

Route Performance Monitoring and Service Adjustment Process

Presentation to
Operations Committee
RTA Board of Trustees
February 7, 2017



Greater Cleveland Regional Transit Authority



Quarterly Productivity by Mode

- Staff reviews rail and bus service productivity
- Compares results to same period of prior year
- Boardings per bus mile and per train mile
- Boardings per bus hour and per train hour
- Last item is in each Quarterly Mgmt. Report to Board of Trustees



Bus Routes Are Analyzed by Category

- Radial – regular routes to and from downtown
- Crosstown/Feeder – routes that do not travel downtown, but typically connect with rapid transit
- Park-N-Ride – rush-hour service on freeways between park-n-ride lots and downtown
- Downtown Trolley – service traveling entirely within downtown



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Five Measures of Bus Route Productivity

- Boardings per in-service vehicle hour (primary)
- Boardings per in-service vehicle mile
- Boardings per in-service vehicle trip
- Boardings per total vehicle hour
- Boardings per total vehicle mile



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Annual Service Management Plan

- Rank routes in each category from most to least productive (boardings per in-service bus hour)
- Compute average productivity for each category
- For lowest-quartile routes in each category:
 - Consider changing routes to improve productivity
 - In financial shortfall, consider discontinuing routes



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Some Responses to Low Productivity

- Realign route
- Reduce frequency
- Short turn trips, reducing frequency on outlying route segments
- Reduce service span (fewer days or hours)
- Discontinue route



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Analysis of Walking Distance

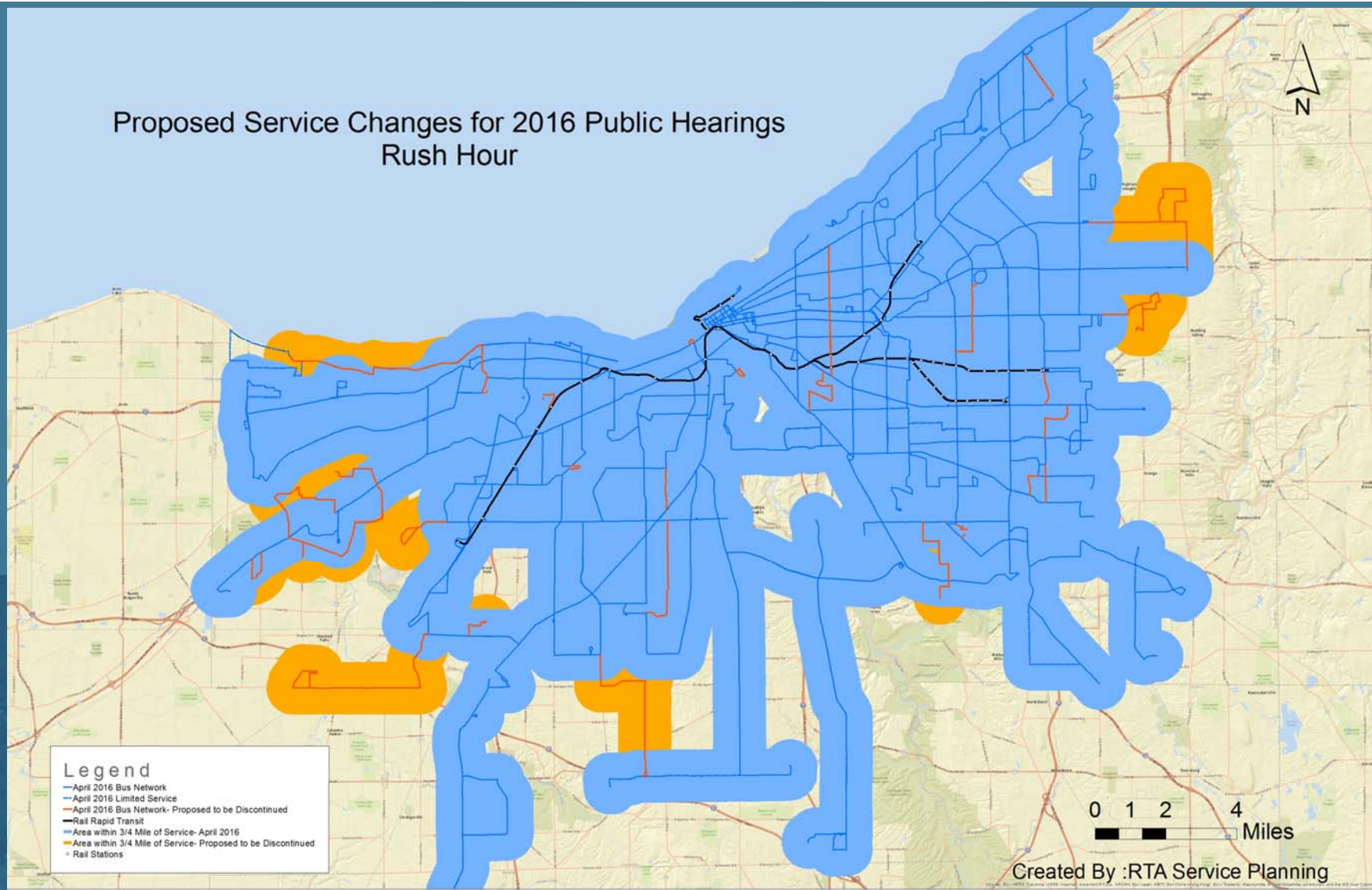
- Staff uses maps to analyze service proposals
 - Use Geographic Information Systems (GIS)
 - Draw ½ and ¾ mile buffers around routes
 - For average person 10-min. and 15-min. walk time
 - Resulting picture shows areas with transit access



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Proposed Service Changes for 2016 Public Hearings Rush Hour



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Title VI Service Monitoring Report

- Completed every three years
- Complies with FTA Circular 4702.1B
- Verifies compliance with service policies and standards that the RTA Board adopted in 2013



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Title VI Analysis of Service Changes

- Title VI compliance is a basic criterion of service change development
- Title VI compliance is evaluated whenever significant service changes are made
- Major service changes (± 10 percent of annual vehicle miles) require special analysis for disparate impact and disproportionate burden



Routine Schedule Adjustments

- Ridership generally determines service frequency
- Traffic conditions generally determine bus speeds
- Routine schedule adjustments are needed as ridership and traffic conditions change
- Each adjustment requires painstaking efforts to maintain or improve connections between routes



Preparing Minor Schedule Adjustments

- From start to finish takes up to 6 mos.
- Build/revise schedule(s) of affected route(s)
- Analyze connections between routes
- Develop master vehicle schedules (incl. all routes)
- Develop operator work days and work weeks
- Review with schedule committees & revise if needed
- Finalize & notify public while operators pick runs



Questions?



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