
CITY OF WHEELING
BUILDING & PLANNING DEPARTMENT
PROPOSED BUDGET

FY 2021-2022



CITY OF WHEELING



CITY COUNTY BUILDING
1500 CHAPLINE STREET
WHEELING, WEST VIRGINIA 26003

BUILDING & PLANNING DEPARTMENT
Phone (304) 234-3601 | WheelingWV.gov

January 22, 2021

Mr. Robert Herron
City Manager
Wheeling, WV 26003

Mr. Herron,

Enclosed please find the proposed Fiscal Year 2021-2022 Building & Planning Department Budget. This is the initial budget being prepared for the department upon having been created as a result of the restructuring of the Economic & Community Development Department. In addition to the proposed budget, I have also included an overview of the department's accomplishments, challenges, and future goals and objectives. Thank you for considering the attached information.

Respectfully,

A handwritten signature in blue ink that reads "T.J. Connelly".

Thomas J. Connelly, AICP
Director

The Building and Planning Department oversees the development and maintenance of property in the city to ensure the purpose and intent of all applicable building and land use codes is achieved. This is accomplished through several phases of interaction with the customer including approving plans, issuing permits, inspecting work, enforcing codes (building, property maintenance, zoning, flood plain, vacant building, subdivision), resolving issues, and allowing for occupancy. All activities are conducted with the overall goal of ensuring development is consistent with the comprehensive plan, the guiding document for physical development in the city.

The goal of the department is to perform these duties in a consistent and professional manner to ensure development throughout the city meets current building and development standards. To achieve that goal, the department is staffed by seven people, nearly all of whom are regularly trained and certified in their respective disciplines. Each staff member plays a specific role in the department and includes a building code official, a building inspector, an electrical code official, a permit specialist, a code enforcement officer to administer the vacant building program, a code enforcement officer to administer the property maintenance code, and the director of the department. In addition, the department carries out the functions of the Planning Commission, Board of Zoning Appeals, Historic Landmarks Commission, and Building Code Board of Appeals. Each staff member is tasked with responsibilities that keep their daily schedule consistently full.

There are many development projects being planned, under construction, or about to be completed in Wheeling. For example, a few of the larger projects that have been approved by the Planning Commission and building staff include Panhandle Cleaning & Restoration warehouse, Washington Avenue professional office building, Ohio Valley credit union, Carnegie Greene senior living apartments, Hartley Law Group renovations, and Becker's Hardware Renovations. Projects currently under construction include the Hobbs Greene senior living apartments, the expansion of Warwood Commons, additions to Northwood Health Systems, Triadelphia Middle School and Steenrod Elementary School, and renovations to Brookpark Place apartments, North Park apartments, the Fort Henry Club, and the Bridge Tavern. Recently completed projects include the Augusta Levy Learning Center, Dr. Tiu medical office, the House of the Carpenter addition, Wheeling Hospital Long Term Acute Care (LTAC), and The Alpha Tavern. In total during calendar year 2020, the department processed 233 commercial building permits valued at \$37 million dollars and 1,051 residential building permits valued at \$8.9 million dollars.

Other accomplishments of the department include assisting with the adoption of an update to the local floodplain ordinance. This effort required working with FEMA and the West Virginia State National Flood Insurance Program (NFIP) to incorporate state standards into the local flood ordinance. Wheeling was also named the 2019-2020 WV State Floodplain Management Most Improved Program (Department) in the state, in part due to incorporating flood plain permits in our review process. There were 232 floodplain permits processed in 2020.

The department continues to provide professional services to the community in a reliable manner by being able to consistently accommodate a customer's request for an inspection on a specific date and time.

In addition to overseeing new development in the city, an equally important function of the department is ensuring current buildings and properties are maintained in conformance with building and property standards. The main challenge facing the department is eliminating neighborhood blight, which has a profound impact on the community, creates safety hazards and decreases property values. Unfortunately, the number of dilapidated buildings and unmaintained properties in Wheeling continues to be an issue. When a dilapidated building is finally removed from the city's landscape via demolition, the burden on code enforcement resources shifts from the "raze or repair of a structure" category to the "high grass and weed" category – which, seasonally requires and occupies more time by staff conducting inspections, issuing citations, preparing for court, communicating with City Operations grass crew, etc.

There are two code enforcement officers charged with overseeing the efforts to bring properties into compliance with city code. One code enforcement officer focuses on the vacant building program and the other on property maintenance. The vacant building registry currently list 287 properties with another 42 properties pending registration. In 2020, 68 properties were newly registered or re-registered to a new owner, 13 properties were removed due to occupancy and 34 were removed due to demolition. The code enforcement officer responded to 42 -311 tickets. There were \$76,450 fees collecting in calendar year 2020.

Also during 2020, the code enforcement officer responsible for property maintenance issued 253 citations, condemned 38 properties, filed 41 complaints in municipal court, and responded to 179-311 tickets. That is in addition to phone calls, emails, and other referrals that were submitted. I have found that it is unrealistic to expect one person to respond to complaints and undertake the necessary and time-consuming follow-up actions in a consistent and thorough manner, while also be expected to proactively monitor the countless number of potential property issues in a manner expected by the residents of Wheeling. Efforts have been initiated to identify procedures to improve the department's response and methodology to resolve these issues and for that reason, I am requesting funding to hiring an additional full time staff member and equip the department with technology solutions.

If revenue generation is needed to cover the request, updating fees in the department could be considered. There are some activities, such as commercial building plan review, Planning Commission site plan review, or issuing a certificate of zoning compliance that have never had a fee, even though it is common for other communities to charge for these time-consuming processes. In addition, the cost of a building permit could be reviewed as it is lower than the fee in other cities in West Virginia. Similarly, costs associated with Planning Commission and Board of Zoning Appeals functions have remained minimal and unchanged for nearly twenty years (e.g., zone change \$100, variance and all other public hearings \$50, which often only covers advertising and processing costs). In addition to adding revenue, higher fees pertaining to zone change and variance requests also serve as a deterrent for such requests and are an incentive for owners to develop in accord with existing codes. The fees that are in place have remained constant despite

the increase in costs associated with carrying out the goals of the department, including staff time to review complex blueprints for commercial construction, notification costs for public hearings, increased technological needs, increased certification and training requirements, and other costs.

2021-2022 Goals & Objectives

1. Improve code enforcement activities.
2. Improve non-emergency citizen complaint service system (311)
3. Implement GIS solutions in the department.
4. Assist in the successful adoption and implementation of a rental inspection program.
5. Assist in the successful creation of a repeat offenders program for code violations.
6. Resume Planning Commission working groups on a consistent basis, including the group tasked with reviewing the zoning ordinance for updates.
7. Organize records room.
8. Successfully transition to new office on the first floor.
9. Continue training and certification of staff.
10. Continue current level of professional services offered to the community.

Request needs / increases

To accomplish the goals outlined above, I am respectfully requesting your full consideration of the following:

- The department requests the continued funding of the demolition program at the highest level possible to continue the removal of the most dilapidated and unsafe structures in the city and the blight they create. Staff recently identified several dozen buildings in immediate need of removal.
- As discussed above, the removal of dilapidated structures from the city's landscape via demolition often only shifts the burden on code enforcement resources from "raze or repair of a structure" category to the "high grass and weed" category – which, seasonally requires and occupies more time by staff (inspecting, photo graphing citing, preparing for court, communicating with City Operations grass crew, etc.) This combined with the hundreds of properties throughout the city in need of attention regarding blight, high grass/weed complaints, dilapidated buildings, zoning violations, and the pending rental inspection program launch necessitates the hiring of an additional code enforcement officer. Based on current staffing level and methodology, code enforcement is often behind and relegated to complaint follow-up as opposed to proactive enforcement. By adding an additional inspector and modernizing the process, the goal is to improve upon the citation process and expedite the resolution of these ongoing issues to level satisfactory to the citizens and city officials. If approved, an additional vehicle to perform the duties will also be necessary.
- Funding to develop a modern code enforcement GIS solution with the goals of:
 - Coordinating the operational efficiency of the department, especially code enforcement activity

- Provide mobile field management
 - Improve operations by automating certain functions including follow-up inspection scheduling, citation printing, 311 ticket updating, and any other activities to the maximum extent possible. This will necessitate the purchase of hardware (tablets or smartphones) and ongoing software licensure described below and attached. (Tech Ref. & Services, Telephone, etc.)
- In order to accomplish the above, I am respectfully requesting increases in the following line items:
 - “personnel & benefits” – adding a second code enforcement officer
 - “office equipment maintenance” based on the department operating from two locations (City Building and the E&A Building)
 - “spec. schools-training” based on the increased training and certifications required by professional, certified staff to administer and enforce city ordinances.
 - “membership dues” based on the growing professional affiliations that accompany professional, certified staff.
 - “tech ref & services” to continue the practice of funding new computers on a revolving basis so as never to incur a large, unexpected expense by needing several computers at one time.
 - “uniforms” this is a new line item being requested for the department in order to provide staff with a uniform allowance so that they may be properly identified when in the field interacting with the public, entering homes and business, and represent the city in a professional manner. These funds would be used for short sleeve shirts, long sleeve shirts and an all-weather jacket.
 - “telephone – LD Chgs” – additional smart phones are required so that each member of staff has access to technology while in the field.
 - “personnel & benefits” an increase to the salary of the Building Code Official, Joe Touvell and Building Inspector, Travis Young for reasons outlined on their attached salary increase requests.

Thank you for your consideration of the above,



Thomas Connelly, AICP
Director

CITY OF WHEELING
DEPARTMENTAL BUDGET REQUEST
FISCAL YEAR 2021 - 22

DEPARTMENT/DIVISION: BUILDING & PLANNING				DEPARTMENT/DIVISION HEAD: TOM CONNELLY			
LINE ITEM (NUMBER & TITLE)	BUDGET CURRENT YEAR	PROPOSED BASE	NEW PROJECTS AND CAPITAL OUTLAY	BUDGET REQUEST	INCREASES (DECREASES)	APPROVED BY CITY MANAGER	
001.4437.10.1217 Building Inspector	\$42,889	\$44,089		\$44,089	+1,200		
001.4437.10.1225 Building & Planning Director	\$69,721	\$69,721		\$69,721	-		
001.4437.10.1316 Permit Specialist	\$39,062	\$39,062		\$39,062	-		
001.4437.10.1321 Building Official	\$54,288	\$59,716		\$59,716	+\$5,428		
001.4437.10.1322 (2) Code Enforcement Officer I	\$40,830	\$81,660	+\$40,834	\$81,660	+\$40,830		
001.4437.10.1323 Code Enforcement Officer II	\$45,364	\$45,364		\$45,364	-		
001.4437.10.1326 Electric Inspector	\$41,620	\$41,620		\$41,620	-		
001.4437.10.1523 Bonus/Attd. Bonus	\$1,105	\$2,100		\$2,100	+\$995		
001.4437.10.1902 Social Security	-	-		-	-		
001.4437.10.1904 Temporary Salaries	-	-		-	-		

**CITY OF WHEELING
DEPARTMENTAL BUDGET REQUEST
FISCAL YEAR 2021 - 22**

**DEPARTMENT: BUILDING & PLANNING
DIVISION:
FUND:**

PROGRAM/PROJECT	COST	PRIORITY*	JUSTIFICATION/EXPLANATION
1	2	3	4
New Code Enforcement Officer	\$40,834	1	Improve delivery of services by department.
Additional Vehicle	\$3,500	2	A vehicle will be necessary if new position is created.
Code Enforcement Software	\$20,000	3	Will improve management of code enforcement.
Tablets (4)	\$1,840	4	To be used to access software
AutoCad	\$5,000	5	Will allow Building Code Official review plans submitted in AutoCad format.

* Number the priorities starting with 1 being the first priority, 2 the second priority and so on. There should only be one item per priority.

**CITY OF WHEELING
CAPITAL EQUIPMENT OUTLAY SCHEDULE
FISCAL YEAR 2021 - 22**

**DEPARTMENT: BUILDING & PLANNING
DIVISION:
FUND:**

DESCRIPTION	NO. OF UNITS	UNIT COST	TOTAL COST	TRADE IN VALUE	NET COST	PRIORITY*	JUSTIFICATION/EXPLANATION
1	2	3	4	5	6	7	8
Vehicle	1	\$3,000	\$3,000		\$3,000	1	If additional employee is hired, a vehicle will be required.
Tablets	4	\$460	\$1,840		\$1,840	2	If new code enforcement management software is purchased, tablets will be required for use in the field.
Computer	1	\$1,800	\$1,800		\$1,800	3	Purchase a new computer every year so that no computer is more than 5 years old.
TOTAL							

* Number the priorities starting with 1 being the first priority, 2 the second priority and so on. There should only be one item per priority.

Budget Worksheet

4437.10.1523	<u>Attendance Bonus</u> 7 x 300	\$ 2,100.00
4437.10.1905	<u>Longevity</u> 42+30+25+15+6+6= 124 x 26	\$ 3,224.00
4437.20.2138	<u>Membership & Dues</u>	
	American Institute of Certified Planners	\$ 427.00
	International Association of Elec. Inspectors	\$ 240.00
	Association of State Floodplain Managers	\$ 165.00
	WV State Building Code Official Association	\$ 160.00
	ICC	\$ 270.00
	Friends of Wheeling	\$ 10.00
		<u>\$ 1,272.00</u>
4437.20.2145	<u>Office Equipment</u>	
	Copier-city building	\$ 145.00
	Copier-A&E	\$ 110.00
	Maintenance	\$ 50.00
	Maintenance	\$ 50.00
	per month	\$ 355.00
	Annual	<u>\$ 4,260.00</u>
4437.20.2149	<u>Tech Reference</u>	
	Property Maintenance Solution	\$20,000
	AutoCad	\$5,000
	Computer	\$2,000
	BlueBeam Plan Reviewer	\$350
		<u>\$27,350</u>
4437.20.2162	<u>Training</u>	
	Joe - ICC, Firestop, ASFPM CEUs	\$ 1,859.00
	Travis -Plumbing, CEUs	\$ 659.00
	Tom C. - AICP CEs	\$ 500.00
		<u>\$ 3,018.00</u>
4437.20.2167	<u>Uniforms</u>	
	Short Sleeve shirts \$100 x 5 employees	\$ 500.00
	Long Sleeve Shirt \$60 x 5 employees	\$ 300.00
	Jacket \$50 x 6 employees	\$ 300.00
		<u>\$ 1,100.00</u>
4437.20.2173	<u>Phone</u>	
	3 smart phones @ \$40/month x 12	\$ 1,440.00
	3 smart phones data @ \$20/ month x 12	\$ 720.00
	4 tablet data @ \$20/month 12	\$ 960.00
		<u>\$ 3,120.00</u>
4437.40.4151	<u>Capitol Outlays</u>	
	Vehicle	\$ 3,000.00
	Tablets (4 @ \$300 each)	\$ 1,200.00
		<u>\$ 4,200.00</u>
4437.20.3146	<u>Postage</u> - current \$638 x 4 (new program)	\$ 2,552.00

staff	hourly	x 40	x2	x26	yearly salary	3%	Hire Month	HireYear	2021 -22	Years of Service
Blake	\$ 18.78	\$ 751.20	\$ 1,502.40	\$ 39,062.40	\$ 39,062.40	\$ 40,234.27	September	1992	29	
Connelly	\$ 33.52	\$ 1,340.80	\$ 2,681.60	\$ 69,721.60	\$ 69,721.60	\$ 71,813.25	July	2002	19	
Stewart	\$ 20.01	\$ 800.40	\$ 1,600.80	\$ 41,620.80	\$ 41,620.80	\$ 42,869.42	December	2020	1	
Tappe	\$ 19.63	\$ 785.20	\$ 1,570.40	\$ 40,830.40	\$ 40,830.40	\$ 42,055.31	March	2005	17	
Touvell	\$ 26.10	\$ 1,044.00	\$ 2,088.00	\$ 54,288.00	\$ 54,288.00	\$ 55,916.64	May	2018	4	
Wilson	\$ 21.81	\$ 872.40	\$ 1,744.80	\$ 45,364.80	\$ 45,364.80	\$ 46,725.74	May	2011	11	
Young	\$ 20.62	\$ 824.80	\$ 1,649.60	\$ 42,889.60	\$ 42,889.60	\$ 44,176.29	February	2019	3	

CITY OF WHEELING



CITY COUNTY BUILDING
1500 CHAPLINE STREET
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BUILDING & PLANNING DEPARTMENT
Phone (304) 234-3601 | WheelingWV.gov

January 21, 2021

Tom Connelly, Director
Building & Planning Department
Wheeling WV, 26003

Dear Mr. Connelly:

This report contains the Building Code Official's work load for 2020 and the upcoming costs for 2021.

1. Permits Processed:	Commercial Building Permits: 233	Value: \$37,005,036.15
	Residential Building Permits: 1,051	Value: \$ 8,960,913.28
	Floodplain Permits: 232	
2. 311 Tickets:	23 Closed Cases	
	4 Active Cases	
3. Plan Reviews:	Commercial: (Full Set of Drawings)	27
	Residential: (Full Set of Drawings)	5
	General Plan Review (Sketches)	804
4. Citations:	40	
Court Cases:	19 (8 active)	
5. Cost of Memberships:	ICC	\$135.00
	WV State Building Code Officials Association	\$160.00
	Association of State Floodplain Managers	\$165.00
	International Association of Elec. Inspectors	\$120.00
6. Cost of Uniforms:	Short Sleeve Shirts	\$100.00
	Long Sleeve Shirts	\$ 60.00
	Jacket	\$ 50.00

(These costs should be multiplied by the number of inspectors for the total costs)

7. Cost of Training:	Classes – 1 per quarter (total of 4) @ \$200.00 =	\$800.00
	Hotels - 1 per quarter (total of 4 @ 100.00=	\$400.00

8. ICC Prep Exam/Study Guide		\$50.00
9. ICC Test		\$209.00
10. International Firestop Council – Firestopping Inspector Exam		\$500.00
11. ASFPM CEU Classes		
1. <u>Designing for Flood Loads Using ASCE (RV-10791AW): Core</u>		\$100.00
2. <u>Flood Mitigation and Special Flood Hazard Areas (RV-5341): Core</u>		\$200.00
12. Cost of Software:		
Bluebeam PDF Reviewer for Plan Reviews		\$350.00
AutoCAD – able to review Water Dept. Dwg’s		\$5000.00
(This is the cost for one seat; Mike Stahl currently has it on his computer)		

Goals:

My goals for the upcoming year are many but I will start with the obvious one of making sure that we continue to deliver the highest level of customer service by providing prompt service with the issuance of building permits and plan reviews. I will continue to research the implementation of different software and hardware for field inspections to help with our inspection process. I will also continue to work with you and the various Council Members on the Repeat Offenders Program for Building Code Violations and the Rental Property Inspection Program. The goal is to modify our existing Property Maintenance Ordinance to minimize the amount of repeat offenders.

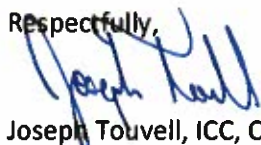
I also plan to take the ICC – P1 Plumbing Inspector exam this upcoming year as well continue to expand my knowledge base in the Electrical field by taking several classes on Electrical Inspections and Plan Reviews. These classes will allow me to conduct more efficient plan reviews in the future.

My next certification will be through the International Firestop Council (IFC) as a Firestopping Inspector and Plans Reviewer. This IFC Inspector certification is related to Chapter 17 of the International Building Code – Special Inspections and specifically on how to plan the inspection and plan review as well as understand what we are inspecting. This certification will help me with my duties as the Building Code Official and Plans Reviewer. This will allow me to become more efficient in my Life Safety Plan Reviews and more effective in my field inspections. This exam has a cost of \$500.00.

I would also like to attend the National Conference also going to schedule some of the ICC Building Code Official Leadership Courses that will provide some training on how to become a better team leader and effectively lead a Building Inspections Department. Specifically, this will allow me the opportunity to see how other Building Code Officials are dealing with time management issues and how to communicate with staff members. The training is geared towards becoming a Building Code Official and a better leader for the team.

I will continue to enroll in several classes that allow me to obtain my continuing education credits that are required for my certifications as Building Code Official and Certified Floodplain Manager.

Respectfully,



Joseph Touvell, ICC, CFM
 Building Code Official
 Certified Floodplain Manager

11/1/21

CITY OF WHEELING

BUILDING & PLANNING DEPARTMENT

PROPOSED BUDGET FY 2021-2022

SUPPORTING DOCUMENTATION



City of Wheeling, WV

Citizen Request Management (CRM), Code Enforcement Case Management Software (CE)

January 21, 2021

Prepared By:

Kevin Strauss, Director of Sales

(631) 861-5812

Kevin@GoGovApps.com

Prepared For:

Tom Connelly

Director - Building & Planning

tonnelly@wheelingwv.gov

Subscriptions & Services

Description	Amount
GOREquest Citizen Request Management (CRM) - Unlimited Subscription	\$1,000 /month
GOEnforce Code Enforcement Case Management (CE) - Unlimited Subscription	\$700 /month
Bundle Discount	-\$340 /month
Services: \$0 Annually: \$16,320 Monthly Total: \$1,360	

Order Details

Primary Contact			
Contact Name:		Phone:	
Title:		Email:	

Billing Information			
Contact Name:		Phone:	
Quote Month:		Email:	
PO #: (Optional)		Cycle:	Annual Billing

Billing Practices: GOGovApps will send renewal quotes for budgeting purposes at the beginning of the *Quote Month* specified. Invoices are sent 45 to 60 days prior to subscription renewal and are due prior to the start of the *Subscription Period*. To align billing with budget cycles, extend *Initial Subscription Period* to include extra months and we will send an initial invoice for the extra prorated months and then a second invoice for the remainder of the *Initial Subscription Period*.

Contract Information	
Initial Subscription Period:	12 months starting:
Replacing Contracts:	If replacing existing agreement provide contract # or description & date.
Contract #: (Internal)	

Terms & Conditions

The following terms are the latest version of the GOGovApps Master Terms & Conditions that is maintained and updated. No part of these terms may be modified other than the "Special Terms & Exceptions" section.

1. **IMPORTANT NOTICE TO USER:** GOGov, Inc. (dba "GOGovApps") owns all intellectual property in the software products listed in the Products and Services section (collectively "Software" or "Subscription Services") in the Order Form. Customer shall not modify, adapt, translate, rent, lease or otherwise attempt to discover the Software source code. The following terms and conditions (this "Agreement") will be effective as of the date of last signature of the Order Form ("Effective Date") and will be governed by the laws in force in the State of New York.
2. **Software License.** The Software subscription services and the accompanying files, software updates, lists and documentation are licensed, not sold, to you. You may use a copy of the Software on your compatible computer for the purpose of connecting to the hosted service provided by GOGovApps as long as you are a current subscriber and maintain your annual continued services for the applicable licenses. Except as expressly set forth herein, GOGovApps disclaims any and all express and implied warranties, including but not limited to warranties of merchantability and fitness for a particular purpose.
3. **Continued Services**
 - 3.1 **Hosting.** GOGovApps agrees to maintain Customer data in a secure datacenter and is committed to providing 99.5% uptime and availability. GOGovApps will perform nightly backups of your hosted data to an alternate physical location.
 - 3.2 **Ownership of Data.** All hosted data specific to Customer is owned by the Customer. Within thirty (30) calendar days following termination of this Agreement, the Customer can request and GOGovApps will provide a complete copy of Customer's data without additional charge through a downloadable zip file provided the customer is current on payments.
4. **Payment Terms & Fees**
 - 4.1 **Subscription Term and Termination.** The initial Subscription Term of this Agreement begins on Effective Date (last signature) and will continue to the end of the Initial Subscription Period listed in the Order Form. At the end of the initial Subscription Term, Customer's subscription and this Agreement will renew for an additional twelve (12) month term and for subsequent twelve (12) month periods thereafter. To stop the auto-renewal listed in the foregoing sentence, Customer must submit written notice to GOGovApps at Billing@GOGovApps.com not less than sixty (60) calendar days prior to the end of the then-current Term. GOGovApps reserves the right to increase the annual fees by 7% on the anniversary date of each annual term.
 - 4.2 **Payment Terms.** Initial payment is due at the beginning of the subscription term. Each subsequent annual billing will be due on the anniversary date of the initial term. Payment Terms are NET 30 Days from the invoice date.
 - 4.3 **Taxes & Obligations.** In exchange for its use of the Subscribed Services, Customer will pay to GOGovApps the amounts indicated in the Order. Said amounts are based on services purchased and not actual usage; payment obligations are non-cancelable and fees paid are non-refundable, except as otherwise specifically-provided herein. Unless otherwise stated, such fees do not include any taxes, levies, duties or similar governmental assessments of any nature, including but not limited to value-added, sales, use or withholding taxes, assessable by any local, state, provincial, federal or foreign jurisdiction ("Taxes"). Customer is responsible for paying all Taxes associated with its purchases hereunder. If GOGovApps has the legal obligation to pay or collect Taxes for which Customer is responsible, the appropriate amount will be invoiced to and paid by Customer, unless GOGovApps is provided with a valid tax exemption certificate authorized by the appropriate taxing authority. GOGovApps is solely responsible for taxes assessable against it based on its income, property and employees.
 - 4.4 **On-Site Services & Expenses.** Should on-site services requiring travel by GOGovApps staff be requested by Customer, GOGovApps will provide on-site service at GOGovApps's then-current time-and-materials rates. In addition to these charges, Customer will compensate GOGovApps for associated airfare, lodging, rental transportation, meals and other incidental expenses as such expenses accrue and will be billed at cost and invoiced separately.
5. **Limitation of Liability.** GOGovApps will, at all times during the Agreement, maintain appropriate insurance coverage. In no event will GOGovApps's cumulative liability for any general, incidental, special, compensatory, or punitive damages whatsoever suffered by Customer or any other person or entity exceed the fees paid to GOGovApps

by Customer during the six (6) calendar months immediately preceding the circumstances which give rise to such claim(s) of liability, even if GOGovApps or its agents have been advised of the possibility of such damages.

- 6. **Updating of Terms.** Upon each renewal of this Agreement, the latest Master Terms & Conditions that GOGovApps has published within the software ninety (90) days prior to the renewal date shall replace these terms. Any Special Terms & Exceptions listed in the original document shall carryover to the renewal terms. We reserve the right to change our Master Terms & Conditions at any time. If the changes are material, GOGovApps will advise the Customer by email or posting a notice on the site before changes go into effect. If the Customer does not agree to the new terms, Customer may contact Support@GOGovApps.com to have objections considered.
- 7. **Alternate Terms Disclaimed.** The parties expressly disclaim any alternate terms and conditions accompanying drafts and/or purchase orders issued by Customer.
- 8. **Special Terms & Exceptions.** None.

This Order Form is entered into between Customer and GOGovApps. Customer accepts and agrees to adhere to the Terms and Conditions with this order form, will be referenced as the "Agreement." This Agreement between Customer and GOGovApps, which Customer hereby acknowledges and accepts, constitutes the entire agreement between GOGovApps and Customer governing the Services referenced above. Customer represents that its signatory below has the authority to bind Customer to the terms of this Agreement.

GOGov, Inc.

City of Wheeling, WV

Sign: _____
Name: Daryl Blowes
Title: CEO
Date: _____

Sign: _____
Name: _____
Title: _____
Date: _____

Additional Customer Signatures (Optional)

Sign: _____
Name: _____
Title: _____
Date: _____

Sign: _____
Name: _____
Title: _____
Date: _____



GORequest®

Powerful & Flexible CRM Software to manage service requests of all varieties for your agency!



GORequest® CRM is an intelligent, user friendly solution for managing all of your agency service requests! Whether it's a citizen using your agency branded mobile app or a staff member logging a service call from your call center, GORequest® provides a centralized home for two way communication between government and citizens to work and communicate more efficiently and effectively!

Customer Service at it's Finest

In today's digital age, customer service expectations are at an all-time high. As a government agency, your constituents are expecting the same service from you that they receive from all of their other service providers. The GORequest® powerful CRM now makes it easy for citizens and government to exchange information and work towards their common goal of making their city/town/county the best place to live or work!

- Simple submission of requests by staff or citizens via mobile app or through the web
- Automated email and push notifications keep both staff and citizens up to date as a request is worked towards a resolution
- Pre defined SLA's per request type set the proper expectation for citizens to have their requests completed
- Detailed & Customizable reporting for the agency to ensure certain service standards are being met

No Upfront Fees or Startup Costs

We try to earn your business every single day and so we will start by doing the heavy lifting to get you started. Everything you need to setup your mobile app, list of request types, reports and most importantly train your staff - Its All Included!

Truly Flexible CRM that bends to your Needs!

Our software was designed to be configured to the way you work, which is what makes it so powerful and intuitive.

- Agency Defined Request Types and Categories
- Fully searchable Knowledge Base with Integrated Request Functionality
- Customizable Automated Email and Push Notifications
- Automatic Address and User Tracking to Easily See Previous Requests for a Specific Citizen or Address
- Highly Customizable assignment Rules allow for Even the Most Complex Engagement Rules to be Followed
- Map Views Available for Work Planning and Trend Spotting
- Both Out of the Box and Customizable Reporting that can be run using user defined criteria and output in a variety of formats
- Specific Input Form for individual request types



More Than Just Potholes!

While filling a Pothole is a common and effective use of our CRM solution, this frequently used example only scratches the surface of what you can accomplish with GORquest®

- **Branded Mobile App**– While the Mobile App is certainly a useful tool for citizens to submit service requests, it can also be used to showcase anything that you as an agency want to give your citizens quick and easy access to. Our collection of applets offer a wide variety of ways to make often sought out information and services readily available at your citizens fingertips!
- **IT Ticketing/ Facilities Management**– The system offers 'internal' request types, which are only available for view and submission by agency staff when logged in. Users can easily create requests types for IT ticketing or Facility Management and use GORquest® to replace costly internal, process specific systems.
- **Public Records Requests**– Keep up with open records laws by tracking FOIA, OPRA and other public record requests from citizens.
- **Agency Specific Programs & Services** - GORquest® helps our customers manage unique use cases including ride sharing, building inspections and health inspections.

Integrations

We learned that sharing is one of the most important parts of helping our customers. This is why we have built integrations into systems where it counts. Some common ones include:

- **ESRI ArcGIS**- integration validates addresses entered into the system against your GIS system. We also can use other data and map layers like districts, wards and more to enhance the workflow and reporting delivered to your agents and citizens.
- **Cartegraph**- our integration with Cartegraph can automatically transmit your requests into that system for work and then push the data back to the citizen through our system, including when the issue is closed.
- **LDAP / Active Directory** - another password is the last thing any of us want. With our LDAP integration we can sync up users and permissions and authenticate against your Active Directory so you don't have to do extra work or remember another password.

Support and Training You Will Love ♥

Our goal is to make you love our company at every encounter. We have a mature process and experienced staff that will be able to provide expert advice and assistance every step of the way.

- **Expert Advice** providing analysis of your service request types, workflows and reports using industry best practices to make your job as easy as possible.
- **Project Management** - your dedicated project manager will track and monitor your progress throughout the project.
- **Configuring** creating a list of request types, launching the mobile app, building a beautiful iFrame, customizing fields and forms, creating email templates, customizing reports and more.
- **Training Library** - As we train you, we will produce a library of videos and documents specific to your agency. These videos can be used for onboarding future staff or just going back to get a refresher on more advanced stuff. But don't worry - we are always willing to give additional training as you need it.
- **Staff Training** is our favorite part because we know you are going to love what you see and how easy it is to use. When we hear "ooh's" and "aah's" then we know we are doing our job.

“ *With the ability to contact residents directly on the platform, our employees are more efficient in resolving service requests than before...* ”

- Paolo Beltran, City of Lakewood, CA

About GOGovApps

GOGovApps specializes in providing CRM and Code Enforcement software to local governments of all sizes. Our long history and experience working with hundreds of government agencies across the country really shows in the products and services we provide. We built our software from the ground up working with the departments and staff that now use our products every single day.



GOEnforce®

Powerful Code Enforcement Software to manage every aspect of Municipal Code Enforcement.



GOEnforce® is an innovative and easy-to-use solution for managing all your Code Enforcement cases. Whether you are in the office or in the field, GOEnforce® allows you to work wherever you need. Simply choose the violations and which actions you want to take or letters you want to send and let GOEnforce® handle the rest.

Complete Case Management at Your Fingertips

We understand how hectic your day can be. If you are a "Team of One" or an entire department of Code Enforcement officers, the design of our product is intuitive and just makes sense for what you do. All of the activities, notes, pictures, letters, violations, fees and more are always at your fingertips.

- Violations & Corrective Actions
- Case Notes and Actions Taken by your Department
- Pictures, Videos and any other kind of Attachments
- Letters and Administrative Citations
- Fees and Payments

No Upfront Fees or Startup Costs

We try to earn your business every single day and so we will start by footing the bill to get you started. Everything you need to setup your codes, violations, letter templates, reports and most importantly train your staff - Its All Included!

Software that Works for You

Our software was designed around the way you work, which is what makes it so intuitive and useful.

- One Click Letter Generation from Templates that we setup for you
- Batch Printing of Letters to Assist Officers in the Field
- Automatic Parcel Lookups with Owner Information and Address validation.
- Notification and Workflow features will deliver Reminders & Inspection sheets directly to staff at calculated due dates.
- Property and Resident alerts can easily be viewed from previous case files.
- Generate reports, documents and even print full case history required for prosecution.
- Map views allow you to plan your day or visualize cases by location.
- Audit Log tracks every change made to a case file



Special Features

We have developed features in the software that helps process annual and recurring types of inspection cases for officers.

- **Rental Inspection** - Using intelligent algorithms, we can help detect properties that are suspected to be rentals and automatically create cases for inspection. For the properties we know are rentals annual inspections and letters can be automatically generated.
- **Weed Abatement** - Another annual chore that we can automate allowing inspectors to drive through areas and clear for tall grass.
- **Vehicle Abatement** - track multiple vehicle information and generate abatement notices to assist with cost recovery and reimbursement.
- **Business License Enforcement** - Track expired business licenses and allow GOEnforce® to automatically generate the letters, assess fees and create cases for officers to follow-up.

Integrations

We learned that sharing is one of the most important parts of helping our customers. This is why we have built integrations into systems where it counts. Here are a few:

- **ESRI ArcGIS** integration makes address validation and parcel lookup with owner information simple. We also can use other data like districts, wards and more to enhance the workflow and reporting delivered to your agents and citizens.
- **Revenue Experts** - our integration with Revenue Experts can automatically transmit your administrative citation fees to experts that can help you collect.
- **Permitting Systems** - Quickly view permits from other systems when working on code cases.
- **LDAP / Active Directory** - another password is the last thing any of us want. With our LDAP integration we can sync up users and permissions and authenticate against your Active Directory so you don't have to do extra work or remember another password.

Support and Training You Will Love ♥

Our goal is to make you love our company at every encounter. We have a mature process and experienced staff that will be able to provide expert advise and assistance every step of the way.

- **Expert Advise** providing analysis of your service codes, letters, notices, documents and processes using industry best practices to make your job as easy as possible.
- **Project Management** - your dedicated project manager will track and monitor your progress throughout the project.
- **Configuring** your municipal code summaries, defining parcel data imports, customizing fields and forms, creating letter templates, customizing reports and more.
- **Training Library** - As we train you, we will produce a library of videos and documents specific to your agency. These videos can be used for onboarding future staff or just going back to get a refresher on more advanced stuff. But don't worry - we are always willing to give additional training as you need it.
- **Staff Training** is our favorite part because we know you are going to love what you see and how easy it is to use. When we hear "ooh's" and "aah's" then we know we are doing our job.

“ As a single person operation handling it all from phone to field to notices, I can say that GOEnforce has greatly increased my efficiency... ”

- Greg Baird, City of Manteca, CA

About GOGovApps

GOGovApps specializes in providing CRM and Code Enforcement software to local governments of all sizes. Our long history and experience working with hundreds of government agencies across the country really shows in the products and services we provide. We built our software from the ground up working with the departments and staff that now use our products every single day.

Tom Connelly

From: Daniel Peters <Daniel_Peters@esri.com>
Sent: Thursday, October 8, 2020 4:47 PM
To: Tom Connelly; Carl Wilson
Cc: Kerri Rasmussen
Subject: Esri Field Mobility Demo Follow Up

Hello Tom and Carl,

It was a pleasure presenting our Field Mobility Solutions to you all earlier today. I wanted to send an email in regards to general costs for the Field Mobility Users. The Esri Model is based off of Named Users, think of these as logins to your ArcGIS Online organization. There are two Named Users that are most appropriate here, Viewers and Field Workers.

A viewer license is designed most for a Director and City Council that need to only view information on a Dashboard, Web Map or other methods. This cost is \$100 per person per year. Lastly, the Field Worker License is set for all of your field staff and gives you access to the field mobility apps that Kerri demonstrated earlier today this cost is \$350 per person per year. As discussed earlier most of our users in WV are migrating to this model and workflow empowering all of their field staff to collect and view the data they need.

Let me know if you have any additional questions and what next steps that you both might find appropriate for the number of named users to possibly move on.

Thank You,

Daniel Peters



Products >

Solutions >

Support & Services >

News >

About >

ArcGIS
build
mem

Pricing

Team works. User types, the allow you to match team d to complete their work.

For business

For individuals

with a Creator user type - Required

...one administrator to activate the subscription as well as manage members and content. If you want to administer and use ArcGIS Pro, you can purchase the ArcGIS Professional user type instead.

Creator



Creat

- Create maps and apps with your data
- Analyze data to understand trends
- Share maps with stakeholders in a variety of ready-to-use apps

Hide description ^

Create maps and apps, perform spatial analyses, collect data, and share results with ready-to-use apps. Creators can use the Essential Apps Bundle, Field Apps Bundle, and Office Apps Bundle. Often, people with job titles like GIS specialist, asset manager, or data journalist purchase the Creator user type. (Existing users: please note that the Creator user type is the same as the former Level 2).

View system requirements

View supported languages

What's included:

- ArcGIS Online: Create, edit, and manage content and members
- ArcGIS Living Atlas of the World
- Essential Apps Bundle
 - ArcGIS Configurable Apps
 - ArcGIS StoryMaps
 - Map Viewer
 - ArcGIS Dashboards
 - Scene Viewer
 - ArcGIS Web AppBuilder
- Field Apps Bundle
 - ArcGIS QuickCapture
 - ArcGIS Collector



ArcGIS Online

[Sign in to ArcGIS Online](#)

- Add and modify data using apps
- Review and edit incoming data to improve accuracy
- Securely view your team's maps and apps

[View description](#) ▾

Qty

\$200/yr

Add to cart



GIS Professional Basic

- Map, visualize, analyze, and manage data with ArcGIS Pro
- Combine 3D, CAD, imagery, and other types of data on a single map
- Connect people and data with ArcGIS Online and ArcGIS Living Atlas of the World

[View description](#) ▾

Qty

\$700/yr

Add to cart



GIS Professional Standard

- Everything included with GIS Professional user type basic
- Complete GIS data editing capabilities; ability to edit multiuser geodatabases
- Ability to automate quality control such as managing workflows and assignments

[View description](#) ▾

Qty

\$2,750/yr

CITY OF WHEELING



CITY COUNTY BUILDING
1500 CHAPLINE STREET
WHEELING, WEST VIRGINIA 26003

BUILDING & PLANNING DEPARTMENT
Phone (304) 234-3601 | WheelingWV.gov

January 20, 2021

Mr. Tom Connelly
City of Wheeling
Director of Building & Planning Department
Wheeling, WV 26003

Mr. Connelly,

I have greatly enjoyed working for the City of Wheeling for the past 2-1/2 years. In those years, as the Building Code Official, I have become an integral member of the Building & Planning Department. I am writing to formally request a review of my current salary. As the Building Code Official, I have always been ready and able when asked to take on additional work and new job responsibilities. I believe my track record with the City of Wheeling, my recent achievements, along with the industry average salaries, will demonstrate justification for an increase of at least 10% of my annual salary.

My role has evolved since joining the City of Wheeling. Added duties include managing staff, project management, and full plan reviews. In the past 2-1/2 years, I have distinguished myself with the following accomplishments and certifications:

- International Code Council (ICC) Certifications that include:
 1. B1 - Residential Building Inspector
 2. B2 - Commercial Building Inspector
 3. B3 - Plans Examiner
 4. B5 - Combination Inspector
 5. 21 - Accessibility Inspector/Plans Examiner
 6. 64 - Property Maintenance Housing Inspector
 7. Successfully conducted 32 Plan Reviews (27 Commercial and 5 Residential)
 8. Improved the Plan Review process by incorporating the ICC - IBC and IRC electronic version of the Plan Review Record and corrections list. Stamp the drawings as required.

- Association of State of Floodplain Managers (ASFPM) - Certified Floodplain Manager (CFM)
 1. 2019-2020 WV Floodplain Management Association - Most Improved Program
 2. Completed the FEMA Community Assisted Visit (CAV) Report - Approved by FEMA
 3. Successfully revised the local flood ordinance (Article 1765) per NFIP requirements - approved by FEMA and City of Wheeling Council.
 4. I improved efficiency in the Building Inspection Department by creating the City of Wheeling Floodplain Permit which is a requirement of NFIP and FEMA. It is now standard practice of the permitting process.

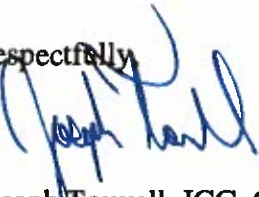
5. Successfully incorporated the use of the WV Flood Tool as part of the Building Permit Application review process which saves property owners money on Elevation Certificates.
 6. Improved the efficiency of the permit process by training local contractors to use the WV Flood Tool which saves time for permit specialist and money for the property owner.
 7. Voluntarily presented to the WVFPM Conference – “Flood Maps vs. Development”
 8. Nominated to the WVFPM Board of Directors by current Assistant Director.
- National Pollutant Discharge Elimination System (NPDES) and National Stormwater Center
 1. Certified Stormwater Inspector (CSI) Municipal (MS4)
 - Project Management which includes helping with the Nelson Jordan Center Renovations such as coordinating the electrical scope of work with ERB Electric, drawing the sketches for the accessible toilet room, coordinating the phased construction project with the General Contractor to expedite the construction to make the building safe.
 - Assisting Kurt Zende with the renovations of the old OVMC to help with the move of the Water Department, laying out the front desk area that would benefit the Water Department employees and Wheeling residents coming in the building, identify scopes of work such as mechanical, electrical, and plumbing throughout the buildings that will possibly save the City of Wheeling money.
 - Perform cost analysis on potential renovation for Clay School using square footage calculations.
 - Assisted Mr. Bill Lanham with the City of Wheeling Parking Structures potential renovations with sites visits that include walking the garages and identifying problematic areas, meeting with the Engineers to review the scope of work and reviewing the reports to identify areas that could be cost savings for the City of Wheeling.

I believe I have gone above and beyond the benchmarks that were set for my position when I arrived at the City of Wheeling 2-1/2 years ago. On the average, I work more than 40 hours a week as the job requires it because of the multiple hats that I wear as the Building Code Official, Building Inspector, Floodplain Manager, and Plans Reviewer. I enjoy taking on assignments that allow me to contribute to the City. Further, the average salary for my position is \$61,444 in the State of West Virginia according to zip recruiter, payscale.com, and salary.com. This is more than 13% higher than my current salary of \$54,267. A 10% raise in salary would put my compensation in line with industry and regional expectations for the work. Please refer to the 3 documents that I am attaching that reflect the salary ranges for my position.

I would therefore appreciate the opportunity to meet with you to discuss increasing my salary so that it is commensurate with my current performance. I request a pay raise of 10%, which I believe reflects both my current competencies and industry averages.

Thank you for your time. I look forward to speaking with you soon.

Respectfully,



Joseph Touvell, ICC, CFM
Building Code Official
Certified Floodplain Manager

**ASSOCIATION OF STATE
FLOODPLAIN MANAGERS, INC.
CERTIFICATION BOARD OF REGENTS**

HEREBY CERTIFIES THAT PURSUANT TO THE PROVISIONS OF THE CHARTER FOR THE
CERTIFIED FLOODPLAIN MANAGER PROGRAM

Joseph Touvell, CFM

IS DULY REGISTERED AS AN

ASFPM CERTIFIED FLOODPLAIN MANAGER

IN TESTIMONY WHEREOF THIS CERTIFICATE HAS BEEN ISSUED BY THE AUTHORITY OF THE
CERTIFICATION BOARD OF REGENTS, CERTIFICATE NO. US-19-11331, ISSUED 10/11/2019. THIS
CERTIFICATE SHALL EXPIRE 1/31/2023, UNLESS RENEWED ACCORDING TO THE RULES OF THIS BOARD.

John T. Greenwell

CERTIFICATION BOARD OF REGENTS
PRESIDENT, LOUIS T. GREENWELL, GISP, CFM

Chad M. Berginnis

ASSOCIATION OF STATE FLOODPLAIN MANAGER
EXECUTIVE DIRECTOR, CHAD M. BERGINNIS, CF





INTERNATIONAL CODE COUNCIL

JOSEPH TOUVELL

The International Code Council attests that the individual named on this certificate has satisfactorily demonstrated knowledge as required by the International Code Council by successfully completing the prescribed written examination based on codes and standards then in effect, and is hereby issued this certification as:

COMMERCIAL BUILDING INSPECTOR

Given this day of September 09, 2018

Certificate No. 8905138

A handwritten signature in black ink, appearing to read "Greg Wheeler".

Greg Wheeler, CBO
President, Board of Directors

A handwritten signature in black ink, appearing to read "Dominic Sims".

Dominic Sims, CBO
Chief Executive Officer



This certificate is the property of ICC and must be returned to ICC in the event of suspension or revocation of the certificate.



INTERNATIONAL CODE COUNCIL

JOSEPH TOUVELL

The International Code Council attests that the individual named on this certificate has satisfactorily demonstrated knowledge as required by the International Code Council by successfully completing the prescribed written examination based on codes and standards then in effect, and is hereby issued this certification as:

RESIDENTIAL BUILDING INSPECTOR

Given this day of May 13, 2019

Certificate No. 8905138

A handwritten signature in black ink, appearing to read "Greg Wheeler".

Greg Wheeler, CBO
President, Board of Directors

A handwritten signature in black ink, appearing to read "Dominic Sims".

Dominic Sims, CBO
Chief Executive Officer



This certificate is the property of ICC and must be returned to ICC in the event of suspension or revocation of the certificate.



INTERNATIONAL CODE COUNCIL

JOSEPH TOUVELL

The International Code Council attests that the individual named on this certificate has satisfactorily demonstrated knowledge as required by the International Code Council by successfully completing the prescribed written examination based on codes and standards then in effect, and is hereby issued this certification as:

BUILDING PLANS EXAMINER

Given this day of June 12, 2020

Certificate No. 8905138


Greg Wheeler, CBO
President, Board of Directors


Dominic Sims, CBO
Chief Executive Officer



This certificate is the property of ICC and must be returned to ICC in the event of suspension or revocation of the certificate.



INTERNATIONAL CODE COUNCIL

JOSEPH TOUVELL

The International Code Council attests that the individual named on this certificate has satisfactorily demonstrated knowledge as required by the International Code Council by successfully completing the prescribed written examination based on codes and standards then in effect, and is hereby issued this certification as:

ICC / AACE Property Maintenance and Housing Inspector

Given this day November 5, 2020

Certificate No. 8905138

A handwritten signature in black ink, appearing to read "Greg Wheeler".

Greg Wheeler, CBO
President, Board of Directors

A handwritten signature in black ink, appearing to read "Dominic Sims".

Dominic Sims, CBO
Chief Executive Officer





INTERNATIONAL CODE COUNCIL

JOSEPH TOUVELL

The International Code Council attests that the individual named on this certificate has satisfactorily demonstrated knowledge as required by the International Code Council by successfully completing the prescribed written examination based on codes and standards then in effect, and is hereby issued this certification as:

Accessibility Inspector/Plans Examiner

Given this day August 29, 2020

Certificate No. 8905138

A handwritten signature in black ink, appearing to read "Greg Wheeler".

Greg Wheeler, CBO
President, Board of Directors

A handwritten signature in black ink, appearing to read "Dominic Sims".

Dominic Sims, CBO
Chief Executive Officer



WV DIVISION OF HOMELAND SECURITY AND EMERGENCY MANAGEMENT



Certificate of Completion
is hereby granted to:

JOSEPH TOUVELL

to certify that he/she has completed the

L-273 Managing Floodplain Development

Through the National Flood Insurance Program

Chief Logan State Park, Logan, WV

Issued this 23rd Day of August 2018

A handwritten signature in blue ink, appearing to read "J. Keaton".

Instructors:

Tim Keaton, CFM, WV Assistant NFIP Coordinator

Heather Davis-Jenkins, CFM, FEMA Region III

Robert Pearson, CFM, FEMA Region III

Betsy Ranson, FEMA Region III

John Davidson, FEMA Region III

WV DIVISION OF HOMELAND SECURITY AND EMERGENCY MANAGEMENT



Certificate of Completion
is hereby granted

Joseph Touvell

to certify that he/she has attended to satisfaction

**Basics of Floodplain Management, 6 CREDIT HRS
Through the National Flood Insurance Program**

Marshall County, WV

Issued the 26th Day of October 2018

A handwritten signature in black ink, appearing to read "KS", written over a horizontal line.

Kevin Sneed NFIP Coordinator /CFM

INTERNATIONAL CODE COUNCIL

JOSEPH TOUVELL

The International Code Council attests that the individual named on this certificate has satisfactorily demonstrated knowledge as required by the International Code Council by successfully completing the prescribed written examination based on codes and standards then in effect, and is hereby issued this certification as:

Building Inspector

Given this day May 15, 2019

Certificate No. 8905138

William R. Bryant

William R. Bryant
President, Board of Directors

Dominic Sims

Dominic Sims
Chief Executive Officer



This certificate is the property of ICC and must be returned to ICC in the event of suspension or revocation of the certificate.

West Virginia Code Officials Association

West Virginia Chapter International Code Council (ICC)

In recognition of participation in

NFPA101 - Life Safety Code

at Sutton, WV on March 14-15, 2019

a total of .9 C.E. U.s (9 contact hours)

Joseph Powell
to
Students Signature



IAEEL

*International
Association of
Electrical Inspectors*

This Is To Certify That

Joseph Touvell

has satisfactorily completed Continuing Education Unit:

**2019 Spring Educational Seminar
Fairmont, WV**

CEO / Executive Director



April 30th, 2019

Date

7 Contact Hours (7 CEU)

ICC Preferred Provider #1053
ICC Course # 14984, #11937, #18690





WATTSTOPPER

Legrand Building Control Systems (BCS)



CERTIFICATE OF COMPLETION

This is to certify that

Joseph Touvell

participated in

ASHRAE 90.1 - 2010

BCS123

04/30/2019

KOC Fairmont WV

Earning

1.0 LU



John R. Northern

Jon Null | jon.null@legrand.us | 800.879.8585

2700 Zanker Road #168, San Jose CA 95134

Provider Number (J637)

SYRACUSE UNIVERSITY

To all who read these presents, Greeting

Whereas

Joseph M. Conwell

has honorably completed the studies and duties prescribed by the Faculty
therefore, the Trustees of the University by the authority vested in them
have conferred the degree of

Master of Architecture

upon the candidate together with all the rights, privileges, honors, and emblems
of distinction which everywhere pertain thereto.

Whereof let this Diploma with the seal of the University bear witness.



Given at Syracuse, in the State of New York, this thirty-first
day of December, nineteen hundred and ninety-eight.

Howard C. Johnson
Dean, Graduate School

Kenneth D. Shaw
Chancellor

State of West Virginia



Fairmont State College

This Diploma Makes Known

That the State College System of West Virginia upon the recommendation of the faculty of the College has conferred upon

Joseph Michael Towell

the degree of

Bachelor of Science in Engineering Technology

Cum Laude

In Testimony thereof, the signatures of the duly authorized officers of the State College System of West Virginia and of the Faculty of the College have been affixed.

Done at Fairmont, West Virginia, this 13th day of May, 1995.

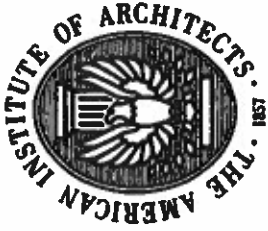
STATE COLLEGE SYSTEM OF WEST VIRGINIA

Philip A. Kales
CHAIRMAN OF THE BOARD OF DIRECTORS

Crispin M. Turner
CHANCELLOR

Robert J. Williams
PRESIDENT OF COLLEGE

Robert J. Williams
VICE PRESIDENT OF STATE COLLEGE SYSTEM



THE AMERICAN INSTITUTE OF ARCHITECTS

DECLARES THAT

Joseph M. Towell

IS ADMITTED TO ASSOCIATE MEMBERSHIP HAVING BEEN FOUND ELIGIBLE

BY AUTHORITY OF THE BOARD OF DIRECTORS

AND IS ENTITLED TO EXERCISE AND ENJOY ALL THE RIGHTS AND PRIVILEGES

OF THIS CATEGORY OF MEMBERSHIP AS PRESCRIBED IN THE BYLAWS.

DATED SEPTEMBER 12, 2007

D. H. [Signature]
SECRETARY



The Construction
Specifications
Institute

CONSTRUCTION DOCUMENTS TECHNOLOGIST

This certificate of achievement attests that

Joseph M. Touvell, CSI, CDT

has successfully completed the Construction Documents Technology examination, demonstrating a knowledge of General Conditions of the contract in common use and CSI recommended procedures for project manual organization as prescribed by the Certification Committee of The Construction Specifications Institute.

Terrence E. Jauch, P.E., FCSI, CCS

Terrence E. Jauch, P.E., FCSI, CCS
Secretary
The Construction Specifications Institute

Robert Saumur, FCSI, CCPR

Robert Saumur, CSI, CCPR
Chairman
Institute Certification Committee

March 27, 2004

Tom Connelly

From: Tom Connelly
Sent: Saturday, January 23, 2021 6:20 AM
To: Tom Connelly
Subject: FW: Budget

-----Original Message-----

From: Travis Young <tyoung@wheelingwv.gov>
Sent: Wednesday, January 13, 2021 12:56 PM
To: Tom Connelly <tconnelly@wheelingwv.gov>
Cc: Joseph Touvell <jtouvell@wheelingwv.gov>
Subject: Budget

Tom,

Tom average inspections are approximately five per day, I wrote 71 warning letters last year as well as 26 citations. I did not process very many 311 tickets 10 or less usually they are not assigned to me. We will need placard's such as stop work orders and condemned building. I would expect \$50 for at least one practice test, \$209 for my plumbing exam, \$100 for four short sleeve shirts, \$60 for two long sleeve shirts and \$400 for CEU's. I would like to have an evaluation to talk about a raise as I feel that I have earned it above and beyond the 3% blanket raise that all employees have received. I am not aware of when I qualify for longevity pay if you would look into that and please let me know. I am also unaware of what the annual dues for the ICC and state fire marshal's offices are and would include the new card once I pass the plumbing exam. I cannot think of anything else at this time if you have any questions please reach out to me.

Thank you,

Travis

Sent from my iPhone

Tom Connelly

From: Travis Young
Sent: Wednesday, January 13, 2021 12:56 PM
To: Tom Connelly
Cc: Joseph Touvell
Subject: Budget

Tom,

Tom average inspections are approximately five per day, I wrote 71 warning letters last year as well as 26 citations. I did not process very many 311 tickets 10 or less usually they are not assigned to me. We will need placard's such as stop work orders and condemned building. I would expect \$50 for at least one practice test, \$209 for my plumbing exam, \$100 for four short sleeve shirts, \$60 for two long sleeve shirts and \$400 for CEU's. I would like to have an evaluation to talk about a raise as I feel that I have earned it above and beyond the 3% blanket raise that all employees have received. Remember you can always apply for me to get that week vacation that Nancy did not give me. :-) I am not aware of when I qualify for longevity pay if you would look into that and please let me know. I am also unaware of what the annual dues for the ICC and state fire marshal's offices are and would include the new card once I pass the plumbing exam. I cannot think of anything else at this time if you have any questions please reach out to me.

Thank you,

Travis

Sent from my iPhone

Tom Connelly

From: Tom Wilson
Sent: Thursday, January 14, 2021 2:58 PM
To: Tom Connelly
Cc: Joseph Touvell
Subject: 2020 Recap

Tom, here is what I have for 2020:

253 Citations were sent out
12 Violation letters- non-condemnation letters
38 Condemnation letters
41 Complaints filed with Municipal Court.
39 Active cases in court.
17 Cases either complied or were dismissed.

If you need anything else, let me know.

Thanks, Tom

Tom Connelly

From: Lisa Tappe
Sent: Tuesday, January 19, 2021 1:39 PM
To: Tom Connelly
Subject: Budget Info

The Vacant Building Registry currently lists 287 properties as vacant; 252 are registered with 37 other properties identified as vacant without a viable contact or owner being found. There are 42 additional properties that are pending, having been sent letters and awaiting a response. This year, 13 properties have been removed as occupied and 34 have been removed by demolition. There are quite a few that are under contract for demolition and waiting to be scheduled by the contractor. In 2020, 68 properties were either newly registered or re-registered to a new owner. There were 9 Waiver requests granted and 0 denied; 34 Complaints were filed in Municipal Court for failure to register or non-payment of fees. Fiscal year fees totaled \$46,170 and Calendar year fees totaled \$76,450.

I processed 42 311 tickets (41 closed & 1 in-process).

Lisa Tappe
Building & Planning Department
Code Enforcement Officer
Vacant Building Registration
1500 Chapline Street, Room 308
Wheeling, WV 26003

(p): 304.234.3601
(f): 304.234.3899
ltappe@wheelingwv.gov

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7.1.19 thru 6.30.20 Computer Tech Ref

Omni \$355.50

Groupstar \$414.98

Memberships

Friends of Wheeling \$10.00

APA \$427.00

ESRI \$400.00

PROJECTS: 0
 APPLIED DATES: 1/01/2020 THRU 12/31/2020
 ISSUED DATES: 0/00/0000 THRU 99/99/9999
 EXPIRE DATES: 0/00/0000 THRU 99/99/9999
 STATUS: ALL

PROJECT SEGMENT	ISSUE DATE	NAME	LOCATION BUILDING CODE	CONTRACTOR SEG. CONT.	DESCRIPTION VALUATION	PROJ TYPE FEE
201487 BLD-R02	12/28/2020	NAPLES CONTRACTING LLC	216 KENNEY ST	NAPLESCONT	REMOVE & REPLACE SINK VANIT	BUILD 12.00
BP230 - JAMES SANNY	12/28/2020	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	NAPLESCONT	2,500.00	
201488 BLD-R02	12/28/2020	KELLER CONTRACTING	1259 NATIONAL RD #201	KELLERCONT	REMOVE & REPLACE SHOWER SIN	BUILD 60.00
BP230 - BRYAN WASSMAN	12/28/2020	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	KELLERCONT	15,000.00	
201489 BLD-R02	12/29/2020	WHIRKEY HEATING & AIR COND.	725 MAIN ST	WHIRKEYHC	SEE SCOPE OF WORK	BUILD 4.00
BP230 - MARIA MCKELVEY	12/29/2020	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	WHIRKEYHC	600.00	
201490 DEMO	12/30/2020	CRAIG TEMPLIN EXCAVATING	4 FAIRVIEW TER	CRAIGTEMP	DEMOLITION PERMIT	DEMO 36.00
BP230 - EDWARD BARRICKLOW	12/30/2020	DEMOLITION	DEMO - DEMOLITION	CRAIGTEMP	8,500.00	
201491 BLD-R02	12/31/2020	MOUNTAIN AIRE INC	38 HAMILTON AVE	MOUNTAINAI	INSTALL FURNACE	BUILD 20.00
BP230 - ANYA ROBERTSON	12/31/2020	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	MOUNTAINAI	4,185.00	
*** TOTALS ***						NUMBER OF PROJECTS: 721
*** TOTALS ***						VALUATION: 29,604,513.40
*** TOTALS ***						FEES: 120,947.16

11 Demos

PROJECTS: 0
 APPLIED DATES: 420172019 PRRD 6/30/2020
 ISSUED DATES: 0/00/0000 THRU 99/99/9999
 EXPIRE DATES: 0/00/0000 THRU 99/99/9999
 STATUS: ALL

PROJECT SEGMENT	ISSUE DATE	NAME	LOCATION BUILDING CODE	CONTRACTOR SEG. CONT.	DESCRIPTION VALUATION	PROJ TYPE FEE
200664	6/30/2020	EDGCO INC	3122 EOFF ST	OWNER	DEMOLITION PERMIT	DEMO
FLOOD	6/30/2020	FLOOD	FLOOD - FLOOD	EDGCO INC	0.00	0.00
DEMO	6/30/2020	DEMOLITION	DEMO - DEMOLITION	EDGCO INC	7,000.00	28.00
BP230 - CHARLES POINDEXTER				TOTAL VALUE	7,000.00	TOTAL FEE 28.00
200665	6/30/2020	EDGCO INC	3128 EOFF ST	EDGCO INC	DEMOLITION PERMIT	DEMO
FLOOD	6/30/2020	FLOOD	FLOOD - FLOOD	OWNER	0.00	0.00
DEMO	6/30/2020	DEMOLITION	DEMO - DEMOLITION	OWNER	8,400.00	36.00
BP230 - BRIAN VOSSEN				TOTAL VALUE	8,400.00	TOTAL FEE 36.00
200666	6/30/2020	THOMPSON CONTRACTING	107 10TH ST N	THOMPSON	SEE SCOPE OF WORK	BUILD
BLD-R02	6/30/2020	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	THOMPSON	7,000.00	28.00
BP230 - RUSS & JULIE SCHULTZ				TOTAL VALUE	7,000.00	TOTAL FEE 28.00
200667	6/30/2020	YAHN ELECTRIC CO INC	306 JEFFERSON AVE	YAHNELEC	REPLACE OUTSIDE SERVICE MAS BUILD	BUILD
BLD-R02	6/30/2020	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	YAHNELEC	989.00	4.00
ELEC	6/30/2020	ELECTRICAL	ELEC - ELECTRICAL	YAHNELEC	0.00	25.00
BP230 - SHANE JONES				TOTAL VALUE	989.00	TOTAL FEE 29.00
200668	6/30/2020	WALLER CHEMICAL SERVICES	163 IDABELLE AVE	WALLCHEM	27X27 ABOVE GRD POOL	BUILD
BLD-R02	6/30/2020	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	WALLCHEM	9,000.00	36.00
BP230 - RAY & JEN GOMEZ				TOTAL VALUE	9,000.00	TOTAL FEE 36.00
200669	6/30/2020	ALUMINUM PRODUCTS & SUPPLY	31 GREENWOOD AVE	ALUM PRODS	REMOVING REPLACING PATIO CO BUILD	BUILD
BLD-R02	6/30/2020	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	ALUM PRODS	7,000.00	28.00
BP230 - JOE BANAL				TOTAL VALUE	7,000.00	TOTAL FEE 28.00
200670	6/30/2020	DOTY SALVAGE	2816 CHAPLINE ST	OWNER	DEMOLITION PERMIT	DEMO
DEMO	6/30/2020	DEMOLITION	DEMO - DEMOLITION	OWNER	15,000.00	60.00
BP230 - SCHMIDT				TOTAL VALUE	15,000.00	TOTAL FEE 60.00
200671	6/30/2020	C & H BLD CONTRACTORS	62 CARDINAL AVE E	CHBLDG	INSTALL NEW FRONT DOOR	BUILD
BLD-R02	6/30/2020	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	CHBLDG	2,800.00	12.00
BP230 - THERESA & GREIG PARSONS				TOTAL VALUE	2,800.00	TOTAL FEE 12.00
200672	6/30/2020	ALUMINUM PRODUCTS & SUPPLY	12 ARLINGTON DR	AJGRAY	INSTALLING 3 STORM WINDOWS	BUILD
BLD-R02	6/30/2020	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	AJGRAY	1,200.00	8.00
BP230 - GEORGE WEAVER				TOTAL VALUE	1,200.00	TOTAL FEE 8.00
200673	6/30/2020	NAU LOU W INC	16 FIELDCREST DR	OWNER	REMODEL BATHROOM NO PLUMBIN BUILD	BUILD
BLD-R02	6/30/2020	RESIDENTIAL CONSTRUCTION		NAULOWW	23,000.00	92.00
BP230 - DR TONY DUMOAL				TOTAL VALUE	23,000.00	TOTAL FEE 92.00

*** TOTALS *** NUMBER OF PROJECTS: 1,290

VALUATION: 43,999,651.65 FEES: 177,038.60

28 Demos

PROJECTS: 0
 APPLIED DATES: 4/01/2018 THRU 6/30/2019
 ISSUED DATES: 0/00/0000 THRU 99/99/9999
 EXPIRE DATES: 0/00/0000 THRU 99/99/9999
 STATUS: ALL

PROJECT SEGMENT	ISSUE DATE	NAME	LOCATION BUILDING CODE	CONTRACTOR SEG. CONT.	DESCRIPTION VALUATION	PROJ TYPE FEE
190700	6/27/2019	WEAVER BARNS, LTD	205 MAR-WIN DR	OWNER	ERECT STORAGE SHED	BUILD 28.00
BLD-R02	6/27/2019	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	WEAVERBARN	6,810.00	
BP230 - EDWARD & MARY OHARA						
190701	6/28/2019	K & K HOME BUILDERS INC	302 BETTY ST	KKHOME	TEAR OFF & INSTALL NEW SHIN BUILD	20.00
BLD-R02	6/28/2019	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	KKHOME	4,200.00	
BP230 - KATHY KARRAS						
190702	6/28/2019	CATTRELL	2121 MAIN ST	CATTRELL	DEMO 7 WINDOW UNITS AND REP BUILD	256.00
BLD-C02	6/28/2019	COMMERCIAL CONSTRUCTION	353 - OFFICE BUILDING LOW R	CATTRELL	63,472.00	0.00
FLOOD	6/28/2019	FLOOD	FLOOD - FLOOD	CATTRELL	0.00	0.00
GLASSWORK	6/28/2019	GLASSWORK		AMERPLATE	0.00	0.00
BP230 - ORRICK						
TOTAL VALUE						63,472.00 TOTAL FEE 256.00
190703	6/28/2019	CATTRELL	1030 MAIN ST	CATTRELL	CREATE OPEN SPACE AREA FITT BUILD	168.00
BLD-C02	6/28/2019	COMMERCIAL CONSTRUCTION	354 - OFFICE BUILDING HIGH	CATTRELL	41,400.00	50.00
ELEC	6/28/2019	ELECTRICAL	ELEC - ELECTRICAL	ERBELC	0.00	
BP230 - WILLIAMS LEA						
TOTAL VALUE						41,400.00 TOTAL FEE 218.00
190704	6/28/2019	COOKEY, BRIAN S	439 HAZLETT AVE	OWNER	REPLACE WALLS IN BATHROOM D BUILD	8.00
BLD-R02	6/28/2019	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL 1 FAMILY	OWNER	1,500.00	0.00
FLOOD	6/28/2019	FLOOD	FLOOD - FLOOD	OWNER	0.00	0.00
BP230 - BILL BLATT						
TOTAL VALUE						1,500.00 TOTAL FEE 8.00
*** TOTALS ***						VALUATION: 27,228,006.12 FEES: 110,394.38

15 Demos

PROJECTS: 0
 APPLIED DATES: 7/01/2017 THRU 6/30/2018
 ISSUED DATES: 0/00/0000 THRU 99/99/9999
 EXPIRE DATES: 0/00/0000 THRU 99/99/9999
 STATUS: ALL

PROJECT SEGMENT	ISSUE DATE	NAME	LOCATION BUILDING CODE	CONTRACTOR SEG. CONT.	DESCRIPTION VALUATION	PROJ TYPE FEE
180509	0/00/0000	PRO AIRE	448 WABASH ST N	PROAIRELTD	INSTALLATION OF A 2 1/2 TON BUILD	16.00
BLD-R02	6/29/2018	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL	PROAIRELTD	3,099.00	
BP230 - GREG JONES						
180510	6/29/2018	ALUMINUM PRODUCTS & SUPPLY	41 BIRCH AVE	AUGRAY	INSTALLING TWO REPLACEMENT	BUILD
BLD-R02	6/29/2018	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL	AUGRAY	1,100.00	8.00
BP230 - SUSAN BACHMANN						
180511	6/29/2018	ALUMINUM PRODUCTS & SUPPLY	47 COURTLAND AVE	ALUM PRODS	INSTALL TWO REPLACEMENT WIN	BUILD
BLD-R02	6/29/2018	RESIDENTIAL CONSTRUCTION	101 - RESIDENTIAL	ALUM PRODS	1,300.00	8.00
BP230 - FRED HICKS						
180512	6/29/2018	KALKREUTH ROOFING & SHEET	1 BANK PLAZA	KALKREUTH	19 SQUARES OF EPDM	BUILD
BLD-C02	6/29/2018	COMMERCIAL CONSTRUCTION	351 - BANK	KALKREUTH	31,500.00	128.00
BP230 - WESBANCO BANK						

*** TOTALS *** NUMBER OF PROJECTS: 1,029 VALUATION: 19,956,875.18 FEES: 84,139.39

19 items

PROJECTS: 0
APPLIED DATES: 7/01/2016 THRU 6/30/2017
ISSUED DATES: 0/00/0000 THRU 99/99/9999
EXPIRE DATES: 0/00/0000 THRU 99/99/9999
STATUS: ALL

PROJECT SEGMENT	ISSUE DATE SEGMENT DT	NAME DESCRIPTION	LOCATION BUILDING CODE	CONTRACTOR SEG. CONT.	DESCRIPTION VALUATION	PROJ TYPE FEE

VALUATION: 63,159,516.43						FEE: 258,809.39
*** TOTALS ***						
NUMBER OF PROJECTS: 1,068						

31 Samea



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Better Inspections

IFC Recommended Training and Education for Third-Party Firestop Inspectors

[Overview](#) [Why It's Needed](#) [Reading List](#) [About the Exam](#) [Practice Test](#) [Exam Tips](#) [Take the Exam](#) [Product Training](#) [Certificate Holders](#)

Training

OVERVIEW

- 60 hour average time commitment for self-study of recommended reading list
- Reading list consists of linked documents and videos available free of charge (exception: ASTM inspection documents must be purchased)
- For those wishing to have a proof of competence after the completion of studies, an online examination is available. Exam is proctored via webcam.
- Exam certificate can be used to present qualifications to AHJ
- First exam fee: \$500
- Exam certificate is valid for three years. Re-examination is required for requalification
- IFC-Certificated inspectors will be listed on the IFC website
- A Premier Certificate (as required by OSHPD) requires the exam plus hands-on product training from at least four firestop product manufacturers
- Optional 1-day hands-on how-to-inspect training seminars are offered 4-6 times per year around the US. [View More Info](#)



40-60 HRS

Average time commitment for self-study of recommended reading list

Online EXAM

After the completion of studies, to obtain proof of competence, an online exam is available. Proctoring of the exam will be via PC webcam.

IFC CERTIFICATE

Exam provides an individual (not a corporation) to be the certificate holder

WHY IT'S NEEDED



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Special Inspector Training AHJ Training Information & Resources About IFC



Better Inspections

IFC Recommended Training and Education for Third-Party Firestop Inspectors

Overview Why It's Needed Reading List About the Exam Practice Test Exam Tips Take the Exam **Product Training** Certificate Holders

TRAINING After-Exam Product



Hands-on

PRODUCT TRAINING

REQUIRED TO COMPLETE THE

Certificate

To upgrade your test certificate to a **Premier Certificate** (as required by OSHPD), take a **minimum 2-hour** product and installation training course from at least four firestop manufacturers, and obtain signatures attesting to that fact, that will cumulatively cover all of the following product types:

- Intumescent sealants
- Non-intumescent sealants
- Cast-in place devices
- Intumescent collars
- Wrap strips
- Composite sheets
- Pillows and blocks
- Insulation (forming materials, mineral wool, packing material)
- Firestop devices (e.g. cable pass-through devices)
- Head of wall joint systems

- * Your examination success certificate will include the spaces to record this product training.
- * If you do not or cannot obtain the hands-on training, your exam certificate nevertheless provides proof that you have passed the online test, and your name will be listed at the IFC website.
- * In California, firestop product training can be obtained by contacting the manufacturers representatives listed in the list downloadable [here](#).
- * Outside of California, firestop product training should be sought out by finding and reaching out to the local sales contacts for each of the IFC member manufacturers. A list of those manufacturers is available [here](#).

* Firestop product familiarization training will be offered in conjunction to most of the IFC's How-to-inspect-firestopping seminars, which are offered a few times a year around the US and abroad. To stay informed of when and where those seminars are scheduled, please join our mailing list [here](#).

OR

4-hour IFC-approved training class focusing on firestop products and their installation by an instructor(s) that has (have) received **qualified training** from at least four firestop manufacturers.

E-mail ProductTraining@firestop.org to inquire about additional, future classes. Let us know the major city closest to you.

* For a list of currently scheduled seminars, go to [the firestop.org home page](#).

TAKE THE EXAM

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IFC Recommended Training and Education for Third-Party Firestop Inspectors

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About The Training **PROGRAM**



1. IBC 2012, 2015 and 2018 require 3rd-party inspection of firestopping

The 2012 International Building Code requires special inspection of firestopping for buildings over 75 feet in height, and category III and IV buildings (IBC article 1705.16).

The IFC 3rd-party inspector education and examination program is designed to help provide a broad range of knowledge necessary for inspectors charged with inspection of installed firestop systems.

Less

2. Going to a 1-day class is unfortunately insufficient

Firestop-related seminars and classes are useful for increasing understanding of firestop principles and obtaining a general understanding. Unfortunately, such seminars are not comprehensive enough to truly provide all of the needed technical information that a 3rd-party inspector would need to know to perform a knowledgeable and competent "special inspection" as defined by the International Building Code. Such in-depth knowledge can help assure that the inspector does not overlook installed firestops that might provide inferior fire resistance. Conversely, such expertise can also allow an inspector to quickly recognize unusual conditions that are nevertheless code-compliant.

Less

3. Self-paced training program available online at no charge from the IFC

To fill this education gap, the International Firestop Council developed the first comprehensive Firestop Special Inspection education and certificate program. To allow construction inspectors from all of the hundreds of jurisdictions throughout the US, and in foreign countries also referencing the IBC, to have access to the technical information required for a comprehensive understanding of firestopping, the program was designed as a self-education program using resources that can all be accessed through the internet. All

except the required ASTM standards can be accessed at no cost. The self-education reading and video list consists of the most critical and important information sources on firestopping.

[Less](#)

4. An available online exam provides evaluation and documentation of competence

Any person spending the 40-60 hours of study needed to read and comprehend the self-education program references will likely want some tangible confirmation of the knowledge they have acquired. To make that possible, the IFC partnered with Test.com to make available an online examination. The examination requires an 80% grade to pass. Early test-taking results have indicated that people not taking the time to study each and every one of the self-education program references will find passing the exam to be close to impossible. Each one of the references provides some information that is essential to a full technical understanding of firestop installations and inspection.

Upon successful exam completion, a certificate will be provided indicating the exam-taker's name and date of test, available for immediate download, and also e-mailed to the exam-taker's e-mail address.

[Less](#)

5. Post-exam hands-on product familiarization is an important additional element

To fully meet the education and experience requirements as recommended by the International Firestop Council, the person passing the Test.com exam should obtain hands-on product training from four different firestop manufacturers. This will help ensure that the person not only understands the theoretical knowledge related to firestopping, but also has a first-hand understanding of the various types of firestopping products that would be encountered during inspection work. The manufacturer members of the International Firestop Council have all pledged to make such hands-on product training available upon request, as arranged with local representatives. While it is impossible to provide training that would cover every product from every firestop manufacturer, obtaining training from at least 4 manufacturers should provide enough exposure to all of the major product types and installation methods to allow the inspector to have an understanding of the vast majority of installations. Each inspector is of course encouraged to seek out and obtain additional product training when needed.

[Less](#)

6. The exam certificate can be presented to the AHJ as part of documentation of competence

The education received through this program may be submitted to the authority having jurisdiction to help establish competence for Special Inspector Qualifications.

From IBC:

1704.2.1 Special inspector qualifications. The special inspector shall provide written documentation to the building official demonstrating his or her competence and relevant experience or training

[Less](#)

[OVERVIEW](#)

[READING LIST](#)



Trainee Testimonial: More to it than expected

My jurisdiction is requiring a multi-story building owner to hire a Special Firestop Inspector for the very first time. I am truly grateful now that I did not pass the test the first go around. Having to go back and re-visit the material has made me very aware I didn't have a clue. There is so much more to it than picking a submittal and comparing it to the installation.

I am now confident my jurisdiction will only accept a Special Inspector qualified per ASTM Standards of Practice and hopefully IFC certificated.

Thank you. You have contributed to a "safer tomorrow" in, at least, my little part of the world.

T.M., Fire Inspector, Brevard County, FL



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IFC Special Inspector Education

Seminar title: Firestop special inspections per IBC 2012- Chapter 17: How to plan and execute the inspection, and understand what you're inspecting



ICC Preferred Education Provider Course No, 10472, 0.7 CEUs

Course length: 8 hours

Course type: In-person

Target audience: Present and future firestop special inspectors

Description:

The special inspection of Firestop systems was added to the 2012 IBC. This seminar is aimed at individuals who will be conducting those inspections. The seminar will provide an understanding of the various listed penetration and joint systems to be inspected, explain when the special inspection requirements apply, and how to comply with the code-required ASTM methodology for sampling and visual and destructive testing,

This seminar provides fulfilment of the 1-day hands on class required by Intertek as part of the Intertek Qualified Personnel (IQP) program for firestop special inspectors (<http://www.intertek.com/IQP/firestop-inspector/>)

NOTE: Seminar participants will be provided with evidence of course completion with a certificate for 0.7 CEUs, from the ICC PPP. However, this seminar does not result in the issuance of an IFC Special Inspector Exam Certificate. The IFC certificate program is an online program. Go to www.firestop.org/overview for details.

Course objectives:

- Understand IBC special inspections for firestopping
- Understand how the products are tested and listed
- Recognize tested and listed system vs. engineering judgments
- Understand role of the IFC Firestop Inspectors Exam Certificate and of 3rd party accreditations
- Be able to implement the procedural requirements of ASTM E2174 and E2393
- Learn the proper methodology to conduct a proper destructive test
- Learn what is required during a visual inspection

Syllabus

- Welcome and Introductions- 5 min
- Understanding the Importance of Balanced Fire Protection and the IBC Requirements – 30 min
- Overall Code Requirements regarding firestop- 45 min
- Testing Standards for firestop products- 45 min
- Tested and Listed Systems: How to properly read/understand a system- 45 min
- Reviewing an Engineering Judgment- 30 min
- IFC Firestop Inspectors advanced education & Test/Certificate- 20 min
- Hands-on Product Training (Multiple Manufactures) – 3 hrs.
 - The difference in materials
 - Field applied systems vs. Manufactured devices
- Firestop Inspection to ASTM standards: 60 min
 - What is required in ASTM E2174/2393
 - Sampling rate and sample selection
 - Visual vs. Destructive Testing
 - Documentation requirements
- Hands-on Inspection Training – Destructive Test Procedures
 - Through and Membrane Penetrations Firestop Systems
 - Fire Rated Joint System
 - Perimeter Fire Containment Systems
- 3rd party accreditation options for firestop inspectors – 20 mins
- Review and wrap-up

Course pre-requisites:

It is assumed that a person taking this class already has a good basic understanding of firestopping. It is not possible for an 8-hr class to teach a special inspector all that he/she would need to know and understand to plan and execute a competent special inspection of firestopping.

To ensure that sufficient fundamental knowledge has been acquired prior to participating in this seminar, it is suggested that the participant have gone through one of the following instructional opportunities:

- Free online training program for firestop special inspectors, approximately 40-60 hour, self-paced education: Go to www.firestop.org/overview
- IFC 8-hr inspector seminar for AHJs

Note that to ensure that this Special Inspection seminar builds on a solid foundation of understanding; it will include a review of some of the material in those other courses.

Scheduled seminars: Go to www.firestop.org/seminars

⇒ To inquire about the cost and possibility of having this seminar taught at your facility, contact: Anna Lopez, IFC Executive Director



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Inspection Guidelines

Penetration Firestop Systems and Fire Resistive Joint Systems in Fire Resistance Rated Construction

Inspection Guidelines for Penetration Firestop Systems and Fire Resistive Joint Systems in Fire Resistance Rated Construction – 5th Edition



The following information is intended to provide construction and code enforcement professionals with basic checkpoints to ensure the required fire resistance ratings are maintained when penetrations and linear joints breach walls and floors. This inspection guideline is not intended to be all encompassing or to be used as a design guide. It is for information and educational purposes only.

GLOSSARY

Annular Space - The opening around a penetrating item.

F Rating - The time period that the through-penetration firestop system limits the spread of fire through the penetration when tested in accordance with ASTM E 814 or UL1479.

Fireblocking - Building materials, or materials approved for use as fireblocking, installed to resist the free passage of flame to other areas of the building through concealed spaces.

Fire-Resistant Joint System - An assemblage of specific materials or products that are designed, tested and fire-resistance rated in accordance with either ASTM E 1966 or

Request Seminar

UL 2079 to resist for a prescribed period of time the passage of fire through joints made in or between fire-resistance rated assemblies.

Joint - The opening in or between adjacent assemblies that is created due to building tolerances, or is designed to allow independent movement of the building in any plane caused by thermal, seismic, wind or any other loading.

L Rating - The air leakage rating of a through penetration firestop system or a fire-resistant joint system when tested in accordance with UL 1479 or UL 2079, respectively.

Membrane Penetration - A breach in one side of a floor-ceiling, roof-ceiling or wall assembly to accommodate an item installed into or passing through the breach.

Penetration Firestop - A through-penetration firestop or a membrane-penetration firestop.

Perimeter Fire Barrier System - An assemblage of specific materials along the perimeter of a floor with an hourly fire endurance rating and a non-rated exterior curtain wall to ensure continuity of the separating function of the floor assembly. Tested in accordance with ASTM E2307.

Splice - The result of a factory and/or field method of joining or connecting two or more lengths of a fire-resistant joint system into a continuous entity.

Penetration Firestop - A through-penetration firestop or a membrane-penetration firestop. **Although ducts may be considered penetrations, the requirements for maintaining the fire rating of the assembly penetrated by ducts are beyond the scope of this document.*

T Rating - The time period that the penetration firestop system, including the penetrating item, limits the maximum temperature rise to 325°F (163°C) above its initial temperature through the penetration on the non-fire side when tested in accordance with ASTM E 814 or UL 1479.

Through-Penetration Firestop System - An assemblage consisting of a fire-resistance-rated floor, floor-ceiling, or wall assembly, one or more penetrating items passing through the breaches in both sides of the assembly and the materials or devices, or both, installed to resist the spread of fire through the assembly for a prescribed period of time.

SPECIFICATIONS

The Construction Specifications Institute (CSI) provides specification for "Fire and

Smoke Protection” in Section 07800, which includes firestopping materials, fire containment, sprayed fire resistive materials, board materials, smoke seals, and fire resistant coatings and assemblies. Firestopping is covered by Section 078400 – Firestopping. Other specification sections, such as Thermal and Moisture Protection, Insulation, Drywall, or Mechanical and Plumbing sections, might include references to firestopping materials.

FIRE TEST STANDARDS

The Test Standards relevant to Firestop Systems are:

1. ASTM E 814 (ANSI/UL 1479) “Standard Test Method for Fire Tests of Through-Penetration Fire Stops”
2. ASTM E 1966 (ANSI/UL 2079) “Standard Test Method for Fire-Resistive Joint Systems”
3. ASTM E 1399 “Cyclic Movement and Measuring the Minimum and Maximum Joint Widths of Architectural Joint Systems”
4. ASTM E 2174 “Standard Practice for On-Site Inspection of Installed Fire Stops”
5. ASTM E 2307 “Standard Test Method for Determining the Fire Resistance of Perimeter Fire Barrier Systems using the Intermediate Scale, Multi-Story Test Apparatus”
6. ASTM E 2393 “Standard Practice for On-Site Inspection of Installed Fire Resistive Joint System and Perimeter Fire Barriers”
7. ASTM E2750 "Guide for Extension of Data from Penetration Firestop System Tests Conducted in Accordance with ASTM E814"
8. ASTM E 2837 "Standard Test Method for Determining the Fire Resistance of Continuity Head-of-Wall Joint Systems Installed Between Rated Wall Assemblies and Nonrated Horizontal Assemblies"
9. ASTM E3038 "Standard Practice for Assessing and Qualifying Candidates as Inspectors of Firestop Systems and Fire-Resistive Joint Systems."

The fire testing of penetration firestop and fire resistive joint systems require that both penetrations and joints demonstrate the ability to limit the passage of flame (F rating) and withstand a hose stream test. Fire tests also include provisions for measuring the T rating and the optional L rating. Fire tests of firestop systems are conducted using positive furnace pressures.

For dynamic joint systems, a specific number of expansion and contraction cycles precede the fire test in order to measure the movement capabilities of the joint systems. The movement capability of a joint is expressed as a % of the installed (nominal) width of the joint system.

The fire endurance rating of the firestop system must equal the fire resistance rating of the penetrated fire separating assembly in which the firestop system is installed. With a few exceptions, the methods and materials used in penetrations and joints are tested as a system to demonstrate the methods and materials function as fire

containment for the required fire endurance rating. A modification to a tested system voids the rating of the system.

Check Points

- Is the firestop system Listed? (e.g. by Underwriters Laboratories (UL), Factory Mutual (FM), Intertek Testing Services (ITS), Southwest Research Institute (SWRI)).
- Do the specified firestop systems comply with the standard testing requirements for the in-place conditions?
- Is the joint intended to be load bearing, and is it indicated as a load bearing system in the listings?
- Is the specified joint tested and listed to comply with the amount and type of expected building movement?

TESTING LABORATORIES

There are several independent testing laboratories, also referred to as third party testing agencies, which conduct the fire testing of firestop systems. The fire test results are usually included as design listings in the fire resistance directories published by the testing laboratory. These Directories are an important source of information during the plan review process and inspection process. The details, system numbers, manufacturer installation recommendations, and other design listing information are often referred to on the plan submittals. A thorough knowledge of the design listing information is critical to firestop inspections.

The following are some of the recognized independent laboratories conducting tests of firestop systems:

1. Underwriters Laboratories Inc. Northbrook, IL (847) 272-8800 www.ul.com
2. Southwest Research Institute, San Antonio, TX (210) 522-2311 www.swri.com
3. Factory Mutual, Norwood, MA (781) 762-4300 www.fmglobal.com
4. Intertek Testing Services (210) 635-8100 www.intertek.com

Check Points

- Do your building and fire department plans examiners and inspectors routinely use Testing Laboratories™ Directories?
- Are you unsure of the compliance of a specific firestop assembly with the listed design? Check out the latest design listings on the Laboratories websites indicated above.

BUILDING CODE REQUIREMENTS

The Building Codes have very clear requirements on passive fire protection. Fire investigative reports have consistently shown that unprotected or improperly protected penetrations and joints have caused millions of dollars in property damage and contributed to the loss of life and injuries due to the uncontrolled migration of fire, smoke and toxic gases. In order to promote life safety and property protection, the International Code Councils (ICC's) International Building Code (IBC), as well as most State and local Codes, include fire testing and performance requirements for through-penetration and membrane penetration firestops, and fire resistive joint systems. These provisions are included in Chapter 7 – Fire and Smoke Protection Features.

Whenever required by the Building or Fire Code, the fire resistance ratings of floors, walls, horizontal assemblies (e.g. floor/ceiling or roof/ceiling assemblies) must be restored when an assembly is breached to accommodate penetrations for items such as mechanical, electrical, plumbing, and communication systems. Joints between adjacent assemblies must have a fire resistance ratings, in order to maintain continuity. NFPA 101, Life Safety Code, NFPA 70, National Electrical Code, and IAPMO™, Uniform Plumbing code (UPC), also include provisions related to protection of penetrations and joints.

The IBC, has explicit requirements for inspection of firestop systems and Joint systems before they are concealed.

Check Point - Have you checked your local code requirements? Model Building Codes such as the IBC, NFPA 5000 Building Code and the Life Safety Code, NFPA 101 include different requirements for firestop systems to meet certain performance and testing criteria specific to various construction assemblies. Check out the IFC website www.firestop.org for latest updates on firestop systems regulations.

PRODUCTS OVERVIEW

There are four categories of Firestop materials:

1. Fill, Void or Cavity Materials
 1. Intumescent sealants/caulks
 2. Silicone sealants/caulks
 3. Acrylic sealants/ caulks
 4. Urethane sealants/caulks
 5. Ceramic sealants/caulks
 6. Moldable putties
 7. Pillows/bags
 8. Sheets/boards/blocks
 9. Mortars

10. Intumescent wrap strips
11. Silicone foams
12. Coatings/sprays
2. Factory and Field Assembled Devices
 1. Sleeves/Collars
 2. Mechanical joint systems
3. Forming/Backing Materials
 1. Mineral wool batts
 2. Ceramic fiber blankets/boards
 3. Non-ceramic insulation blankets
 4. Foam packing/backer rod
4. Duct and pipe covering materials

INSPECTION PROCESS

The following is a recommended inspection process based on interviews across the country with building department inspectors who have successfully implemented such a program. These jurisdictions require that the protection of penetrations and joints not be concealed from view until inspected and approved. Some building departments collaborate with the fire department to conduct the firestop systems inspections. ASTM published ASTM E 2174 "Standard Practice for On-Site Inspection of Installed Fire Stops" and ASTM E 2393 "Standard Practice for On-Site Inspection of Installed Fire Resistive Joint System and Perimeter Fire Barriers". These standards shall be referenced when third party inspections (e.g. special inspections as required by IBC section 1705) are conducted for penetration firestop and fire resistive joint systems.

Part I: Inspection Process: Plans Examination/Review

The local authority having jurisdiction (AHJ) must approve Firestop system details and Firestop products. Hence, Firestop systems details and materials should be included on the plans and specifications. Manufacturer cut sheets are often accepted if they are generated by an approved testing agency. If details, products and specifications are not sufficient to provide clear directions to the general contractor and firestop installer, the submittals should be noted as incomplete and returned to the designer to be resubmitted with the required information. When the plans and specifications are clear and complete, most field problems with firestop systems can be avoided.

Special Inspection

Since the 2012 edition, the International Building Code has required special inspection of firestopping for buildings over 75 feet in height, and category III and IV buildings.

Chapter 17 of the IBC governs the quality, workmanship and requirements for materials covered. Materials of construction and tests must conform to the applicable standards listed in the Code. Any material proposed for use in the construction of a building or structure is subject to the approved rules to determine character, quality and limitations of use.

The owner's representative provide the special inspection report, as mandated by the code. This alleviates to a certain degree the need for the AHJ to have the in-depth knowledge needed to thoroughly inspect the penetration, joint and building perimeter firestops. It also frees up time for the AHJ, knowing that the special inspection agency will be conducting very detailed and extensive inspection of these features.

The qualifications for Special Inspectors are in addition to qualifications specified in other sections of the IBC. 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 special inspectors for the work designed by them, provided they qualify as special inspectors. IFC offers training for Firestop Special Inspectors.

Check Points

- Do the specifications include what test method the materials or firestop systems shall be tested to?
- Which sections of the architectural plans contain the firestop systems details?
- Are the specific firestop system details included on the plans?
- Has the local authority having jurisdiction (AHJ) approved the products used in these systems?
- Are the firestop products appropriate for the field conditions? Refer to the design listings and manufacturer datasheets
- Are the specified fire resistive joints tested for the amount of movement and type of movement required?

Part II: Inspection Process: Engineering Judgments

It is not unusual to find, in construction projects, uncommon designs or unique conditions that require special consideration. The protection of these conditions will necessitate engineering judgments (EJs) since they have not been tested and do not comply with a published design listing. The International Firestop Council has published "Recommended IFC Guidelines for Evaluating Firestop Systems Engineering Guidelines" to assist designers, plan reviewers and inspectors in addressing nonconforming construction details. Tested systems should always be specified unless EJs are the only option. Engineering Judgments should be developed using sound engineering practices to ensure that life

safety is not compromised. The plan submittals should always indicate which system details are based on EJs and the pre-approved details must be made available for the field inspector.

Check Points

- What is the policy of your building department regarding engineering judgments?
- How are engineering judgments evaluated?
- Are all the firestop system details made available to building inspectors?

Part III: Inspection Process: Pre-Construction/Pre-Planning Meeting

The perfect opportunity to initiate discussion on the coordination of work among the trades, the general contractor and building inspector is during the pre-construction meeting. This discussion is important since the application of firestop protection systems is affected by the work of many trades including mechanical, plumbing, electrical, walls and ceilings, fire protection, etc.

An early discussion of who is going to be responsible for restoration of the fire resistance ratings will eliminate aggravation and expense later in the construction. If there is no clear delegation of responsibility for the installation of firestop systems for the penetrations and joints, it is vital that the general contractor understand that it is his responsibility to ensure the fire resistance ratings of the structure.

The pre-construction meeting should also be used to:

- agree on all the penetrations to be protected in accordance with the approved construction plans
- schedule the trades work in conjunction with the firestop installation work
- schedule the firestop inspections and coordinate with the firestop contractor work
- agree on whether the building or fire inspector will be conducting the inspections

Check Points

- Do the general contractor and subcontractors understand that the protection of penetrations and joints will be inspected?
- Who is going to be responsible for the protection of all penetrations and joints?
- Who is going to conduct the inspections and when?
- What are the qualifications/experience of the firestop installer indicating expertise in that field?

Part IV: Inspection Process: Conduct of Inspection

The ability of penetration firestop systems and fire resistive joint systems to perform their intended function of fire containment is directly related to the quality of their installations. Thorough inspection is an integral component of any passive fire protection quality control program.

It is not usually feasible to visually inspect each penetration and the entire length of every joint. How many inspections are enough? This is a judgement call by the inspector.

Example: It would be reasonable if there were 20 or 30 penetrations, to observe 2 or 3 representative installations. 2 or 3 representative installations out of hundreds or thousands of penetrations would not provide reasonable verification, particularly if different subcontractors were involved in their installations.

Major elements of quality firestop inspections are:

- firestop systems must not be concealed from view before being inspected and approved
- walk through visual inspections should be made during the firestop installation
- when necessary or required, destructive evaluation will be made on various types of firestop systems
- flashlights, coring device and other appropriate tools make a proper inspection easier
- proper depths, annular space and product types are critical to the effectiveness of the system
- construction documents detailing the firestop locations and systems must be kept on site to assist in the conduct of the inspection
- observe that empty containers, wrappings or boxes of the specified materials are in sufficient quantity to have been installed correctly
- observe that the actual products, containers, wrappings or boxes are labeled with the approved testing agency marks and are as specified in the submitted details
- measure the depth and width of materials as indicated in the details (sometimes density measurements are also required for products such as thermal insulation)
- observe that joints have been installed in such manner that the required movement can be achieved (temporary screws used to hold studs to ceiling runners must be removed)
- compare the installed firestop system with the approved submitted details

- observe a reasonable degree of workmanship, which would indicate compliance with the specified designs
- deficient installations must immediately be corrected and then re-inspected before concealment

Check Points

- Are random and timely inspections conducted to make sure that corrections can be made before the completion of firestop installations?
- Is the building or fire inspector familiar with the code requirement for penetration firestop systems and fire resistive joint systems?
- How many destructive inspections will be conducted?
- What is your building inspection policy and procedure for making firestop inspections?
- Is the inspection report for penetrations and joints included in the final inspection report?

IN MEMORIAM

This document is dedicated to the memory of John Birmingham of Nelson Firestop Products (Tulsa, OK.) Mr. Birmingham was a co-founder of the International Firestop Council (IFC) and was wholly dedicated to the cause of fire safety and the science of fire containment. On his behalf, the IFC appreciates the interest and support of those who have interest in promoting education in passive fire protection.

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Overview

Item #:	RV-10791AW
Title:	Designing for Flood Loads Using ASCE
Provider:	Coulbourn Consulting
Author:	<u>William Coulbourn, P.E., F. ASCE, F. SEI</u>
Price:	99.90
Credit Hrs:	2.00
Level:	3 - Advanced
Rating:	★★★★☆ (700 Reviews)
Features	

This course will provide technical information important to flood design for all types of buildings and all types of flood conditions. We will cover the minimum design and construction standards required by regulations. You will learn the current design methodologies for foundation issues for both riverine and coastal buildings. This course will cover the limitations of prescriptive solutions for flood-design problems. Flood load provisions of ASCE 7-10 Minimum Design Loads for Buildings and Other Structures and ASCE 24 Flood Resistant Design and Construction will be discussed. And you will le...
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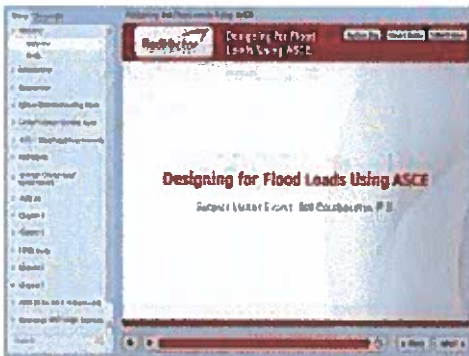
Learning Objectives

- At the end of this course, you will be able to:
- ▶ Apply the flood load provisions in ASCE 7-10 and ASCE 24 to properly design buildings that are safe for its occupants
 - ▶ List the provisions, updates, and proposed changes to ASCE 7-10 and ASCE 24 that will affect the safety of the public
 - ▶ Identify the minimum design and construction standards for flood design that will provide the most safety to the public.
 - ▶ Recognize the limitations for prescriptive solutions in flood design to assist in identifying issues that require thorough analysis
 - ▶ State the current design methodologies for foundation issues used for both riverine and coastal buildings

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AL - Engineer (General - ,)

American Academy of Environmental Engineers - AAEEs - Member (General - ,)

American Institute of Architects - AIA - Architects (Health, Safety & Welfare - AIA Reg RV1910-2021)

American Society of Civil Engineers - ASCE - Academy of Coastal, Ocean, Port & Navigation Engineers (ACOPNE) (General)

American Society of Civil Engineers - ASCE - Academy of Geo-Professionals (AGP) (General)

American Society of Civil Engineers - ASCE - American Academy of Water Resources Engineer (AAWRE) (General)

AR - Architect (Health, Safety & Welfare - AIA Reg RV1910-2021)

AR - Engineer (General - ,)

Association of State Floodplain Managers - ASFPM - Certified Floodplain Manager (Core)

Canada - Alberta Architect (General - AIA Reg RV1910-2021)

Canada - Alberta Engineer (General - ,)

HI - Architect (Health, Safety & Welfare - AIA Reg RV1910-2021)

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IA - Engineer (General - ,)

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IL - Architect (Health, Safety & Welfare - AIA Reg RV1910-2021)

IL - Engineer, Professional (General - ,)

IL - Engineer, Structural (General - ,)

IN - Architect (Health, Safety & Welfare - AIA Reg RV1910-2021)

IN - Engineer (General - Board Approved - CE21800018)

International Society of Automation - ISA - Certifications (General)

KS - Architect (Health, Safety & Welfare - AIA Reg RV1910-2021)

KS - Engineer (Health, Safety & Welfare - ,)

KY - Architect (Health, Safety & Welfare - AIA Reg RV1910-2021)

NH - Engineer (General - ,)

NJ - Architect (Health, Safety & Welfare - AIA Reg RV1910-2021)

NJ - Engineer (General - 24GP00006300)

NM - Architect (Health, Safety & Welfare - AIA Reg RV1910-2021)

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NV - Architect (Health, Safety & Welfare - AIA Reg RV1910-2021)

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OK - Architect (Health, Safety & Welfare - AIA Reg RV1910-2021)

OK - Engineer (General - ,)

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Overview

Item #:	RV-5341
Title:	Flood Mitigation and Special Flood Hazard Areas
Provider:	RedVector.com, Inc.
Author:	David Chitester
Price:	199.80
Credit Hrs:	4.00
Level:	3 - Advanced
Rating:	★★★★☆ (1197 Reviews)
Features	

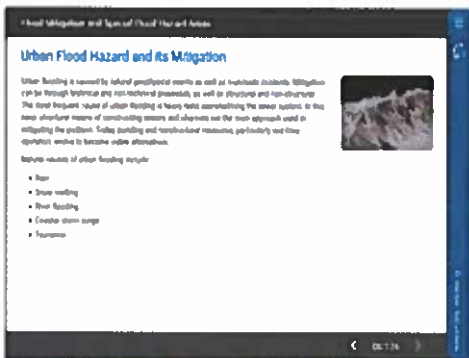
Description

This four hour interactive online course covers some of the basic facts about flooding, as well as the different flood zones. It also focuses on techniques used to mitigate flooding problems in special flood hazard areas. This course focuses on some of the steps that should be taken on buildings in special flood hazard areas. It covers the requirements for openings in foundations, walls and wet flood proofing, as well as flood resistant materials. This course includes a multiple choice quiz at the end.

Learning Objectives

At the conclusion of this course, the student will have a better general knowledge of flooding and flood zones, as well as flood mitigation techniques in special flood hazard areas. Those techniques include:

- ▶ Describe types of flooding, floodplain management, and mitigation.
- ▶ Explain the requirement for openings in foundation walls.
- ▶ Describe the flood resistant construction and finishing materials requirements.
- ▶ Explain the requirement for wet flood proofing.



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Bluebeam Software

<http://www.bluebeam.com/>

Founded in 2002

Located in United States

Bluebeam Revu Pricing Overview

Bluebeam Revu pricing starts at **\$349.00 as a one-time payment, per user**. They do not have a free version. Bluebeam Revu offers a free trial. See additional pricing details below.

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