

Location Validation QuickStart

NFIP IT Services User Guide

Production Release 1.0 | January 2008



LOCATION VALIDATION

This document is a guide for the usage of the NFIP IT Services Location Validation application. This guide is divided into several parts. The first part provides background information on the application and its benefits to NFIP stakeholders. The second part serves as a user guide for the Web-based access method for the application. The thrid part serves as a user guide for the batch access method for the application. The Location Validation application was developed under the NextGen Bureau Systems Modernization Project and is released as a production application. With your suggestions and feedback, NFIP IT Services continues to improve production applications with new features and enhancements. Feel free to provide feedback by sending e-mail to **nextgen@ostglobal.com** or calling **(202) 467-7602**.

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LOCATION VALIDATION OVERVIEW

Location Validation is an NFIP IT Services application that standardizes U.S. address data to improve the matching process and the accuracy of information. Incomplete and invalid address data can lead to incomplete and inaccurate data for issuing policies, analyzing trends and monitoring other vital NFIP operations. The purpose of Location Validation is to provide NFIP stakeholders with a tool to ensure address data integrity.

Location Validation ensures address and location data quality through the following capabilities.

- Data Matching Through "Fuzzy" Suggestions
- Parses, Standardizes and Corrects Addresses
- Validates City, State, and Zip Codes for Descriptive Addresses (i.e. 3 miles north on Highway 93)
- Validates Addresses, Urbanization Codes, Units, States and Zip Codes for Non-Descriptive Addresses
- Identifies Construction Sites, Record Types, Geo-Coding, etc.

Location Validation provides a number of benefits for all NFIP stakeholders. Below is a list of the major benefits.

- Improved data accuracy through upfront address edits
- Suggestions based on partial address and completion
- Validations for urbanization codes/names in Puerto Rico
- Receive geo-code (latitude and longitude) data
- Standardization for all NFIP addresses
- Increased data integrity to improve matching, reporting, trends, monitoring and analyses
- Increase matching abilities with other FEMA systems

- Ability to link with MapMod data to validate and serve up map panels, community and zone data
- Validate mailing addresses (e.g., claims handbooks)

NFIP IT Services Location Validation Standardization

Location Validation and the standardization of address data meets two major goals. The first is providing more complete data to FEMA's Mitigation Division, WYO companies and their vendors based on standards (i.e, latitude and longitude, error-free address, address suggestions, etc.) that enhance NFIP analytical capabilities (e.g., claim history, grand fathering, 1316, CBRA, repetitive loss, etc.). The second is increasing NFIP operational efficiency by offering Location Validation as an A La Carte service.

Standard Displayed Displayed Example Capitalization Upper and lowercase 123 N Main St **Directional Style** Short form "North" displayed as "N" "South West" as "SW" City Preferred postal cities according "Hollywood, CA" displayed as to the US Postal Directory "Los Angeles, CA" **Primary Name** Preferred postal streets according "Avenue of America" displayed Alternate to the US Postal Directory as "6 Ave" Street Type Style Short form "Street" displayed as "St"

All addresses processed through the Location Validation application will be displayed according to the following NFIP IT Services standards.

The following table provides a list of the typographic conventions used in this document.

Typeface	Description	Samples
Italic	Italic style is used to denote variable text that must be replaced with the appropriate value, such as filenames and form field values. It is also used for emphasis.	filename1 default-value
Bold	Bold style is used to denote GUI elements and text that is to be entered, such as window or form field names and keyboard input text.	Start Menu cd
Monospace	A monospace font is used to denote command names, on-screen computer output and filenames.	mkdir config.sys



Location Validation OVERVIEW

LOCATION VALIDATION

REAL-TIME PERSON-TO-MACHINE (WEB-BASED) TRANSMISSION METHOD

The Location Validation QuickStart is a mini guide to help users get started with the NFIP IT Services Location Validation application. NFIP IT Services Location Validation is an application that allows users to standardize, validate and geo-code addresses through a Web portal.

This guide provides information for all users of the Location Validation application, including how to handle address suggestions, how to validate addresses and possible error messages that a user may encounter.

For a complete listing of NFIP IT Services QuickStarts and additional help, refer to http://nfipbureau.fema.gov/help.html.

Validating addresses using the Location Validation application, depicted in the figure below, is a simple procedure.

OBJECTIVES AND PREREQUISITES

After reading this guide, users should possess the following skills and knowledge.

- User should be able to access the Location Validation application.
- Users should be able to validate and standardize an address (Street, City, State, Nine Digit Zip Code, Unit Number, and/or Puerto Rico Urbanization).
- Users should be able to obtain the latitude/longitude for the roof-top/street-level or centroid of a valid address.
- Users should be able to obtain the address record type (e.g., street, postal office box, rural route, high rise, commercial or general delivery).

SYSTEM REQUIREMENTS

 Microsoft Internet Explorer 5.5 or better – Microsoft Internet Explorer for Windows can be downloaded for free at http://www.microsoft.com/downloads/results.aspx?productID=&freetext=IE&DisplayLang=en.

OPEN ACCESS

All NFIP stakeholders can access the Location Validation application at http://nfipbureau.fema.gov. Location Validation does not require an authorized username and password.

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LOCATION VALIDATION ACCESSING LOCATION VALIDATION

Location Validation is accessible through the NFIPBureau.FEMA.Gov Web Portal. The following process describes how to access the NextGen Portal and the Location

Validation application.

NFIPBureau.FEMA.Gov -	Home Page - Microsoft Internet Expl	orer			1
Ele Edit View Favorites	Iools Help				1
2 ^{edk} • 💭 • 🖹 🖹 (🏠 🔎 Search 🔆 Favorites 🙆 🙆 •	🎄 🗷 • 🗔 🚉 🥮 🖏			
Ago ess 🙋 http://www.nfipbure	au.fema.gov/			So Li	Nos
				372	
VFIPBureau FEMA.Gov Web	Portal				
servic	es			FEMA	
Location Validation SQA1	Net FREE F2M Home			Help	
- <u>Getting Started</u> - <u>Request an Account</u> - <u>Feedback</u> - <u>Acconym/Glossary List</u> - <u>Forma</u> - <u>Awareness Material</u>	Velcome to <u>NFIPBureau.FEMA.gov</u> IFIP Bureau, WYO company, flood IFIP IT applications, forms, informa	Web Portal! This is your vendor and state NFIP ation and much more.	one-stop shop for FEMA, needs, which includes access		
My Profile Edit My Profile Forgotten Password	Over the next few months, you wil ransition from <u>www.NFIPStat.com</u> icheduled to start in January and e rogress! The NFIP Bureau NextGer <u>www.nfipnextgen.com</u> .	Il see multiple upgrades t to <u>NFIPBureau.FEMA.go</u> end March 31, 2008. Co n Pilot Website for testir	to this Web Portal as we w. The transition phase is me back often to see our g purposes will remain		
• EDU .	The NFIP Bureau Service productio	n applications are listed	below.		
Pilot Applications AW-501	ocation Validation allows NFIP s ddress. All addresses are validate IFIP standards, and system geo co	takeholders to standard d by the US Postal Data oded. <i>Production Level</i> 1	ize, validate, and geo-code an base, standardized based on .0 January 2008		
rzClaims Prelim Damage iszezzment Adiuster Lookup Re-Inspections	REE (Flood Rating Engine Environ: Juote for Submit-For-Rate, Emerge seconds. Production Level 1.0 Ja	ment) allows users to ge ency Program, and some nuary 2008	enerate a flood insurance Regular Program policy in		
Disaster Info	Forms allows users to complete of Production Level 1.0 January 200	nline NFIP forms, for prin 28	ting or downloading purposes.		
1	My Profile allows users to modify to bassword, change contact informa 1.0 January 2008	their production user ac tion, request forgotten p	count online (i.e., change password). Production Level		
	Ittention NextGen Pilot Users: The urrent NextGen pilot users for acc secome available. Your pilot user a nstructions and the upgrades to y	NextGen Team is in the cess to the production le account will be updated. your account during the	process of verifying our rvel applications as they You will receive an email with transition period.		
	LOCATION VALIDATION				
	Street Address:				
	Apartment, Suite, Floor, etc.:				
	City:				
	State:				
	Zip Code:		Validate		
					_

- 1 Open Internet Explorer. Shortcuts for Internet Explorer are typically located in the Start Menu or on the Desktop.
- 2 Type http://nfipbureau.feam.gov in the Address bar and press <Enter> or click the Go button.
- 3 Click the Location Validation link. Please note that there are several Location Validation links on the page. All of the links will take you to the Location Validation application.

NFIP IT Tip

Please note that **http://www.nfipbureau.fema.gov** requires Internet **Explorer** 5.5 or better. Performance on other browsers may vary.

LOCATION VALIDATION GETTING STARTED

The Location Validation page is where users can enter addresses to be validated and standardized. Due to the powerful matching capabilities of the NFIP IT Services Location Validation engine, it is not necessary to enter a complete address. The application will either match or make suggestions for partial address data. For instance, users may enter either the street address and the 5 digit Zip Code or the street address, city and state; Location Validation will attempt to match based on the data provided by the user.

VALIDATION		Location Validation QuickStart
Street Address: Apartment, Suite, Floor, etc.:	3001 connecticut	
City:	washington	
State:	dc	
Zip Code:		Validate
、		

VALIDATION		Location Validation QuickSta
Street Address:	106 calle san sebastien	
City:	sanjuan	
State: Zip Code:	pr Urbanization:	Validate

If you are trying to validate an address in Puerto Rico (by entering PR in the **State**: field), Location Validation will display an **Urbanization**: field. Entering an urbanization code, also known as an URB Descriptor, will improve the validation process.

Enter the data for the address you are trying to validate. Once you have entered all of the data, click the **Validate** button to continue.

Location Validation Tip

The **Urbanization**: field helps Location Validation match the street and number within a zip code for Puerto Rico addresses. This is important, since many streets have the same name within the same Zip Code.

NFIP IT Tip

This QuickStart can be accessed through the Location Validation QuickStart link on the Location Validation page. For a complete listing of NFIP IT Services QuickStarts, please refer to **http://www.nfipbureau.fema.gov/help.html**.

LOCATION VALIDATION OUTPUT OPTIONS

After an address has been entered and the Validate button has been clicked, the Location Validation engine will attempt to match or make suggestions based on the

data entered. There are three possible outcomes.

Possible Outcomes	
NFIP Standardized and Valid Address	The address will be standardized and validated based on NFIP standards and US Postal Directory.
Address Suggestions	Address suggestions will be supplied by the Location Validation engine based on the matching criteria of the entered address data.
Non-Valid Address	Location Validation was unable to make a match based on the entered address data.

LOCATION VALIDATION	Location Validation QuickStart
Your Address As Entered 💿	
3001 connecticut, washington, dc,	Edit
Address Suggestions 🧿	
NextGen Location Validation found one or multiple location click on "Edit Your Search" to revise your search.	n(s) for your address. Please select one to validate or

3001 connecticut, NATIONAL ZOO

Edit Your Search

NFIP IT Note

All addresses are validated by the US Postal Directory, standardized based on NFIP IT Services standards and Geo-Coded using FirstLogic's directory. These directories are updated on a monthly basis.

LOCATION VALIDATION NFIP STANDARDIZED & VALID ADDRESS

When an address is standardized based on NFIP guidelines and validated to a single address, it is considered a valid address for NFIP purposes. The Location

Validation application displays a screen similar to the figure on this page.

VALIDATION		Location Validation QuickStar
Your Address As Entered 🧿		
3001 connecticut, washington, dc,		Edit
NextGen Standardized & Valid Addr	ess 💿	
Street Address: Apartment, Suite, Floor, etc.:	3001 Connecticut Ave NW	
City, State and Zip Code:	Washington DC 20008-2598	
Roof-Top Latitude/Longitude: Centroid Latitude/Longitude:	38.929031/-77.054676	
Record Type:	Firm	

Location Validation displays the address as entered by the user and the NFIP Standardized & Valid Address. The NFIP Standardized & Valid Address is composed of the following elements.

- Street Address (Street Number, Street Prefix, Street Name, Street PostFix and Street Type)
- Apartment, Suite, Floor, etc. (Unit Description & Unit Number/Letter)
- City, State and Zip Code (City, State, Zip 5 and Zip Plus 4)
- Urbanization (Urbanization Code for Puerto Rico only)
- *Roof-Top Latitude/Longitude* (Latitude and Longitude of the address provided at roof-top level)
- *Centroid Latitude/Longitude* (Latitude and Longitude at the center of the closest block, neighborhood or Zip Code match)
- Record Type (Street, PO box, Rural Route, High Rise, Firm or General Delivery)
- Valid Mailing Address (Deliverable Address according to the US Post Office)

Users may modify the address they entered or the NFIP Standardized & Valid Address by clicking the **Edit** button. This will display the input fields pre-populated with the address you chose to edit.

Location Validation Note

The **Export** button is for an enhancement that will allow users to export their validated address data. This feature will be available in a future release.

SECTION 1 (VALID ADDRESS

LOCATION VALIDATION ADDRESS SUGGESTIONS

If the entered address data cannot be validated or matched to a single address, Location Validation will provide a list of suggestions to help the user select the correct

address. These suggestions may be at the Unit, Street, City or Zip Code level. The Location Validation application displays a screen similar to the figure on this page.

VALIDATION	Location Validation QuickStar
Your Address As Entered 🧿	
125 bank st, missoula, mt,	Edit
Address Suggestions	
NextGen Location Validation found one or multiple locatio click on "Edit Your Search" to revise your search.	on(s) for your address. Please select one to validate o
125 bank st, APT 810	
125 bank st, STE 800	
125 bank st, STE 700	
125 bank st, STE 612	
125 bank st, STE 600 - 610	
125 bank st, STE 500	
125 bank st, STE 402 - 403	
125 bank st, STE 400	
125 bank st, STE 300 - 310	
125 bank st, STE 200	
125 bank st, STE 100 - 110	

The Address Suggestions section will contain a list of links for possible matches. Click the link that best matches the address you are trying to validate. Location Validation will display a NFIP Standardized & Valid Address page similar to the one described before. It may be necessary to try multiple suggestions to achieve the correct standardized and valid address.

If the Address Suggestions section does not contain a suggestion that matches the address the user is trying to validate, they may click the **Edit** button or the **Edit Your Search** link to modify their address search criteria.

VALIDATION		Location Validation QuickSta
Your Address As Entered 🧿		
125 bank st, STE 301, missoula, mt,		Edit
NextGen Standardized & Valid Addr	ess 🤊	
Street Address:	125 Bank St	
Apartment, Suite, Floor, etc.:	Ste 612	
City, State and Zip Code:	Missoula MT 59802-4410	
Roof-Top Latitude/Longitude: Centroid Latitude/Longitude:	46.869599/-113.995099	
Record Type:	High Rise Building	
Valid Mailing Address:	Yes	Edit Export



Address suggestions are created by the Location Validation engine based on the address data entered. For best results, provide as much address data as possible.

LOCATION VALIDATION NON-VALID ADDRESS

If the Location Validation engine cannot provide suggestions or match and validate the supplied address data, the Non-Valid Address page is displayed. The Location

Validation application displays a screen similar to the figure on this page.

VALIDATION		Location Valid
Street Address:	190 pacific lane	
Apartment, Suite, Floor, etc.:		
City:	oviedo	
State:	fl	
Zip Code:		Validate

LOCATION VALIDATION	Location Validation OuickStart
Your Address As Entered 🗇	
190 pacific lane, oviedo, fl,	Edit
Non-Valid Address 💿	
NextGen cannot validate the address as entered. Click on	"Edit Your Search" to revise the address.
The address you entered cannot be validated, due to: The zip code, city or state.	entered street name is not valid within the entered
Edit Your Search	

The Non-Valid Address section contains an error description that may help the user correct their entry in order to match and validate their address data or receive a list of address suggestions. A list of possible errors is displayed on the following page.

Users may click the **Edit** button or the **Edit Your Search** link to modify their address search criteria.

LOCATION VALIDATION POSSIBLE ADDRESS ERRORS

Users may receive one or more of the following errors if they enter address data that cannot be matched to one or more addresses.

- The last line of the address entered is not valid.
- The entered zip code is not valid. A city cannot be associated with an invalid zip code.
- The entered city is not valid. A zip code cannot be associated with an invalid city.
- The entered city and zip code are not valid and cannot be verified.
- The entered zip code is not valid. A city cannot be selected with an invalid zip code.
- Incomplete or missing address line data.
- The entered street name is not valid within the entered zip code, city or state.
- The entered street name matches are too close to determine a valid street.
- The primary street range is missing, and is needed to validate the address.
- The entered primary range is not valid for the street, route, or building.
- The pre-directional that preceded the street name is missing or invalid.
- The street suffix is missing or invalid.
- The required suffix and directional is missing or invalid.
- The post directional is missing or invalid.

- The Puerto Rican urbanization is missing or invalid. This is needed to validate the address.
- The address conflicts with the zip code. This street has a different zip code.
- The street assignment was possible, but there are multiple zip codes and NFIP IT Services Location Validation cannot determine the valid zip code.
- The unit, apartment, lot or building information is missing, and is needed for validation.
- The unit, apartment, lot or building information is missing or out of range. This is needed to validate the address.
- NFIP IT Services Location Validation cannot validate the address as entered.
- The input fields were entirely blank.
- The entered zip code is not in an area covered by partial postal-code directory.
- The ranges are overlapping in the postal directory.
- The US Postal Database has identified this as an undeliverable mailing address.
- This address has been identified as an undeliverable mailing address by NFIP IT Services Location Validation.

LOCATION VALIDATION

ASYNCHRONOUS MACHINE-TO-MACHINE (BATCH) TRANSMISSION METHOD

The Location Validation Batch QuickStart is a mini guide to help you get started with the NFIP IT Services Location Validation application batch transaction mode. NFIP IT Services Location Validation Batch is an application that standardizes U.S. address data to improve the matching process and the accuracy of information through secure machine-to-machine transmissions.

This guide provides information for technical personnel involved in the setup of Location Validation Batch submissions, including the data elements that must be sent, how the input and output files are formatted and how to transmit and receive files.

For a complete listing of NFIP IT Services QuickStarts and additional help, please refer to http://www.nfipbureau.fema. gov/help.html.

OBJECTIVES AND PREREQUISITES

After reading this guide, users should possess the following skills and knowledge.

- Users should be able to format input files for batch address validation.
- Users should be able to receive output files with processed address data.

SYSTEM REQUIREMENTS

• Ability to generate formatted batch input files

RESTRICTED ACCESS

Location Validation Batch access is limited to authorized NFIP stakeholders. Contact NFIP IT Services to request an account at http://www.nfipbureau.fema.gov/NGMyProfile/accountRequest.do. In order to safeguard NFIP information that is protected by the Privacy Act, every account request must be approved by the FEMA Information Systems Security Officer (ISSO) and the designated Point of Contact (POC) from the user's organization (e.g., WYO company, vendor, state, etc.). Requests may take up to ten business days to be approved, based up on the timeliness of approvals from the appropriate individuals.

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LOCATION VALIDATION BATCH FILE FORMAT

Location Validation Batch provides stakeholders with the ability to validate a group of addresses through the exchange of flat, ASCII text files that are similar to TRRP transaction files. Stakeholders must be able to generate an input file for the Location Validation Batch process following the specifications provided in this document. The input file should contain all of the data required by Location Validation Batch to process an address and, if possible, return a set of validated addresses, or suggested addresses.

The batch input file must be formatted using the following guidelines.

- All fields, including alpha, alphanumeric and numeric fields, are left-justified with trailing spaces.
- Decimals in numeric fields are explicitly indicated, rather than implied.
- Signed, numeric fields, such as negative elevations, are explicitly indicated (e.g. -2, -3.51).
- Alphabetic codes, flags and indicators are indicated in uppercase characters.
- · Spaces or blanks in a field are used to indicate not reporting.

WYO companies may send more than one batch input file per day. For instance, if a company with the WYO Prefix Code of 00023 sends two files on February 1, 2008 at 10:00am and 1:30pm, the files would be named as follows.

WLV00023.200802011000.DAT WLV00023.200802011330.DAT

Location Validation Batch will return to stakeholders an output file that contains the results of the batching process, with all of the address that passed and failed the validation process.

The batch output file will be returned as a pipe-delimited (|) ASCII text file.

The batch output file will follow the naming convention specified below.

WLVXXXXX.YYYYMMDDHHMM.DAT XXXXX = Company NAIC Number YYYY = Year MM = Month DD = Date HH = Hour MM = Minute

NAMING CONVENTION

The batch input file should follow the naming convention specified below. WLVXXXXX.YYYYMMDDHHMM.DAT XXXXX = Company NAIC Number YYYY = Year MM = Month

- DD = Date
- HH = Hour
- MM = Minute

LOCATION VALIDATION RECORD LAYOUTS

This section provides a description of the record layout for the batch quote inputs and outputs. The input file description includes the field length, record position, data type, special formatting considerations, whether the data element is common to the TRRP the required status of each field. The output file description includes the data elements listed in the order they will be outputted.

LOCATION VALIDATION BATCH INPUT

Data Element	Field Length	Position	Required
WYO Address ID	10	1-10	Y
WYO Prefix Code	10	11-20	Y
Address Line 1	50	21-70	Y
Address Line 2	50	71-120	Y
City	30	121-150	Y
State	2	151-152	Y
Zip Code+4	9	162-163	Y
Address Type Indicator	2	162-163	Y
NFIP IT Services Record	1	164-164	Y
Type Indicator			

LOCATION VALIDATION BATCH OUTPUT

Data Element
WYO Address ID
Input Address Line 1
Input Address Line 2
Input City
Input State Code
Input Zip Code+4
WYO Prefix Code
First Name
Last Name
Beginning Street Number
Street Prefix
Street Name
Street Postfix
Street Type
Unit Number
Unit Description
City
State Code
Zip Code+4
Geocode Latitude
Geocode Longitude
Property Urbanization
ELOT
EWS Mode
Delivery Point Validation
Status
Error Code

LOCATION VALIDATION DATA DICTIONARY

This section contains the data dictionary for the batch Location Validation data elements. Each dictionary definition includes the name of the data element, any

aliases, a description of the data element, edit/data type criteria and length.

Data Element: Address Line 1

Description: This is the first line of the property address.

Edit Criteria: Alphanumeric

Length: 50

Data Element: Address Line 2

Description: This is the second line of the property address.

Edit Criteria: Alphanumeric

Length: 50

Data Element: Address Type Indicator

Description: This code indicates the type of address - mailing property both or other.

Edit Criteria: Alphanumeric Acceptable Values:

- M Mailing Address
- P Property Address
- **B** Both
- 0 Other

Length: 2

Data Element: Beginning Street Number

Description: This indicates the beginning street number for the property location.

Edit Criteria: Numeric

Length: Up to 11

Data Element: Centroid Geocode Latitude

Description: This indicates the latitude of the center of block neighborhood or 7IP Code in which the property is legated

or ZIP Code in which the property is located.

Edit Criteria: Numeric may be positive or negative

Length: Up to 100, in the format ±12.123456

Data Element: Centroid Geocode Longitude

Description: This indicates the longitude of the center of block neighborhood or ZIP Code in which the property is located.

Edit Criteria: Numeric may be positive or negative

Length: Up to 100, in the format ±12.123456

Data Element: City

Description: This is the city in which the property is located.

Edit Criteria: Alphanumeric

Length: 30

SECTION 2 DATA DICTIONARY

Data Element: Delivery Point Validation

Description: This indicates if the address was validated using Delivery Point Validation (DPV).

Edit Criteria: Alphanumeric, Acceptable Values:

D – The address is a confirmed delivery point but the parsed secondary range is not available on input.

- L The address triggered DPV locking.
- N The address is not a valid delivery point.

 ${\bf S}$ – The primary range is a valid delivery point but the secondary range is not valid in the DPV directory.

Y – The address is a confirmed delivery point. The primary range and secondary range (if present) are valid.

Length: 1

Data Element: ELOT

Description: This is the enhanced Line of Travel (ELOT) sort order number which is used to achieve greater precision for sorting mailings.

Edit Criteria: Numeric

Length: Up to 4

SECTION 2

Data Element: Error Code

Description: This indicates any errors that were encountered during the validation process.

Edit Criteria: Alphanumeric, Acceptable Values:

F101 – The last line of the address entered is not valid.

F212 – The entered zip code is not valid. A city cannot be associated with an invalid zip code.

 $\ensuremath{\textbf{F213}}$ – The entered city is not valid. A zip code cannot be associated with an invalid city.

F214 – The entered city and zip code are not valid and cannot be verified.

F216 – The entered zip code is not valid. A city cannot be selected with a invalid zip code.

F302 - Incomplete or missing address line data.

F412 – The entered street name is not valid within the entered zip code city or state.

F413 – The entered street name matches are too close to determine a valid street.

 $\ensuremath{\text{F420}}$ – The primary street range is missing and is needed to validate the address.

F421 – The entered primary range is not valid for the street route or building.

 $\ensuremath{\textbf{F422}}$ – The entered primary range is not valid for the street route or building.

F423 – The street suffix is missing or invalid.

F425 – The suffix and directional needed is missing or invalid.

F427 – The post-directional is missing or invalid.

F431 – The Puerto Rican urbanization is missing or invalid. This is needed validate the address.

F432 – The address conflicts with the zip code. This street has a different zip code.

F434 – The street assignment was possible but there are multiple zip codes and cannot determine the valid zip code.

F438 – The unit apartment lot or building information is missing and is needed for validation.

F450 – The unit apartment lot or building information is missing or out of range. This is needed to validate the address.

F500 - NextGen Location Validation cannot valid the address as entered.

F502 – The input fields were entirely blank.

 $\ensuremath{\text{F503}}$ – The entered zip code is not in area covered by partial postal-code directory.

F504 – The ranges are overlapping in postal directory.

 $\ensuremath{\textbf{F505}}$ – The US Postal Database has identified this as an undeliverable mailing address.

 ${\bf F600}$ – This addresses has been identified as an undeliverable mailing address by NextGen Location Validation logic.

Length: Up to 10

Data Element: EWS Mode

Description: This indicates if the address was validated using the Early Warning System (EWS).

Edit Criteria: Alphanumeric, Acceptable Values:

- T The address is located in the EWS directory and is an EWS match.
- F The address is not located in the EWS directory.

Length: Up to 2

Data Element: First Name

Description: This is the first name of the property owner.

Edit Criteria: Alphanumeric

Length: Up to 50

Data Element: Geocode Latitude

Description: This indicates the street-level latitude for the property location.

Edit Criteria: Numeric may be positive or negative

Length: Up to 100, in the format ±12.123456

Data Element: Geocode Longitude

Description: This indicates the street-level longitude for the property location.

Edit Criteria: Numeric may be positive or negative

Length: Up to 100, in the format ±12.123456

Data Element: Last Name

Description: This is the last name of the property owner.

Edit Criteria: Alphanumeric

Length: Up to 50

Data Element: NextGen Record Type Indicator

Description: This indicates the method through which the address was submitted for validation.

Edit Criteria: Alphanumeric, Acceptable Values:

- N NextGen TRRP
- W WYO Batch
- R Resubmission from Data Warehouse

Length: 1

Data Element: Property Urbanization

Description: This indicates the urbanization description for property

addresses in Puerto Rico.

Edit Criteria: Alphanumeric

Length: Up to 79

LOCATION VALIDATION DATA DICTIONARY (CONTINUED)

Data Element: State

Description: This indicates the two character state code.

Edit Criteria: Alphanumeric

Length: 2

Data Element: Status

Description: This indicates the status of the record with regard to validation and standardization. If the Status is N the Error Code field will be populated with the reason(s) why the address could not be validated and standardized.

Edit Criteria: Alphanumeric, Acceptable Values:

- ${\bf Y}$ The address was standardized and validated
- ${\bf N}$ The address could not be standardized and validated

Length: 1

Data Element: Street Name

Description: This indicates the name of the street.

Edit Criteria: Alphanumeric

Length: Up to 60

Data Element: Street Postfix

Description: This indicates the directional postfix for the street (i.e. N NW etc.).

Edit Criteria: Alphanumeric

Length: Up to 3

Data Element: Street Prefix

Description: This indicates the directional prefix for the street (i.e. S SE etc.).

Edit Criteria: Alphanumeric

Length: Up to 3

Data Element: Street Type

Description: This indicates the type of street (i.e. Rd. Blvd. etc.).

Edit Criteria: Alphanumeric

Length: Up to 4

Data Element: Unit Number

Description: This indicates the unit number.

Edit Criteria: Alphanumeric

Length: Up to 8

Data Element: Unit Type

Description: This indicates the unit type.

Edit Criteria: Alphanumeric

Length: Up to 10

Data Element: WYO Address ID

Description: This indicates the unique identifier for each record, which allows WYO companies to bind together records from the input and output files. This field is assigned by the WYO company.

Edit Criteria: Alphanumeric

Length: 10

Data Element: Zip Code+4

Description: This is the full Zip Code (Zip Code and Zip Plus 4) of the property address.

Edit Criteria: Alphanumeric

Length: 9

LOCATION VALIDATION CODES, FLAGS AND INDICATORS

This section documents the coding scheme used to record quote information. For the sake of completeness, all codes, flags and indicators used by Location Validation

Batch.

Address Type Indicator	
Mailing Address	М
Property Address	Р
Both	В
Other	0

Delivery Point Validation	
The address is a confirmed delivery point but the parsed secondary	
range is not available on input.	D
The address triggered DPV locking.	L
The address is not a valid delivery point.	Ν
The primary range is a valid delivery point but the secondary range is	
not valid in the DPV directory.	S
The address is a confirmed delivery point. The primary range and	
secondary range (if present) are valid.	Y

Error Code	
The last line of the address entered is not valid.	F101
The entered zip code is not valid. A city cannot be associated with an	
invalid zip code.	F212
The entered city is not valid. A zip code cannot be associated with an	
invalid city.	F213
The entered city and zip code are not valid and cannot be verified.	F214

The entered zip code is not valid. A city cannot be selected with a	
invalid zip code.	F216
Incomplete or missing address line data.	F302
The entered street name is not valid within the entered zip code city or state.	F412
The entered street name matches are too close to determine a valid street.	F413
The primary street range is missing and is needed to validate the address.	F420
The entered primary range is not valid for the street route or building.	F421
The entered primary range is not valid for the street route or building.	F422
The street suffix is missing or invalid.	F423
The suffix and directional needed is missing or invalid.	F425
The post-directional is missing or invalid.	F427
The Puerto Rican urbanization is missing or invalid. This is needed	
validate the address.	F431
The address conflicts with the zip code. This street has a different zip code.	F432
The street assignment was possible but there are multiple zip codes	
and cannot determine the valid zip code.	F434
The unit apartment lot or building information is missing and is	
needed for validation.	F438
The unit apartment lot or building information is missing or out of	
range. This is needed to validate the address.	F450
NFIP IT Services Location Validation cannot valid the address as	
entered.	F500
The input fields were entirely blank.	F502

LOCATION VALIDATION CODES, FLAGS AND INDICATORS (CONTINUED)

The entered zip code is not in area covered by partial postal-code directory.	F503
The ranges are overlapping in postal directory.	F504
The US Postal Database has identified this as an undeliverable	
mailing address.	F505
This addresses has been identified as an undeliverable mailing	
address by NEIP IT Services Location Validation logic	F600

EWS Mode	
The address is located in the EWS directory and is an EWS match.	Т
The address is not located in the EWS directory.	F

NFIP IT Services Record Type Indicator	
NFIP IT Services TRRP	Ν
WYO Batch	W
Resubmission from Data Warehouse	R

Status	
Yes Address Standardized & Validated	Y
No Address Not Standardized & Validated	N