

Project Description

Detroit's Integrated Sidewalk Management System (ISMS)

The ISMS project is an initiative of the City Engineering Department to automate the sidewalk complaint, inspection, and repair process in the City of Detroit. Detroit has approximately 387,000 parcels and all parcels have sidewalks bordering the property to some extent.

ISMS is both a complaint and work order management system designed to:

- Reduce Operating Costs
- Increase Efficiency of Staff
- Simplify Administration of Sidewalk Complaint Program
- Semi-Automate Interdepartmental Communication Tasks, and
- Map the Status of the Complaint & Repair Process.

Four applications were developed and integrated to provide the functions now performed manually by sidewalk inspection staff.

- 1) The primary application is web-based and has functions for System Administration, Supervisor and Inspector work-tasks.
- 2) A field application using the iPAQ Pocket PC was developed to collect & record inspections, prepare cost estimates and record "as-built" information about materials used and associated costs used in the repairs.
- 3) A desktop application was developed to "check-out" complaint data and check-in" inspection and "as-built" data, and
- 4) A GIS web mapping application was developed to map complaints and work-flow status throughout the City.

The primary duties of the Sidewalk Division are to:

- Receive Complaints
- Act on Complaints by Inspecting Properties
- Estimate Repair Costs & Materials
- Interact with Property Owners Who Elect to Make Repairs.
- Perform Re-inspections as Required
- Assign Repair Work to City Contractors
- Track Status, Costs and Material Usage, and
- Bill Property Owners who are Assessed Repair Charges.

1.0 Web Application Functions include:

Administration Functions

- View Web Map
- User Management
- Contractor Management
- Public Works Contract Management

Supervisor Functions

- View Web Map

- Receive New Complaints
- Assign Complaints to Inspectors
- Check Daily Notifications
- Record Owner Protests
- Record Permit Numbers
- Prepare Cold Patch Requests
- Prepare Special Orders
- Check Inspector Daily Reports
- Bill Owners
- List All Complaints
- Check Status
- Query Complaint Data
- Query Historical Complaints
- Close Complaint

Inspector Functions

- View Web Map
- Check Assigned Complaints
- Receive New Complaints
- Download Data to PPC
- Upload Field Data from PPC
- Add Site Photographs
- Prepare Cold Patch Requests
- Change Status
- Inspection Forms – Compose & Print
- Notice Forms – Compose & Print
- Query Historical Complaints

2.0 PPC Application Function Include

3.0 Data “Check-in/out” Module Functions

4.0 Web Map functions Include