



RoadWatch

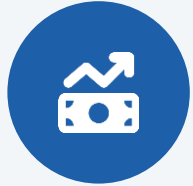
Spot it. Report it. Get it fixed.

Automatic pothole detection that turns everyday drivers into a live road-condition network.





Bad roads are expensive — and hard to report



~\$3B a year

AAA's estimate of what pothole damage costs U.S. drivers in blown tires, bent rims, and suspension repairs.



Most go unreported

311 reporting is manual and slow, so cities only ever see a fraction of the damage that's actually out there.



Reactive, not real-time

Cities fix what gets complained about — not what's objectively worst on the road right now.

THE SOLUTION

RoadWatch turns everyday drivers into a live sensor network for road damage.

Residents get a free app that reports potholes for them. Cities get real-time road data they've never had before. And the more people drive, the sharper the map gets.



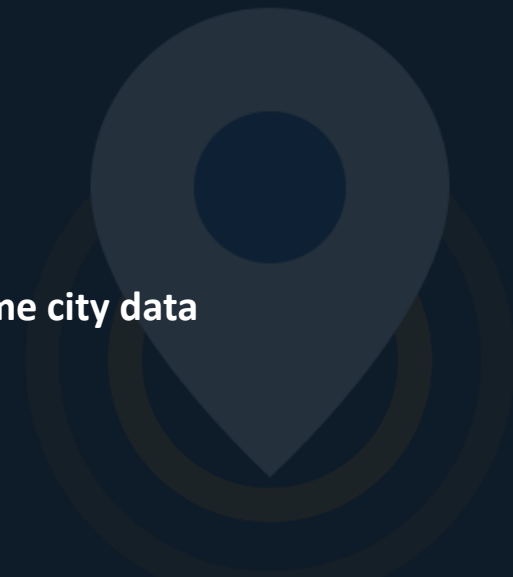
Free for residents



Automatic detection



Real-time city data





From a bump in the road to a report the city receives



Phone sensors catch the impact automatically as you drive.

One glance-and-tap verifies it — keeping reports clean.

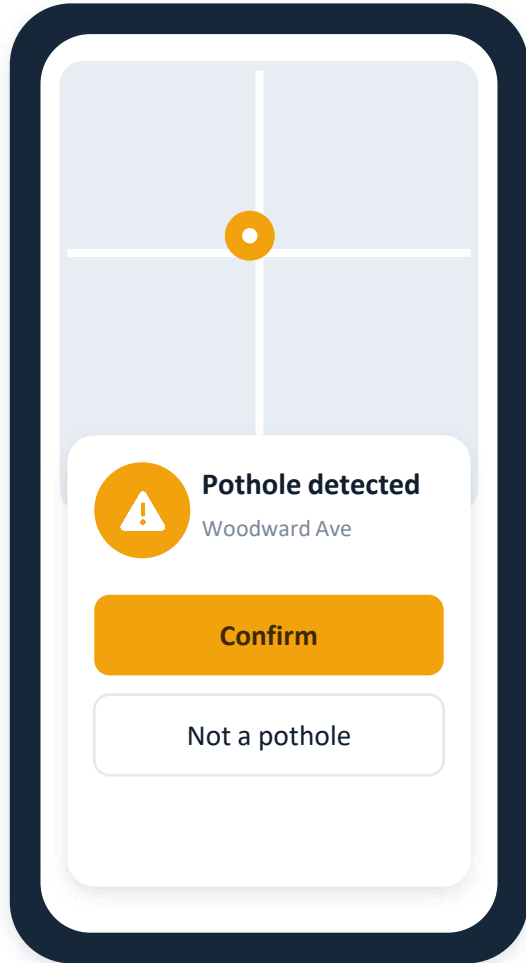
RoadWatch pins the spot and prefills a report to the right office.

Every report flows into the city's live dashboard.

A human confirms every detection — that's what keeps the data trustworthy and doubles as training labels for smarter detection over time.



Effortless for the driver



Detects automatically

Sensing runs while you drive — no tapping, nothing to remember.



One-tap confirm

A single glance-and-tap keeps reports accurate and spam-free.



Prefilled, routed reports

Location, severity, and the right city office — filled in for you.



Track it to fixed

Follow each report from sent to acknowledged to resolved.



What Public Works logs into



See the worst streets

A live ranking of where damage clusters, updated as reports arrive.



Report → resolved

Assign crews and track every pothole through to a fix.



Fits existing workflows

Export to CSV for the systems teams already use.

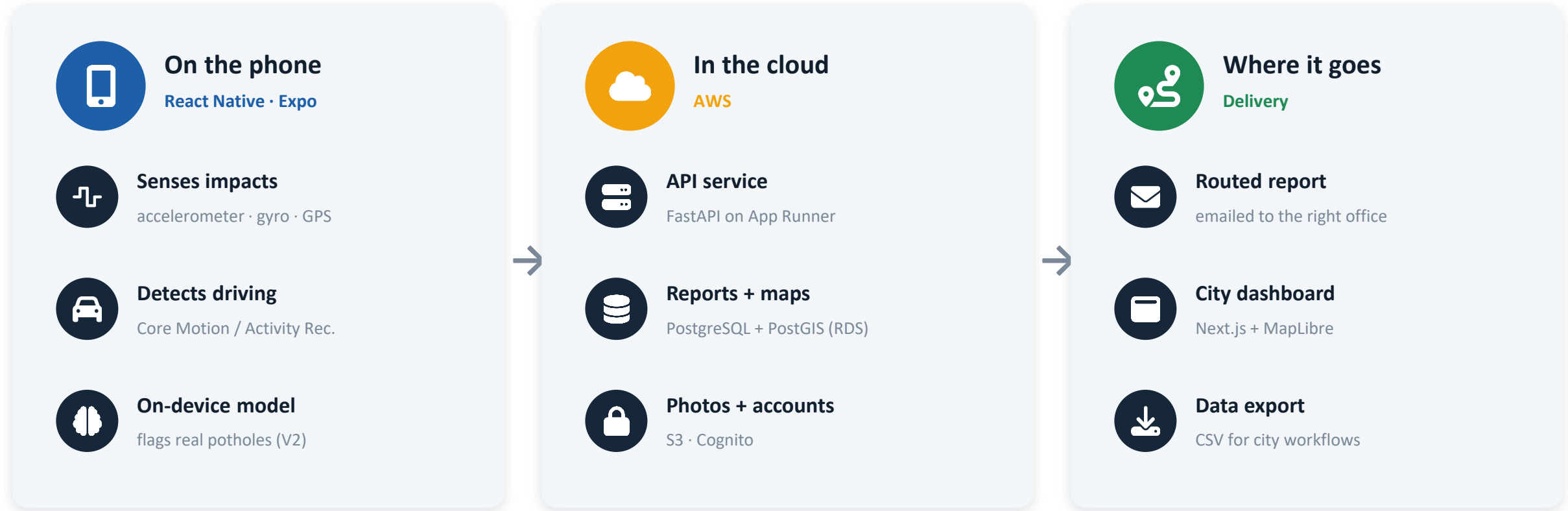


Prove response times

Measure and report how fast the city closes the loop.



Proven architecture, nothing exotic



GPS is matched to the correct jurisdiction with PostGIS point-in-polygon, so every report reaches the office that actually owns that street.



We know where the risk is — and how we handle it



THE CHALLENGE

Detection accuracy

OUR APPROACH

V1 doubles as a data collector. Every confirmed pothole trains a smarter on-device model for V2.



THE CHALLENGE

Running in the background

OUR APPROACH

Auto-starts when you begin driving — motion plus car Bluetooth — with a foreground service keeping it reliable.



THE CHALLENGE

Reaching the right office

OUR APPROACH

PostGIS maps each GPS point to the exact jurisdiction. We curate boundaries per city, starting with Detroit.



Practical, proven, low-maintenance



React Native + Expo

Mobile app · iOS & Android



FastAPI

Python API service



PostgreSQL + PostGIS

Data + geospatial routing



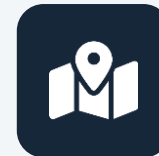
AWS

App Runner · RDS · S3 · Cognito · SES



Next.js

City dashboard



MapLibre

Interactive maps



Delivered with Claude Code—ready docs (PRD.md, CLAUDE.md) for a fast, maintainable build.



A phased path to a Detroit pilot

0

Discovery & spike

2–3 weeks

Capture real sensor traces on Detroit roads. Validate detection before quoting the full build.

1

Pilot MVP

the core build

Drive-mode app, prefilled reports, and the city dashboard — for one pilot city.

2

Auto-start & smarts

next

Background drive-detection, on-device pothole model, CarPlay / Android Auto status.

3

Scale

beyond pilot

More cities and jurisdictions, automated email delivery, deeper analytics.

Timeframes are indicative and firm up after discovery.



Free for residents. Cities subscribe.



Residents

Always free

A genuinely useful app people want to run — which is exactly what generates the data.

No cost · No ads · Privacy-first



Cities

Annual subscription

Public Works pays for the dashboard, exports, analytics, and support.

Priced per city / population tier

More drivers → better road data → more valuable to cities → **funds a better app**



Let's fix Detroit's roads.



Book a 30-minute scoping call



Confirm the pilot city & data access



Run a short detection spike on real roads



Phased build, delivered with Claude Code–ready docs

