

Economics of Transit: Operational Staffing



OMNIRIDE

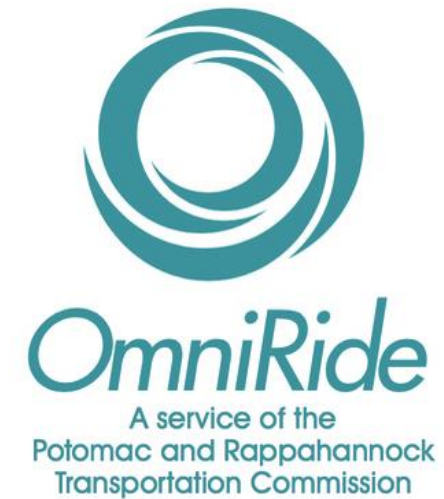
Robert A. Schneider, PhD
Executive Director of PRTC/OMNIRIDE

Where did this begin?

- 100-day listen & learn period
- Commissioners, employees, community leaders, etc.
- Non-stop observation
- 18 years of changing experience

Vision: 2020

1. Strategic Plan Implementation
2. Identity Crisis
3. Staffing for the Future
4. New Operational Models
5. Fiscal Management & Vision
6. Governing & Funding Structure
7. Facilities & the Future



Vision: 2020

Review, Analysis & Discussion:
A Post-100 Day Plan

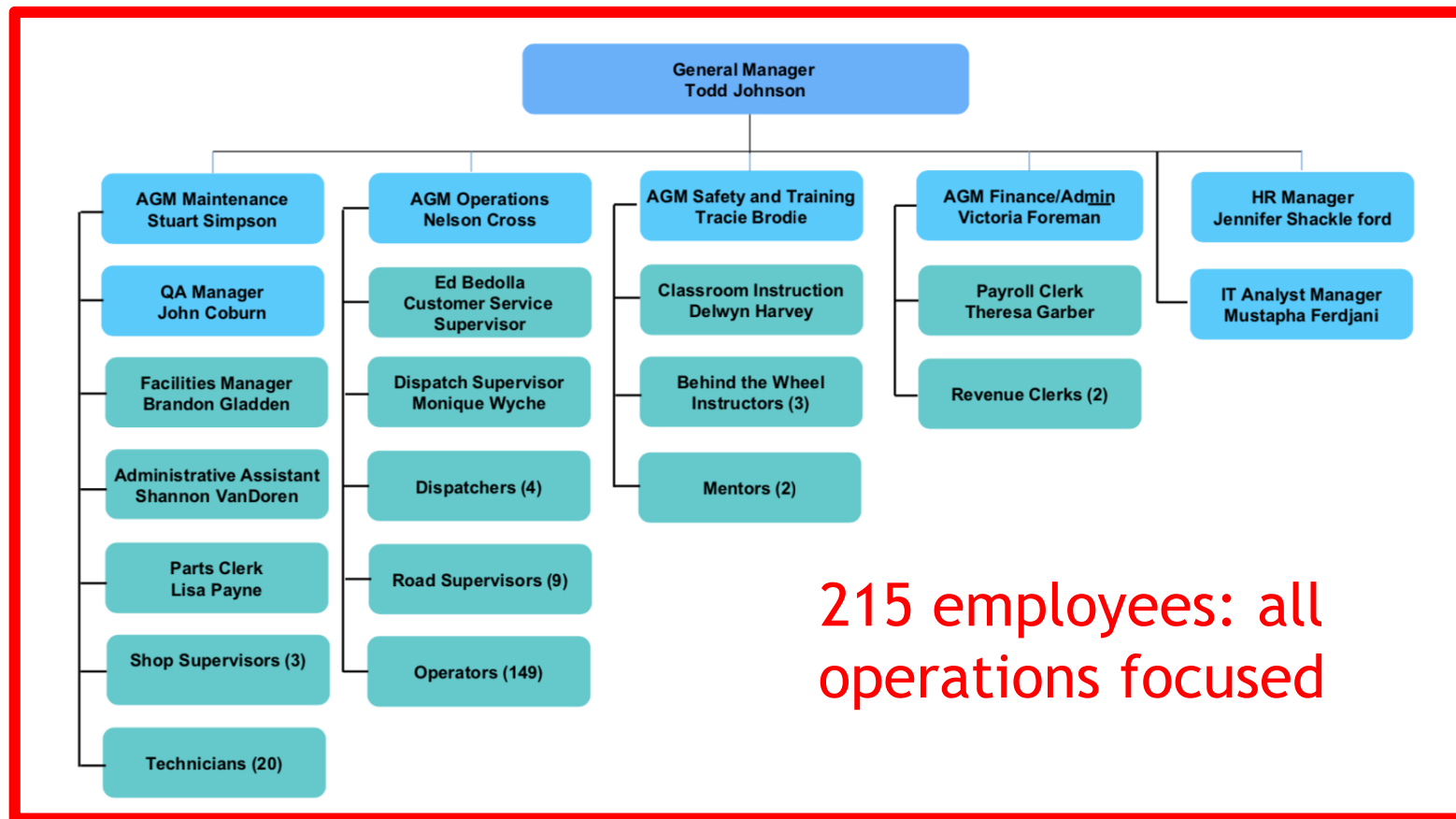
Robert A. Schneider, PhD
September 7, 2017

What I observed: Structure

Contracted service model: Competitively Procured

- National firm in place for 15 years
- 215 employees focused on Ops/Maintenance
 - Operators (158)
 - Training Staff (6)
 - Dispatchers (3) & Field Supervisors (9)
 - Maintenance Team (26)
 - Management/Admin (20)

What I observed: Structure



Operationally Focused:



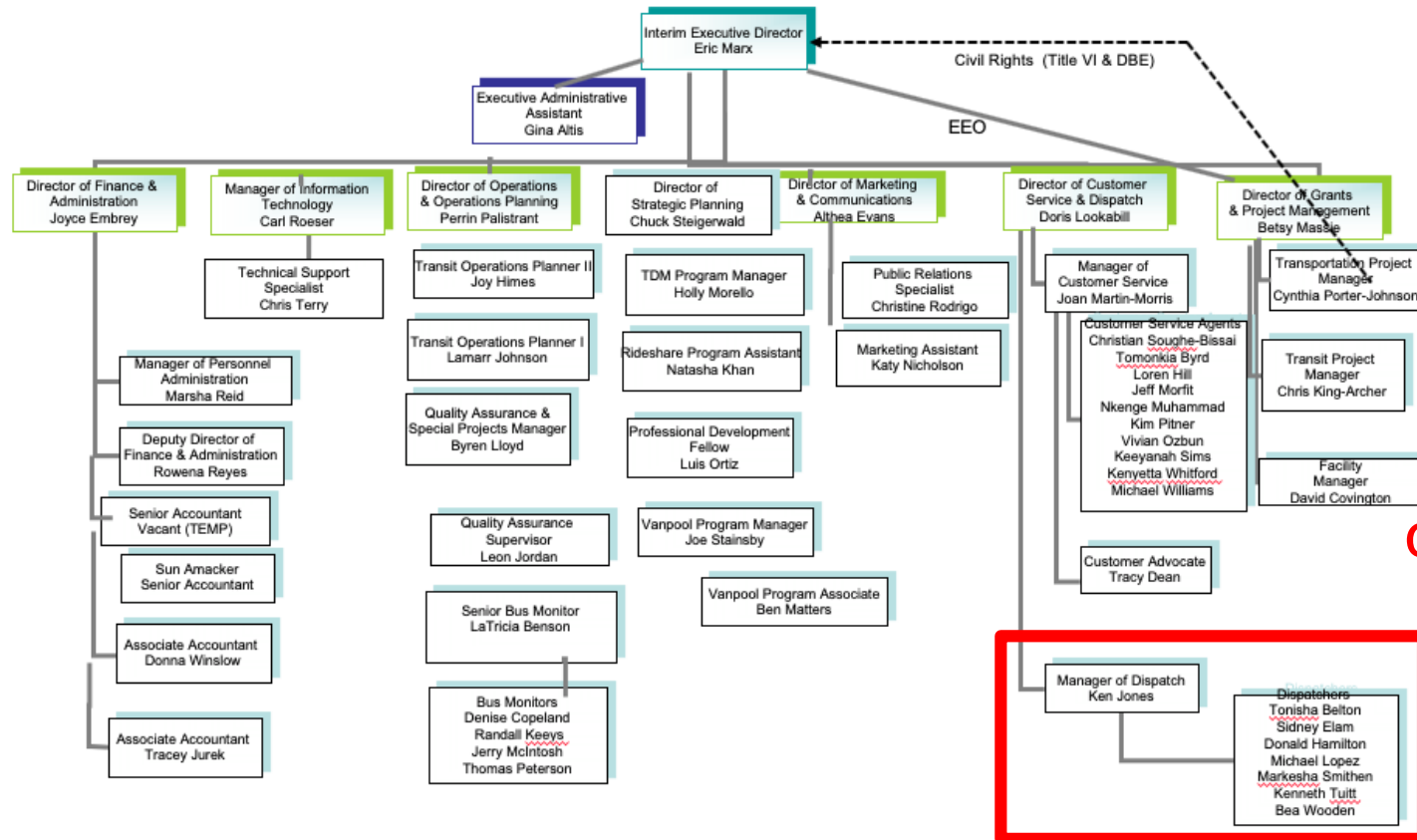
What I observed: Structure

The Commission: public agency w/Finance & Planning

- 52 employees
- Finance & Grants/IT/Project Mgmt (12)
- Planning & TDM/Vanpool (11)
- Customer Service/Marketing (16)
- Dispatchers (8) & Bus Monitors (4)
- Exec/Admin (2)

What I observed: Structure

PRTC Organizational Chart January 2017



8 employees:
operations focused

Operationally Focused:



2:39 PM

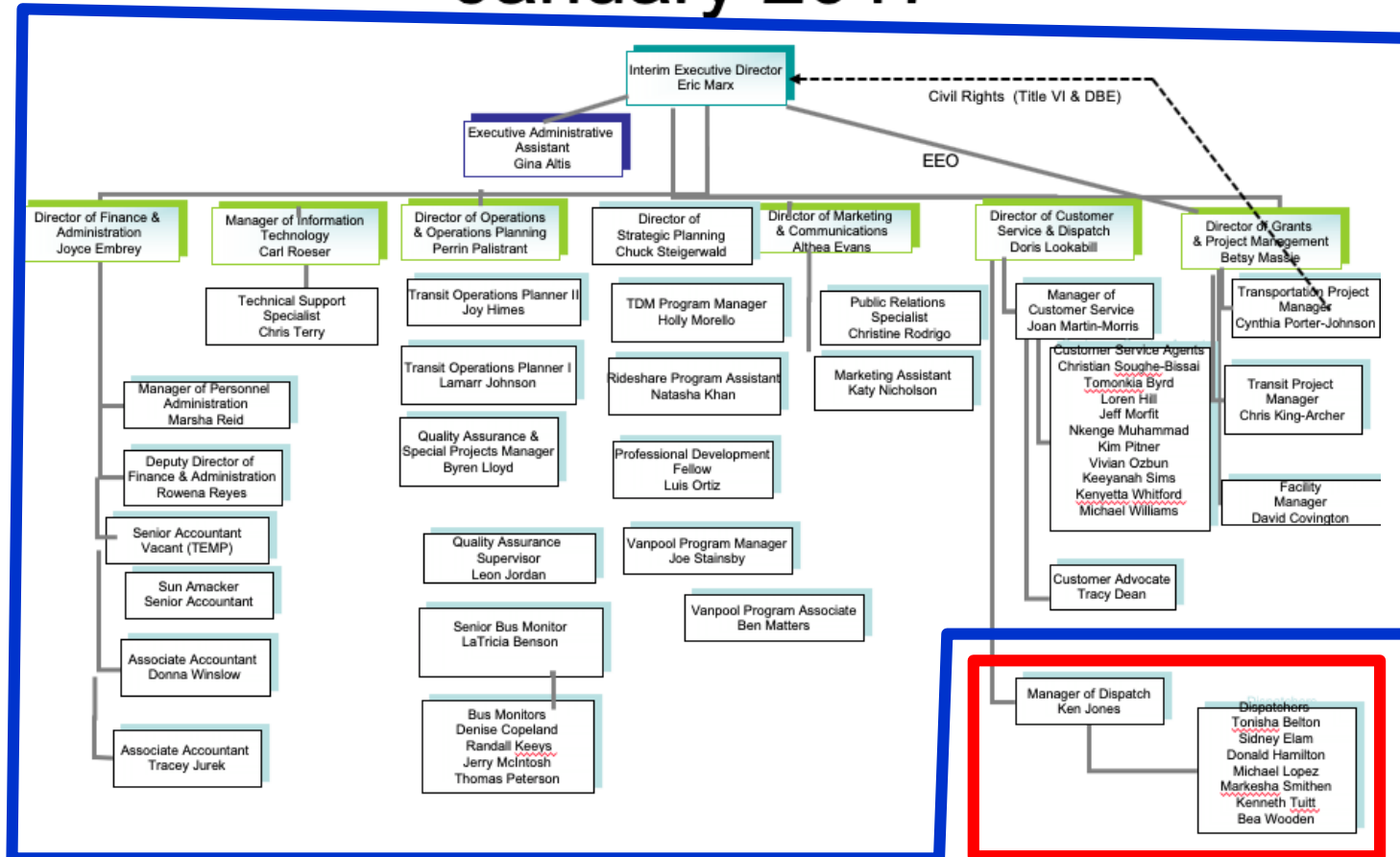
Operationally Focused:



4:36 PM

What I observed: Structure

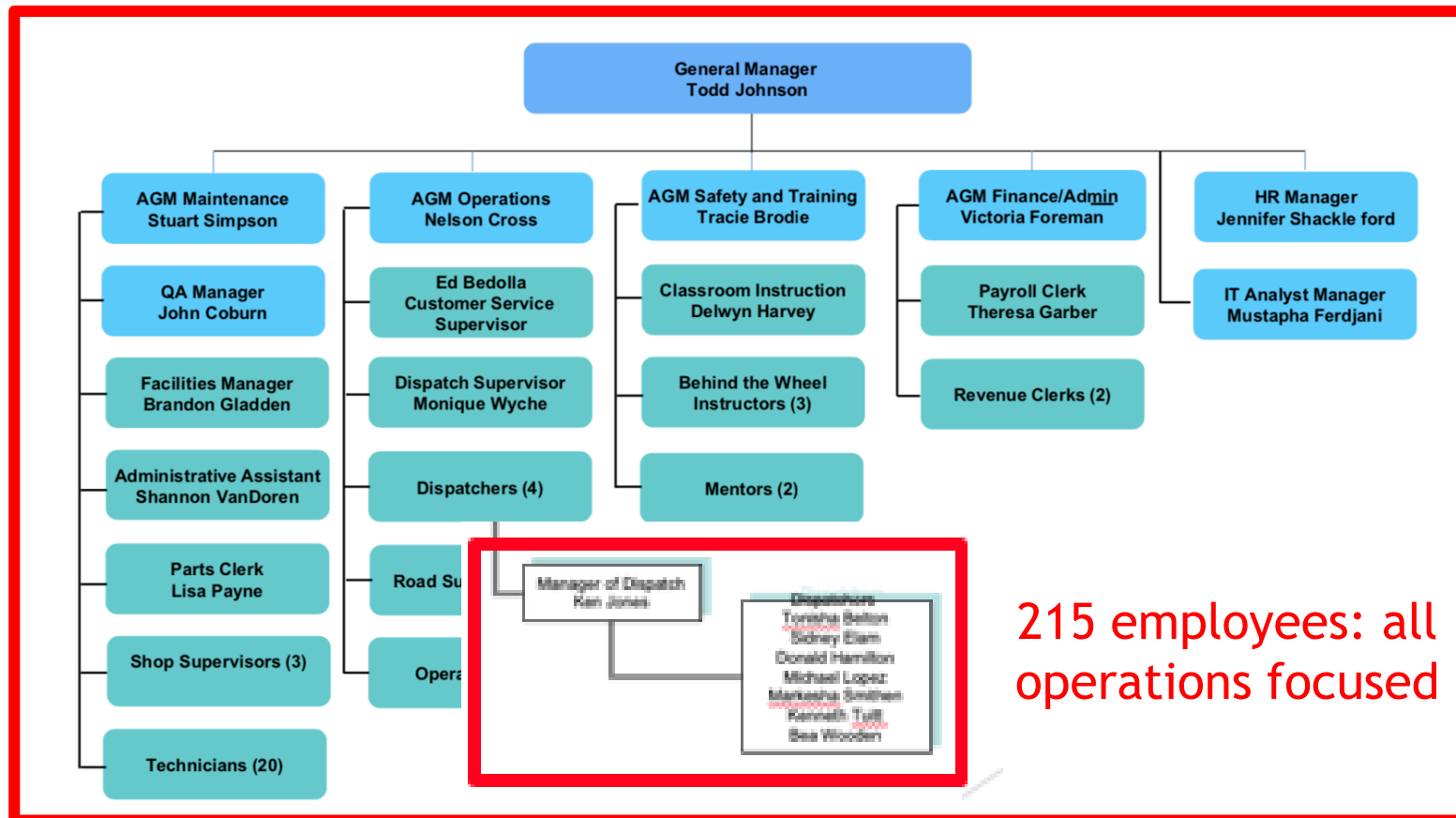
PRTC Organizational Chart January 2017



46 employees:
non-operations
focused

8 employees:
operations focused

What I observed: Structure



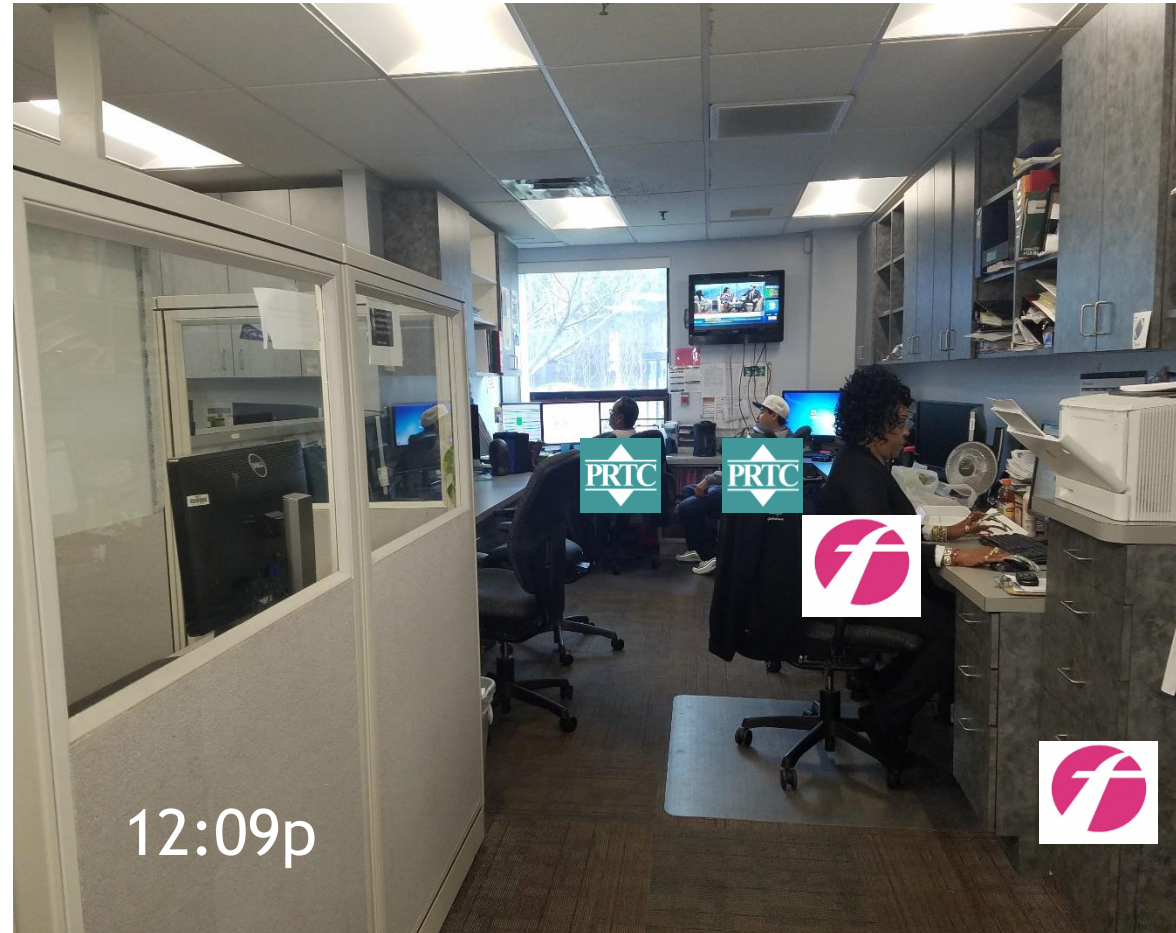
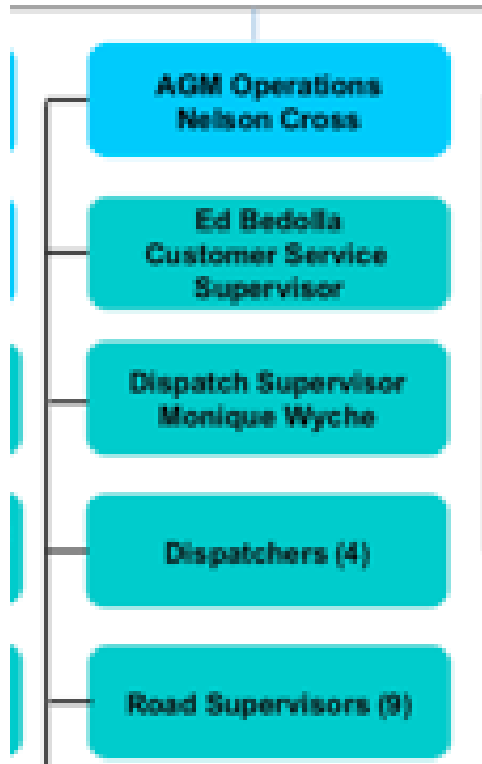
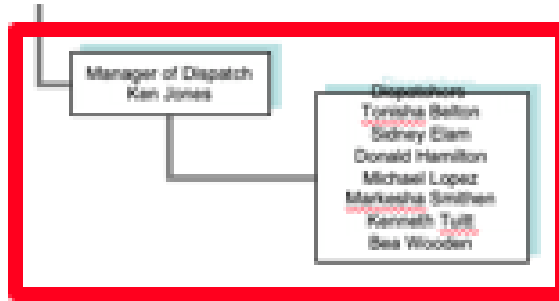
215 employees: all operations focused

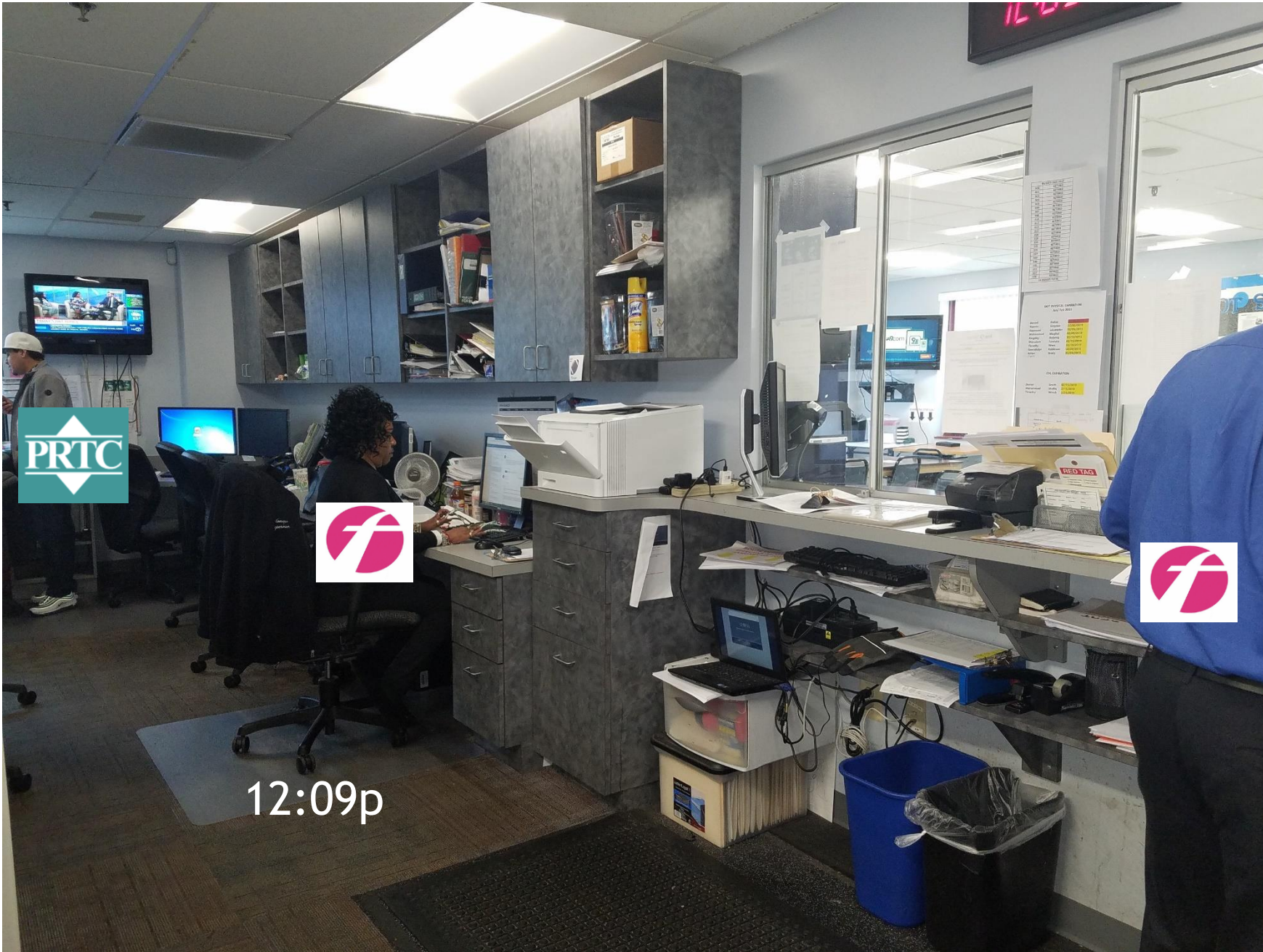
Coordination

15 office employees:
operations focused

+

9 field staff





12:09p

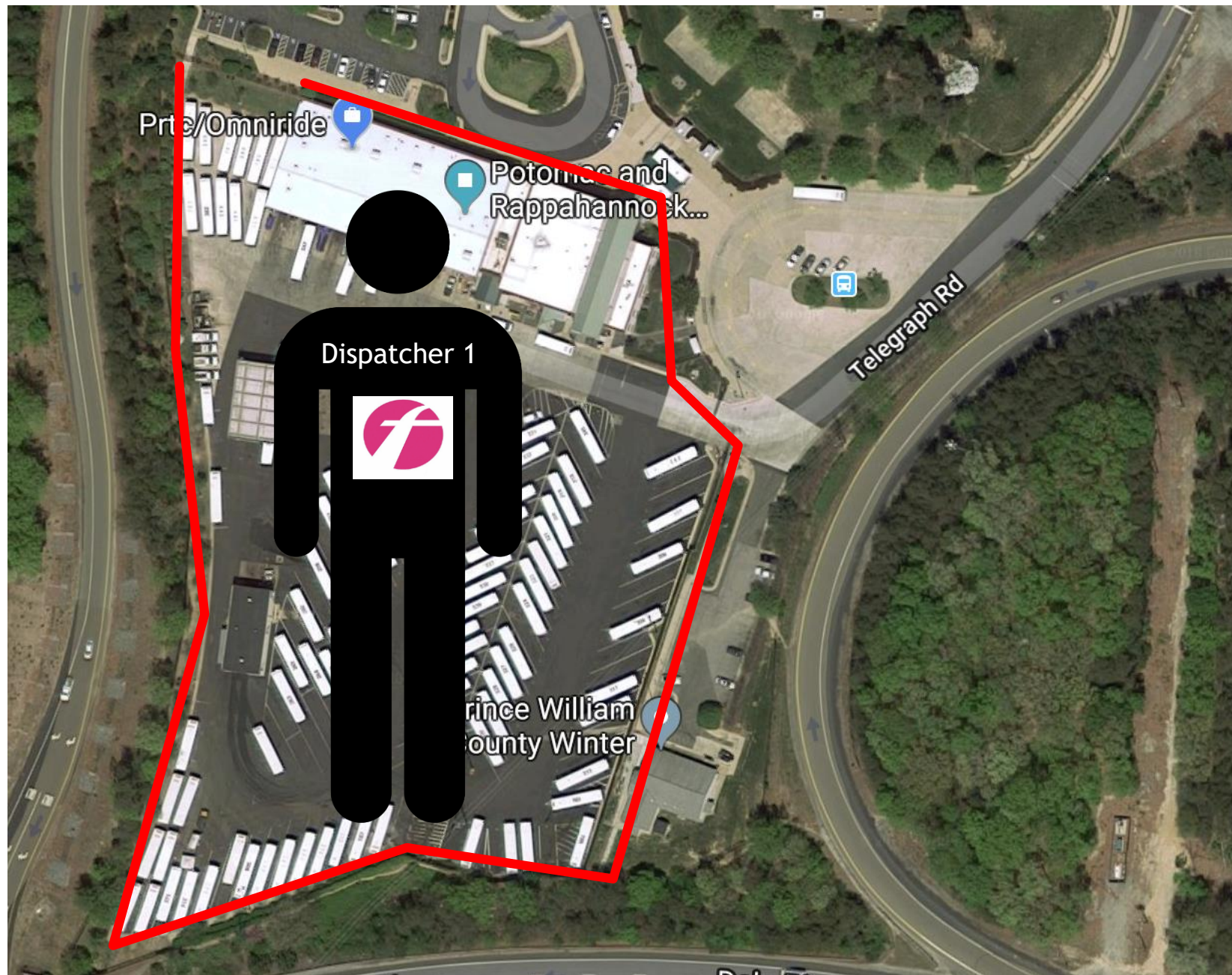


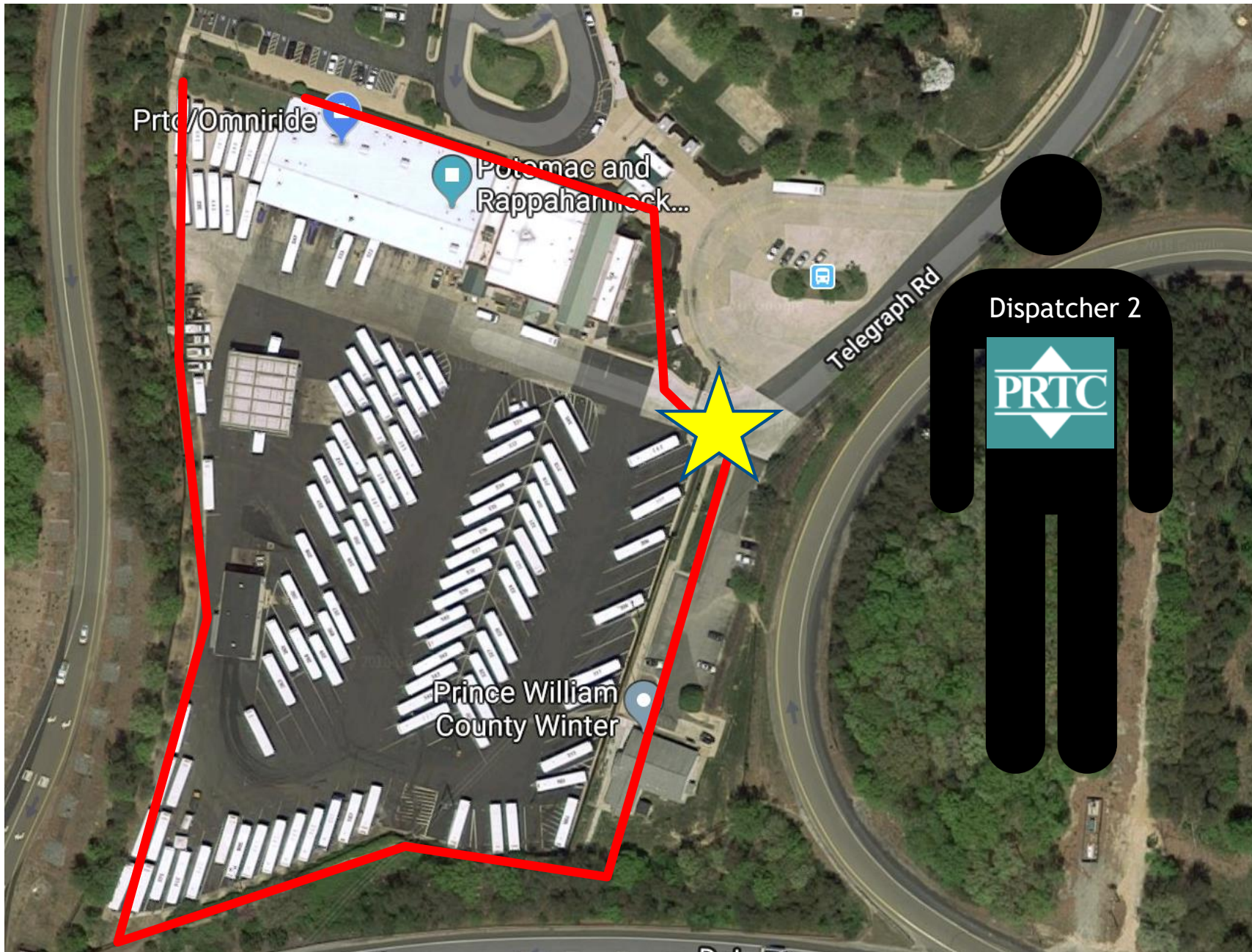


12:15p

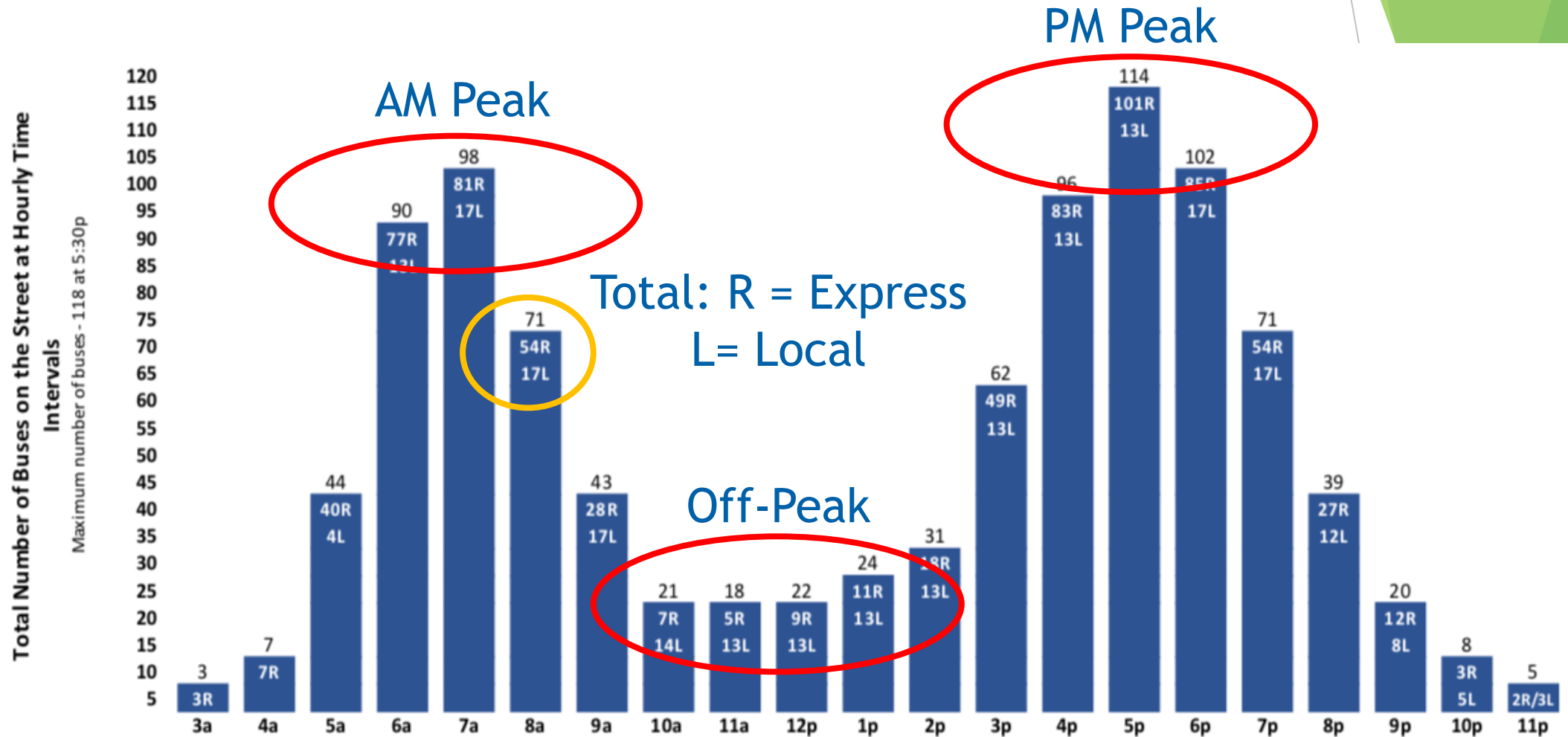
What I observed: Functionality







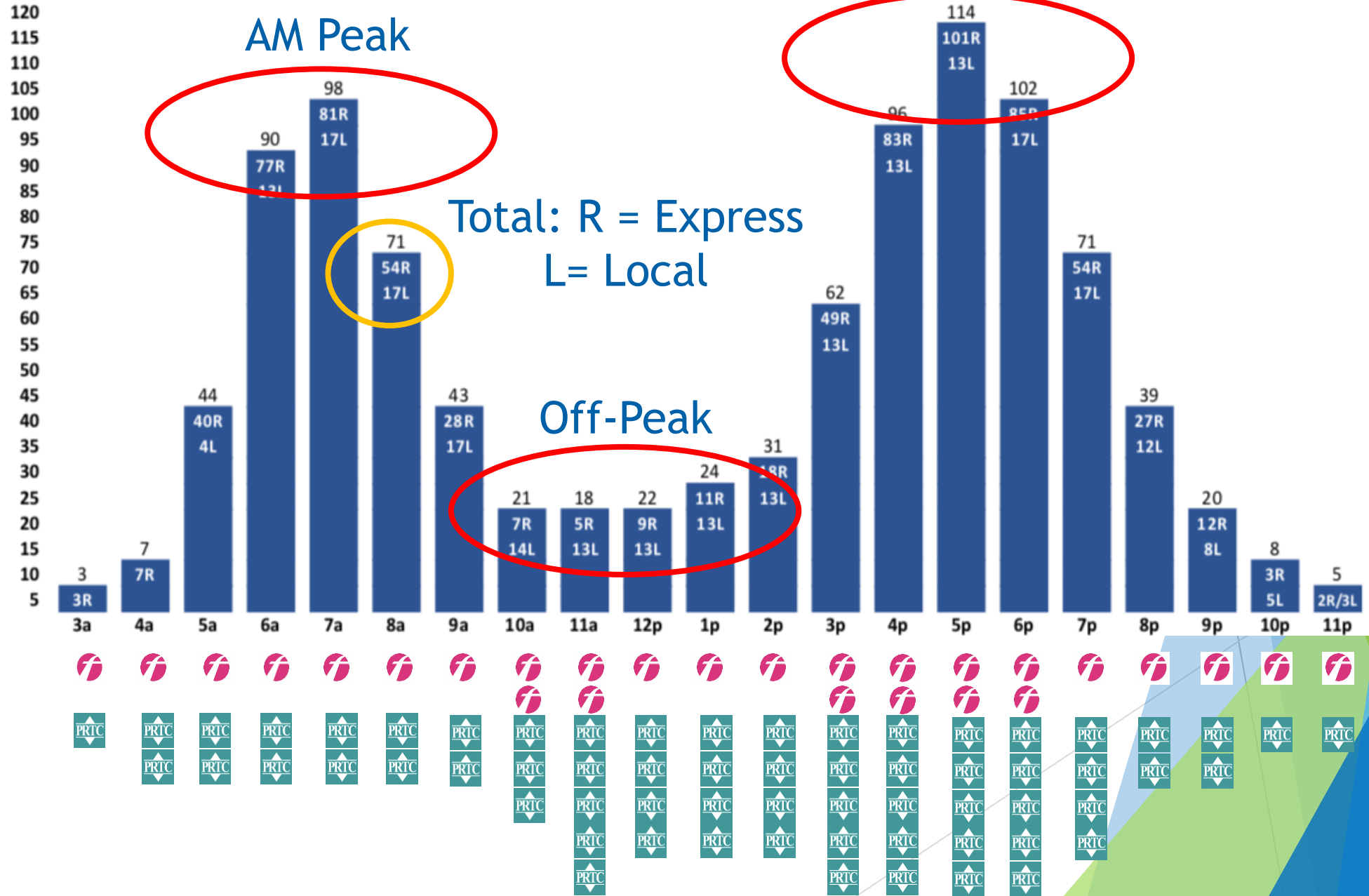
Analysis



Total Number of Buses on the Street at Hourly Time

Intervals

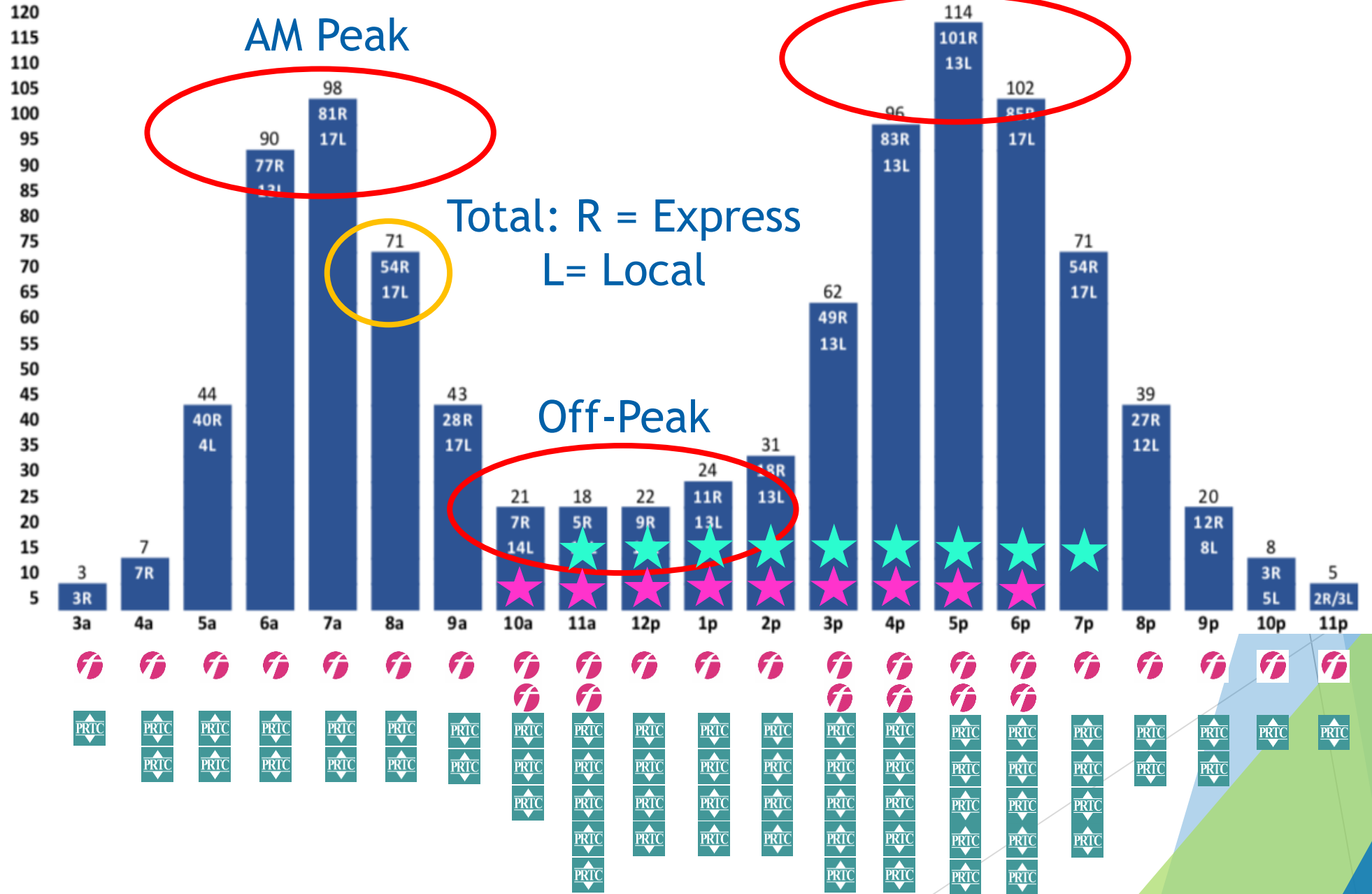
Maximum number of buses - 118 at 5:30p



Total Number of Buses on the Street at Hourly Time

Intervals

Maximum number of buses - 118 at 5:30p





Number of Buses



Number of Staff



2016: \$1.7M in service cuts

22+ drivers permanently laid off

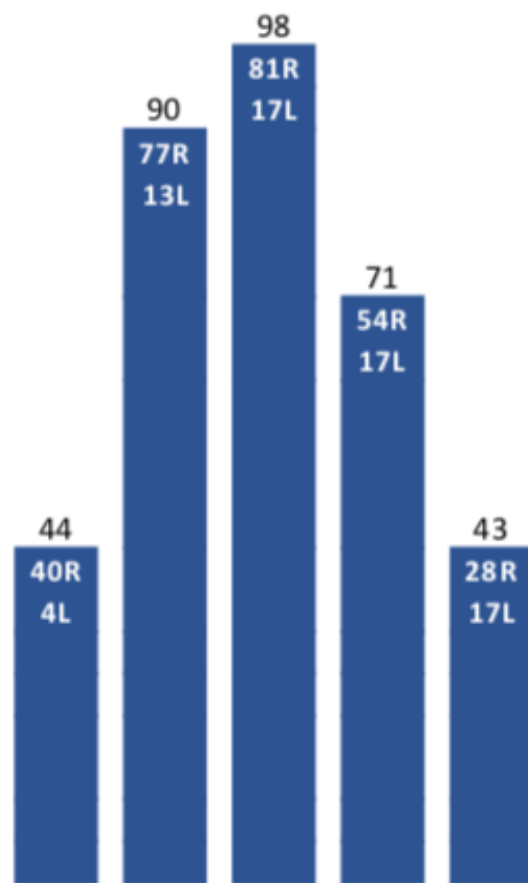
NO PRTC staff reductions

	3a	4a	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
PRTC Dispatchers	1	2	2	2	2	2	2	3	5	4	4	4	5	5	5	5	4	2	2	1	1
FT Dispatchers	1	1	1	1	1	1	1	2	2	1	1	1	2	2	2	2	1	1	1	1	1
PRTC/FT Dispatch Managers on Duty	0	0	0	0	0	0	0	1	2	2	2	2	2	2	2	2	1	0	0	0	0
Buses per On-Duty Dispatch Personnel	1.5	2.33	14.7	30	32.7	23.7	14.3	3.5	2	3.14	3.43	4.43	6.89	10.7	12.7	11.3	11.8	13	6.67	4	2.5

PRTC Dispatchers
FT Dispatchers
PRTC/FT Dispatch Managers on Duty
Buses per On-Duty Dispatch Personnel

AM Peak

Most Efficient:
33 buses per
Dispatch Personnel



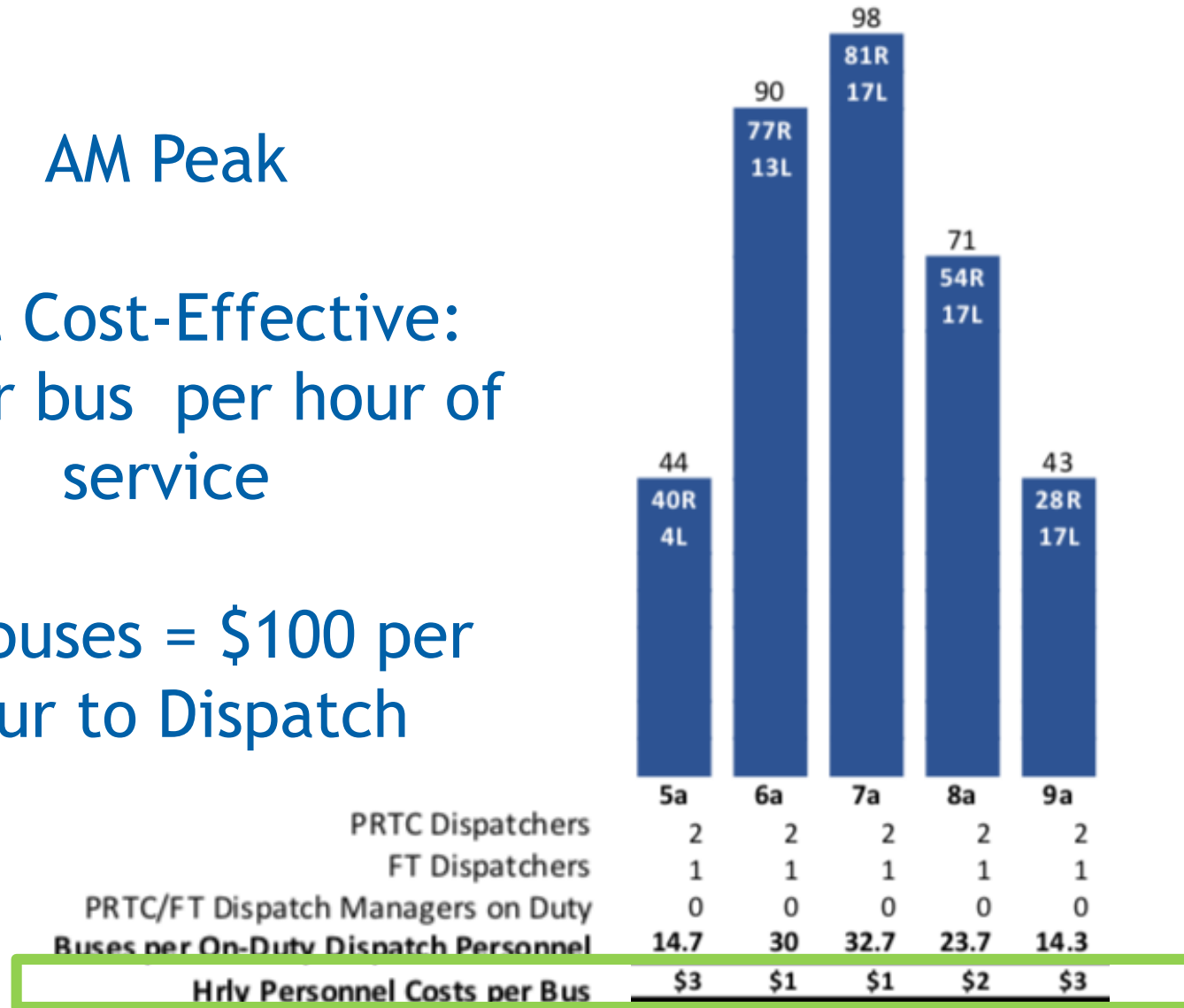
Industry Norm:
75-100
for
Urbanized
Services

	5a	6a	7a	8a	9a
PRTC Dispatchers	2	2	2	2	2
FT Dispatchers	1	1	1	1	1
PRTC/FT Dispatch Managers on Duty	0	0	0	0	0
Buses per On-Duty Dispatch Personnel	14.7	30	32.7	23.7	14.3
Hrly Personnel Costs per Bus	\$3	\$1	\$1	\$2	\$3

AM Peak

Most Cost-Effective:
\$1 per bus per hour of
service

100 buses = \$100 per
hour to Dispatch



$$\text{Person} = 2 \text{ Buses} = \$40 \times 7 \text{ staff} = \$280$$

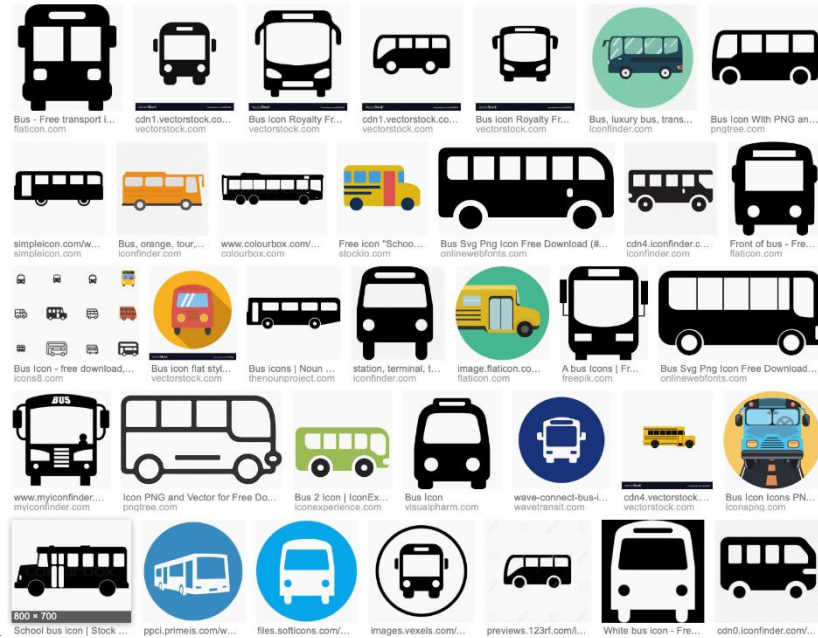
Off Peak

Least Efficient:
As low as 2 buses
per Dispatch Personnel

	21 7R 14L 10a	18 5R 13L 11a	22 9R 13L 12p	24 11R 13L 1p	31 18R 13L 2p
PRTC Dispatchers	3	5	4	4	4
FT Dispatchers	2	2	1	1	1
PRTC/FT Dispatch Managers on Duty	1	2	2	2	2
Buses per On-Duty Dispatch Personnel	3.5	2	3.14	3.43	4.43
Hrly Personnel Costs per Bus	\$12	\$20	\$13	\$12	\$9



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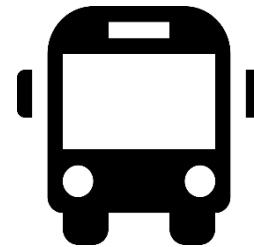


= \$33 x 3 staff = \$100

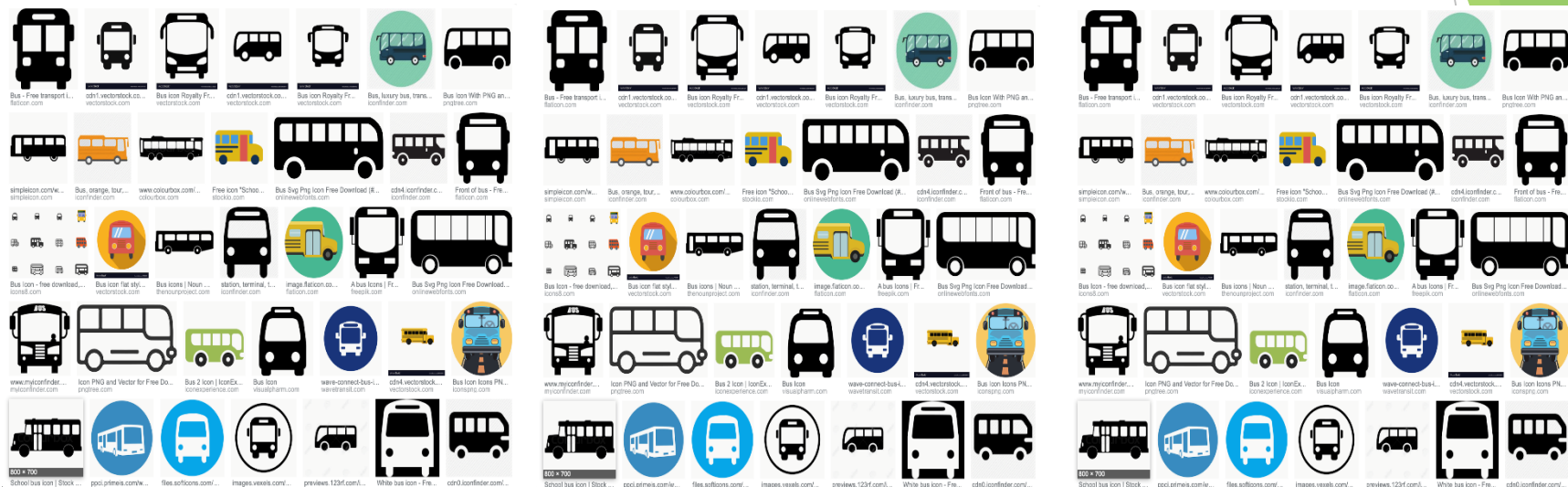
VS.



=



= \$40 x 7 staff = \$280



Logical Solution:

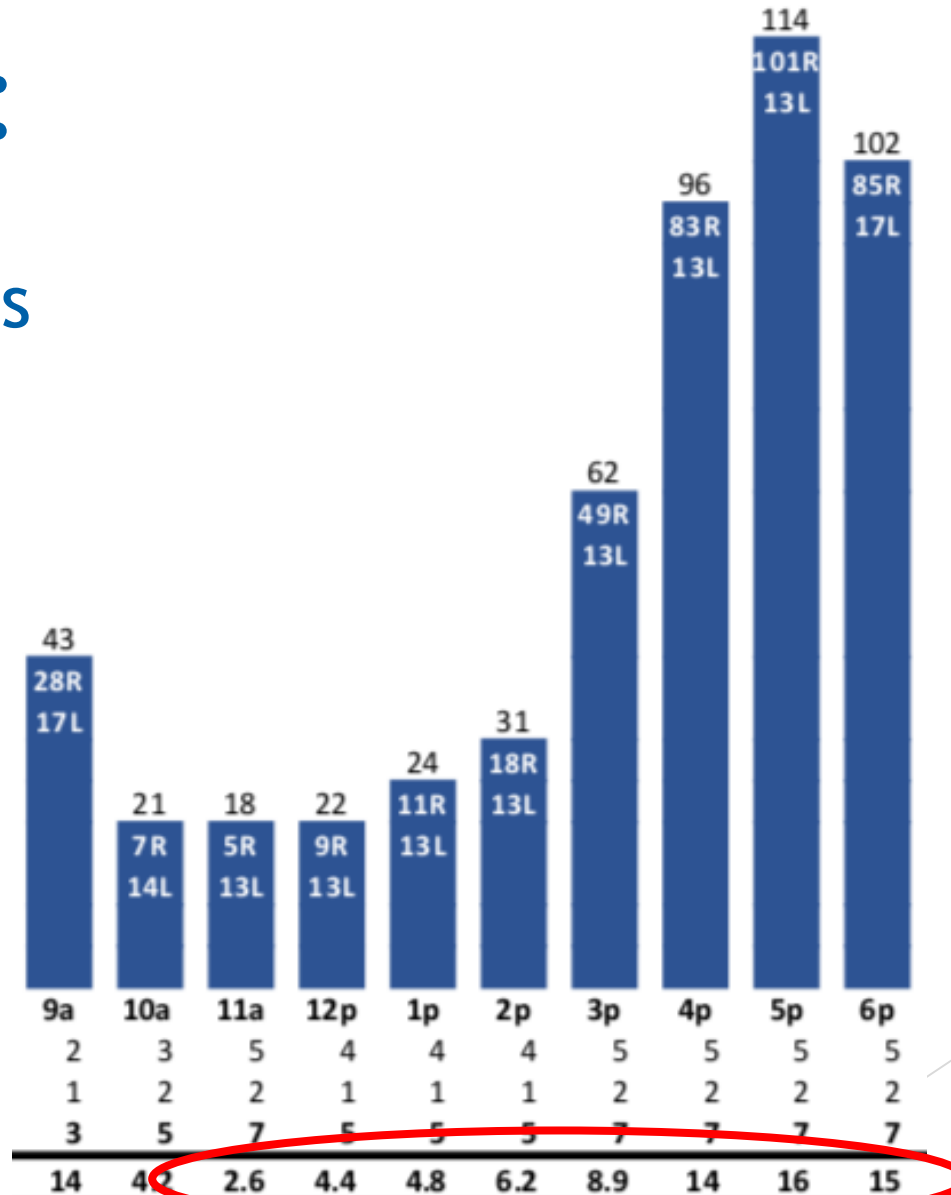
Spread our Staff Resources

Problem:

AM Peak (best) ratios
are already
below the norm

PM Peak is even lower

Mid-day the lowest



Can we do better? Yes

- Balance personnel volume w/ service
- Establish a target of 50+ buses per dispatch personnel
- Challenge mgmt to identify proper staff levels based on needs

New Staff Plan

- End splitting of duties between employment groups
- Enhanced cross-training for all dispatchers
- New employee shifts/schedules
- Fewer employees required

Personnel Split Functions Personnel Economics:

- Dispatchers: 7 PRTC / 3 First Transit (peak of 7 at once)
- Spvsr/Mgr: 1 PRTC / 1 First Transit (peak of 2 at once)
- Blended Hourly Wage Rate: \$40.58+ (excludes OT, etc.)

	3a	4a	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p
Hrly Personnel Costs per Bus	\$27	\$17	\$3	\$1	\$1	\$2	\$3	\$12	\$20	\$13	\$12	\$9
FT Dispatchers - Post RIF	2	2	3	3	2	2	2	2	2	3	3	3
FT Managers - Post RIF	0	0	0	0	1	1	1	1	1	1	1	1
Buses per On-Duty Dispatch Personnel	1.5	3.5	14.7	30	32.7	23.7	14.3	7	6	5.5	6	7.75
Hrly Personnel Costs per Bus - Post RIF	\$27	\$12	\$3	\$1	\$1	\$2	\$3	\$6	\$7	\$7	\$7	\$5

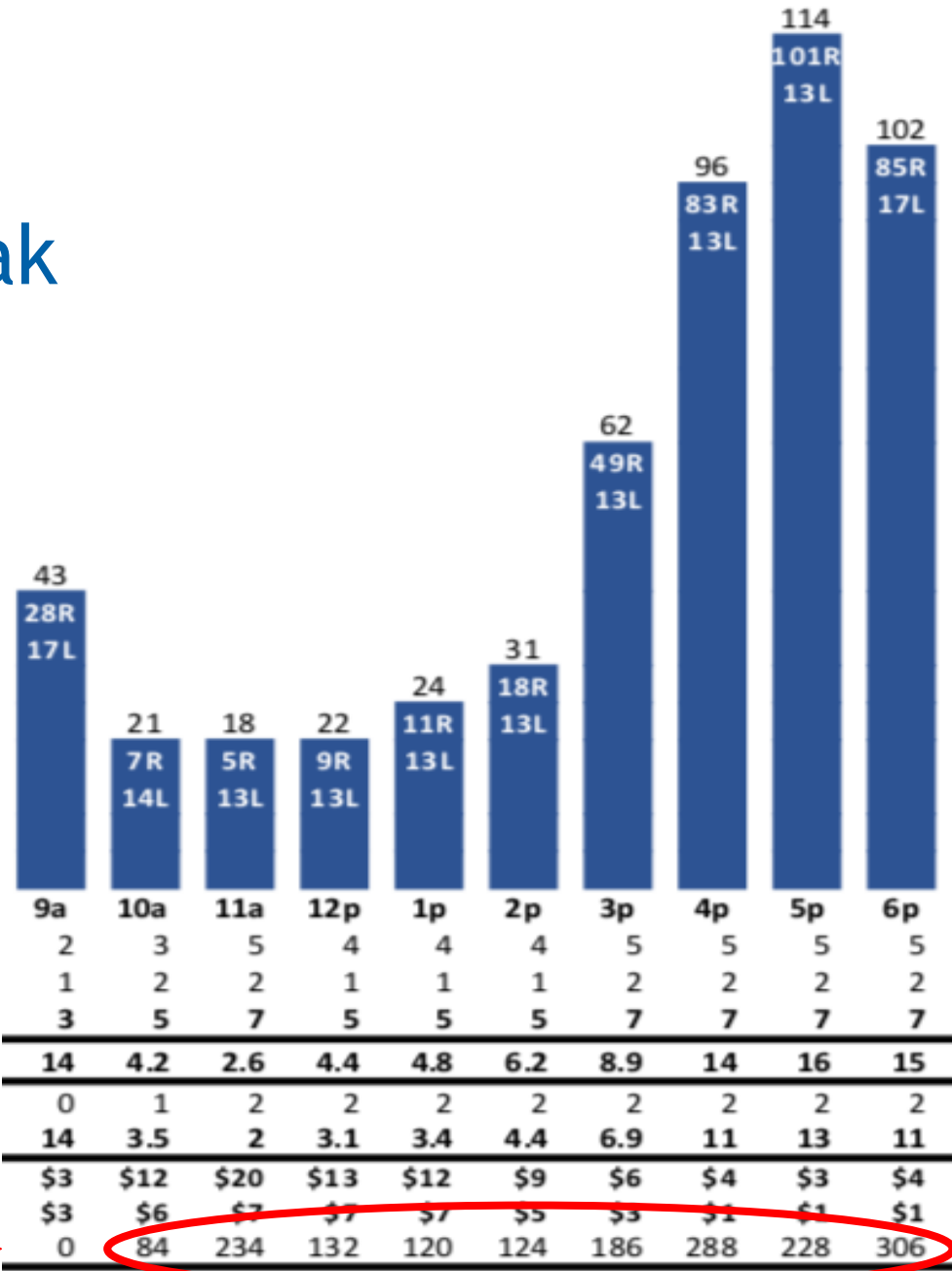
Approximately \$1.15M per year to Dispatch 118 peak buses

A New Approach:

Unified Operations

- 7 Dispatchers (down from 10)
- 1 Supervisor (down from 2)
- Cross-trained
- Reporting to First Transit (Operations Group)

Off-Peak/PM Peak



Net Weekday
Savings: \$1928



A New Approach:

Economic Breakdown:

$\$1928 \times (5 \text{ weekdays}) = \$9640 \times (52 \text{ Weeks}) =$

\$501,280

in annual dispatch operations savings

442,626	201,028	643,654
Salaries	Fringes	(Salaries & Fringes)

Present value of fully staffed PRTC Dispatch Department

Manassas Park	5,100	(OmniRide Local only)				
Manassas	11,500	(OmniRide Local only)				
PWC	627,100	(OmniRide + OmniRide Local (100% Eastern + 66.24% Western))				
Total	643,700					

Fiscal Impact Statement

Manassas Park	5,100	(OmniRide Local only)					
Manassas	11,500	(OmniRide Local only)					
PWC	627,100	(OmniRide + OmniRide Local (100% Eastern + 66.24% Western))					
Total	643,700						

Annual Budget Savings

- **\$488K** to Prince William County
- **\$4,300** to Manassas Park
- **\$8,600** to City of Manassas

Status Update: Today

- Promotion & Attrition
 - Dec 2017: 8 PRTC dispatch staff
 - Feb 2019: 3 PRTC dispatch staff
- First Transit has 4* full-time Dispatchers & actively cross-training
- ...now at decision-point

Recommendation:

- Proceed with First Transit responsibility for all dispatcher functions
- Employment by First Transit
 - Better management structure
 - Unified employment standards

Recommendation:

- First Transit Contract Amendment
 - Approx \$330K annually
 - Hire 3 additional full time dispatchers
 - Requires First Transit hiring rules
- Requires PRTC Reduction-in-Force (3)

Recommendation:

- Recruiter for employment options
- Initiate process
 - Formal reduction in force (per policy)
 - Prepare severance package
 - Prepare contract amendment

Questions?



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