THE DIGITAL AGE – HELPING BUILDING DEPARTMENTS ENHANCE THEIR EFFECTIVENESS AND EFFICIENCY – AN OVERVIEW & LOOK AT EPERMITTING

Presentation from the Alliance for Building Regulatory Reform in the Digital Age
To Metro West Building Officials Association – June 14, 2011
Helping Building Departments Enter the Digital Age

• Part I – Recovery & Beyond – R. Wible
  - The Streamlining Imperative
  - IT & Building Departments
  - Taking the Steps & Available Resources

• Part II – Helping Move from Paper to Digits – T. Myers & D Fondacaro
  - Introduction & Survey
  - What it takes to move from paper to digits
  - Needs assessment sessions with jurisdictions
Recovery & Beyond – A Look At Trends and Tools to Improve Building Department Effectiveness & Efficiency

- A look at the “Streamlining Imperative” - trends and forces impacting state and local government

- IT Tools that Increase Effectiveness & Efficiency

- Taking the Steps to Assess Needs & Apply IT
Alliance for Building Regulatory Reform in the Digital Age

• A Public/Private Partnership of Associations & Government Agencies – Summer of 2001
  – NACo, Mayors, NGA, NASCIO, Federal Agencies HUD, DOE, NIST...
  – FIATECH, AIA, NAHB, AGC, BOMA, ....
  – Wisconsin; Los Angeles; Fairfax County, VA; Salem, OR, etc..

• Share best practices to improve gov’t effectiveness & efficiency

• Provide streamlining resources that, when adopted increase building department effectiveness and efficiency and reduce regulatory process times by 60%
Forces Impacting Construction, Elected Officials and Regulation

6 CHALLENGING FORCES – 1990s to Present – Have come together in a perfect storm....

- Economic
  - changing role in global economy & struggle out of severe recession
- Reduced Resources
  - demands for downsizing and increased efficiency in govt.
- Public Safety
  - greater demand from natural disasters and terrorism
- Demographic
  - aging population & immigration
- Environmental
  - energy costs, resource depletion & global warming
- Technological
  - rapid changes & new technologies
Construction Industry Response to these Forces?
Construction Industry Response

• Initial Response to Overwhelming Economic Forces Caused by Recession:
  - Retrench by cancelling or postponing projects or build elsewhere
  - Home Builders - Dump land & look at renovation & higher densities for future building
  - Look for and promote “shovel ready” projects for economic stimulus packages - State/Fed
  - Look for partners to promote greater efficiency
• Build Safer, Faster, Better & Less Cost by:
  - Building Green & Sustainable
  - Building more efficiently - use IT & Other Technologies to reduce waste:
    – BIMs (Building Information Modeling) for whole building life cycle - construction thru O & M, renovation & demolition.
    – Supply chains are integrated into Virtual Building design and construction systems
    – Support IT for less time in regulatory system
Government’s Response?
Government’s Response

• ELECTED OFFICIALS:
  - Retrench – Cut budgets & staff
  - Find ways to be more efficient – “do more with nothing!”
  - Go Green
  - Promote Fed/State funding for “Shovel Ready” projects
  - Find ways to get buildings up and on tax rolls sooner!
Pressures from Construction Industry & Elected Officials on Your Departments

- Reduce Staff / travel/ resources to do job
- Make your programs support their “Green Initiatives” - Fast track to green projects
- Be ready to facilitate “shovel ready” projects
- Demand greater efficiency (speed) in admin & enforcement activities & be prepared for next boom
The Efficiency Imperative = A Streamlining Imperative

- Can no longer afford regulatory inefficiencies -
The Regulatory System Response Thru Start of Recession?

- Nationwide, only 10% of 40,000 jurisdictions, adopting and enforcing building codes, use IT
  - Only 2% allow electronic submission of plans
  - Less than 1% do reviews
  - Less than 4% use mobile inspection technology

- Near total lack of interoperability of building data within same jurisdiction
- Virtually none between jurisdictions
- Yet even with recession IT application growing......
Promising Jurisdiction Responses

• Statewide Responses: Oregon ePermitting project; Idaho looking into ePlan Review & BIM, Louisiana IT Roadmap

• Regional Responses – Joint Venture in S. Bay Area of California looking at regional ePlan review

• Multi-County approaches in several states

• Growing number of local jurisdictions applying IT across all programs – reduce amount of time by 60
Examples of IT Savings & Increased Efficiency

• Louisville, KY – ePermitting 50% time reduction
• Forsyth Co., GA -IVR system reduced wait periods for inspection from 2-3 days to 24hrs
• Maricopa Co., AZ & Osceola Co., FL – ePlan Reviews reduce plan review time by 60%
• Jurisdictions in States of NY, CA, PA, & TX doing single plan reviews for Replicable Buildings
• Portland, ME & Bend, OR – provide electronic as-builts to first responders
• Bend, OR – IT throughout ePermit, ePlan review, e-Inspections
Promising Support from Industry for Streamlining & IT to improve efficiency

• National Associations promoting members meet with Elected Officials to support building department Streamline & IT – AGC, AIA, BOMA,...

• Support for IT Surcharges on Building Permits

• Through Alliance projects at FIATECH, funding:
  - ICC Guideline for Replicable Buildings
  - Digital Seals for plans
  - Development of Automated Code Checking Tool with ICC
Taking Steps to Prepare for & Put IT in Place
Top 10 Reasons Why Jurisdictions Don’t Streamline and Use IT
Top 10 Reasons Why Jurisdictions Don’t Streamline & Apply IT

• #10 – Horror Stories – neighbors that have tried & failed

• # 9 – Lack of information on Benefits, Reliable ROI data

• # 8 – Lack of information on “What is available and what really works.” (e.g. – ePlan review, remote inspection tech.)
Top 10 Reasons

- # 7 – Lack of Interoperable Software keeping complexity & cost of interagency use high
- # 6 – “This Data is Mine!” Information is power
- # 5 – Lack of Support from Stakeholders / Customers for I.T.
- #4 – Lack of Technical Support / trained staff within jurisdiction to install & maintain
Top 10 Reasons

• #3 – “Fear Of Change” by Staff & Clients
  
  – Both perceived & real, and a history of I.T. being applied before business process has been streamlined

• #2 – Lack Of Funding, both perceived & real
  
  – Funds being diverted for other uses by jurisdiction’s elected/administrative officials
And the # 1 Reason -

• SHEAR INERTIA

• Bodies at Rest Stay at Rest
Overcoming These Barriers:

• Publications, Guides Available from the Alliance & jurisdictions that have applied IT
• Actions you can start taking now within your jurisdiction to address barriers, assess needs
• Build both internal & external support

www.natlpartnerstreamline.org
Materials Available From Alliance

• Streamlining Toolkit
• Guides & Reports

THE ELECTED OFFICIALS GUIDE TO ENHANCE PUBLIC SAFETY & ECONOMIC COMPETITIVENESS THROUGH USING INFORMATION TECHNOLOGY IN BUILDING DEPARTMENT PLAN SUBMITTAL, REVIEW, TRACKING AND STORAGE

Electronic plan review hardware and software are reducing the amount of time it takes to review plans by as much as 50% and increasing code compliance within their communities.

Tools Available from the Alliance

• Replicable Building Guidelines – ICC & FIATECH
• Proof of Concept Project to Develop Automated Code Checking Tool – with ICC & FIATECH
• Report on Federal Grants to support Streamlining & IT (being updated for 2011)
Moving from Behind the Curve to Ahead of It - Internal Actions You Can Take

• Address Perceptions vs. Realities
• Turn Adversaries into Allies
• Sharing Best Practices in Streamlining & Being both More Efficient & Green
• Make Use of Tools at your disposal now
• Consider working with other Building Officials & Construction Industry in MA to develop an Agenda for Change – State funding support for IT (e.g. – IT Roadmap done for Louisiana)
Actions You Can Take

- Address Perception vs. Reality – A Proactive approach - more outreach now to your external stakeholders & elected officials to:
  
  - Share examples of efficiencies you already have achieved
  - Ways in which you enhance economic development & speed to recovery from disasters
  - Identify areas in need of improvement & start to work on them ahead of being directed

“Down Time” is the “Best Time” to assess & start action
Benefits of IT to Disaster Preparation, Response & Recovery

• Strengthen code enforcement
• Speed damage assessment - mobile inspection devices
• Speed rebuilding process thru ePermitting, ePlan Review, IVR, interoperable mobile inspection devices.
Build Stakeholder Support

• Turn Adversaries into Allies:
  - Most successful programs reach out to external stakeholders and involve them in recommending & making improvements to their programs. (Milpitas, CA’s – “Partnership to Achieve Goals”)
  - Work now on staff culture – from regulator to partner in construction of safe, efficient buildings (Salem, OR – Advisory Committee)
Actions You Can Take

• Perform Self-Assessment using Work Group comprised of internal & external stakeholders (White Paper Checklist)
  – Work flow & work load (Part II of our presentation)
  – Personnel & Organizational issues
  – Operating Budgets
  – Technical expertise & existing technology
  – Communications & Coordination
Actions You Can Take

- Share Best Practices - Green & Streamlining
  - Identify & publicize existing green benefits from I.T. & streamlining already done – ePermitting, remote field inspection technology, IVR systems, etc.
  - Identify & publicize streamlining efficiencies – reduced time in regulatory system, more efficient uses of staff – 40% - 60% reductions.
Summary of Actions You Can Take

- Work with Private Sector to act on the complex interacting forces impacting them & government - a Collaborative Effort!
- Identify & reduce barriers to streamlining in your jurisdiction
- Work with stakeholders & elected officials to embrace & fund technologies & change
- Successfully implement information technology to enhance effectiveness & efficiency
- Share the results, ROI with others
A Closing Thought

• The Major Lesson from KATRINA & JAPAN - What a Truly Large Scale Disaster Can Do To BOTH Unprepared & Prepared Communities / Region & Need for Rapid Rebuilding

• WE ALL HAVE POTENTIAL CATACLYSMIC DISASTERS WAITING TO HAPPEN.....

Therefore....
“The best way to predict the future is to design it”

- R. Buckminster Fuller
“This is precisely what the Alliance & FIATECH were formed to do. Help private, public sectors & academic community meet the challenges before us. Let’s do it together because we are all in this together!”

• For More Information Visit: www.natlpartnerstreamline.org

OR Contact:

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Questions?
PART II: Helping Move from Paper to Digits

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