Introduction

RoofEx – Automated Roofing Measurement App

Overview

RoofEx is a mobile app that automates roofing measurements, estimates, and proposals for contractors and homeowners. It uses satellite imagery and AI to detect roof structures, calculate areas, and generate professional reports in minutes. The app integrates with Google Maps and Stripe, supports multi-user workflows, and includes analytics and subscription management.

Project Name	RoofEx
Lead Designer	Sergey Zelenskiy
Target Users	**Primary users:** Roofing contractors, Roofers **Secondary:** Homeowners, Property Managers
Platform	Mobile app (iOS and Android), Web Dashboard, Admin Panel
Tech Stack	Frontend: React Native, Tailwind, Firebase Backend: Node.js, Firebase Functions, Google Cloud Vision API, Stripe, Google Maps API, SendGrid
Timeline	6 weeks (Discovery, UI/UX, Development, Testing, Launch)

Design Process

Create a **simple, accurate,** and **safe** mobile app that provides **instant roofing measurements** using satellite imagery and location input.

Discovery	UX Design	UI/UX Design	Development
4 Days	5 Days	10 Days	6 Days
User Research	User Flow	Design System	Frontend Development
Wireframing	Wireframes	UI Screens	Backend
Low Fidelity & User Testing	Low Fidelity Wireframes	Prototyping	Testing & Performance

Color & Typography

Typography & Color

Poppins

Regular · Medium · Semi Bold · Bold

Primary · Secondary · Tertiary · Neutral · Success · Warning · Error

Primary Text · Secondary Text · Tertiary Text · Disabled Text · Inverse Text

Primary Button · Secondary Button · Disabled Button · Text Button

Success · Warning · Error · Info

User Research

Identifying **Who Truly Uses** The App

What's the problem?

Roofing contractors, homeowners, property managers, and roofers need to quickly and safely measure roofs, estimate costs, and create professional reports. Manual methods are slow, dangerous, and inaccurate.

Who is experiencing the problem?

Roofing contractors, homeowners, property managers, and roofers.

Why is this problem important?

- Manual measurements expose workers to dangerous conditions
- Inaccurate calculations
- Lost business opportunities
- Slow proposal creation

What does this problem cost?

Wasted time and labor, missed or inaccurate bids, lost opportunities, and safety risks.

Where does the problem arise?

Roofing inspections, estimating, proposal creation, and measurements, when using traditional methods.

App Benefits

Users

- Get accurate measurements
- Generate professional reports quickly
- Track measurements and bids

For Contractors/Roofers

- Save time on measurements and estimates
- Increase bid accuracy
- Manage multiple projects efficiently

Homeowners/Roofing Contractors

- Get quick, accurate estimates
- Track project status and updates

Property Owners & Managers

- Monitor roof condition remotely
- Plan maintenance and repairs

Insurance Companies

- Verify claims quickly
- Reduce fraud and errors

Why is Batch & Import

- Process multiple properties at once
- Save time on repetitive measurements
- Integrate with existing workflows

How to User Interaction

Core Features

- Satellite imagery analysis
- Automatic measurements
- Cost estimation
- Professional reports
- Multi-user workflows

Key Benefits

- Time-saving automation
- Accurate calculations
- Professional presentation
- Cost-effective solution

Roof Detection

- Satellite imagery analysis
- Automatic roof boundary detection
- Multi-roof support

Measurements

- Area calculation
- Perimeter measurement
- Pitch estimation
- Manual adjustments

Estimate & Cost Calculation

- Material cost calculation
- Labor cost estimation
- Tax and fee calculation
- Multiple scenarios

Report Generation

- Professional PDF reports
- Customizable templates
- Email delivery
- Cloud storage

Problem to Solution

Real **Problems** met with Practical **Solutions**

Problem

Roofing contractors often spend significant time manually estimating roofing materials and labor costs, creating inaccurate bids that lead to lost jobs or reduced profit margins, leading to delays, miscommunication with clients, and increased operational costs.

Solution

The app streamlines the entire process by allowing users to quickly create professional estimates using location input or manual measurements and automatically generating detailed reports. This reduces time spent on estimates, improves accuracy, and enhances client trust, ultimately increasing win rates and overall business profitability.

User Persona

Understanding **Who we Design** For

Understanding who we design for ensures that the app addresses the needs of its users effectively.

User Flow

Mapping Every Step Of **User Journey**

Wireframe

Blueprints **Defining** Early **Layout** and **Flow**

User Testing

Testing **Concepts** To **Improve** User Experience

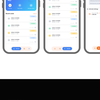
UX ROI

Data from Forrester Research, Nielsen Norman Group, and industry studies on UX investment returns.

85%
Time Saved
Automated measurements and estimates reduce manual work from hours to minutes, allowing more time for customer interaction and business growth.

95%
Accuracy
AI-powered measurements eliminate measurement errors that lead to lost jobs or reduced profit margins.

0%
Climbing Risk
No more climbing on roofs to take measurements. Safety first, with all measurements taken from the ground.



Visual Design

Polished **Interfaces** Defined By **Visual Design**

Onboarding Screens

Introducing Intelligent **Roof Measurement**

Get accurate roof measurements in seconds. Enter an address, draw the roof area, and let the app calculate everything you need for your estimate.

Address Input to **Instant Roof Analysis**

Enter any address and the app automatically detects roof boundaries using satellite imagery. No measuring tape, no climbing, no guesswork.

Lead Management

Track every lead from first contact to signed contract. Manage follow-ups, send reminders, and never let a potential customer slip through the cracks.

Centralized **Account** and **Settings** Control

Manage your profile, subscription, and app preferences from one place. Stay in control of your data and your business.

Results

Instant **Roof Measurements. Zero Climbing. 100% Accurate.**

Stop risking falls and guesswork. Our app delivers precise measurements from the ground, keeping your team safe and your bids accurate.

Thank You !