

Snow Plan Update

Environmental Quality & Public Works Committee

August 18, 2015

Environmental Quality & Public Works
Commissioner's Office

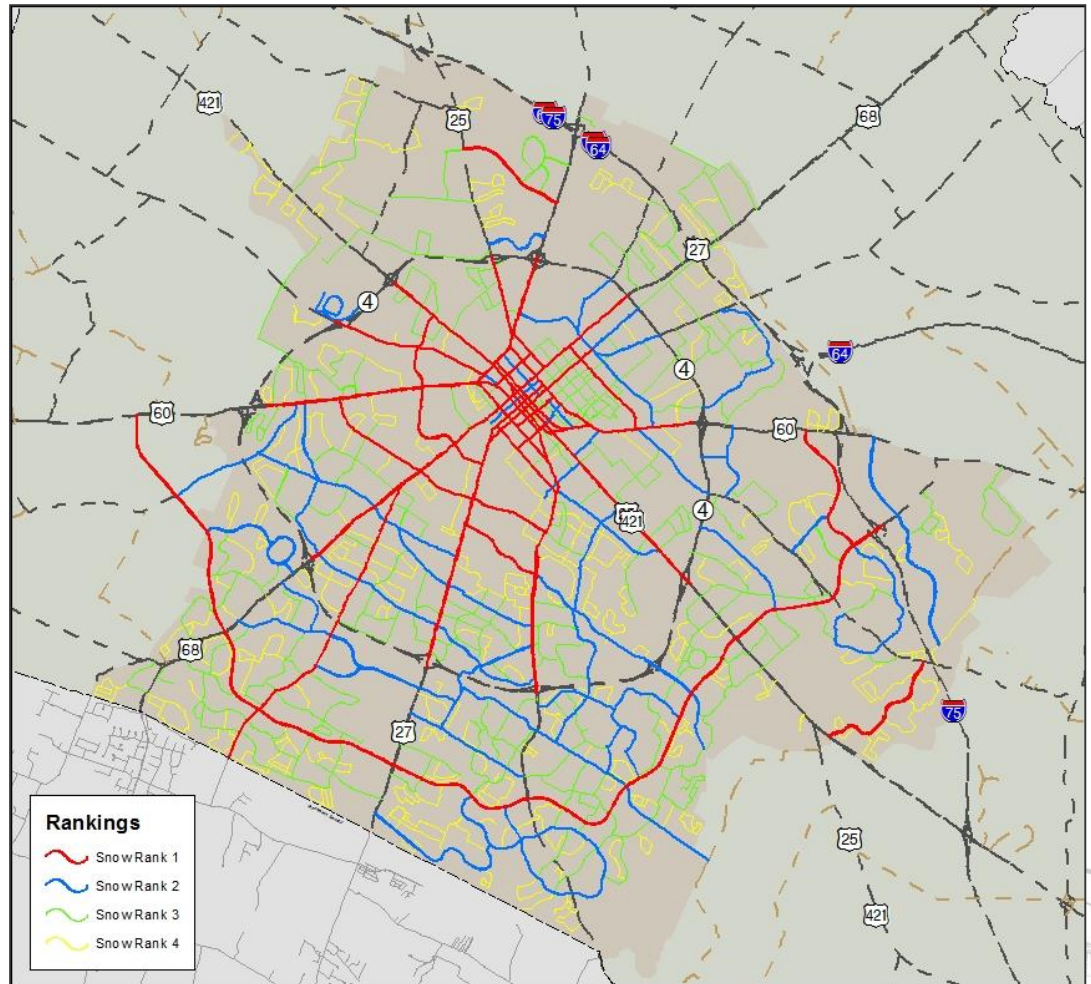
Agenda

- New Snow Removal Map
- Capacity Enhancement Options and Cost Analysis
- RouteWare Implementation
- Sidewalk Clearance
- Communication Plan
- Next Steps
- Questions

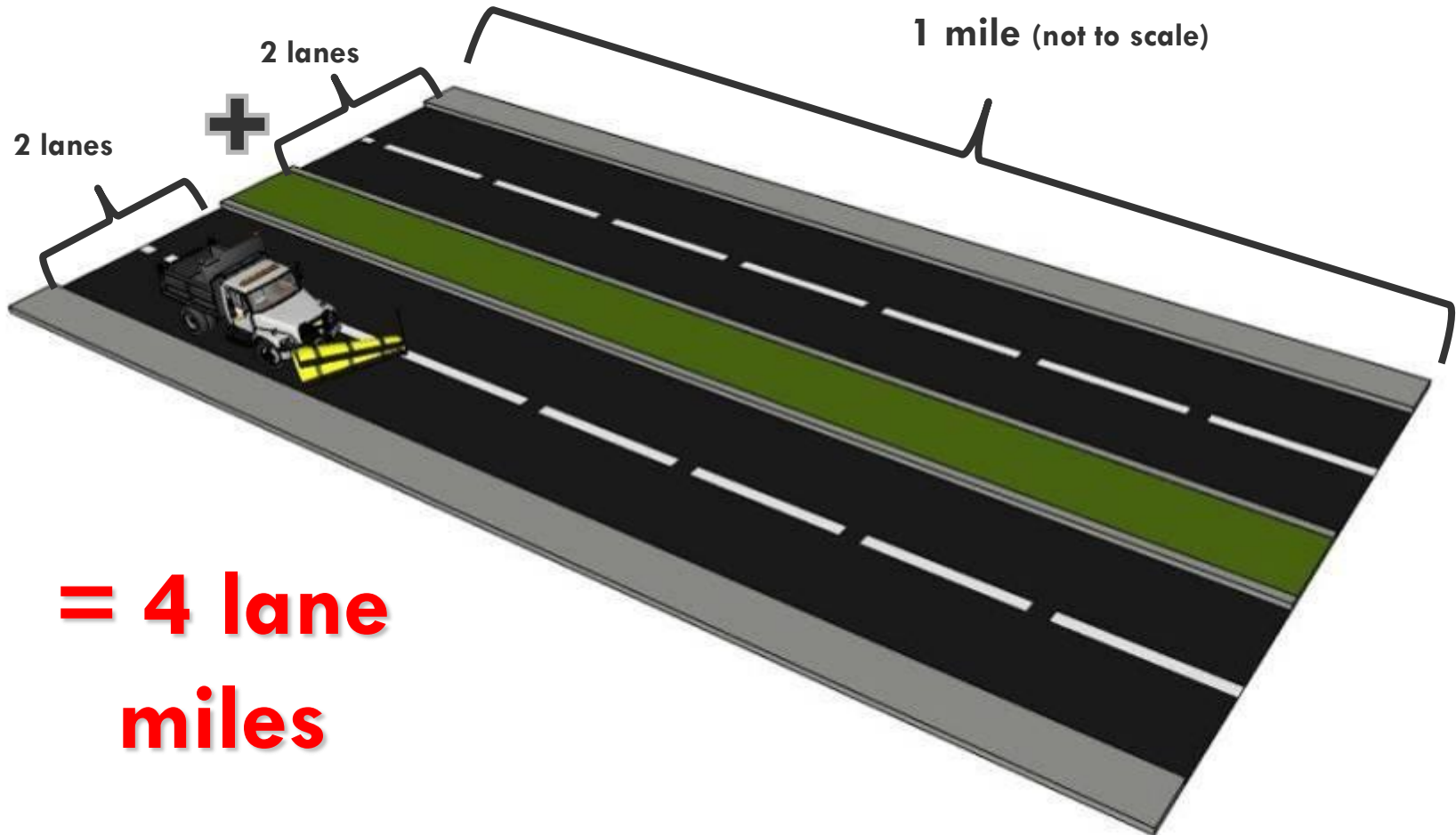


New Snow Removal Map

- **Rank 1:** The primary arteries in and out of the city
- **Rank 2:** The major connecting streets
- **Rank 3:** The collector routes
- **Rank 4:** The local streets within subdivisions, which allow residents access to the main roads
- **Rank 5:** The previously un-ranked/non-prioritized streets
- **Rank 6:** The short dead-end streets and cul-de-sacs



What exactly are “lane miles”?



**= 4 lane
miles**

Capacity Enhancement

Option 1

- Enhanced LFUCG staffing
 - **Rank 1 – 4 streets = 1,246** lane miles
 - **Rank 5 streets = an additional 1,025** lane miles
 - **Rank 1 – 4 streets + Rank 5 streets = 2,271** lane miles



Capacity Enhancement

Option 1 Cont.

- Added shifts for current staff + operating expenses (i.e. salt, fuel, etc.) within a 72-hour response time totals a net increase of **\$180,182** per mobilization
- LFUCG averages 22 mobilizations per year
 - Estimated added expense is **\$3.9M**
- If we assume 11 mobilizations
 - Estimated added expense is **\$2M**
- Benefit
 - This approach removes snow on additional streets and gets us further into neighborhoods
- Challenge
 - Increases the operational expenses of the division



Capacity Enhancement

Option 2

- Private contractor support for Rank 1-4 streets only
 - Would free up five LFUCG trucks running two 12-hour shifts
 - Can service **300** additional lane miles
 - Dedicated to only four major thoroughfares
 - Man O' War Blvd.
 - Citation Blvd.
 - Polo Club Blvd.
 - Coldstream Station



Capacity Enhancement

Option 2 Cont.

- Cost for 1st snow mobilization
 - **\$195,565** (this includes over **\$185K** in “fit-up” costs), plus \$10,800 for each additional mobilization
- Assuming the avg. 22 mobilizations/year
 - Estimated added expense is **\$423,365**
- Assuming 11 mobilizations/year
 - Estimated added expense is **\$304,565**
- Benefit
 - This approach allows us to do the streets ranked 1-4 faster and would guarantee us snow removal assistance when needed
- Challenge
 - Will likely require a long-term contract with required yearly payments



Capacity Enhancement

Option 3

- Hire private contractors to assist as needed
 - Utilized this approach in FY15 for the major snow events
 - Benefits
 - No long term contract necessary
 - Would not spend money if there is no major snow event
 - Challenges
 - Contractors may not be available
 - Contractors may take longer to mobilize



RouteWare Implementation

- Phase 1 - Installation and configuration
 - Currently being deployed on all snow removal vehicles
 - Will allow for GPS capabilities similar to those used for Leaf Collection
 - Will allow for enhanced communication with both constituents and staff
- Phase 2 - Evaluation and Route Optimization
 - Streets and Roads management team will utilize and analyze new system
 - Adjust processes as needed
 - Route optimization after new salt barn
 - Reduce mileage, service times and fuel costs



Sidewalk Clearance

- Full implementation will be over a three year period
- Over 67 miles of LFUCG-owned sidewalks
- Entities involved in clearance:
 - Facilities
 - Parks & Recreation
 - Environmental Services — additional equipment needed



Snow Plan for Sidewalks

- The City's areas of responsibility
 - City facilities
 - City parks
 - State corridors within New Circle Road (where City mows ROW)
 - City thoroughfares (where City mows ROW)
 - Other City parcels: greenways/water quality & vacant lots
- Levels of service
- Responsible divisions
- Proposed equipment needs
- New equipment costs and speed of service estimates



Considerations in Levels of Service

- LFUCG owned or maintained areas
- Population density / level of pedestrian activity
- Public safety / traffic counts
- Efficiency of operations
- Health facilities / vulnerable populations
- Budgetary impacts
 - New equipment costs
 - Personnel/overtime costs



Proposed Levels of Service

■ Protocols

- Broom, plow, and/or salt sidewalks where City is responsible
- Mobilize concurrently with Streets & Roads
- Complete Rank 1, then Rank 2, then Rank 3 areas
- Come after Streets & Roads crews where/when street plowing impacts sidewalks

■ Ranks

- Rank 1: Facilities, Downtown, and State Corridors
- Rank 2: Thoroughfares and connectors in high density areas
- Rank 3: Lower density/residential areas

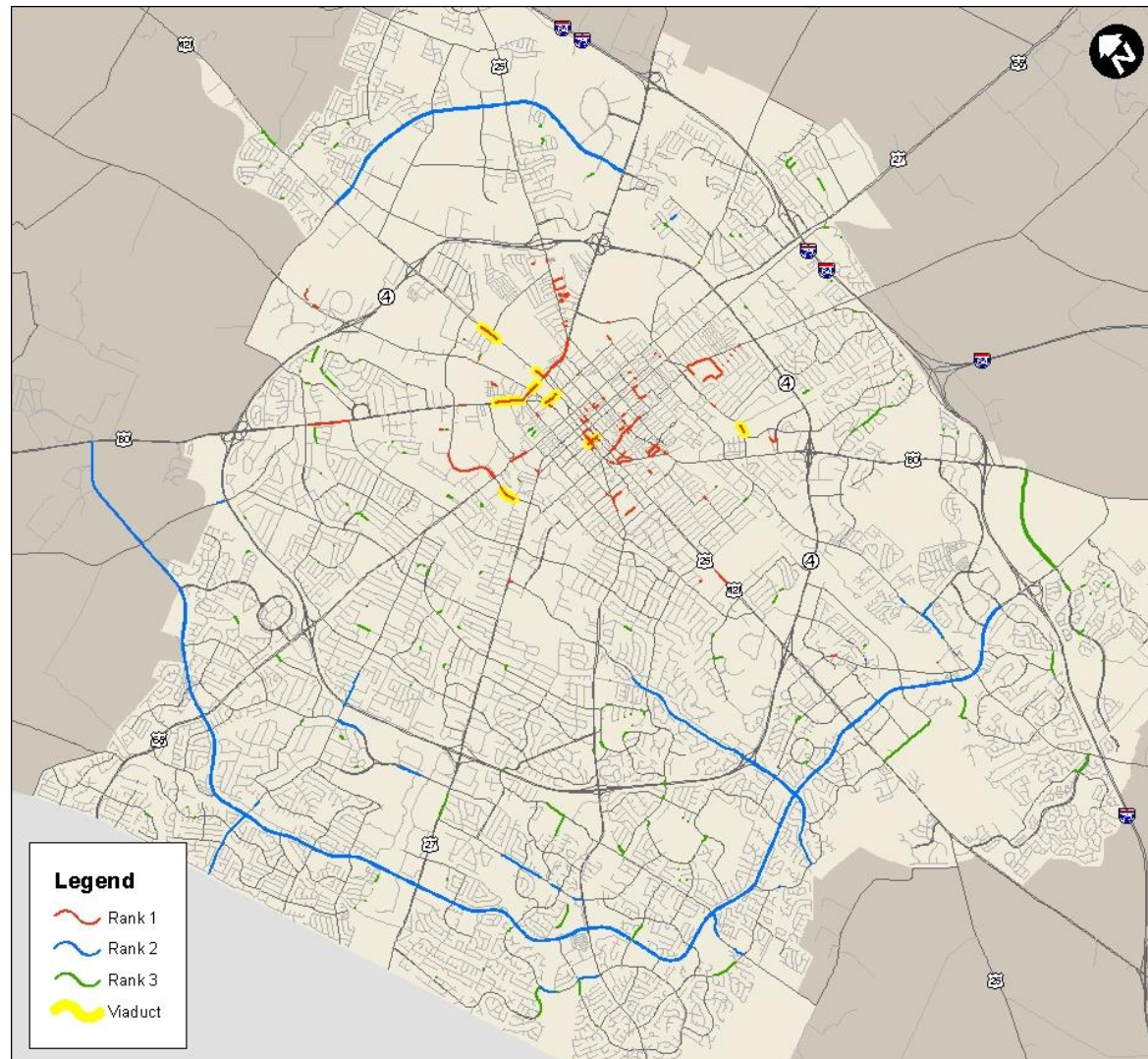


Proposed Levels of Service

Rank 1 Facilities, Downtown (inner core), and State Corridors (including viaducts)	11.5 Sidewalk Miles (~ 60 segments)
Rank 2 City Thoroughfares and Connectors in High Density Areas (i.e. Man O' War, Citation Blvd, Alumni Dr., Clays Mill, Wilson Downing, etc.)	43.5 Sidewalk Miles
Rank 3 Lower density/residential areas	12.5 Sidewalk Miles (~186 segments)



Sidewalk Clearance Rank Map



Responsible Divisions

- **Facilities**

- Facilities and Fleet Management (Contracted)

- **Parks**

- Parks & Recreation

- **Corridors/Viaducts/Thoroughfares**

- Environmental Services
- Deep snow (Contracted for hauling)

- **Greenways/Water Quality/Vacant Lots**

- Parks & Recreation (lots adjacent to Parks)
- Environmental Services (other lots)



Proposed Equipment Needs

- Equipment intensive operations – redundancy required
- Walk behind snow brooms and blowers and salt spreaders
- Riding equipment - Ventrac



New Equipment Costs and Speed of Service Estimates

Rank 1 11.5 miles	Walk behind snow brooms and blowers	– 48 hour completion (~55 segments)	– \$48,000
Rank 2 43.5 miles	Riding (Ventrac) <ul style="list-style-type: none"> \$28,000 to upfit existing Ventrac for snow \$50,000 for each additional Ventrac 	– 24 hour completion after Tier 1 (w/ 3 operational Ventracs)	– \$128,000
Rank 3 12.5 miles	Walk behind snow brooms and blowers	– 48 hour completion after Tier 2 (~186 separated segments)	



Communications Plan

- Phase 1: 311 will serve as the single point-of-contact for citizens during snow events
 - 24/7 staffing will be available for such emergencies
 - Staff will be physically located at Streets & Roads admin. office
- Phase 2: Integrate 311 with the Emergency Operations Center (EOC) during snow emergencies



Next Steps

- Improve Social Media integration between the Mayor's Office, 311, the Urban County Council Offices, and Emergency Management
- Develop fact sheet explaining our Road Ranking system
- Draft 2015 Snow Plan update
 - Assign ranks to Fayette County roads
 - Revisions based on meetings with Council Members, new development, streets receiving final surface, etc.



Questions?