Forerunner

Documentation of Forerunner's software features and unique functionality

Executive summary

Forerunner is software designed to help with Floodplain Management. Our Platform simplifies workflows and saves time for resource-constrained communities, while our Public flood website provides a turn-key flood website for residents.

Forerunner Industries, Inc. is the only vendor that provides a unique suite of software that allows municipalities to efficiently manage their floodplain management programs, monitor aspects of compliance with the National Flood Insurance Program (NFIP), and streamline activities related to the Community Rating System (CRS) program. Forerunner is also the only vendor available that has developed software customized for the extraction and validation of data from Elevation Certificates and for property-level floodplain management analysis.

Key distinguishing features

Forerunner Industries, Inc. warrants that the Platform is a sole source product and that Forerunner Industries, Inc. is the sole manufacturer and sole provider of the Platform. Forerunner Industries, Inc. further warrants that it is the only source for onboarding and customization, training, and customer support services for the Forerunner software. There are no similar or competing products that use machine learning to extract, synthesize, and draw conclusions from floodplain data and Elevation Certificates. The Platform is also unique in its individual features, a summary of which is below:

Elevation Certificate processing & error detection

- The Platform uses Machine Learning and Object Character Recognition to automated data extraction with custom templates for all Elevation Certificate document types, including:
  - 1982 Elevation Certificate
  - 1984 Elevation Certificate
  - 1987 Elevation Certificate
  - 1990 Elevation Certificate
  - 1993 Elevation Certificate
  - 1996 Elevation Certificate
  - 1999 Elevation Certificate
  - 2002 Elevation Certificate
  - 2005 Elevation Certificate
  - 2009 Elevation Certificate
  - 2012 Elevation Certificate
  - 2015 Elevation Certificate
  - 2018 Elevation Certificate
  - 2022 Elevation Certificate

- The Platform provides field-level validation on every Elevation Certificate value to increase the accuracy of our extraction.

- The Platform uses the extracted Building Street Address from the Elevation Certificate to automatically geocode the document to a specific coordinate, and display the document location on a geospatial dashboard.

- Once an Elevation Certificate coordinate has been established, the Platform will create a relationship between the Elevation Certificate location and the corresponding parcel that the coordinate falls within.

- For every Elevation Certificate processed, the Platform will provide an automated vertical datum conversion (from NGVD29 to NAVD88) of each value in the Building Elevation Information by establishing a datum conversion factor.

- Using the values extracted from customer's Elevation Certificates and parcel-level flood determinations, the Platform will provide a Lowest Floor Elevation determination for every Elevation Certificate where data is available following FEMA guidance.

- For every Elevation Certificate processed, the Platform allows a user to report a data issue if a field is incorrectly transcribed.

- The Platform allows users to export all Elevation Certificates and document data in multiple formats including shapefile, zipped PDFs, and csv. There is also an export for the CRS program.

- The Platform will validate the data extracted from every Elevation Certificate against 150 different issues following FEMA guidance. The individual Error Detection issues and triggers can be viewed in our Error Detection Guide.

- Where an extracted value from an Elevation Certificate does not meet the acceptance criteria for the field, the Platform will flag the Elevation Certificate for inspection.

- The Platform allows a user to ignore an issue on an individual Elevation Certificate while also allowing for an issue to be turned off at the account level.

- For every Elevation Certificate processed, the Platform allows a user to report a data issue if they find an incorrect issue.

Flood and property level data

- The Platform stores FEMA Flood Insurance Rate Map (FIRM) data and allows users to compare data side-by-side.

- The Platform imports and updates tax assessor parcel data (including parcel geometry and valuation data).

- The Platform uses FIRM data and parcel geometry to identify the Flood Zone, Base Flood Elevation, Floodway, Coastal A Zone & Pre/Post-FIRM determinations for every parcel.

- The Platform allows users to override Flood Zone, Base Flood Elevation, Floodway, and Coastal A Zone determinations for any parcel, ensuring accurate determination info.

- The Platform allows users to upload any floodplain document to a property including, but not limited to, V-Zone Certificates, Floodproofing Certificates, Appraisals, Substantial Damage Determination Letters, Building Permits, and more.

- The Platform allows users to track ECs, Documents, SI/SD, and more on individual structures within a parcel.

Substantial Improvement and Substantial Damage

- The Platform allows for tracking of Substantial Improvement and Substantial Damage costs on a per-property level.

- The Platform will automatically calculate the full assessed value of a structure for use in SI/SD using the improvement value and the account's adjustment ratio.

- The Platform accomodates different SI/SD tracking periods including: per-project, cumulatively over a number of years, and lifetime of building.

- When a property is close to the SI/SD threshold, or exceeds the SI/SD threshold, the Platform will show a warning.

- The Platform also allows for tracking of Preliminary Damage Assessments on a per-property level.

- When a property is tagged with a damage level from a Preliminary Damage Assessment, the Platform will show a warning.

Resident logs

- The Platform allows for tracking of Resident logs for CRS purposes on a per-property level.

- The Platform will pre-populate a Resident log with relevant information if the log is attatched to a property or created when sharing a Public link.

- When a community is ready to submit documentation for CRS purposes, the Platform allows for an export of the Resident logs over any specified time-range.

Public flood website

- A public flood website is generated for every account and will be white-labeled including a communities name, brand colors, and Logo.

- Visitors to the Public flood website will be able to search for their property's FIRM data including Flood Zone, Base Flood Elevation, Design Flood Elevation, Floodway, Coastal A Zone, Pre/Post-FIRM and more.

- Visitors to the Public flood website will be able to request help, which generates a new Resident log within the community's account and send a notification via email.

- Visitors to the Public flood website will be able to view all Elevation Certificates that the community has on file, unlocking credits within the CRS program (activity 352.c).

If you have any questions please do not hesitate to contact me. I appreciate your interest in our product and hope that we will have the opportunity to work with your team.

JT White
CEO, Forerunner
jt@withforerunner.com