



Rochester Police Department Core Reorganization Team Interim Report

Delivered by
Chief Michael Ciminelli
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Mayor Lovely Warren asked Chief Michael Ciminelli to create a reorganization plan that would engage the community with a return to a neighborhood-based policing model.

The primary benefit of the reorganization is a closer and more harmonious relationship between the community and RPD; as well as achieving an overall more effective policing model. The effort is responsive to both the expressed desires of the community for neighborhood policing, as well as an internal push from the rank and file officers to return to single car beats.

Chief Ciminelli and his team have delivered a preliminary framework, which the Mayor has approved, to plan for a phased-in “reorganization in place” five-section model to begin implementation in 2015. All five sections have been structured to maintain neighborhood identity and balance workload. When complete, the plan will feature similar beat and staffing structures across all districts; and will allow for flexibility in staffing for community engagement, proactive policing and improved community/police relations.

A series of community meetings will be held to seek public input for the plan. The plan is data-driven, and built around a process that allows for flexibility and continual evaluation and improvement.

The schedule of public meetings will be announced soon.

The Goals

The goals of the reorganization are to:

- Maintain and exceed current levels of service
- Increase community policing initiatives
- Connect officers to smaller, neighborhood-based patrol beats thereby increasing familiarity among officers and those they serve
- Decentralize police services to neighborhoods
- Build an analytical model that allows flexibility for continual evaluation and adjustment
- Preserve long-term financial sustainability

Data Analysis Overview

The intent of the data analysis is to create a baseline to make data-driven process decisions that allow flexibility of staffing and beat models for continual evaluation and adjustment. The Rochester Police Department (RPD) recognizes that comprehensive data analysis is a key component to informed decision making but it must be balanced with experiential knowledge, existing constraints, and practical considerations.

Workload model

The purpose of establishing a workload model is to create a basis for the evaluation of demand for service on the patrol division. The primary demand on patrol officers is non-discretionary calls for service, calls placed by citizens that require a police response. Calls for service data are commonly assessed in raw counts, however, to effectively analyze demand other factors must be considered. To address the need for a comprehensive analysis of demand, RPD built a six-variable weighted workload model.

Total Hours Worked (75%)

To calculate total hours worked, RPD analyzed 5 years of calls for service data or roughly 2.5 million data points. The pattern of non-discretionary calls for service responded to by RPD's patrol division has remained consistent over many years, and is highly predictable. Five years of data is a sufficient sample to draw conclusions from and also broad enough to account for the minimal year-to-year variance. Proactive calls for service were eliminated and metrics (e.g. average call length, average number of assisting cars, etc.) were established for each of the remaining 119 unique call types. An upper-bound of average call length was calculated for each call type, defined as 1 standard deviation above the mean. The formula used to give each call type a single numerical value for total hours worked was:

Hours Worked = Upper-bound + (Avg. Call Length x Avg. Number of Assisting Cars)

Calls for Service (10%)

Two years of non-discretionary calls for service were spatially referenced as a baseline for geographic comparisons. Proactive calls were again eliminated.

Average Drive Time (7%)

Average length in minutes from dispatch time to arrival time was calculated by weighting two years of non-discretionary calls for service data for each of the current 22 Police Service Areas (PSA). Emergency calls were given a higher weight than Non-Emergency calls.

Population Density (4%)

2010 US Census Block level data was spatially referenced as a baseline for geographic comparisons.

Area (2%)

Total area in square miles was calculated using 2013 city borders as a baseline for geographic comparisons.

Street Segments (2%)

Total length of street segments in feet was calculated using the Monroe County Centerlines shapefile as a baseline for geographic comparisons.

The six variables were then uploaded for additional analysis into a Geographic Information System (GIS), specifically ESRI's Districting Tool. Using this tool, the City was broken into 250 feet by 250 feet grids, each containing a numerical value based on the workload model weighting. This provided a single value for each grid cell representative of its workload proportional to the entire city.

As a proof of concept, RPD ran multiple iterations of this weighted model using historic data against the current Divisional boundaries and quasi-operational Quadrant boundaries for comparison purposes. The model was closely aligned with the Department's understanding of the current workload balance. At this point RPD is confident that the model is a useful tool to gauge workload in a geographic context and flexible enough to allow modification when necessary. RPD will also continue to test the validity of the model.

Future Analysis

Staffing

RPD has begun a data-driven (e.g. platoons, work wheel, vacancy rate, show rates, etc.) approach to analyzing the projections for the organizational staffing in the recommended 5 section model.

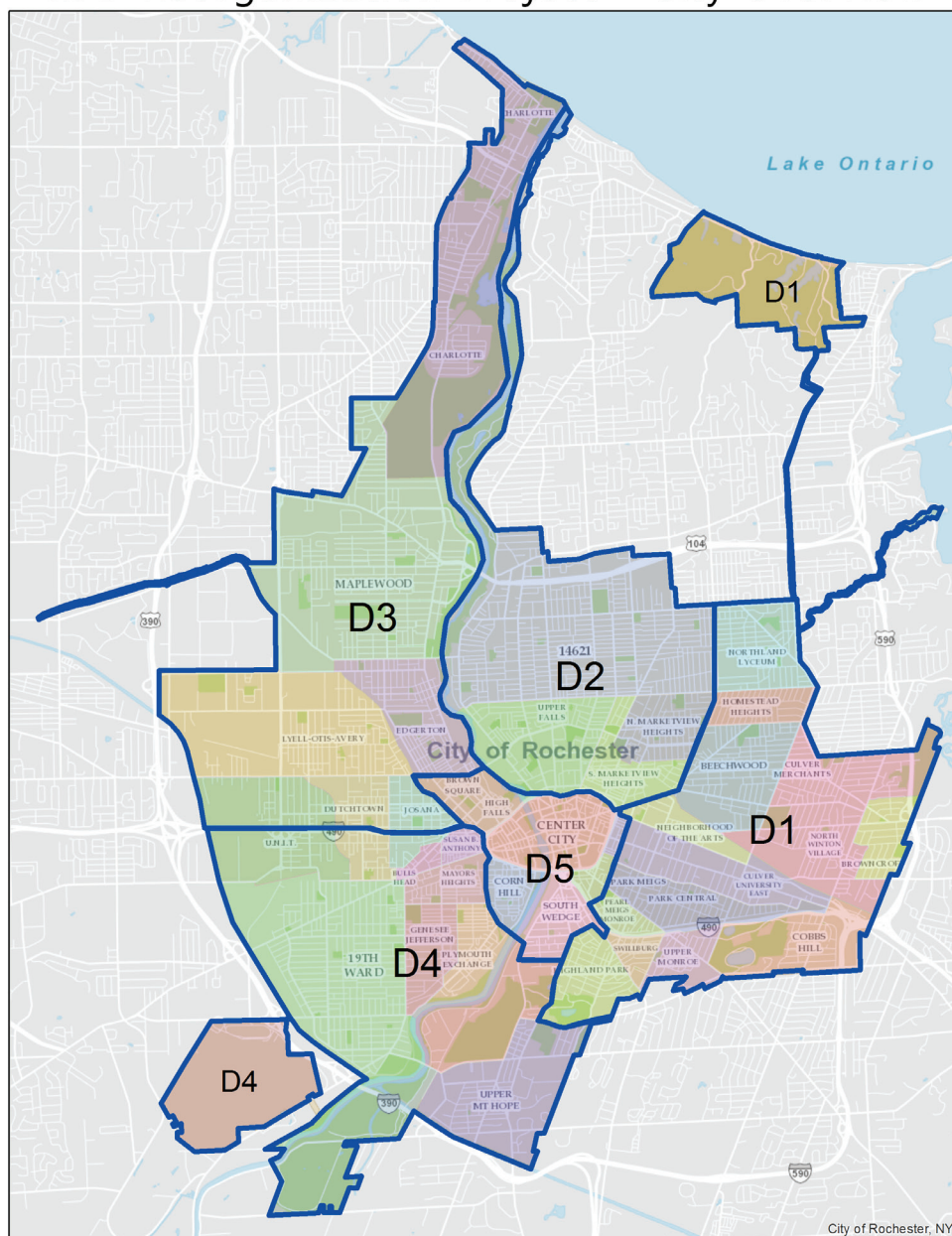
Car-Beats

RPD will utilize the workload model in combination with qualitative feedback from its officers and the community to develop new, neighborhood-based patrol beats within the new section boundaries.

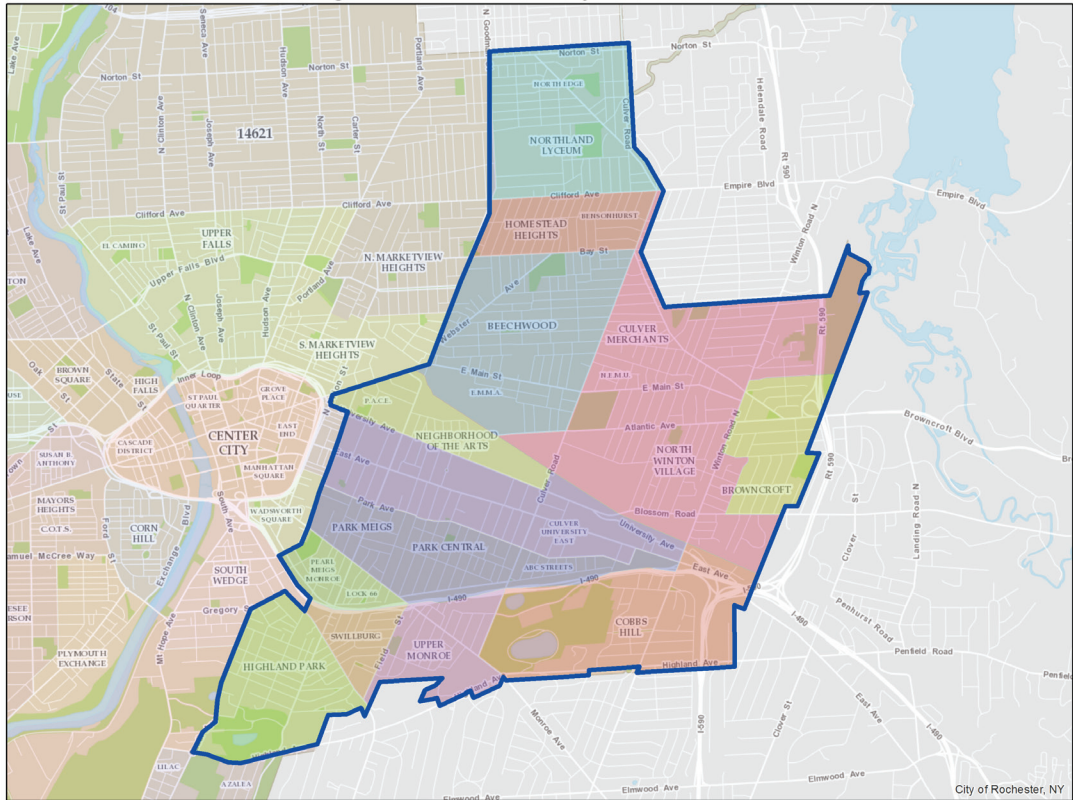
Evaluation

RPD will establish key performance indicators for ongoing evaluation of reorganization.

RPD Reorganization Project – City Overview

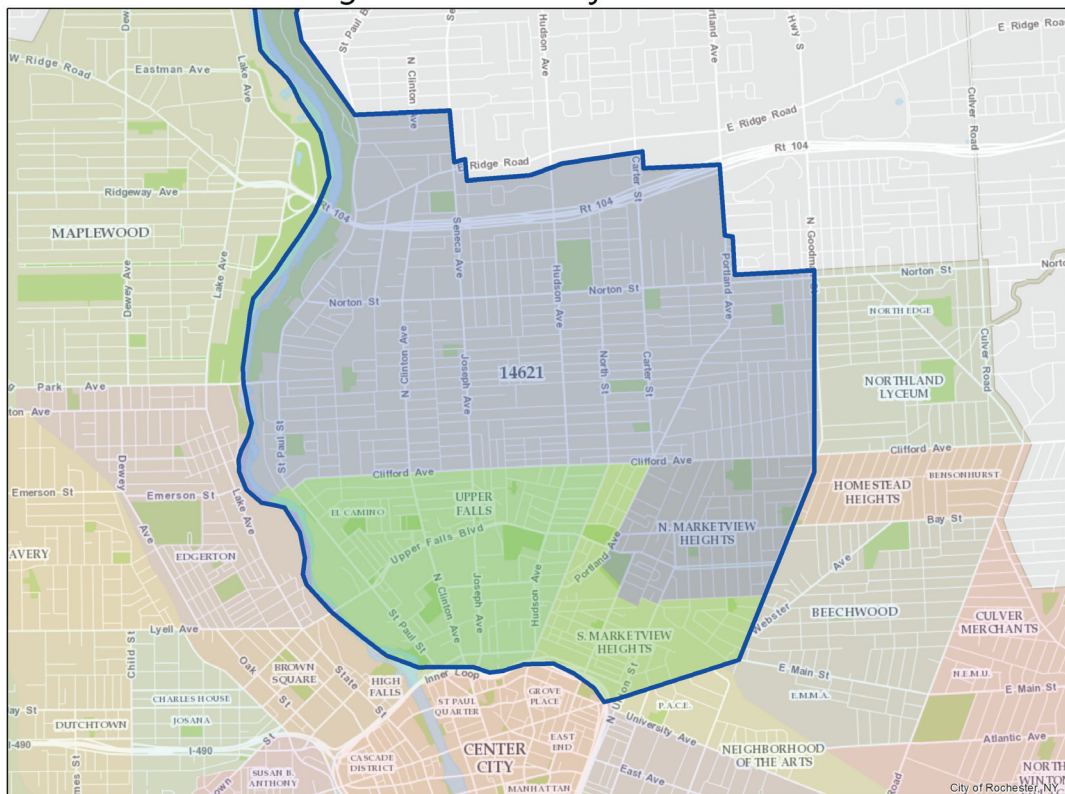


RPD Reorganization Project - Draft D1*

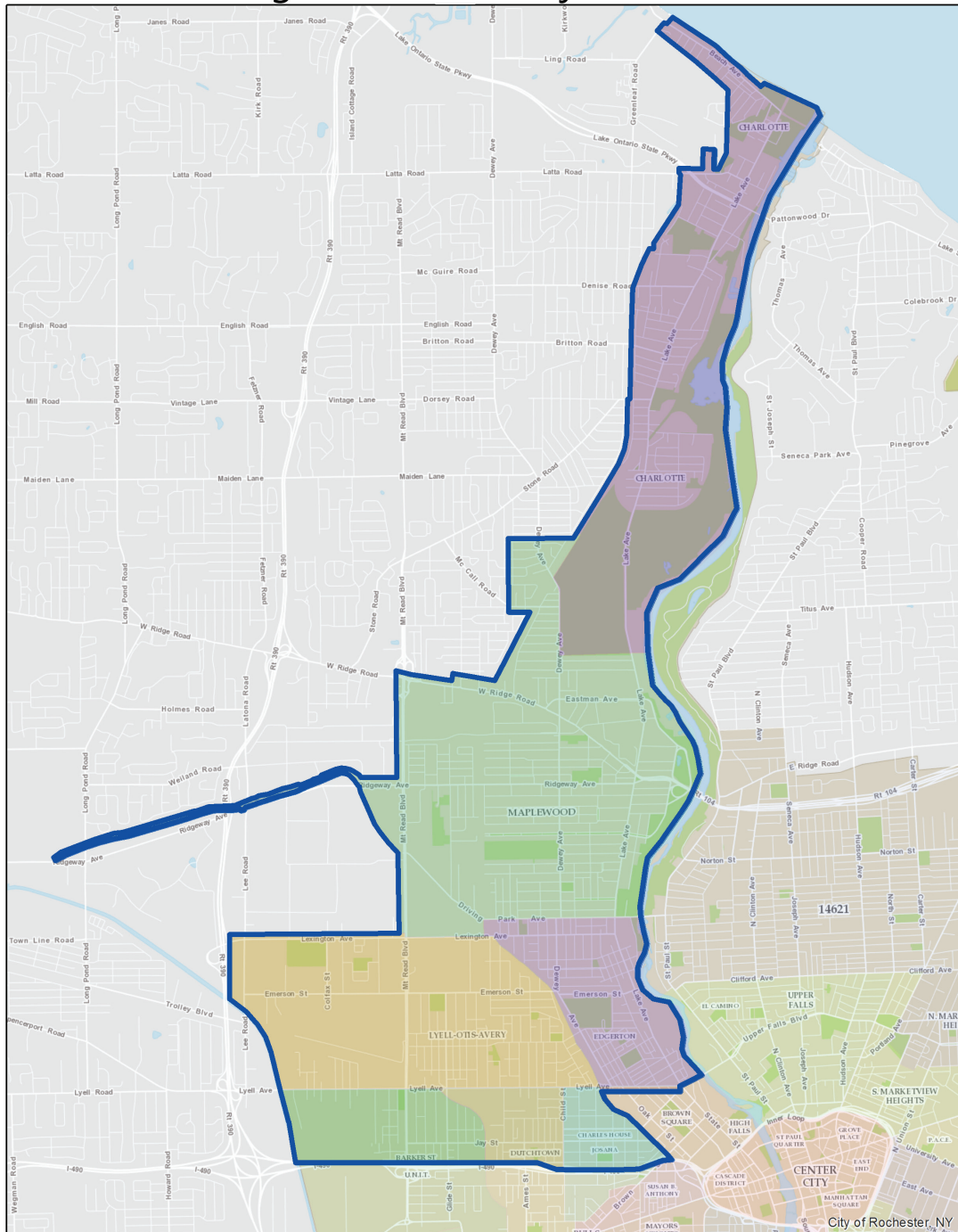


*Not shown: D1 includes Durand Eastman Park

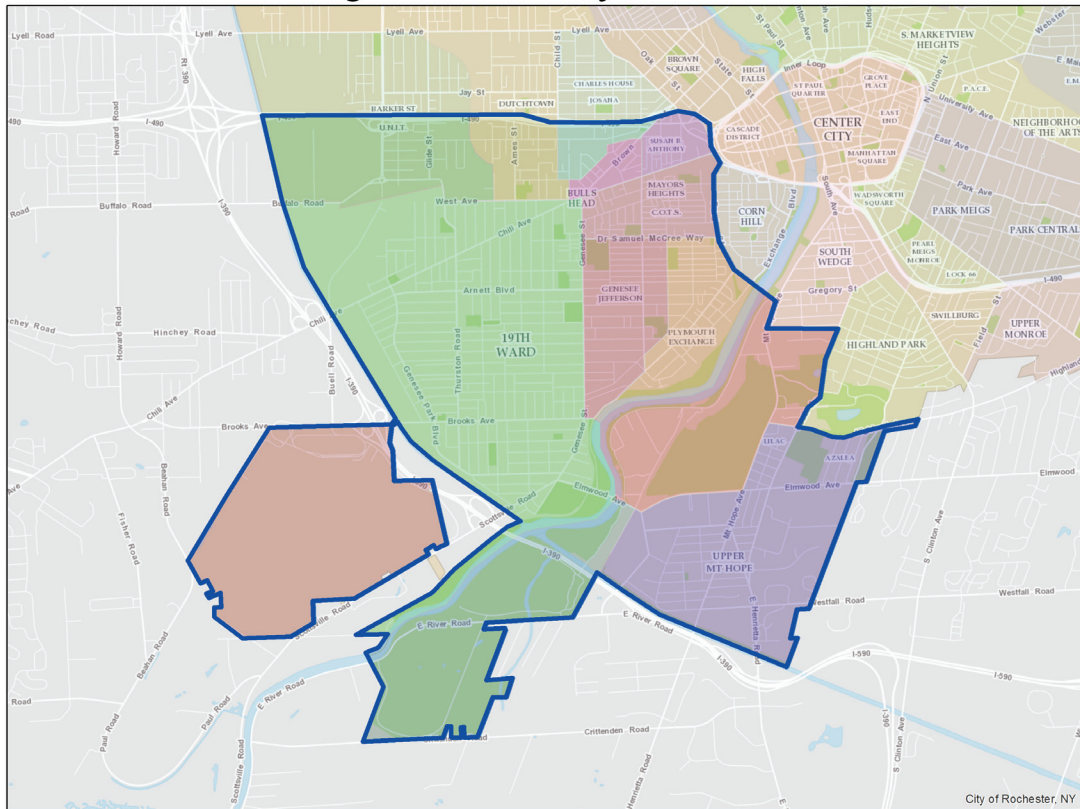
RPD Reorganization Project - Draft D2



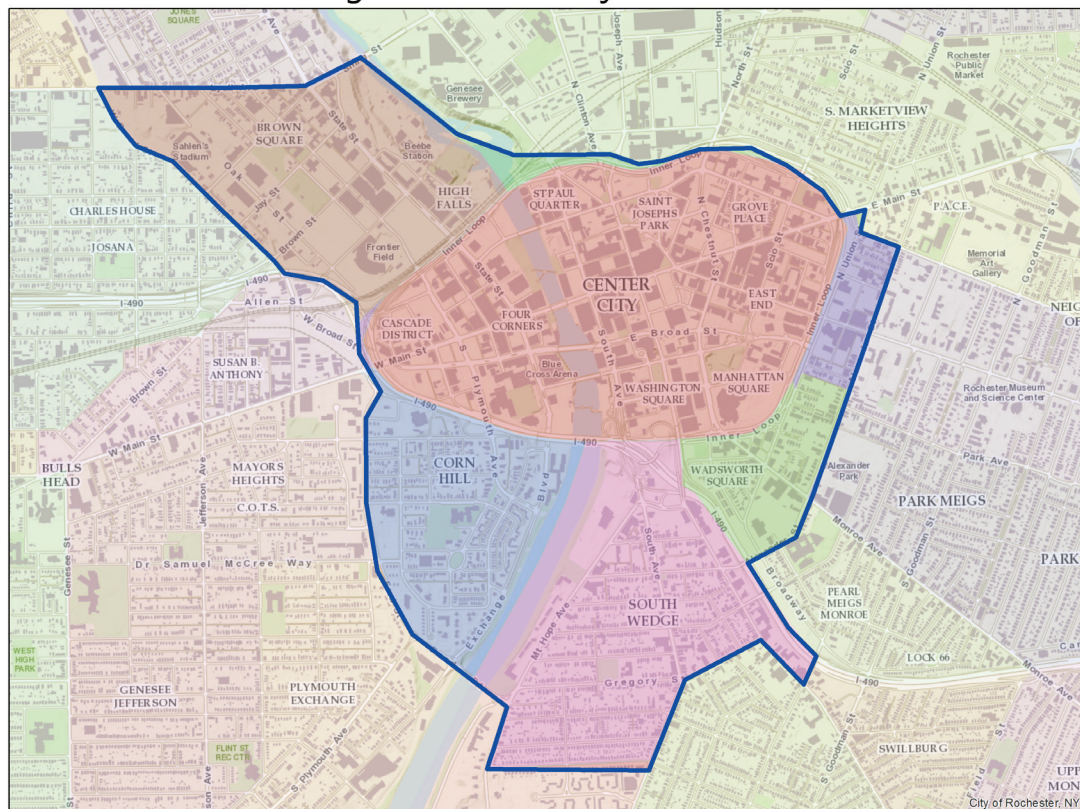
RPD Reorganization Project – Draft D3



RPD Reorganization Project – Draft D4



RPD Reorganization Project – Draft D5





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