurora jcurley@aurora-il.org

#### **Best practices include:**

- Inspection
- Customer Service
- Information Technology

Development Services Department - Building & Permits Division 65 Water Street • Aurora, Illinois • 60505-3305

(630) 256-3130 FAX (630) 256-3139



<u>mic@iccsafe.org</u>

#### Contact Information:

John P. Curley AIA, CBO
Director Building and Permits Division - City of Aurora
65 Water Street
Aurora II. 60505
jeurley@aurora-il.org
(630) 256-3131

#### Program Description:

AURORA's Inspection Resulted Automatic Broadcast E-mail - Real Time from Field Netbook Immediately upon resulting inspections, we forward an automatic result e-mail broadcast to the entire private sector team using field tablets at the site (all contractors, design professionals, owners, tenants and named contact persons.) This inspection result e-mail accomplishes the following with no additional staff effort.

- Communicates with the entire private sector team the inspection result and the code sections of any failing items so they may coordinate better among themselves. As this is an e-mail correspondence deciphering small inspector scribbles on a sticker has all but been eliminated.
- 2. Indicates which inspector performed the inspection.
- We provide an inspection services specific customer survey link to berter target areas for improvement and gather customer suggestions.
- 4. We provide links to our on-line software to further our transparency.

#### Costs / Benefits:

This additional customer contact is automated and takes no additional effort from inspectors. As it helps our inspectors be more efficient with travel we expect that we will be able to add an additional inspection per inspector per day. The field tablets/notebooks were about ~\$600 per unit and should pay for themselves with additional efficiency and with our inspector's new found ability to perform off hours inspections at the cost of the developer.

#### Benefits:

- Real-Time Inspection results helps the private sector more easily perform project management duties and is a proactive method to provide transparency to owners, tenant whom are not likely to access our on-line software.
- Saving 3 hours of inspection result notification per inspection is cutting days out of our occupancy timelines and will result in additionally captured property taxes and much higher customer satisfaction.

Document1 3/26/2012

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(630) 256-3130 FAX (630) 256-3139

#### Unanticipated benefits:

- 1. Our inspection services specific customer survey link has gathered customer suggestions in addition to areas for improvement.

  2. Customer surveys, filtered by inspector provide a customer's perspective of the individual.
- employee's strengths and weaknesses for use in employee evaluations.

#### Attached Documents:

Sample Real-Time Inspection Result E-mail.

## City of Aurora

#### Division of Building & Permits

65 Water Street Aurora, Illinois 60505

ph (630) 256-3130

#### Please take notice of the **results** for the

PLUMBING UNDERGROUND inspection performed on 3/26/12:

Application #: 12- 00000483 65 WATER ST AURORA, IL

15-22-379-003

Avon Rocks! - Klosk at Building and Permits Div

Structure (if a phased permit): 000 Inspection: PLUMBING UNDERGROUND

Inspector: KERKMAN, JEFF

Inspection results for this Individual Inspection: DISAPPROVED

THIS IS AN EXAMPLE INSPECTION RESULT BROADCAST E-MAIL TO ENTIRE PRIVATE SECTOR TEAM. THIS IS REAL TIME COMMUNICATION. FROM FIELD TABLETS/NOTEBOOKS.

March 26, 2012 10:52:10 AM curlevi.

1. Need a cleanout at the end of the run [2004] Illinois Plumbing Code Section 890.420 (b)

2. Drain lines back pitched at marked locations [2004]. Illinois Plumbing Code Section 890.1320 (f)(g)

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(630) 256-3130 FAX (630) 256-3139

If this is a final inspection, please bear in mind that other inspections may still exist for your project. Please contact Building and Permits (630) 256-3130 to ensure that a Certificate of Occupancy or Certificate of Completion can be issued, or to find any additional requirements/fees that may be owed prior to receiving your Certificate of Occupancy or Certificate of Completion.

#### WEB BASED PERMIT APPLICATION TRACKING AND INSPECTION SCHEDULING

Please check out our Web based permit application tracking and inspection scheduling software Click2Gov. Using the permit specific pin number you can schedule inspections on-line 24/7.

http://coagov.aurora-il.org/Click2GovBP/SelectPermit.jsp

We sincerely hope you find our Development Services are the best in the region. We look forward to your praises or constructive criticisms via the survey below. Thank you for your confidence in us and your investment in Aurora. If you have Application or Permit specific questions please feel free to contact the Building & Permits Division @ BP@aurora-il.org or call during business hours 8-5 M-F.

# PLEASE TAKE A MOMENT TO TAKE OUR CUSTOMER SATISFACTION SURVEY

Document1 3/26/2012

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(630) 256-3130 FAX (630) 256-3139



# MAJOR JURISDICTION

COMMITTEE

**BEST PRACTICES Submittal** 

mjc@iccsafe.org

#### Contact Information:

John P. Curley AIA, CBO
Director Building and Permits Division - City of Aurora
65 Water Street
Aurora IL 60505
jeurley@aurora-il.org
(630) 256-3131

#### Program Description:

#### **AURORA Building Department Monthly Newsletter**

Issue a monthly newsletter to (~3,000 recipients) our contractors, design professionals, developers and repeat customers. Newsletter is intended to be a resource for all in the following areas:

- Communicate changes in federal or state laws and the City's interpretation of these laws and compliance requirements and policies.
- 2. Communicate opportunities for ever evolving training many free
  - Lead Safe work practices.
  - b. IECC
  - c. IgCC
  - d. City hosted training opportunities
- Communicate ordinance changes during the committee deliberation stage and earlier to better accommodate everyone's concerns and build support at the chamber level prior to entering the political area.
- 4. Communicate changes in departmental policy
  - Contractor programs.
  - b. Inspection lead time for staffing gaps
- 5. Communicate important resource links
  - a. Energy Code
  - b. Historic Preservation
  - c. Smoke Detectors
- Communicate our Key development timeframe metric accomplishments.
- Communicate construction centric volunteer opportunities to assist our not-for-profits and neighborhoods.
  - a. Rebuilding Together Aurora
  - b. NeighborWorks Joseph Corporation

Document1 3/26/2012

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#### Costs / Benefits:

This additional customer contact cost about \$50/month for constant contact software. Benefits:

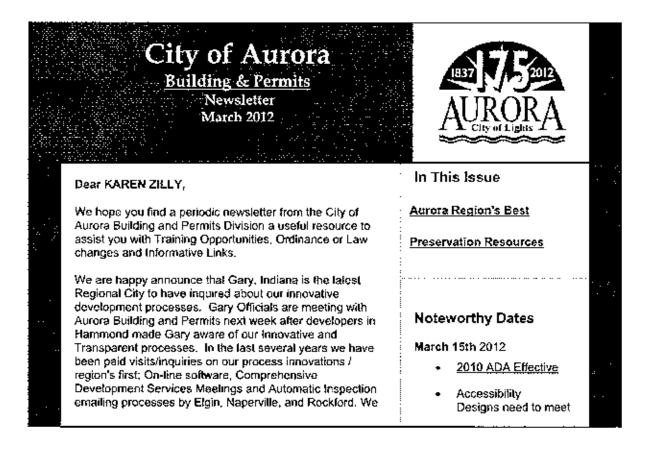
- Cheap means of providing a proactive transparency for changing rules, ordinances and policies
  to the vast majority of our customers.
- 2. Offering resource links and training opportunities helps build rapport with our customers.

#### Unanticipated benefits:

- Recipients referencing and using our resources is reducing our plan review timelines by communicating how we will handle changes in federal and state laws.
- Providing customers with more tools and information has bolstered our position as the regional experts.

#### Attached Documents:

Sample Newsletter attached.



Document1 3/25/2012

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additionally have hosted training seminars on code flexibility afforded by Chapter 34 and Existing Building Code reviews to dozens of design professionals plus Elgin, Glen Ellyn, Kane County, Naperville, Oswego and Rockford.

Sincerely, Building and Permits City of Aurora

#### REGION'S BEST BUILDING DEPARTMENT

Stay tuned for why our Customers are proclaiming Aurora Building and Permits the Best Building Department in the Region.

# Our Four Faceted Approach to Building Department Improvements:

- 1. Offer more flexibility through
  - Using Design alternatives, Chapter 34 & IEBC reviews.
  - Tailoring plan review and inspection phasing to meet customer's needs.
- Hold ourselves accountable for among other things our initial review timeframes. The primary building department satisfaction metric as determined by several large city department streamlining consultants.
- Most innovative and transparent communication tools.
- 4. Monitor satisfaction of customers.

#### Recent Customer Comments:

12 Mar 2012 E-Mail - from a National Retailer new to Chicago Premium Outlet Mall.

"Best service we have ever received from any municipality! Thank you."

28 Feb 2012 Thank You Card - from an Aurora native and long-time businessman.

"I wanted to let you know how much I appreciated the time you took with me back in November when I first started my building remodel. I will not forget

#### the most restrictive of:

- 97 IAC
- 03 AN\$1
   A17,1
- o 10 ADA
- Note that IL CD8 is beginning the process to modify the IAC. No timelines have been set to date.

#### March 29th 2012

 Aurora Electrical Commission start discussions on Staff proposal for a new amendments to the 2008 NEC @ 3:30PM 65 Water Street Aurora.

#### April 28th 2012

 Rebuilding Together Volunteer Weekend See notes below

#### May 01st 2012

 Effective date for Aurora's Revised 2009 IBC/IFC provisions for R-2 Apartment use buildings

#### June 30th 2012

 Projected effective date for the State of Illinois' 2012 International Energy Conservation Code

Document1 3/26/2012



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the time you took to go over my plans with me. I also want to commend you on the staff you have down at the Division of Building & Permits. All of the folks I have dealt with were awesome. I always felt that they cared about my needs. Growing up in this town and living and working here my whole life gives me a special connection to Aurora. Now experiencing first hand, the kind of people that work in your department really makes me proud to call Aurora home. Keep up all the good work."

#### Building Codes & Preservation --Webliography

Here are some links to some of the critical resources on preservation and building codes, which Mike Jackson, FAIA - Division Manager, State of Illinois Preservation Services referenced in his recent presentation. IHPA web site will soon post the PowerPoint presentation.

#### Fire Safety:

- Guidelines for Determining the Fire Resistance Ratings of Building Elements BOCA title, 1994.
   Originally published as: Rehabilitation Guidelines 1980: Vol. 8 -Guideline on Fire Ratings of Archaic Materials and Assemblies. GREAT RESOURCE www.toolbase.org/PDF/DesignGuides/fire\_ratings.pdf
- Fire Prevention and Building CodeCompliance for Historic Buildings: A Field Guide www.uvm.edu/~v/nnet/prespl/codes/code.html

#### Accessibility:

- Iffinois Accessibility Code www.cdb.state.it.us/IAC.shtml
- Universal Access Webliography from Heitzman Architects <u>www.heitzman.org/opuac.html</u>
- Preservation Brief # 32 Making Historic Properties Accessibility www.nps.gov/hps/tps/briefs/brief32.html

#### Other Publications

Building Codes for Existing and Historic Buildings.

#### Volunteers Needed

Rebuilding Together Aurora event will be Saturday April 28, 2012

Rebuilding Together Aurora needs your help! You don't have to work in the building trades to be of assistance, but if you are in the building. trades, your skills are essential to the success of our renovation work. We need people to serve on various. committees, including (und raising and house selection. There are many ways you can help. If you have an interest in volunteering with our organization, complete the online form below or send an email to RTA E-mail or call our Executive Director, Amy Allenbern at 630-585-7510. RTA Volunteer

Join Our Mailing List

Document1

3/25/2012



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- Melvyn Green, New York: Wifey & Sons, 2011
- Safety, Building Codes and Historic Preservation. National Trust Information Series No. 57, 1992.

Forward this email

ว่า **เครื่องกับ** วิหารูปเรียกเสียก



Document(1 3/26/2012

# **Appendix B**

# CLARK COUNTY BUILDING DEPARTMENT

4701 W. Russell Rd Las Vegas, NV 89118 (702) 455-5842

Contact Information:
Nan Riepenhoff
Sr. Business Systems Analyst
(702) 455-5842
NXS@clarkcountyNV.gov

Werner Hellmer
Senior Engineer
(702) 455-8095
wkh@clarkcountyNV.gov

# Best practices include:

- Plan Review
- Permitting
- Inspection
- Management/Administration
- Customer Service
- Information Technology





#### **Clark County Building Department**

#### "BEST PRACTICES" Submittal

#### **Contact Information:**

Nan Riepenhoff
Sr. Business Systems Analyst
Clark County Building Department
4701 W. Russell Rd.
Las Vegas, NV 89118
NXS@clarkcountyNV.gov
(702) 455-5842

#### **Program Description:**

Construction Services Online is a one-stop, virtual department, combining online services for customers of Clark County's departments of Comprehensive Planning, Building, Fire Prevention, Public Works and Water Reclamation that allows our customers to manage their construction projects online. Site-built services include:

#### Land Use Applications

All property development and land use within unincorporated Clark County is governed by the Unified Development Code, Title 30. All projects must be in compliance with this Code. Construction Services Online enables customers to access:

- Review Land Use Application Guidelines
- Check Land Use Application Projection Information
- Schedule Appointment with Planners
- Submittal Requirements for Land Use Applications

#### Paperless Plan submittal & Review

 The Building Department allows construction plans for certain projects to be submitted and reviewed electronically via ePlan.

#### **Electronic Permits**

Electronic permits are available on specific project types that do not require a plan review such as water heater replacement. These permits can be obtained using a start to finish online process enabling customers to apply, pay and print the permit from their home or office.

Permits for residential projects may be obtained by the owner in residence of the property, or by a properly licensed contractor. Commercial permits may only be obtained by licensed contractors.

State licensed contractors may create an account or log in to an existing account to process online permits. A printable guideline for using the contractor account feature is available online.

Creating a State Licensed Contractor Account enables licensed contractors to:

- Access current and historical project information;
- Maintain all permits, plans and inspections associated with their contractor's license in a consolidated view;
- Track all permitted work associated with their license.

#### Monitor Plan Review Status

Plan Review status information and plan reviewer comments are available in real time through Construction Services Online. Customers no longer need to wait for correction letters, or waiting on hold to find out where their plans are in the system.

#### **Managing Inspections**

Inspections may be scheduled or cancelled, inspection results viewed, and required inspection information provided using this online service.

Customers have the option of scheduling inspections for the next business day or up to five days in advance.

#### Costs / Benefits:

It is very difficult to measure customer benefits in dollars and cents. But the convenience, quickness and ease of applying and paying for and receiving water heater permit without traveling to the building department offices has induced nearly 200 people to apply for and receive online water heater permits that otherwise may not have.

On the building department side, technical and support staff such bookkeeping and accounting no longer need to devote time to many services that are done online vis-à-vis Construction Services Online.



ePlan Review is a web-based solution that will allow building plans to be submitted electronically, improve the plan review cycle, reduce costs associated with obtaining residential and commercial construction permits, as well as support green initiatives.

# Benefits

- Paperless online plan submission
- Parallel plan check and review by multiple departments
- Automatic notifications for corrections and resubmittals

# Features

#### Online Access

Allows drawing files to be uploaded anytime, anywhere.

Effective Communication
Change notifications and other
communications are efficiently
exchanged between the plan
review team and the contractor/
owner-builder.

Green Initiative Support
Allows Clark County to respond to environmental concerns by:

- Reducing paper use compared to traditional paper plan reviews.
- Eliminating the requirement for more building space to store paper plans.
- Reducing miles driven and associated carbon monoxide emissions.

# Frequently Asked Questions

Will Clark County continue to accept paper plans?

Yes, ePlan Review is optional. You can still submit your paper plans for all application types.

Can I pay my application fee online?

Unfortunately, not at this time. You will be required to pay your application fee in person at the Permit Center. However, our long term plan will allow fee payments online.

Will all paper copies be eliminated entirely from the application process?

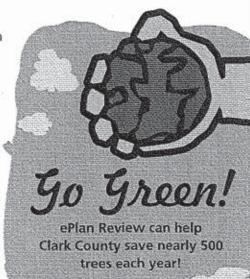
The short answer is no. Our long-term plan allows for electronic signatures and stamps, thus eliminating the need for an applicant to come into our office with paper copies. Until digital forms of signatures and professional stamps are allowed by Nevada and local statutes, paper copies that display ink signatures and applicable professional certification stamps will need to be produced.

Are training classes available?

Yes. For more information on scheduled classes, contact Dawn Rivard at (702) 455-8367 or mdawn@co.clark.nv.us.

#### More Information

For more information on utilizing ePlan Review for your construction project, please submit your questions to the ePlan Review Submittal Coordinator at dspdsubmittal@co.clark.nv.us.





Electronic Plan Submission



Print Approved Plans



Prescreening









Approval



Plan Check and Review

Change Notification and Plan Resubmit



#### **Electronic Plan Submission**

- First, go to Clark County's Construction Services Online Web site via <u>www.accessclarkcounty.com</u> and complete an online application.
- Clark County's Submittal Coordinator will review your application for completeness and e-mail you an ePlan Review invitation.
- Upload your plans following the instructions provided in the ePlan Review e-mail invitation.
- After you have uploaded your plan drawing files and documents, an e-mail notification will automatically be sent to the Submittal Coordinator to start the Prescreening review.



#### Prescreening

- Your uploaded plans and documents will be verified by the Submittal and Review Coordinators to ensure all submittal requirements are met. If you have eliminated any drawing files or documents, you will receive a prescreening rejection e-mail.
- Once the Prescreening is approved, you will receive an e-mail instructing you on what to bring to the Permit Center and the fee amount due.



#### Plan Check and Review

After your fee payment has been made, your plans will be reviewed by multiple agencies and departments at the same time. If corrections are requested, the Review Coordinator will notify you by e-mail when all agencies and departments have completed their review.



### Change Notification and Plan Resubmit

- Upon being notified by e-mail by the Review Coordinator, you will receive a correction package and form with attached comments and markups.
- After making the necessary changes and edits, you must upload revised documents and files.



## Approval

- Once plans are approved, they will be moved to an approval folder for final approval and stamp processing.
- You will be notified by the Submittal Coordinator of the remaining fee amount due.



### Print Approved Plans

When all outstanding fees are paid, a final Print Approved Plans process will be initiated to allow ink signatures and the applicable professional certification stamps to be applied.



www.accessclarkcounty.com

#### Clark County Development Services Builds Relationship with Teddy Bears



Development Services' employees line up with firemen from Station 18 to load "trauma teddies" into a ladder truck.

Just as building and fire departments work together year round to protect life and property, in Clark County, Nev., the two came together to spread holiday cheer to children in need.

On December 22, Clark County
Development Services' inspectors, plans
examiners, engineers, and support staff,
donated more than 200 teddy bears to the
Clark County Fire Department's Trauma
Teddy program. The county's firemen will
in turn give the bears, or trauma teddies, to

children at accident and fire scenes. The stuffed animals tend to have a calming effect on the kids.

"The connection between building and fire departments is clear," said Ron Lynn, director of Development Services and the building official for Clark County. "Both are engaged in the defense of families and their homes. But it's great that building can also support fire through charitable donations that help promote such a worthy program as the Fire Department's Trauma Teddy initiative."

Lynn is also president of the International Code Council.

Clark County is a dynamic and innovative organization dedicated to providing top-quality service with integrity, respect and accountability. With jurisdiction over the world-famous Las Vegas Strip and covering an area the size of New Jersey, Clark is the nation's 15<sup>th</sup>-largest county and provides extensive regional services to more than 2 million citizens and 44 million visitors a year. Included are the nation's 7<sup>th</sup>-busiest airport, air quality compliance, social services and the state's largest public hospital, University Medical



Fire Chief Steve Smith (center) extends a warm thank you to Development Services' employees for donating to his department's Trauma Teddy program. Ron Lynn stands to the left of Chief Smith.

Center. The county also provides municipal services that are traditionally provided by cities to almost 900,000 residents in the unincorporated area. Those services include fire protection, roads and other public works, parks and recreation, and planning and development.





### **Clark County Building Department**

#### "BEST PRACTICES" Submittal

#### **Contact Information:**

Werner Hellmer
Senior Engineer
Clark County, Nevada Building Department
4701 W. Russell Rd.
Las Vegas, NV 89118
wkh@clarkcountynv.gov
(702) 455-8095

#### **Program Description:**

By developing **The Clark County Shear Wave Velocity Map**, the Clark County Building Department has achieved the rare feat of eliminating overly-restrictive government regulations and construction expenses without reducing code requirements or site-built safety.

The Clark County Shear Wave Velocity Map provides seismic shear wave velocity data (also referred to as V<sub>30</sub>) for the Las Vegas Valley and various outlying areas within unincorporated Clark County. Information contained within the map has two primary benefits. First, the data were used to produce a seismic site class map that provides key information necessary for the design of structures and additions, alterations or repairs of existing structures in specific areas. This benefits the citizens and visitors of Clark County by helping to ensure a safe site-built environment while eliminating unnecessary expenses of designing and building structures to unnecessarily restrictive seismic site classes. Second, the data provide a valuable research and development asset to seismologists, geologists and policy makers by providing a more comprehensive and "local specific" understanding of how regional soils will potentially respond to ground motion. This function will benefit the whole community as it enables planning and evaluation based upon this previously unavailable data. The Clark County Shear Wave Velocity Map provides the seismic site class for over 500 square miles of land in Clark County. The testing density is nominally one test per 40 acres of land.

One of the lessons learned from the large earthquakes in Mexico City (1985), Loma Prieta (1989) and Northridge (1994) is that different sub-surface soil types transfer seismic energy differently to the surface and residing buildings. Some soil types act almost as shock absorbers absorbing some of the seismic energy before reaching the surface while stiffer soils act as springs transferring the seismic energy directly to the surface and buildings. The result is that buildings and structures residing on top of or near stiff sub-surfaces soils receive higher seismic loads and must be designed and built to more stringent seismic site classification and code standards.

Current building codes including the 2006 and 2009 IBC are largely based upon the design recommendations outlined in ASCE 7-05 and the 2003 NEHRP Provisions. Most new building construction must be designed and built to resist the specified levels of seismic force outlined in these codes. These codes require that seismic site class factors be determined based upon the results of onsite tests and evaluation (such as V<sub>30</sub>) or otherwise default to the typically low site class value of "D".

In most instances using the default site class value of "D" produces a conservative design (i.e. over designed). This overdesign bears a higher associated cost for additional engineering, construction and materials requirements. As the seismic site class changes from D to C or from C to B the required design level ground motion intensity is reduced (along with the associated design and construction costs). The seismic site class (and several other parameters) are used to determine a structure's Seismic Force-Resisting System and impact the requirements for restraint/anchorage of nonstructural elements including mechanical, plumbing, electrical and architectural items. Complying with all of these requirements directly impacts construction costs such that, the lower the site class value, the higher the construction costs.

Since implementation of the 2000 International Building Code (or IBC), construction projects have been required to accept the default seismic site class of D or provide a site specific analysis. The Clark County Shear Wave Velocity Map ( $V_{30}$  microzonation map) correctly identifies the seismic site class (through  $V_{30}$ ) enabling the development community to safely design and build structures to meet building code requirements without unnecessarily incurring additional costs of building to site class D.

#### Costs / Benefits:

Before Clark County developed the Shear Wave Velocity Map, the technology for evaluating  $V_{30}$  was young and not many soils testing companies possessed the special knowledge and equipment to perform the necessary testing. Many larger construction projects often paid \$4,000 to \$5,000 per test in order to realize savings in other parts of the construction costs including: structural design, materials of construction and anchorage of non-structural components. Smaller construction projects unable to pay for testing assumed the default site class value of "D" and paid more to over engineer and over build with more expensive materials to meet the assumed seismic requirements.

With the Shear Wave Velocity Map, smaller and larger developers are now on the same level playing field and no longer need to over engineer or over build with more expense materials to achieve code compliance.

In a similar vein, the Clark County Building Department is no longer required to spend hours and thousands of dollars of engineering staff time evaluating case-by-case soils studies to determine site class compliance. Now it's a matter of looking at the Shear Wave Velocity Map. Though the one-time cost of \$6,587,525 to do the study, develop and publish the map was high, it will be recovered over time by the building department, developers and the citizens and visitors to Clark County. Ultimately, the greatest benefit is a safe site-built environment constructed at lower costs with fewer overly-restrictive regulations.

#### **Best Practices: Public Outreach**

#### **Program Description: Public Outreach**

To measure the level of service and the changing needs of our Customers, Clark County Building Department provides continual public outreach. The purpose of our collaborative efforts is to understand the changing demands of our customers and to be able to measure our service deliverables. Clark County Building Department takes a multi-pronged approach to understanding and meeting the needs of the Citizens of Clark County by reaching out to a wide range of stakeholders including:

- Monthly Meeting of the local jurisdictions Building Officials
- Interviews of lobby customers after receiving service. The customers, on a random basis, are approached and asked a series of questions regarding service performance.
- Monthly Meetings with the Southern Nevada Homebuilders
- Monthly Meetings with the Associated General Contractors
- Monthly Meetings with Nevada Professional Facility Managers Association
- Quarterly Town Hall Meetings
- Email Blasts to customer database
- Inspection Audits; post inspection survey
- Inspection Phone Audits; post inspection survey
- Plan check counter, Customer Service Surveys
- Internet, Customer Service Surveys
- Annual Meetings with Building Owners and Managers Association Meeting
- Annual Meetings with National Association of Industrial and Office Properties Association
- Annual Meetings with Real Estate Development Association
- Periodic Meetings with Nevada Resort Association
- Quarterly Meetings with Nevada Earthquake Safety Council
- Quarterly Meetings with Nevada Hazard Mitigation Planning Committee
- Quarterly Meetings with the Las Vegas Convention Authority and partners
- Quarterly Meetings with Special Events Sub-Committee for Commercial Pools
- Monthly Meetings with Fire Captains on a rotating basis throughout greater Clark County
- Monthly Meetings with Fire Sprinkler Contractors
- Monthly Meetings with Fire Alarm Contractors
- Guaranteed Second Opinion

#### Costs/Benefits:

All costs associated with Clark County Building Department's robust Public Outreach are related to manpower. Management consistently schedules and attends the above noted meetings. These collaborative efforts provide a vehicle for understanding and meeting the needs of our community. Internal training and audits are provided to gain a better understanding of the changing needs of our customer base and to be able to accurately measure how Clark County Building Department is meeting those needs. Public outreach provides a useful tool to be responsive and proactive in the enforcement and adoption of the current codes. Collaboration enhances public awareness and involvement. The results of this

Clark County Building Department Clark County Nevada 4701 W. Russell Road Las Vegas, Nevada 89118

collaborative interaction are the basis for development of future programs and the enhancement of future policies and procedures.

#### See Attached:

- Customer Service Audit
- Technical Audit
- Final Inspection Audit
- Customer Service Survey
- Guaranteed Second Opinion

# **Building Department Customer Service Survey**

To help us continually improve our service, please complete this survey and return it to the Building Department by clicking on the submit button at the bottom of the form. Your opinion counts. Thank you!

B	uilding Permit A	Application	ı		
■ B	uilding Plans E	xam			
• <sub>B</sub>	uilding Permit I	ssue			
• B	uilding Inspecti	ons			
Please rate	e the following a	aspects of	service pro	vided by Co	ounty Employees at the Building Department:
	of Service:	·	·	·	
•	•	•	•	•	
Excellen Courtesy:	t Good	Fair	Poor	N/A	
•	•			•	
Excellen		Fair	Poor	N/A	
Competend	cy in handling a	ın issue:	_	_	
Excellen Profession		Fair	Poor	N/A	
		•		•	
Excellen	t Good	Fair	Poor	N/A	
	reated fair and				
	•	•		•	
Excellen		Fair	Poor	N/A	
Your quest	ions and conce	rns were h	nandled tho	roughly and	d comprehensively:
•	•	•	•	•	
Excellen		Fair	Poor ng Doporto	N/A	a providing convices:
riease rate	e trie overali job	THE BUILDI	ng Departi	ment does in	n providing services:
Excellen	t Good	Fair	Poor	N/A	
					<b>△</b>
What would	d you like to see	e the Build	ling Depart	ment do bet	tter? Optional Information:
Name:					
Company I	Name:				
Phone Nur	nber:				
PAC Numb	per:				
Plea	se check here	if you wou	ld like to be	contacted	by the Building Department regarding your comments.

# **Building Department Customer Service Survey**

To help us continually improve our service, please complete this survey and return it to the Building Department by clicking on the submit button at the bottom of the form. Your opinion counts. Thank you!

B	uilding Permit A	Application	ı		
■ B	uilding Plans E	xam			
• <sub>B</sub>	uilding Permit I	ssue			
• B	uilding Inspecti	ons			
Please rate	e the following a	aspects of	service pro	vided by Co	ounty Employees at the Building Department:
	of Service:	·	·	·	
•	•	•	•	•	
Excellen Courtesy:	t Good	Fair	Poor	N/A	
•	•			•	
Excellen		Fair	Poor	N/A	
Competend	cy in handling a	ın issue:	_	_	
Excellen Profession		Fair	Poor	N/A	
		•		•	
Excellen	t Good	Fair	Poor	N/A	
	reated fair and				
	•	•		•	
Excellen		Fair	Poor	N/A	
Your quest	ions and conce	rns were h	nandled tho	roughly and	d comprehensively:
•	•	•	•	•	
Excellen		Fair	Poor	N/A	a providing convices:
riease rate	e trie overali job	THE BUILDI	ng Departi	ment does in	n providing services:
Excellen	t Good	Fair	Poor	N/A	
					<b>△</b>
What would	d you like to see	e the Build	ling Depart	ment do bet	tter? Optional Information:
Name:					
Company I	Name:				
Phone Nur	nber:				
PAC Numb	per:				
Plea	se check here	if you wou	ld like to be	contacted	by the Building Department regarding your comments.

Print Form

# CLARK COUNTY DEVELOPMENT SERVICES BUILDING DIVISION TECHNICAL AUDIT (QUARTERLY)

INSPECTOR/TI	ITLE				DATE		
PROJECT NAM	1E						
PROJECT LOC	CATION						
INSPECTION H	IISTORY/REC	CORD CARD – APPROVI	ED PLANS – PERI	MITS AVAILABLE	e? YES _	NO 🔲	
PERMIT #			SEQUENCE	NS PROPERLY D AND JOBSITE ER HTE RECORD	s? YES	NO 🔲	
TYPE OF INSPI	ECTION		COMMERC	COMMERCIAL RESIDENTIAL		NTIAL	
DATE OF INSP	ECTION		SUPERVISO TIME ARRI	OR IVED:	SUPERVI TIME DE		
ITEM#			CHECKLIST D	ISCREPANCIES			
	DOCUMENTATION DISCREPANCIES						
		DOC	UMENTATION D	ISCREPANCIES			
				NAME OF AREA	Г		
DID INSPECT	OR INFORM	I CONTRACTOR OF S			YesL		
INSPECTOR I	PERFORMA	NCE ON INSPECTION	AUDITED Ex	cellent Go	ood Fai	ir <u> </u>	
CONTRACTOR OPINION OF CUSTOMER SERVICE Excellent    Good    Fair Poor							
<b>Comments:</b>							
SUPERVISOR	Z/TRAINER		REVIEWED WI	TH INSPECTOR	YES_[	□ NO □	
DATE REVIEWED			INSPECTOR TO INITIAL				

## CLARK COUNTY DEVELOPMENT SERVICES **BUILDING DIVISION** MONTHLY CUSTOMER SERVICE AUDIT

INSPECTOR					DATE	E OF AUDIT	Γ		
PROJECT NAME	OJECT NAME								
PROJECT LOCATION	ROJECT LOCATION								
PERMIT #/s									
CUSTOMER NAME					CUSTON	MER PHONE	E#		
TYPE OF INSPECTION	COMMERCI	AL RE	SIDENTIAL _		DATE O	F INSPECTI	ION		
DID YOU RECEIVE <b>TIMELY</b>	SERVICE?								
YES NO* COM	MENT*:								
WAS THE INSPECTOR COUR	TEOUS?								
YES NO* COM	MENT*:								
DID THE INSPECTOR SHOW	COMPETEN	C <b>Y</b> IN HANDLII	NG THE ISSU	ES OF THE	EINSPECT	ION?			
YES NO* COM	MENT*:								
WAS THE INSPECTOR PROF	ESSIONAL IN	CONDUCTING	G HIMSELF D	URING TH	E INSPEC	TION?			
YES D NO* COMMENT*:									
DID YOU GET FAIR AND EQUITABLE TREATMENT FROM THE INSPECTOR?									
YES D NO* COMMENT*:									
WERE YOU SATISFIED ON H	OW THE INS	PECTOR ADD	RESSED YOU	JR QUEST	IONS ANI	D CONCER	NS?		
YES NO* COM	IMENT*:								
ARE YOU <b>OVERALL SATISFIED WITH THE SERVICE</b> PROVIDED?									
YES _ NO* _ COMMENT*:									
RECOMMENDATIONS FOR IMPROVEMENT/SUPPLEMENTARY COMMENTS:									
REPORTING TOTAL: # of	REPORTING TOTAL: # of YES # of NO PASSED: 5 or More YES Responses FAILED: below 5							esponses	
SUPERVISOR/TRAINER:									
DATE REVIEWED WITH IN	SPECTOR:			INSPECT	TOR TO IN	NITIAL:			

Print Form

# CLARK COUNTY DEVELOPMENT SERVICES BUILDING DIVISION

DOCUMENTATION AUDIT - FINAL INSPECTION - 2x per month

INSPECTOR					DATE			
PROJECT NAME								
PROJECT LOCATION								
PERMIT #								
TYPE OF INSPECTION			CON	MERCIAL				
DATE OF INSPECTION			RES	IDENTIAL				
HAVE ALL <b>PRECEDING</b> INSE	PECTIONS BE	EN UPDATI	ED TO INDICA	ATE FULL APPROVALS?				
YES NO D	_ COMMEN	Т:						
ARE THE INSPECTIONS APPR	OVED IN PRO	OPER <b>DATE</b>	E SEQUENCE	?				
YES NO	N/A	_ COMME	NT:					
DO FAILED, CANCELLED OR	PARTIALLY	APPROVED	) INSPECTION	IS HAVE <b>PROPER COMME</b>	NTARY?			
YES NO N/A COMMENT:								
ANY RESULT COMMENTARY SPELLING, GRAMMATICAL, SENTENCE STRUCTURE OR LEGIBILITY ERRORS?								
YES NO	_ COMMENT	Γ:						
BUILDING INSPECTORS: HAVE ALL OTHER TRADES AND ALARM SYSTEM BEEN FINALED?								
YES NO N/A COMMENT:								
HAVE STRUCTURAL AND T	RADE QAA F	INAL REPO	ORTS BEEN F	ULLY APPROVED?				
YES NO N/A COMMENT:								
ARE ALL REQUIRED <b>ON/OFF SITE CLEARANCES</b> FULLY APPROVED?								
YES NO NO COMMENT:								
RECOMMENDATIONS FOR IMPROVEMENT/SUPPLEMENTARY COMMENTS:								
SUPERVISOR/TRAINER:								
DATE REVIEWED WITH INS	SPECTOR:			INSPECTOR TO INITIAL:				

# **Appendix C**

# **CITY OF GREENSBORO**

300 West Washington St Greensboro, NC 27402 (336) 412-6216

**Contact Information:** 

**Michael Lewis** 

Coordinator, Education and Training Plans Examiner, Plumbing & Mechanical Development Services Division Engineering & Inspections Department (336) 335-6439 www.greensboro-nc.gov

# **Best practices include:**

- Inspection
- Information Technology



Guideline for "BEST PRACTICES" Submittals
<u>Contact Information:</u> (The individual(s) most knowledgeable about the development or implementation of the program. Name, Title, Department / Jurisdiction, Contact address, email, and phone.)
Program Description: (Please provide a brief description of the program, i.e. Residential Maintenance Inspections, Condemned Housing, How-To Guides, etc.)
Costs / Benefits:  (A paragraph or two elaborating on the program, estimated costs in human or financial resources, and the benefits. Benefits may include public safety, cost recovery, legal protection, etc.)
Attached Documents: (Please provide any such documents supporting or outlining these programs.)
Categories — Please check all categories that apply to your best practice  ☐ Plan Review ☐ Permitting ☐ Inspection ☐ Management/Administration ☐ Legal ☐ Customer Service ☑ Information Technology
For official use only

Date of Review: \_

Reviewed by: \_\_\_\_\_

Development Services - Inspections Department

#### **CITY OF GREENSBORO – BEST PRACTICES - IT**

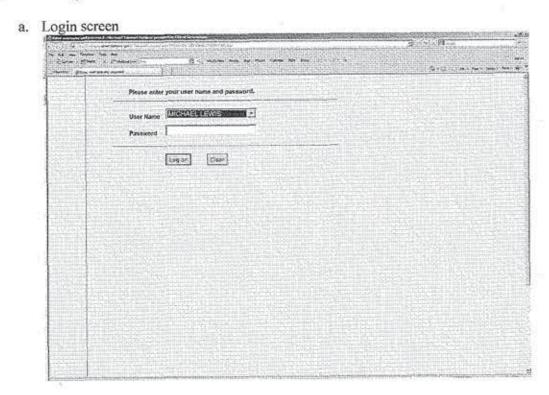
The City of Greensboro uses a custom written in-house software package. There are
basically two parts to this system. There is the building and trade permit entry and the
building and trade inspections part which we refer to as the field unit. Both parts of the
system are written in ASP.Net and VB.Net. Both parts of the system use SQL Server
2005 as the back-end database. SQL Backups are done through the IBM Tivoli Storage
Management System. Data integrity is maintained through edits and data restraints within
the software package itself.

Each inspector has a laptop in their vehicle where they connect to the system through an external website with their login id and password. Team leaders move around to the appropriate inspector and within 15 to 20 minutes inspector are in route to their first inspection. Inspection notifications are sent shortly after if not immediately the inspector enters an inspection.

These hard economic times have resulted in a reduction in force and jobs not being filled after people retire. Many of us have multiple hats in our organization. Our IT department has greatly helped us maintain high customer service and on time inspections by keeping our inspectors totally mobile and efficient in the field.

#### Michael Lewis

Coordinator, Education and Training Plans Examiner, Plumbing & Mechanical Development Services Division Engineering & Inspections Department Phone: (336) 335-6439; Fax (336) 333-6056 PO Box 3136, Greensboro, NC 27402-3136 www.greensboro-nc.gov The following is some screen shots from our field unit.

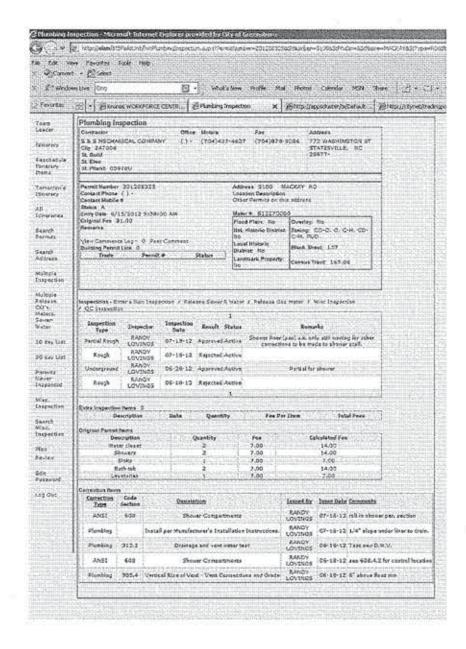


- b. Inspector itinerary page
  - i. Inspector can view all work with any messages or memo attached.
  - ii. Other functions available on left side
  - iii. If Inspector is not a team leader that function will be grayed out.



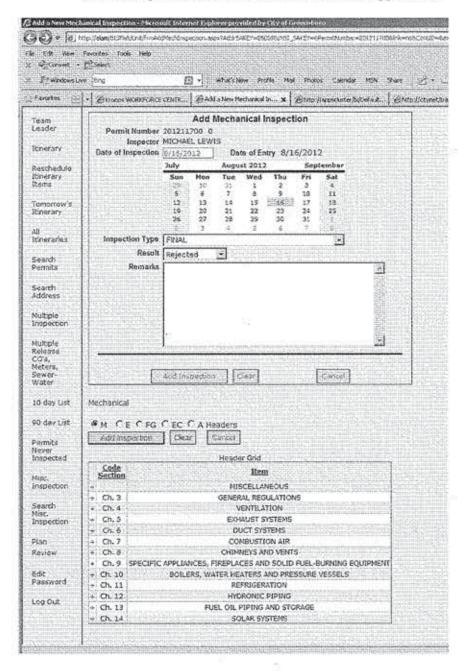
#### c. Inspection page

- Inspector can view permit information and all other inspections with their correction items
- ii. Inspector can release meters
- iii. Quality control inspection (QC inspection) can be posted



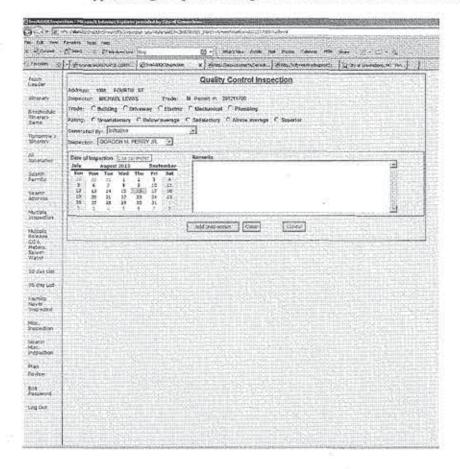
#### d. Enter Inspection

- i. The inspector enters inspection type, result, and any remarks.
- If inspection result is rejected, correction items list comes up at the bottom of the page.
- iii. The inspector picks appropriate code and section.
- iv. After the inspector adds all correction items and clicks on add inspection, the inspection is posted and the contractor is notified either by fax or email of their inspection result and correction items if applicable.



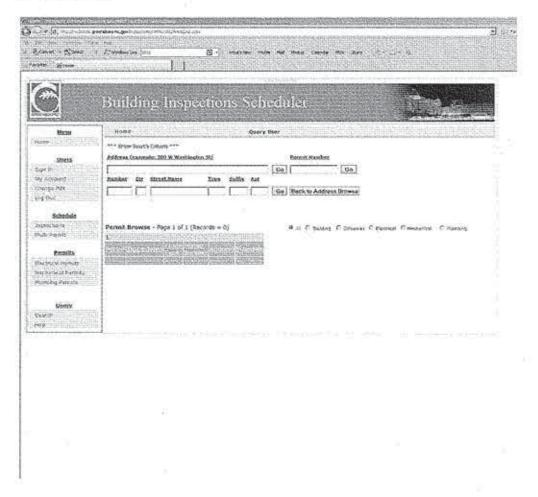
#### e. Quality Control Inspection

 From our quality control inspection page the inspector can enter trade type, rating, inspector being reviewed, and additional comments.

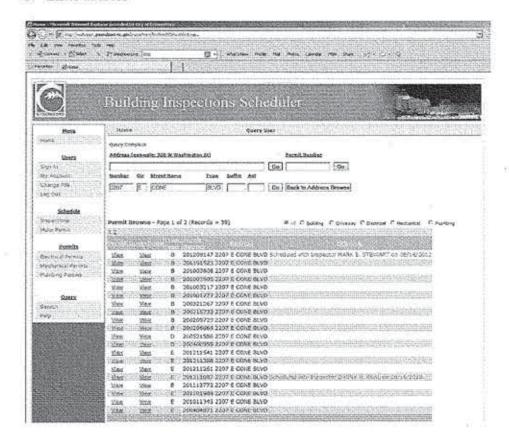


2. The City of Greensboro has external web application for use by contractors and general public called Building Inspection Scheduler. Contractors are able to login to their account schedule permits for inspection, see which inspector has their inspection, or pay their account balance. Trade contractors (mechanical, plumbing, and electrical) also have the ability to get permit online. The general public can use the website address or permit number for permit and inspection information. The following is some screen shots from our Building Inspection Scheduler.

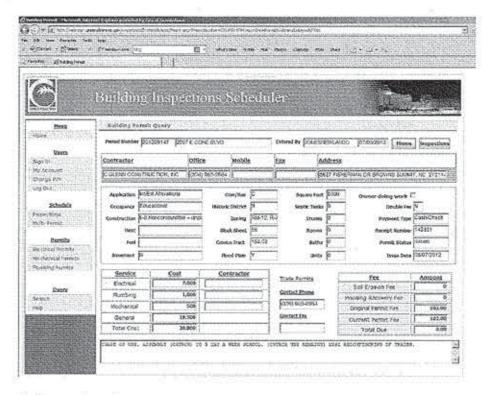
#### a. Home page



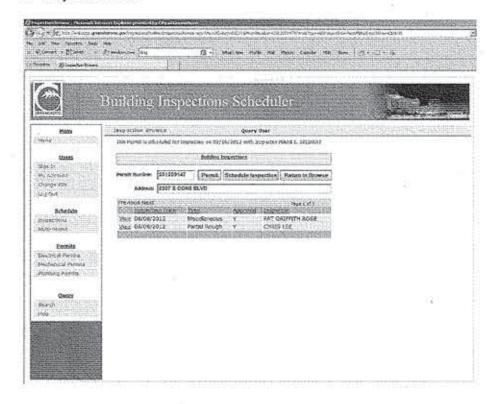
#### b. Enter address



#### c. Permit view



#### d. Inspection view



### **Appendix D**

# CITY OF HOUSTON BUILDING INSPECTION DIVISION

611 Walker Houston, TX 77002 (832) 395-2511

Contact Information:

**Allen Largent** 

Planning and Development Services Division Public Works and Engineering Department (713) 535-7501

# Best practices include:

- Inspection
- Information Technology

#### TeleWork Inspection Program

The Building Inspection Division of the Public Works & Engineering Department recently received the *Best Practices Award* from the Building Officials Association of Texas for developing the TeleWork Inspection program which utilizes an innovative wireless inspection system for the City of Houston. The award was presented at the annual Texas Municipal Leagues Convention in Austin Texas on October 27th. Houston was selected after evaluation of new programs that were initiated by building departments in the State of Texas.

The TeleWork Inspection project was developed to provide a wireless strategy for entering data from the field into the permit system used for tracking inspection activity. By providing inspectors with handheld devices that have wireless capability, the transfer of inspection data can be completed in a real time environment. The project began approximately 7 years ago originally named the Sivell Project after its primary wireless consultant. Contractors wanted information as close to real time as possible. The inspection assignments are transmitted automatically to the inspectors hand held device each morning and updated as needed. Results of the inspections are transmitted via the handheld device and made instantly available to the contractor through an interactive voice response system, internet web site, E-mail and cell phone text messaging. The inspection results are transmitted directly to the contractor's cell phone.

In the past, city building inspectors would drive to the office, in the morning, and input the previous day's inspection results into the permit system before heading out to assigned areas. Inspectors now start and end the day in areas of town that are assigned geographically to reduce commute distance from where they live. The TeleWork Program has eliminated the need for the commute to the office each day, reducing NOX emissions, traffic congestion and at the same time streamlining the building inspection process. This is an important component of a citywide effort to reduce commute trips and the amount of Nitrogen Oxide (NOX) produced by city vehicles.

Administratively, the program allows supervisors to automatically equalize the inspection work loads, respond to emergency inspection requests and provide office support staff more time to respond to customer needs. Beside reduced fuel cost, eliminating office space, reduced over time costs, vehicle mileage impacts and less maintenance costs, contractors gain access to real time inspection results which improves construction scheduling. Managers also have the ability to adjust inspection routes and schedules "on the fly".

The City of Houston, Building Inspection Division has strived to remain at the forefront of building inspection innovation. The division's TeleWork Program is yet another example of how goals can be reached through innovative thinking and the maximization of available technology.

Contact:
Alten Largent
Planning and Development Services Division
Public Works and Engineering Department
713-535-7501
allen.largent@cityofhouston.net

Published 9/20/2009

## **Appendix E**

# CITY OF JACKSONVILLE

Room 225 - Ed Ball Building 214 N. Hogan St. Jacksonville, FL 32202 (904) 630-1100

Contact Information:

Jim Schock, C.B.O., P. E.

Building Official City of Jacksonville Florida

E-mail: <a href="mailto:schock@coj.net">schock@coj.net</a>

## **Best practices include:**

- Permitting
- Inspection
- Management/Administration
- Customer Service
- Information Technology



### Guideline for "BEST PRACTICES" Submittals August 8th, 2013

#### **Contact Information:**

Jim Schock, C.B.O., P. E.
Building Official City of Jacksonville Florida
E-mail: schock@coj.net
Room 225 - Ed Ball Building
214 N. Hogan St.
Jacksonville, FL 32202
(904) 630-1100

#### **Program Description: 180 Day Permit Process**

This Process consists of a procedure to handle permits that exceed the 180 days without an inspection threshold as required by the City of Jacksonville Municipal Code 320.402(b)(3).

#### **Costs / Benefits:**

#### Costs:

Initial programming costs by our IT department to our existing BID system were minimal.

Benefits: This process has generated an additional \$545,620.00 over three years.

- 1. This process provides a process to ensure a timely inspection for Life Safety Code issues. Having a limit on both initial inspections as well as re-inspections ensures that all permits will have a passed inspection within the 6 month time limit or action will be taken by the Building Department. Without a timely inspection, Life Safety issues cannot be identified.
- 2. The Building Department's on-line permitting (BID) system provides contractors with a dashboard on their profile which allows them to see their active permits which have reached 120 days since the initial permit was activated, or the last successful inspection. The (BID) system is a useful tool for contractors to maintain their active permits. The contractor will be alerted to these 120 day permits to take immediate action before they reach the 180 day limit.
- 3. The (BID) system is a tool for the Building department to manage the vast amount of permits that are active in our (BID) system by automatically suspending permits that have reached the 180 day threshold limit as defined by Municipal code. This has benefited the Building Department by limiting the amount of active permits that have not had a successful inspection, which can easily get out of control if there is not a process is in place to handle these active permits. The fact that the (BID) system automatically controls these permits eliminates the need to control them

For official use only		
Reviewed by:		Date of Review:
	Best Practices   71	

manually and saves man-hours that can be allocated to other customer service processes. If a company has 5 or more suspended permits, the company is automatically suspended from pulling permits until all suspended permit fees and the suspended contractor fees have been paid. The contractor has 10 working days to have a passed inspection or the permit is suspended again. The number of outstanding permits has drastically decreased since this process was implemented.

- 4. The initial cost of implementing this program is being recovered by fees collected by the suspended permit fee as well as the suspended contractor fee. Implementation costs are also recovered through the efficiency of not having to spend man-hours dedicated to ensuring the code requirements of active permits is being followed.
- 5. Another benefit of the (BID) system process for 180 day permits is the legal protection that it gives our Building Department. Having this process clearly defined in our Municipal Ordinance gives us the authority to implement it and hold contractors accountable to following the procedures.
- 6. A spreadsheet has been developed that allows our personnel to inquire on a company's ID# to quickly see the number of suspended company and permit fees that have been created since the implementation of this program. This allows us to proceed with any Code Enforcement action against a company for not following through with required inspections.

#### **Attached Documents:**

11ttuenea Documents.
Municipal Code section 320.402(b)(3)
Bulletin G-16-08
Bulletin G-05-09
Bulletin G-20-99
Company Search by ID#
All Company and Permit Suspension Statistical Data
Dashboard Screenshot
<u>Categories</u> – Please check all categories that apply to your b

<u>Categories</u> – Please check all categories that apply to your best practice
<ul> <li>□ Plan Review</li> <li>☑ Permitting</li> <li>☑ Inspection</li> <li>☑ Management/Administration</li> <li>☑ Legal</li> <li>☑ Customer Service</li> <li>☑ Information Technology</li> </ul>

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Reviewed by:		Date of Review:
	Best Practices   72	

<sup>\*\*</sup>Submit this form with any attachments, additional comments, or questions to mjc@iccsafe.org

# Jacksonville, Florida, Code of Ordinances >> TITLE VIII - CONSTRUCTION REGULATIONS AND BUILDING CODES >> Chapter 320 - GENERAL PROVISIONS >> PART 4. PERMITS >>

#### **PART 4. PERMITS**



Sec. 320.401. When required.

Sec. 320.402. Application for permit.

Sec. 320.403. Approval of other authorities.

Sec. 320.404. Partial approval.

Sec. 320.405. Approved plans.

Sec. 320.406. Moving of building and structures.

Sec. 320.407. Demolition.

Sec. 320.408. Permits.

Sec. 320.409. Schedule of permit fees.

Sec. 320.410. Expiration of sign permits.

Sec. 320.411. Revocation of permit.

Sec. 320.412. Renewal of sign permits for off-site signs.

Sec. 320.413. Removal of signs.

Sec. 320.414. Nonconforming signs.

#### Sec. 320.401. When required.



Permits are required as stated in this building code and the Florida Building Code. Ordinary minor repairs may be made with the approval of the Building Official without a permit, provide that such repairs shall not violate any of the provisions of the Florida Building Code.

(Ord. 2001-1160-E, § 1)

#### Sec. 320.402. Application for permit.



- (a) If, in the opinion of the Building Official, the valuation of building, alteration, structure, electrical, gas, mechanical or plumbing systems appears to be underestimated on the application, the permit shall be denied, unless the applicant can show detailed estimates to meet the approval of the Building Official. Permit valuations shall include total cost, such as electrical, gas, mechanical, plumbing equipment and other systems, including materials and labor based on fair market value.
- (b) The qualifications of an applicant shall be determined as follows:
  - (1) Except as provided in subsections (b)(2) and (3) of this Section, an application for a permit shall be accepted from and a permit may be issued only to a contractor who is qualified to perform the kind of work included in the particular permit for which application is made. Where applicable, the contractor shall be qualified by holding a current certificate of competency issued by the Construction Trades Qualifying Board pursuant to <a href="Chapter 342">Chapter 342</a> and shall be registered with the Florida Department of Business and Professional Regulation, or hold a current certificate of competency issued pursuant to F.S. Ch. 489. Only a general, building or residential contractor (as defined in F.S. Ch. 489) who holds a current certificate of competency issued pursuant to F.S. Ch. 489 or who was registered pursuant thereto prior to September 17, 1973 or under a file number lower than RG0015500 shall be deemed to meet the

qualification requirements of this Part as applied to general, building or residential contractors. Only a roofing contractor, commercial pool, residential pool or swimming pool service contractor who holds a current certificate of competency issued pursuant to F.S. Ch. 489, or who was registered pursuant thereto prior to the April 15, 1985 (or August 4, 1987 for a roofing contractor), or a commercial pool, residential pool or swimming pool service contractor who held a local occupational license as such as of April 15, 1985, shall be deemed to meet the qualification requirements of this Part as applied to a roofing contractor or commercial pool, residential pool or swimming pool service contractors; provided, however, in order for a roofing contractor, who is registered pursuant to F.S. Ch. 489, to obtain a permit after August 4, 1987, he shall be required to obtain the same types and amounts of insurance coverage as are required for a certified roofing contractor under the Florida Statutes and shall submit satisfactory proof of such insurance at the time the permit is requested. The insurance company providing such insurance shall notify the Chief at least 15 days in advance of the lapse or cancellation of any such insurance policy. Certified general contractors having a file number of CG007837 or less may be granted roofing permits without meeting the provisions herein contained if they are prequalified as both general and roofing contractors by the Florida Department of Business and Professional Regulation under such file numbers. Where a master craftsman, qualifying agent or other person is specifically required by law to supervise or perform the work to be included under the permit, the application shall be signed by this person.

- (2) A maintenance craftsman may obtain a permit for work to be done by him where the work is in the same category as the craftsman certificate held by the maintenance craftsman and where the work is limited to the maintenance and minor repairs to systems, apparatus and equipment, provided the work is limited to the premises at one location or one address owned or occupied by his employer.
- (3) Stand Alone active permits of all trades and Base Building active permits that have gone over 180 days without an approved inspection will be suspended. Suspended permits may be reactivated for a maximum of an additional 180 days upon a showing of just cause and payment of a \$20 reactivation fee. The Building Inspection Division shall not accept applications for permit from contractors who have more than four suspended permits until such time as the contractor has reactivated all of the suspended permits, and the contractor's qualifier has appeared in person at the Building Inspection Division Office and paid a \$250 Reinstatement Fee. The Reinstatement Fee shall be separate from and in addition to any fees paid for reactivation of suspended permits. The provisions of this subsection may be waived by the Chief upon a showing of good cause.
- (c) An application for a permit may be accepted from a contractor, however, no permit shall be issued for a use which requires a certificate of use, without first obtaining a valid certificate of use for the proposed use.
- (d) In addition to the foregoing procedures, the following procedures shall further govern applications for sign permits required under Chapters 320 and 326
  - (1) No person shall apply for a sign permit unless he or she first has obtained the written permission of the owner, author ized agent of the owner or other person(s) in lawful possession of the site designated as the location of the sign in the permit application; and the Division shall process no sign permit application without such written permission being attached to it.
  - (2) A permit shall be required for each sign. As part of each sign application, the applicant shall certify in a notarized statement that:

- (i) All the information provided in the application is true and correct; and
- (ii) The written permission of the owner or other person in lawful possession of the site designated as the location of the sign in the application has been obtained and is attached to the application.
- (3) Permit applications shall be acted upon by the Division within ten working days after their submission. The Division shall verify that all proposed signs meet the requirements of this Chapter; that the proposed construction specifications and standards also meet the requirements of The Florida Building Code and Part 2 of Chapter 326; and that the signs are permissible for the zoning district involved under the provisions of <a href="Chapter 656">Chapter 656</a>, Part 13, before a permit is issued.
- (4) Signs exempt under <u>Chapter 656</u>, Part 13, and under <u>Section 326.103</u>, also are exempt from the application and permit process of this Chapter unless specific size or location limitations are established for them in a zoning district in <u>Section 656.1303</u>, in which latter case the application and permit process shall apply.
- (e) All repairs, renovations or alterations of existing swimming pools and spas, including water falls, water features and fountains must be contracted by a State of Florida certified or registered swimming pool/spa contractor or a swimming pool/spa servicing contractor and must be permitted by the Building Inspection Division.

(Ord. 2001-1160-E, § 1; Ord. 2005-1355-E, § 1; Ord. 2008-702-E, § 1)

## Sec. 320.403. Approval of other authorities.

In addition to verifying compliance with this building code, the Building Official shall require that the laws, rules and regulations of any other regulatory authority having jurisdiction, where the laws, rules and regulations are applicable and are known to him, shall be satisfied before a permit is issued. He shall require such evidence as in his opinion is reasonable to show the other approvals. The Building Official shall not thereby be held responsible for enforcement of the other regulations he is not specifically authorized to enforce. Following are some, but not necessarily all, of the other agencies having jurisdiction:

- (a) The Public Works Department and Sheriff's Office for the moving of buildings, structures and heavy equipment over, temporary construction over, storage of material on, construction operations over, or temporary blocking of streets or other public spaces.
- (b) The Fire Operations Division for the burning of construction or demolition waste or the use or storage of explosives.
- (c) The Public Works Department for the discharge of rainwater or other water runoff on streets or into storm sewers, for compliance with subdivision regulations and for other regulations as may be established from time to time.
- (d) The Neighborhoods Department for:
  - (1) The adequacy of waste treatment plants receiving waste from a building or premises where the waste discharges through a privately-owned sewerage system.
  - (2) Waste treatment and disposal systems, including septic tanks.
  - (3) Places where food or drink is prepared or served to the public.
  - (4) Private water supply and supply or disposal wells.
  - (5) Commercial swimming pools.
  - (6) Air pollution.

- (7) Trailer parks.
- (8) Chemical toilets.
- (9) The ash management review program for compliance with the Ash Management Plan prepared by the Neighborhoods Department and approved by the U.S. Environmental Protection Agency ("EPA") for those properties located within those areas assigned EPA Site Identification Numbers FLD980847016 (Brown's Dump) and FLSFN0407002 (Jacksonville Ash Sites, i.e., Forest Street Incinerator Site, 5<sup>th</sup> & Cleveland Streets Incinerator Site, and Lonnie C. Miller, Jr., Park) (the "Brown's Dump" and "Jacksonville Ash Sites").
- (e) The State Division of Hotels and Restaurants for the construction, alteration or addition to multiple-residential rental units or places where food or drink is prepared or served to the public.
- (f) Federal regulations limiting construction during periods of national emergency.
- (g) The Public Works Department, Corps of Engineers and the state for bulkheads, docks, similar construction or fill along waterfront property. The Building Official is responsible to permit all structures above the waterline not covered by a Corps of Engineers permit.
- (h) The Planning and Development Department or Planning Commission for those projects required by the Zoning Code to contain their approval.
- (i) No permit for a hospital or nursing home project that involves the addition of beds by new construction, expansion or conversion to new uses of existing facilities, which addition will increase bed capacity of the facility by five percent or more, shall be issued until a certificate of need has been issued approving the issuance of the permit.
- (j) The Public Works Department for the purpose of floodplain regulation permitted under Chapter 652

(Ord. 2001-1160-E, § 1; Ord. 2008-513-E, § 1; Ord. 2011-230-E, § 1; Ord. 2011-732-E)

# Sec. 320.404. Partial approval.

Pending the completion of checking of plans and specifications, the Building Official, at his discretion, and upon payment of the required fee, may authorize the issuance of a temporary permit for site preparation, excavation and construction below grade or for the foundation only. The holder of the temporary permit shall proceed only at his own risk and without assurance that a permit for the remainder of the work will be granted or that corrections will not be required in order to meet provisions of technical codes.

(Ord. 2001-1160-E, § 1)

# Sec. 320.405. Approved plans.

- (a) The Building Official shall retain one set of the approved plans and the other set shall be kept at the building site in a weatherproof container and available to the Building Official at all reasonable times. The Building Official may stop the work if the plans are not available at the building site.
- (b) Approved plans and amendments thereto retained by the Building Official shall become a part of the public records.

(c)

All work performed under a permit issued by the Building Official shall conform to the approved application and plans and approved amendments thereto. The location of all new construction as shown on the approved plot plans or an approved amendment thereto shall be strictly adhered to.

(Ord. 2001-1160-E, § 1)

#### Sec. 320.406. Moving of building and structures.



- (a) Before a building permit for moving a building or structure within or into the City is approved or issued, the building or structure shall be inspected by the Building Official, upon request of the owner or his agent, and the Building Official shall ascertain that this building code and all other laws applicable thereto will be satisfied.
- (b) An application for a permit shall be submitted in the form prescribed by the Building Official and shall be accompanied by such plans or other data as, in the opinion of the Building Official, are necessary to show compliance with the building code and the Zoning Code.

(Ord. 2001-1160-E, § 1)

#### Sec. 320.407. Demolition.



- (a) An application for a building permit for the work of demolition of a building or structure, if the building or structure is over 15 feet in extreme height above grade, or a wall which is over 40 feet in horizontal length, shall be accepted only from qualified persons or firms as established by law. Upon request from the Building Official, a written demolition plan shall be submitted for review.
- (b) Demolition of any building or structure in the Consolidated City of Jacksonville, excluding the Second, Third, Fourth and Fifth Urban Services Districts, individually listed on the National Register of Historic Places, determined to be eligible for individual listing on the National Register of Historic Places ("deemed eligible"), subject to the notice requirements contained herein, or which is a contributing structure within a historic district listed on the National Register of Historic Places shall be reviewed by the Jacksonville Historic Preservation Commission before a permit is issued, pursuant to this subsection (b).
  - (1) An application for demolition permit for properties defined in subsection (b) shall include the reason for demolition, documentation of any effort that has been made to save the structure, and a copy of the most recent Property Appraiser card.
  - (2) Within 60 calendar days, the Historic Preservation Commission shall issue a final decision on the subject of demolition. If the Commission votes to deny the demolition permit application, within the same 60-day period, it shall also issue an advisory recommendation on the structure's landmark status pursuant to the provisions of 307.104(q) regarding "potential landmark". The Historic Preservation Commission shall call a special meeting to meet the 60-calendar day deadline, if necessary. If the Historic Preservation Commission fails to meet this deadline, the demolition permit application shall be considered granted. If the Historic Preservation Commission elects to grant the demolition permit application, such decision shall constitute the final action by the City, and the Commission shall not consider landmarking status for the structure.
  - (3) The property owner may appeal the decision of the Historic Preservation Commission concerning demolition applications to the City Council. Such appeal shall be filed within 14 calendar days from the date of the Commission meeting. Notice of the appeal shall be provided to the applicant and all parties who spoke at the Commission

- meeting. The General Counsel's office shall prepare legislation concerning the appeal for introduction at the next City Council meeting, which may be considered by both the LUZ Committee and then the Council on an emergency basis.
- (4) For positive recommendations of landmark status by the Commission, the LUZ Committee and City Council shall review all recommendations at their respective next regularly scheduled meetings, with notice to all parties. If the Council denies the landmark status, the demolition permit shall automatically issue.
- (5) Owners of property currently listed as eligible and still qualify for individual listing shall receive written notice explaining the ramifications of this status, including the additional review requirements before demolition and potential benefits, if the property is ultimately designated as a landmark (tax credits, etc.). The notice letter shall be prepared by the Historic Preservation Section of the Planning and Development Department and signed by the Planning and Development Department Director. The original form of the notice letter is subject to the review and approval of the Council President. Property owners may appeal their "eligible for individual listing" status by filing a written objection with the Commission within 45 days of the date they received the above notification. The Commission shall determine whether the property shall remain on the "eligible" list within 90 days of receipt of the written objection. If the Commission determines that the property should be removed from the eligible list, the Commission shall issue a written final order effective on the day of the decision directing the Planning and Development Department to remove the property from the list immediately. In the event the Commission determines the property is of such significance as to remain on the eligibility list, the Commission shall, within 90 calendar days of such determination, make a decision concerning the structure's eligibility for landmark status, pursuant to the procedures and criteria contained in Chapter 307, Ordinance Code. At the conclusion of all notice and appeals processes, the Historic Preservation Section shall notify the Real Estate Division of the eligible property and the Real Estate Division shall record a notice of the eligible property's listing in the public records of Duval County in a form acceptable to the Real Estate Division and the Office of General Counsel.
- (6)Owners of property on any future list of eligible properties shall receive written notice explaining "eligible for individual listing" status, including the additional review requirements before demolition and potential benefits, if the property is ultimately designated as a landmark (tax credits, etc.). The notice letter shall be prepared by the Historic Preservation Section of the Planning and Development Department and signed by the Planning and Development Department Director. The original form of the notice letter is subject to the review and approval of the Council President. Property owners may appeal their "eligible for individual listing" status by filing a written objection with the Commission within 45 days of the date they received the above notification. The Commission shall determine whether the property shall remain on the "eligible" list within 90 days of receipt of the written objection. If the Commission determines that the property should be removed from the eligible list, the Commission shall issue a written final order effective on the day of the Commission decision directing the Planning and Development Department to remove the property from the list immediately. In the event the Commission determines the property is of such significance as to remain on the eligibility list, the Commission shall, within 90 calendar days of such determination, make a decision concerning the structure's eligibility for landmark status, pursuant to the procedures and criteria contained in Chapter 307, Ordinance Code. At the conclusion of all notice and appeals processes,

- the Historic Preservation Section shall notify the Real Estate Division of the eligible property and the Real Estate Division shall record a notice of the eligible property's listing in the public records of Duval County in a form acceptable to the Real Estate Division and the Office of General Counsel.
- (7) For properties defined in subsection (b) above other than those deemed eligible, the Historic Preservation Commission may make a non-binding advisory opinion as to the appropriateness of demolition within 45 calendar days of the permit application, and may exercise any other authority pursuant to <a href="Chapter 307">Chapter 307</a>, Ordinance Code. Demolition of contributing structures within a historic district designated pursuant to <a href="Chapter 307">Chapter 307</a>, Ordinance Code, shall not be commenced until the requirements of Chapter 307, Ordinance Code, have been met.
- Before a demolition permit is issued, the owner or demolition contractor must supply a certified letter to the Building Inspection Division that the property will be well graded, drained, grassed and maintained within seven days after the structure is removed. If a written demolition plan has been submitted to the Building Official, no demolition permit shall be issued until the Building Official has reviewed and approved the plan.

(Ord. 2001-1160-E, § 1; Ord. 2002-511-E, § 1; Ord. 2005-1115-E, § 1)

#### Sec. 320.408. Permits.



- (a) A building, electrical, gas, mechanical, plumbing or sign permit shall carry with it the right to construct or install the work, provided the same are shown on the drawings and set for in the specifications filed with the application for the permit. Where these are not shown on the drawings and covered by the specifications submitted with the application, separate permits shall be required.
- (b) No building, construction, electrical, plumbing, mechanical, sign, miscellaneous or other permit issued by the Building Inspection Division shall be valid until the fees prescribed by <a href="Section 320.409">Section 320.409</a> have been paid to the Tax Collector and evidence of the payment is marked on the face of the permit, except that permits issued in connection with construction, work or improvements to be done pursuant to a contract with a governmental agency or for work, construction or improvements on a land, building or structure owned by a governmental agency shall be exempt from the payment of the fees and the word "Exempt" shall be entered on the face of the permit.
- (c) In all cases where work for which a permit is required is commenced before the permit is obtained, except where specific permission is granted to proceed by the Chief, Building Inspection Division, the permit fee due the City for a permit for the work shall be twice the amount of the regular permit fee specified in <a href="Section 320.409">Section 320.409</a> which would have been due had the permit been obtained prior to commencing work. Payment of the increased fee shall not be a defense in a prosecution for doing the work for which a permit is required without having obtained the necessary permit.
- (d) When extra inspection trips are made for a permit holder due to any of the following reasons, an additional fee of \$45 shall be charged for each additional inspection:
  - (1) Wrong address given on the call for inspection.
  - (2) Work not ready for inspection at the time specified, including failed inspections.
  - (3) Required corrections not made within the time specified.
  - (4) Failure to request required inspections.
  - (5) Additional work done after the inspection has been made.

(e)

Where no work has been done under a valid permit for which the Building Inspections Division permit fees and the resource management and landscape fees have been paid and a written request for refund of fees is made by the holder thereof within six months of the date of original issuance, the Building Official may authorize the refund of 80 percent of the Building Inspection Division (BID) permit fee, Resource Management Fee, and Landscape Fee, upon surrender and cancellation of the permit; provided, that no refund shall be made for permits whose total permit fee is less than \$30. No refund will be given for the plan review fee once the review has started.

- (f) The following work on a single-family residence may be performed without plan review or inspection by the Building Inspection Division. After the permit is paid for and Notice of Commencement submitted (when required), the permit will Auto Expire. The Building Inspection Division shall retain the right and option to perform such random inspections as may be deemed necessary to show compliance with the Florida Building Code:
  - (1) Installation of water softeners.
  - (2)Installation of electric water heaters.
  - (3)Roofing repairs or reroofing not exceeding five (5) squares or \$2,500 in total cost.
  - (4) All wood/vinyl/aluminum/cementitious siding replacement, or stucco repair, over wood frame construction, where the work involves less than 20 percent of any wall larger than 100 sf (including doors and windows), or the work involves only walls less than 100 sf (including doors and windows).
  - (5) Replacement of light fixtures, switches, ceiling fans and receptacles.
  - (6)Re-piping not exceeding \$5,000 in total cost.
  - (7) Installation of electric fireplaces.
  - (8)Replacement of existing HVAC equipment, the installation cost of which does not exceed \$5,000, when requested by the homeowner. This subsection does not include liquid propane, natural gas, or oil source equipment.
  - (9)Repairs, renovations and alterations of existing swimming pools and spas.
- (g) The following work on a single-family residence shall require plan review only by the Building Inspection Division and shall Auto Expire after the permit fee is paid and a Notice of Commencement submitted when required; provided, however, that the Building Inspection Division shall retain the right and option to perform such random inspections as may be deemed necessary to establish compliance with the Florida Building Code:
  - (1) Window replacement not exceeding \$5,000 in total cost.
  - (2) Screen enclosures not exceeding 250 square feet in area or \$5,000 in total cost. This does not include new screen enclosures around swimming pools.
  - (3)Construction or installation of sheds not exceeding 150 square feet or \$5,000 in total
- (h) The exemptions granted in subsections (f) and (g) shall not relieve the owner or contractor from their duty to comply with all applicable provisions of the Florida Building Code.

(Ord. 2001-1160-E, § 1; Ord. No. 2004-711-E, § 3; Ord. 2006-101-E, § 1; Ord. 2008-702-E, § 1; Ord. 2010-216-E, § 4; Ord. 2010-779-E, § 1)

# Sec. 320.409. Schedule of permit fees.



Permit fees imposed and collected pursuant to F.S. § 166.222 and this Section shall be deposited into a segregated trust account of the City and shall be expended, as appropriated by the Council, only for the purpose of deferring the City's costs of inspection and enforcement of the provisions of this Chapter. Permit fees for required permits shall be as provided in the following

schedule: The fees contained within this Section are subject to the Annual Review of Fees provision found in <u>Section 106.112</u>, Ordinance Code.

- (a) Building or construction permit fees. For the purpose of determining fees, floor area shall be the gross overall, outside dimension, floor area of a building at each story, including all portions under roofs. Where a building permit fee is paid for a new building or addition, separate permits and fees shall not be required for fences, walls, dwelling, awnings, masonry fence walls, or other components normal to building construction. Separate fees shall be paid for electrical, plumbing, mechanical, miscellaneous or other permits shown elsewhere in this schedule.
  - (1) New buildings, shell buildings, accessory buildings, and additions—for each 100 square feet of enclosed area or fractional part thereof for each story:
    - (i) Below grade and above grade up to and including the fourth story above grade: Building Inspection Division (BID) permit fee .....\$8.50

Resource management fee .....1.60

Landscape fee .....9% of BID permit fee

(ii) Above the fourth story above grade:

BID permit fee .....9.25

Resource management fee .....1.60

Landscape fee .....9% of BID permit fee

(iii) For each 100 square feet of unenclosed area or fractional part thereof for each story:

BID permit fee .....1.00

Resource management fee .....0.16

Landscape fee .....9% of BID permit fee

- (iv) Minimum BID permit fee for subsection (1) ... \$150.00 or \$45.00 per required inspection, whichever is greater
- (v) Plan review fee for subsection (1) ... 50% of BID permit fee or \$90.00, whichever is greater
- (2) Exceptions to subsection (1) are as follows:
  - (i) One-story portions of buildings with large undivided areas and used for storage occupancies only:
    - (A) For each 100 square feet of area or fractional part thereof up to 40,000 square feet:

BID permit fee .....8.50

Resource management fee .....1.60

Landscape fee .....9% of BID permit fee

(B) For each 100 square feet of area or fractional part thereof in excess of 40,000 square feet:

BID permit fee .....6.25

Resource management fee .....1.15

- Landscape fee .....9% of BID permit fee
- (C) Plan review fee for subsection (2) ... 50% of BID permit fee or \$90.00, whichever is greater
- (ii) For residential accessory structures not exceeding 150 square feet and not requiring an inspection (includes plan review fee) .....60
- (iii) For residential accessory structures requiring only one inspection (includes plan review fee) .....100
- (iv) For residential accessory structures requiring more than one inspection...150, or \$45 per required inspection, whichever is greater
- (v) Residential single family accessory structures are exempt from a Landscape fee.
- (3) Foundation Only BID permit fee 25% of the BID permit fee as calculated in items (1), (2), or (4).

Minimum BID permit fee for subsection (3)  $\dots$  150.00 or 45.00 per required inspection, whichever is greater

Plan review fee for subsection (3) ... 50% of BID permit fee or 90.00, whichever is greater

- (4) New construction other than buildings, including water towers, pylons, storage tank foundations, masonry walls, awnings, structural elements of industrial complexes not within a building, sewage treatment plants and similar construction:
  - (i) For each \$1,000 of estimated cost or fractional part thereof up to \$500,000: BID permit fee .....2.50

Resource management fee .....0.30

Landscape fee .....9% of BID

permit fee

(ii) For each \$1,000 of estimated cost or fractional part thereof greater than \$500,000:

BID permit fee .....0.75

Resource management fee .....0.10

Landscape fee .....9% of BID

permit fee

- (iii) Minimum BID permit fee for subsection (4) ... 150.00 or 45.00 per required inspection, whichever is greater
- (iv) Plan review fee ... 50% of BID permit fee or \$90.00, whichever is greater
- (5) Exceptions to Subsection 4 are as follows:
  - (i) Tents greater than 800sf, not used for cooking, fireworks, storage or sale of combustible material, and not considered an assembly occupancy per the Florida Building Code...\$100.00 (includes plan review fee).
  - (ii) Tents less than 800sf, not used for cooking, fireworks, storage or sale of combustible material, and not considered an assembly occupancy per the Florida Building Code...No permit required
  - (iii) Awnings requiring no more than one inspection...100.00 (includes plan review fee)
  - (iv) Where the value of the work is less than \$2500.00, and no more than two inspections are required...\$125.00 (includes plan review fee)

(6) Alterations, Tenant Build-Out and Converting Use (including major repair to buildings or other structures), for each \$1,000 of estimated cost or fractional part thereof:

BID permit fee .....4.00

Resource management fee .....0.65

Landscape fee .....9% of BID

permit fee

Minimum BID permit fee...150.00 or 45.00 per required inspection, whichever is greater

Plan review fee...50% of BID permit fee or \$75.00, whichever is greater

For Converting Use permit where no inspections are required the BID permit fee is \$80.00

- (7) Exceptions to Subsection 6 are as follows:
  - (i) All wood/vinyl/aluminum/cementitious siding replacement, or stucco repair over wood frame construction is to be permitted. Where the work involves less than 20 percent of any wall larger than 100 sf (including doors and windows), or the work involves only walls less than 100 sf (including doors and windows)... \$10.00 Auto expired permit, no plan review fee.
  - (ii) Any wood/vinyl/aluminum/cementitious siding replacement, or stucco repair over wood frame construction, greater than 20 percent on any wall larger than 100 sf (including doors and windows)...\$150.00 or \$45.00 per required inspection, whichever is greater, includes plan review fee.
- (8) Window/door replacement:

BID permit fee, per \$1,000 of construction cost .....4.00

Minimum BID permit fee for permits not requiring an inspection .....80.00

Minimum BID permit fee for permits requiring one or more inspections .....150.00

(9) Moving buildings on or across public thoroughfares: For each 100 square feet of area or fractional part thereof:

BID permit fee .....1.00

Resource management fee .....0.15

Landscape fee .....9% of BID

permit fee

Minimum BID permit fee for subsection (7) .....150.00

Plan review fee ... 50% of BID permit fee or 90.00, whichever is greater

(10) Roofing (excluding original roofing on new one and two family dwellings, and original roofing on additions and accessory buildings for single family dwellings), for each 1,000 square feet or fractional part thereof:

BID permit fee .....10.00

Minimum BID permit fee for roofing permits not requiring an inspection .....80.00

Minimum BID permit fee for roofing permits requiring one or more

inspections .....150.00

Roofing repairs less than 500 square feet .....10.00

- (11) Swimming pools:
  - In-Ground Pools For each 1,000 gallons capacity or fractional part thereof:

BID permit fee .....2.00

Resource management fee .....0.50

Landscape fee .....9% of BID permit fee

Minimum BID permit fee for subsection 9. .....60.00

Building plan review fee  $\dots$  50% of BID permit fee or 60.00, whichever is greater

- (ii) Above ground pools (includes plan review) .....100.00
- (iii) Repair, renovation and alteration permit fee, where no inspection is required .....10.00
- (12) Demolition of buildings:
  - (i) For single family residential buildings that are zoned residential: BID permit fee. ....50.00

For all other buildings:

(ii) For each 1,000 square feet of area or fractional part thereof:

BID permit fee .....1.75

Resource management fee .....0.30

Landscape fee .....9% of BID

permit fee

Minimum BID permit fee for subsection (10)(ii) .....80.00

Plan review fee ... 50% of BID permit fee or 60.00, whichever is greater

(13) Demolition of structures other than buildings, BID permit fee .....150.00

Resource management fee .....20.00

Landscape fee .....9% of BID

permit fee

Plan review fee ... 50% of BID permit fee or 60.00, whichever is greater

- (14) Sign erections:
  - (i) For each 20 square feet of area (for each display face) or fractional part thereof up to 100 square feet:

BID permit fee .....7.50

(ii) For each additional 100 square feet:

BID permit fee .....12.50

Minimum BID permit fee for subsection (12) .....80.00

Plan review fee ... 25% of BID permit fee or 35.00, whichever is greater

- (iii) Banner signs (each sign) .....40.00
- (15) Site clearing in connection with protected trees or Horizontal Development not associated with building construction, including parking lots, drainage improvements, landscaping and irrigation not associated with buildings:
- (i) Less than ½ acre .....100.00
  - (ii) One-half acre to 1 acre .....150.00
  - (iii) For areas greater than one acre, plus 25.00 per each additional acre or fractional part thereof .....150.00
- (16) Site clearing without protected trees .....75.00
- (17) Removal or relocation of private protected trees .....75.00
- (b) Electrical permit fees. Service installations (conductors and equipment for delivering energy from the electrical utility supply system); each service or subservice requiring a utility-owned meter shall be considered a service for fee purposes.

(1)	Resid	dential:			
	(i)	New single-family residential occupancy:			
		(A) 0—100 ampere service170.00			
		(B) 101—150 ampere service170.00			
		(C) <u>151</u> —200 ampere service170.00			
		(D) For each additional 50 amperes or fractional part thereof20.00			
		(E) Temporary Service80.00			
	(ii)	Multifamily, for each dwelling unit80.00			
	(iii)	Service charge:			
		(A) 0—100 ampere service80.00			
		(B) 101—150 ampere service80.00			
		(C) <u>151</u> —200 ampere service100.00			
		(D) For each additional 50 amperes or part thereof20.00			
	(iv)	Room additions100.00			
	(v)	Mobile home service80.00			
	(vi)	In-Ground Swimming pools120.00			
	(vii)	Above Ground Swimming pools60.00			
	(viii)	Repairs and miscellaneous60.00			
	(ix)	Single family low voltage with no inspections10.00			
	(x)	Unmetered main service80.00			
	(xi)	Safety inspection60.00			
(2)		mercial and other permits:			
(-)	(i)	Services:			
	(-)	(A) 0—100 ampere service190.00			
		(B) 101—150 ampere service190.00			
		(C) <u>151</u> —200 ampere service190.00			
		(D) For each additional 50 amperes or fractional part thereof20.00			
		(E) Temporary services80.00			
	(ii)	Feeder, for each 100 amperes or fractional part thereof10.00			
	(iii)	Signs, each, or minimum fee (whichever is greater)40.00			
	(iv)	Switch and receptacle outlets (excepting new single-family and multifamily):			
	(10)	(A) Up to 30 amperes, each1.00			
		(B) <u>31</u> amperes to 100 amperes, each2.00			
		(C) 101 amperes to 200 amperes, each4.00			
	(v)	3 - 3			
	(vi)	Primary service80.00  Transformers for each 20 kilovelt emperce or fractional part thereof 10.00			
	(vii)	Transformers, for each 20 kilovolt amperes or fractional part thereof10.00 Heat:			
	(*11)	/a.\			
	(viii)				
	(4111)	Air conditioning circuit:			

- (A) 0—60 amperes .....10.00
- (B) 61—100 amperes .....20.00
- (ix) Motors:
  - (A) 0—5 horsepower .....10.00
  - (B) For each additional 5 horsepower or fractional part thereof .....10.00
- (x) Appliances, fixed or stationary:
  - (A) 0—30 amperes .....10.00
  - (B) 31—100 amperes .....20.00
  - (C) Over 100 amperes .....20.00
- (xi) Smoke detectors wired into electrical systems (excepting single-family, multifamily and room additions), each .....2.00
- (xii) For non-fire alarm low voltage work as part of a commercial permit .....30.00 For non-fire alarm stand alone low voltage permits .....60.00
- (xiii) Minimum fee .....60.00
- (xiv) Swimming pools .....120.00
- (xv) Repairs and miscellaneous .....60.00
- (xvi) Late fee: .....Double fee
- (xvii) For misc. permits not requiring an inspection .....10.00
- (xviii) Commercial safety inspection .....60.00
- (xix) Unmetered main service .....80.00
- (xx) Commercial additions, plus totals per items (i) thru (xii) above .....100.00
- (c) Plumbing permit fees.
  - (1) Roughing-in and setting fixtures or plugged outlets-for water closets (toilets), bathtubs, showers, lavatories, sinks, slop sinks, laundry tubs, urinals, gas and oil interceptors, floor drains, drinking fountains, indirect waste pipe fixtures, sterilizers, autopsy tables, autoclaves and other plumbing fixtures having a water supply or waste outlet or both, including hot water tanks or boosters, and washing machines with sewer connection, for each roughing-in and fixture or plugged outlet (fee for new roughing-in includes fixture) .....11.00
  - (2) Rainwater roof inlets, each .....11.00
  - (3) Sewer connection-for each building sewer connection to a public or private sewerage system (not including septic tanks) .....11.00
  - (4) Water piping-for each service connection to a supply system and for each connection to or outlet for an appliance or fixture not covered by a fixture permit .....11.00
  - (5) Repairs-extending, remodeling, addition to or repair of water pipes, waste, soil, vent, building drain or sewer pipe (this does not include faucet, valve or water closet tank repairs, unstopping fixtures, waste, building drain or building sewer pipes or cleaning septic tanks), for each \$100 estimated cost or fractional part thereof .....11.00
  - (6) Water softeners .....21.00
  - (7) Solar water heater .....21.00
  - (8) Minimum fee for a plumbing permit, based upon the fee formulas contained in paragraphs (1) through (7) .....60.00
- (d) Mechanical permit fees.

(1)

Air conditioning and refrigeration (total capacity in single installation), each apartment or business being considered a separate system, for each ton of capacity or fractional part thereof:

- (i) For one to ten tons .....11.00
- (ii) For each ton over ten tons or fractional part thereof up to 25 tons .....7.00
- (iii) For each ton over 25 tons or fractional part thereof .....6.00
- (2) Furnaces and heating equipment (total capacity in single installation) for each apartment or business:
  - (i) For the first 200,000 Btu an hour capacity or fractional part thereof .....22.00
  - (ii) For each additional 50,000 Btu an hour of fuel used or fractional part thereof .....11.00
  - (iii) Burner (not in heating system), each .....9.00
- (3) Boilers, including heating element:
  - (i) For the first 500,000 Btu an hour input of fuel .....28.00
  - (ii) For each additional 100,000 Btu an hour input of fuel or fractional part thereof .....9.00
- (4) Air duct systems:
  - (i) For the first 2,000 cubic feet a minute capacity of air handled in duct system .....17.00
  - (ii) For each 1,000 cubic feet a minute over 2,000 cubic feet or fractional part thereof up to 10,000 cubic feet a minute .....7.00
  - (iii) For each additional 1,000 cubic feet a minute or fractional part thereof .....5.00
- (5) Pumps, each .....6.00
- (6) Tanks, all types, gasoline or LP:
  - (i) 0 to 600 gallons .....15.00
  - (ii) Over 600 to 10,000 gallons capacity or fractional part thereof .....22.00
  - (iii) For each additional 1,000 gallons or fractional part thereof .....4.00
  - (iv) For above-ground commercial tanks a Fire Marshal plan review fee of \$150.00 will be charged in addition to the above fees.
- (7) Service station automobile lifts .....17.00
- (8) For gas piping .....80.00
- (9) Fire residential sprinkler systems:
  - (i) For the first 40 sprinkler heads or fractional part thereof .....27.00
  - (ii) For each additional 10 sprinkler heads or fractional part thereof .....4.00
- (10) Prefabricated fireplaces, each .....22.00
- (11) Alteration or repair of boiler or non-fired pressure vessel .....22.00
- (12) Solar collector system .....22.00
- (13) Commercial hood installation .....22.00
- (14) Heat exchanger or coil in ducts .....8.00
- (15) Minimum fee for a mechanical permit .....60.00
- (16) For mechanical permits not listed above the fee shall be based on \$7.00 per \$1,000.00.
- (e) Miscellaneous permit fees.
  - (1) Mobile home move-on permit .....100.00

- (f) Miscellaneous fees.
  - (1) Temporary/partial certificate of occupancy-residential, each .....100.00
  - (2) Temporary/partial certificate of occupancy-commercial, each .....150.00
  - (3) Change of contractor, owner, address or contractor qualifier on an active permit:
    - (i) 1—5 permits, each .....40.00
    - (ii) 5.00 for each permit over 5
  - (4) Register a new company .....50.00
  - (5) Add a new qualifier to a company .....40.00
  - (6) Register to be a Private Provider .....150.00
  - (7) Add a new inspector to a Private Provider .....100.00
  - (8) After hours inspections: Hourly overtime cost for inspector
  - (9) Plan review fee on any item will be quadrupled on fourth submission as per Florida Statute 553.80
  - (10) Local Product Approval .....150.00
  - (11) Open an escrow account .....50.00
  - (12) Monthly escrow account maintenance fee for active accounts, per month .....8.00
  - (13) Plan review fee for active permits:
    - (i) Residential, full size sheets (24" × 36"), truss plans, or energy sheets .....40.00
    - (ii) Commercial, for 1—5 full size sheets  $(24" \times 36")$  .....50.00 For each additional sheet .....5.00
  - (14) Quality Assurance re-inspection fee after being notified the deficiency has been corrected .....45.00
- (g) Private inspection fees.
  - (1) Building permit fees for residential new buildings and additions shall be reduced by 100.00, but not below the BID minimum fee, when being inspected by a private inspector.
  - (2) Building permit fees for commercial new buildings and additions shall be reduced by ten percent, but not below the BID minimum fee, when being inspected by a private inspector.

(Ord. 2001-1160-E, § 1; Ord. 2004-711-E, § 3; Ord. 2004-1003-E, § 6; Ord. 2006-101-E, § 2; Ord. 2006-589-E, § 1; Ord. 2007-1039-E, § 1; Ord. 2008-702-E, § 1; Ord. 2009-624-E, § 1; Ord. No. 2010-216-E, § 5; Ord. 2010-779-E, § 2)

#### Sec. 320.410. Expiration of sign permits.



Sign permits issued for off-site signs pursuant to Chapters 320 and 326 shall expire on October 1 of each year regardless of their initial issuance date by the Division. Such permits may be renewed as provided in Section 320.412 below. Sign permits for on-site signs will not expire, but shall become void if the sign area of any surface of the sign is increased without the prior approval of an application therefor by the Building Official under Section 320.402.

(Ord. 2001-1160-E, § 1; Ord. 2008-702-E, § 1)

#### Sec. 320.411. Revocation of permit.



(a)

- The Building Official may revoke a permit or approval issued under this building code where there has been any false statement or misrepresentation of fact in the application or on the plans on which the permit or approval was based.
- (b) The Building Official may revoke a permit upon a determination that the construction, erection, alteration, repair, moving, demolition, installation, or replacement of the building, structure, electrical, gas, mechanical or plumbing systems for which the permit was issued is in violation of or not in conformity with the provisions of this building code. Written notice shall be mailed or given to the permit holder or his agent and it shall be unlawful for a person or persons to perform work in or about the building or structure except the work required for the correction of the expressed violations. If, in the judgment of the Building Official, there is imminent danger that requires immediate action, the permit may be revoked verbally and written notice served later.
- (c) When a permit has been revoked, it shall not be reinstated until all existing violations have been corrected. Written notice of reinstatement shall be given to the permit holder if requested.

(Ord. 2001-1160-E, § 1; Ord. 2008-702-E, § 1)

#### Sec. 320.412. Renewal of sign permits for off-site signs.

- (a) All sign permits issued for off-site signs shall expire on October 1 of each year as provided in Section 320.410(a)(2) above unless they are renewed for an additional year on or before their date of expiration. Renewals shall be accomplished by the filing of an application with the Division setting forth the information required under Section 320.402(c) in the initial application, and payment of a renewal fee of \$35 per sign permitted. The application shall be filed no later than 30 days before the expiration date of a sign permit. The fees herein collected shall be paid into the Sign Enforcement Fund under Section 111.460. The Division then shall verify the information in the renewal application is true and correct and that the sign otherwise meets the requirements for approval required in Chapter 326, and if so, shall issue the applicant a renewal sticker color coded and numbered for the year of renewal on or before the expiration date. The applicant shall promptly affix the renewal sticker to the sign permit tag so as to be plainly visible to the public and inspectors, yet without covering the numbers and letters on the permit tag.
- (b) If renewal for an off-site sign is not accomplished and the sticker for the renewal is not attached to the sign permit tag no later than 30 days after October 1 of each year, the off-site sign involved shall be subject to immediate removal by the Division without further notice or the need to comply with <a href="Section 320.413">Section 320.413</a> or <a href="Section 326.208">Section 326.208</a>(b) and without the City incurring any liability therefor.

(Ord. 2001-1160-E, § 1; Ord. 2006-422-E, § 124)

#### Sec. 320.413. Removal of signs.



- a) For the purposes of this Section the following terms shall have the following meanings:
  - (1) Land owner means the person who owns the real property on which a sign or sign structure is located. This includes any land that a sign overhangs.
  - (2) Sign owner means the person who appears to be the owner of a sign based on the location of the name on the sign or sign structure.
- (b) Any sign or portion of any sign located in the City which is erected, used, operated, constructed or maintained without complying with the zoning, application, permit, maintenance, and renewal permit laws and procedures required by this Chapter, Chapter

<u>326</u>, and <u>Chapter 656</u>, is hereby declared to be illegal and shall be removed as provided herein.

- (c) (1) Upon determination by the Division that a sign or sign face is in violation of this Chapter, Chapter 326, or Chapter 656, the Division shall post on each such sign structure or sign face an orange, dated notice with black letters. The notice shall state that the sign or sign face is illegal and is required to be brought into compliance or removed within 30 calendar days after the date on which the notice is posted. The Division shall also mail or deliver written notice to the land owner and sign owner, if known. The written notice shall state that the sign is illegal and is required to be brought into compliance or removed within a 30-day period specified on the posted notice. The mailed or delivered written notice shall further state that the land owner and sign owner have the right to request a hearing, as provided in Section 320.113(f). The request must be in writing and filed with the City not later than 30 calendar days after the date of the mailing or delivery of notice required herein and shall state all facts demonstrating that the sign is not in violation.
  - If, pursuant to the notice provided, the subject illegal sign is not brought into compliance, removed by the land owner within the prescribed period, or the land owner fails to timely request a <a href="Section 320.413">Section 320.413</a>(f) hearing, the City may remove and may store, destroy or otherwise dispose of the sign without further notice being required and without paying any compensation therefor. For that purpose, the City's employees, agents, or contractors may enter onto private property without incurring any civil or criminal liability or penalty for trespass or conversion of the sign or other like offense for so entering and removing such sign.
  - (3) For the purpose of this Section, the posted notice (and the mailed notice to the permittee and sign owner, if known) constitutes sufficient notice. No notice is required to be provided to lessees or advertisers; provided, however, if a lien on the real property on which the sign is located is to be sought for the costs of removal, towing and storage, and unpaid fines, persons with ownership in the real property shall be notified in writing as set forth in subsection (c)(1) of this Section.
- (d) (1) If a sign is under construction and the division determines the sign owner or applicant has not been issued a permit as required under this Chapter, or that the sign is otherwise unauthorized or illegal, the division shall require that all work on the sign cease until the sign owner or applicant takes whatever steps are necessary to show that the sign is authorized by law, including, if necessary, steps to apply for a permit. The division shall post an order to cease work on the subject sign, and no further notice is required to be given. Failure of a sign owner (or his or her authorized employees or agents) or applicant to meet or comply with the order shall subject the sign to prompt removal by the City. The City shall have no liability to the owner or applicant for such removal, and may recover the costs for the removal.
  - (2) For purpose of this subsection (d) of this Section only, a sign is under construction when it is in any phase of initial construction prior to the attachment or display of the advertising message in final position for viewing by the traveling public. A sign that is undergoing routine maintenance or change of the advertising message only is not considered to be under construction.
- (e) The cost of removing a sign, together with towing and storage charges, if any, whether by the Division or by an independent contractor on behalf of the City, shall be assessed against the sign owner and land owner by the City and shall be an indebtedness collectible by the City. In addition, a civil penalty of \$500 per day per sign shall be assessed against the land owner and sign owner jointly and severally for any sign in violation of Chapters 320, 326, or

- 656 which has not been removed within the 30-day period after placing of the notice of illegality thereon pursuant to the requirements of this Section. Any civil penalties assessed pursuant hereto shall be collectible by the City and paid into the Sign Enforcement Fund established in <u>Section 111.460</u>. Sign owners and land owners shall pay all costs and attorneys fees incurred by the City which are necessary to enforce the provisions of this Section.
- (f) Any hearing authorized by this Section shall be conducted by the Director of Public Works or the Director's designee who will not be the person issuing the notice or that person's employees or subordinates. Any hearing required by this Section shall be governed by the following:
  - (1) The hearing should be (not mandatory) scheduled by the Director to be held within 15 days of receipt of a written request, and the land owner and sign owner, if known, shall receive a minimum five working days notice of the hearing.
  - (2) The land owner and sign owner may appear in person or be represented by an attorney.
  - (3) The issue before the Director shall be the factual determination of whether a violation exists under the Ordinance Code.
  - (4) The hearing shall be informal. The Director shall review the notice of violation, the requesting party's explanations in its request for hearing, and may receive and consider any evidence upon which reasonably prudent persons normally rely. The Director shall not be bound by technical, common law, statutory or formal rules of evidence or procedure. After the hearing, the Director shall render findings based upon whether a violation exists.
  - (5) The City shall supply either audio, video, or stenographic recording services at its discretion to establish a record of the hearing but the City or the requesting party can, at its own expense, record or transcribe the hearing in any matter it deems fit.
  - (6) Within 14 days of the conclusion of the hearing, or as soon thereafter as is practicable, the Director shall render findings to the land owner and sign owner and the Division determining whether the sign is in violation of the Ordinance Code.
  - (7) If the decision of the Director is that the sign is in violation of the Ordinance Code, the decision shall advise the land owner or sign owner that if the sign is not removed within 15 days of the date of the decision, the City may thereafter remove the sign at such reasonable cost to the land owner and sign owner as may be incurred by the City.
  - (8) If the decision of the Director is that the sign is not in violation as noticed, the City shall take no further action pursuant to the notice of violation on which the decision was made.
- (9) The provisions of this Section are intended to have municipal application to the City of Jacksonville and shall be supplemental to any Countywide regulations adopted by the City Council either through ordinance or as may be contained in the Charter of the City.

(Ord. 2001-1160-E, § 1; Ord. 2006-422-E, § 124)

# Sec. 320.414. Nonconforming signs.

- (a) All permits for off-site signs that were issued prior to March 11, 1987 but which were not erected or constructed prior to March 11, 1987 shall comply fully with the regulations imposed by this Section; otherwise such permits shall be deemed null and void.
- (b)

All lawful nonconforming signs shall be removed, changed, or altered to conform to the standards established in this Section, by or on behalf of the owner thereof no later than five years after March 11, 1987, or else shall be removed by the City immediately after the end of the 50 year after March 11, 1987 pursuant to the procedures in Sections 320.413 and 326.208; provided, however,

- (1) Except as otherwise provided in Charter Article 23, lawful nonconforming off-site signs along any portion of the interstate or federal-aid primary highway systems within the meaning of F.S. § 479.01(5), (7), (12) and (14), F.S. § 479.15(2) and F.S. § 479.24(1) shall be subject to removal, if at all, only as provided pursuant to F.S. Ch. 479.
- (2) Any lawful nonconforming off-site sign which is nonconforming because of distance limitations shall not be required to be removed, changed or altered to conform to the distance limitations established in <u>Section 656.1303</u>; provided that any off-site sign located within 200 feet of any residentially zoned district shall be nonilluminated and shall not exceed a maximum of 400 square feet in area, including embellishments.
- (3) Any sign which becomes a lawful nonconforming sign due to the provisions of this Section, but which is or would be a permissible use by exception or which is or would be allowed by variance, as set forth in <u>Section 656.1303</u>, within the zoning district in which it is located, must obtain the appropriate exception or variance from the Planning Commission in order to continue in existence at that location.
- (4) Any lawful nonconforming on-site sign not exceeding the allowable number of signs, as provided in <u>Section 656.1303</u>, may be continued so long as the sign does not exceed one and one-half times the allowable square footage in area specified in <u>Section 656.1303</u> or 300 square feet in area, whichever is less, until altered, changed or modified in any form; provided that, the face of any lawful nonconforming on-site sign, existing as of March 11, 1987, may be changed pursuant to the requirements set forth herein.
  - (i) Any nonconforming on-site sign which is located closer than ten feet from any street right-of-way, but which otherwise complies with all other provisions of the Ordinance Code, may remain in place after March 11, 1987, and may be:
    - (A) Altered, modified, or changed to identify a new occupant or tenant on the property;
    - (B) Altered, modified, or changed to repair or replace any portion of the sign which is damaged; or
    - (C) Remodeled or otherwise changed if the sign is downsized to a size that is at least 15 percent smaller than the original sign area if the remodeled sign does not exceed 100 square feet, or to a size that is at least 25 percent smaller than the original sign area if the remodeled sign exceeds 100 square feet;

provided, however, that if title to the property on which the nonconforming sign is located is transferred after March 11, 1987, the nonconforming sign must be brought into conformity with <u>Section 656.1303</u> by March 12, 1992 or upon transfer of the title, whichever is later; and provided further that the sign and sign face of the nonconforming sign may not be enlarged in any way.

(ii) Any nonconforming on-site sign which is located within 25 feet of any intersection of two or more street right-of-way lines but which otherwise complies with all other provisions of the Ordinance Code, may remain in place after March 11, 1987 and may be:

 (A)

- Altered, modified, or changed to identify a new occupant or tenant on the property;
- (B) Altered, modified, or changed to repair or replace any portion of the sign which is damaged; or
- (C) Remodeled or otherwise changed if it is located within or relocated to within the area between ten feet and 25 feet from the intersection of such street right-of-way lines;

provided that such remodeled or changed sign meets a minimum height limit above grade of eight feet and a maximum height limit of 25 feet; and provided that the support structure is at least 17 feet away from the intersecting lines and no portion of the sign is closer than ten feet from any street right-of-way line; and provided further that the sign and sign face of the remodeled sign may not be enlarged in any way; provided, however, that if title to the property on which the nonconforming sign is located is, or has been, transferred after March 11, 1987, the nonconforming sign must be brought into conformity with Section 656.1303 by March 12, 1992 or upon transfer of the title, whichever is later.

- (5) Any lawful sign for which a zoning exception and/or variance was heretofore granted by the Planning Commission may be continued so long as it is maintained in accordance with the provisions for which the grant of exception or variance was made and provided that it complies with all other provisions of this Section for which no grant of exception or variance has been approved.
- (6)Except as provided in this subsection, the provisions of this Section pertaining to mobile signs shall not take effect until five years after March 11, 1987. At the end of this five-year period, all mobile signs shall be required to comply with the provisions of this Section pertaining to mobile signs and all mobile signs which remain nonconforming after that date shall be subject to removal pursuant to the abatement procedure set forth in Section 326.208. All permits for mobile signs issued after this five-year period shall be issued pursuant to the provisions of and subject to the regulations of this Section. Within 30 days after March 11, 1987, the Building Inspection Division shall issue a permanent numbered medallion (at such cost as is necessary to recover the expense of producing the medallion) for each mobile sign which was permitted for use in the City on March 11, 1987 and which meets the requirements of Section 326.207. The medallion shall be immediately affixed to the permitted mobile sign for which it was issued and such mobile sign may be used throughout the City so long as it continues to comply with the provisions of Sections 326.201, 326.207, and 656.1303, that were in effect immediately prior to March 11, 1987. A mobile sign which would otherwise be eligible to be issued a medallion as provided herein, but cannot meet the construction regulations of Section 326.201, shall be issued a temporary medallion that shall expire at the end of six months from the date of issue. The temporary medallion may be converted into a permanent numbered medallion if the mobile sign for which it was issued is brought into full compliance with the provisions of Section 326.201 within the six-month period. If the mobile sign has not been brought into full compliance within this period, it shall be removed from service until such time as it is brought into full compliance.

No new mobile sign shall be placed in service for five years after March 11, 1987, except for a mobile sign or a replacement for a mobile sign which has had either a permanent numbered medallion or a temporary medallion issued for it as provided for herein. All mobile signs for which a medallion has been issued may be relocated and utilized within the City so long as the mobile sign

is properly permitted for the new location and meets the location restrictions as required by <u>Section</u> <u>326.207</u> as such Section existed immediately prior to March 11, 1987.

- (c) Any lawfully erected sign in existence on March 11, 1987 shall be deemed a lawful nonconforming sign if the sign does not conform to the standards of this Chapter, or of <a href="Chapter 326">Chapter 326</a>, as amended, or <a href="Section 656.1303">Section 656.1303</a>, as amended, but if it was originally placed or constructed in accordance with the permit, zoning and construction laws, rules and regulations in effect at the time it was placed or constructed; provided, however, such lawful nonconforming signs must be permitted and tagged as required by The Florida Building Code.
- (d) Any sign which was illegal or unauthorized prior to March 11, 1987, or any sign which is illegally placed or constructed after March 11, 1987, shall be subject to immediate removal by the City without the need for the City to comply with the notice and hearing procedures in Sections 320.413 and 326.208. The Division shall promptly remove or cause the removal of any such illegal or unauthorized sign on behalf of its owner, and may, if it chooses, charge all costs incurred to the owners of the sign (if known) and persons owning or possessing the real property on which the sign is located pursuant to the provisions of those Sections.

(Ord. 2001-1160-E, § 1)

#### BUILDING INSPECTION DIVISION



October 1, 2008

#### **MEMORANDUM**

Bulletin G-16-08

To: All Permit Applicants

From: Thomas H. Goldsbury, P.E., C.B.O., LEED AP

Chief, Building Inspection Division

**Subject: Changes to the 180 Day Law** 

#### This is very important!

The purpose of this Bulletin is to make you aware of recent changes to the 180 Day rules as recommended by the Construction Trades Qualifying Board and approved by City Council. Section 320.402(3) of the City of Jacksonville's Municipal Code has been revised and now reads as follows:

Stand alone active permits of all trades, and base building permits that have gone over 180 days without an approved inspection will be suspended. Suspended permits may be reactivated for a maximum of an additional 180 days upon showing of just cause and payment of a \$20.00 reactivation fee. The Building Inspection Division shall not accept applications for permit from contractors who have more than four suspended permits until such time as the contractor has reactivated all of the suspended permits, and the contractor's qualifier has appeared in person at the Building Inspection Division Office and paid a \$250 Reinstatement Fee. The Reinstatement Fee shall be separate from and in addition to any fees paid for reactivation of suspended permits. The provisions of this subsection may be waived by the Chief upon showing of good cause.

**What permits does this affect?** All permit numbers that have a suffix ".000" at the end. If your permit number has a "dot" and anything but three zeros at the end, it is an associated permit, not a stand alone permit, and this will not affect your permit.

As a Building, Residential, or General contractor, if my subcontractors pass an inspection does that count on my base building permit? Yes, on any project with a base building permit (B08xxxxxx.000) and one or more subcontractor permits, any <u>passed</u> inspection by the building contractor or any one of the subcontractors (as long as they have associated their permit to the base building permit) will reset the 180 day clock back to zero.

Can I request an inspection on a permit in "Suspended" status? No, not until the \$20 reactivation fee is paid and the permit is changed to Active status.

How long do I have to get an inspection once my permit has been reactivated? Once the \$20 reactivation fee is paid you will have a 10 business day **Grace Period** to schedule and <u>pass</u> an inspection, or the permit will be suspended again. If you have justifiable reasons why you need more time to pass an inspection, you must communicate that to the discipline supervisor.

What happens if I have more than four permits on the 180 Day list? If you have more than four on the list, the company will be inactivated (not allowed to pull permits) and the qualifier of the company must come to the Building Inspection Division Office to meet with the discipline supervisor and/or the Division Chief, and provide a plan to resolve <u>all</u> the permits on the list. Once the plan is accepted, and the \$250 Reinstatement Fee and the \$20 Reactivation Fees paid, the company will be activated so they can pull permits.

What happens if I reactivate my permits over 180 days, but fail to get inspections on them? You will be granted a 10 day (business days) grace period on a permit by permit basis. If you exceed the grace period, that permit will again be made 'inactive' and you will incur additional reactivation fees. It is very important to note that the '180 day clock' for reactivated permits is not re-set based on the reactivation fee, but the occurrence of a successful (passed) inspection. You should also be aware that the status of your license (ability to pull permits) could be adversely affected if you exceed the grace period on four or more permits. Refer to "What happens if I have more than four permits on the 180 Day list?" above.

**Can I pay the \$20 reactivation fee on-line?** Yes, provided you have no more than four permits on the 180 Day list.

Sometimes my project is delayed for reasons out of my control; can I get an extension to the 180 day clock? Yes, you must contact your discipline supervisor prior to the 180 day cut-off. To help you monitor this, watch the "Action" tab on your Profile on web site. One of the columns shows you any permits that have gone over 120 days, thus it gives you 60 days to take action before the 180 day cut-off.

**What if the owner stops the project?** Your discipline supervisor can "exempt" a permit from the 180 Day list. You must provide written correspondence to him (email or U.S mail) for his review, to have a permit exempted.

What if the owner will not stay home to allow an inspector in to inspect the work? Bulletin G-20-99 addressed this situation and provides a means to have a permit exempted. Please go to our web site and review that Bulletin for further information.

When will this take affect? We are presently modifying our computer system to comply with this ordinance. I am expecting by the end of October, 2008, we will be ready to launch this change so you have time to take action to review and resolve any present active permits over 180 days without a <u>passed</u> inspection. I will provide notice as soon as the date is confirmed, but please take action now.



June 12, 2009

#### **MEMORANDUM**

#### **BULLETIN G-05-09**

To: All Permit Applicants

From: Thomas H. Goldsbury, P.E., C.B.O., LEED AP

Chief, Building Inspection Division

Subject: 180 Day List

As you are aware Municipal Code section 320.402(b)(3) requires the following:

(3) Stand Alone active permits of all trades and Base Building active permits that have gone over 180 days without an approved inspection will be suspended. Suspended permits may be reactivated for a maximum of an additional 180 days upon a showing of just cause and payment of a \$20 reactivation fee. The Building Inspection Division shall not accept applications for permit from contractors who have more than four suspended permits until such time as the contractor has reactivated all of the suspended permits, and the contractor's qualifier has appeared in person at the Building Inspection Division Office and paid a \$250 Reinstatement Fee. The Reinstatement Fee shall be separate from and in addition to any fees paid for reactivation of suspended permits. The provisions of this subsection may be waived by the Chief upon a showing of good cause.

For some time now we have been working to make this process as automatic as possible with our new computer system (BID system). We are getting very close to completing that process, but I wanted to make you aware of how you can track your permits over the web. Hopefully you will resolve all of your outstanding permits prior to being subject to the above actions. Go to the Action Tab on your company profile on the BID system and review the "120 Day List" section on the far right. (See below) This will give you a list of all of your Active permits that are over 120 days without a passed inspection. I have them listed at 120 days so you have time to take action before they reach 180 days. If the permit has an asterisk (\*) after it, the permit has been excluded from the requirement above. Do not be concerned with any associated permits (permits with a suffix of anything other than a .000). Associated permits do not count, only the base permit and any stand alone permit. The associated permits will be removed from the list in the near future. All other permits with the "# of Days" greater than or equal to 180 will be subject to the above regulations. Please take action on your list ASAP.



September 20, 1999

#### **MEMORANDUM**

#### **BULLETIN G20-99**

TO: All Permit Applicants

FROM: Thomas H. Goldsbury, P.E., Chief

Building Inspection Division

SUBJECT: POLICY AND PROCEDURES TO CLOSE OUT A PERMIT WHEN

AN INSPECTION CANNOT BE MADE DUE TO OWNER'S REFUSAL TO MAKE PROPERTY ACCESSABLE TO CITY

INSPECTOR.

In order to close out a permit, there must be certain inspections completed prior to issuance of a Certificate of Occupancy (C/O) or a Certificate of Completion (C/C). On occasion, a homeowner will not cooperate and make the property accessible to the City inspector for the purpose of making an inspection. When this occurs, the contractor may initiate the attached procedures.

THG/lw

# POLICY AND PROCEDURES TO CLOSE OUT A PERMIT WHEN AN INSPECTION CANNOT BE MADE DUE TO OWNER'S REFUSAL TO MAKE PROPERTY ACCESSABLE TO CITY INSPECTOR.

In order to close out a permit, there must be a certain inspections completed prior to issuance of a Certificate of Occupancy (C/O) or a Certificate of Completion (C/C). On occasion, a homeowner will not cooperate and make the property accessible to the City inspector for the purpose of making an inspection. When this occurs, the contractor may initiate the following procedures:

- The contractor shall make at least three (3) attempts to contact the homeowner and schedule the inspection. The date contacted and the contractor's employee's name that made the attempted contact must be noted for future reference. Attempted contacts may be by telephone, letter, fax, in person, or other appropriate means of contact.
- After the contractor has made three contacts, and the inspection still has not been completed due to owner's refusal to cooperate, the contractor shall reproduce the attached document on the contractor's letterhead.
- The contractor shall send the completed document (Section 1) to the owner via regular mail <u>and</u> CERTIFIED MAIL-RETURN RECEIPT REQUESTED. Retain a copy for your records.
- If the inspection still cannot be completed due to the owner's continued refusal to provide access for the City inspector, then the contractor shall complete Section 2 of the document.
- The contractor shall forward the completed document along with a legible copy of the Certified Mail Return Receipt to the City's Building Inspection Division, City Hall Annex, 220 E. Bay Street, Room 100, 32202, Attention: To the appropriate supervisor (Building, Electrical, Plumbing, or Mechanical Inspections Supervisor).
- The appropriate supervisor or designated permitting clerk will enter a Violation "V" on screen BZVIO1, with code 320.9999. In addition, a comment must be added similar to "must finalize permit XYZ/B/99 before any additional permits issued-THG" (Use initials of discipline supervisor.) This action registers that a violation has been entered for that address and that no future permits will be allowed until the violation is satisfied and cleared.
- The appropriate supervisor will review each case with the Building Inspection Manager. If he is in agreement, the bottom portion of the document will be completed by the appropriate trades supervisor and signed by the Division Chief.
- The completed document will be sent to the Owner by regular mail <u>and CERTIFIED</u> MAIL-RETURN RECEIPT REQUESTED, with a copy to the contractor.
- Once sent, the referenced permit should be expired with the note "HOMEOWNER DENIED ACCESS, VIOLATION ENTERED."
- A copy of the completed document and the return receipt will be kept in a separate file by permit type, number, and year by the executive secretary.

# Typical Letter to Homeowner from Contractor Printed on Contractor's Letterhead

CERTIFIED MAIL	-RETURN RECEIPT REQUESTED Section 1
	Reference Permit No.: Inspection Type:
Dear Homeowner: Address:	mspection Type.
access for this inspection. You were	permitted work be inspected. It is your responsibility to provide contacted on the dates listed below, but have refused to make access contact us by in order to schedule this alt in loss of permitting privileges for this address.  (Print Employee's Name)
I,	Section 2
(License Holder's Signature)	Date
(Notary Public)	Date
	Date dertified Mail must accompany this request)
	Section 3 Supervisor's Approval Date
(Note to Contractor: Receipt for Contractor: Date:	ertified Mail must accompany this request)
(Note to Contractor: Receipt for C	Section 3 Supervisor's Approval Date
Date:  Dear Homeowner:  Your contractor has notified us that Inspection of permitted work is requinspections the City does not have line have found such inspections to be a concerns upon which the City's required that a violation has been entered at the concerns upon the concerns upon the city's required.	Section 3 Supervisor's Approval Date
Date:  Dear Homeowner:  Your contractor has notified us that Inspection of permitted work is requinspections the City does not have line have found such inspections to be a concerns upon which the City's required that a violation has been entered at the concerns upon the concerns upon the city's required.	Supervisor's Approval Date Division Manager's Approval Date  you failed to allow access for the above referenced inspection. ired under the City's Ordinance Code. Although with or without ability or responsibility for the quality of your contractor's work, we waluable tool in advancing the public health, safety and welfare irements are based. Therefore, this correspondence is to notify you are referenced address, and that no future permits will be allowed until
Date:  Dear Homeowner:  Your contractor has notified us that Inspection of permitted work is requinspections the City does not have line have found such inspections to be a concerns upon which the City's requinate a violation has been entered at this violation is cleared. This corresponds	Supervisor's Approval Date Division Manager's Approval Date  you failed to allow access for the above referenced inspection. ired under the City's Ordinance Code. Although with or without ability or responsibility for the quality of your contractor's work, we waluable tool in advancing the public health, safety and welfare irements are based. Therefore, this correspondence is to notify you are referenced address, and that no future permits will be allowed until

### City of Jacksonville Suspended Company and Permit Database

This program was implemented on 6/15/2010 and the totals for each year are from 6/15/\*\* - 6/14/\*\*

# Acme Heating & Air Conditioning Inc

Co. ID#	9999	Search for Company Suspensions
# of 250.00	2	\$500 Fee's generated for this ID #

Data through 7/31/2013

Co. ID#	2817	Search for Suspended Permits by Company	
# of 20.00	55	\$1,100 Fee's generated for this ID #	
		\$1,600 Total Fees generated for this ID#	

# of suspended permits	Year
permis	i cai
33	2010
11	2011
11	2012
0	2013

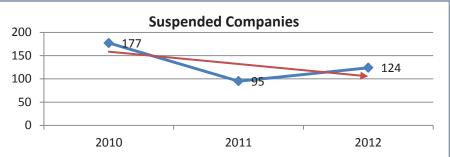


# City of Jacksonville Suspended Company and Permit Database

Data through 7/31/2013

This program was implemented on 6/15/2010 and the totals for each year are from 6/15/\*\* - 6/14/\*\*





All Permit Suspensions:				
20.00 Fee Total Fees collected				
Fees Paid	9740	\$194,800.00		
Fees Cancelled	1296	\$25,920.00		
Fee Pending 139		\$271,320.00		
Suspended Permit fees				
2010 13089				
2011		3823		
2012		6983		
2013 710				

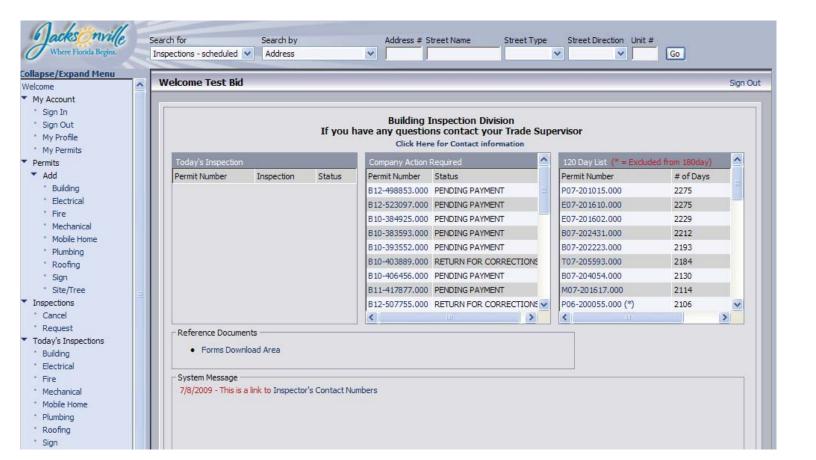


Total Fees for company and permit paid	\$269,550.00
Total Pending Fees	\$276,070.00

# of 20.00 by trade

B 7156
E 3687
M 7275
P 1768
R 3842

\$545,620.00





# Guideline for "BEST PRACTICES" Submittals August 8th, 2013

#### **Contact Information:**

Jim Schock, C.B.O., P. E.
Building Official City of Jacksonville Florida
E-mail: schock@coj.net
Room 225 - Ed Ball Building
214 N. Hogan St.
Jacksonville, FL 32202
(904) 630-1100

#### **Program Description:** Interactive Checklist for Inspections and Plan Review

These checklists were developed in-house by our supervisors and then were converted into Adobe PDF documents. Each list was created for specific trade inspections and Plan Review. Each item on the list also includes the code reference. When further explanation of the code requirement is needed, the user can click on the item and it will take the user straight to the code section.

#### **Costs / Benefits:**

#### Costs:

The interactive checklists were developed by our staff at no cost.

#### **Benefits:**

Since the checklist item is an abbreviated summary of the requirement, this allows a complete explanation of the code intent. This program works with any computer, laptop or Tablet so that the use can access it in any condition. The user can search for keywords in the checklist as well as the applicable codes since they are also included. Using the interactive checklists promotes consistency for Inspectors, Plan Reviewers as well as Contractors. These checklists can be printed, emailed and updated as completed.

The following Interactive Checklists have been created and are being used by our Inspectors

s to now mg interactive enceknists have been created and are being used
1. 2008 Electrical Commercial Final.pdf
2. 2008 Electrical Commercial Rough.pdf
3. 2008 Electrical Residential Final.pdf
4. 2008 Electrical Residential Rough.pdf
5. 2010 Building Commercial Building Final.pdf
6. 2010 Building Commercial Draftstopping and Fire Blocking.pdf
7. 2010 Building Commercial Energy Insulation.pdf
8. 2010 Building Commercial Final Accessibility.pdf
9. 2010 Building Commercial Footer and GR BMS.pdf
10.2010 Building Commercial Framing Trusses and Connectors.pdf

For official use only		
Reviewed by:		Date of Review:
	Best Practices   104	

```
11.2010 Building Commercial Lathing.pdf
12.2010 Building Commercial Rated Wall.pdf
13.2010 Building Commercial Roof Covering.pdf
14.2010 Building Commercial Roof Sheathing.pdf
15.2010 Building Commercial Roofing Dry in.pdf
16.2010 Building Commercial Slab on Grade.pdf
17.2010 Building Commercial Stem Wall.pdf
18.2010 Building Commercial Vertical Cells and Columns.pdf
19.2010 Building Commercial Wall Sheathing.pdf
20. 2010 Building Commercial Windows and Doors.pdf
21. 2010 Building Prescriptive Code Residential.pdf
22.2010 Building Residential Draftstopping and Fireblocking.pdf
23.2010 Building Residential Energy Insulation.pdf
24.2010 Building Residential Final Checklist Plumbing.pdf
25.2010 Building Residential Final.pdf
26.2010 Building Residential Footer and Gr Beams.pdf
27.2010 Building Residential Lathing.pdf
28.2010 Building Residential Rated Wall.pdf
29.2010 Building Residential Roof Covering.pdf
30.2010 Building Residential Roof Framing a.pdf
31. 2010 Building Residential Roof Framing.pdf
32.2010 Building Residential Roof Sheathing.pdf
33.2010 Building Residential Roofing Dry in.pdf
34.2010 Building Residential Slab on Grade.pdf
35. 2010 Building Residential Stem Wall Fill Cell.pdf
36. 2010 Building Residential Trusses and Connectors.pdf
37.2010 Building Residential Vertical Cells and Columns.pdf
38. 2010 Building Residential Wall Sheathing.pdf
39. 2010 Building Residential Windows and Doors.pdf
40.2010 Mechanical Boilers and Pressure Vessel Checklist.pdf
41.2010 Mechanical Commercial checklist.pdf
42.2010 Mechanical Grease Hood Checklist .pdf
43.2010 Mechanical Residential AC Changeout Checklist.pdf
44.2010 Mechanical Residential Checklist.pdf
45.2010 Plan Review Landscape Checklist.pdf
46.2010 Plan Review Residential checklist.pdf
47.2010 Plumbing Commercial Final.pdf
48.2010 Plumbing Commercial Rough in Top out.pdf
49.2010 Plumbing Commercial Underground.pdf
50.2010 Plumbing Residential checklist.pdf
```

#### **Attached Documents:**

2010 Mechanical Residential AC Changeout Checklist.pdf (Example of checklists)

#### <u>Categories</u> – Please check all categories that apply to your best practice

Plan Review
Permitting
Inspection
Management/Administration
Legal
Customer Service
Information Technology

\*\*Submit this form with any attachments, additional comments, or questions to mjc@iccsafe.org

For official use only			
Reviewed by:		Date of Review:	
	Best Practices   105		

Permit Number	Date	

Y N N/A Residential Changeouts 2010 Florida Building Code

IN IN/A	<u> </u>
	Equipment and Labeling
	Heat Strips and Equipment Labled clearly with Breaker requirements M1303.1
	Correct Breaker installed or Electrical Permit is required to replace a breaker 1302.1
	Electrical receptacle is required at or near the appliance. (M1305.1.3.1) (Within 25ft. per NEC 210.63)
	Mechanical system piping shall be insulated to a minimum of R-4 M1411.5
	Drilling and notching in accordance with R502.1.5, R602.1.4 and R802.1.8. M1308.1
	Heat pumps minimum unobstructed total area not less than 6 square inches per 1,000 Btu/h M1403.1
	Working space minimum 30" x 30" for appliances. (M1305.1)
	Heat producing equipment installed maintain required clearances to combustibles (M1402.2, 1306.1)
	Mechanical attachment from air handler to ductwork Table M1601.4
	Appliance room passageway minimum 24" wide. (M1305.1.2)
	Attics and crawl spaces requirements for installation of mechanical equipment M1305
	Proper working space for appliances (M1305.1)
	Bollard or wheel stop in front of or to the side of equipment if subject to impact by automobile. (M1307.3.1)
	Means of disconnect required within sight of appliance or breaker lock. (NEC 422.31(B))
	Switch controlled lighting provided for servicing of equipment. (M1305.1.1 & M1305.1.4.3 )
	Air handler installed in an underfloor area is suspended a minimum of 6" above grade (M1305.1.4.1)
	Equipment which has a source of ignition is at least 18" above the floor. (M1307.3)
	Filter installed and accessible M1305.1
	Air handler parts can be serviced and replaced M1305.1
	Refrigerant circuit access ports shall be fitted with the locking-type tamper-resistant caps. (M1411.6)
	Outdoor unit installed on approved pad and height- exception for changeouts 1403.2
	Outdoor unit anchored to slab 1403.2
	Outdoor unit mininmum 2 feet from propertly line Zoning Code
	Outdoor unit installed per instructions for clearances (manufactures installation instructions) M1401.1
	Thermostat installed in approved location 403.1 FEC
	Flood Zone installations M1301.1.1
	Ductwork
	Sealing (Mandatory). All ducts, air handlers, filter boxes must be sealed.1601.4
	Building cavities. Building framing cavities shall not be used as supply ducts.1601.4.8
	Outdoor air intakes and exhausts shall have automatic or gravity dampers 403.5
	Ventilation air installed if required 403.5.1
	Insulation on supply ducts, including air filter enclosures, air ducts and plenums 403.2.1
	4" space around air handlers and ducts Exception: Retrofit or replacement not part of a renovation 1601.4.1.3
	Air duct material must be class 0 or 1 all ducts must be labeled with R-values 1601.2.1
	Ducts must be a minimum of 4 inches from the ground 1601.4.7
	Metal ducts shall be supported properly M1601.4.3.1
	Rigid nonmetallic ducts are supported in accordance with installation instructions. M1601.4.3.2
	Flexible ducts supported so as to prevent the use of excess duct material M1601.4.3.3
	Ducts in garages shall comply with the requirements of Section R302.5.2. if replaced or new M1601.4.8
	Provisions to prevent condensation on the exterior of any duct. M1601.4.10
	New or replaced ducts protected where they are exposed to mechanical damage by vehicles M1601.4.11
	Systems that supply air to living spaces shall not supply air to or return air from a garage. M1601.6
	Outdoor and return air taken from approved location M1602.2
	Outdoor air inlets shall be covered with screens not less than 1/4 inch not greater than 1/2 inch M 1602.3

All Gas piping and appliances installed or replaced comply with FBC Fuel Gas 2010
Fuel Gas
Horizontal condensate piping in unconditioned space must be insulated 307.2
Label in electric panel if the air handler is in the attic for new or replacement M1305.1.3.2
Condensate pump piping is not plastic in the attic 307.2.2
Condensate pump not wired into air handler cabinet NEC 2008
Condensate to an approved place of disposal, but not to public street, alley, or create a nuisance. (M1411.3)
Drain pipe minimum 3/4" with 1/8"/ft. slope. (Per manufacturer's installation instructions, and M1411.3.2).
Condensate drain required to drain by gravity to an approved drain or condensate pump. (M1411.3)
Auxiliary and secondary drain systems approved per code M1411.3.1
Condensate Drain
All exhaust ducts terminate outside the building, and must be equipped with back draft dampers (M1507.3.3)
Bathroom fans 50 cfm minimum, and kitchen fans 100 cfm minimum. (M1507.3.1, HVI 916 / AMCA 210)
Ducts, boots and connectors used for heating or cooling insulated to R-6 FEC403.2.1
Minimum return air duct size for heat pumps. (M1403.1)
Return air inlets not located within 10' of any fuel burning appliance (M1602.2, item 5)
Return air taken from approved location (M1602.2, item 4)
Venting systems shall not extend into or pass through any fabricated air duct or furnace plenum. (G2427.3.4)
Flex duct supported per manufacturer's specifications. (M1601.4.3)
Joints, seams, and fittings of ducts sealed with mastic or other approved means. (M1601.4.1)
Round ducts have crimped joints lapped minimum 1½" and fastened with (3) sheet-metal screws(M1601.4.1)
Duct to ground minimum 4" clearance. (M1601.4.7)
Ducts which penetrate a wall or ceiling separating the garage from the dwelling are metal or ductboard (R302.5.2)
mechanical exhaust system shall be discharged to the outdoors for new or replaced M1501.1  Duct rough-in test affidavit to be on site and available to the inspector. FEC 101.4.7.1.1
Balanced Return Air for rooms with doors for new or replaced duct system M 1602.4

# Please contact City of Jacksonville, FL for additional info related to the 2010 Florida Building Code.



#### Guideline for "BEST PRACTICES" Submittals August 8th, 2013

#### **Contact Information:**

Jim Schock, C.B.O., P. E.
Building Official City of Jacksonville Florida
E-mail: schock@coj.net
Room 225 - Ed Ball Building
214 N. Hogan St.
Jacksonville, FL 32202
(904) 630-1100

**Program Description:** Temporary Pole Flat Rate Process

The City of Jacksonville Building Inspections Division Permitting (BID) system collects a \$150 flat rate fee for a new single family residence and townhomes with separate building permits for each unit. This fee is automatically added to each single family building permit and held in a separate account belonging to the Jacksonville Electric Authority (JEA). JEA provides a flat rate temporary electric service (TPFR), based on the JEA fee being paid on the Building permit. The Electrical Contractor or Owner Builder will apply for an electrical temporary pole permit from the BID Electrical Department. They will then install the temporary pole and schedule a final. When the BID Electrical inspector finals the temporary pole permit, an update is automatically sent to JEA through the BID computer system within 3 hours so the power hookup can be made.

#### **Costs / Benefits:**

#### Costs:

Costs include programming of our BID system which is included in our routine tweaking and maintenance costs covered by our service agreement with the IT department for the City of Jacksonville. JEA was able to reduce steps involved in the temporary pole process which was a significant cost savings to them and the contractors.

#### **Benefits:**

The decision to establish a flat rate temporary service was made in 2001 following the recommendation of a JEA Black Belt project.

- One reason was to avoid meter reading cost. Even with the introduction of the network meter reading JEA had to read several temporary meters manually due to the fact that these are new areas where the network has not been extended.
- There were also billing issues. Due to short life of the temporary services lot of times JEA was
  not able to bill them properly. Contractors frequently moved the poles with meters and JEA was
  not able to obtain final readings.
- Since the flat rate collected with the building permit the customer doesn't have to make another application for the service at JEA. Also, it eliminates the need for deposit at the time of establishing the service, resulting a quicker turnaround time.
- Reducing JEA's overhead. There is no need for a meter technician to visit the site and there is no need for a customer care consultant to handle the customer. And of course the expense to produce a bill.
- The customer doesn't have to pay base fees while the service is not used.

#### **Attached Documents:**

BID Screen shot of fees collected Bulletin G-18-05 JEA Flat Rate Fee for Temporary Service for New Single Family Home Construction Email sent to JEA

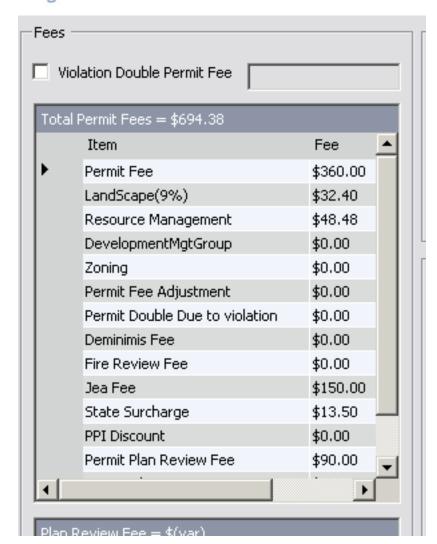
<u>Categories</u> – Please check all categories that apply to your best practice

Plan Review
Permitting
Inspection
Management/Administration
Legal
Customer Service
Information Technology

\*\*Submit this form with any attachments, additional comments, or questions to mjc@iccsafe.org

For official use only Reviewed by:	Best Practices   110	Date of Review:

## BID system Fee Calculation



JEA ee olle te

E e ti e o e mits s mitte on o a te to e a lat ee o ill e assesse JEA o ne esi ential tem o a ele t i se i e a li ations at t e time o il in e mit iss an e e e e ill e olle te t e ta olle to so i e o om an e istin it o Ja son ille es o a o nt at t e time o e mit iss an e is one time ee ill e la e t e mete e sa e a e o tem o a se i e

### **DEPARTMENT OF PUBLIC WORKS Building Inspection Division**

August 29, 2005



#### **MEMORANDUM**

Bulletin G-18-05

To: All Permit Applicants

From: Thomas H. Goldsbury, P.E., C.B.O.

Chief, Building Inspection Division

Subject: JEA Flat Rate Fee for Temporary Service for New Single Family Home Construction

Effective for permits submitted on or after October 1, 2005, a flat fee of \$150 will be assessed by JEA for new residential temporary electric service applications at the time of building permit issuance. The fee will be collected by the tax collector's office or from an existing City of Jacksonville escrow account at the time of permit issuance. This one time fee will replace the metered usage charge for temporary service.

"You have received this email bulletin because you have subscribed to the City of Jacksonville's Building Inspection Bulletin Notification Service. If you have received this email in error or desire to be removed from the service, please reply to this email with the word PW UNSUBSCRIBE in the Subject line of the email and you will be removed from the service"



Starting Application... Connecting to CAD DB... \* CAD DB Connected \* Connecting to GIS DB... \* GIS DB Connected \* Connecting to G3M DB... \* G3M DB Connected \* Connection to OMS DB... \* OMS DB Connected \* Processing file [BZFiles\PNEW201308071400.txt] Reading Records... [41] records to process... Processing type [100031] Permit Addition PERMIT [575949.000] [RESIDENTIAL - OLD BUILDING SAFETY] CREATION START ... **Creation Start Creation Complete** \*\* ERROR creating permit: \* ERROR \* Permit already exsits, must be unique. DEBUG: Exiting sub. Processing type [100031] Permit Addition PERMIT [574589.000] [RESIDENTIAL - OLD BUILDING] CREATION START ... \*\* ERROR: StrCode-HouseNo [30875-3351] not found in GIS Master Premise \*\* \*\* Warning: Looking for Transformer address for TP to get zip code failed Transfo-Address:[3351 DREW ST] \*\* \*\* Info: Creating premise for temporary pole \*\* \*\* ERROR: Unable to create master premise record for temporary [Error: -20003: Create MP ORA-20003: Postal information not found. Record cannot be created in CC & B. ORA-06512: at "GISCUST.MASTER\_PREMISE\_BIU\_R\_TRG", line 126 ORA-04088: error during execution of trigger 'GISCUST.MASTER\_PREMISE\_BIU\_R\_TRG'] \*\* \*\* Warning: No dispatch level found for zip code [] : defaulting to 'UNKNOWN' \*\* \*\* Warning: GIS Premise not found in Master Premise GIS PremId:[] \*\* **Creation Start Creation Complete** \*\* ERROR creating permit: \* ERROR \* Permit already exsits, must be unique. DEBUG: Exiting sub.

Processing type [100031] Permit Addition

PERMIT [571352.002] [RESIDENTIAL - NEW BUILDING] CREATION START ...

**Creation Start** 

**Creation Complete** 

\*\* ERROR creating permit : \* ERROR \* Permit already exsits, must be unique.

DEBUG: Exiting sub.

Processing type [100031] Permit Addition

PERMIT [571350.002] [RESIDENTIAL - NEW BUILDING] CREATION START ...

**Creation Start** 

**Creation Complete** 

\*\* ERROR creating permit : \* ERROR \* Permit already exsits, must be unique.

DEBUG: Exiting sub.

Processing type [100031] Permit Addition

PERMIT [574612.001] [RESIDENTIAL - OLD BUILDING REPAIR] CREATION START ...

**Creation Start** 

**Creation Complete** 

\*\* ERROR creating permit : \* ERROR \* Permit already exsits, must be unique.

DEBUG: Exiting sub.

Processing type [100031] Permit Addition

PERMIT [576919.000] [RESIDENTIAL - OLD BUILDING] CREATION START ...

\*\* ERROR: StrCode-HouseNo [52895- 1760] not found in GIS Master Premise \*\*

\*\* Warning: Looking for Transformer address for TP to get zip code failed Transfo-Address:[1760 LAKE SHORE BV] \*\*

Note: \*\* TPFR/UM does not exist in OMS, creating one for [1760 LAKE SHORE BV APT TPFR] \*\*

\*\* Warning: GIS Premise not found in Master Premise GIS PremId:[] \*\*

**Creation Start** 

**Creation Complete** 

\*\* ERROR creating permit: \* ERROR \* Permit already exsits, must be unique.

DEBUG: Exiting sub.

Processing type [100031] Permit Addition

PERMIT [576922.000] [RESIDENTIAL - OLD BUILDING] CREATION START ...

\*\* ERROR: StrCode-HouseNo [28205-3369] not found in GIS Master Premise \*\*

\*\* Warning: Looking for Transformer address for TP to get zip code failed Transfo-Address:[3369 DEASON AV] \*\*

Note: \*\* TPFR/UM does not exist in OMS, creating one for [3369 DEASON AV APT TPFR] \*\* \*\* Warning: GIS Premise not found in Master Premise GIS PremId:[] \*\* **Creation Start Creation Complete** \*\* ERROR creating permit: \* ERROR \* Permit already exsits, must be unique. DEBUG: Exiting sub. Processing type [100031] Permit Addition PERMIT [576942.000] [RESIDENTIAL - OLD BUILDING SAFETY] CREATION START ... **Creation Start Creation Complete** \*\* ERROR creating permit: \* ERROR \* Permit already exsits, must be unique. DEBUG: Exiting sub. Processing type [100031] Permit Addition PERMIT [576946.000] [NON-RESIDENTIAL - OLD BUILDING REPAIR] CREATION START ... \*\* WARNING: SP Id not automatically assigned... more than one SP exists \*\* **Creation Start Creation Complete** \*\* ERROR creating permit: \* ERROR \* Permit already exsits, must be unique. DEBUG: Exiting sub. Processing type [100031] Permit Addition PERMIT [569567.002] [RESIDENTIAL - NEW BUILDING] CREATION START ... **Creation Start Creation Complete** \*\* PERMIT [569567.002] CREATION COMPLETE \*\* DEBUG: Exiting sub. Processing type [100031] Permit Addition PERMIT [576953.000] [RESIDENTIAL - OLD BUILDING REPAIR] CREATION START ... **Creation Start Creation Complete** \*\* PERMIT [576953.000] CREATION COMPLETE \*\* DEBUG: Exiting sub. Processing type [100031] Permit Addition PERMIT [576954.000] [RESIDENTIAL - OLD BUILDING REPAIR] CREATION START ...

**Creation Start Creation Complete** \*\* PERMIT [576954.000] CREATION COMPLETE \*\* DEBUG: Exiting sub. Processing type [100031] Permit Addition PERMIT [576955.000] [RESIDENTIAL - OLD BUILDING REPAIR] CREATION START ... **Creation Start Creation Complete** \*\* PERMIT [576955.000] CREATION COMPLETE \*\* DEBUG: Exiting sub. Processing type [100031] Permit Addition PERMIT [576965.000] [RESIDENTIAL - OLD BUILDING REPAIR] CREATION START ... \*\* ERROR: StrCode-HouseNo [44465- 4543] not found in GIS Master Premise \*\* \*\* Warning: No dispatch level found for zip code [] : defaulting to 'UNKNOWN' \*\* \*\* Warning: GIS Premise not found in Master Premise GIS PremId:[] \*\* **Creation Start Creation Complete** \*\* PERMIT [576965.000] CREATION COMPLETE \*\* DEBUG: Exiting sub. Processing type [100031] Permit Addition PERMIT [560923.002] [RESIDENTIAL - NEW BUILDING] CREATION START ... **Creation Start Creation Complete** \*\* PERMIT [560923.002] CREATION COMPLETE \*\* DEBUG: Exiting sub. Processing type [100031] Permit Addition PERMIT [558499.002] [RESIDENTIAL - NEW BUILDING] CREATION START ... **Creation Start Creation Complete** \*\* PERMIT [558499.002] CREATION COMPLETE \*\* DEBUG: Exiting sub. Processing type [100031] Permit Addition

PERMIT [558499.002] [RESIDENTIAL - NEW BUILDING] CREATION START ...

**Creation Start** 

**Creation Complete** 

\*\* ERROR creating permit: \* ERROR \* Permit already exsits, must be unique.

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576604.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

\*\* WARNING: Permit [ 2013/563125.002] invalid inspection code [038]... Ignoring\*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [2013/574744.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576265.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576707.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576809.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/485630.030] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [2013/572965.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

\*\* WARNING: Permit [ 2013/566830.003] invalid inspection code [038]... Ignoring\*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/574333.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/575781.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

\*\* Warning: GIS Premise not found in Master Premise GIS PremId:[] \*\*

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576200.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [2013/576543.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576756.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

\*\* WARNING: Permit [ 2013/485630.030] invalid inspection code [026]... Ignoring\*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/573853.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/575701.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576230.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576270.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576311.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576435.000] Inspection updated successfully \*\* DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

\*\* WARNING: Permit [ 2013/563849.003] invalid inspection code [026]... Ignoring\*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576593.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

Processing type [100071] Scheduled Inspection...

DEBUG: Getting permit to update

DEBUG: Permit found.

DEBUG: Getting GIS Project Info.

DEBUG: Getting ready to execute.

DEBUG: Execute done.

Permit [ 2013/576593.000] Inspection updated successfully \*\*

DEBUG: Exiting sub.

[41] records processed...

\*\*\*\*\* COMPLETE \*\*\*\*\*

#### **Appendix F**

## **CITY OF KELOWNA**

1435 Water St Kelowna, British Columbia Canada, VIY-1J4 (250) 469-8630

Contact Information:

Mo Bayat

Director, Development Services
(250) 469-8630

E-mail: mbayat@kelowna.ca

#### **Best practices include:**

- Plan Review
- Permitting
- Inspection
- Management/Administration
- Legal
- Customer Service
- Information Technology



#### Guideline for "BEST PRACTICES" Submittals

#### Contact Information:

(The individual(s) most knowledgeable about the development or implementation of the program. Name, Title, Department / Jurisdiction, Contact address, email, and phone.)

#### **Program Description:**

(Please provide a brief description of the program, i.e. Residential Maintenance Inspections, Condemned Housing, How-To Guides, etc.)

#### Costs / Benefits:

(A paragraph or two elaborating on the program, estimated costs in human or financial resources, and the benefits. Benefits may include public safety, cost recovery, legal protection, etc.)

#### Attached Documents:

(Please provide any such documents supporting or outlining these programs.)

<u>Categories</u> – Please	check all	categories	that apply	to your	best practice	•
Plan Review						

- Permitting
- Inspection
- Management/Administration
- Z Legal
- Customer Service
- ✓ Information Technology

For official use only		
Reviewed by:	Best Practices   124	Date of Review:

# City of Kelowna Building & Permitting "BEST PRACTICES" Submittal

#### **Contact Information**

Mo Bayat
Director, Development Services
1435 Water Street
Kelowna, British Columbia
Canada, V1Y-1J4
mbayat@kelowna.ca
(250) 469-8630

#### Program Description

#### Quality Assurance Program for the City of Kelowna Building & Permitting Branch

The overall purpose of this program is to establish a coherent coordinated approach to ensure all the branch services, processes, procedures and policies are consistently performed to the highest standards.

This Quality Assurance Program began upon the completion of the Building & Permitting Branch accreditation by the International Accredited Service. This quality assurance program is referred to as the Building & Permitting Branch Performance Management System.

This Quality Assurance Program is a logical, focused, objective assessment on maintaining and improving continuously the level of service within the City of Kelowna, Building & Permitting Branch. It will present staff, customers, department leadership and City Council with a systematic assessment evaluation and action required report on the quality performance of the Branch.

In particular, the purpose of the Quality Assurance Strategy is:

- To incorporate the service 'quality examination' to assure the efficiency and effectiveness of the Building & Permitting Branch internal and external services.
- To verify conformance to the processes, required quality assessment of the service implementation and evaluation of target levels.
- To identify, address and eliminate the problem areas.
- To underline the areas of high-quality practices.
- To create a management tool system for continuous enhancement of the services.
- To offer an opportunity for user feed-back in accomplishing the highest possible level of quality in the provision of the services.
- To sustain a tradition of excellence and transparency for the Building & Permitting Branch.

- To endorse the ultimate level of professional competency for the Building & Permitting Branch.
- To preserve an accountable, ethical, protective and progressive Department.

#### Costs / Benefits

Minimal resources are required for the continued progression of the Quality Assurance Program as the intent falls within the objectives of the branches managerial expectations. This living document will change as the application, plan review and inspection procedures evolve as a direct result of the benchmarks and measurement tools established.

The Quality Assurance Plan encompasses eleven (11) areas within the Building & Permitting Branch each area is reliant on the other in raising the bar in customer service delivered by the branch. Benefits in creating this performance system is the information tracking component starting with application submittal ensuring complete applications, plan reviews pinpointing common deficiency's, site inspections deficiency reports whereby common reoccurring issues will be addressed city wide. While process changes have been implemented involving how staff address the practical areas of intake, review and inspection a responsibility to ensure adherence through surveys, audits, supervision and staff performance is equally important as a driver to achieve success through execution. The Quality Assurance Plan is a guide on how the branch may move forward utilizing the tools created by the accreditation process.



### Development Services Department

Quality Management Plan For Building & Permitting

## Performance System

Internal audit procedure of application process Internal audit procedure of plan review Internal audit procedure of field inspection

Tracking inocedules foi

rejection &

Staff continuous education procedures & schedules

Staff performance evaluation procedures Building & Permitting Quality
Assurance

Program

Tracking.

priovedurestron

file with peoplems

rejection &

correction

Quantitative & qualitative services comparison survey

Employee supervision procedures & tools

Exit customer feedback survey for applications, plan review & fieldinspection.

Procedures for timely update of web pages, bulletins & policies



### <u>Auditing Procedure for the Application Center, Plan Checking and Field Inspections</u>

The Application Center Team consists of 5 Development Technicians who are responsible for taking, processing, and circulating approximately 7,000 applications for development permit rezoning, development variance permits, environmental development permit's, building permits, plumbing permits and gas permits annually.

An internal audit will be completed on building permit applications created by each Planning Technician at the minimum of 1 audit every 2 months. This audit will be conducted by the Building & Permitting Manager or the designate.

#### Plan Review

The Plan Checker section consists of a team of 7 who are responsible for the examination and issuance of approximately 5,000-6,000 buildings, plumbing & natural gas permits annually.

An internal audit will completed on the building and mechanical permit plan reviews conducted by each of the building official plan reviewers at the minimum of 1 audit every 3 months. This audit may be conducted by the Building & Permitting Manager or the designate.

#### Field Audit Reviews

The building, plumbing and gas Inspectors consist of a team of 11 inspectors who are responsible for approximately 24,000 building, plumbing and gas inspections annually.

An Internal Audit will be completed on the building, plumbing and gas Inspections conducted by each of the building officials and plumbing and gas inspectors at the minimum of 1 audit every 3 months. This audit will be conducted by the Building and Plumbing/Gas Supervisor.



#### Customer Satisfaction Surveys

Building & Permitting in conjunction with Strategic Initiatives and Communications developed an on-line survey to be completed by our customers. In order to obtain feedback on each stage of our service delivery, certain management staff are assigned to review and access the customer feedback. Depending on the comments, the applicable policy and procedures will be reviewed for potential improvements.

The survey link may be e-mailed to our customers at time of building permit application submission, completion of plan review and upon building/space occupancy. Management has the option to send the survey out at each stage of the permitting and inspection process ensuring a positive experience with our customers.

An Apple iPad will be available at the 2<sup>nd</sup> floor reception should the customer want to access and complete the survey upon application submission, building permit retrieval and when attending City Hall for the Occupancy Permit.



#### Development Management Review Procedure

The Building & Permitting Branch continuously compares the quality of service as well as the quantity of the service in comparisons with neighboring municipalities and those major municipality's within BC. This initiative is a measuring tool ensuring that a high level of customer service is being delivered by the City of Kelowna.

The attached dashboard/stats document outlines quality management of the service delivery such as:

- 1) Turn around time of Building Permit issuance
- 2) Percentage of inspections delivered within 24 hrs
- 3) Staff level of competency
- 4) Number of inspections delivered per staff member daily
- 5) Comparison of fees with other municipalities

A staff member is assigned to monitor, compare and update some of the data quarterly and same annually.



#### Employee Supervision Procedures

Employee Supervision ensures the Planning Technicians, Development Services Clerks, Plan Checkers, Plumbing/Gas and Building Inspectors deliver a transparent, efficient, high quality of service to the citizens of Kelowna.

The following tools are developed to achieve the above goals and also to serve towards the safety and well being of our staff:

- 1) Fleet management system incorporating GPS tracking in all city vehicles
- 2) Internal auditing procedures for the application center, plan examination and field inspections
- 3) On-Line customer feedback surveys designed to capture a direct response of our service delivery
- 4) Quantity and turnaround time tracking system of issued permits
- 5) Quantity and turnaround times of the daily delivered inspections
- 6) Operational manual procedures



#### Process for Bulletin and Procedures

This procedure is encompassing two independent steps. One being the continuous update of the existing policies and information bulletins and the other is creation of new policy and bulletins.

- 1) UPDATES: The procedure for updating bulletins and policies issued by Building and Permitting within the City of Kelowna will occur on an annual basis during low construction periods or sooner should a code change, text amendment or Bylaw be passed by City Council requiring additional changes or a required review.
- 2) NEW DEVELOPMENT: The development of new policies and builletins will be based on the need assessment triggered either by "Rejection Tracking Trend" or by introcution of new building code and bylaws requirements.

A staff member is assigned for this task. The Manager of the Building Permitting Branch will be responsible for the quality assurance of this process.



### <u>Tracking Procedures for Plan Examiners and Building, Plumbing & Gas Inspectors</u>

#### **Plan Examiners**

Building & Permitting has introduced two streams of performance tracking. Plan checkers are monitored by the number of applications received versus applications processed given the number of working days. The second data tracking is the rejection comments, which is triggered by a milestone based on information entry demand from the individual staff member. This milestone indicates the type of rejection and may dictate trends or areas of clarification, improvements required to reduce permit issuance timelines or the staff need for applicant education.

#### Building, Plumbing & Gas Field Inspectors

Tracking of the inspectors happens in three different ways:

- 1) The number of inspections are recorded daily by the supervisor based on the inspection request line and on-line inspection requests which in turn is calculated on a monthly basis.
- 2) A rejection report may be generated indicating the nature of the rejection again indicating trends for correction by either educating the builder/developer or the inspector on a specific inspection process.
- 3) Each city vehicle has been connected to a global positioning device giving the building supervisor the ability to track the vehicles individually in real time, this information may be cross referenced to the inspections requested for the day for maximizing the productivity and efficiency of the inspectors time.



#### Performance Evaluations

City of Kelowna Human Resources Department have completed a project charter to move forward on the implementation strategy introducing performance evaluations for unionized staff.

A probationary performance evaluation is currently conducted at 30, 90, 150 and 230 days for new employees prior to obtaining full time employment with the City of Kelowna.

Building & Permitting will continue to monitor staffs performance and provide feedback through group related staff meetings, incorporated audit procedures, performance tracking and customer survey results.



#### Staff Continuous Education Procedures

Building and Permitting supports and encourages continuous education for all staff.

Mandatory certification upgrades conducted by the Building Officials Association of British Columbia are required to be attended by the Plan Checkers, Building, Plumbing and Gas Inspectors for building or plumbing code upgrades and revisions.

Plan checkers, Building, Plumbing/Gas Inspectors will on a rotational basis attend the spring and fall conferences offered by the Building Officials Association of British Columbia and or the Plumbing Officials Association of British Columbia.

Educational courses offered by the Home Owners Protection office are also available for spring and fall sessions. Staff members are strongly encouraged to participate.

Courses delivered by the Canadian Wood Council are offered to staff for their attendance.

Zone meetings are offered to staff for their attendance to raise the level of knowledge and achieve a consistent approach through out the zone.

City of Kelowna in-house training for Micro-Soft Word, Excel and Agresso is available to all staff on a seasonal basis for review and upgrading.



Guideline for "BEST PRACTICES" Submittals
Contact Information: (The individual(s) most knowledgeable about the development or implementation of the program. Name, Title, Department / Jurisdiction, Contact address, email, and phone.)
Program Description: (Please provide a brief description of the program, i.e. Residential Maintenance Inspections, Condemned Housing, How-To Guides, etc.)
Costs / Benefits:  (A paragraph or two elaborating on the program, estimated costs in human or financial resources, and the benefits. Benefits may include public safety, cost recovery, legal protection, etc.)
Attached Documents: (Please provide any such documents supporting or outlining these programs.)
Categories — Please check all categories that apply to your best practice  Plan Review  Permitting  Inspection  Management/Administration  Legal  Customer Service

☐ Information Technology

# City of Kelowna Building & Permitting "BEST PRACTICES" Submittal

#### Contact Information

Mo Bayat
Director, Development Services
1435 Water Street
Kelowna, British Columbia
Canada, V1Y-1J4
mbayat@kelowna.ca
(250) 469-8630

#### **Program Description**

The program of Geographic Assigned Areas Inspection Services Map was created to offer a one step service access to our internal and external customer's. This enables access to the assigned officials for a particular area for prompt efficient service directly related to their project.

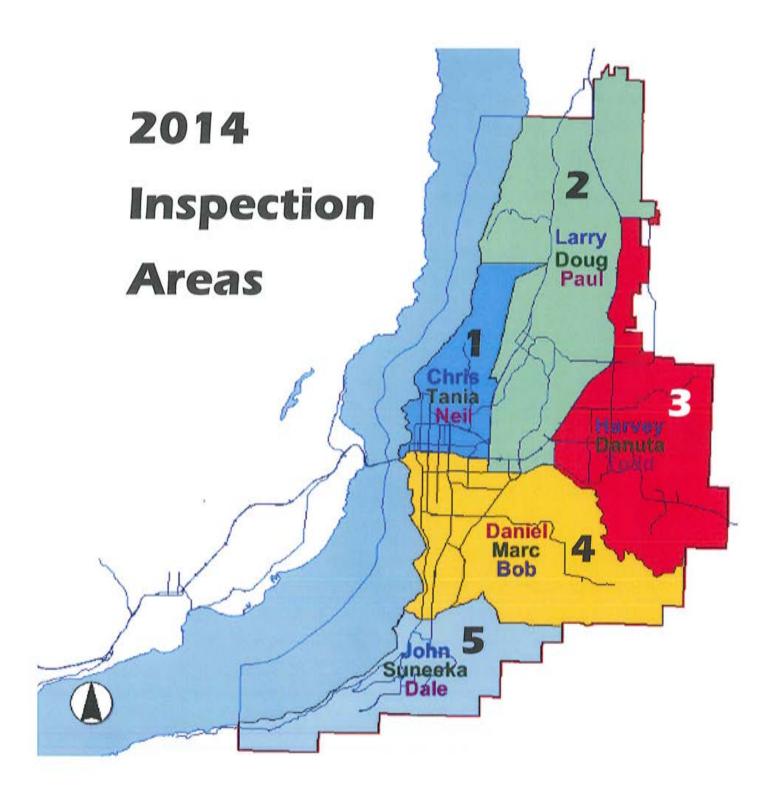
The City of Kelowna geographical boundaries have grown to approximately 214 square kilometers or 128 square miles. The topography of the lake and mountainous terrain make the travel from one side of the boundary to the other quite prolonged. The City has been divided into five (5) distinct areas whereby a plan checker, building, plumbing and gas inspector are assigned as a team to a specific zone. The zones have enabled the one window application center to relay back to our customers the names and contact information of the staff members who they would be dealing with at time of applications review, permits issuance, inspection inquiries and occupancy.

The Development Services Department also includes the Development Engineering Branch and has extended this program by adding the engineering technologists to these assigned areas. This provides staff and customers the aptitude to resolve offsite service issues utilizing a team approach pertaining to their development in the respective zones.

#### Costs / Benefits

A cost analysis was completed on the cost of a building, plumbing and gas inspections based on 15 minutes of travel with the actual inspection being approx 15 to 30 minutes in duration. Utilizing inspection zones keeps the corporate travel costs from site to site at a point where the efficiency of travel can be maintained at a reasonable level. The benefit to our internal and external customers is not only evident in the streamlined communication stream, the

capacity for well coordinated problem solving and having available the five work areas involved in their projects but also internally the inspectors have at hand the plan checker involved in the plan review for drawing clarification. Having the familiarity of the inspection area by the plan checker and field inspector (building, plumbing & gas) enables easier monitoring of the on going construction and those projects proceeding without prior approval or permit. This saves time, frustration and money for all parties involved.



#### **Appendix G**

## MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY

700 North Tryon Street Charlotte, North Carolina (704) 336-2831

#### Best practices include:

- Plan Review
- Inspection
- Management/Administration
- Customer Service
- Information Technology



# Mecklenburg County Land Use and Environmental Services Agency Code Enforcement

Below is a comprehensive list of Mecklenburg County Code Enforcement's Best Practices. However, it should be noted there are many other initiatives which have significantly impacted our work environment, both for customers and staff; though they are not included in this list, and may be of a smaller scale, they are as highly valued by both the Building-Development Commission and Director.

#### **Consistency Teams**

http://www.charmeck.org/Departments/LUESA/Code+Enforcement/Reference+Desk/ConsistencyContr.htm Combining inspector MDT use with mobile phones, Mecklenburg County moved inspectors to 95% field-based in 1995, reporting directly to their assigned territories daily and visiting the office every 10 days for administrative meetings. While this was extremely efficient, it deprived inspectors of office time to match notes on interpretations of the code. The result was an increase in customer concern over consistency of interpretation. Mecklenburg County responded in 1997 by introducing "Consistency Teams" in each inspection discipline. These teams deal with any consistency issues from the industry, discuss them in regular meetings attended by the industry, and render decisions on the correct local interpretation of the code. These interpretations are, in turn, distributed to field inspectors and the industry. Since their introduction, Consistency Teams have been credited with solving a wide range of interpretation issues, as well as "doing wonders" to bring the Department and industry together.

The Electronic Interpretations can be found on:

 $\underline{\text{http://www.charmeck.org/Departments/LUESA/Code+Enforcement/Contractors/Electronic+Code+Interpretations.ht}}$ 

#### **Building Interpretations:**

#### Commercial

 $\frac{http://www.charmeck.org/Departments/LUESA/Code+Enforcement/Inside+the+Department/Services/Commercial+Plans+and+Plan+Review/Commercial+Interpretations.htm}{}$ 

#### Residential

http://www.charmeck.org/Departments/LUESA/Code+Enforcement/Inside+the+Department/Services/Building+Services/Residential+Consistency+Team+ltrs.htm

#### **Electrical Interpretations:**

http://www.charmeck.org/Departments/LUESA/Code+Enforcement/Inside+the+Department/Services/Electrical+Services/Electrical+Interretations.htm

#### **Mechanical/Plumbing Interpretations:**

http://www.charmeck.org/Departments/LUESA/Code+Enforcement/Inside+the+Department/Services/Mechanical+and+Plumbing+Services/Mechanical+Plumbing+Interpretations.htm

#### **Expedited Plan Review:**

http://www.charmeck.org/Departments/LUESA/Code+Enforcement/Inside+the+Department/Services/Commercial+Plans+and+Plan+Review/Express+Plan+Review.htm

http://www.charmeck.org/Departments/LUESA/Code+Enforcement/Commercial+Plan+Review/home.htm

#### Residential Technical Answer Center (RTAC)

Introduced in 1998, this service focuses on residential customers, giving them access to code information, without the need to contact either the Trade Chief or the area inspector. Customers may walk-in, telephone, fax or e-mail questions to staff, who provide quick answers to the code problems described. Not intended to be a second opinion, this service (as CTAC) is focused on projects without an assigned plan reviewer or inspector. Since its introduction RTAC, has averaged approximately 1000 customer calls per month, testifying to its value to the residential customer.

#### Commercial Technical Assistance Center (CTAC)

When Residential Technical Answer Center (RTAC) proved to be successful, we introduced the equivalent commercial code tool CTAC in 2000. Again, the idea was to give customers access to commercial code information and quick answers to the code problems described, without the need to contact either the Trade Chief or the area inspector. As in RTAC customers may walk-in, telephone, fax or e-mail questions to staff, and the information provided is not intended to be a second opinion: this service (as is RTAC) is focused on projects without an assigned plan reviewer or inspector. Since its introduction, CTAC has averaged approximately 800 customer calls per month. Based on this success, in 2003 CTAC expanded into small, quick plan reviews as part of the OnSchedule overhaul of Commercial Plan Review.

#### OnSchedule Commercial Plan Review Process

Though the Plan Review Task Force made several process changes in 2001 and 2002, customers still were unable to predict the length of time required to permit a project. Consequently, in fall 2002, the Department went about designing a new commercial plan review service with predictable timelines. Christened OnSchedule, and initiated in March 2003, this radical idea gives customers the ability to schedule all reviews months in advance, and submit plans only the day before, so there is not a weeks-long queue to get into the review process. When they use plan review comments available electronically, applicants achieve far more certainty about the permitting schedule, and ultimately, have significant control over their timelines during plan review.

http://www.charmeck.org/Departments/LUESA/Code+Enforcement/Commercial+Plan+Review/home.htm

#### Meck-SI: paperless special inspections process and website

With the implementation of the 2002 NC Building Code, Chapter 17 – Section 1704 was introduced in North Carolina. This section of the code, though new to North Carolina, had been used in other areas of the country over the last ten years. After NC's "qualified adoption of SI," the Department worked with local professionals and affected industry members to develop a program that addressed relevant code compliance issues, while keeping the process as simple as possible. The resulting proposal contained the best ideas on how to perform Special Inspections in Mecklenburg County, and quickly became a benchmark for discussion across the state. That discussion continues today as the NC Building Code Council attempts to develop a uniform SI standard across the state; the Department participates in that effort.

Given the scale of Mecklenburg's construction activity, and after reviewing manual processes in other jurisdictions such as Kansas City, the Department realized it could become overwhelmed by paperwork and related administrative demands. A goal was immediately established to make the SI process in Mecklenburg County fully electronic and totally paperless. From July 2004 through January 2006, the Department worked to develop the technology to implement that vision. On January 17, 2006, Code Enforcement initiated www.meck-si.com, the first paperless special inspections process in the country.

Meck-si.com is the paperless Special Inspections Management system. Special Inspections are a series of inspections that relate to nineteen different construction types. These inspections are performed by licensed engineers or independent testing labs at the construction site, a fabricators workshop, or in the laboratory. Special Inspections are required by the International Building Code and the North Carolina Building Code. The Building Code requires Code Enforcement (the Department), to ensure Special Inspections are performed and the entire process is documented. State law requires a specific document retention policy. Meck-si.com was developed to automate the Special Inspections process while maintaining the mandated document retention policy.

#### Meck-SI: paperless special inspections process and website (continued)

The challenge meck-si.com faced was to create a comprehensive management system that would serve as a working resource for architects, engineers, and the construction team. This system would enable them to complete mandated Special Inspections, while minimizing the possibility of missing required steps, or violating the document retention policy. Although meck-si.com was originally intended to serve only the Department, it eventually evolved into a patented\* management system that any regulatory agency throughout the nation that adopts the International Building Code could utilize. The Special Inspections section of the Building Code is very ambiguous; it intentionally leaves the method of administration to local Code Enforcement. Meck-si.com resolves these ambiguities and when combined with the Building Code, it provides a definitive Special Inspections program, by choreographing the rolls and duties of all parties. Further, meck-si.com is an electronic resource that provides comprehensive process information, graphic flowcharts, proprietary forms, document storage, document retrieval, document archival, professional certifications, hot-links within and outside the site, and a clear hierarchy and division of the website that is easy to understand through use of it's navigation bar.

Previously, Special Inspections were conducted by only large Code Enforcement Departments who had the budget and manpower to develop and administer a comprehensive system. Therefore, mostly large jurisdictions and state agencies have opted to required Special Inspections. Within this group the Special Inspections programs varied considerably. When Mecklenburg County analyzed Special Inspection programs throughout the country, we determined fifteen additional staff members would have to be hired to perform Special Inspections. Mecklenburg County sought a way to standardize Special Inspections with only a few additional staff members. (Eddie, are you planning on hiring anyone else besides Rebecca? If not, perhaps you should change this statement to needing only one staff person?) Meck-si.com is a Special Inspections program and management tool in a box, which allows large and small agencies to adopt an economical and efficient Special Inspections program. Patent pending\*\*

http://www.meck-si.com/

#### Re-Inspection Fee Program

#### Revised Fees Effective 10/1/02

The re-inspection fee structure is based on an evaluation of each project with regard to the project code defect rate (failed inspections divided by total inspections for all trades) at project completion. A recap sheet showing the amount of inspections and failures per trade is issued with the Certificate of Occupancy (CO). The project's code defect rate is compared to the Percent Concept Fee Adjustment Schedule and, prior to issuance of the CO, either a charge or credit is calculated based on the original permit fee, and applied to the general contractor's account. The Percent Concept Fee Adjustment Schedule, as stipulated by the BOCC in their 9/18/02 meeting, follows:

#### Re-Inspection Fee Program (continued):

C	ODE DEFECT %	
	FAILURE	% FEE
(Le	ess than or equal to)	ADJUSTMENT
	0	-20
	1	-19
	2	-18
	3	- <b>1</b> 7
	4	-16
	5	-15
	6	-14
	7	-13
	8	-12
	9	-11
	10	-10
	11	-8
	12	-6
	13	-4
	14	-2
	15	0
	16	1
	17	2
	18	3
	19	4
	_20	5
	21	6
	22	7
	23	8
	24	9
	25	10
	26	12
	27	14
ct	28	16
	29	18

Above 40%, the percentage for adjustment is the same as the defect percentage failure

#### **Charge or Credit Limits**

The preceding Fee Adjustment Schedule will be applied to projects, with limits to minimum and maximum charges or credits as follows:

- 1. Small projects (less than or equal to a \$100 permit fee or \$10,000 construction value)
  - Charges: By % on fee adjustment schedule
    - Minimum charge: not less \$25 per permit
    - · Maximum charge: no maximum
  - Credits: no credit given
- 2. <u>Large projects</u> (greater than a \$100 permit fee or \$10,000 construction value)
  - Charges: By % on fee adjustment schedule
    - Minimum charge: no minimum
    - Maximum charge: not more than \$90 per failed inspection
  - Credits: By % on fee adjustment schedule
    - Minimum credit: no minimum
    - Maximum credit: to be calculated as follows:
      - credit =  $(a-b) \times $90$ , where
      - -"a" is 30% of total inspections
      - -"b" is the number of inspections failed
      - -difference times \$90 per saved inspection

#### Responsible Parties for Fee Adjustments

The re-inspection fee schedule implemented April 1, 2000 (as amended by the BOCC on 9/18/02) will be applied to

all projects, large and small. The responsibility or conduit for charges and credits will be as follows:

- Whoever applies for and pays for the permit (permit applicant) will receive any fee adjustments at issuance of CO, completion of the work or closeout of the job. These contractors will be responsible for the project inspection failure rate of all sub-contractors working on the project.
- For projects with multiple trades but no general contractor, a lead contractor, responsible for all subcontractor's code defect rates and any fee adjustment, will be assigned from the Small Project Lead Contractor Schedule (available from E&BS)
- On Commercial projects with multi-primes, where some work is beyond control of the permit applicant, the
  general contractor and other prime contractors will have individual code defect rate responsibility,
  unless they agree otherwise.
- The reports will be based on code defect performance on the structure (per house, per project, etc) at the completion of the work (at the Certificate of Occupancy stage).
- For all other conditions not prescribed herein, the Director will propose responsibility for charges and credits after consulting with the Code Compliance Task Force.

#### **Benefits**

- The proposed program provides incentives for those contractors who minimize the use of inspectors' time
  to verify code compliant construction, in terms of credits applied to a contractors account (effectively
  reduced permit fees).
- Conversely, disincentives, up to and including a 50% increase in a project's permit fee, will be levied against those contractors whose projects produce code defect rates above 15%.
- Together, incentives and disincentives should conserve inspector time, reduce our trades inspection workload, and have a positive impact on our overall response time.

If you have any questions on this new program, please feel free to contact Gene Morton, Building Codes Administrator (704.336.3503); Gerald Harvell; Electrical Codes Administrator (704.336.3523); Phil Edwards, Mechanical/Plumbing Codes Administrator (704.336.3555); or Kathleen Batey, Customer Service Representative for the Re-inspection Program (704.336.3545).

#### Other helpful links:

North Carolina Contractor Licensing: <a href="http://www.nclbgc.net/">http://www.nclbgc.net/</a>

North Carolina Board of Architecture: <a href="http://www.ncbarch.org/license.asp">http://www.ncbarch.org/license.asp</a>

Mecklenburg County Pay Scale Summary: <a href="http://www.charmeck.org/NR/rdonlyres/e7bs5zeypqbuiqrjs5wfrlwwxkb4vgwannsq4otigqhvoie3morgocnjainyittri7qxb6vc43d5qt2hqhbfmtrt6mg/SalarySchedule+11-06+CMeck.xls">http://www.charmeck.org/NR/rdonlyres/e7bs5zeypqbuiqrjs5wfrlwwxkb4vgwannsq4otigqhvoie3morgocnjainyittri7qxb6vc43d5qt2hqhbfmtrt6mg/SalarySchedule+11-06+CMeck.xls</a>

# **Appendix H**

# NEW YORK CITY DEPARTMENT OF BUILDINGS

280 Broadway, 7th Floor New York, NY 10007 (212) 566-5000

Best practices include:

Management/Administration

The NYC Department of Buildings launched the High Risk Construction Oversight initiative – an intensive study of the three highest risk construction operations: crane and hoist, excavation, and concrete. Engineers and other experts observed New York City's construction practices at more than 400 sites over 600 times. They consolidated their findings from all five boroughs into 66 recommendations on areas for further study and ways the Buildings Department can improve construction safety and regulation.

http://www.nyc.gov/html/dob/html/home/home.shtml

# **Appendix I**

# **NEW YORK STATE**

Albany Location: One Commerce Plaza, 99 Washington Ave Albany, NY 12231-0001 (518) 474-4073

Best practices include:
Legal

#### **New York State**

**Division of Code Enforcement and Administration.** Sign up for New York's electronic email service. Anyone can sign up and receive frequent updates regarding the codes in New York State.

http://www.dos.state.ny.us/code/code\_list.aso

Prevention and Building Code Council is empowered to adopt higher or more restrictive standards upon the recommendation of local governments in accordance with Section 379 of the Executive Law. Within thirty days of such enactment or adoption of a local law or ordinance pertaining to construction, the chief executive officer shall notify the Code Council, and shall petition the Code Council for a determination of whether such local taws or ordinances are more stringent than the standards for construction the code. All of these standards are available for the entire state.

http://www.dos.state.ny.us/code/mrls.htm

Welcome to the Division of Code Enforcement and Administration (DCEA)

A felcome to the New York Department of State's Division of Code Enforcement and Administration (DCEA). As part of its work to help ensure the health and safety of all New Yorkers, the division provides a variety of services related to the state's Uniform Fire Prevention and Building Code and the State Energy Conservation Construction Code. In close coordination with community officials, DCEA oversees the enforcement practices of local governments in matters pertaining to building construction, fire prevention, and energy conservation. Division staff also provides technical and educational assistance to local jurisdictions, administers variances, and serves as secretariat to the State Fire Prevention and Building Code Council. Click here for more information.

#### News

The next State Fire Prevention and Building Code Council meeting will be on December 5, 2012 at 10:00 am.

**Notice of Rule in Development** - A rule currently in development would amend Uniform Code provisions relating to the use of certain corrugated stainless steel tubing (CSST) products in gas piping systems **Read more.** 

Department of State's volunteer Disaster Recovery Unit (DRU) . . . Learn more about DOS recovery efforts post Hurricane Irene

For information on applying for Federal disaster assistance, click here or call 1-800-621-FEMA (3362)

2010 Uniform Code and Energy Code List of Clarifications

Free Online Codes of New York State Visit the website of the National Fire Protection Association (NFPA) for read-only access to the NFPA Codes and Standards referenced in Codes of New York State.

The DCEA is in the process of developing new, comprehensive standards for code enforcement training. To learn more about the proposed regulation and the work group reviewing it, click here.

# State Uniform Fire Prevention and Building Code »

 Electronic copies are available from New York Legal Publishing Corporation

#### Lists, Forms and Publications

Certified Code Enforcement Officials »

Municipalities Submitting Annual Reports »

Municipalities Having More Restrictive Local Standards (MRLS) »

Directory of Manufactured Building Approvals »

Forms and Publications »

# State Energy Conservation Construction Code »

2010 Energy Conservation Construction Code of New York State (ECCONYS)

 Hard and electronic copies are available from the The 2010 ECCCNYS has an effective date of International Code Council

· Free Online Version of the 2010 Codes of New York State (available on the International Code Council Website)

 Free Online Version of the 2007 Codes of New York State (available on the International Code Council Website)

 2010 Uniform Code and Energy Code List of Clarifications

 List of Law Libraries with copies of the Codes of New York State and Reference Standards incorporated by reference

December 28, 2010, and is based on the 2009 International Energy Conservation Code (IECC). In compliance with the American Recovery and Reinvestment Act (ARRA) of 2009, the 2010 ECCCNYS equals or exceeds the 2009 IECC for residential buildings, and equals or exceeds ASHRAE 90.1-2007 for commercial buildings. Read More »

#### Technical Information »

- Pool Safety Information
- Residential Sprinkler Committee
- State Agency Information
- Code Clarifications
- Code Interpretations
- Manufactured Housing
- Technical Bulletins
  - For the 2010 Codes of NYS
  - · For the 2007 Codes of NYS
  - For the 2002 Codes of NYS
- Text Changes to the 2010 Codes of NYS.

For the purposes of apolymy the 2010 Code Books in this State, the 2010 Code Books are. Deemed to be amonded in the manner specified in the NYCAR. This Homosyndum summarises the amendments to the 20N4-Code Books that have been made by the NYCRA. This Vermesandum reflects actions taken by the State Fire Prevention and Buildane Code Council. (the Code Council) through and including December 1, 2000, Cfck, here for Code Carifications.

#### Training »

- In-Service Training Courses
- Basic Training Courses
- In-Service Training Programs Provided by DCEA
- Conference and Seminar In-Service Training Offerings
- Online Training
  Basic Training Program Workbooks
- In-Service Program Workbooks

Although workbooks can no longer be provided to students attending Basic Training courses, they are available for downloading and printing. It is recommended that students print the appropriate workbook prior to attending their course. Read More »

### **Appendix J**

# CITY OF PHILADELPHIA

1401 John F. Kennedy Boulevard Concourse Level Philadelphia, PA 19102 (215) 686-8686

**Best practices include:** 

Management/Administration



# **BUILDING INSPECTION SURVEY**

# **Compiled August 2003**

# CITY OF PHILADELPHIA 2003 BUILDING INSPECTION SURVEY

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#### **SECTION 1**

#### **CITY SIZE**

Population

City Area (Square Miles)

Average Population Per Square Mile

#### **CONSTRUCTION ACTIVITY INDICATORS**

**Total Construction Valuation** 

Total Number of Permits Issued

Total Plans Reviewed

Total Number of Inspections Made

#### **BUILDING INSPECTION ORGANIZATION**

Staff Size

Number of Inspectors

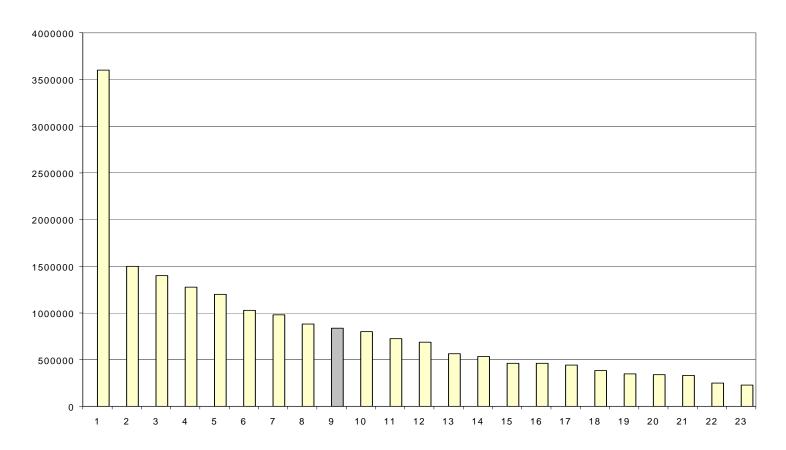
Number of Reviewers

Number of Other Staff

Revenues

Expenditures

#### **POPULATION**

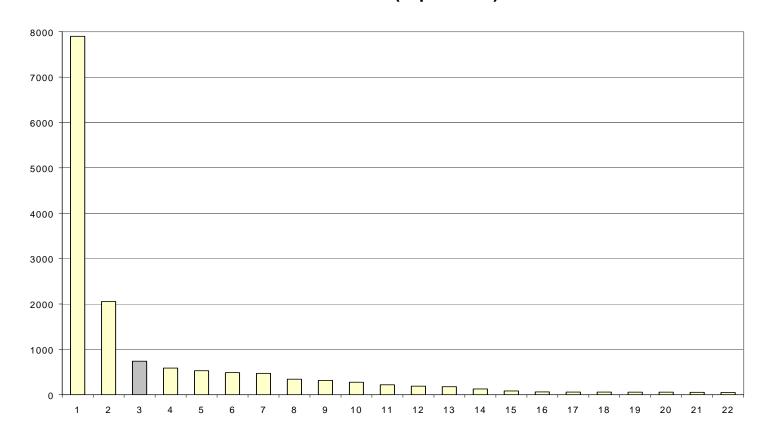


**CITY/COUNTY** 

		10102111011
1	Los Angeles	3,600,000
2	Philadelphia	1,500,000
3	Phoenix/Maricopa Co.	1,400,000
4	San Diego	1,276,700
5	Clark Co.	1,200,000
6	Miami-Dade Co.	1,028,071
7	San Jose	980,000
8	Honolulu	881,295
9	Average	837,225
10	Columbus	800,000
11	San Francisco	725,000
12	Austin	687,708
13	Seattle	563,374
14	Nashville/Davidson	533,885
15	Long Beach	461,522
16	Albuquerque	461,000
17	Kansas City	441,500
18	Minneapolis	382,618
19	St. Louis	348,000
20	Pittsburgh	339,000
21	Cincinnati	331,285
22	St. Petersburg	250,000
23	Akron	228,000

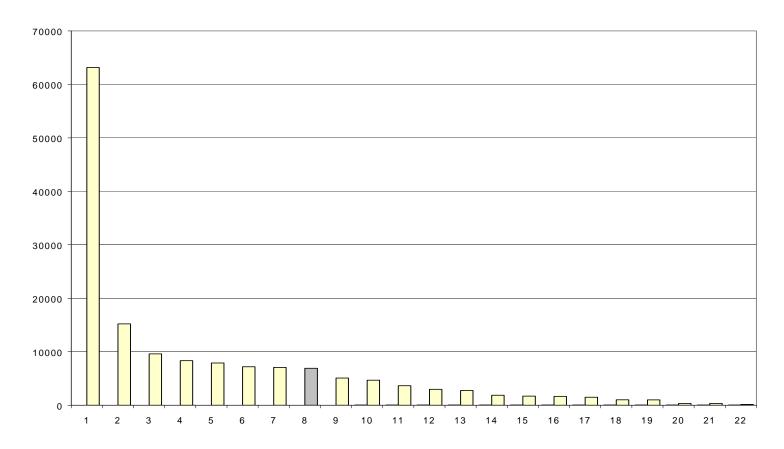
**POPULATION** 

# CITY AREA (sq. miles)



	CITY/COUNTY	CITY AREA (sq. miles)
1	Clark Co.	7,900
2	Miami-Dade Co.	2054
3	Average	674
4	Honolulu	586.7
5	Nashville/Davidson	530
6	Phoenix/Maricopa Co.	485
7	Los Angeles	470
8	San Diego	342.4
9	Kansas City	317
10	Austin	275
11	Columbus	220
12	Albuquerque	190
13	San Jose	177
14	Philadelphia	127
15	Seattle	84
16	St. Louis	61.37
17	Minneapolis	58.7
18	Akron	57
19	Pittsburgh	55.3
20	Long Beach	55
21	St. Petersburg	54
22	San Francisco	49

#### POPULATION PER SQUARE MILE

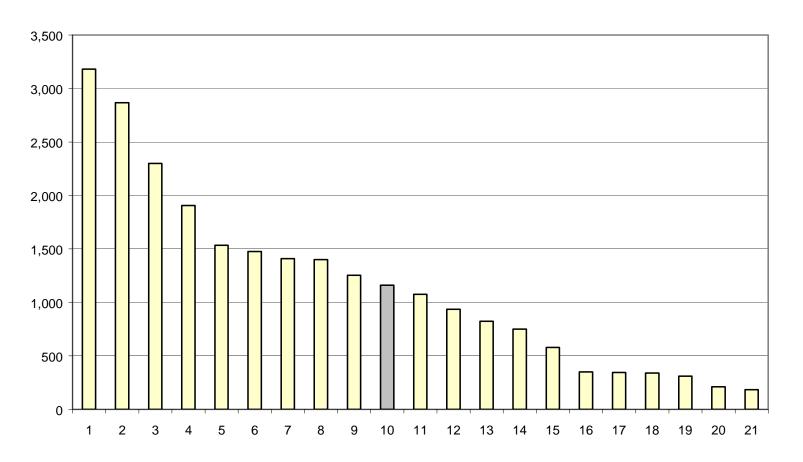


CIT	$\mathbf{v}$		INT	'V
	1/	$\mathbf{v}$	JIN I	1

#### POPULATION PER SQ. MILE

1	Los Angeles	63,158
2	Pittsburgh	15,222
3	Seattle	9,598
4	Albuquerque	8,336
5	Philadelphia	7,895
6	Kansas City	7,194
7	Minneapolis	7,086
8	Average	6,918
9	Phoenix/Maricopa Co.	5,091
10	Miami-Dade Co.	4,673
11	Long Beach	3,634
12	St. Petersburg	2,976
13	Honolulu	2,780
14	Cincinnati	1,872
15	Columbus	1,702
16	San Jose	1,670
17	San Francisco	1,495
18	St. Louis	1,016
19	Nashville/Davidson	1,007
20	Akron	338
21	Austin	335
22	Clark Co.	152

# **\$M TOTAL CONSTRUCTION VALUATION**



1	Clark Co.	3,182
2	Los Angeles	2,867
3	Phoenix/Maricopa Co.	2,300
4	San Diego	1,907
5	San Francisco	1,535
6	Seattle	1,475
7	Honolulu	1,409
8	Philadelphia	1,400
9	Columbus	1,254
10	Average	1,162
11	Nashville/Davidson	1,076
12	San Jose	936
13	Kansas City	824
14	Albuquerque	750
15	Cincinnati	579
16	Long Beach	351
17	Pittsburgh	344
18	Austin	339
19	St. Louis	310
20	Akron	211

**\$M CONSTRUCTION VALUATION** 

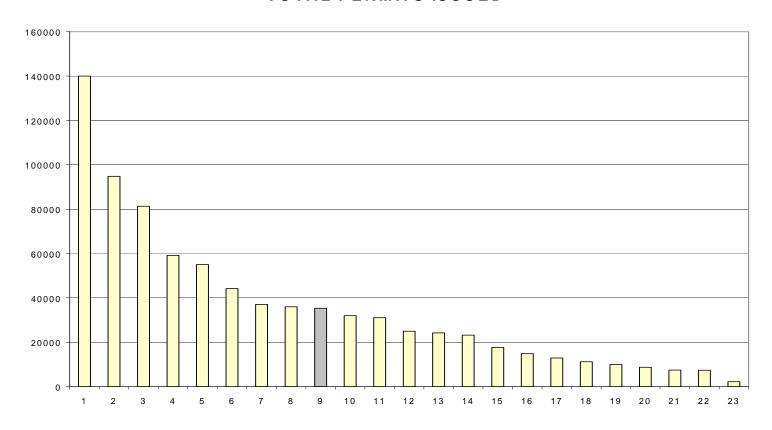
**CITY/COUNTY** 

St. Petersburg

21

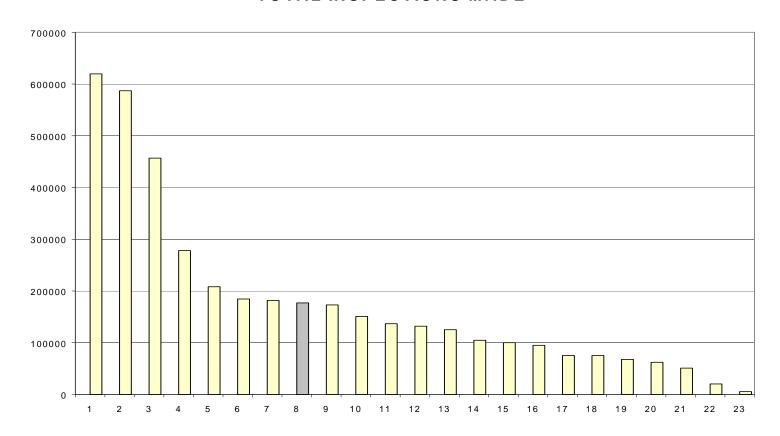
184

#### TOTAL PERMITS ISSUED



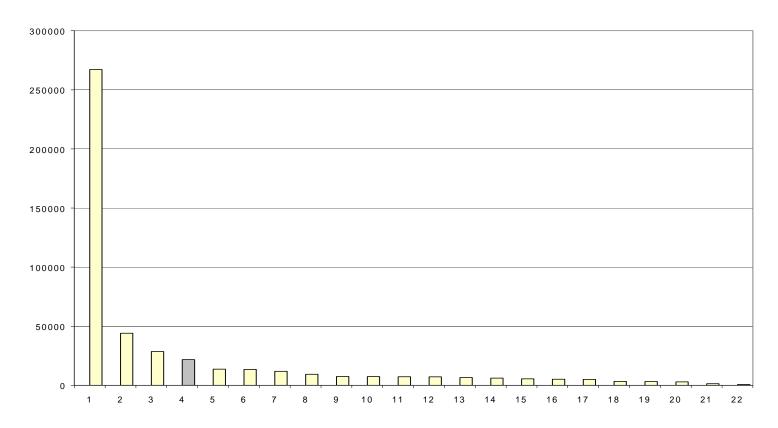
	CITY/COUNTY	TOTAL PERMITS ISSUED
1	Los Angeles	140,030
2	Miami-Dade Co.	94,820
3	Clark Co.	81,321
4	San Francisco	59,176
5	Minneapolis	55,000
6	Nashville/Davidson	44,242
7	Austin	37,051
8	Phoenix/Maricopa Co.	36,000
9	Average	35,341
10	San Jose	31,997
11	San Diego	31,083
12	Philadelphia	25,000
13	St. Louis	24,228
14	Kansas City	23,248
15	St. Petersburg	17,655
16	Honolulu	14,826
17	Long Beach	12,908
18	Seattle	11,228
19	Akron	10,010
20	Cincinnati	8,734
21	Albuquerque	7,470
22	Columbus	7,379
23	Pittsburgh	2,216

#### TOTAL INSPECTIONS MADE



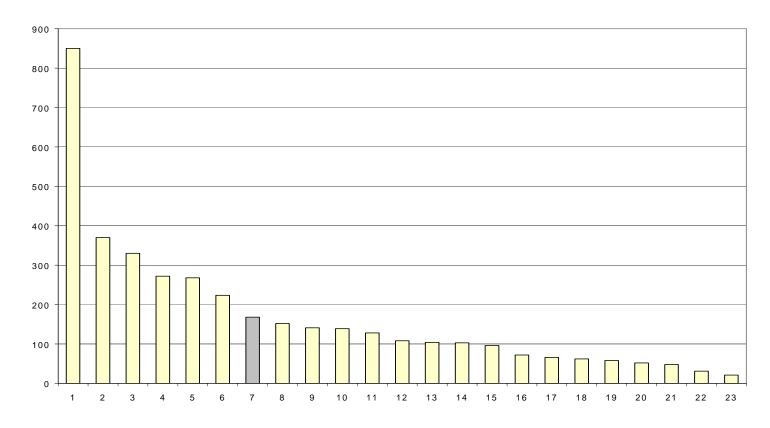
	CITY/COUNTY	TOTAL INSPECTIONS MADE
1	Los Angeles	619,614
2	Clark Co.	586,996
3	Miami-Dade Co.	456,933
4	Phoenix/Maricopa Co.	278,000
5	San Jose	208,279
6	Albuquerque	184,490
7	San Diego	181,658
8	Average	176,909
9	Columbus	173,141
10	Austin	150,946
11	San Francisco	136,878
12	Cincinnati	132,011
13	Honolulu	125,149
14	Philadelphia	104,769
15	Nashville/Davidson	100,298
16	St. Louis	94,992
17	Kansas City	75,438
18	Minneapolis	75,203
19	Long Beach	67,835
20	Seattle	62,296
21	Pittsburgh	51,095
22	Akron	20,400
23	St. Petersburg	5,567

#### **TOTAL PLANS REVIEWED**



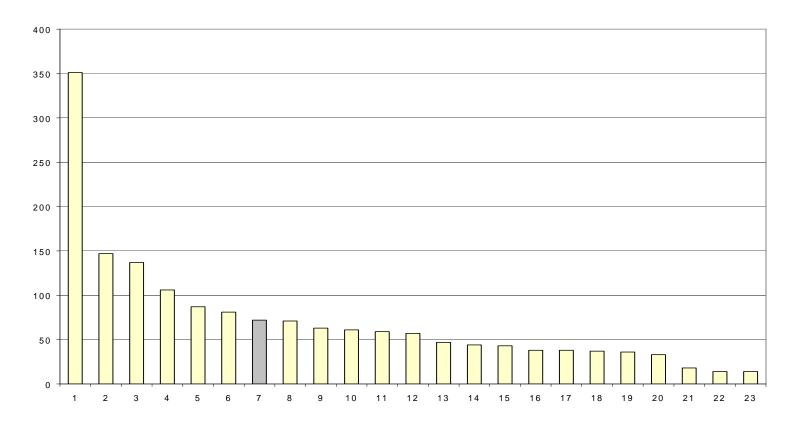
	CITY/COUNTY	TOTAL PLANS REVIEWED
1	Miami-Dade Co.	267,102
2	Los Angeles	44,023
3	San Francisco	28,519
4	Average	21,754
5	Phoenix/Maricopa Co.	13,700
6	St. Petersburg	13,457
7	Kansas City	11,846
8	San Diego	9,338
9	Albuquerque	7,470
10	Columbus	7,379
11	Minneapolis	7,246
12	Honolulu	7,185
13	San Jose	6,522
14	St. Louis	6,078
15	Seattle	5,450
16	Philadelphia	5,100
17	Long Beach	4,950
18	Nashville/Davidson	3,327
19	Cincinnati	3,181
20	Austin	2,921
21	Pittsburgh	1,316
22	Akron	730

#### TOTAL STAFF



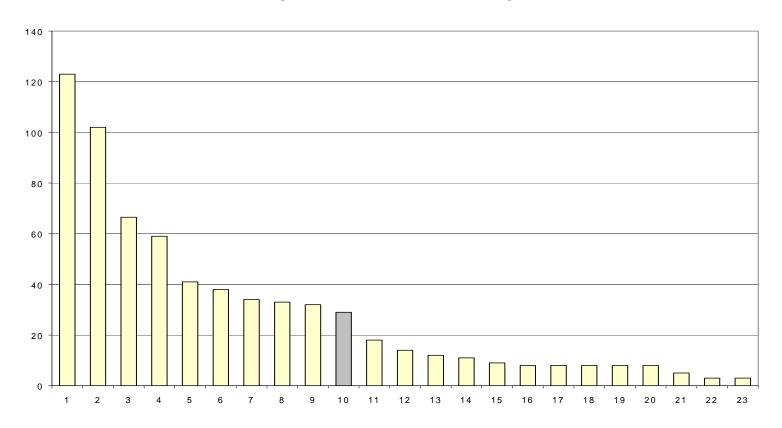
	CITY/COUNTY	TOTAL STAFF
1	Los Angeles	850
2	Phoenix/Maricopa Co.	370
3	Miami-Dade Co.	330
4	Clark Co.	272
5	San Francisco	268
6	Seattle	223.5
7	Average	168
8	San Jose	152
9	St. Louis	141
10	Honolulu	139
11	San Diego	128
12	Philadelphia	108
13	Columbus	104
14	Kansas City	103
15	Cincinnati	96
16	Minneapolis	72
17	Pittsburgh	66
18	Austin	62
19	Albuquerque	58
20	Nashville/Davidson	52
21	St. Petersburg	48
22	Long Beach	31
23	Akron	21

#### TOTAL FIELD INSPECTORS



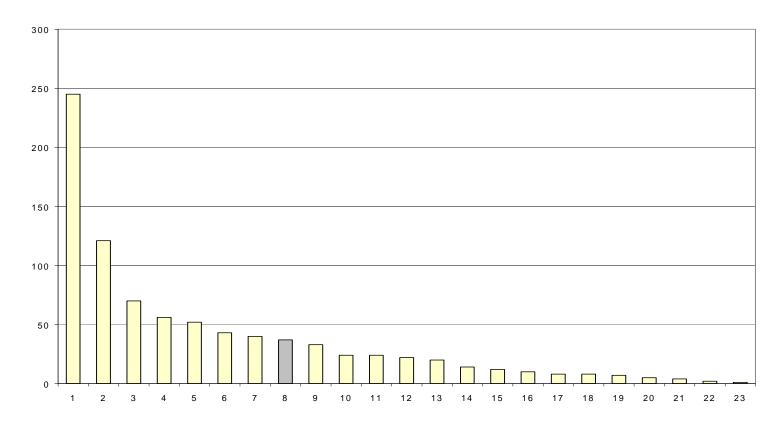
	CITY/COUNTY	TOTAL FIELD INSPECTORS
1	Los Angeles	351
2	Phoenix/Maricopa Co.	147
3	Clark Co.	137
4	Miami-Dade Co.	106
5	San Francisco	87
6	St. Louis	81
7	Average	72
8	Columbus	71
9	San Jose	63
10	Honolulu	61
11	Seattle	59
12	San Diego	57
13	Cincinnati	47
14	Kansas City	44
15	Pittsburgh	43
16	Philadelphia	38
17	Austin	38
18	Minneapolis	37
19	Nashville/Davidson	36
20	Albuquerque	33
21	St. Petersburg	18
22	Long Beach	14

#### **TOTAL PLAN REVIEWERS**



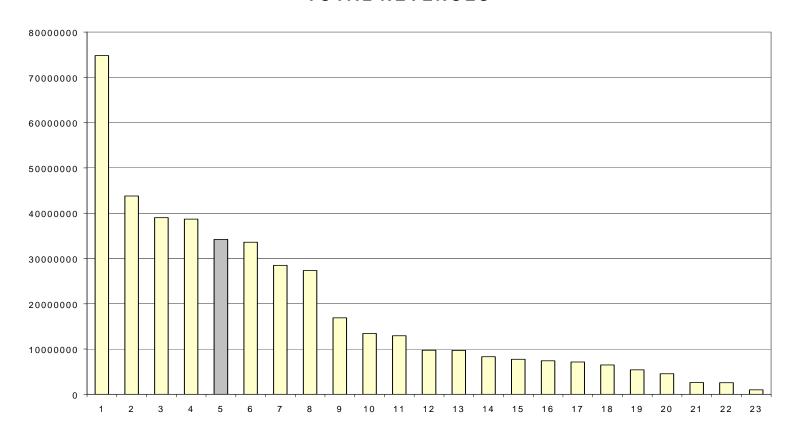
	CITY/COUNTY	TOTAL PLAN REVIEWERS
1	Los Angeles	123
2	Phoenix/Maricopa Co.	102
3	Seattle	66.5
4	Clark Co.	59
5	Miami-Dade Co.	41
6	San Francisco	38
7	San Diego	34
8	Philadelphia	33
9	Honolulu	32
10	Average	29
11	San Jose	18
12	Columbus	14
13	Austin	12
14	Cincinnati	11
15	Pittsburgh	9
16	Kansas City	8
17	Long Beach	8
18	Minneapolis	8
19	St. Louis	8
20	St. Petersburg	8
21	Albuquerque	5
22	Nashville/Davidson	3
23	Akron	3

#### TOTAL OTHER STAFF



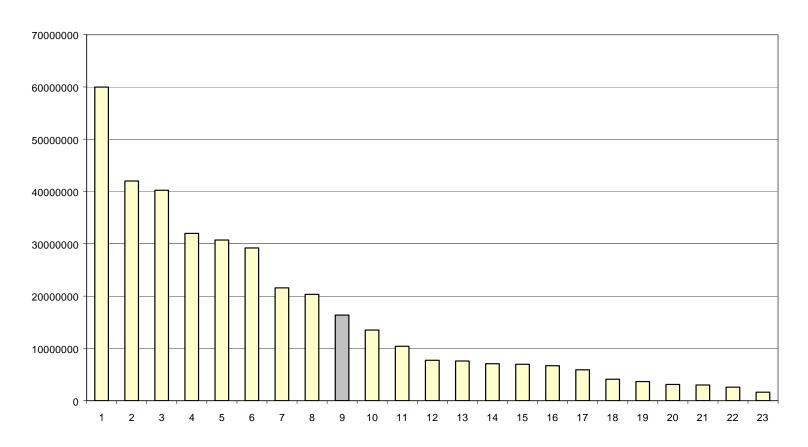
	CITY/COUNTY	TOTAL OTHER STAFF
1	Los Angeles	245
2	Phoenix/Maricopa Co.	121
3	Seattle	70
4	Clark Co.	56
5	San Jose	52
6	Miami-Dade Co.	43
7	Kansas City	40
8	Average	37
9	St. Louis	33
10	San Francisco	24
11	Philadelphia	24
12	Minneapolis	22
13	St. Petersburg	20
14	Pittsburgh	14
15	Honolulu	12
16	Columbus	10
17	Austin	8
18	Nashville/Davidson	8
19	San Diego	7
20	Long Beach	5
21	Akron	4
22	Cincinnati	2
23	Albuquerque	1

#### **TOTAL REVENUES**



	CITY/COUNTY	TOTAL REVENUES
1	Los Angeles	74,800,000
2	San Diego	43,813,181
3	Phoenix/Maricopa Co.	39,000,000
4	Miami-Dade Co.	38,680,059
5	Average	34,206,116
6	Seattle	33,579,676
7	San Francisco	28,481,861
8	Clark Co.	27,312,601
9	San Jose	16,884,000
10	Philadelphia	13,422,167
11	Minneapolis	12,933,672
12	Honolulu	9,737,000
13	Albuquerque	9,707,685
14	Austin	8,300,000
15	Long Beach	7,729,719
16	Columbus	7,401,850
17	Kansas City	7,144,844
18	Nashville/Davidson	6,497,000
19	St. Louis	5,400,000
20	Pittsburgh	4,550,831
21	St. Petersburg	2,608,789
22	Cincinnati	2,548,514
23	Akron	1,001,103

#### **TOTAL EXPENDITURES**



	CITY/COUNTY	TOTAL EXPENDITURES
1	Los Angeles	59,950,000
2	San Diego	41,991,926
3	Seattle	40,239,233
4	Phoenix/Maricopa Co.	32,000,000
5	Miami-Dade Co.	30,726,282
6	San Francisco	29,217,634
7	Clark Co.	21,570,374
8	San Jose	20,339,000
9	Average	16,361,300
10	Honolulu	13,502,000
11	St. Louis	10,400,000
12	Long Beach	7,729,719
13	Minneapolis	7,578,816
14	Columbus	7,064,290
15	Kansas City	6,970,000
16	Nashville/Davidson	6,683,707
17	Philadelphia	5,918,296
18	Austin	4,100,000
19	Albuquerque	3,650,657
20	Cincinnati	3,105,480
21	St. Petersburg	3,011,642
22	Pittsburgh	2,572,831
23	Akron	1,626,705

#### **SECTION 2**

#### **COST COMPARISONS**

Expenditure Per Capita

Expenditure Per Square Mile

Expenditure Per \$M Construction Valuation

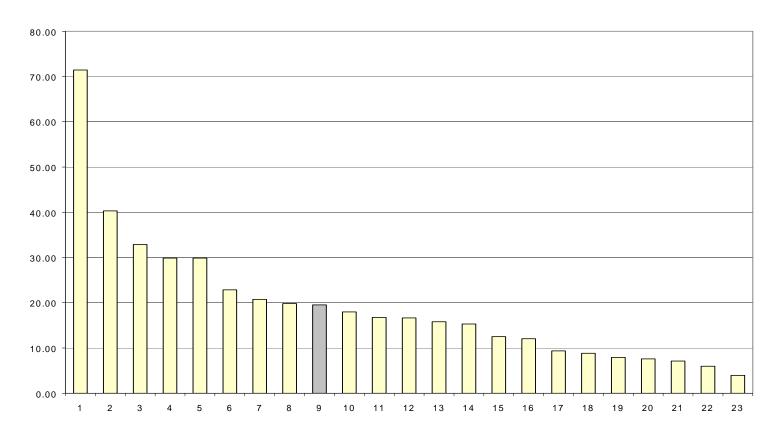
Revenue Per Permit Issued

Expenditure Per Permit Issued

Expenditure Per Inspection Made

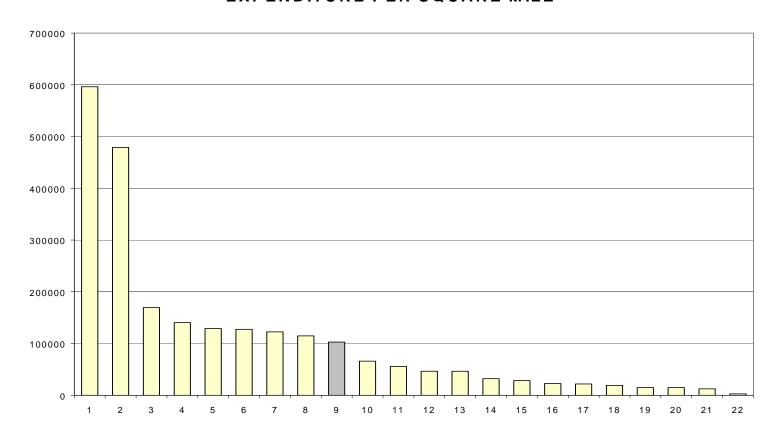
Expenditure Per Staff Member

#### **EXPENDITURE PER CAPITA**



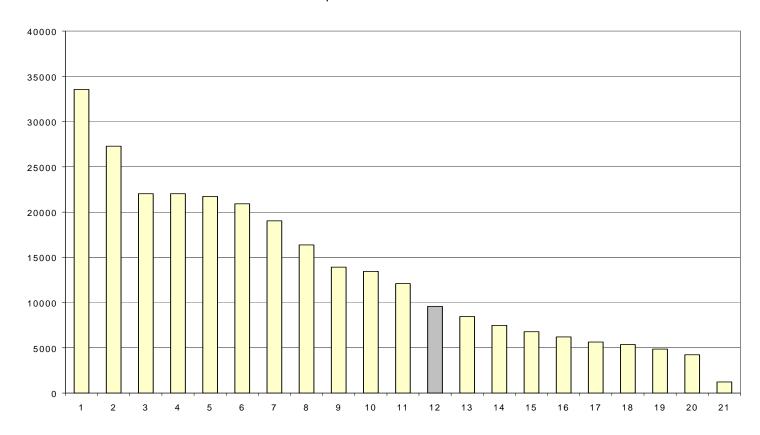
	CITY/COUNTY	EXPENDITURE PER CAPITA
1	Seattle	71.43
2	San Francisco	40.30
3	San Diego	32.89
4	Miami-Dade Co.	29.89
5	St. Louis	29.89
6	Phoenix/Maricopa Co.	22.86
7	San Jose	20.75
8	Minneapolis	19.81
9	Average	19.35
10	Clark Co.	17.98
11	Long Beach	16.75
12	Los Angeles	16.65
13	Kansas City	15.79
14	Honolulu	15.32
15	Nashville/Davidson	12.52
16	St. Petersburg	12.05
17	Cincinnati	9.37
18	Columbus	8.83
19	Albuquerque	7.92
20	Pittsburgh	7.59
21	Akron	7.13
22	Austin	5.96
23	Philadelphia	3.95

#### **EXPENDITURE PER SQUARE MILE**



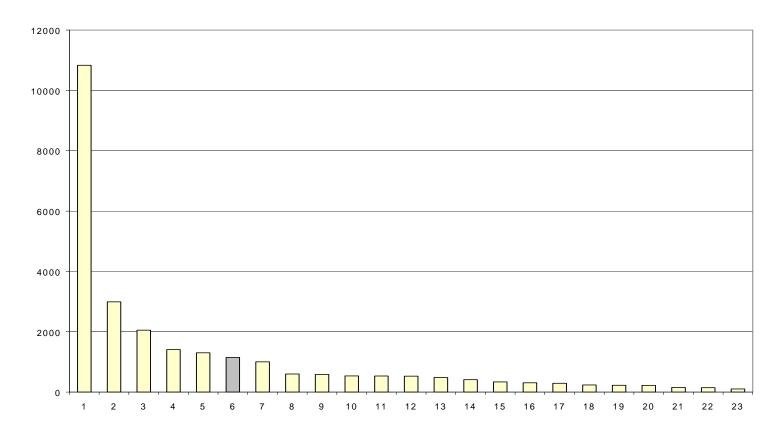
	CITY/COUNTY	EXPENDITURE PER SQUARE MILE
1	San Francisco	596,278
2	Seattle	479,038
3	St. Louis	169,464
4	Long Beach	140,540
5	Minneapolis	129,111
6	Los Angeles	127,553
7	San Diego	122,640
8	San Jose	114,910
9	Average	102,931
10	Phoenix/Maricopa Co.	65,979
11	St. Petersburg	55,771
12	Philadelphia	46,601
13	Pittsburgh	46,525
14	Columbus	32,110
15	Akron	28,539
16	Honolulu	23,013
17	Kansas City	21,987
18	Albuquerque	19,214
19	Miami-Dade Co.	14,959
20	Austin	14,909
21	Nashville/Davidson	12,611
22	Clark Co.	2,730

#### **EXPENDITURE PER \$M CONSTRUCTION VALUATION**



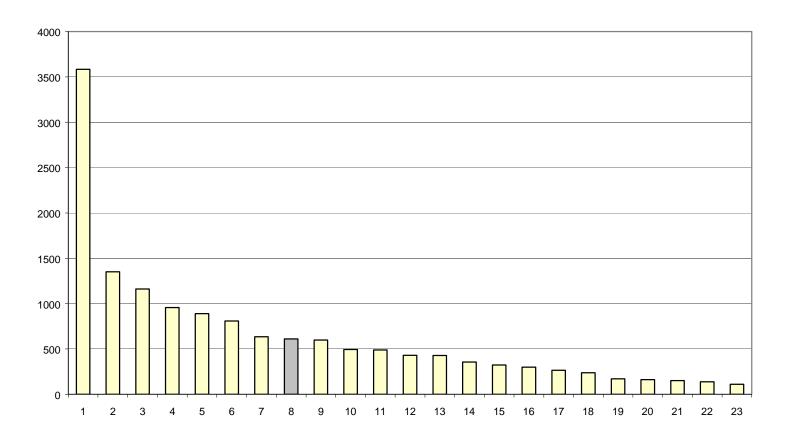
	CITY/COUNTY	EXPENDITURE PER \$M CONSTRUCTION VALUATION
1	St. Louis	33,548
2	Seattle	27,281
3	Long Beach	22,022
4	San Diego	22,020
5	San Jose	21,730
6	Los Angeles	20,910
7	San Francisco	19,034
8	St. Petersburg	16,368
9	Phoenix/Maricopa Co.	13,913
10	Average	13,438
11	Austin	12,094
12	Honolulu	9,583
13	Kansas City	8,459
14	Pittsburgh	7,479
15	Clark Co.	6,779
16	Nashville/Davidson	6,212
17	Columbus	5,633
18	Cincinnati	5,364
19	Albuquerque	4,868
20	Philadelphia	4,227
21	Akron	1,231

#### REVENUE PER PERMIT ISSUED



	CITY/COUNTY	REVENUE PER PERMIT ISSUED
1	Phoenix/Maricopa Co.	10,833
2	Seattle	2,991
3	Pittsburgh	2,054
4	San Diego	1,410
5	Albuquerque	1,300
6	Average	1,149
7	Columbus	1,003
8	Long Beach	599
9	Honolulu	583
10	Philadelphia	537
11	Los Angeles	534
12	San Jose	528
13	San Francisco	481
14	Miami-Dade Co.	408
15	Clark Co.	336
16	Kansas City	307
17	Cincinnati	292
18	Minneapolis	235
19	Austin	224
20	St. Louis	223
21	St. Petersburg	148
22	Nashville/Davidson	147
23	Akron	100

### **EXPENDITURE PER PERMIT ISSUED**

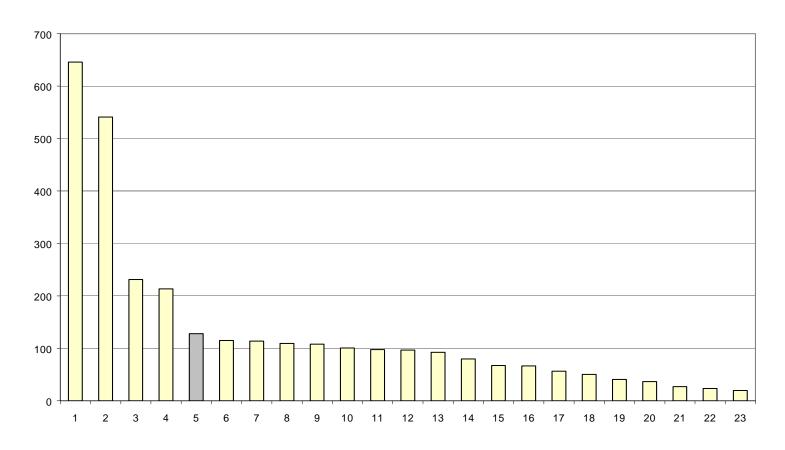


1	Seattle	3,584
2	San Diego	1,351
3	Pittsburgh	1,161
4	Columbus	957
5	Phoenix/Maricopa Co.	889
6	Honolulu	808
7	San Jose	636
8	Average	611
9	Long Beach	599
10	San Francisco	494
11	Albuquerque	489
12	St. Louis	429
13	Los Angeles	428
14	Cincinnati	356
15	Miami-Dade Co.	324
16	Kansas City	300
17	Clark Co.	265
18	Philadelphia	237
19	St. Petersburg	171
20	Akron	163
21	Nashville/Davidson	151
22	Minneapolis	138
23	Austin	111

CITY/COUNTY

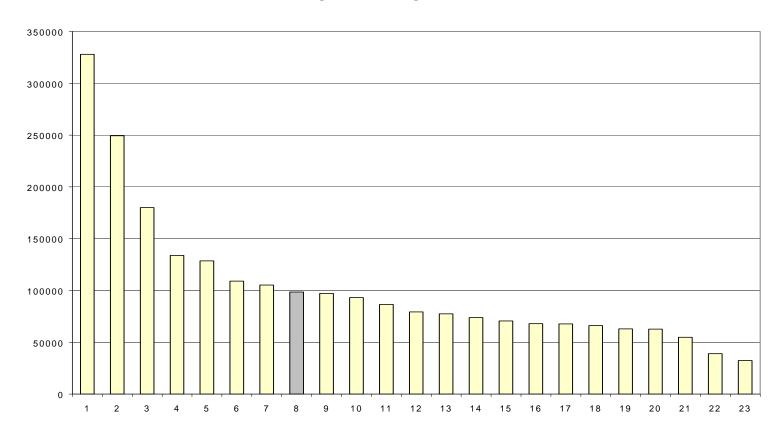
EXPENDITURE PER PERMIT ISSUED

#### **EXPENDITURE PER INSPECTION MADE**



	CITY/COUNTY	EXPENDITURE PER INSPECTION MADE
1	Seattle	646
2	St. Petersburg	541
3	San Diego	231
4	San Francisco	213
5	Average	128
6	Phoenix/Maricopa Co.	115
7	Long Beach	114
8	St. Louis	109
9	Honolulu	108
10	Minneapolis	101
11	San Jose	98
12	Los Angeles	97
13	Kansas City	92
14	Akron	80
15	Miami-Dade Co.	67
16	Nashville/Davidson	67
17	Philadelphia	56
18	Pittsburgh	50
19	Columbus	41
20	Clark Co.	37
21	Austin	27
22	Cincinnati	24
23	Albuquerque	20

#### **EXPENDITURE PER STAFF MEMBER**



	CITY/COUNTY	EXPENDITURE PER STAFF MEMBER
1	San Diego	328,062
2	Long Beach	249,346
3	Seattle	180,041
4	San Jose	133,809
5	Nashville/Davidson	128,533
6	San Francisco	109,021
7	Minneapolis	105,261
8	Average	98,496
9	Honolulu	97,137
10	Miami-Dade Co.	93,110
11	Phoenix/Maricopa Co.	86,486
12	Clark Co.	79,303
13	Akron	77,462
14	St. Louis	73,759
15	Los Angeles	70,529
16	Columbus	67,926
17	Kansas City	67,670
18	Austin	66,129
19	Albuquerque	62,942
20	St. Petersburg	62,743
21	Philadelphia	54,799
22	Pittsburgh	38,982
23	Cincinnati	32,349

#### **SECTION 3**

#### PRODUCTIVITY COMPARISONS

Inspectors Per 1,000 Population

Inspectors Per Square Mile

Staff Members Per 1,000 Population

Staff Members Per Square Mile

Staff Members Per Construction Valuation

Permits Issued Per Staff Member

Inspections Made Per Inspector

Construction Valuation Per Permit Issued

Inspections Made Per Permit Issued

Plans Reviewed Per Plan Reviewers

Reviewers Per 1,000 Population

Reviewers Per Square Mile

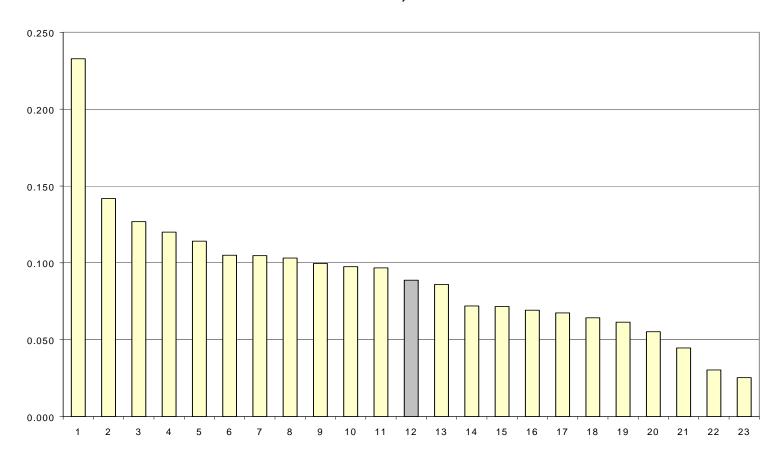
Other Staff Per 1,000 Population

Other Staff Per Square Mile

Other Staff Per Inspector

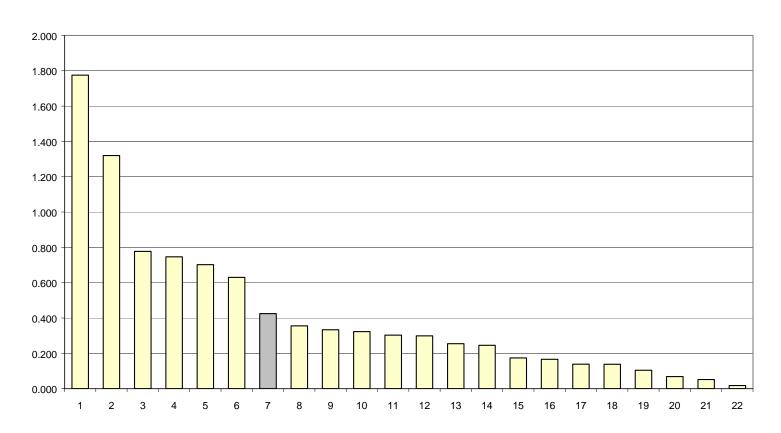
Other Staff Per Reviewer

# **INSPECTORS PER 1,000 POPULATION**



	CITY/COUNTY	INSPECTORS PER 1,000 POPULATION
1	St. Louis	0.233
2	Cincinnati	0.142
3	Pittsburgh	0.127
4	San Francisco	0.120
5	Clark Co.	0.114
6	Phoenix/Maricopa Co.	0.105
7	Seattle	0.105
8	Miami-Dade Co.	0.103
9	Kansas City	0.100
10	Los Angeles	0.098
11	Minneapolis	0.097
12	Average	0.091
13	Columbus	0.089
14	St. Petersburg	0.072
15	Albuquerque	0.072
16	Honolulu	0.069
17	Nashville/Davidson	0.067
18	San Jose	0.064
19	Akron	0.061
20	Austin	0.055
21	San Diego	0.045
22	Long Beach	0.030
23	Philadelphia	0.025

#### **INSPECTORS PER SQUARE MILE**



CITY/COUNTY

San Francisco

Philadelphia

Long Beach

1

11

12

13

14

15

16

17

18

19

20

21

22

St. Louis	1.320
Pittsburgh	0.778
Los Angeles	0.747
Seattle	0.702
Minneapolis	0.630
Average	0.425
San Jose	0.356
St. Petersburg	0.333
Columbus	0.323
Phoenix/Maricopa Co.	0.303

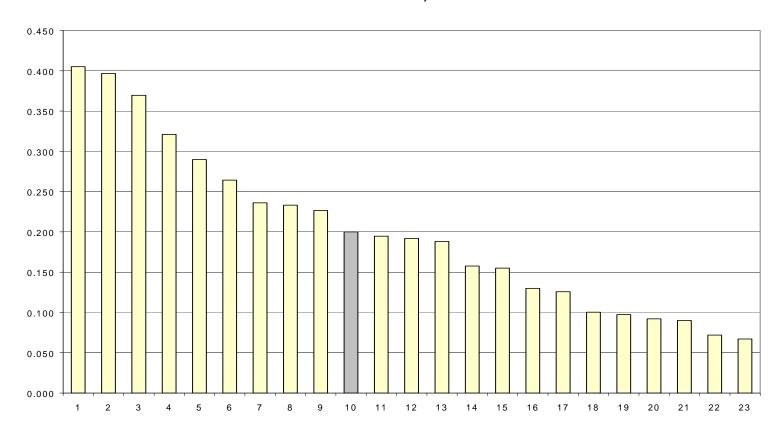
1.776

0.299

0.255

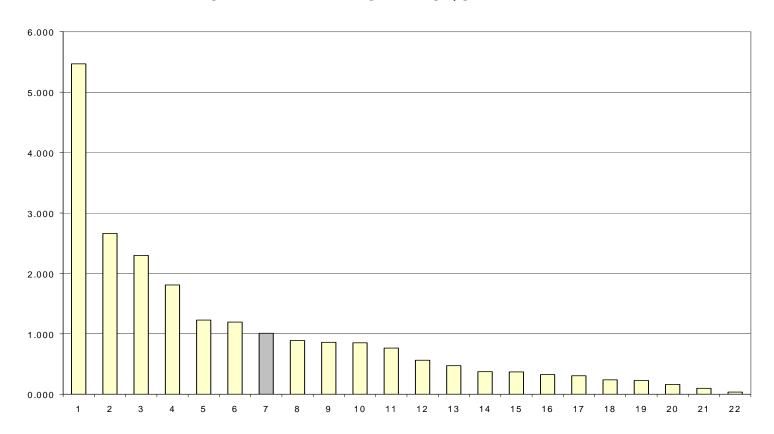
INSPECTORS PER SQUARE MILE

#### STAFF MEMBERS PER 1,000 POPULATION



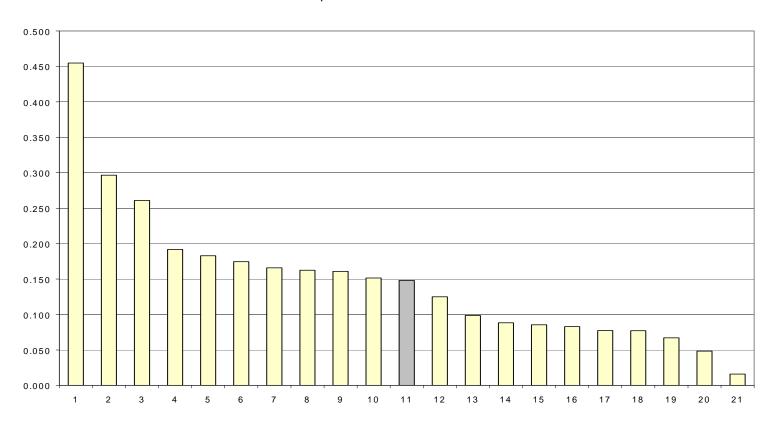
	CITY/COUNTY	STAFF MEMBERS PER 1,000 POPULATION
1	St. Louis	0.405
2	Seattle	0.397
3	San Francisco	0.370
4	Miami-Dade Co.	0.321
5	Cincinnati	0.290
6	Phoenix/Maricopa Co.	0.264
7	Los Angeles	0.236
8	Kansas City	0.233
9	Clark Co.	0.227
10	Average	0.200
11	Pittsburgh	0.195
12	St. Petersburg	0.192
13	Minneapolis	0.188
14	Honolulu	0.158
15	San Jose	0.155
16	Columbus	0.130
17	Albuquerque	0.126
18	San Diego	0.100
19	Nashville/Davidson	0.097
20	Akron	0.092
21	Austin	0.090
22	Philadelphia	0.072
23	Long Beach	0.067

#### STAFF MEMBERS PER SQUARE MILE



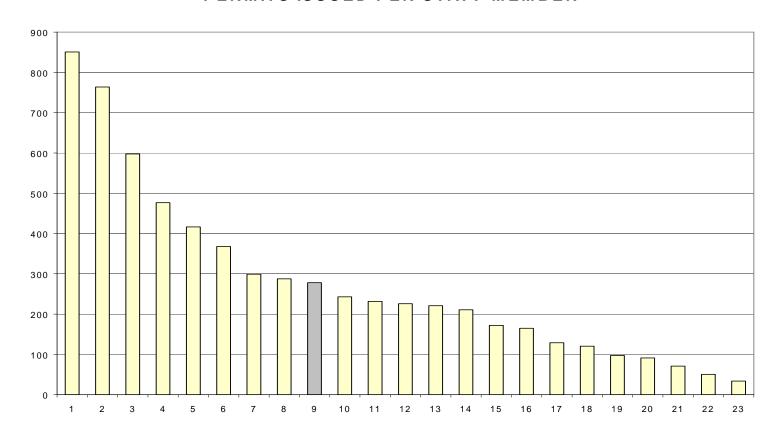
	CITY/COUNTY	STAFF MEMBERS PER SQUARE MILE
1	San Francisco	5.469
2	Seattle	2.661
3	St. Louis	2.298
4	Los Angeles	1.809
5	Minneapolis	1.227
6	Pittsburgh	1.193
7	Average	1.009
8	St. Petersburg	0.889
9	San Jose	0.859
10	Philadelphia	0.850
11	Phoenix/Maricopa Co.	0.763
12	Long Beach	0.564
13	Columbus	0.473
14	San Diego	0.374
15	Akron	0.368
16	Kansas City	0.325
17	Albuquerque	0.305
18	Honolulu	0.237
19	Austin	0.225
20	Miami-Dade Co.	0.161
21	Nashville/Davidson	0.098
22	Clark Co.	0.034

#### STAFF MEMBERS PER \$M CONSTRUCTION VALUATION



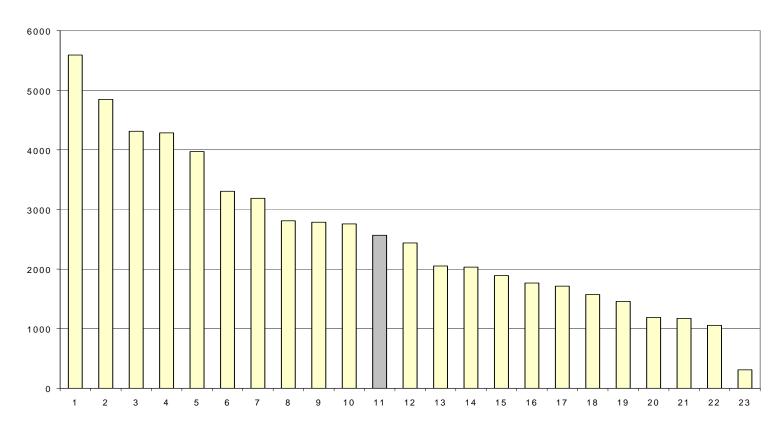
	CITY/COUNTY	STAFF MEMBERS PER \$M CONSTRUCTION VALUATION
1	St. Louis	0.455
2	Los Angeles	0.296
3	St. Petersburg	0.261
4	Pittsburgh	0.192
5	Austin	0.183
6	San Francisco	0.175
7	Cincinnati	0.166
8	San Jose	0.162
9	Phoenix/Maricopa Co.	0.161
10	Seattle	0.152
11	Average	0.148
12	Kansas City	0.125
13	Honolulu	0.099
14	Long Beach	0.088
15	Clark Co.	0.085
16	Columbus	0.083
17	Albuquerque	0.077
18	Philadelphia	0.077
19	San Diego	0.067
20	Nashville/Davidson	0.048
21	Akron	0.016

#### PERMITS ISSUED PER STAFF MEMBER



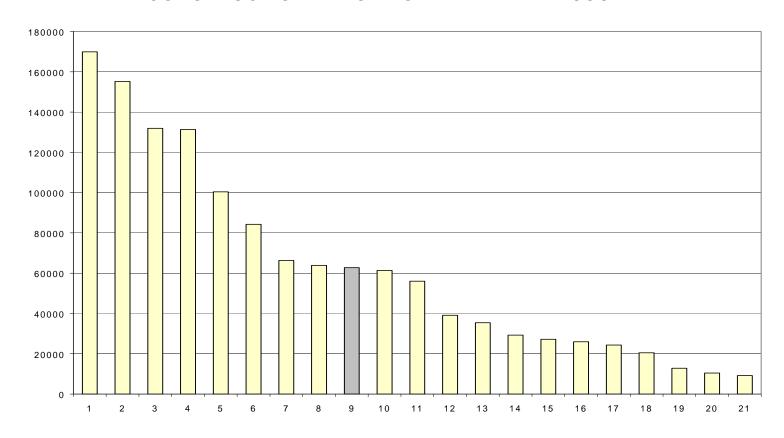
	CITY/COUNTY	PERMITS ISSUED PER STAFF MEMBER
1	Nashville/Davidson	851
2	Minneapolis	764
3	Austin	598
4	Akron	477
5	Long Beach	416
6	St. Petersburg	368
7	Clark Co.	299
8	Miami-Dade Co.	287
9	Average	278
10	San Diego	243
11	Philadelphia	231
12	Kansas City	226
13	San Francisco	221
14	San Jose	211
15	St. Louis	172
16	Los Angeles	165
17	Albuquerque	129
18	Honolulu	120
19	Phoenix/Maricopa Co.	97
20	Cincinnati	91
21	Columbus	71
22	Seattle	50
23	Pittsburgh	34

#### INSPECTIONS MADE PER INSPECTOR



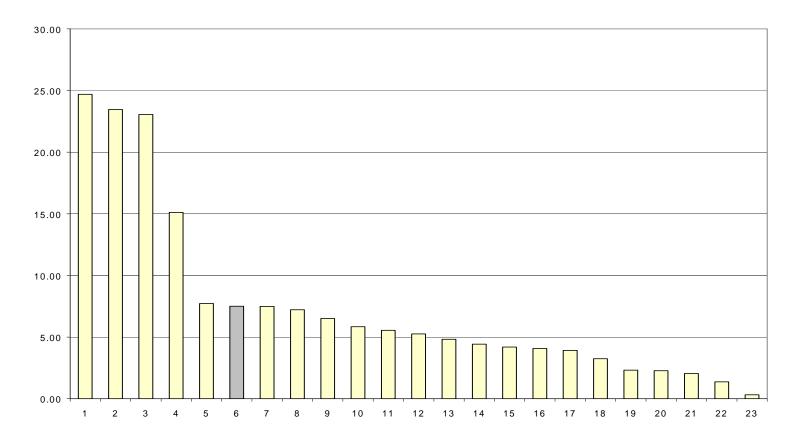
	CITY/COUNTY	INSPECTIONS MADE PER INSPECTOR
1	Albuquerque	5,591
2	Long Beach	4,845
3	Miami-Dade Co.	4,311
4	Clark Co.	4,285
5	Austin	3,972
6	San Jose	3,306
7	San Diego	3,187
8	Cincinnati	2,809
9	Nashville/Davidson	2,786
10	Philadelphia	2,757
11	Average	2,568
12	Columbus	2,439
13	Honolulu	2,052
14	Minneapolis	2,033
15	Phoenix/Maricopa Co.	1,891
16	Los Angeles	1,765
17	Kansas City	1,715
18	San Francisco	1,573
19	Akron	1,457
20	Pittsburgh	1,188
21	St. Louis	1,173
22	Seattle	1,056
23	St. Petersburg	309

#### **CONSTRUCTION VALUATION PER PERMIT ISSUED**



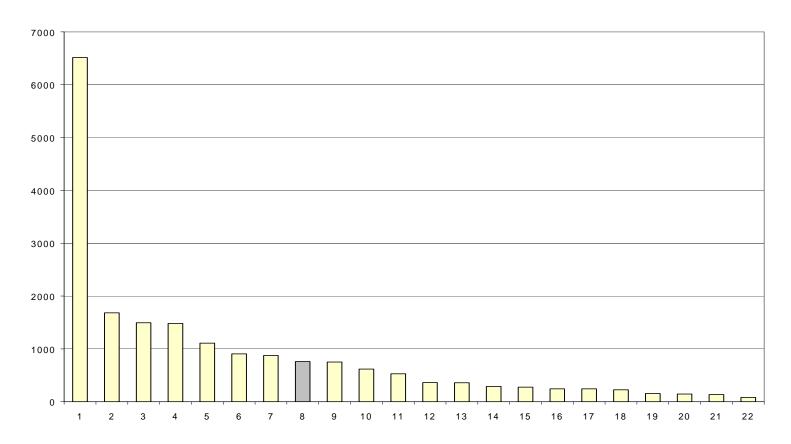
	CITY/COUNTY	CONSTRUCTION VALUATION PER PERMIT ISSUED
1	Columbus	169,942
2	Pittsburgh	155,235
3	Akron	131,968
4	Seattle	131,368
5	Albuquerque	100,402
6	Honolulu	84,296
7	Cincinnati	66,293
8	Phoenix/Maricopa Co.	63,889
9	Average	62,743
10	San Diego	61,352
11	Philadelphia	56,000
12	Clark Co.	39,129
13	Kansas City	35,444
14	San Jose	29,253
15	Long Beach	27,192
16	San Francisco	25,940
17	Nashville/Davidson	24,321
18	Los Angeles	20,474
19	St. Louis	12,795
20	St. Petersburg	10,422
21	Austin	9,150

#### INSPECTIONS MADE PER PERMIT ISSUED



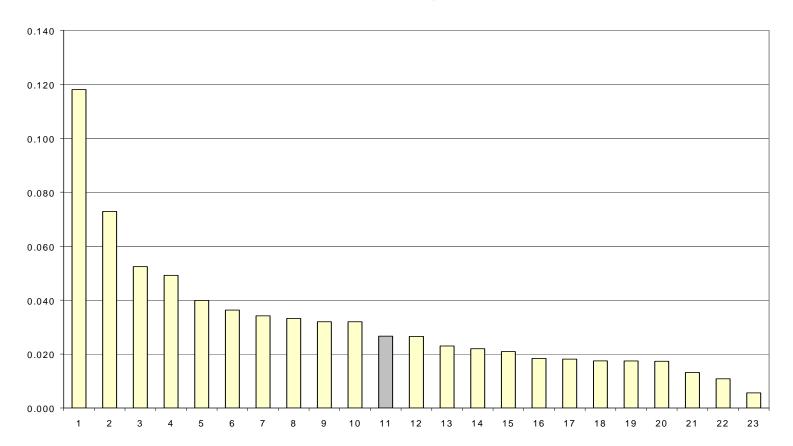
	CITY/COUNTY	INSPECTIONS MADE PER PERMIT ISSUED
1	Albuquerque	24.70
2	Columbus	23.46
3	Pittsburgh	23.06
4	Cincinnati	15.11
5	Phoenix/Maricopa Co.	7.72
6	Average	7.50
7	Honolulu	7.49
8	Clark Co.	7.22
9	San Jose	6.51
10	San Diego	5.84
11	Seattle	5.55
12	Long Beach	5.26
13	Miami-Dade Co.	4.82
14	Los Angeles	4.42
15	Philadelphia	4.19
16	Austin	4.07
17	St. Louis	3.92
18	Kansas City	3.24
19	San Francisco	2.31
20	Nashville/Davidson	2.27
21	Akron	2.04
22	Minneapolis	1.37
23	St. Petersburg	0.32
		25

#### PLANS REVIEWED PER PLAN REVIEWERS



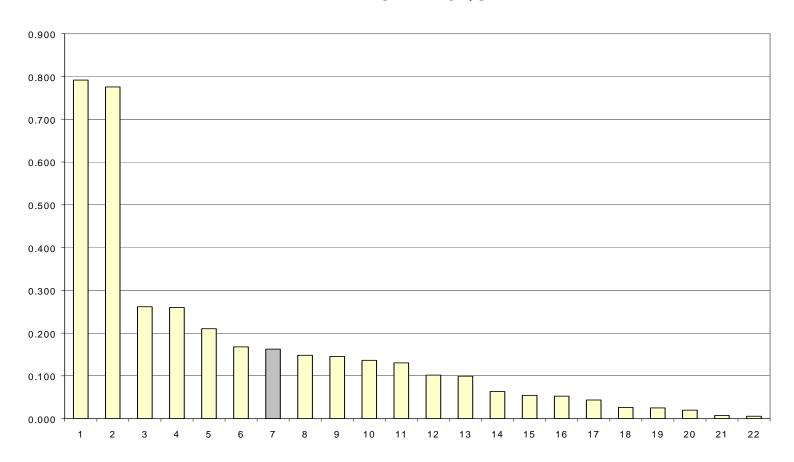
	CITY/COUNTY	PLANS REVIEWED PER PLAN REVIEWERS
1	Miami-Dade Co.	6515
2	St. Petersburg	1682
3	Albuquerque	1494
4	Kansas City	1481
5	Nashville/Davidson	1109
6	Minneapolis	906
7	Average	874
8	St. Louis	760
9	San Francisco	751
10	Long Beach	619
11	Columbus	527
12	San Jose	362
13	Los Angeles	358
14	Cincinnati	289
15	San Diego	275
16	Austin	243
17	Akron	243
18	Honolulu	225
19	Philadelphia	155
20	Pittsburgh	146
21	Phoenix/Maricopa Co.	134
22	Seattle	82

#### PLAN REVIEWERS PER 1,000 POPULATION



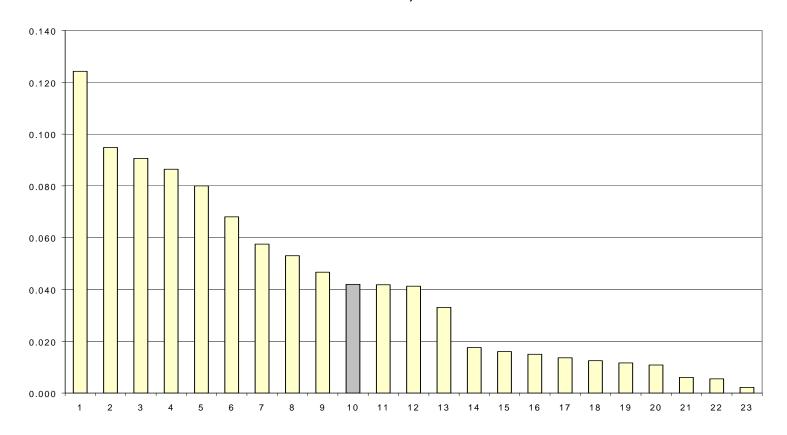
	CITY/COUNTY	PLAN REVIEWERS PER 1,000 POPULATION
1	Seattle	0.118
2	Phoenix/Maricopa Co.	0.073
3	San Francisco	0.052
4	Clark Co.	0.049
5	Miami-Dade Co.	0.040
6	Honolulu	0.036
7	Los Angeles	0.034
8	Cincinnati	0.033
9	St. Petersburg	0.032
10	Average	0.032
11	San Diego	0.027
12	Pittsburgh	0.027
13	St. Louis	0.023
14	Philadelphia	0.022
15	Minneapolis	0.021
16	San Jose	0.018
17	Kansas City	0.018
18	Columbus	0.018
19	Austin	0.017
20	Long Beach	0.017
21	Akron	0.013
22	Albuquerque	0.011
23	Nashville/Davidson	0.006

#### PLAN REVIEWERS PER SQUARE MILE



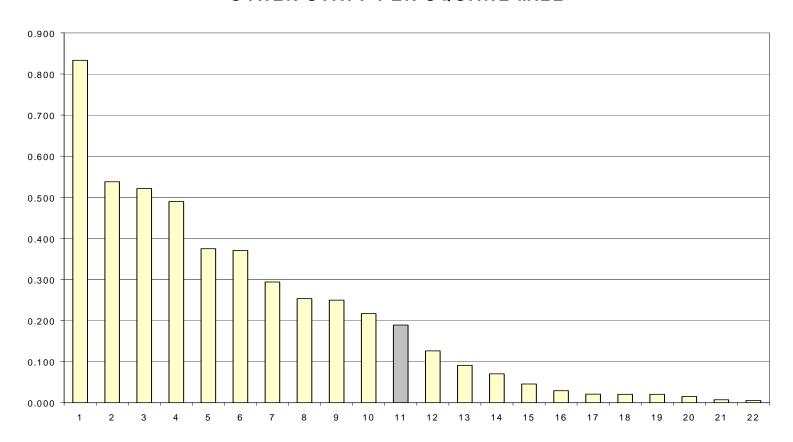
	CITY/COUNTY	PLAN REVIEWERS PER SQUARE MILE
1	Seattle	0.792
2	San Francisco	0.776
3	Los Angeles	0.262
4	Philadelphia	0.260
5	Phoenix/Maricopa Co.	0.210
6	Average	0.168
7	Pittsburgh	0.163
8	St. Petersburg	0.148
9	Long Beach	0.145
10	Minneapolis	0.136
11	St. Louis	0.130
12	San Jose	0.102
13	San Diego	0.099
14	Columbus	0.064
15	Honolulu	0.055
16	Akron	0.053
17	Austin	0.044
18	Albuquerque	0.026
19	Kansas City	0.025
20	Miami-Dade Co.	0.020
21	Clark Co.	0.007
22	Nashville/Davidson	0.006

#### OTHER STAFF PER 1,000 POPULATION



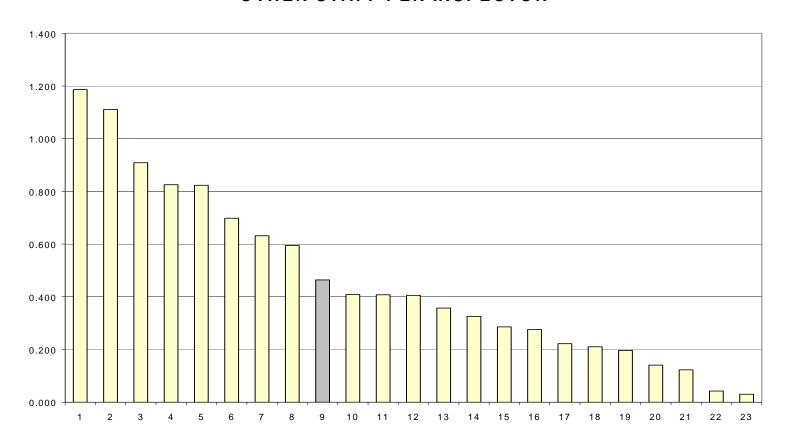
	CITY/COUNTY	OTHER STAFF PER 1,000 POPULATION
1	Seattle	0.124
2	St. Louis	0.095
3	Kansas City	0.091
4	Phoenix/Maricopa Co.	0.086
5	St. Petersburg	0.080
6	Los Angeles	0.068
7	Minneapolis	0.057
8	San Jose	0.053
9	Clark Co.	0.047
10	Average	0.042
11	Miami-Dade Co.	0.042
12	Pittsburgh	0.041
13	San Francisco	0.033
14	Akron	0.018
15	Philadelphia	0.016
16	Nashville/Davidson	0.015
17	Honolulu	0.014
18	Columbus	0.013
19	Austin	0.012
20	Long Beach	0.011
21	Cincinnati	0.006
22	San Diego	0.005
23	Albuquerque	0.002

#### OTHER STAFF PER SQUARE MILE



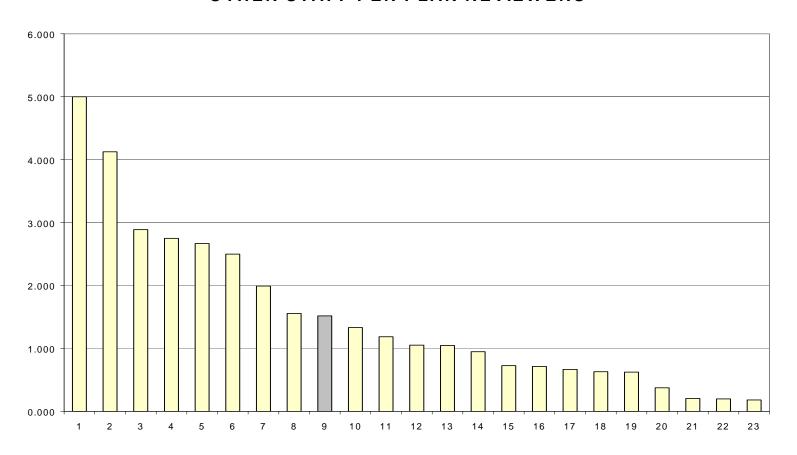
CITY/COUNTY		OTHER STAFF PER SQUARE MILE	
1	Seattle	0.833	
2	St. Louis	0.538	
3	Los Angeles	0.521	
4	San Francisco	0.490	
5	Minneapolis	0.375	
6	St. Petersburg	0.370	
7	San Jose	0.294	
8	Pittsburgh	0.253	
9	Phoenix/Maricopa Co.	0.249	
10	Average	0.217	
11	Philadelphia	0.189	
12	Kansas City	0.126	
13	Long Beach	0.091	
14	Akron	0.070	
15	Columbus	0.045	
16	Austin	0.029	
17	Miami-Dade Co.	0.021	
18	Honolulu	0.020	
19	San Diego	0.020	
20	Nashville/Davidson	0.015	
21	Clark Co.	0.007	
22	Albuquerque	0.005	

#### OTHER STAFF PER INSPECTOR



	CITY/COUNTY	OTHER STAFF PER INSPECTOR
1	Seattle	1.186
2	St. Petersburg	1.111
3	Kansas City	0.909
4	San Jose	0.825
5	Phoenix/Maricopa Co.	0.823
6	Los Angeles	0.698
7	Philadelphia	0.632
8	Minneapolis	0.595
9	Average	0.464
10	Clark Co.	0.409
11	St. Louis	0.407
12	Miami-Dade Co.	0.406
13	Long Beach	0.357
14	Pittsburgh	0.326
15	Akron	0.286
16	San Francisco	0.276
17	Nashville/Davidson	0.222
18	Austin	0.211
19	Honolulu	0.197
20	Columbus	0.141
21	San Diego	0.123
22	Cincinnati	0.043
23	Albuquerque	0.030

#### OTHER STAFF PER PLAN REVIEWERS



CITY/COUNTY

	0111/0001111	
1	Kansas City	5.000
2	St. Louis	4.125
3	San Jose	2.889
4	Minneapolis	2.750
5	Nashville/Davidson	2.667
6	St. Petersburg	2.500
7	Los Angeles	1.992
8	Pittsburgh	1.556
9	Average	1.517
10	Akron	1.333
11	Phoenix/Maricopa Co.	1.186
12	Seattle	1.053
13	Miami-Dade Co.	1.049
14	Clark Co.	0.949
15	Philadelphia	0.727
16	Columbus	0.714
17	Austin	0.667
18	San Francisco	0.632
19	Long Beach	0.625
20	Honolulu	0.375
21	San Diego	0.206
22	Albuquerque	0.200
23	Cincinnati	0.182

OTHER STAFF PER PLAN REVIEWER

#### **Appendix K**

# **CITY OF PHOENIX**

200 W Washington St Phoenix, AZ 85003 (602) 262-6011

#### **Best practices include:**

- Plan Review
- Information Technology

#### Phoenix, City of

Visit Phoenix.gov for "Online Construction Permit Services and Flectronic Plan Review Services

http://phoenix.gov/APPINTRO/dsdwpa.html





16-Oct-12 04:57 PM

#### Help and FAQ

#### New Users

Registration Page

Important information on Printing permits

Important: Safari and Chrome browsers do not work correctly with this application. (more info)

Use of information entered on this site is governed by the City of Phoenix Privacy Policy. PLEASE NOTE THAT RESIDENTIAL ONLINE PERMITS MUST BE OBTAINED BY A LICENSED CONTRACTOR UNLESS THE WORK IS BEING DONE ON A HOME THAT IS INTENDED FOR OCCUPANCY SOLELY BY THE OWNER AND IS NOT INTENDED FOR SALE OR RENT (ARS § 32-1121.A.5). THIS DOES NOT APPLY TO PERMITS FOR INSPECTION OF ELECTRICAL SERVICE FOR UTILITY CLEARANCE DUE TO INACTIVITY, WHERE NO WORK IS BEING DONE.

Residential permit applications available online:

- Elect Water Heater Replacement
- Electrical Upgrade to 100 AMP
- Electrical Upgrade to 200 AMP
- Gas Clearance
- Gas Water Heater Replacement
- Inspection of Electrical Service
- Repair/Replace Gas Line

Please read the <u>Help and FAQ</u> pages to learn what is required to get an online permit, how to set up for <u>printing</u>, and to make sure your work qualifies.

Registered users please enter your username below and click 'User Login'. New users please see below.



#### **New Users**

- If you are a new user and want to set up a user name to save your information for future use, visit the registration page for details and to set up an account.
- If you prefer to apply for a permit without creating a user account, please login by clicking the 'Guest Login' button. Guest information you enter will not be saved for future use on this site.

If your browser has a pop-up blocker set up, you must set it to allow pop-ups from the phoenix.gov domain, or temporarily disable it. Failure to do this may prevent you from being able to print your permit. For further information, please read the <a href="Help and FAQ">Help and FAQ</a> pages. If the Help page does not open in a new window, your browser may have blocked the pop-up.

Use of information entered on this site is governed by the City of Phoenix Privacy Policy.

Construction Permits Online is available every day of the week from 12:00am (Midnight) to 10:00pm.

#### **Appendix L**

# CITY OF PLANO BUILDING INSPECTIONS DEPARTMENT

1520 Ave K Suite 140 Plano, TX 75074 (972) 941-7212

Contact Information:
Selso Mata
Chief Building Official, Building Inspections
(972) 941-7212
selsom@plano.gov

#### Best practices include:

- Plan Review
- Information Technology



## City of Plano "BEST PRACTICES" Submittal

Contact Information: Selso Mata, Chief Building Official, Building Inspections Department/Plano, Texas, 1520 Ave K Suite 140, Plano, Texas 75074, <a href="mailto:selsom@plano.gov">selsom@plano.gov</a> 972-941-7212

#### **Program Description:** Electronic Plan Review

We implemented electronic plan review and permitting a few years ago. We started in an effort to save storage space due to the many plans that accumulate and disorganization that can occur in maintaining a plan room vault. Moving to electronic format created efficiencies immediately in retrieval of information. Through its use, we have changed the plan review process into a hybrid system of paper and electronic review. Contractors receive our marked up plans on paper for field review and construction while in house documents remain electronic. Professionals were concerned with their copyright work electronically and releasing dwg cad files. However this was solved when we moved to .pdf files which cannot be altered and offer a secure format for protection of copyright and intellectual property. In addition, rules and regulations for Architects and Engineers' scals and signatures are allowed to be embedded in plans electronically. Smaller commercial jobs frequently do not have cad drawings. When this occurs we will accept paper plans and scan the files electronically for storage.

#### Costs / Benefits:

In 2001 Building Inspections began digitizing plans to conserve storage space. This developed into a pilot program for electronic plan review in 2007. In 2009 we moved to an electronic format for all plan review submittals. After several software evaluations we found Bluebeam Software Inc. fit our needs for value, access, and efficiency. Through the years we have leveraged the costs by distributing the costs incrementally and adding accessory hardware for improving our system, including monitors, servers, computers, and software licenses. We implemented electronic plan review and permitting a few years ago.

Attached Documents: Attached documents provided. Electronic link <a href="http://www.bluebeam.com/us/solutions/case-studies/city-of-plano.asp">http://www.bluebeam.com/us/solutions/case-studies/city-of-plano.asp</a>

<u>Categories</u> – Please check all categories that apply to your best practice

- ✓ Plan Review.
- o Permitting
- Inspection
- Management/Administration
- o Legal
- o Customer Service
- Information Technology

#### Q and A on Electronic Plan Review

- What system and version do you use?
   Bluebeam PDF Revu Standard Edition version 8.0.1.
- What problems have you had or still have? Some large pdf pages in a document are slow to load. Some projects come in with each sheet saved as a single file rather than one bound file where you can scroll through the pages just like a hard copy stapled set.
- Will your system allow Red Lines to be placed on the plans?
   Yes, you can make clouds, text boxes and multiple other markup tools.
- How does it deal with Engineer's Seals and Signatures?
   Engineers' seals and signatures are already embedded in the set of plans electronically.
- What would you change in the system you now have?
   Not really a change to Bluebeam but more to the process. I think in order to really utilize the system you need to be able to make print out a set of marked up plans on original size sheets. Better way of printing out mark-ups to attach to the permit set. Right now, we can only print on 8.5 x 11" paper.
- What do you feel is the advantage?

Electronic and color archived copies of the plans. Projects are on a shared drive easily accessed by the rest of our department as well as other departments such as Fire and Health. The measurement tool is extremely helpful when determining travel distances, exit separations, and square footages. It is nice to mark-up one floor plan and copy and paste those mark-ups onto remaining identical floors in a multi-story building and also the MEP plans (saves a lot of time). Measurements; travel distances, square footages, diagonals etc. Saves paper, space and it's easy to work with. If received electronically, it's ready for review. If it is not available electronically, we will scan the project upon plan review completion and make it a pdf for incorporation into our electronic filing system.

- What do you feel is the disadvantage? Larger monitors would be beneficial in helping to view plans on screen. At first there can be a slow learning curve with some employees. If the files are not pdf files in good indexed order from the architect it can be a tedious process to electronically incorporate revisions into a permit set. At present time, we do not have the ability to print out a large set of marked up plans on original size sheets. We use 8 1/2 x 11.
- After using the system for a while, would you do it again? Yes.



Building Inspections P.O. Box 860358 Plano, Texas 75086-0358 o. 972-941-7177 f. 972-941-7177



#### <u>MEMORANDUM</u>

Date: March 2, 2011

To: Frank Turner, Deputy City Manager

From: Selso Mata, Chief Building Official

Phyllis Jarrell, Planning Director

Re: Electronic Plan Review, Submittal, & Collaboration

#### **Building Inspections**

In 2001 Building Inspections began digitizing plans to save physical storage space. This developed into a pilot program for electronic plan review in 2007. In 2009 we moved to an electronic format requirement for all plan review submittals. After several software evaluations we found Bluebeam Software Inc. fit our needs for value, access, and efficiency. Through the years we have separated the costs incrementally to include monitors, servers, computers, and software licenses.

#### Comments and concerns from customers

- Professionals were concerned with their copyright work electronically and releasing dwg cad files. However this was solved when we moved to pdf files which cannot be altered and offer a secure format for protection of copyright and intellectual property.
- Rules and regulations for Architects and Engineers' seals and signatures are allowed to be embedded in plans electronically.
- Smaller commercial jobs frequently do not have cad drawings. When this occurs
  we will accept paper plans and scan the files electronically for storage.

We have found the electronic format most efficient in retrieval of information. Through its use, we have changed the plan review process into a hybrid system of paper and electronic review. Contractors receive our marked up plans on paper for field review and construction while in house documents remain electronic. Bluebeam Software Inc. has a link on their web page that provides a case study of our progression toward electronic plan review.

Link provided at http://www.bluebeam.com/web07/us/solutions/casestudies/city\_plane.asp

#### Planning Department

The Planning Department has considered electronic plan review, but we currently do not review a sufficient volume of plans to justify the expenditures on software, computer and monitor upgrades that would be required. Both the Planning & Engineering Departments would have to work in tandem on electronic plan review since we have combined plan submission and review.



Bluebeam Software Inc. has a link on their web page that provides a case study of our progression toward electronic plan review.

Link provided at http://www.bluebcam.com/wcb07/us/solutions/casestudies/city\_plano.asp

#### The City of Plano Pioneers an Electronic Plan Review Process Based on PDF

The Plano, Texas Building inspections Department is a trailblazer in implementing electronic plan review and permitting. The group began digitizing architectural drawings back in 2001 to solve a problem faced by many municipalities — they were running out of storage space.

"With all the commercial building projects going on in Plano, our archival room was quickly filling up with plan review drawings," said Anthony Han, City Plan Review Services Supervisor. "We had to go papertess. There was no other choice."

The first step in the City's paperless initiative was to digitize the thousands of full scale, architectural drawings it had in storage. Members of Volunteers in Plano (VIP), a local service corps, assisted the department by scanning these documents. They initially experimented with different output file types, but eventually decided to archive in PDF, a universal file format that is easy to access and distribute to city departments, architects, building owners and also to fulfill open records requests from private citizens.

"Scanning all of these drawings was a huge undertaking," recalls Han. "We literally had thousands of drawings to convert. The VtP volunteers were a crucial component in getting these files converted and archived in PDF."

The existing project documents were only part of the paper problem. For every new project that broke ground, architects would submit three or four complete drawings sets, each can include hundreds of pages. Han wanted to further reduce his department's paper usage and storage by transforming the plan review process, too. "We tried a few different solutions for electronic markup, but we moved forward with the new process when we discovered Bluebeam PDF Revo," recalls Han. Recommended by a colleague in 2006, Han Instantly saw how Bluebeam PDF Revo, a PDF creation, markup and editing solution built for the design and construction industry, could bring plan review and commenting from a paper-based to electronic workflow. The timing of this product discovery was perfect, as it coincided with increased interests from local architects and building owners to electronically submit documents.

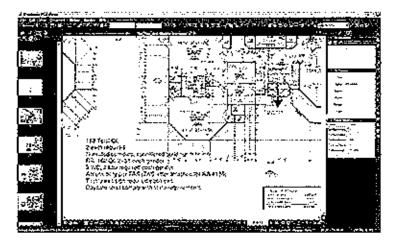


Fig. 1: The City of Plano Building Inspections Department uses Bluebeam's PDF markup tools to electronically redline plan review drawings.

For two years, Han's team accepted electronic copies of drawings and other project documents from architects and owners on a voluntary basis. Many of these files were submitted in POF; however, when paper copies were submitted, the Plan Reviewers would convert them to PDF through their full size scanner and use Bluebeam PDF Revu to review the drawings. For commenting, the reviewers used Bluebeam's industry standard markup tools, such as clouds and callouts, to redline the drawings and document code violations. The plan reviewers also found Bluebeam's copy/paste tool to be extremely useful. This feature allows users to copy markups on one floor and paste it onto another floor and thereby reducing repetitive markups. The copy/paste function is great, especially when working with high-rise buildings with similar floor plans on upper floors. Commonly used markups can also be saved in Revu's exclusive Tool Chest, where they are saved across sessions of the program and reapplied with just one click.

Additionally, Plano's plan reviewers used Bluebeam's Stamp feature to paste paragraphs and code notations from building codes onto project drawings to more clearly explain violations. Custom stamps can be created with Bluebeam's stamp editor, or by grouping together markups and saving them in the Tool Chest, "Using Bluebeam's markup tools to electronically redline drawings provided us with a better, more visual way to explain code requirements to architects designing in our City," said Han.

On January 1, 2009, after two years of successfully testing through voluntary projects, the City of Plano Building Inspections Department changed their document submission requirements. Now, all commercial building projects over 10,000 square feet are required to submit electronic copies of project documents and just one hard copy of drawing sets. "There are so many advantages to electronic submission and review, it made sense to make electronic documents a mandatory program for our City's larger projects," said Han.

Over the course of this program, the Building Inspection Department has realized many benefits. They've found that electronic plan review is not only an efficient process, but that it also makes these documents more consumable to other city departments. For example, the police and fire department can now access PDF copies of drawings to more quickly assess floor plans in crisis situations. And, because they've gone digital, the Building Inspections Department has reclaimed the space that was once buried beneath mountains of archived drawings. It's been repurposed as a small employee break, meeting and library room.

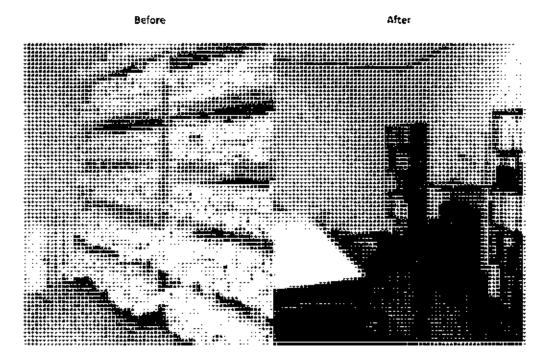


Fig. 2: An unexpected benefit: Going digital enabled the City to transform their old archival room into a library, meeting space and break room.

For more information about the City of Plano Building Inspection Department's electronic plan review and permitting process, go to www.buildinginspections.org.

#### **Appendix M**

# CITY OF ROANOKE BUILDING SAFETY DIVISION

215 Church Ave SW Room 170 Roanoke, VA 24011 (540) 853-6877

Contact Information:
Neil Holland
Building Commissioner
(540) 853-1117
neil.holland@roanokeva.gov

#### Best practices include:

- Inspection
- Information Technology



## City of Roanoke "BEST PRACTICES" Submittal

#### Contact Information:

Ryan McHugh – Plans Examiner I – City of Roanoke Building Inspections Division 215 Church Ave SW Room 170 Roanoke, VA 24011 <a href="mailto:ryan.mchugh@roanokeva.gov">ryan.mchugh@roanokeva.gov</a> 540-853-6877

#### Program Description:

City of Roanoke Building Inspections has added the creation of Quick Response codes (QR codes) to Permit Placards for new Building Activity. The addition of these code images will allow contractors and applicants to view the daily inspections calendar via smartphones or tablets, online.

#### Costs / Benefits:

Inspection results have been the most highly demanded information requested from the City of Roanoke Building Inspections Division. A need for an efficient and effective means to present that information to our customers was needed. Phone call, email and paper requests may take time to be answered. The QR code link initiative accesses information available on our Online Permit Center which retrieves data instantly from the City of Roanoke's permitting software. The web based service works 24 hours a day and is "real time".

The significance of this program has addressed a constant problem in the field of construction: clear results from inspections requests. The QR Code saves time and it is instantaneous. The procedure reduces phone call requests. It is eco-friendly, almost eliminating paper use from physical tickets being left on site. The procedure also links the customer to the Online Permit Center, where they can request inspections, view history of permits and previous inspection results, as well as notification of what inspections are later required to finalize the permit and complete the job.

#### Attached Documents:

Permit placard exampled showing QR Code and all inspection details is attached to this email.

<u>Categories</u> - Please check all categories that apply to your best practice

- Plan Review
- X Permitting
- X Inspection
- Management/Administration
- Legal
- X Customer Service
- X Information Technology



City of Roanoke Permit Center 215 Church Ave. SW Room 170 Roanoke VA 24011 (540) 853-1090 Fax: 853-1594 Inspection Line: 853-1142

# Construction Permit

Subtype: Annual

Code Edition 2009

B111066

Date Issued: 10/28/2011

Type: BIBLDG Prefix:: Governmental

Location of Work: Municipal Building

Project Description: Annual Permit - Municipal North

10.25.11 Renovation of 4th floor toilets plans submitted, vs 10.28.11 - restroom renovations, 4th floor DOT

12-13-2011 Update Annual permit. (No Additional work for December 2011)

**LOCATION:** 

Taxmap 1011401

Address: 215 CHURCH AVE SW ROA Building:

Zoning: D

Assessor's Nbhd Code: 850

Legal Desc. LOTS 1 TO 11 INC. BLK 9 OFFICIAL SURVEY, SEC SW1.

CONTACTS:

Applicant: CITY OF ROANOKE

Contractor:

Owner: CITY OF ROANOKE VIRGINIA

Lien Holder:

#### This Card Must Be Posted On The Site And Visible From The Street At All Times During Construction. Protect From The Weather.

Plans: Yes:

No:

A re-inspection fee of \$45 will be assessed after the second denied or failed inspection and must be paid prior to scheduling the third inspection.

#### City of Roanoke Building Commissioner





City of Roanoke Permit Center 215 Church Ave, SW Roam 170 Roanoke VA 24011 (540) 853-1090 Fax: 853-1594

Inspection Line: 853-1142

#### City of Roanoke Inspections Request Procedure

To request an inspection for the next working day call 853-1142 before 4:00pm Monday thru Friday.

Please have the following information ready before calling to request an inspection:

- The activity number (example B1100\*\*).
- The type of inspection you are requesting.
- 3. Daytime telephone number you can be reached at.

Inspections called before 4:00pm will usually be made the next working day.

Example: If you call for an inspection on Monday before 4:00pm, your inspection will be scheduled for Tuesday. If you called in your inspection **after 4:00pm** your inspection will be scheduled for Wednesday (excluding holidays, inspections will be scheduled for the next working day). Permit placard must be posted and visible from the street at the time of inspection(s) and approved set of drawing (red stamped by the City of Roanoke) must be on site. To avoid re-inspection fees, trades must be ready prior to inspectors visit, and/or corrections completed from previous inspections.

#### Inspection Descriptions

Inspection	Description	Inspection	Description
Footing/Foundation	Inspection of footing trench size, rebar placement and set back requirements. Prior to placing concrete.	Water service lateral	Inspection of water line in trench prior to covering.
Under slab electrical	Inspection of conduit and receptacles placed underground, prior to covering.	Sewer service lateral	Inspection of sewer service line and cleanout locations prior to covering.
Under slab plumbing	Inspection of building waste and drain piping and water piping (with pressure test) prior to covering.	Electrical service	Inspection of electric utility trench and conduit prior to covering.
Slab preparation	Inspections of insulation (if applicable), rebar, 6 mil. plastic and gravel if required.	Temporary power	Inspection of temporary power pole, grounding and height of service cable prior to granting construction power.
Rough-in electrical	Inspection for all wiring, boxes, grounding and panels prior to covering.	Final plumbing	Inspection of the completed plumbing system with the fixtures operational.
Rough-in plumbing	Inspection of all water, waste and vent stacks (with pressure test) prior to covering.	Final HVAC	Inspection of completed HVAC system in operation.
Rough-in HVAC	Inspection of all duct work, vents and mechanical equipment prior to covering.	Final electrical	Inspection of the completed electrical system with all devices in place and operational.
Rough-in gas	Inspection of gas piping and pressure test of gas line prior to connection.		Prior to any building finals if applicable all site, historic, neighborhood design district and any other required inspections.
Rough-in framing	Inspection of all framing prior to covering. (All trades must be complete prior to framing inspection).	Final building	Inspection of overall project, ready for occupancy. All trades must be complete prior to final building.
Insulation/Energy installation	Inspection of U-factors on windows, doors, skylights and certification for R-values and		-

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energy efficiency of appliances.

#### **Appendix N**

# CITY OF ROCHESTER HILLS

1000 Rochester Hills Dr Rochester Hills, MI 48309 (248) 841-2445

Contact Information:
Scott A. Cope C.B.O.
Director of Building/Ordinance Compliance/Facilities
(248) 841-2445
copes@rochesterhills.org

Best practices include:Plan Review



#### City of Rochester Hills "BEST PRACTICES" Submittal

#### Contact Information:

Scott A. Cope C.B.O.
Director of Building/Ordinance Compliance/Facilities
City of Rochester Hills
1000 Rochester Hills Dr.
Rochester Hills, MI 48309
Phone: 248.841.2445

Phone: 248.841.2445 Fax: 248.656.4623

Email: copes@rochesterhills.org

#### Program Description:

Quality Control Manual Special Inspection Program

#### Costs / Benefits:

The Quality Control program has helped us monitor, identify, and improve the quality and efficiency of our operations. It has identified areas of inconsistency and lack of understanding and allowed us to improve these areas with focused training and enhanced procedures.

The Special Inspection Program (SIP) has provided a clear and understandable path for contractors, architects, engineers, and special inspection companies to follow. As a result of this program the quality of special inspections and reporting has improved. I best result has been is, what I believe to be, higher quality code compliant construction projects.

#### Attached Documents:

Documents attached

Categories - Please check all categories that apply to your best practice

- X Plan Review
- X Permitting
- X Inspection
- X Management/Administration
- I.cgal
- X Customer Service
- Information Technology



#### BUILDING DEPARTMENT



#### CITY OF ROCHESTER HILLS

Date: 11/18/11	Rev. Date:	7/30/15	Effective Date: 7/3	0/15
Policy: X Procedure:				
Title: Quality Control Manual				
Manual Name: Gen	eral		<b>Document Number:</b>	1.0.0100
Written By:				

Auth	orized	Signs	iture:
ILUUII	ULILUM		ttui vi

#### QUALITY CONTROL MANUAL Introduction

This **Quality Control Manual** is the result of years of effort by the City of Rochester Hills Building Department staff.

Our Building Department Plan provides us with the direction we need, and encourages us to do all we can to continually improve our level of customer service.

Goals are nothing new to our Building Department, and a system of checks and balances has been in place for many years.

Our Quality Control Manual gathers all the checks and balances into one neat package that allows us to gauge how we are meeting the needs of our customers, and where we can improve as we strive to be the best Building Department in the eyes of our customers and peers.

The Quality Control Manual is made up of the following sections:

- Stakeholder Input This section provides examples of what we do to gather information from our varied customer base, and some ideas about where we can gather more information. We anticipate regular visits to this section will spark additional ideas and interest that will encourage members of the Building Department to seek out stakeholder input.
- Goals This section clearly outlines our goals and the level of service we intend to provide to our customers for permitting, plan review, inspection, and ordinance compliance services. We anticipate several of our established goals will change as we continue to gather stakeholder input and evaluate our quality control measures to determine what is important to our customers.
- Quality Control Measures This section represents all the data we have available for our use to see if we are meeting our goals for permits, plan reviews,

Effective 073015 Page 1 of 14

inspection, and ordinance compliance services. It is anticipated that this information will be reviewed on a regular basis and the findings will be discussed with the Building Department staff. While the success of meeting goals will be celebrated, goals not met will be the focus of discussion and plans developed to adjust our approach to meet those goals.

 Action Plan - Data received relating to the Permits, Plan Reviews, Inspections, and Ordinance Compliance sections of our quality control measures will be reviewed by the Management Staff at our monthly meeting to determine if we are meeting our goals.

Goals that have been successfully met will be shared with the entire Department staff during full Departmental meetings, and again in each individual division meeting.

Goals that have not been met shall be evaluated in the following manner:

- Review Data All data received shall be reviewed by the Management Staff for accuracy, completeness and to determine if we are meeting our service goals.
- Staff Input The data received shall be presented to the appropriate staff members of the respective division of the Building Department where goals have not been met to seek their input.
- Establish Adjustments An Action Plan shall be developed to ensure the goals will be met. This may involve the actual adjustment of the goal itself, or the development of a new approach to reach the goal. The new approach may involve training, workload adjustments, evaluation of processes, etc.
- o **Implement** The Action Plan will be shared with the entire staff, changes to policies, procedures, and goals made as necessary, and the Plan will be placed into action.
- Reevaluation Data will be gathered and the process will continue until the goal has been met successfully.

Our mission is to partner with our customers to ensure safety in all buildings; to assist our residents and business owners in maintaining and enjoying safe buildings and properties; to provide a well maintained, clean, and comfortable environment for our residents, visitors and employees; to ensure Rochester Hills continues to be the preeminent place to live, work and raise a family.

Our Quality Control Manual is an effective tool to help us fulfill that mission.

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#### **BUILDING DEPARTMENT**



#### CITY OF ROCHESTER HILLS

# QUALITY CONTROL MANUAL **Stakeholder Input**

The Building Department staff interacts with different groups of people who influence the processes employed by the staff. We seek input from the following:

- Homeowner Association Meetings Held two (2) times per year.

  These meetings are hosted by our Ordinance Compliance Division. The purpose of these meetings is to educate the members of the association leadership about various services provided by the City and to seek input from the members about their concerns related to Building Codes, local ordinances and our method of seeking compliance.
- Mayor Meet as necessary.

  These meetings are attended by various members of the Building Department, depending on the situation and the need. This gives the Mayor the opportunity to pass on feedback and opinions he has received or formulated regarding the service and processes employed by the Building Department. This feedback is reviewed with the Director who will determine if any corrective action is required.
- Mayor's Business Council Meets 3 to 4 times per year.

  The Building Department Director regularly attends this Council. Assembled by the Mayor, the Council is made up of several business owners from throughout our City to discuss development and other business processes. Feedback is received from this Council that allows us to focus on ways to improve our services to the business community.
- The Home Builders Association Hosts meetings once a year.

  These meetings allow members of the Building Department's Inspection Team to discuss concerns with individuals directly involved in the building process. Input is received regarding our processes that work well and those that do not.
- American Institute of Architects Detroit Chapter Meet once per year. These meetings allow us to gather information regarding our plan review, inspection, and permitting processes as they relate to the field of architecture. Our intent is to seek feedback and how we may improve our communication with this industry.
- Oakland University Survey Performed as directed by the Mayor.

  This City—wide survey provides us with a wealth of information and feedback about the Building Department.

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• Building Department Plan Employee Team – This Team meets once a month. This is a Team formed within the Department to develop our Building Department Plan. Its members are responsible for monitoring the progress of our goals, objectives, and actions by interacting with all the members of the Building Department and seeking feedback from them.

#### • Surveys – Continual.

The Building Department employs many different surveys to elicit comments and gain insight from our customers.

- **Counter Survey** This survey is provided to each customer that is served in person at our counter.
- Field Survey This survey is provided to field customers in the building trades and is typically done by personal interview from a Building Department staff member.
- **Complaint Survey** This survey seeks input from a person filing a complaint who leaves contact information.
- Web Site Survey Surveys are available on the Building Department's web site for easy access by our customers.

All customers are encouraged to fill out survey forms that apply to their situation so that we can gauge the level of service we are providing.

#### • Employee Involvement –

All employees are encouraged to seek stakeholder input and to pay close attention to comments made regarding service while on the phone, at the counter, or in the field.

#### • Random Calls and Field Visits –

The Management Staff makes random calls and field visits to seek feedback from our customers.

Please refer to the *Quality Control Measures for our Customer Service Division*, *Plan Review Division*, *Inspection Division and Ordinance Compliance Division* contained in this Manual for more information

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# BUILDING DEPARTMENT CITY OF ROCHESTER HILLS



# QUALITY CONTROL MANUAL Customer Service Division

- Goal #1 Our overall Customer Service goal is to receive a 100% Customer Satisfaction rating.
- Goal #2 Our goal is to **process all trade and building permits** for commercial or residential projects with **95% accuracy**.
- Goal #3 The project file shall be closed out and prepared for microfilming within 30 days of the final inspection approval.

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# BUILDING DEPARTMENT CITY OF ROCHESTER HILLS



# QUALITY CONTROL MANUAL Customer Service Division Quality Control Measures

- Customer Satisfaction: Information through surveys, e-mails, letters, counter visits, and from other Departments is reviewed as it comes in to determine that we are meeting our Customer Service goal of 100% customer satisfaction. (Goal #1)
- Random calls to permit applicants: At the end of each month, the Office Coordinator will randomly select 1 permit (per trade) issued for that month and telephone the applicants to solicit their comments and concerns on the service they received. The Customer Satisfaction Survey will be used as a guideline for the conversation. Results of comments will be forwarded to the Director for review by the 10<sup>th</sup> of the next month. (Goal #1)
- Accuracy of the trade and building permits: The various permits are monitored daily to determine all processes are being followed accurately. (Goal #2)
  - Refer to Customer Service Division, Document #2.2.5060, Monitoring Accuracy of Building and Sign Permits procedure.
- Trade permits are processed within 24 hours: Trade permits are monitored daily to determine timely issuance. (Goal #2)
  - o Refer to Customer Service Division, Document #2.2.5050, Monitoring Accuracy of Trade Permits, Building Permits, and Sign Permits.
- Random sampling of file organization prior to microfilming: Random sampling of files is performed prior to files being sent for microfilming. The Office Coordinator will review 3 files from the box of files being sent and review to ensure each file is organized properly and that the residential files are being closed out within 30 days of final inspection approval. (Goal #3)
  - Refer to Customer Service Division, Document #2.2.0060, Closing Out Residential Files.
  - o Refer to Customer Service Division, Document #2.2.0070, Closing Out Commercial Files.

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## BUILDING DEPARTMENT CITY OF ROCHESTER HILLS



## QUALITY CONTROL MANUAL Plan Review Division

Goal #1 -Our goal is to have a 100% Customer Satisfaction rating. Full plan reviews of large commercial projects shall be completed Goal #2 within fifteen (15) working days of submittal. Goal #3 -Full plan reviews of new homes or larger residential projects shall be completed within ten (10) working days of submittal. Goal #4 -Full plan reviews of small projects shall be completed within seven to ten (7-10) working days of submittal. Goal #5 -Plan review of revised or resubmitted plans for both commercial and residential projects shall be completed within ten (10) working days of submittal. Goal #6 -Full plan reviews for fire suppression and fire alarm systems shall be completed within fifteen (15) working days of submittal. It is our goal to meet the above time frames in at least 90% of our reviews. Goal #7 -Accurate plan reviews without major errors shall be conducted on at least 98% of our major commercial and residential projects. Goal #8 -Accurate plan reviews without minor errors shall be conducted on at least 95% of our minor commercial and residential projects. Goal #9 -Accurate plan reviews without life-safety errors shall be conducted on 100% of our commercial and residential projects.

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### **BUILDING DEPARTMENT**





## QUALITY CONTROL MANUAL Plan Review Division Quality Control Measures

The following Quality Control Measures have been established to monitor our goals for plan reviews performed by the Building Department:

- Customer Satisfaction: Information through surveys, e-mails, letters, counter visits, and from other Departments is reviewed as it comes in to determine that we are meeting our goal of 100% customer satisfaction. (Goal #1)
- Random Calls to Permit Applicants The Management Staff will review the monthly report of Building Permits issued and select five applicants to call each month and solicit feedback. The Field Satisfaction Survey will be used as a guideline for the conversation. (Goal #1)
- Peer Review of all Building Permits and Plan Review Letters A quality and consistency check of all plan review letters and all projects prior to the issuance of Building Permits shall be performed by the Deputy Director. (Goals #7, #8, &#9)
  - o Refer to Plan Review Division, Document #4.4.5210, Residential Peer Review Checklist.
  - Refer to Plan Review Division Document #4.41270, Commercial Peer Review Checklist.
- Weekly Plan Review Status Report A report used to track plan reviews for both commercial and residential projects. The report lists the number of new projects, resubmittals, and revisions that have been submitted since the previous week's report. The report also indicates how close we are to meeting our respective plan review timeline goals, by listing how many days our oldest plan review submittal is, and the date it was received. (Goals #2, #3, & #4)
  - o Refer to Plan Review Division, Document #4.1.0150
- Commercial and Residential Building Status List A report to provide the status information for each building project submitted for plan review which further shows if a plan review is within our review timeline goals. Separate updates are provided to the Plan Reviewers daily listing submittals received on the previous business day. These report sheets are color coded so anyone in the Department can tell the status of a plan review by looking at the sheet. Different colors indicate a different stage in the plan review process. These sheets are updated once a week in full to guarantee they are as accurate as possible. (Goals #2, #3, & #4)
  - o Refer to Customer Service Division, Document #2.2.51501 Weekly Building Permit Application Status Report

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- Plan Review Tracking from Application to Permit Reports developed to determine if we are meeting our specific goals for the individual stages of a plan review, including first full reviews, additional reviews, and reviews on revised submittals. These detailed reports reveal average time frames, the percentage of projects that have met our established goals, and the number of reviews being performed for different projects. (Goals #2, #3, #4, #5)
  - o Refer to Plan Review Division, Document #4.1.0189 Plan Review Tracking
- Random Review of Commercial and Residential Plan Reviews A procedure where random plans are reviewed quarterly to gauge our consistency and accuracy and will act as a tool for discussions during monthly Inspector's meetings. Information found during this review process will be the topic of discussion at those meetings. (Goals #7, #8, & #9)
  - Refer to Building Plan Review Division, Document 4.1.0100 Random Plan Review Checks
- Plan Review Correction Tracking Sheets A process developed to allow us to keep track of any plan review errors that are discovered during a peer review or while a project is being built. The purpose of gathering this information is to act as a learning tool. As an error is discovered, the information is logged onto the form and discussed with all parties involved. Minor errors are corrected immediately, while major errors may require site meetings and additional research to resolve. Once a resolution has been made, the information is to be discussed at the next monthly inspector's meeting, with the emphasis on consistency and accuracy. (Goals #7, #8, & #9)
- Fire Alarm and Fire Suppression Plan Review Tracking Reports developed to determine if we are meeting our specific goals for Fire Alarm and Fire Suppression plan review timeframes. (Goal #6)
  - Refer to Plan Review Division Procedure #4.1.0180, Plan Review Tracking.

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## **BUILDING DEPARTMENT**





## QUALITY CONTROL MANUAL Inspection Division

- Goal #1 Our goal is to have a 100% Customer Satisfaction rating.
- Goal #2 **Field inspections** shall be completed by the *end of the next business day* after the initial request 95% of the time.
- Goal #3 Our goal is to schedule and complete **Fire Suppression and Fire Alarm** inspections within 72 hours of the initial request 80% of the time.
- Goal #4 Fire Department Complaints. The Fire Department forwards complaints to the Building Department of possible building code violations discovered during their fire prevention inspections. It is our goal to perform 95% of the field visits at the address provided by the Fire Department within 14 days to confirm the existence of a violation. It is a further goal to update the Fire Department within 30 days of their complaint as to the status of the complaint.
- Goal #5 Accurate inspections without minor errors shall be conducted on at least 95% of our commercial and residential projects.
- Goal #6 Accurate inspections without major errors shall be conducted on at least 98% of our commercial and residential projects.
- Goal #7 Accurate inspections of all life-safety items shall be conducted on 100% of our commercial and residential projects.

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## BUILDING DEPARTMENT CITY OF ROCHESTER HILLS



## QUALITY CONTROL MANUAL Inspection Division Quality Control Measures

The following Quality Control Measures have been established to monitor our goals for inspections performed by the Building Department:

- Customer Satisfaction: Information through surveys, e-mails, letters, counter visits, and from other Departments is reviewed as it comes in to determine that we are meeting our goal of 100% customer satisfaction. (Goal #1)
- Random Field Visits to Construction Site The Management Staff will review the daily inspection list and select sites to visit by the 10<sup>th</sup> of each month. They will talk to the contractor, homeowner, superintendent and others on the site to determine what type of service they have received. The Field Satisfaction Survey will be used as a guideline. (Goals #1, #5, #6, & #7)
  - Refer to Inspection Division Document #3.1.0180, Random Field Inspection Checks.
- Tracking for Fire Alarm and Fire Suppression Inspections Our goal is to inspect all requests for Fire Alarm and Fire Suppression inspections within 72 hours of receiving the request. We intend to meet that goal 80% of the time. (Goal #3)
  - Refer to Customer Service Division Document #2.2.5260, Monthly Reports – FS/FA Inspections Within 72 Hours.
- Random Field Checks a procedure where quarterly field visits are made to verify accuracy and consistency and to gather data that can be relayed to all the inspectors during our monthly inspector meeting. This procedure also offers us the opportunity to gather stakeholder input to share with the inspectors. (Goals #5, #6, & #7)
- Inspection Correction Tracking Sheets a process developed to allow us to keep track of any inspection errors that are discovered during an inspection. The purpose of gathering this information is to act as a learning tool. As an error is discovered, the information is logged onto the form and discussed with all parties involved. Minor errors are corrected immediately, while major errors may require site meetings and additional research to resolve. Once a resolution has been made, the information is to be discussed at the next monthly Inspector's meeting, with the emphasis on consistency and accuracy. (Goals #5, #6, & #7)

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• Fire Department Complaint Tracking – Each month when the new Fire Department Complaint Tracking Sheet is issued, all the complaints shall be reviewed for status. Complaints shall be checked against Equalizer to determine if we are meeting our service goal of performing a field visit at the complaint address to confirm the complaint within 14 days of the submittal of the complaint to the Building Department. (Goal #4)

Complaints shall also be checked to verify that we have met our service goal of responding to the Fire Department within 30 days of the submittal of the complaint to the Building Department. This shall be done to keep the Fire Department updated with the status of the complaint and the Building Department's findings. Please see the attached documentation:

o Refer to Customer Service Division Document #2.2.0090, Fire Department Complaints.

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### **BUILDING DEPARTMENT**





## QUALITY CONTROL MANUAL **Ordinance Compliance Division**

- Goal #1 **Proactive Patrol.** It is our goal that 85% of the enforcement numbers generated in the Equalizer will be the result of Inspector discovered violations during systematic routine patrol in their assigned districts. The remaining 15% of enforcement numbers will be the result of complaint investigations called in by residents.
- Goal #2 **Complaints.** It is our goal that **90%** of complaints will **be investigated within 24 hours** of assignment and results entered into Equalizer within 24 hours after the investigation. The complainant will also be contacted within 24 hours.
- Goal #3 Code Compliance Requests. It is our goal that 100% of ordinance compliance requests will be re-inspected on the date assigned.
- Goal #4 Code Compliance Requests. It is our goal that all *first time* ordinance compliance violations will be *resolved within the 40-day process* indicated in the "First Offense" ordinance procedure (Ordinance Compliance Procedure 5.5.4040).

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### **BUILDING DEPARTMENT**

#### CITY OF ROCHESTER HILLS



## QUALITY CONTROL MANUAL Ordinance Compliance Division Quality Control Measures

- **Proactive/Reactive Enforcement** It is the goal of the Ordinance Compliance staff to discover ordinance violations during routine patrol and not rely on resident complaints to begin action. It is our goal at this time to have 85% of the Equalizer generated enforcement numbers be the result of proactive enforcement. A secondary goal is to see the number of complaints and proactive enforcements decline over time. (Goal #1)
  - Refer to Customer Service Division Reporting and Project Tracking, Monthly Reports – Ordinance Activity Document #2.2.5280.
- Code Compliance Resolution The Monthly Report tracking sheet records the time frame of enforcement from the first contact, through the various stages, to compliance, in both proactive and complaint driven investigations. The goal of the tracking sheet is to ensure that the Inspectors are following the Basic Property Maintenance Compliance process, drafted by the Building Department Plan Employee Team, to ensure timely resolution of violations. (Goal #2)
  - Refer to Customer Service Division Reporting and Project Tracking, Monthly Reports – Ordinance Activity Document #2.2.5280.
- Monthly Statistical Performance Measures The purpose of the monthly reports is to assure that the rechecks and closures are made in the time frame goals set forth by the Department for the various enforcement actions. These reports are copied and distributed to the individual Inspector who has unfinished rechecks from the prior months. (Goal #3 & #4)
  - Refer to Customer Service Division Reporting and Project Tracking, Monthly Reports – Ordinance Activity Document #2.2.5280.

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#### STATEMENT OF SPECIAL INSPECTIONS

#### CITY OF ROCHESTER HILLS BUILDING DEPARTMENT

MICHIGAN BUILDING CODE 2012 (MBC 2012)



PROJECT INFORMATION:	
Project Name:	Project Address:
Owner Name:	Building Permit #:
Architect/Engineer Name:	
FORM PREPARED BY:	
Company Name:	Telephone #:
Company Address:	Fax #:
	Cell Phone #:
Architect/Engineer Name:	E-Mail Address:
Architect/Engineer Signature:	Date:

#### **INSTRUCTIONS:**

- <u>Complete Form:</u> The Registered Design Professional (Architect/Engineer) shall complete this form and submit it with the Building Permit Application for review and approval by the Building Department prior to the issuance of the Building Permit (Sections 107.1, 1704.2.3, and 1704.3). This form will be attached to the approved plans that shall be on site for all inspections.
- <u>Provide Qualifications:</u> Please refer to the "MINIMUM QUALIFICATIONS FOR SPECIAL INSPECTORS", posted on the Building Department website under "Special Inspection Program" at www.rochesterhills.org. Each party involved with the Special Inspection and Testing Process shall meet these minimum qualification standards (Sections 1701, 1702, 1703, and 1704). Please provide the appropriate documents that verify the qualifications of each individual or firm listed. This should include all current Education, Experience, Certifications and Accreditations Required for each Special Inspector, Special Inspection Agency, and Fabricator Shop. Information shall also be provided outlining the qualifications of any Testing Labs (soils, concrete, masonry, steel, and others) being used for the Project. This includes information about the Accreditation of the Testing Lab, names and qualifications of each designated Laboratory Technician, and verification of the calibration of each piece of equipment used in the testing.
- <u>Note:</u> This form is intended for buildings or structures that are assigned a Seismic Design Category A or B. The Building Department will provide a modified Statement of Special Inspection for buildings or structures assigned to a Seismic Design Category higher than B.
- <u>Special Inspection Categories:</u> Please select all the categories that apply to your Project by checking the appropriate boxes below and enter the name of each individual responsible for the special inspection you have checked in the space provided to the right of each category.
- 4.1.0560 (Revised 031815)

٨	INSPECTION OF FABRICATORS (1704.2.5) Where fabrication of structural load-bearing members and assemblies is being performed on the premises of a Fabricator's shop, special inspection of the fabricated items shall be required by Section (1704.2.5) and as required elsewhere in MBC-2012. See Category A.1. or A.2. below for each Fabricator as appropriate:									
<b>A. 1.</b>	FABRICATION & IMPLEMENTATION I	PROCEDURES (1704.2.5.1) FOR FABRICATORS NOT RE	GISTERED & NOT APPROVED:							
CHECK BOX BELOW IF REQ'D	INDICATE BELOW ALL STRUCTURAL LOAD- BEARING MEMBERS & ASSEMBLIES THAT ARE BEING ASSEMBLED ON THE PREMISES OF A FABRICATOR'S SHOP THAT IS NOT REGISTERED AND NOT APPROVED (SECTION 1704.2.5.2)	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND THE INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW								
	1. Structural Steel.									
	2. Steel Joists & Girders.									
	3. Pre-Cast Concrete.									
	4. Prestressed Concrete.									
	5. Wood Construction (Section 1705.5) -									
	Prefabricated Structural Elements covering: 5.1. Manufactured Wood Trusses.									
	5.2. Walls.									
	5.3. Floors.									
	5.4. Roof Assemblies.									
	6. Cold-formed Steel Trusses.									

	INCRECTION OF EARDICATOR	C (1704 2 5)								
	INSPECTION OF FABRICATORS (1704.2.5) Where fabrication of structural load-bearing members and assemblies is being performed on the premises of a Fabricator's shop, special inspection of the									
<b>A.</b>	<u> </u>									
	fabricated items shall be required by Section (1704.2.5) and as required elsewhere in MBC-2012. See Category A.1. or A.2. below for each Fabricator as appropriate:									
A. 2.	FABRICATOR APPROVAL (1704.2.5.2) FOR FABRICATORS REGISTERED & APPROVED:									
110 20	`	,	PLEASE PROVIDE THE NAME AND PHONE							
CHECK	INDICATE BELOW ALL STRUCTURAL LOAD-		NUMBER OF THE SPECIAL INSPECTION AGENCY							
BOX	BEARING MEMBERS & ASSEMBLIES THAT ARE		AND THE INDIVIDUAL PERFORMING THIS							
BELOW	BEING ASSEMBLED ON THE PREMISES OF A FABRICATOR'S SHOP THAT IS REGISTERED	INDICATE BELOW THE NAME OF THE FABRICATOR	SPECIAL INSPECTION SERVICE. PLEASE NOTE THE REQUIRED TASKS THAT SHALL BE							
IF REQ'D	AND APPROVED (SECTION 1704.2.5.2)		COMPLETED LISTED AT THE BOTTOM OF THIS							
			PAGE.							
	1. Structural Steel.									
	2. Steel Joists & Girders.									
	3. Pre-Cast Concrete.									
	3. The clast concrete.									
	4. Prestressed Concrete.									
	5. Wood Construction (Section 1705.5) -									
	Prefabricated Structural Elements covering:									
	5.1. Manufactured Wood Trusses.									
	5.2. Walls.									
	5.2. Walls.									
	5.3. Floors.									
	5.4. Roof Assemblies.									
	6. Cold-formed Steel Trusses.									
_	Required tasks to complying with the requirements of Category A.2.:									
	1. Prior to issuance of the Building Permit, provide the Building Department with a copy of the selected Fabricator's current shop accreditation/certification.  2. At the completion of fabrication, the Special Inspector and/or Special Inspection Agency shall obtain from each registered and approved Fabricator a Certificate of Compliance									
	tating that the work was performed in accordance with the approved construction documents and submit all certificates to the Building Department.									

В.	STEEL CO	STEEL CONSTRUCTION (1705.2 & TABLE 1705.2.2)					
CHECK BOX BELOW IF REQ'D	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.			
			1. Material verification of cold-formed steel deck: a. ruenumeation markings to comorni to ASTIVI standards specified the				
	-	X	in the approved construction documents.  Referenced Standard: Applicable ASTM material standards.				
	-	X	b. Manufacturer's certified test reports.				
			2. Inspection of welding:				
			a. Cold-formed steel deck:				
	-	X	Floor and roof deck welds.  Referenced Standard: AWS D1.3				
			b. Reinforcing steel: Referenced Standards: AWS D1.4 & ACI 318: Section 3.5.2				
	_	X	1) Verification of weldability of reinforcing steel other than ASTM A 706.				
			2) Reinforcing steel resisting flexural and axial forces in intermediate				
	X	-	and special moment frames, and boundary elements of special				
			structural walls of concrete and shear reinforcement.				
	X		3) Shear reinforcement.				
	-	X	4) Other reinforcing steel.				
	-	X	3. Cold-formed steel trusses spanning 60 feet or greater (1705.2.2.2). Verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal package.				
	P	O	4. Structural Steel (1705.2.1):  Special inspections for structural steel shall be in accordance with the quality assurance inspection requirements of AISC 360-10 (Please refer to Chapter N).  P = Perform for each welded joint or members, for each bolted connection, and for each steel element.  O = Observe items on a random basis. Operations need not be delayed pending these inspections.				

C.	CONCRETE CONSTRUCTION (1705.3 & TABLE 1705.3)					
CHECK BOX BELOW IF REQ'D	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.		
	-	X	1. Inspection of reinforcing steel, including prestressing tendons, and placement.  Referenced Standards: ACI 318: 3.5, 7.1-7.7  MBC-2012: 1913.4			
	-	-	2. Inspection of reinforcing steer weiging in accordance with Table 170 5 2 2 1705.2.2, Item 2.b. Referenced Standards: AWS D1.4; ACI 318: 3.5.2			
	-	X	3. Inspection of anchors cast in concrete where allowable loads have been increased or where strength design is used.  Referenced Standards: ACI 318: 8.1.3, 21.2.8  MBC-2012: 1908.5, 1909.1			
	_	X	4. Inspection of anchors post-installed in hardened concrete members.*  Referenced Standards: ACI 318: 3.8.6, 8.1.3, 21.2.8  MBC-2012: 1909.1  * Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with ACI 355.2 or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the Building Official prior to the commencement of the work.			
	-	X	5. Verifying use of required design mix.  Referenced Standards: ACI 318: Ch. 4, 5.2-5.4  MBC-2012: 1904.2.2, 1910.2, 1910.3			

CONTINUAL REQUIRED VERIFICATION AND INSPECTIONS   THE SPECIAL INSPECTION AGENCY AND INDIVIDED PROFIGENCY CAND INDIVIDED PROFIGENCY CAND INDIVIDED PROFIGENCY AND INDIVIDED PROFIGENCY THE SPACE BELOW.    A	C. (con't)	CONCRETE CONSTRUCTION (1705.3 & TABLE 1705.3)					
X	BELOW IF	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.		
□       X       -       the temperature of the concrete.       Referenced Standards: ASTM C 172; ASTM C 31; ACI 318: 5.6, 5.8 MBC-2012: 1910.10         □       X       -       7. Inspection of concrete and shotcrete placement for proper application techniques.         □       As Inspection for maintenance of specified curing temperature and techniques.         □       As Inspection of maintenance of specified curing temperature and techniques.         □       As Inspection of prestressed concrete:         □       X       -         a. Application of prestressing forces.       Referenced Standards: ACI 318: 18.20         b. Grouting of bonded prestressing tendons in the seismic-forceresisting system.       Referenced Standards: ACI 318: 18.18.4         □       -       X         10. Erection of precast concrete members.       Referenced Standards: ACI 318: Ch. 16         11. Verification of the in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to the removal of shores and forms from beams and structural slabs.         Referenced Standards: ACI 318: 6.2       12. Inspect formwork for shape, location, and dimensions of the							
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9. Inspection of prestressed concrete:  a. Application of prestressing forces. Referenced Standards: ACI 318: 18.20  b. Grouting of bonded prestressing tendons in the seismic-force- resisting system. Referenced Standards: ACI 318: 18.18.4  - X  10. Erection of precast concrete members. Referenced Standards: ACI 318: Ch. 16  11. Verification of the in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to the removal of shores and forms from beams and structural slabs. Referenced Standards: ACI 318: 6.2  12. Inspect formwork for shape, location, and dimensions of the							
□       X       -       a. Application of prestressing forces.							
<ul> <li>X - Referenced Standards: ACI 318: 18.20</li> <li>b. Grouting of bonded prestressing tendons in the seismic-forceresisting system.         Referenced Standards: ACI 318: 18.18.4     </li> <li>C - X 10. Erection of precast concrete members.         Referenced Standards: ACI 318: Ch. 16     </li> <li>II. Verification of the in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to the removal of shores and forms from beams and structural slabs.         Referenced Standards: ACI 318: 6.2     </li> <li>I2. Inspect formwork for shape, location, and dimensions of the</li> </ul>				• •	-		
<ul> <li>B. Grouting of bonded prestressing tendons in the seismic-forceresisting system.         Referenced Standards: ACI 318: 18.18.4</li> <li>Incomplete and prior to the removal of shores and forms from beams and structural slabs.         Referenced Standards: ACI 318: 6.2</li> <li>Inspect formwork for shape, location, and dimensions of the</li> </ul>		X	-				
□       X       -       resisting system.         Referenced Standards: ACI 318: 18.18.4         □       -       X       10. Erection of precast concrete members.         Referenced Standards: ACI 318: Ch. 16         11. Verification of the in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to the removal of shores and forms from beams and structural slabs.         Referenced Standards: ACI 318: 6.2         12. Inspect formwork for shape, location, and dimensions of the					-		
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12. Inspect formwork for shape, location, and dimensions of the							
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• • • • • • • • • • • • • • • • • • •			X	concrete members being formed.			
Referenced Standards: ACI 318: 6.1.1			11				

	MASONRY CONSTRUCTION (1705.4)  Masonry construction shall be inspected and verified in accordance with the provisions of Section 2101.3 (item #9) of MBC-2012, and with the Masonry Standard TMS 402/ACI 530/ASCE 5 and TMS 602/ACI 530.1/ASCE 6 Quality Assurance Program requirements indicated in Section 1.19 of TMS 402-11/ACI 530-11/ASCE 5-11.  • The level of required quality assurance depends on whether the masonry was designed in accordance with Chapters 2, 3, 4, and 8, or Appendix B (engineered), or in accordance with Chapters 5, 6, or 7 (empirical or prescriptive) of the Masonry Standard TMS 402-11/ACI 530-11/ASCE 5-11.  • There are three levels of quality assurance for masonry construction listed below. Please identify which one applies to your project.  Exception: Special Inspections are not required for masonry construction that meets one of the three exceptions listed in Section 1705.4 of MBC-2012.							
CHECK BOX BELOW IF REQ'D		REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.					
	Level A Quality Assurance per applicable provision of Section 1.19.1 of TMS 402- 11/ACI 530-11/ASCE 5-11.	The minimum quality assurance program for masonry in Risk Category I, II, or III structures and designed in accordance with Chapter 5, 6, or 7 shall comply with Table 1.19.1 of TMS 402/ACI 530/ASCE 5.						
		The minimum quality assurance program for masonry in Risk Category IV structures and designed in accordance with Chapter 6 or 7 shall comply with Table 1.19.2 of TMS 402/ACI 530/ASCE 5.						
	11/ACI 530-11/ASCE 5-11.	The minimum quality assurance program for masonry in Risk Category I, II, or III structures and designed in accordance with Chapters other than Chapter 5, 6, or 7 shall comply with Table 1.19.2 of TMS 402/ACI 530/ASCE 5.						
		The minimum quality assurance program for masonry in Risk Category IV structures and designed in accordance with Chapters 5, 6, or 7 shall comply with Table 1.19.3 of TMS 402/ACI 530/ASCE 5.						
	Vertical Masonry Foundation Elements per Section 1705.4.2 of MBC-2012.	Special inspection shall be performed in accordance with Section 1705.4 of MBC-2012 for vertical masonry foundation elements.						

	WOOD CONSTRUCTION (1705.5)							
E.	• Special Inspections of the fabrication process of prefabricated wood structural elements and assemblies (covering: walls, floors, or roof assemblies along with manufactured roof trusses) shall be in accordance with Section 1704.2.5							
	• Special Inspections of site-built assemblies shall be in accordance with Section 1705.5 as indicated	below.						
CHECK BOX BELOW IF REQ'D	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION REQUIRED VERIFICATION AND INSPECTIONS AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.							
	1. High-load diaphragms designed in accordance with Section 2306.2 shall be installed							
	with special inspections as indicated in Sections 1074.2 and 1705.5.1 covering:							
	a. Inspect the wood structural panel sheathing to verify that it is of the grade and							
	thickness shown on the approved building plans; and							
	b. Verify the nominal size of the framing members at adjoining panel edges, the nail or							
	staple diameter and length, the number of fastener lines and that the spacing							
	between fasteners in each line and at edge margins agrees with the approved							
	building plans.							
	2. Metal-plate-connected wood trusses spanning 60 feet or greater (1705.5.2):							
	Verify that the temporary installation restraint/bracing and the permanent individual							
	truss member restraint/bracing are installed in accordance with the approved truss							
	submittal package.							
	3. Prefabricated wood shear panels {(Sections 1703.4 & 1705.1.1 (Item 3)}:							
	a. Hold-down anchor size and placement, including embedment length, spacing, and							
	edge distance.							
	b. The connection of the structure to the shear panels.							

	<b>SOILS</b> (170	5.6 & TAB	LE 1705.6)			
	• Perform Spe	ecial Inspectio	ons of existing site soil conditions, fill placement and load-bearing requirement	ats as required by Section 1705.6 and Table 1705.6.		
• Determine compliance using the approved geotechnical report (Section 1803.6), and the construction documents prepared by the Registere Professional.						
	• Determine t	hat proper ma	terials and procedures are used during fill placement and in accordance with t	the provisions of the approved geotechnical report.		
	Exception: Where Section 1803 does not require reporting of the materials and procedures for fill placement, the special inspector shall verify that the inplace dry density of the compacted fill is not less than 90% of the maximum dry density at optimum moisture content determined in accordance with ASTM D 1557.					
CHECK BOX BELOW IF REQ'D	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.		
	-	X	1. Verify materials below shallow footings are adequate to achieve the design bearing capacity.			
	-	X	2. Verify excavations are extended to proper depth & have reached proper material.			
	-	X	3. Perform classification and testing of controlled fill materials.			
	X	-	4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.			
	-	X	5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.			

	DRIVEN DEEP FOUNDATIONS (1705.7 & TABLE 1705.7)							
G.	•	<ul> <li>Perform Special Inspections during installation and testing of driven deep foundation elements as required by Table 1705.7.</li> <li>Determine compliance using the approved construction documents prepared by the Registered Design Professionals.</li> </ul>						
CHECK BOX BELOW IF REQ'D	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.				
	X	ı	1. Verify elements, materials, size, and lengths comply with the requirements.					
	X	-	2. Determine capacities of test elements and conduct additional load tests, as required.					
	X	-	3. Observe driving operation and maintain complete and accurate records for each element.					
	X	1	4. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to to foundation element.					
	-	-	5. For steel elements, perform additional inspections in accordance with Section 1705.2.					
	-	-	6. For concrete elements and concrete-filled elements, perform additional inspections in accordance with Section 1705.3.					
	-	-	7. For specialty elements, perform additional inspections as determined by the Registered Design Professional in Responsible Charge.					

Н.	<ul> <li>CAST-IN-PLACE DEEP FOUNDATIONS (1705.8 &amp; TABLE 1705.8)</li> <li>Perform Special Inspections during installation and testing of cast-in-place deep foundation elements as required by Table 1705.8.</li> <li>Determine compliance using the approved geotechnical report (Section 1803.6), and the construction documents prepared by the Registered Design Professionals.</li> </ul>					
CHECK BOX BELOW IF REQ'D	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.		
	X	1	1. Observe drilling operations and maintain complete and accurate records for each element.			
	X	1	2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes.			
	-	-	3. For concrete elements, perform additional inspections in accordance with Section 1705.3.			

I.	HELICAL P	ELICAL PILE FOUNDATIONS (1705.9)				
CHECK BOX BELOW IF REQ'D	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.		
	X	_	1. Perform Special Inspections continuously during installation of			
	Α	_	helical pile foundations.			
	X	ı	2. Record information for each helical pile that includes installation equipment used, pile dimensions, tip elevations, final depth, final installation torque and other pertinent installation data as required by the Registered Design Professional in responsible charge.			
	X	-	3. Use the approved geotechnical report (Section 1803.6) and the approved construction documents prepared by the Registered Design Professional to determine compliance.			

J.	<ul> <li>SPRAYED FIRE-RESISTANT MATERIALS (SFRM) (1705.13)</li> <li>Special Inspections for sprayed fire-resistant materials (SFRM) applied to floor, roof and wall assemblies and structural members shall be in accordance with Sections 1705.13.1 through 1705.13.6.</li> <li>Special Inspections shall be based on the fire-resistance design as designated in the approved construction documents.</li> <li>The tests set forth in Section 1705.13 shall be based on samplings from specific floor, roof and wall assemblies and structural members.</li> <li>Special Inspections shall be performed after the rough installation of electrical, automatic sprinkler, mechanical, and plumbing systems and suspension systems for ceilings, where applicable.</li> </ul>	
CHECK BOX BELOW IF REQ'D	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.
	Perform Spray Fire-Resistant Materials Inspections per applicable provision of Section 1705.13.	
К.	MASTIC & INTUMESCENT FIRE-RESISTANT COATINGS (1705.14)	
CHECK BOX BELOW IF REQ'D	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.
	Special Inspections for mastic and intumescent fire-resistant coatings applied to structural elements and decks shall be in accordance with AWCI 12-B and shall be based on the fire-resistance design as designated in the approved construction documents.	

L.	EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) (1705.15 AND 1408.6)	
CHECK BOX BELOW IF REQ'D	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.
	Special Inspections are required for all EIFS applications unless one of the following exceptions	
	applies.	
	Exception #1: EIFS applications installed over a water-resistive barrier with a means of	
	draining moisture to the exterior. Please verify the Special Inspection is not	
	required by the ICC Report of approval for the selected EIFS.	
	Exception #2: EIFS applications installed over masonry or concrete walls.	
	Note: The Registered Design Professional shall indicate on the space to the right and on the	
	plans the ICC Report approval number for the selected EIFS Application.	

М.	FIRE-RESISTANT PENETRATIONS AND JOINTS (1705.16)  • In high-rise buildings or in buildings assigned to Risk Category III or IV in accordance with Section 1604.5, Special Inspections for throughpenetrations, membrane penetration firestops, five-resistive joint systems, and perimeter fire barrier systems that are tested and listed in accordance with Sections 714.3.1.2, 714.4.1.2, 715.3, and 715.4 shall be in accordance with Section 1705.16.1 or 1705.16.2.	
CHECK BOX BELOW IF REQ'D	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.
	1. Penetration Firestops (1705.16.1)  Special Inspections of penetration firestop systems that are tested and listed in accordance with Sections 714.3.1.2 and 714.4.1.2 shall be conducted by an approved Inspection Agency in accordance with ASTM E 2174.	
	2. Fire-Resistant Joint Systems (1705.16.2) Special Inspection of fire-resistant joint systems that are tested and listed in accordance with Sections 715.3 and 715.4 shall be conducted by an approved Inspection Agency in accordance with ASTM E 2393.	

N.	SPECIAL INSPECTIONS FOR SMOKE CONTROL (1705.17)  • Smoke control systems shall be tested by a Special Inspector.	
CHECK BOX BELOW IF REQ'D	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.
	<ol> <li>Testing Scope (1705.17.1): The test shall be as follows:</li> <li>During erection of ductwork and prior to concealment for the purposes of leakage testing and recording of device location.</li> <li>Prior to occupancy and after sufficient completion for the purposes of pressure difference testing, flow measurements and detection and control verification.</li> </ol>	
0.	SPECIAL CASES AS DETERMINED BY THE BUILDING DEPARTMENT (1  • Special Inspections shall be required for proposed work that is, in the opinion of the Building Department to, the following examples listed below:	
CHECK BOX BELOW IF REQ'D	REQUIRED VERIFICATION AND INSPECTIONS	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THIS SPECIAL INSPECTION SERVICE IN THE SPACE BELOW.
	1. Construction materials and systems that are alternatives to materials and systems prescribed by the MBC-2012.	

2. Unusual design applications of materials described in the MBC-2012.

standards.

3. Materials and systems required to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained in the MBC-2012 or in referenced



### SPECIAL INSPECTION & TESTING AGREEMENT



### CITY OF ROCHESTER HILLS BUILDING DEPARTMENT

Michigan Building Code 2012 (MBC 2012)

Project Name:	
Project Address:	
110ject Address.	
Building Permit No.:	

#### PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT:

The Owner and/or the Registered Design Professional acting as the Owner's Agent, shall complete this agreement and the City of Rochester Hills Statement of Special Inspections. Note: This agreement is only required for large projects. Please contact the Building Department at 248-656-4615, if you have questions.

#### SPECIAL INSPECTION PROGRAM RESPONSIBILITES:

#### A. Owner Responsibilities:

- 1. Sign the Special Inspection and Testing Agreement.
- 2. Employ and Fund the Special Inspections and Testing Services:

The project Owner, the Engineer/Architect of record, or an Agent of the Owner is responsible for employing and funding the special inspection and testing services. The Special Inspection Agencies and Special Inspectors shall not be in the employ of the Contractor, a subcontractor or material supplier. In the case of an Owner who is also acting as the Contractor, Special Inspection Agencies and the Special Inspectors shall be employed as specified by the Building Official.

#### B. Registered Design Professional Responsibilities:

1. Sign the Special Inspection and Testing Agreement:

The Engineer/Architect of record shall complete the Special Inspection and Testing Agreement and submit it with the Building Permit Application.

#### 2. Complete the City's Statement of Special Inspections:

The Engineer/Architect of record shall complete the Statement of Special Inspections and submit it with the Building Permit Application. The completion of the Statement of Special Inspections includes the following:

- a. Check the construction items on the Statement of Special Inspections that require Special Inspections. This shall include identification of materials, systems, components and work required to have Special Inspection and Testing.
- b. Identify the type and extent of each Special Inspection and the names of firms and individuals performing special inspections and/or testing.
- c. Identify the type and extent of each test.
- d. Coordinate with the project Owner on the selection of the Special Inspection Agencies, Special Inspectors, Testing Labs, and Fabricator Shops.
- e. Pre-qualify Special Inspection Agencies, Special Inspectors, Testing Labs, and Fabricator Shops for each applicable construction operation based on the City's "Minimum Qualifications for Special Inspectors" posted on the Building Department's website under "Special Inspection Program".

- f. Provide (list on the City's Statement of Special Inspections) the name and contact information of each designated Special Inspection Agency, Special Inspector, Testing Lab and Fabricator Shop. This includes providing the Building Department with all documents required by the City's Statement of Special Inspections for each party involved in the Special Inspection Program.
- g. Coordinate with the Building Permit Applicant to insure that the completed Special Inspection and Testing Agreement and the completed Statement of Special Inspections are submitted to the Building Department for review and acceptance at the time of Building Permit Application.

#### 3. Respond to field discrepancies:

The Engineer/Architect of Record shall respond to Special Inspector reports of uncorrected, nonconforming items (discrepancies) and shall provide remedial measures.

#### 4. Review shop drawings and submit design changes:

The Engineer/Architect of Record shall acknowledge and accept shop drawings that detail structural information. Written approval of any verbally approved deviations from the approved plans shall be submitted to the Building Department and to the Special Inspector/Special Inspection Agency. Revised plans shall be submitted for Building Department review and approval.

#### C. Contractor Responsibilities:

- 1. Sign the Special Inspection and Testing Agreement.
- 2. Notify the Special Inspection Agency/Special Inspector/Testing Lab:

The Contractor or the holder of the Building Permit is responsible for notifying the Special Inspector or Special Inspection and Testing Agency regarding individual Special Inspections and Testing for items listed on the City's Statement of Special Inspections.

#### 3. Post & Maintain the Special Inspection Log:

The Contractor shall post the City's Special Inspection Log adjacent to the Building Permit. The Contractor shall make sure that each Special Inspector records their presence on the job site by having them complete the log for each day of special inspections.

#### 4. Provide access to approved plans:

The Contractor is responsible for providing the Special Inspector with access to the approved plans and approved shop drawings.

#### 5. Retain Special Inspection records at the job site:

The Contractor is responsible for retaining, at the job site, copies of all special inspection records completed by Special Inspectors and making them available to the City's Building Inspector upon request.

#### 6. Obtain Building Department approval prior to concealment:

The Contractor shall request Building Department inspections and obtain approvals prior to concealing any work requiring special inspections.

#### D. Special Inspection Agency, Special Inspector, and Testing Lab Duties and Responsibilities:

- 1. Sign the Special Inspection and Testing Agreement.
- 2. General requirements:

Special Inspectors shall review approved plans, specifications, and all applicable referenced standards and approved shop drawings for Special Inspection requirements. Special Inspectors shall comply with the Special Inspection requirements of the MBC-2012 and the Statement of Special Inspections regarding work and materials.

#### 3. Signify presence at job site:

The Special Inspector shall notify the Contractor's personnel of their presence and responsibilities at the job site. The Special Inspector shall record their presence on the job site on the City's Special Inspection Log.

This record shall include the following:

- a. Inspection type
- b. Name of special inspection
- c. Certification number
- d Date
- e. Any pertinent notes
- f. Time of arrival and departure

#### 4. Observe assigned work & comply with Statement of Special Inspections:

- a. Inspect categories listed on the approved Statement of Special Inspections that they are responsible for. Inspections shall indicate conformance with approved plans, specifications, all applicable referenced standards and applicable workmanship provisions of the MBC-2012.
- b. Use the Architect/Engineer reviewed and accepted structural shop drawings as an aid in conducting the related special inspections.
- c. Be on site at all times to observe construction operations that require continuous Special Inspections and Testing. Be on site to observe construction operations that require periodic inspections as required per Sections 1702, 1704 and 1705 of MBC-2012.

#### 5. Report nonconforming items (discrepancies):

The Special Inspectors shall bring all nonconforming items to the immediate attention of the Contractor and note all such items in the Special Inspector's daily report. If any item is not resolved in a timely manner or is about to be covered by construction, the Special Inspector shall immediately notify the Building Department, the Engineer/Architect of record, and post a discrepancy notice at the job site.

The Special Inspector shall write a separate report to be posted at the job site regarding noted discrepancies. This report shall contain, as a minimum, the following about each nonconforming item:

- a. Description and exact location.
- b. Reference to applicable details of approved plans/specifications.
- c. Name and title of each individual notified and method of notification.
- d. Corrective action taken to resolve the noted discrepancy at the job site.

#### 6. Provide Progress Reports:

The Special Inspectors shall complete written inspection reports for each visit and leave a copy onsite for the Contractor and the Building Inspector to review. The Special Inspector/Special Inspection Agency shall provide copies of these reports weekly; or at the completion of a Special Inspection if Special Inspections take place more than a week apart, to the Building Department's Building Inspector, Engineer/Architect of record, and any others designated. These reports shall include:

- a. Date.
- b. Time of arrival and departure.
- c. Building Permit number.
- d. Project name on address.
- e. Type of Inspection.
- f. Inspection frequency required Continuous or Periodic
- g. Inspections made including locations.
- h. Tests performed.
- i. Any nonconformance items (discrepancies) and how they were resolved.
- j. Listing of unresolved items, parties notified, time and method of notification.
- k. Itemization of changes authorized by the Engineer or Architect of record.
- 1. Inspector's signature.
- m. Full name of inspector printed clearly.
- n. Certification number.

#### 7. Submit final report:

The Special Inspection Agency shall submit a final report that is sealed, signed and dated by its responsible Engineer, to the City of Rochester Hills Building Department's Building Inspector, stating that all items requiring Special Inspections and Testing were fulfilled and reported. This report shall also state that all required Special Inspections and tested items were inspected and found to be in conformance with the approved plans, shop drawings, specifications, all applicable referenced standards, the Statement of Special Inspections and applicable provisions of the MBC-2012. Items not in conformance, unresolved items, or any discrepancies in Special Inspection coverage (i.e., missed inspections, periodic inspections when continuous inspections were required, etc.) shall be specifically mentioned in this report.

#### E. Building Department Responsibilities:

## 1. Review and acceptance of submitted documents for compliance with The Special Inspection Program Requirements:

The Building Department is responsible for reviewing all submitted plans, specifications, and forms related to the Special Inspection Program, and any other submitted documents for compliance with the Michigan Building Code. All items submitted shall be reviewed and accepted prior to issuance of the Building Permit. These include the following:

- a. Check the qualification of each Special Inspector, Special Inspection Agency, Testing Lab, and Fabricator Shop that is listed on the Statement of Special Inspections in accordance with the City's "Minimum Qualifications for Special Inspections" posted on the Building Department's website under "Special Inspection Program" at www.rochesterhills.org.
- b. Check that all parties involved in the Special Inspection Program have completed their portion of the Special Inspection and Testing Agreement. (If required).
- c. Issue the Building Permit with the accepted Statement of Special Inspections, Special Inspection and Testing Agreement (if required), and permit conditions attached to the approved plans that will be kept on the job site.
- d. Determine if a pre-construction meeting is required to review the Special Inspection Program with all appropriate members of the construction team.

#### 2. Approve fabrication(s) used for building components installed on-site.

#### 3. Monitor special inspections & testing activities:

The Building Inspectors will monitor work requiring Special Inspection and Testing activities at the jobsite to ensure that the designated qualified Special Inspectors are performing their duties when work requiring Special Inspections is in progress.

#### 4. Review special inspection reports:

The Building Inspector will check the special inspection reports left at the job site by the Special Inspector for any discrepancies or non-conforming items. Weekly special inspection reports received will be reviewed by the Building Inspector.

The Building Inspector shall review all special inspection reports and perform field inspections to verify conformance to the approved plans, shop drawings, and specifications prior to concealing any work related to special inspections.

#### 5. Perform inspections prior to concealing work:

The Building Department will perform requested inspections when the final Special Inspection report has been received from the Special Inspection Agency and reviewed and accepted by the Building Inspector. The inspections shall be completed and approved during each stage of the Special Inspection process prior to concealing any work requiring Special Inspections.

### **ACKNOWLEDGMENTS**

I have read and agree to comply with my responsibilities as they are outlined in the Special Inspection and Testing Agreement.

Owner:		
Print Name	Signature	Date
Registered Design Professional in R Record):	esponsible Charge (Proje	ect Engineer/Architect of
Print Name /Company	Signature	Date
Contractor:		
Print Name /Company	Signature	Date
Special Inspections & Testing Agend Inspectors:  Print Name / Company	cies and/or Testing Labor  Signature	ratories, Independent Speci * Date
Deint Name / Comment	C:- material	*
Print Name / Company	Signature	Date
Print Name (Independent Special Inspector)	Signature	Date
Print Name (Independent Special Inspector)	Signature	Date
* This signature shall be that of the response.	nsible professional Engineer	within the Special Inspection
	IE CITY OF ROCHE DING DEPARTMEN	
Print Plan Reviewer Name	Signature	Date





# SPECIAL INSPECTION PROGRAM GUIDE

### CITY OF ROCHESTER HILLS BUILDING DEPARTMENT

**Based on the Michigan Building Code - 2012** 



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(Available online at <u>www.rochesterhills.org</u>)

- 1. SPECIAL INSPECTION AND TESTING AGREEMENT (only for large projects)
  - Statement outlining each party's responsibilities in the Special Inspection process.
  - Required to be submitted with the Building Permit Application.

#### 2. STATEMENT OF SPECIAL INSPECTIONS

- Form used to identify Special Inspections required for a project.
- Provides a list of designated Special Inspectors and/or Agencies.
- Required to be submitted with the Building Permit Application.

#### 3. MINIMUM QUALIFICATIONS FOR SPECIAL INSPECTORS

• Provides details of required qualifications for Special Inspectors.

#### 4. SPECIAL INSPECTION LOG

• A form to be used in the field for Special Inspectors to log in and identify their inspections.

#### INTRODUCTION

The Special Inspection requirements of the Michigan Building Code 2012 (MBC-2012) are detailed and can be a challenge to work with. The City of Rochester Hills has developed this Guide to help all parties involved, including Owners, Architects, Engineers, Special Inspection Agencies, Special Inspectors, and the City of Rochester Hills Building Department, understand the requirements and provide an efficient process that will allow Building Code requirements outlined in Sections 1704 and 1705 to be satisfied without causing delays in the construction process. The Program is based on a Model Program for Special Inspections developed by the International Code Council (ICC).

The Special Inspection Program outlines a partnership between all the parties involved in the construction process. This Guide explains each party's responsibilities in the process and encourages communication and cooperation to ensure that construction is completed in a safe and timely manner.

This Guide provides important information that will help you understand and comply with the Michigan Building Code and City of Rochester Hills Special Inspection Program. It contains details of the Special Inspection requirements and other information that can save you valuable time in obtaining your Building Permit and constructing your building. Submitting all the necessary information noted in the Special Inspection Program Guide will help expedite the plan review and inspection process and help you complete your project on schedule. We urge you to use this Guide as a resource throughout the building design and construction process.

We hope this Guide is helpful and encourage you to provide us with any suggestions you may have as we continue to work to improve our Special Inspection Program.

Thank you.

The City of Rochester Hills Building Department

#### GENERAL GUIDELINES FOR THE SPECIAL INSPECTION PROGRAM

#### 1. Purpose of Special Inspections:

Special Inspections monitor materials and workmanship that are critical to the structural integrity of the building structure. Special Inspections are a review of the construction to assure that the approved plans, shop drawings, and specifications are being followed and that relevant Codes and referenced standards are being observed by all parties involved. Good communication between all parties, including the Owner, the Registered Design Professional, the Special Inspection Agencies, the Special Inspectors, the Contractor, and the City of Rochester Hills Building Department, is essential to the safety and quality assurance of a building project.

#### 2. Special Inspection and Testing Agreement:

This document outlines in detail each party's responsibilities when using the Special Inspection Program. This document requires that the Owner, the Registered Design Professional, the Special Inspection Agencies, the Special Inspectors, and the Contractor read the Special Inspection and Testing Agreement and acknowledge their responsibilities by completing each of their designated sections at the end of the form. This agreement will only be used for large or complicated projects.

#### 3. Statement of Special Inspections (SSI):

This form is used by the Registered Design Professional in responsible charge to identify what Special Inspections are required for a project. The City of Rochester Hills requires that the Registered Design Professional complete all related entries on the Statement of Special Inspections form and provide documentation indicating the qualifications of each Special Inspection Agency, Special Inspector, Testing Lab, Laboratory Technician, and Fabrication Shop.

#### 4. Minimum Qualification for Special Inspectors:

Please refer to our document titled "Minimum Qualifications for Special Inspectors." This document outlines the education, experience, and certifications each Special Inspector is required to have to perform inspections within the different categories.

#### 5. Special Inspection Log:

The City will issue the log for each project which shall be posted on site. This log is to be used by each Special Inspector for each Special Inspection performed, and will be used by the Building Inspector to monitor the progress and status of Special Inspections.

#### 6. Pre-construction Meeting:

The City of Rochester Hills Building Department encourages the Contractor, Owner, and Registered Design Professional to attend a Pre-Construction meeting before starting construction. This is an opportunity for all parties involved in the construction process to coordinate their efforts and develop lines of communication that will help in facilitating a smooth and efficient construction process. This meeting can be scheduled at the time of the Building Permit issuance. The Building Department recommends that a representative from the Special Inspection Agency involved in the construction project attend the Pre-Construction Meeting to discuss the Special Inspection process.

#### AN OVERVIEW OF SPECIAL INSPECTIONS

**Special Inspection** is the monitoring of materials, installation, fabrication, erection or placement of components and connections that require special expertise that are critical to the structural integrity of the building structure. A Special Inspection is required to ensure compliance with the approved construction documents and standards referenced in the applicable Codes. Special Inspectors or Special Inspection Agencies shall be approved by the Building Official to conduct certain types of inspections and testing. Although Section 1704.2 requires the Owner or the Registered Design Professional acting as the owner's agent to provide qualified Inspectors, the approval of Special Inspectors and Special Inspection Agencies is the responsibility of the Building Official.

A Special Inspector is a person who has been approved by the Building Department to perform certain types of Special Inspections and Testing. A qualified Special Inspector generally has training in a specific area that is more specialized than that of Building Department Inspectors. A Building Inspector is required to have a general knowledge of a great number of Code requirements, whereas Special Inspectors focus mainly on specific areas of structural inspection, material testing, and fabrication. The inspections performed by the Special Inspector often require them to be on the job site for extended periods of time, something the Building Inspector would have difficulty doing with the multitude and variety of inspections they perform each day.

**Special Inspection Program:** The City of Rochester Hills Special Inspection Program consists of the following 5 documents/forms:

- 1. Special Inspection Program Guide
- 2. Special Inspection & Testing Agreement
- 3. Special Inspection Log
- 4. Statement of Special Inspections
- 5. Minimum Qualifications for Special Inspectors. This covers Special Inspectors, Laboratory Technicians, Special Inspection Agencies, Testing Labs, and Fabrication Shops.

#### **Requirement for Special Inspections:**

Section 1704 of the Michigan Building Code 2012 (MBC-2012) lists a number of conditions where the employment of Special Inspectors is mandatory. Section 1704.2 of the Code states:

"The owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more approved agencies to perform inspections during construction on the types of work listed under Section 1705."

"The special inspector shall provide written documentation to the Building Official demonstrating his or her competence and relevant experience or training. Experience or training shall be considered relevant when the documented experience or training is related in complexity to the same type of special inspection activities for projects of similar complexity and material qualities. These qualifications are in addition to qualifications specified in other sections of this code. The registered design professional in responsible charge and engineers of record involved in the design of the project are permitted to act as the approved agency and their personnel are permitted to act as the special inspector for the work designed by them, provided they qualify as special inspectors."

#### SPECIAL INSPECTION CATEGORIES

- **A. Inspection of Fabricators** Where fabrication of structural load-bearing members and assemblies is being performed on the premises of a fabricator. Note the exception for approved fabricators (see Section 1704.2.5)
- **B.** Structural Steel Steel elements of building and structures requiring Special Inspection are found in Section 1705.2. See Table 1705.2.2 for detailed information regarding inspections, and reference standards. Specific areas listed in Table 1705.2.2 for steel construction other than structural steel are also indicated.
- C. Concrete Construction The Special Inspection and verification for concrete construction is found in Section 1705.3 (see Table 1705.3 for detailed information regarding inspections, testing and reference standards). Specific areas listed in Section 1705.3 for concrete construction are listed under Category C of the Statement of Special Inspection Form.
- **D. Masonry Construction** The Special Inspection and verification for masonry construction are found in Section 1705.4 and 1705.4.2.
- **E. Structural Wood Construction** Special Inspection of the fabrication process of prefabricated wood structural elements and assemblies shall be in accordance with Section 1704.2.5. Special Inspections of site-built assemblies and other specific areas requiring Special Inspections for wood construction are outlined in Section 1705.5.
- **F. Soils** Special Inspection for existing site soils conditions, fill placement and load-bearing requirements shall be as outlined in Section 1705.6 and Table 1705.6. The approved geotechnical report (Section 1803.6), and the construction documents prepared by the registered design professional shall be used to determine compliance. During fill placement, the Special Inspector shall determine that proper materials and procedures are used in accordance with the approved geotechnical report. Specific areas requiring Special Inspections for soils are outlined in Table 1705.6.
- **G. Driven Deep Foundations** Special Inspections shall be performed during installation and testing of driven deep foundation elements as required by Section 1705.7 and Table 1705.7. The approved geotechnical report (Section 1803.6), and the construction documents prepared by the registered design professional shall be used to determine compliance. Specific areas requiring Special Inspections for driven deep foundations are outlined in Table 1705.7.
- **H. Cast-In-Place Deep Foundations** Special Inspections shall be performed during installation and testing of cast-in-place deep foundation elements as required by Section 1705.8 and Table 1705.8. The approved geotechnical report (Section 1803.6), and the construction documents prepared by the registered design professional shall be used to determine compliance. Specific areas requiring Special Inspections for cast-in-place deep foundations are outlined in Table 1705.8.

- **I. Helical Pile Foundations** Special Inspections shall be performed continuously during installation of helical pile foundation as required by Section 1705.9. The approved geotechnical report (Section 1803.6) and the construction documents prepared by the registered design professional shall be used to determine compliance.
- **J. Sprayed Fire-Resistant Material (SFRM)** Special Inspections for sprayed fire-resistant material applied to floor, roof and wall assemblies and structural elements shall be in accordance with Sections 1705.13.1 through 1705.13.6. Special Inspections shall be performed after the rough installation of electrical, mechanical, plumbing and automatic sprinkler systems.
- **K.** Mastic and Intumescent Fire-Resistant Coatings Special Inspections of mastic and intumescent fire-resistant coating applied to structural elements and decks shall be in accordance with AWCI 12-B as indicated in Section 1705.14. Special Inspections shall be based on the fire-resistance design as designated in the approved construction documents.
- L. Exterior Insulation and Finish Systems (EIFS) Special Inspections shall be required for all EIFS applications in accordance with Section 1705.15. Section 1705.15 provides exceptions to Special Inspections when EIFS is applied over water-resistive barriers with a means for draining excess water, and when EIFS is installed on masonry or concrete walls. The ICC Evaluation Report for the selected EIFS system may require Special Inspections.
- M. Fire Resistant Penetrations & Joints Special Inspections shall be required in high-rise buildings or in buildings assigned Risk Category III or IV per Section 1604.5. Special Inspections for through-penetrations, membrane penetration fire-stops, fire resistant joint systems, and perimeter fire barrier systems are outlined in Section 1705.16.
- N. Smoke Control Specific areas requiring Special Inspections are listed in Section 1705.17.
- **O. Special Cases** Special Inspections shall be required per Section 1705.1.1 for work that is, in the opinion of the Building Official, unusual in its nature, such as, but not limited to the following examples:
  - 1. Construction materials and systems that are alternatives to materials and systems prescribed in the MBC-2012.
  - 2. Unusual design applications of materials described in the MBC-2012.
  - 3. Materials and systems to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained or referenced in the MBC-2012.

#### **Please Note:**

**Special Inspections for Wind Resistance** – Section 1705.10 describes Special Inspection requirements for the main Wind Force-Resisting System. In Michigan, this does not apply since  $V_{asd}$ , as determined by Section 1609.3.1, is less than 110 mph.

**Special Inspection for Seismic Resistance** – Sections 1705.11 and 1705.12 describes special requirements for seismic resistance required in construction systems. In Michigan, this applies only to structures that are assigned to Seismic Design Category C.

### MINIMUM QUALIFICATIONS FOR SPECIAL INSPECTORS,



Fabricators, Special Inspection Agencies, Testing Labs and Laboratory Technicians

#### CITY OF ROCHESTER HILLS BUILDING DEPARTMENT



#### A. FABRICATORS

#### A.1. Fabricators: Not Registered or Approved (MBC 2012 Section 1704.2.5.1)

The designated Special Inspector and/or Special Inspection Agency inspecting the Fabricator Shop for compliance with Section 1704.2.5.1 of the Michigan Building Code 2012 (MBC 2012) shall be preapproved by the Building Department for the specified Category of the fabrication prior to Building Permit issuance. See the specific Category information for minimum qualifications criteria:

- For Structural Steel See Category B
- For Concrete See Category C
- For Structural Wood See Category E

#### A.2. Fabricators: Registered and Approved (MBC 2012 Section 1704.2.5.2)

Special Inspections are not required for work done on the premises of a registered and approved Fabricator that has a current accreditation from the International Accreditation Services (IAS), a current certification from a nationally recognized organization, or an equivalent certification. Equivalencies are subject to review and acceptance by the Building Department and shall be performed by an approved Special Inspection Agency in accordance with applicable provisions of Sections 1703 and 1704.2.5.2 of the MBC 2012.

The following National Fabricator Certifying Organizations are recognized and acceptable by the Rochester Hills Building Department:

- The American Institute of Steel Construction (AISC) for Fabricators of Structural Steel
- American Steel Joist Institute (SJI) for Fabricators of Steel Joists
- Precast/Prestressed Concrete Institute for Fabricators of Precast and Prestressed Concrete
- Truss Plate Institute (TPI) for Fabricators of Wood Trusses

#### B. STRUCTURAL STEEL

#### B. 1. Steel – High Strength Bolting:

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

#### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience.
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.

- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Current International Code Council (ICC) Certification as a Structural Steel and Bolting Special Inspector.
- 2. Current American Welding Society (AWS) Certification as a Certified Welding Inspector (CWI).
- 3. Current AWS Certification as a Certified Associate Welding Inspector (CAWI).

### **B.2.** Steel – Welding:

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

1. 5 Years Minimum.

### **Minimum Certification Requirements:**

- 1. Current American Welding Society (AWS) Certification as a Certified Welding Inspector (CWI).
- 2. Current AWS Certification as a Certified Associate Welding Inspector (CAWI).
- 3. Current ICC Certification as a Structural Steel and Welding Special Inspector.

### **B.3. Steel – Nondestructive Testing (NDT):**

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

1. As required for The American Society of Nondestructive Testing (ASNT) Level II Certification.

### **Minimum Certification Requirements:**

- 1. Personnel qualified in accordance with nationally-recognized NDT personnel qualifications practice or standard, such as ANSI/ASNT-CP-189 NDT or SNT-TC-1a NDT.
- 2. American Society of Nondestructive Testing (ASNT) Level II and a minimum of 120 hours of relevant testing experience or training as determined and approved by an ASNT Level III.

### **B.4. Steel – Structural Cold-Formed Steel:**

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience (see Note 1 below).
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Current ICC certification as a Commercial Building Inspector.
- 2. Current ICC certification as a Residential Building Inspector.

### C. CONCRETE CONSTRUCTION

### **C.1.** Concrete – Reinforced Concrete:

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience.
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Current ICC certification as a Reinforced Concrete Special Inspector.
- 2. Current American Concrete Institute (ACI) certification as a Concrete Construction Special Inspector.
- 3. Current ACI certification as a Concrete Field Testing Technician Grade 1.

### C.2. Concrete – Pre-Stressed/Precast:

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience.
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Current ICC certification as a Pre-stressed Concrete Special Inspector and as a Reinforced Concrete Special Inspector.
- 2. Current ACI certification as a Concrete Construction Special Inspector.
- 3. Current ACI certification as a Concrete Field Testing Technician Grade 1.

### **C.3.** Concrete – Post-Installed Structural Anchor in Concrete:

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience.
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Current ICC certification as a Reinforced Concrete Special Inspector.
- 2. Current ICC certification as a Commercial Building Inspector or Residential Building Inspector.
- 3. Current ACI certification as a Concrete Construction Special Inspector.
- 4. Current ACI certification as a Concrete Field Testing Technician Grade 1.

### D. MASONRY CONSTRUCTION

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience.
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

1. Current ICC certification as a Structural Masonry Special Inspector.

### E. STRUCTURAL WOOD CONSTRUCTION

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience (see Note 1 below).
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Current ICC certification as a Commercial Building Inspector.
- 2. Current ICC certification as a Residential Building Inspector.

### F. SOILS

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience (see Note 1 below).
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Current ICC certification as a Soils Special Inspector.
- 2. Current National Institute for Certification in Engineering Technologies Level II (NICET II) certification (geotechnical or construction or construction material testing or soils).

### G. DRIVEN DEEP FOUNDATIONS H. CAST-IN-PLACE DEEP FOUNDATIONS I. HELICAL PIERS

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience (see Note 1 below).
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

1. Current NICET II certification (geotechnical or construction or construction material testing or soils).

### J. SPRAYED FIRE-RESISTANT MATERIALS (SFRM) K. MASTIC & INTUMESCENT FIRE-RESISTANT COATING

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience.
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Current ICC Spray-Applied Fireproofing Special Inspector.
- 2. Current ICC Fire Inspector I.

### L. EXTERIOR INSULATION & FINISH SYSTEMS (EIFS)

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience.
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Current Association of Wall and Ceiling Industry (AWCI) EIFS Inspector.
- 2. Current ICC certification as a Commercial Building Inspector.
- 3. Current ICC certification as a Residential Building Inspector.

### M. FIRE RESISTANT PENETRATIONS & JOINTS

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience.
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Underwriters Laboratories (UL) Firestop Examination.
- 2. Factory Mutual (FM) Firestop Examination.

### N. SMOKE CONTROL SYSTEMS

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience (see Note 1 below).
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

1. Current Associated Air Balance Council (AABC) Technical Certification.

### Note:

Special Inspectors for Smoke Control shall also have expertise in Fire Protection Engineering, Mechanical Engineering, and shall be certified as Air Balancers.

### O. SPECIAL CASES DETERMINED BY THE BUILDING DEPARTMENT

The Special Inspector shall comply with at least one of the Education and Experience Requirements <u>and</u> at least one of the Certification Requirements noted below:

### **Minimum Education and Experience Requirements:**

- 1. Michigan Professional Engineer or Michigan Registered Architect and a minimum of three months of relevant work experience (see Note 1 below).
- 2. Bachelor of Science Degree in Engineering, Architecture, or Physical Science and a minimum of six months of relevant work experience.
- 3. Two years of verified college or technical school and a minimum of one year of relevant work experience.
- 4. High school or equivalent graduate and a minimum of two years of verified relevant work experience.
- 5. A minimum of three years of verified relevant work experience.

### **Minimum Certification Requirements:**

- 1. Current ICC certification as a Commercial Building Inspector.
- 2. Current ICC certification as a Residential Building Inspector.

### SPECIAL INSPECTOR IN TRAINING

The intent of this provision is to provide practical opportunities for a Special Inspector in Training to gain the needed experience to qualify as a Special Inspector.

An Inspector who does not meet the qualifications for a Special Inspector may be allowed to perform a "Special Inspection" at the discretion of the Special Inspection Agency's Responsible Professional Engineer, provided one or more of the following conditions have been met:

- The individual is working under the direct and continuous supervision of a Special Inspector fully qualified for the type of work involved.
- The individual is working under the indirect and periodic supervision of a Special Inspector, and the scope is minor and/or routine and within the capabilities of the individual.
- The individual is specifically approved by the Building Department. The individual shall be declared in the Statement of Special Inspection and will be given one year to obtain all requirements to qualify as a Special Inspector in the Category of Special Inspection or testing involved.

### SPECIAL INSPECTION AGENCY QUALIFICATIONS

The Special Inspection Agency shall comply with at least one of the Requirements noted below:

- An Agency that maintains current International Accreditation Services accreditation with the scope of the accreditation covering the disciplines for which the Agency is designated.
- An Agency that meets the requirements of Section 1703.1 of the Michigan Building Code 2012.
   The Registered Design Professional and/or Responsible Professional Engineer of the Agency shall provide all documentation necessary for the Building Department to determine if the Agency meets applicable Code requirements.
- An Agency has been accredited by an approved Inspection Agency in accordance with ISO/IEC 17020.

### TESTING LAB QUALIFICATIONS

Each designated Testing Lab shall be accredited by at least one of the following accreditation authorities:

- International Accreditation Services accreditation with the scope of accreditation covering the disciplines for which the Testing Lab is designated.
- American Association of State Highway and Transportation Officials (AASHTO) Accreditation Program per either AASHTO R18 or International Organization of Standards/International Electrotechnical Commission (ISO/IEC) 17250.
- American Association of Laboratory Accreditation Program.
- National Voluntary Laboratory Accreditation Program.
- Other Accreditation Authority Program. The Testing lab shall be accredited by a third-party and shall meet the requirements of Section 1703.1 of the 2012 Michigan Building Code.

### LABORATORY TECHNICIAN QUALIFICATIONS

Each Laboratory Technician shall have certification in the appropriate Category and one year minimum experience.

### NOTES

- 1. State of Michigan Licensed Engineers and Architects are exempt from the Required Certifications listed for B.4. Structural Cold-Formed Steel, E. Structural Wood, F. Soils, G. Driven Deep Foundations, H. Cast-in-Place Deep Foundations, I. Helical Pile Foundations, N. Smoke Control Systems, and O. Special Cases. The Building Department will require written verification of relevant work experience.
- 2. Written verification of Experience, Education, and Required Certificates shall be submitted with the Building Permit Application.
- 3. Some of the Qualification Requirements have been modified from the IAS, AC 291(June 2013) to give local Special Inspection Agencies, Special Inspectors, Testing Labs, Laboratory Technicians, and Fabricator Shops additional time to meet the criteria.
- 4. The Building Department will consider equivalent criteria for the qualifications of any designated party. The Registered Design Professional shall provide sufficient documentation to substantiate the equivalency request.
- 5. The Building Department will consider equivalent certifications from a Nationally Recognized Organization obtained by written examination when sufficient documentation to substantiate the request is provided.

### BASIS FOR FORMULATING THE ROCHESTER HILLS BUILDING DEPARTMENT SPECIAL INSPECTION PROGRAM

This program is based on the "*Model Program for Special Inspection*" published by the International Code Council (ICC) and the International Accreditation Services (IAS) and reflects the following:

- a. Applicable provisions of Chapter 17 of MBC 2012.
- b. Applicable provisions of the following IAS Accreditation Criteria:
  - 1. AC89 Accreditation Criteria for Testing Laboratories
  - 2. AC98 Accreditation Criteria for Inspection Agencies
  - 3. AC157 Accreditation Criteria for Fabrication Inspection Programs for Reinforced Concrete
  - 4. AC172 Accreditation Criteria for Fabrication Inspection Programs for Structural Steel
  - 5. AC196 Accreditation Criteria for Fabrication Inspection Programs for Wood Wall Panels
  - 6. AC204 Accreditation Criteria for Calibration Laboratories
  - 7. AC291 Accreditation Criteria for IBC Special Inspection Agencies
  - 8. AC 370 Accreditation Criteria for Product Certification Agencies
  - 9. AC472 Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems
- c. Applicable portions of the following Standards by International Organization for Standardization/International Electrotechnical Commission (ISO/IEC):
  - 1. ISO/IEC 17011: 2004, Conformity Assessment General Requirements for Accreditation Bodies Accrediting Conformity Assessment Bodies
  - 2. ISO/IEC 17020: 2012, Conformity Assessment Requirements for the Operation of Various Types of Bodies Performing Inspection
  - 3. ISO/IEC 17024: 2012, Conformity Assessment General Requirements for Bodies Operating Certification of Persons
  - 4. ISO/IEC 17025: 2005, General Requirements for the Competence of Testing and Calibration Laboratories
  - 5. ISO/IEC 17025: 2005/Cor.1:2006, General Requirements for the Competence of Testing and Calibration Laboratories
  - 6. ISO/IEC Guide 65: General Requirements for Bodies Operating Product Certification Systems



### **SPECIAL INSPECTION LOG**



### CITY OF ROCHESTER HILLS BUILDING DEPARTMENT

ction Agency		Pro	ject Address	Building Perm	Building Permit Number				
Building Permit. Weekly reports shall be submi			Inspector/Inspection Agen	cy to the City of Rochest	er Hills Buil				
Special Inspector	Certification Number	Date	Notes			Time- Left			
						-			
	Inspector shall re eekly reports shal pecial Inspection L Special	Inspector shall record their presence eekly reports shall be submitted by becial Inspection Log shall be given to Special Certification	Inspector shall record their presence on the job eekly reports shall be submitted by each Special pecial Inspection Log shall be given to the Building Special Certification Date	Inspector shall record their presence on the job-site for each day's inspected reports shall be submitted by each Special Inspector/Inspection Agent pecial Inspection Log shall be given to the Building Inspector at the conclusion Special Certification Date Notes	Inspector shall record their presence on the job-site for each day's inspections. Please post this log eekly reports shall be submitted by each Special Inspector/Inspection Agency to the City of Rochesto pecial Inspection Log shall be given to the Building Inspector at the conclusion of all Special Inspection and Special Certification Date Notes T	Inspector shall record their presence on the job-site for each day's inspections. Please post this log adjacent to eekly reports shall be submitted by each Special Inspector/Inspection Agency to the City of Rochester Hills Builderial Inspection Log shall be given to the Building Inspector at the conclusion of all Special Inspection activities.  Special Certification Date Notes Time — T			

Inspection Type	Special Inspector	Certification Number	Date	Notes	Time – Arrived	Time- Left

# Rochester Hills Building Department Document Control Program

Rochester Hills, MI's Building Department established a Document Control Program to ensure that internal staff and our Customers are working with the latest versions of all Department Documents. Each staff member has two icons on their computer, one for internal documents, and one for external documents. One click on the icon and they have access to all documents. There is also a search feature that allows you to quickly access a document using the document number or any part of the document title. This unique Program allows Staff to quickly find, print, e-mail, discuss, and distribute every Document the Department uses to conduct its daily business, and allows for rapid changes to any document to reflect Code updates, policy changes, new ordinances, etc.



### **Appendix O**

# **CITY OF ROSEVILLE**

311 Vernon St Roseville, CA 95678 (916) 774-5332

> Contact Information: **Gene Paolini** Building Official

Best practices include:

Management/Administration





## City of Roseville "BEST PRACTICES" Submittal

### Contact Information:

Gene Paolini, Building Official, Public Works Department Building Division, 311 Vernon Street, Roseville, CA 95678.

The Building Division has three Best Practices Submittals:

### 1. Policy on Procedures and Documents

Program Description

The City of Roseville has a written procedure controlling our policy documents and handouts. The purpose of this document is to maintain consistency and provide for change on an annual basis.

Cost/Benefits

The cost savings is not having staff spend time and money on duplicating forms and in daily handling of these procedures.

Attached Documents

Attachment 1: Policy on Procedures and Documents

Categories

- ✓ Management/ Administration
- ✓ Customer Service.

### 2. Auditing

Program Description

The City of Roseville audits a percentage of permits issued, plans reviewed and building inspections performed. The purpose of the audits is to maintain minimum standards in the quality of the work performed while maintaining consistency among staff.

Cost/Benefits

This is a life safety objective to maintain minimum quality standards. By reviewing a percentage of work performed we are able to maintain quality product and ensure that our community is in a safe environment.

Attached Documents

None

Categories

- Plan Review
- ✓ Permitting
- Inspection
- ✓ Customer Service

### Continuing Education

Program Description

The City of Roscville has a policy on maintaining records of continuing education units. The procedure allows us to document ongoing education and maintain those records in one place. The responsibility is with each employee to maintain their own records.

Cost/Benefits

The cost/benefit of continuing education to the City of Roseville is the employment of knowledgeable employees and by the time saved by having all information in one place. Attached Documents

Attachment 2: Continuing Education Units- Staff Training Tracking Procedure Categories

✓ Management/ Administration



Public Works Building Inspection

311 Vernon Street Roseville, California 95678-2649 916.774.5332 fax 916.774.5394

Date: 4-22-2008

Pg. 1 of 1

### Manual of Policies and Procedures

Policy Number 1.0

IAS reference # 3.2.7

Subject:: Procedural Policy for Documents and Handouts

### Purpose:

To control unauthorized changes, the use of outdated / incorrect forms, policies and procedures and provide uniformity of all documents published by the Building Division.

### Procedure:

Modifications and suggested changes to any handouts, forms, or policies and procedures can be submitted by any Building Division staff member to the Building Official for review and consideration. Upon approval, changes will then be made to the subject documents by the Building Official or by person (s) designated by the Building Official.

Documents shall be located on the City wide "G" drive with the author having read/write capabilities and all others having read capabilities only, with the exception of forms which are writeable in specific designated text boxes only.

Documents shall be reviewed annually to ensure information is current, applicable, and relevant. Where applicable, the Building Division website will also be reviewed regularly upon updating of any posted documents.



Public Works
Building Inspection
311 Vernon Street
Roseville, California 95678-2649
916.774.5332 fax 916.774.5394

Date: 2/10/2010

Pg. 1 of 1

### Manual of Policies and Procedures

Policy Number 3.3.6

IAS Reference # 3.3.6.11

### Subject: Continuing Education Units - Staff Training Tracking Procedure

### Purpose

To provide a procedure to document and track required Continuing Education Units for Building Division Staff.

### Policy:

Pursuant to State of California requirements, a minimum of 15 Continuing Education Units per year must be completed for each required Building Division staff member.

### Procedure:

- At each weekly staff meeting, a sign up sheet with the training and safety topic of the week will be presented for all attendees' signatures.
- Scan the completed training and safety sign up sheet and email to the CEU Coordinator (Jerri) and the Safety Coordinator (Jeff).
- File the original Staff Training sign up sheet into the "Weekly Staff Meeting Roster" binder. (Scott)
- The CEU Coordinator re-names the email copy using the date and topic and then saves it into the electronic Staff Training Folder located at Pwbldg/Scott/Staff Training Meeting Sheets

### **Appendix P**

# CITY OF SALEM OREGON BUILDING SAFETY DIVISION

555 Liberty St SE Room 320 Salem, OR 97301 (503) 588-6256

Contact Information:
Rebai Tamerhoulet, P.E., S.E.
Building and Safety Administrator
(503) 540-2447
rtamerhoulet@cityofsalem.net

### **Best practices include:**

- Plan Review
- Permitting
- Customer Service



### **Fire Personnel Plans Examiner**

### **Contact Information:**

Name: Rebai Tamerhoulet, P.E., S.E. Title: Building and Safety Administrator

Department / Jurisdiction: Community Development / Building and Safety / City of Salem

Oregon

Contact address: 555 Liberty Street SE Room 320, Salem, OR 97301

Email: RTamerhoulet@cityofsalem.net

Phone: 503-540-2447

Date: September 12, 2012 Revised June 9, 2015

### **Program Description:**

The Fire and Life Safety Division of the Salem Fire Department has designated Deputy Fire Marshals that work within the Building and Safety Division. The positions work within the scope and authority of the Building Official.

### **Benefits:**

Project approvals are coordinated by close interaction with Building and Safety staff, including participation in pre-application conferences, daily intake review, building permit review, field inspection, and tracking of activity by electronic records management entry (AMANDA),

### **Attached Documents:**

New Construction Plan Review memorandum

Categ	ories – Please check all categories that apply to your best practice
✓	Plan Review
	Permitting
	Inspection
	Management/Administration
	Legal
	Customer Service
	Information Technology

For official use only		
Reviewed by:		Date of Review:
	Best Practices   270	

### MEMORANDUM



To:

**Building & Safety Division Administration** 

From:

Jimmy G. Stewart, Deputy Chief - Fire and Life Safety

Date:

June 10, 2015

Subject:

**New Construction Plan Review** 

Regarding the Salem Fire Department interaction between the Salem Building & Safety Division related to the construction permit process, we have the following information.

The Fire and Life Safety Division of the Salem Fire Department includes four Deputy Fire Marshal (DFM) positions that are certified by the International Code Council (ICC) and Oregon Department of Public Safety Standards and Training (DPSST) in the area of Plans Examination and Fire Inspection.

As noted in the attached organizational chart, we have one DFM assigned to the fire plan review function. This position reviews all building permit applications for new and remodeled commercial buildings and apartment buildings, which includes fire- and life-safety plan review, fire department access, water supply, and fire protection systems. This position works within the scope and authority of the Salem Building & Safety Division. The other DFM staff provides coverage as needed during absences of the primary DFM and/or periods of peak activity. Additionally, our three field DFMs provide onsite inspection as part of building permit applications to ensure compliance with applicable codes and standards during the construction phase.

Project approvals are coordinated by close interaction with Building & Safety staff, including participation in pre-application conferences, daily intake review, building permit review, field inspection, and tracking of activity by electronic records management entry (AMANDA).

Please contact me if you have any questions.

Attachments: Fire & Life Safety Division Organizational Chart



### **Plan Review Roundtable**

### **Contact Information:**

Name: Rebai Tamerhoulet, P.E., S.E. Title: Building and Safety Administrator

Department / Jurisdiction: Community Development / Building and Safety / City of Salem

Oregon

Contact address: 555 Liberty Street SE Room 320, Salem, OR 97301

Email: RTamerhoulet@cityofsalem.net

Phone: 503-540-2447

Date: September 13, 2012 Revised June 9, 2015

### **Program Description:**

Every workday, representatives from City departments attend the plan review roundtable to determine their department's requirements in the review of construction plans submitted to Building and Safety. The purpose of the roundtable is to facilitate and promote communication and coordinate plan review activities between divisions/departments within the City of Salem. The City's permit database tracks the plan review process to insure complete reviews.

### **Benefits:**

The roundtable promotes communication between City departments to insure all the required departments review all construction plans received by the City. This process assures no plans are overlooked.

### **Attached Documents:**

Round	table Meeting Procedure
Round	table Process in Amanda Permitting Database
Catego	ories – Please check all categories that apply to your best practice
✓	Plan Review
	Permitting
	Inspection
	Management/Administration
	Legal
	Customer Service
	Information Technology

For official use only		
Reviewed by:		Date of Review:
· ——————	Best Practices   272	



### **MEMORANDUM**

### COMMUNITY DEVELOPMENT DEPARTMENT BUILDING AND SAFETY DIVISION

TO: Staff

FROM: Division Administration

DATE: 11/28/11

**SUBJECT:** Roundtable Meeting Procedure

### **Roundtable Meeting:**

- The purpose of the Roundtable Meeting is to facilitate and promote communication and coordinate the activities between divisions/departments. Each workgroup will have a representative attend the Roundtable Meeting currently scheduled in the Building and Safety conference room #320 at 8:15am, Monday – Friday.
- Structural applications are received by the Permit Technicians while Electrical, Mechanical, and Plumbing applications are received by Permit Specialists. Each morning, all applications from the previous business day are collected by the Permit Technician for inclusion in the "Roundtable".
- A Building & Safety, Planning, Fire, and Public Works representative(s) attend and determine which plans require their approvals for a submitted application.
- Once it has been determined which workgroups need to review the plans, the application is processed and placed on each group's "to do" list within the permit tracking system.
- Permits shall be issued once all required workgroups have "approved" the plans within the permit tracking system.



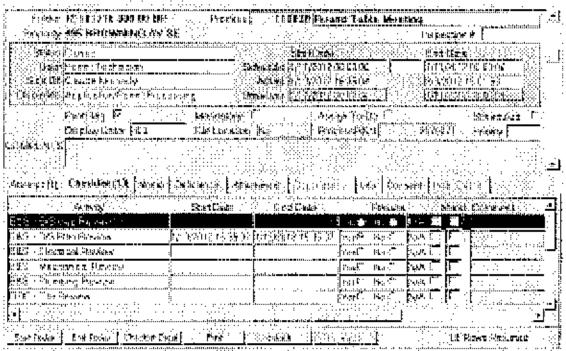
### ROUNDTABLE PROCESS IN AMANDA PERMITTING DATABASE

Amanda is the current permitting database for the Building and Safety Division. In the Amanda database, there is a process included on structural permit records called "Roundtable".

This Roundtable Process includes a checklist where the Permit Tech selects all implicated plans review workgroups, as per the cursory review of the submitted plan set at intake. This programmed checklist then automatically adds each of the identified plans review workgroups (to a built in TO DO list) and a separate review process for each to the structural permit. This process also automatically notifies each workgroup there is a plan in for their review. With each workgroup having a separate review process on the structural permit, each can record their plan review activity including approval.

The Roundtable Process coordinates work with separate departments/divisions accordingly.

### Chadetti Misw of Raterdarble Process.



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### 10 Day Guaranteed Turn Around for Single Family Dwelling

### **Contact Information:**

Name: Rebai Tamerhoulet, P.E., S.E. Title: Building and Safety Administrator

Department / Jurisdiction: Community Development / Building and Safety / City of Salem

Oregon

Contact address: 555 Liberty Street SE Room 320, Salem, OR 97301

Email: RTamerhoulet@cityofsalem.net

Phone: 503-540-2447

Date: August 30, 2012 Revised June 9, 2015

### **Program Description:**

Our goal is to consistently provide professional service by offering predictable, friendly assistance and efficiency through streamlined processes that promote positive community and business relationships while ensuring public safety. As a service to our customers, the City has instituted a conditional money-back guarantee ten-day (working days) turn-around criteria for qualified single-family dwellings.

### **Benefits:**

Predictability and accountability for our customers to plan their work schedule. Customers submit complete plans which benefits the Building Division's review process.

### **Attached Documents:**

Criteria for Single-Family Dwelling Guarantee Program Statesman Journal Article May 27, 2005 Statesman Journal Article January 14, 2005 American Institute of Architects newsletter dated Spring 2006

Catego	ories – Please check all categories that apply to your best practice
$\checkmark$	Plan Review
$\checkmark$	Permitting
	Inspection
	Management/Administration
	Legal
	Customer Service
	Information Technology

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Weather Page 6B

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Sylvatory (collaborate)

Business outor: Don Currie (503) 389-6077, deurnie@SiatemanJournal.com

# or, start promise taster permit process

They say reviews for finished in 10 days home plans will be

By Tony MASSIER Statesman Juneary

Phursday touted plans to make the pornet process more effi-cient for builders, including a Salem Mayor Janet Taylor and City Manager Bob Wells on money back grianuates for part of the process.

development efforts spotlighted Thorsday at Mission Mill Muse

F

Taylor

pieted within id days, or appli Plan reviews for single-fami cants will get their fees refund ly homes would have to be com

ness Forum series.

The maney-back guarantee was among the city's concomic ed. Fees run about \$400.

The guarantee

rewews not flushed in 10 full days owellings 3,5000 square feet or EXPECTED START DATE Warch 1 WHAT IT COVERS: Fees for plan WHAT QUALIFIES: Single-farrily smaller, Including garage SOURCE: City of Salem in place by March 1, said from Phillips, Salent's building and While acknowledging that persafery administrator,

mit volume is lower dürleg this a plan review is now about six to "We're batting 1,000 on this," time of year, the turnaround for 10 days, officials said, Taylor and Welks spoke to about 150 people for the latest in the Strategie Repromis Development Corp.'s Economic Busi-The City Council is expected

limit of five reviews per person, will A weekly Phillips said. to approve the fee initiative to clats hope to have the gracentee the next few months, and offi-

placed on the guarantee, Wells sald, "90 comeone doesn't bring in 200," The homes also cannot be

larger than 3,600 square feet, including the garage. system in place, but officials think Salon will be the only Taconia, Wash., has a shotlar Oregon city with such a guar-

Other, parts of the permit ptucess will not have the guttranue. autee

perfitte are much more diffi-oult," Wells said, "They can be "Commercial and industrial extrainely consplex."

progress on that front. Some-However, he said, developers also can look forward to time around September: the city atins to institute phased per

A similar process was used last year to build the Wachovia mits. Builders, for example, could proceed on the founda-tion of a site before all plans for the entire project are inspected.

Any money lost from the new guarantee will come from perreft revenue, not the general call center in only months. flind.

eg eg minor, or we have a problem, "(Refunds are) going Wells said.

For her part Taursday, Taylor nomic development, such as wooing Wachovia to Salem and readying the Salem Regional said she hoped to build on her successes in encouraging eco-Employment Center site for industrial development.

Tealment site

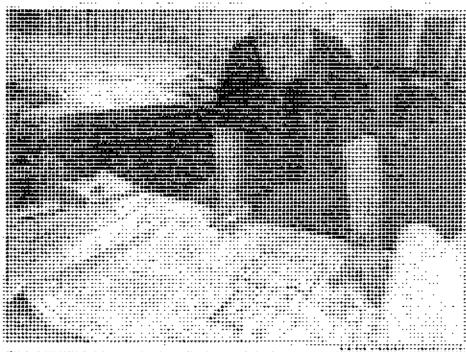
Taylor also said the city

Salem. Such efforts should not be limited to current efforts to bring Horizon Air to Salem, she should pursue infrastructure that could fuster more development, such ps encouraging reg-ularly schoduled atr service in

"We can't be held hostage to when and if they choose Salom," she seid.

said she enjoyed the specifics given by Taylor about efforts on the economic development front, such as the city's success in establishing a satellite water Rose Dane, a professional writer and speakur from Salem,

tmanthey@StatesmanJournal. com or (503) 409-6737



# City offers refund if house-plan review takes more than 10 days

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# CRITERIA FOR SINGLE-FAMILY DWELLING GUARANTEE PROGRAM

City of Salem Building & Safety Division 555 Liberty St SE Room 320 Salem, OR 97301 (503) 588-6256 phone (503) 588-6115 fax

**EFFECTIVE DATE:** June 1, 2005

**REVISED:** August 30, 2012

**APPROVAL:** Division Administrator

<u>Background</u>: Our goal is to consistently provide professional service by offering predictable, friendly assistance and efficiency through streamlined processes that promote positive community and business relationships while ensuring public safety. As a service to our customers, the City has instituted a conditional money-back guarantee ten-day (working days) turn-around criteria for qualified single-family dwellings.

### Procedure:

Qualified submittals under this program shall be limited to five (5) per a continuous 5-day interval, (excluding Saturdays, Sundays and Holidays) submitted by an individual, contractor, or company.

Qualified submittals are those considered complete and in conformance with all applicable state and local laws following preliminary review by intake staff. The first day of the tenday program shall begin the first full day after submission, weekends and holidays excluded.

Qualified Single-Family Dwellings shall be considered Conventional Light Frame Construction, designed in compliance with the latest edition of the Oregon Residential Specialty Code (Code) and subject to the following limitations:

- Buildings shall be designed as such that its vertical and horizontal structural elements are primarily formed by a system of repetitive wood or light gage steel framing members as allowed by the code;
- 2. Buildings shall be subject to the maximum height and story limitations as specified in the code:
- 3. Bearing wall floor-to-floor heights shall not exceed those specified in the code;
- 4. All design loads, including wind and seismic loading shall not be less than those allowed by the code;
- 5. Site topography and site geo-technical imitations shall not exceed those allowed by the code; and

- 6. Buildings subject to the irregular building limitations as specified in the code.
- 7. "Simple Single Family Dwelling plans" may include:
  - a) Include pre-engineered systems listed and approved by nationally accredited agencies in accordance with the appropriate specialty code, or by state interpretive rulings approved by the appropriate specialty board, that require no additional analysis.
  - b) Master plans approved by the authority having jurisdiction or under ORS 455.685, which require no additional analysis.
  - c) Plans that include an engineering soil report if the report allows prescriptive building construction and requires no special systems or additional analysis.

The City of Salem reserves the right to exclude any structures from this program for reasons which include, but are not limited to a submittal that does not meet the intent of the program.

This policy is subject to change and can be terminated at anytime.

2005 OFFICERS President Loonard Lodder, AIA Vice President Claylon Volse, Alex Secretary Craig Carlson, AlA Troasurer-Chris Vait, AIA

Associate Director Marcy Pirice, Assoc. AiA Associate Digester Petas Strashal, Assoc. Ald

322 COMMERCIAL STREET N.F. ♥ SALEM, OR 97301 ■ PHONE 503,330,6500 × FAX: 503,330,6501 ♥ EWAR: LEONARD@STUDIO3ARCHITECTURE.COM

### The Big Fix

Salem's effort to streamline permitting process lauged by design and construction community

Extract One Propagation Receives was washing a street of superspectation in glating at whether has been able to be a few and a street of the s erro a gorgowiaktić nightmare. when he sook the job as Salem's building and safety administrator two years ago.

"This was really a dynfunctional department-it had internal and external problems. I knew that coming in and I was up to the challenge," said Phillips, who previously served as a state building official and synctocal objet.

"I elected to take this position brcause i felt we could accomplish more through partnerships with skarcholders than through adversarial relationships, he said. "I felt I meeded to get out there and prove you can turn things around and make a difference in your commucus"

To that end, Phillips launched on cifort to expedite the city's approvals page cess for residential building permits. His first action was to initiate employed leadership and customer service training.

filf you're going to have investment in your commuліўу, уаш пракі быра арел for musiness. We mede some very basic changes that allowed as to open up our oity for major investment." –Stayes Janet Yaylar.

"I wanted to leave a building department that ran as though we're competing for business," he said. "Building ondes are a good thing and people don't gapular resist the code as much as how. a's presented. Often, the people workjug in a building department can come. across as aushoritation and very rigid. and it's a rest adversarial role."

The next step was to preserve the guality of the certew process but alcotten the time it took to issue approvals from the six to eight weeks typically required for a period to wend its way through the system.

"Total review time in Salem is #8000; four hours, so why these would sat these for six to eight weeks was beyond me," Phillips said. "The number one problem in government is now long something. sits on the shelf, so we had to figure out how to implement changes quickly and effectively."

Approvals now take five to six days. If a perind languishes for more than (2 days, the applicant receives his or her money back. The reland covers plan reviews by the Community Development Departmens's Paristing and Safety (Nivision and the Public Works Department.

The third step, Phillips sold, was to increase accountability on both the city's part as well as that of the AfF/C. cost main ity.

"In order to give predictability to the pesidential builders in our contraunity. we had to be accountable," Phillips said, referring to the 10-day refund, "The other part of accountability is that the aschinects, draftmeen and builders have to do their nomerousk and submit plans that comply with the codes.

"What we've done is busically raise the Sagan both ends, and it has increased our productivity discostically," he added.

Kim Arbuckle, a principal at Saicta's Arbuckle Costic Architects, said the change in attitude soming city staff is noticeable.

"ti's been a real refreshing change within the building deportment," he said. The department has been really helpful in sitting down with us to review plans in the preliminary stages. especially with the code changes that took place in early 7000."

Mike Endmann, executive vice presideat of the Horse Builders Association of Marion and Polk Counties, said many area hamebuilders view the 10-day. money-back guarantee as a sign of the city's determination to work cooperarively with the industry.

"Thee's connictly an indicatom of the commitment on the city of Salma's past to make t**he pro**cess more efficient," Epitmanin said. "The bestefit for builders is that because you have some predicts. ability now about when your permit will be approved, it makes it much easier to schedule projects. In the twist, you reves really knew bow tast your permit would gn through the system, so at made it difficult to schedule frances and other subcontractors."

Salam Mayor Janet Taylor said the city already's swing economic benefits from: the changes, She estimates the city new has \$200 million in investments pending an new projects socking approvals.

"If positive going to have investment in your manmentty, you need to be open for business. We made some very basic changes that allowed us to open up our city for mejor investment," she said.

Taylor, who worked in the construction industry outd a couple proce ago. said she can appreciate how much the improvements impoct Satem's A/E/C community.

"I think it's basically making city government a partiner in moving things. shead rather than a barrier to that progress," she said. "It doesn't involve making the approvals process less strict. It's about changing the way we deal with the public and bely them through the regulatory process."

Phillips, who recently received the jestional Flore Builders Association eward for Local Code Official of the Year, said that situo the program beganlast Jone, the city has had to refund money only three times.

The department is now focused on how it can increwe the process for cronmercial. projects, it soffering "enlaraced and expedited services" such as phased permitting. and automized permitted processes.

"Basicaliy, an archisect can come in and tell as their needs and we can customize a process that meets their weique needs," Phillips said. "The approvals process doesn't change and the review standards are still upheld. We let them: sell us how they want to do it, then we review is and 50 them know if we condu at er not." ■

"In order to give predictable." ify to the residential builders 🛱 in our community, we had to be accountable. The other 🕏 part of economicability is that

the architects, draftsmenand builders have to do their homework and submit plans that comply with the codes."

-Turn Phallas, Saksal's building. and defety a unimitator



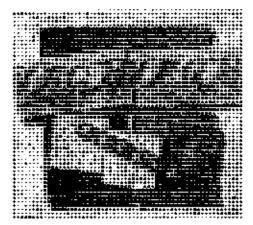
### NORTHWEST ENGINEERING SERVICE, INC. Ехсывалас ін Елдіпенту былга

Asademical Engineering Services

Design Review Commissioning Test and Balance Cleanroom Parlamance Testing Fire Life Safety System Inspection & Texting

Herath Gaze Figh Tooh Commercial Tyste, lovel Educational Laboratories

### TILE AND STOM



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Klamath Falks	Rogers Interiors	542-682-3311
Saiem	Cherry City Floors	503-763-6417
Scaside	The Interior Comer	503-738-9440

### **Customized Permitting Process**

### **Contact Information:**

Name: Rebai Tamerhoulet, P.E., S.E. Title: Building and Safety Administrator

Department / Jurisdiction: Community Development / Building and Safety / City of Salem

Oregon

Contact address: 555 Liberty Street SE Room 320, Salem, OR 97301

Email: RTamerhoulet@cityofsalem.net

Phone: 503-540-2447

Date: August 30, 2012 Revised June 9, 2015

### **Program Description:**

The City of Salem Building and Safety Division is committed to providing excellent customer service and customer satisfaction. Our Enhanced Permit Services provide a "tool box" of options designed to meet each customer's unique needs.

We can tailor the permitting process to your construction schedule. Whether it's through deferred plan review submittals, expedited plan review, phased permitting, pre-submittal review or assignment of a project coordinator on your large-scale project - we're prepared to help you be successful in Salem.

### **Benefits:**

Allowing applicants to utilize the toolbox of options that best fits their project and timeline has proven to provide a good customer service.

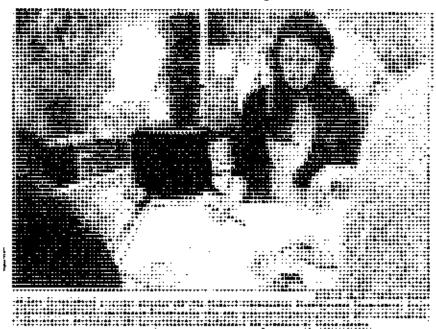
### **Attached Documents:**

Ways we help business Statesman Journal Article July 9, 2006

<u>Ca</u>	<u>tegories</u> –	Please	check	all	categories	that	appl	ly '	to :	your	best	pract	tice
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✓ Plan Review
 ✓ Permitting
 ✓ Inspection
 □ Management/Administration
 □ Legal
 □ Customer Service
 □ Information Technology

For official use only		
Reviewed by:		Date of Review:
•	Best Practices   282	



# Monitor program makes 🔮 process a priority in Salem

### City employees provide project managers with guidance

By J.P. Garden

The hillicing promits process can be a 50,7500 cut of question of with ended some and diving both it doesn't have to be that way main Then Phillips. Salom's belief and output of which was not referred.

that way, raid from Philips. Salem's building and motify administrator.

Many simply are uses a barrier, that we're nit-product that we can there abrough a polatiless process," Philips said "But what we do be important to the community—we enforce the very codes that ensure buildings are safe for leople to necapy—and yet we get had urees because of how we detiver that service."

ingooving the Solvery of that serv-th has been a major goal for Philliss and of Mc leaders of Calem's communi-

and office execution casemic community devicements to device monthly the Select City Council adopted an economic memory strategy in Narch 2023 that included ways to

improve the permit process.

Part of that strategy involved the Propol Marshor Program, designed in help makingers navigate the dig/s caches and you mit process — on small task when you coulded that thora are 166 chapters in the city's laws, 60 of which govern akeye kesimiling

### Monitors help process

"Customer service too proffy been ex "Customer service too molty bear at the heart of there pringrams," and vict-iz Eurdin Woods, the director of Salem's Community Development Department, "We want to make our inview toor-freeding and the Project Monther Program was designed with their mode."

the mentions come from departments such as the fire department and public works. They serve as an applicant a primary demark, thus avoiding the endstantal bureauerack manarament. Mentional bureauerack manarament. Mention fare spend about perform of time facili-tation and despites takes a project on crack facing the penning, permitting, construction and implement process.

Paul are comes from the department to which such monitors which such monitors works. Apocal-

ing so eity deminierts, project monitors have been assigned to more than To projects since March 2013, represen-es, about t\_200 erojects in Salem

Initiative any business errorting (see that requested a mountain was seed much

onal regression of group and asserting one of the program has established their procures.

"Things were going through the process to easily that people weren't looking for those project mortions at much," Vénedanais." I frank it's became we've door a lot of alreadmining and service training with our atoff, Our building and safety division is very smooth's about building a great curomenservity othic " Several Salem prohitogic each they

know almost the Project Mention Pro-gram had tend not in use it for smaller projects. It's the larger, more complex projects where a microstock chryses are

projects where a number carrying are best used.

The project magitor worked out very well for us," said Chris Vott of Carlses Well Andrifteds, Writ used a project mani-for for the Crokson Ridge Surgery Carlos:

"In the prot, when we called the city

"In the past, when we called the city with a question, we didn't always know who to speak with 11.11 with '90 coordinate what a well-informed point of coolean when who was readily wouldable," "feet soot," "Finally it would us into of time." "In most builders and developing these is toney. What might have subon, five to it would be few more afternishing to the city would be few more above the intention in

is trainey. What might draw taken, free to air, weeks a lew years approve taken the hour days. Phill as said.

The city now guarant as prompt service for instituting permits for more than 10 days, the applicant is matthed to his or her money back. The refund policy covers plan reviews by the Community Demogracy Population and the Public Worter Cecuriment. Victics Department.

It all depends on whether architects distribution building and developed how depending their housework that submitted plans that comply with the codes. City officials begin the good testioner service. Ledgang most segrepaint.

See Promits, 22

### Sity rescurces

skiturijaan gaal**tsield,** eritaagas<sub>i</sub> control can interper content on the right of participant of the right of the desperate of the actions, you will never a purple. The before it is project, the larger and never contains the

hiero are states programs the city of Salem has dasigned to help agristmostic progents τοτουξέντευ ρατιπέξηνασσική

PAGENCY MONTHS: Reinitycod M Aid 1993, a project mustice is afford to appropriate for completue. apparation for commercial conditional desired by the process of th Sularrois access:

THE A-TESTS, WHAT JUDGE огорган васп из вием Нороква the Washing Day recosts the Wattmap Call Carder or the Knoe American Regift Blocklapmans, me thong of the dity's key rispelapment the better key rispelapment the best garder with the projects with the Boal is to provide kilderabon is to previous internation about the consensation, led previous, lend use learning, the previous and property of property and property of the previous property of the previous property of the previous property of the previous property of the property of the previous of the property of Con inteled to decision appoint which is no located in Saloni.

PROJECT <del>INCOMP</del>ERED A NEW and more invoked progrem than the Profile Mostly ( a spaniej hja reim Eddens straen galte budjesse simbles Psient budsen eester straen is ten america eester straen is ten davide Arent. A project estimation, on capeut in the city's balding order and centil promittes element his and expeditures vice due no coment promites (Nevertigation) and address believe programs, ...

### **Permits**

Continual from th

### An evolving program

To further improve service, the city developed what it calls the "X" Team.

When large projects such as Salem Hospital's new petiont tower; the Wachovia Call Center of the Kroc center begin development, members of the city's key development divi-sions -- their "A" Team of professionals - - gather with the project's principles.

With everybody in the room, they can sell the edy and provide information about what services are available (such as electrical, water and sowage), what the land use is, what the permit process is and whether there any environmental issues. The premise is to give the construction and develappreciatesons the best information available so they can make a decision whether to lucate in Salam, or somewhere else.

"Our goad is really a service goal — that's at the heart of all this," city manager Bob Welts said. "We want to pro-vide them with all our best prople so they know that, if they come here, we will help them through the process so they can get up and going in a

timely manner."

As these larger projects develop, then a project montton might be assigned.

A new wrinkle has been added to the Project Monitor Program. For large and particularly complex projects that require a great deal of attention and follow-through, a project coordinator can be assign**ed**.

Salem Hospital's expansion is the first to use a pro}ect coordinator. The idea is to ensure full and expedited service during the complex planning, development and construction process. The hospital will carry the cost of time spent by the city emplayee.

This story first appeared in B2B magazine.



### **Building and Safety Division**

### Ways we help business:

### **Customized Permit Services**

The City of Salem Building and Safety Division is committed to providing excellent customer service and customer satisfaction. Our Enhanced Permit Services provide a "tool box" of options designed to meet each customer's unique needs.

We can tailor the permitting process to your construction schedule. Whether it's through deferred plan review submittals, expedited plan review, phased permitting, pre-submittal review or assignment of a project coordinator on your large-scale project - we're prepared to help you be successful in Salem. Each of the following services is available by request for a fee, including:

**Pre-Submittal Review:** The Building and Safety Division will work with the professional designer to review plans before submittal to help alleviate unnecessary delays.

**Deferred Submittals:** When developing a complete set of submittal documents may cause delay on a project, portions of a building design are allowed to be submitted separately at a later date, after the issuance of the permit.

**Expedited Plan Review and Inspection Services:** Plan review and inspection services need performed outside the normal timeframes the Division has established; also includes On-Site Plan Review offering.

**On-Site Plan Reviews:** Plan reviews specific to tenant improvements in an existing structure and considered to be minor in nature, can occur in the field and on-site; one of the expedited service offerings.

**Phased Permits:** This option allows construction to begin on a portion, or portions, of an individual building before the construction documents for the whole building have been submitted and/or approved.

**Project Coordinator:** At the applicant's request, a development process expert can be assigned as a liaison on a project. They will help shepherd the project through the permitting process.

Master Electrical Program: An annual permit for industrial uses under ORS 479.560.

**Master Plan Program:** When an applicant Intends to submit multiple plans of the same building, the City designates the first submittal as a "master plan." This can provide substantial plan review savings on subsequent submittals and expedites the review process.

**Money Back Guaranteed Ten-Day Turnaround:** As a service to our customers, the Building and Safety Division offers a ten-day plan review turnaround guarantee for qualified single-family dwelling submittals.



### **On-Site Plan Review of Tenant Improvement**

### **Contact Information:**

Name: Rebai Tamerhoulet, P.E., S.E. Title: Building and Safety Administrator

Department / Jurisdiction: Community Development / Building and Safety / City of Salem

Oregon

Contact address: 555 Liberty Street SE Room 320, Salem, OR 97301

Email: RTamerhoulet@cityofsalem.net

Phone: 503-540-2447

Date: September 12, 2012 Revised June 9, 2015

### **Program Description:**

The purpose of On-Site Plan Review is to review tenant improvements in the field, which will help to clarify how the proposed new construction relates to the existing construction. The "On-Site Plan Review" if granted, will shorten the review time for customers.

### **Benefits:**

On-Site Plan Review benefits Building and Safety by providing the visual context of new to existing construction, which leads to a reduction of questions and assumptions. The customer experiences faster plan review time.

### **Attached Documents:**

On-Site Plan Review of Tenant Improvement Procedure

<u>Categories</u> – Please check all categories that apply	to your best practice		
✓ Plan Review			
☐ Permitting			
☐ Inspection			
☐ Management/Administration			
☐ Legal			
☐ Customer Service			
☐ Information Technology			
For official use only			
Reviewed by:	Date of Review:		



### On-Site Plan Review of Tenant Improvement Procedure

City of Salem Building & Safety Division 555 Liberty St SE Room 320 Salem, OR 97301 (503) 588-6256 phone (503) 588-6115 fax CREATED DATE: 2008

**REVISED:** September 10, 2012

**APPROVAL:** Division Administration

### **Purpose for On-Site Plan Review of Tenant Improvement:**

The purpose of On-Site Plan Review is to review tenant improvements in the field, which will help to clarify how the proposed new construction relates to the existing construction. The "On-Site Plan Review" if granted, will shorten the review time for customers.

### **Process for Customer On-Site Plan Review:**

- Request to be in writing using the Expedited Services application a minimum of one week prior to on-site review. Request should be addressed to Building and Safety Plan Review Services Section.
- 2) Fee for On-Site Plan Review is a \$150.00 application fee for each separate In the Field Review. The application fee includes the first hour of service. Additional time will be charged at \$150.00 per hour. Applications can be found on the City web site (www.cityofsalem.net/bas) or at the Building and Safety Division Permit Application Center.
- 3) Once the application is received, the Plan Review Services Section will contact all departments required to review the project to verify departmental review requirements.
- 4) Once the application is approved, the applicant will be notified. At notification of approval, the applicant will be advised that the Design Professional of record, the Contractor of record and the owner or owners' representative must be present at the time of the On-Site Review. A completed building permit application and two sets of drawings will also be required at the time of the On-Site Review.
- 5) The Plans Examiner shall determine if the plans are complete and return to the office with the plans for final approval. The applicant will be informed when the permit will be ready for issuance and that a City representative will call with all fees for the review and permit.

- 6) Customer or applicant shall be required to pay all appropriate fees for plan review and permits.
  - a. Work prior to issuance of permit is subject to investigation fees.
  - b. No inspections will be scheduled, preformed or approved prior issuance of permit.

### Process for Staff for On-Site Plan Review:

- 1) A Building and Safety Division Plans Examiner will review the plans in the field with the licensed design professional. If the Plans Examiner determines the plans are complete, the Plans Examiner will return to the office with the application and plans. In some cases, the Plan Examiner, acting on behalf the Building Official, may waive the submission of plans based on Oregon Structural Specialty Code (OSSC).
- 2) The Plans Examiner will provide fee information to a Permit Technician. The Permit Technician will be asked to open BP folder and process the submittal along with other submittal documents.
- 3) The Permit Technician will then return the permit cover sheet, fee sheet (blue sheet), all plans and documents to the Plans Examiner. The Plans Examiner will then prepare the fee sheet (blue sheet) and take it to a Permit Specialist to verify all fees. The permit Specialist will then be asked to notify the customer or applicant that their permit is ready for pick-up following Building and Safety Division's normal process.
- 4) Inspections will be processed through Building and Safety Division's normal process.
- 5) Any questions or concerns may be brought to the Building Official.



### **Project Coordinator Program**

### **Contact Information:**

Name: Rebai Tamerhoulet, P.E., S.E. Title: Building and Safety Administrator

Department / Jurisdiction: Community Development / Building and Safety / City of Salem

Oregon

Contact address: 555 Liberty Street SE Room 320, Salem, OR 97301

Email: RTamerhoulet@cityofsalem.net

Phone: 503-540-2447

Date: August 30, 2012 Revised June 9, 2015

### **Program Description:**

The goal of the program is to facilitate and improve the coordination and communication between all development review departments and divisions as staff help to shepherd major projects through the City of Salem permitting process. The program is voluntary for project valuation under 10 million dollars and mandatory for those with a greater valuation. The intent of the program is for applicants to have a single contact for the permitting process.

### **Benefits:**

Large projects are usually very complex in nature and have a myriad of issues when going through the city process. An expert single contact that facilitates the process has proven to save the applicants significant time and money.

### **Attached Documents:**

Project Coordinator Program

☐ Information Technology

Salem Revised Codes Chapter 56.012			
Categ	ories – Please check all categories that apply to your best practice		
	Plan Review		
	Permitting		
	Inspection		
	Management/Administration		
	Legal		
$\checkmark$	Customer Service		

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Reviewed by:		Date of Review:



## **MEMORANDUM**

**FROM:** Division Administration

**DATE:** 11-30-2004 Revised 8-30-2012

**SUBJECT: Project Coordinator Program** 

#### **Project Coordinator Program:**

The goal of the program is to facilitate and improve the coordination and communication between all development review departments and divisions as staff help to shepherd major projects through the City of Salem permitting process. The program is voluntary for project valuation under 10 million dollars and mandatory for those with a greater valuation. The intent of the program is for applicants to have a single contact for the permitting process.

#### **Project Coordinator Responsibility:**

Responsibilities include coordinating with contractors, consultants, other agencies and other stakeholders through the City's permitting process.

Project coordinator will act as a liaison, facilitator, monitor, and/or coordinator of the City's participation in major and/or special construction projects and will work closely with other City departments and stakeholders to facilitate smooth work flow through processes including project design review, submittal conferences, plan review, permit approval, inspection, with continued involvement until completion of project. Project duties include scheduling, facilitating, and conducting meetings; preparing progress reports, evaluating projects and assisting with making appropriate process adjustments throughout the project; completing project documentation after completion; and preparing and submitting required documentation to other departments or agencies.

#### Fees:

Fees shall be as per Salem Revised Code 56.012 and the adopted fee schedule for the Building and Safety Division.



#### Salem Revised Codes

# Chapter 56 BUILDING CODE

#### 56.012. Expedited and Enhanced Services.

- (a) Development with a value of less than \$10,000,000. An applicant or permittee for a development with a value of less than \$10,000,000, may enter into an agreements with the City for the provision of expedited or enhanced services, which may be provided by the City through professional or personal services contracts, hiring additional staff or covering costs of overtime.
- **(b) Development with a value of \$10,000,000 or more.** An applicant or permittee for a development with a value of more than \$10,000,000 shall enter into an agreement with the City for the provision of enhanced services, which may be provided by the City through professional or personal services contracts, hiring additional staff or covering costs of overtime. The Building Official may waive the requirement for enhanced services if the Building Official determines, that interdepartmental regulatory coordination is not reasonably anticipated to be necessary, based on the following factors; the complexity of the proposed project; the development standards applicable to the proposed project do not require the extensive exercise of discretion or legal judgment; and that the value of public improvements required to be built as part of the proposed project disproportionately outweigh the value of any buildings or structures to be built as part by the applicant or permittee. The Building Official's determination of whether to grant or deny a waiver is a final decision. An applicant or permittee under this subsection, may, but is not required to, enter into an agreement for provision of expedited services.
- **(c)** An agreement for expedited services or enhanced services shall include, in addition to any other necessary information, the following:
  - (1) A list of services to be provided and the hourly rate or cost for providing the expedited or enhanced services to the applicant or permittee, and
  - (2) A statement that no principal-agent relationship or other special relationship is created between the applicant or permittee and the City or its employees by the City's provision of expedited or enhanced services and that the City or its employees are not liable for any damage caused by a delay in issuance of a permit or approval for the development.
- (d) The Building Official shall not alter or establish processing priorities or schedules based upon an expectation of entering into an expedited or enhanced services agreement, and

shall only provide expedited or enhanced services after an agreement to provide such services has been voluntarily entered into between the City and the applicant or permittee.

- **(e)** For purposes of this section, the Building Official shall determine the value of the development by combining the value of all the private improvements to be built, based on the most current International Code Council building valuation data table, plus the estimated construction cost of the public improvements required for the development, based on a cost estimate certified by a professional engineer to be provided by the applicant.
- **(f)** Within fourteen days of execution of an agreement to provide expedited or enhanced services, the applicant or permittee shall deposit in an account established with the Building and Safety Division an initial amount equal to one half of one percent of the value of the development, or \$20,000.00, whichever is less.
- **(g)** The deposit shall be drawn down each month in the amount of fees accrued. The applicant or permittee shall replenish the account on a timely basis such that the account balance does not go below \$1,000.00. In the event the account balance goes below \$1,000.00, the Building Official shall, until such time as the account balance is \$1,000.00 or greater, discontinue providing expedited or enhanced services.
- **(h)** The Building and Safety Division shall provide itemized monthly statements to the applicant or permittee detailing the time spent by staff pursuant to the agreement for expedited or enhanced services.
- (i) All hourly rates shall be as provided in the Building and Safety Division fee schedule, and charged in one-half hour increments. (Ord No. 62-05; Ord No. 16-08)

## **Appendix Q**

# **CITY OF SANANTONIO**

1901 S Alamo St San Antonio, TX 78204 (210) 207-5097

Contact Information:
Terry Kannawin
Assistant Director, Plan Review
(210) 207-6535
Terry.Kannawin@SanAntonio.Gov

### **Best practices include:**

- Plan Review
- Permitting
- Management/Administration
- Customer Service
- Information Technology



#### Contact Information:

Terry Kannawin
Development Services Business Administrator
<u>Terry.Kannawin@sanantonio.gov</u>
(210) 207-6535

Development Services Department City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966

#### Program Description:

Publish Information Bulletin as a customer service initiative to assist customers in understanding the department's submittal and technical review requirements.

#### Costs / Benefits:

The department publishes Information Bulletins as a customer service initiative to assist customers in understanding the department's submittal and technical review requirements. The Information Bulletins also serve to clarify the development process or explain a new process. Prior to publishing an Information Bulletin, the department meets with key stakeholders to explain the issues and gather feedback and support. All Information Bulletins are posted to the department's website.

The Information Bulletins save customers time in the review and inspection process. For example, the department has an Information Bulletin that provides a checklist of all documents required for a complete commercial building permit application.

#### Attached Documents:

Link to Information Bulletius:

https://webapps1.sanantonio.gov/dsddocumentcentral/Search.aspx?B=%25&C=%25&D=Information%2 0Bulletins&T=%25

<u>Categories</u> - Please check all categories that apply to your hest practice

- ✓ Plan Review✓ Permitting
- ✓ Inspection
- □ Management/Administration
- ⊔ Legal
- □ Customer Service
- □ Information Technology



#### Contact Information:

Terry Kannawin
Development Services Business Administrator
<u>Terry.Kannawin@sanantonio.gov</u>
(210) 207-6535

Development Services Department City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966

#### Program Description:

Publish Standing Operating Procedures (SOP)

#### Costs / Benefits:

The department publishes SOPs to provide staff with clear guidance on the department's processes and procedures and to ensure consistency across the department. Where possible, prior to publishing the SOP's, they are shared with staff to gather there feedback and support. All SOP's are posted to the employee website.

#### Attached Documents:

Categories - Please check all categories that apply to your best practice

- ✓ Plan Review
- ✓ Permitting
- ✓ Inspection
- ✓ Management/Administration
- D Legal
- ✓ Customer Service
- 1 Information Technology



#### Contact Information:

Terry Kannawin
Development Services Business Administrator
<u>Terry.Kannawin@sanantonio.gov</u>
(210) 207-6535

Development Services Department City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966

#### Program Description:

Call Center

#### Costs / Benefits:

The department has a dedicated call center that answers general questions regarding the development process, status of permits and inspections, and schedules inspections. The call center also responds to open records requests, the department's customer email account, and posts engineer letters and other documents to the department's permitting system.

The call center staffing level is 14 FTE's and they answer approximately 600 calls a day.

#### .Attached Documents:

<u>Categories</u> – Please check all categories that apply to your best practice

- ✓ Plan Review
- ✓ Permitting
- ✓ Inspection
- ✓ Management/Administration
- U Legal
- ✓ Customer Service
- ✓ Information Technology



#### Contact Information:

Terry Kannawin
Development Services Business Administrator
<u>Terry.Kannawin@sanantonio.gov</u>
(210) 207-6535

Development Services Department City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966

#### Program Description:

Completeness and Assignment Review Team (CAR) for Commercial Intake

#### Costs / Benefits:

The CAR team provides one-stop service for those customers seeking to submit an application for commercial building permits. The CAR team provides a completeness review of the commercial building application and all associated construction plans and documents. The objective of the completeness review is to reduce the need for the re-submittal of drawings that were disapproved because required information was missing. The team will perform a nontechnical summary review of construction plans/documents with the objective of identifying any missing, critical elements prior to the actual start of the formal review process. If elements are missing, the team will communicate with the customer in a timely manner so that they are aware of any missing plans/documents. Submittal documents will also be reviewed by the CAR team to properly assign/route the plans to appropriate City review agencies for their technical review and approval.

The review period for completeness and assignment of submittals for commercial building permits is three working days from time of submittal. If the application, construction documents and all required review agency documents are complete, the official city clock for plan review will start the day that the plans were received. If the submittal package is not complete, the design team/owner will be provided a list of items in writing that need to be submitted. Until the required documents are submitted to the CAR team, the fees for plan review will not be able to be paid, the application will be deemed incomplete and the clock for plan review will not start. Incomplete applications will remain with the CAR team for a period of 30-days. If the application is still incomplete after this time, the application will be considered abandoned.

<u>Categories</u> - Please check all categories that apply to your best practice

- ✓ Plan Review
- ✓ Permitting
- .! Inspection
- ! Management/Administration
- Legal
- ✓ Customer Service
- Information Technology



#### Contact Information:

Terry Kannawin
Development Services Business Administrator
Development Services Department
City of San Antonio
P.O. Box 839966
San Antonio, Texas 78283-3966
Terry.Kannawin@sanantonio.gov
(210) 207-6535

#### Program Description:

Training Programs

#### Costs / Repefits:

Training and employee development are critical in helping the department achieve its goals and objectives. By building and maintaining viable training programs, the department is able to support our customer, community and stakeholder needs while ensuring life and safety concerns are satisfied.

Our three main training programs focus on continuing education and certification, community outreach and broadening the knowledge base of our staff. The San Antonio Building Codes Academy (SABCA) is a South/Central Texas regional training academy, sponsored by the City of San Antonio Development Services Department. SABCA was established with the goal of bringing high-quality educators and necessary building-related codes training to code officials, design professionals, builders, tradesmen and building owners and managers. SABCA is currently sponsoring training seminars in the spring, fall and winter of each year.

Our monthly Learning at Lunch sessions are a great opportunity for our staff and guest speakers to discuss code application and special topics with members of the development community. These sessions are held on the third Friday of each month and are absolutely free.

Our in-house training program leverages the knowledge and specialized experience of our staff to broaden the knowledge base of our department. Each month we present different division and section topics to help our staff learn how their efforts contribute to the entire development process.

.Categories - Please check all categories that apply to your best practice

- ✓ Plan Review
- ✓ Permitting
- ✓ Inspection
- ✓ Management/Administration
- ∴ Legal
- ✓ Customer Service
- Information Technology



#### Contact Information:

Terry Kannawin
Development Services Business Administrator
Development Services Department
City of San Antonio
P.O. Box 839966
San Antonio, Texas 78283-3966
Terry.Kannawin@sanantonio.gov
(210) 207-6535

#### Program Description:

Posting of Plan Review and Inspection Results.

#### Costs / Benefits:

The department posts "real time" plan review and inspection results to its website. In addition, the department will email the customer with the results of their plan review.

The department also has an Event Notification System that customers can sign up to receive real time plan review and inspection results by email and text message. This service currently costs \$1/permit.

#### .Attached Documents:

Link to obtain permit status: http://www.sanantonio.gov/dsd/permit\_review\_search.asp.

Categories - Please check all categories that apply to your best practice

- ✓ Plan Review
- ✓ Permitting
- ✓ Inspection
- Management/Administration
- ☐ Legal
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Development Services Department City of San Antonio P.O. Box 839966 San Antonio, Texas 78283-3966

#### Program Description:

Quality Control Programs

#### Costs / Benefits:

Development Services has a formalized random quality control program to evaluate staff's job performance. Field inspectors, permit staff, and call center staff are audited on a monthly basis. Plan reviewers are subject to random audits on a quarterly basis. Managers and supervisors use an audit checklist to perform their audits and will determine the number of major, minor and/or coaching opportunities to calculate staff's score. Staff with a finding of any major error and/or minor errors in excess of five percent will receive coaching and other training, as needed. In addition, staff will receive a follow-up audit.

Each quarter, the director and his management team review the results of the audit and monitor corrective action as needed.

.Categories - Please check all categories that apply to your best practice

- ✓ Plan Review
- ✓ Permitting
- ✓ Inspection
- ✓ Management/Administration
- : Legal
- ✓ Customer Service
  - Information Technology

FROM: City of San Antonio Development Services Department

**SUBJECT:** Best Practice Submission – Mobile Inspections

**DATE:** July 25, 2015

#### **Contact Information:**

James Flood
Business Administrator
James.Flood@SanAntonio.Gov
(210) 207-5097

Development Services Department City of San Amonio P.O. Box 83966 San Antonio, TX 78283-3966

0) 207-5097 San Apromo, 1X /8283-3960

#### **Program Description:**

Mobile Inspection web-based application deployment to inspection personnel.

#### **Cost/Benefits:**

Development Services, in partnership with our Information Technology Services Department, developed a web-based application that connects to the City's permitting system using a cellular signal. The application replaces the need for field inspectors to use a desktop virtualization application to connect to the permitting system in order to view, update, and process inspection activities. The vebapplication relies upon a cellular signal to connect to the permitting system to view and process inspections using a tablet or mobile phone.

#### **Attached Documents:**

None

#### **Categories:**

- ☐ Plan Review
- □ Permitting
- ✓ Inspection
- ✓ Management/Administration
- ☐ Legal
- ✓ Costomer Service
  - Information Technology

FROM: City of San Antonio Development Services Department

**SUBJECT:** Best Practice Submission – Route Optimization

**DATE:** July 25, 2015

#### **Contact Information:**

James Flood Business Administrator James.Flood@SanAntonio.Gov (210) 207-5097 Development Services Department City of San Antonio P.O. Box 83966 San Antonio, TX 78283-3966

#### **Program Description:**

Route Optimization for building code inspections allows customers to see their place in the inspection queue through e-mail notifications.

#### **Cost/Benefits:**

The implementation of the system allows inspectors to complete 2-5 more inspections per day, depending on inspection activity, and reduce fuel costs through more efficient routes. The application also eliminates time inspectors spend researching inspection locations, using may books and map page numbers to find locations in a grid, and determine their inspection routes.

The application sends an e-mail to the customer notifying them their place in queue and will minimize the number of calls from customers wanting to know their articipated inspection time. Supervisors and the management team can see in near real-time the location of their inspectors, the status of the inspections in the field inspector's queue, and see a location history.

# Attached Documents: None Categories: Plan Review Permitting Inspection Management/Administration Legal Customer Service Information Technology

FROM: City of San Antonio Development Services Department

**SUBJECT:** Best Practice Submission – Complex Commercial Field Operations Plan

**DATE:** July 25, 2015

#### **Contact Information:**

Michael Shannon Assistant Director, Field Services Michael Shannon@SanAntonio.Gov (210) 207-5006 Development Services Department City of San Antonio P.O. Box 83966 San Antonio, TX 78283-3366

#### **Program Description:**

Appointment of specialized inspection teams and a Senior Development Services Representative under the Complex Commercial Field Operations Plan for large commercial projects.

#### **Cost/Benefits:**

This program supports a facilitation environment for general contractors and construction teams during the preconstruction, vertical support and pre-Temporary Certificate of Occupancy phases for complex commercial projects over 20,000 square feet. The program will help ensure construction timelines, objectives, milestones and inspection goals are met. Team leaders are the critical link betweep contractors, inspectors, plan review and customer service personnel. The objective is to build partnerships with contractors and owners early in the construction process to help achieve project goals, timelines and ultimately Certificate of Occupancy target dates. The CCFOP program differs from typical trade inspection organizational structure; teams are uniquely organized and designed to maintain continuity in the inspection process and provide close coordination and inspection support for the project's entirety.

#### **Attached Documents:**

Complex Commercial Field Operations Plan

#### Categories:

- □ Plan Review
- ✓ Permitting
- ✓ Inspection
- ✓ Management/Administration
- Legal
  - **Customer Service**
  - Information Technology

FROM: City of San Antonio Development Services Department

**SUBJECT:** Best Practice Submission – Mobile Device Deployment

**DATE:** July 25, 2015

#### **Contact Information:**

James Flood
Business Administrator
James.Flood@SanAntonio.Gov
(210) 207-5097

Development Services Department City of San Antonio P.O. Box 83 66

San Antonio, TX 78283-3966

#### **Program Description:**

Implementation of Android-based mobile devices for inspection personnel

#### **Cost/Benefits:**

San Antonio TX's Development Services Department deployed Android-based tablets and smart phones for their inspection force. This initiative provides a device more conductive to entering inspection results at the point of inspection and helped resolve connectivity challenges field personnel faced. This initiative also reduced inspection computer expenses by almost 60% with a savings of approximately \$56,000 compared to a rugged device. The change in platform also allows inspectors to leverage web-based applications and systems being designed for smaller computing devices.

#### **Attached Documents:**

None

#### **Categories:**

- □ Plan Review
  - □ Permitting
  - ✓ Inspection
  - ☐ Management/Administration
  - ☐ Legal
  - ✓ Customer Service
  - ✓ \_Information Technology

FROM: City of San Antonio Development Services Department

**Best Practice Submission – Mobile Device Deployment SUBJECT:** 

**DATE:** July 25, 2015

#### **Contact Information:**

Terry Kannawin Assistant Director, Plan Review Terry.Kannawin@SanAntonio.Gov (210) 207-5097

s Department Developmen City of

TX 78283-3966

#### **Program Description:**

Q-Matic Customer Flow Management upgrade posts trade license and permit wait times on the department's web page.

#### **Cost/Benefits:**

Development Services recently upgraded its customer quering service through Q-Matic to provide a better customer experience, streamline queuing activity and provide better eastomer service analytics. Customer wait times are posted on the department web page so customers can ceel in real time how many customers are already in the queue and their estimated wait times for trade licenses, permits, Certificates of Occupancy, and nine other service areas. The new system added an audible component to announce ticket numbers in the lobby to help ensure customers don't miss their place in queue. This enhancement to our business helps ensure 90 percent of our customers are served within 20 minutes or less, helps our management team fully understand our customer's visit and helps manage our operation and drive effi

#### **Attached Documents:**

http://www.sanantonio

#### **Categories:**

- - ement/Administration

ustomer Service

Information Technology

