

Metro Orange Line Express Bus Study

SFV Governance Council
April 4, 2007



Orange Line Express Study



Study Objectives

- Increase Orange Line operating speeds
- Attract new Orange Line riders
- Achieve Operating efficiencies

Orange Line Express Study

Summary Transitway Statistics

- 14 Metro Orange Line Stations
- Seven (7) Park / Ride lots
- 14.3 one-way route miles
- Two lane roadway
- Passing lanes provided at stations
- Signal Priority System (Traffic signals are coordinated to accommodate scheduled passing times of Orange Line vehicles – one vehicle every 3 minutes or more).



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Summary of Orange Line Resources

- Twenty-eight articulated buses in service
- 101,500 annual revenue service hours
- Fifty Metro Orange Line bus operators
- 21,428 Weekday ridership



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Current Metro Orange Line Service Statistics

- Average Weekday Headways equal 4 minute Peak, 10 minute off-peak and 20 minute night service.
- Average Weekend Headways equal 10.5 minutes all day and 20 minute night service.
- Span of Service equals 21 hours (4am until 1am next day).

Light Rail vs Metro Orange Line

<u>Service Type</u>	<u>Psgr. Trip Length</u>	<u>Avg. MPH</u>
Metro gold line	7.55 miles	22.3
Metro blue line	7.36 “	21.5
Metro green line	6.71 “	34.6
<i>Metro orange line</i>	6.31 “	20.0

Metro Gold Line Express Statistics

Express and all-stop service

15 minute all-stop and 30 minute express headways. (Combined 6 minute headway)

- 4 express trips in each direction during both AM & PM peaks
- Skips 7 of 13 stops including terminals
- Saves 5 minutes travel time
- Express trips have less riders than all-stop
- Safety Gates provided at grade crossings
- Trains given total priority over autos.
- To date - no significant increase in Gold Line

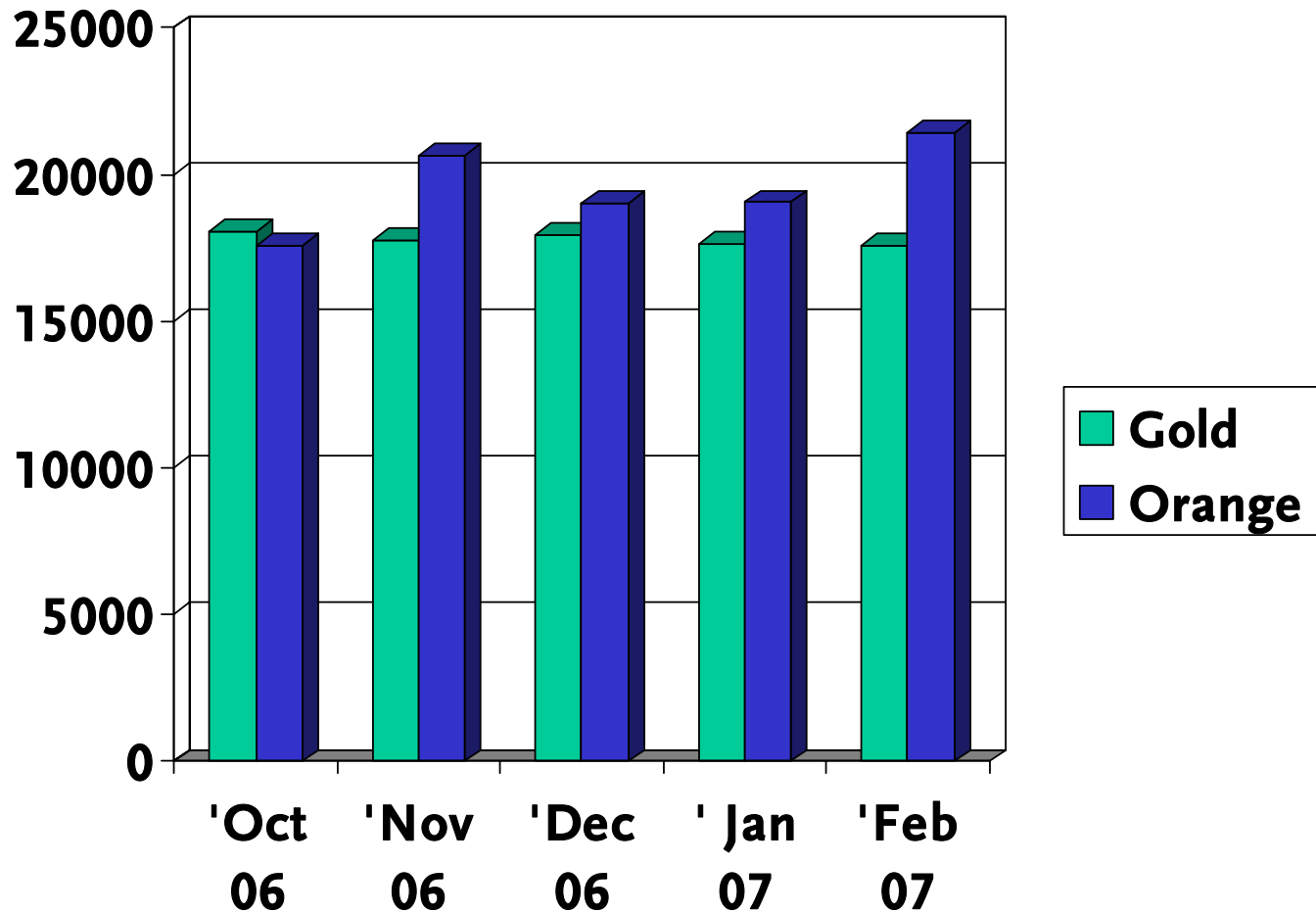


Patronage

Metro

Gold Line vs Metro Orange Line

Weekday Boardings



Orange Line Express Bus Service Considerations

Orange Line Express Bus Concept

- Peak period only Express trips
(8 minute Express and 8 minute all-stop headways – combined 4 minutes)
- Bi-directional service
- Skip 5 stops in each direction (De Soto, Woodley, Woodman, Tampa & Laurel Canyon)
- Monday through Friday operation

Orange Line Express Stations Selection

<u>Stations</u>	<u>Express</u>	<u>Parking</u>
<u>Warner Center</u>	Yes	No
<u>Canoga Station</u>	Yes	Yes
<u>De Soto Station</u>	No	No
<u>Pierce College</u>	Yes	Yes
<u>Tampa Station</u>	No	No
<u>Reseda Station</u>	Yes	Yes
<u>Balboa Station</u>	Yes	Yes
<u>Woodley Station</u>	No	No
<u>Sepulveda Station</u>	Yes	Yes
<u>Van Nuys Station</u>	Yes	Yes
<u>Woodman Station</u>	No	No
<u>Valley College Sta.</u>	Yes	No
<u>Laurel Canyon Sta.</u>	No	No
<u>No. Hollywood Sta.</u>	Yes	Yes

Concerns and Constraints

- Travel time from end to end could be reduced by 4 minutes - (Only 7% of existing passengers ride end to end.)
- Travel time savings of 4 minutes may be insufficient to encourage passengers to wait for the express trips.
- Wait time at non express stations could increase by 4 minutes (21% of riders board at these stops)

- Signal Priority cannot accommodate headways of 3 minutes or less. (2nd trip through intersection is assessed additional wait time penalty).
- Benefits of faster trip times may be off-set by longer wait times at non-express stations.
- Service delays may result in 16 minute gaps in service to non-express stations.
- Unbalanced passenger loads may result.
- **Metro Gold Line** customer complaints dramatically increased - 72 express related complaints received in 3 months.

Concerns and Constraints (continued)

- Travel time savings is restricted by 10 mph “Slow Order”
- Skipping stops at major intersections will complicate bus movements through stations.
- Travel time savings should equal 20% or more of one-way route miles or equal to the average headway

Express Service Principals

- **Meaningful time savings accomplished through skipping up to 8 successive stations. (MTA Staten Island Railway)**
- **Dedicated Express tracks allow trains to freely pass at any point on the line and operate at normal speeds through stations and railroad right-of-way.**
- **Gated crossing allow for a safe and fast operations**

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Next Steps



1. Evaluate and modify “ Slow Order” to both preserve safety & improve speed for all Metro Orange Line trips.
2. Refine Signal priority to maximize speed & minimize service delays
3. Monitor and adjust to ridership growth & changing travel patterns.
4. Operate Orange Line service in a manner compatible with its operating environment and consistent with system capabilities.