Transportation Engineering Support of Transit Operations

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All-in-One Transportation Agency

- Walk
- Bicycle
- Public & Private Transit
- Bicycle Share
- Rideshare
- Paratransit
- Carshare
- Taxi
- Park
- Drive
- Commercial
Collaborative Structure

SFMTA

Transit (Muni)   Sustainable Streets

Different divisions working together
San Francisco Municipal Railway – aka “Muni”

Diverse fleet

- Hybrid-Diesel Motor Coaches
- Electric Trolley Coaches
- Light Rail Vehicles
- Historic Street Cars
- Cable Cars
Muni Operating Divisions

• Woods
  • 40’ & 30’ Motor Coaches
• Flynn
  • 60’ Motor Coach
• Kirkland
  • 40’ Motor Coach
• Potrero
  • 40’ & 60’ Trolley Coach
• Presidio
  • 40’ Trolley Coach

• Islais Creek
  • 60’ Motor Coach
• Green/Cameron Beach
  • Light Rail Vehicle (including Historic Street Cars)
• Muni Metro East
  • Light Rail Vehicle (including Historic Street Cars)
• Cable Car Barn
  • Cable Car
Operator Feedback

Engineers and planners meet with operators and hear about issues they face driving a large bus through a congested environment.
Constituent Comments

Issues/concerns reported through the San Francisco 311 system
Try to find solutions

1. Log into tracking system
2. Engineer/Planner reviews
3. Determine possible next steps
4. Respond to requestor
Types of Requests
Making Changes Happen

Once a solution is identified, the collaborative team continues to work together to implement:

Engineer
- Analyze, design, outreach and legislate

Service Planner
- Outreach
- Operational impacts, coordination with scheduling, operations management
- Prepares operator bulletins

Shops
- Move signs, paint bus zones
Sometime you have to say no

Manage Expectations

• Not every request has a feasible solution

Need to balance competing interests:

• City with limited parking availability, but where parking can negatively impact transit operations
• Changes benefiting one mode may harm another mode
• Changes may not be feasible due to limitations of signal equipment
Plan for the future

Requests that can’t be accommodated get added to a wish-list for future projects
Case Study – 28R Route, 19th Avenue Rapid

Realign route to provide cross-town connectivity and expand service hours
Case Study – 28R Route, 19th Avenue Rapid

Step 1 – Test Alternative Terminal Loops
Case Study – 28R Route, 19th Avenue Rapid

Step 2 – Establish Terminal Loop and bus zone
Case Study – 28R Route, 19th Avenue Rapid

Step 3a – Address issues

• Layover Zone too narrow
  • Adjust striping to provide a buffer space
Case Study – 28R Route, 19th Avenue Rapid

Step 3b – Address issues

• Difficult Turns
  • Considered removing parking to ease turns, but then plans changed
Case Study – 28R Route, 19th Avenue Rapid

Step 4 – Let’s Move!
• Tough turning, inefficient routing and narrow zone were impacting on time performance
  • Found a new zone, but not ready in time
  • Figured out an interim zone
Case Study – 28R Route, 19th Avenue Rapid

Need to provide a terminal zone on the southern end of the line took 3 tries

Step 5 – Finalize Move
• Complete outreach and get the bus moved to a long term location
Case Study – 28R Route, 19th Avenue Rapid

Take-Aways

• Any one of these steps could have been a stand-alone request
• Need to be able to adjust to changing conditions

Overall Process

• Fosters a better understanding of between transit operations and engineers/planners
• Creates a collaborative environment
• Brings down silos
Thank you!

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