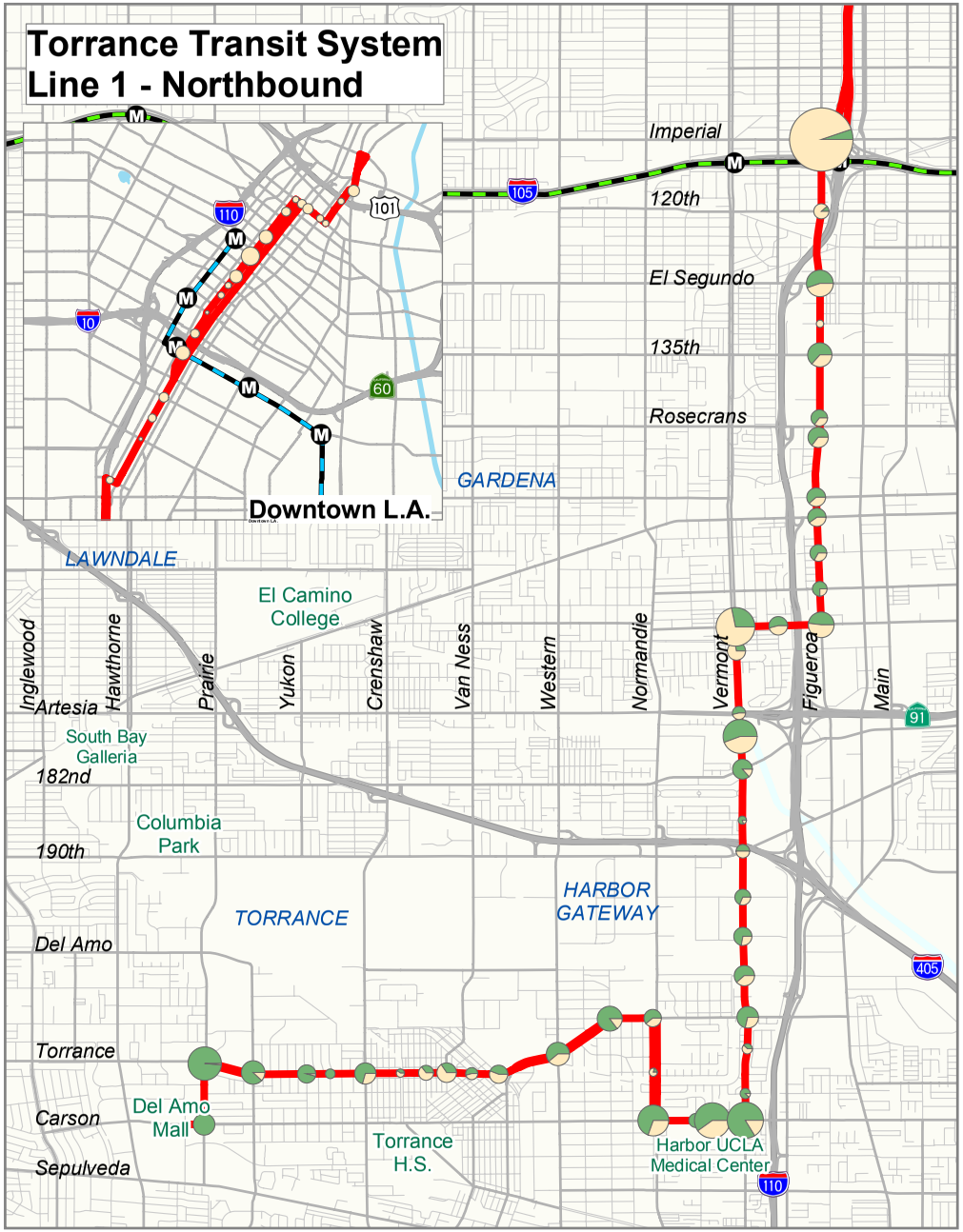
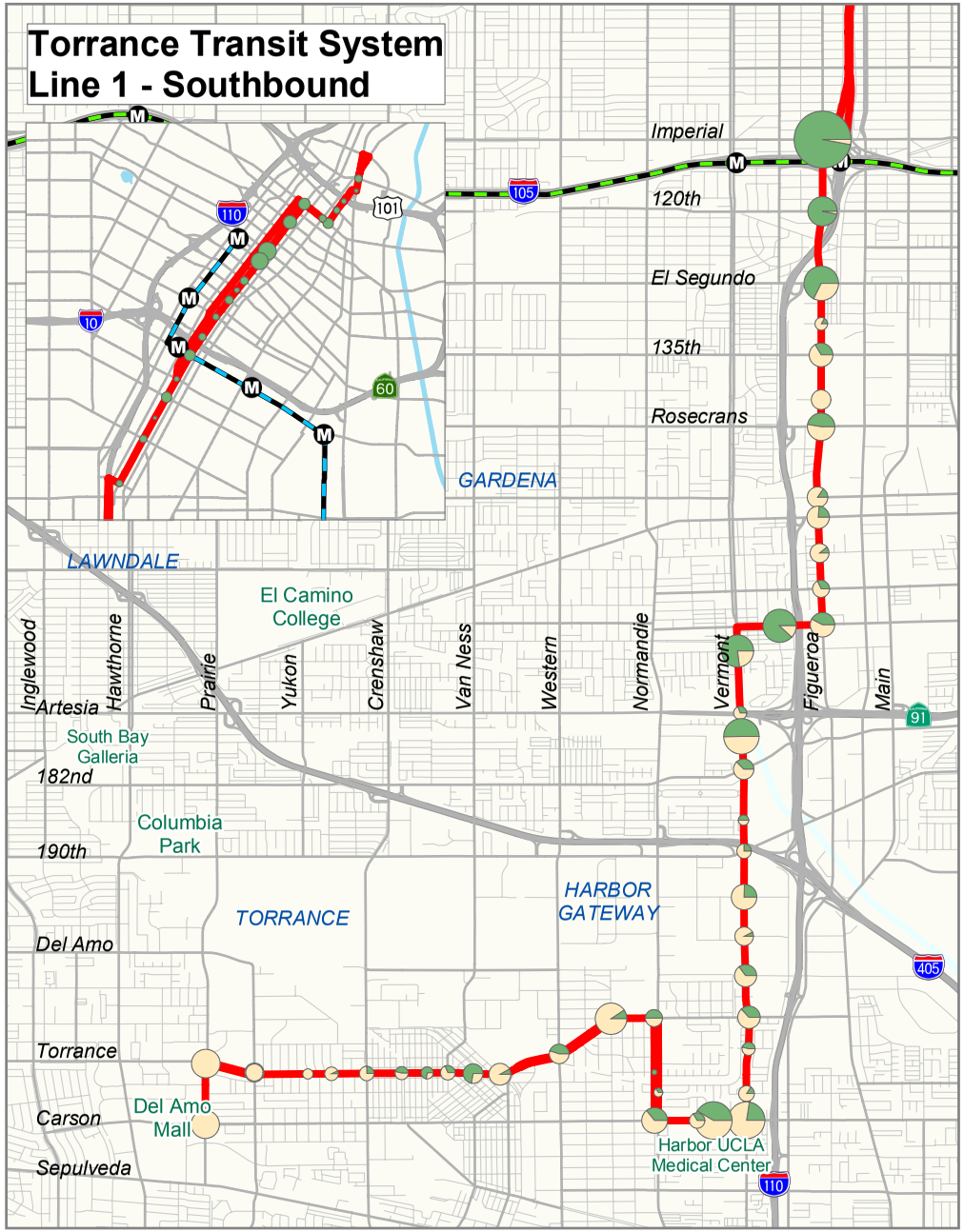
Appendix A
Route Boarding Maps

TMP





Torrance Transit System

Line 1 - Weekday Boardings by Stops

Boardings

50

250

500

Ons

Offs

Symbols

Featured Route

Metro Blue Line

Metro Green Line

Metro Station

Data Sources

Torrance Transit, City of Torrance

Date

December 2005

0 1 2 Miles

1 inch equals 1.28 miles

TMD

Torrance Transit System

Line 2 - Weekday Boardings by Stops

Boardings

50

250

500

Ons

Offs

Symbols

Featured Route

Metro Blue Line

Metro Green Line

Metro Station

Data Sources

Torrance Transit, City of Torrance

Date

December 2005

0 1 2 Miles

1 inch equals 1.54 miles

TMD

Torrance Transit System

Line 3 - Weekday Boardings by Stops Eastbound

Boardings

50

250

500

Ons

Offs

Symbols

Featured Route

Metro Blue Line

Metro Green Line

Metro Station

Data Sources

Torrance Transit, City of Torrance

Date

December 2005

0 1 2 Miles

1 inch equals 1.42 miles

TMD

Torrance Transit System

Line 3 - Weekday Boardings by Stops
Westbound

Boardings

50
250
500
Ons
Offs

Symbols

Featured Route
Metro Blue Line
Metro Green Line
Metro Station

Data Sources

Torrance Transit, City of Torrance

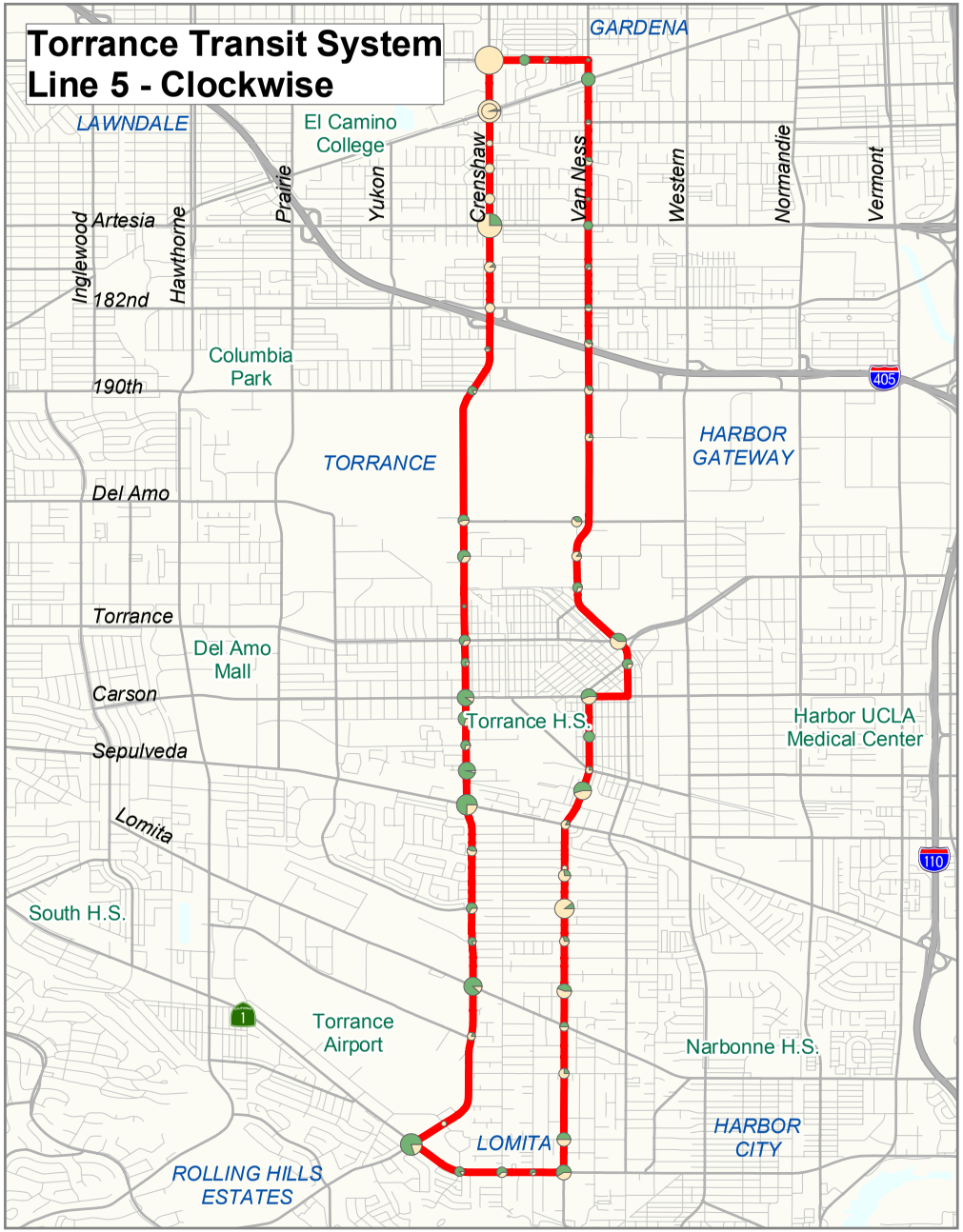
Date

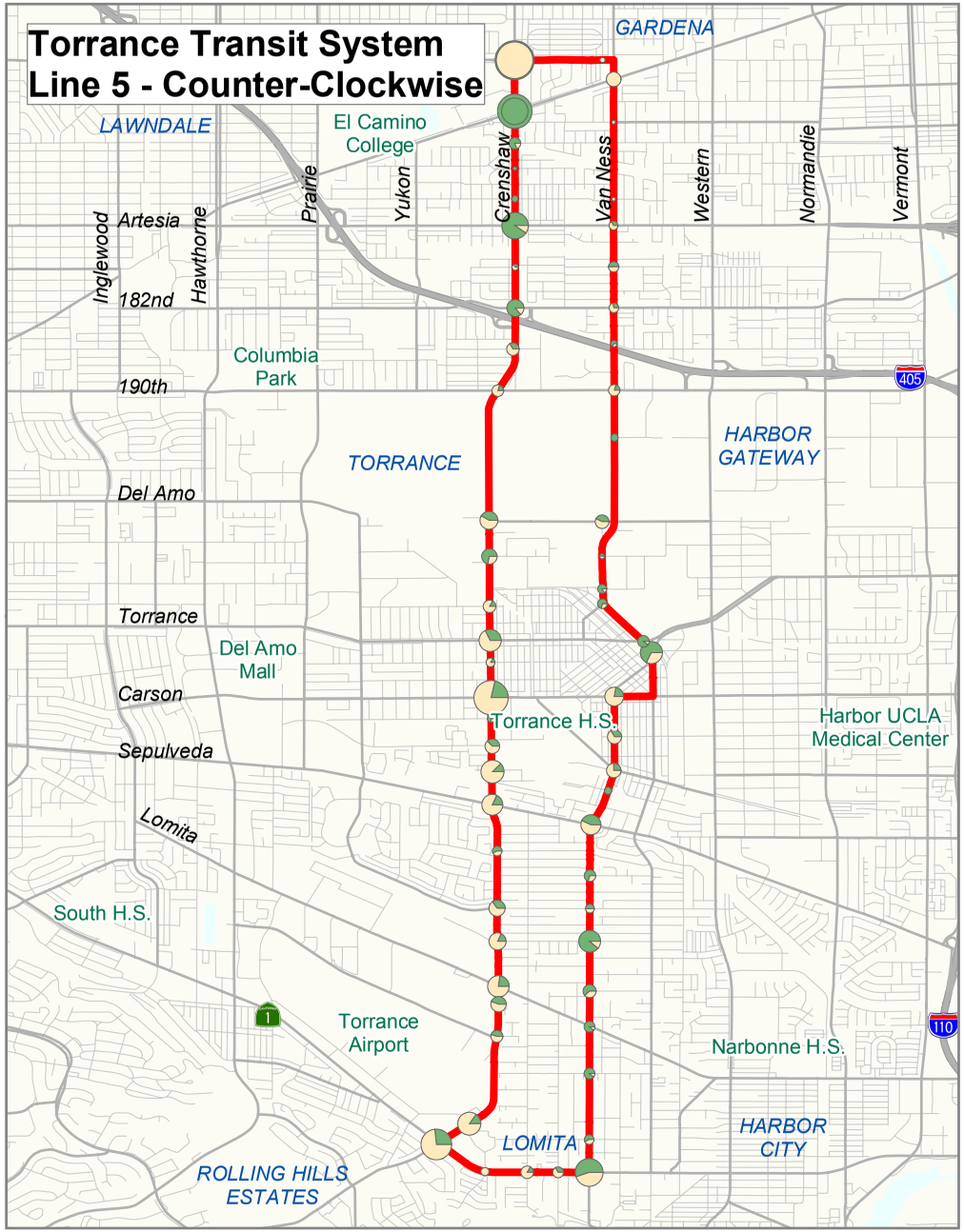
December 2005

0 1 2 Miles

1 inch equals 1.42 miles

TMD





Torrance Transit System

Line 5 - Weekday Boardings by Stops

Boardings

50

250

500

Ons

Offs

Symbols

Featured Route

Metro Blue Line

Metro Green Line

Metro Station

Data Sources

Torrance Transit, City of Torrance

Date

December 2005

0 0.5 1 Miles

1 inch equals 1.11 miles

TMD

Torrance Transit System

Line 6 - Weekday Boardings by Stops

Boardings

50

250

500

Ons

Offs

Symbols

- Featured Route
- Metro Blue Line
- Metro Green Line
- Metro Station

Data Sources

Torrance Transit, City of Torrance

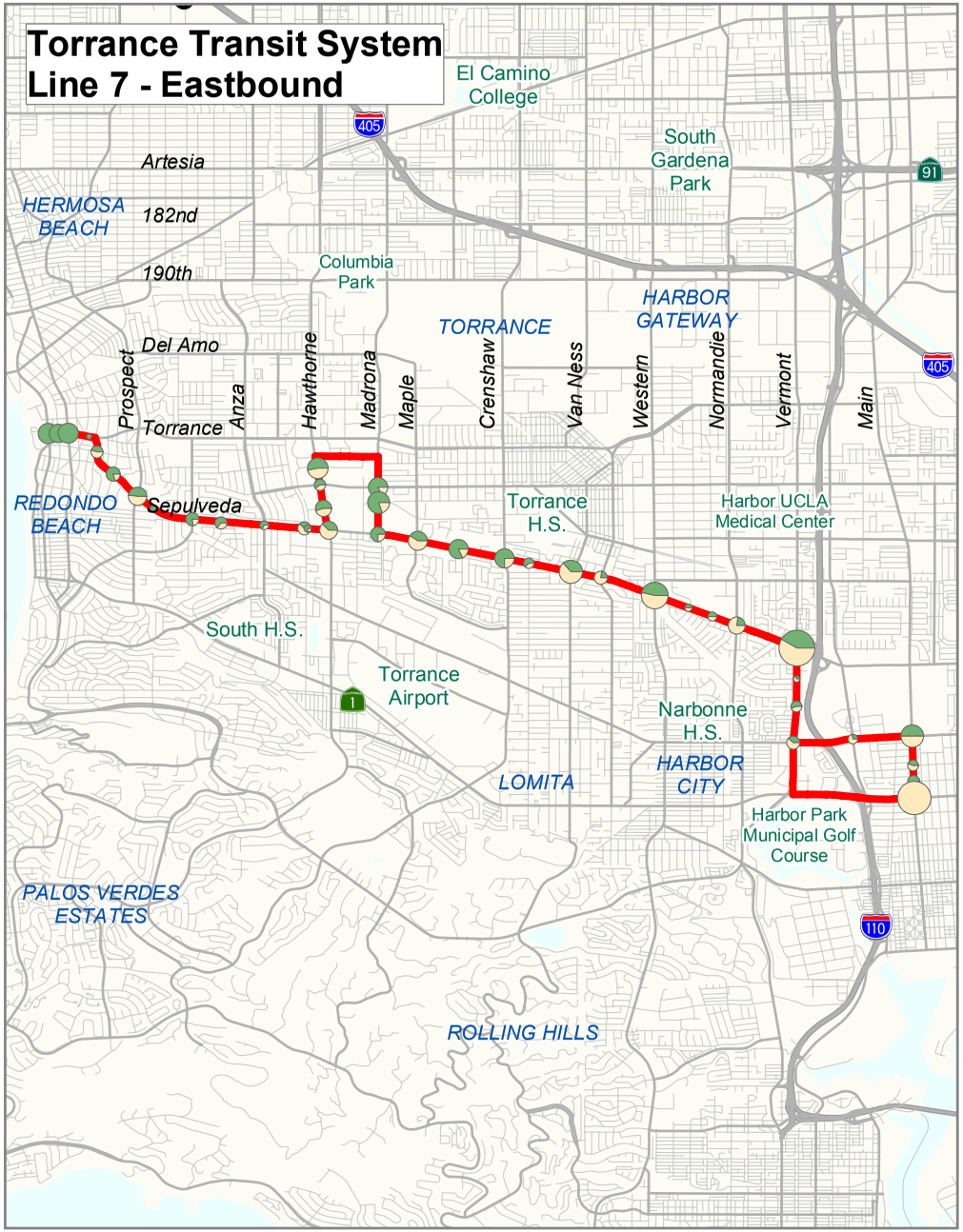
Date

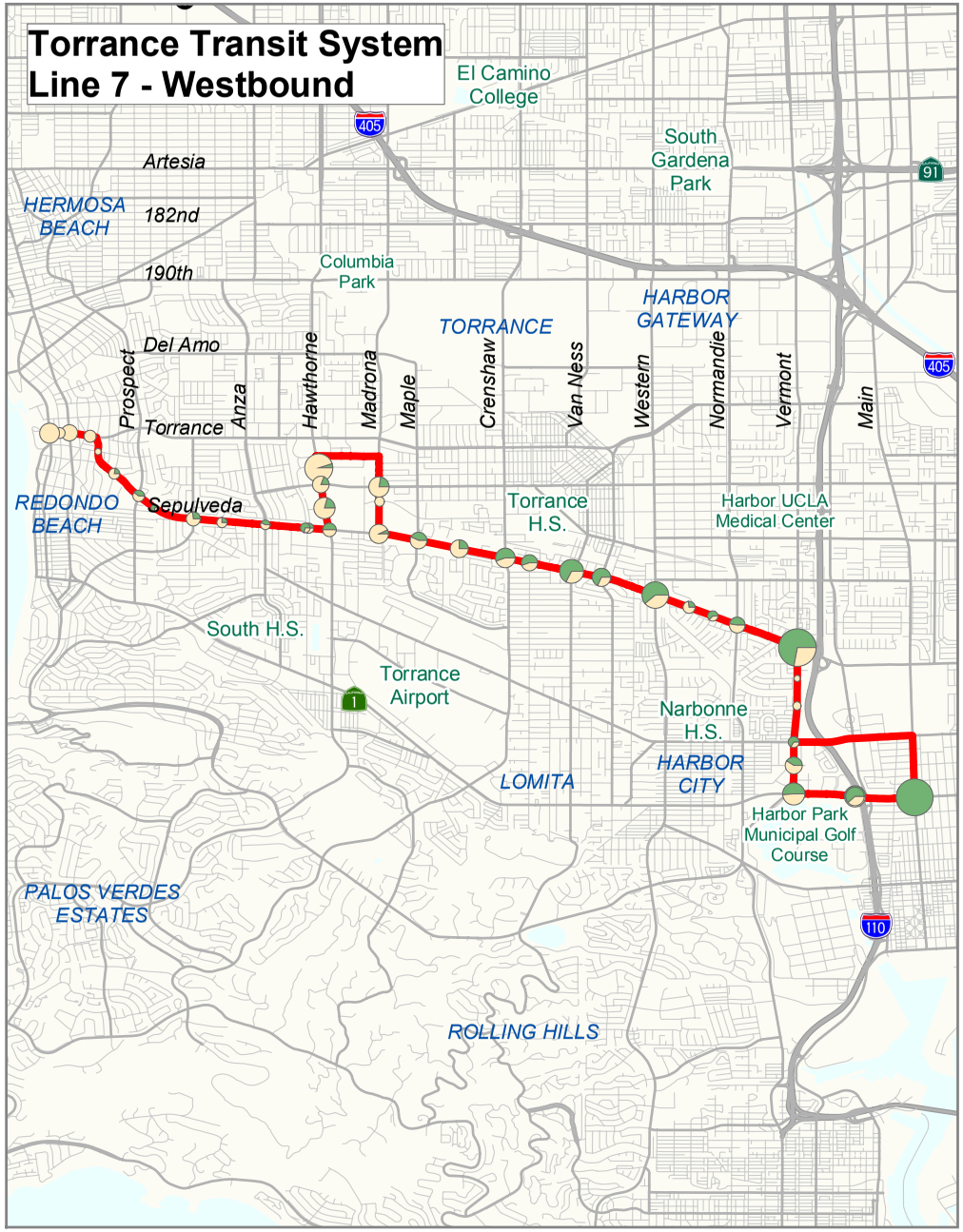
December 2005

0 1 2 Miles

1 inch equals 1.81 miles

TMD





Torrance Transit System

Line 7 - Weekday Boardings by Stops

Boardings

50

250

500

Ons

Offs

Symbols

Featured Route

Metro Blue Line

Metro Green Line

Metro Station

Data Sources

Torrance Transit, City of Torrance

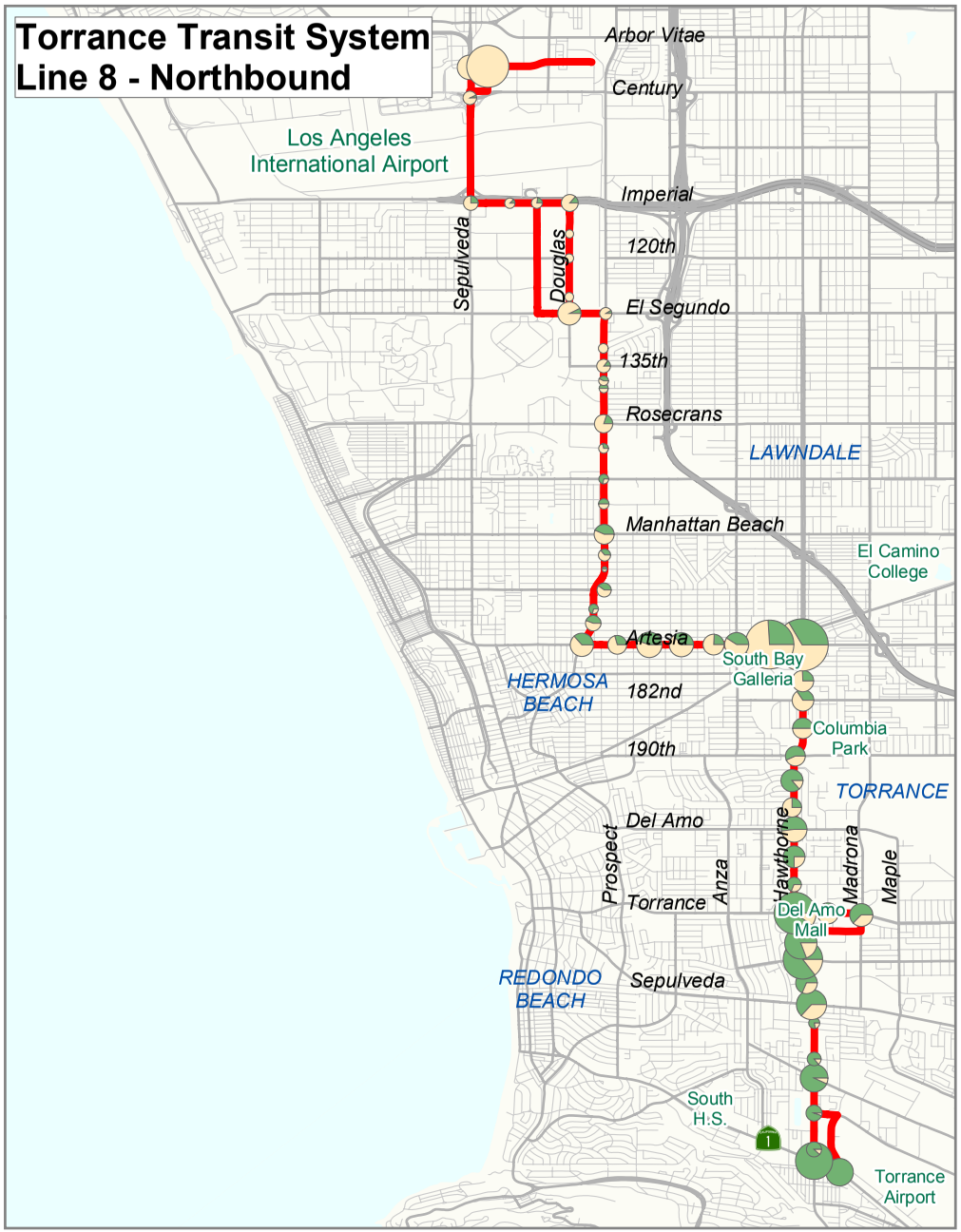
Date

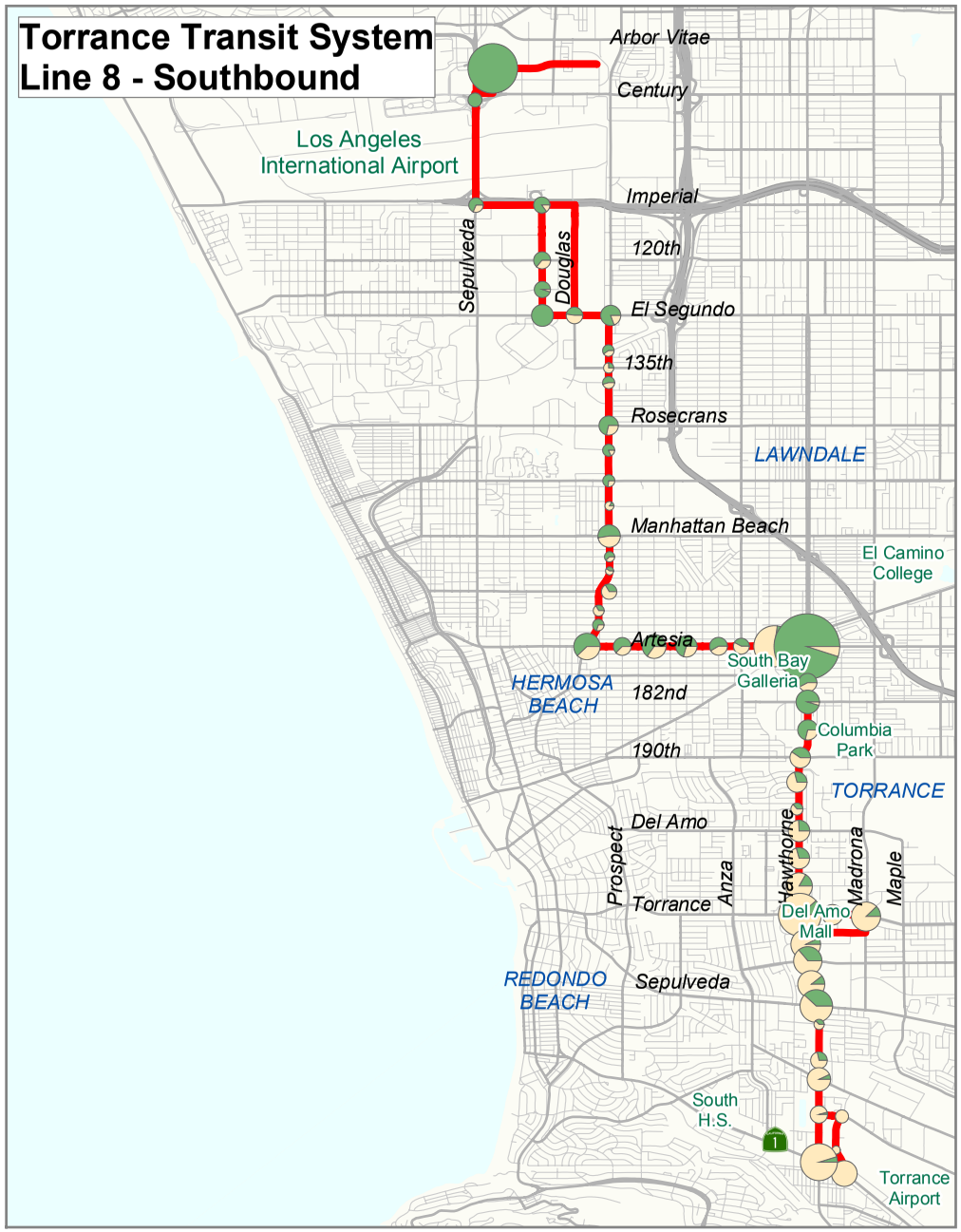
December 2005

0 1 2 Miles

1 inch equals 1.65 miles

TMD





Torrance Transit System

Line 8 - Weekday Boardings by Stops

Boardings

50

250

500

Ons

Offs

Symbols

Featured Route

Metro Blue Line

Metro Green Line

Metro Station

Data Sources

Torrance Transit, City of Torrance

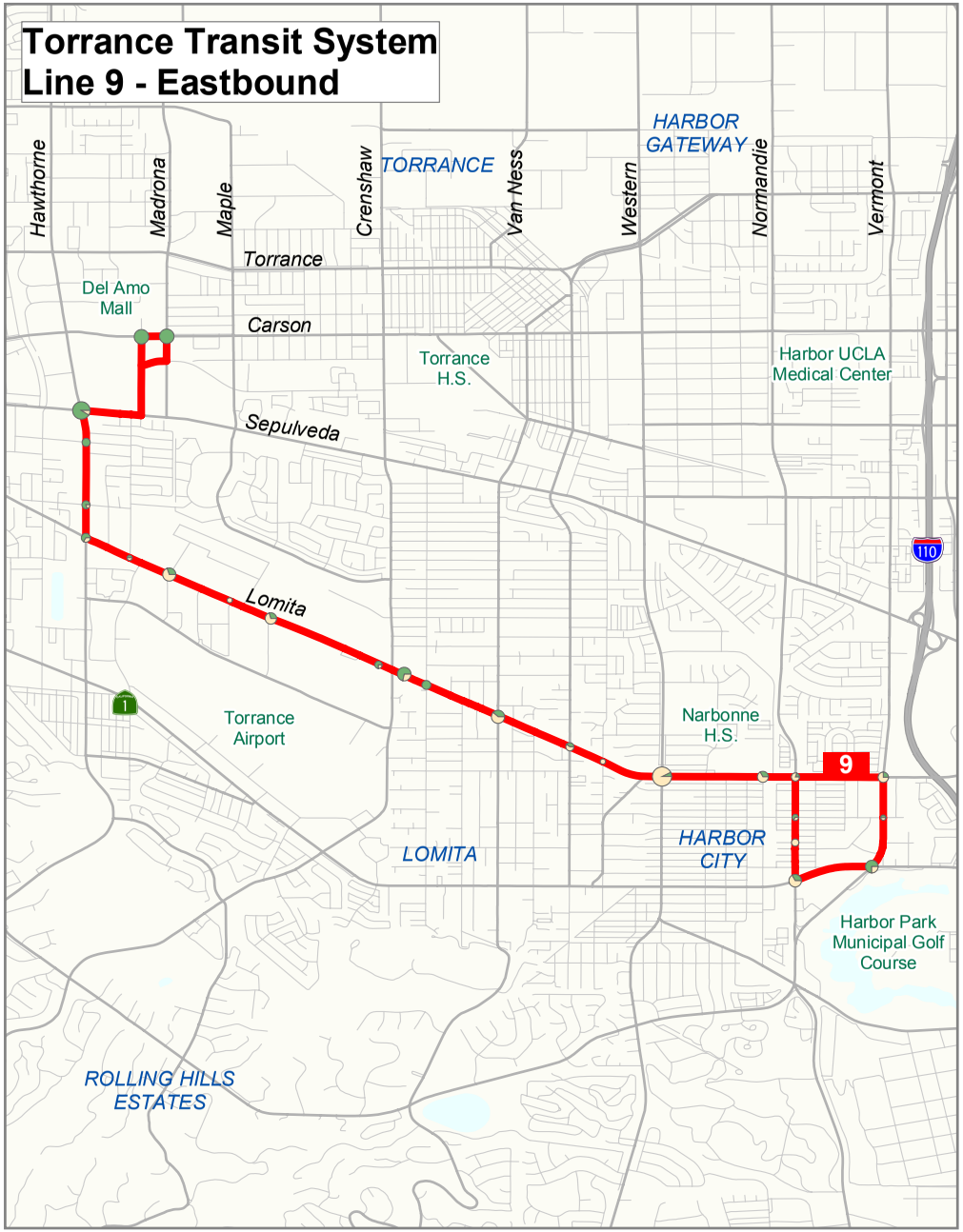
Date

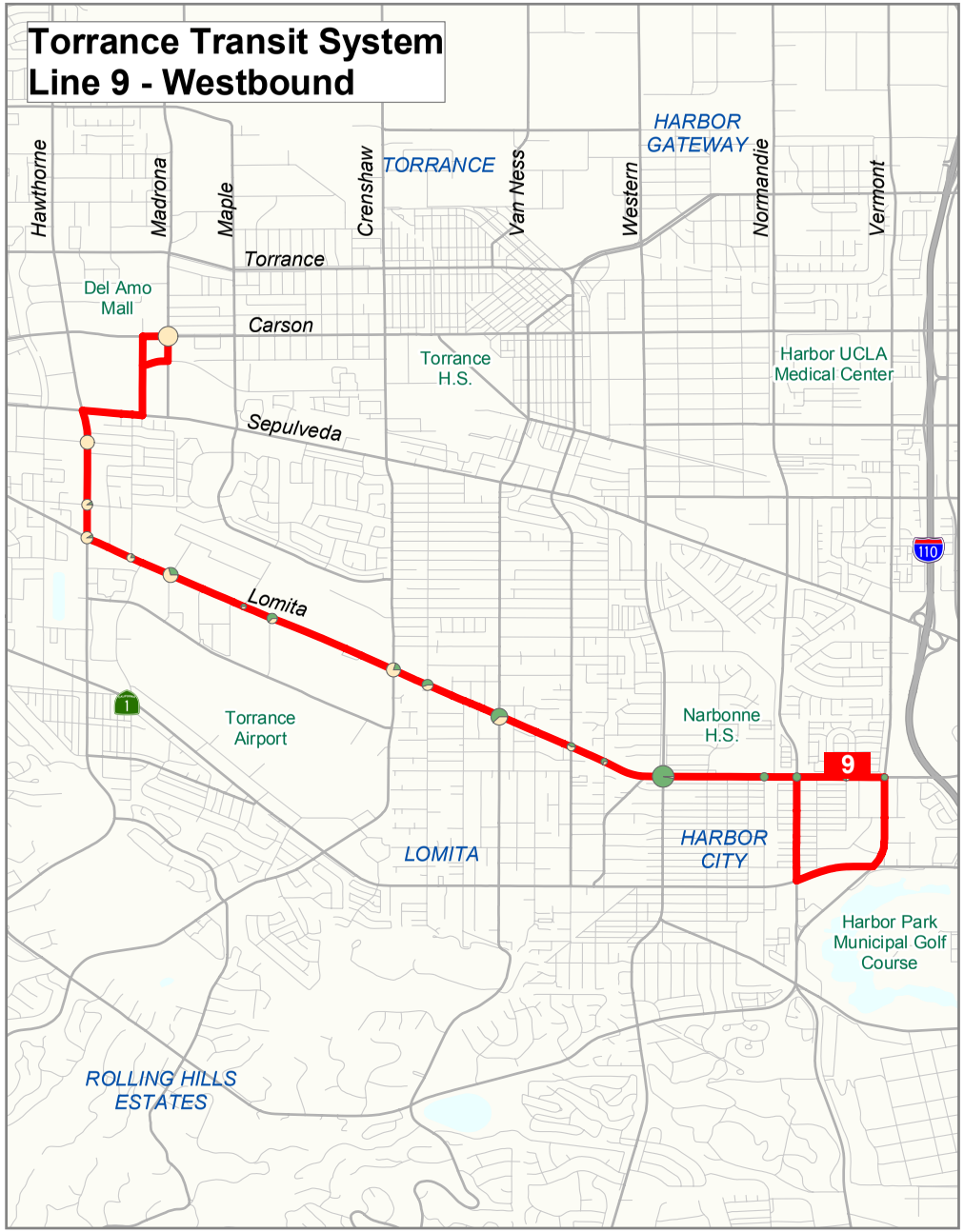
December 2005

0 1 2 Miles

1 inch equals 1.66 miles

TMD





Torrance Transit System

Line 9 - Weekday Boardings by Stops

Boardings

50

250

500

Ons

Offs

Symbols

Featured Route

Metro Blue Line

Metro Green Line

Metro Station

Data Sources

Torrance Transit, City of Torrance

Date

December 2005

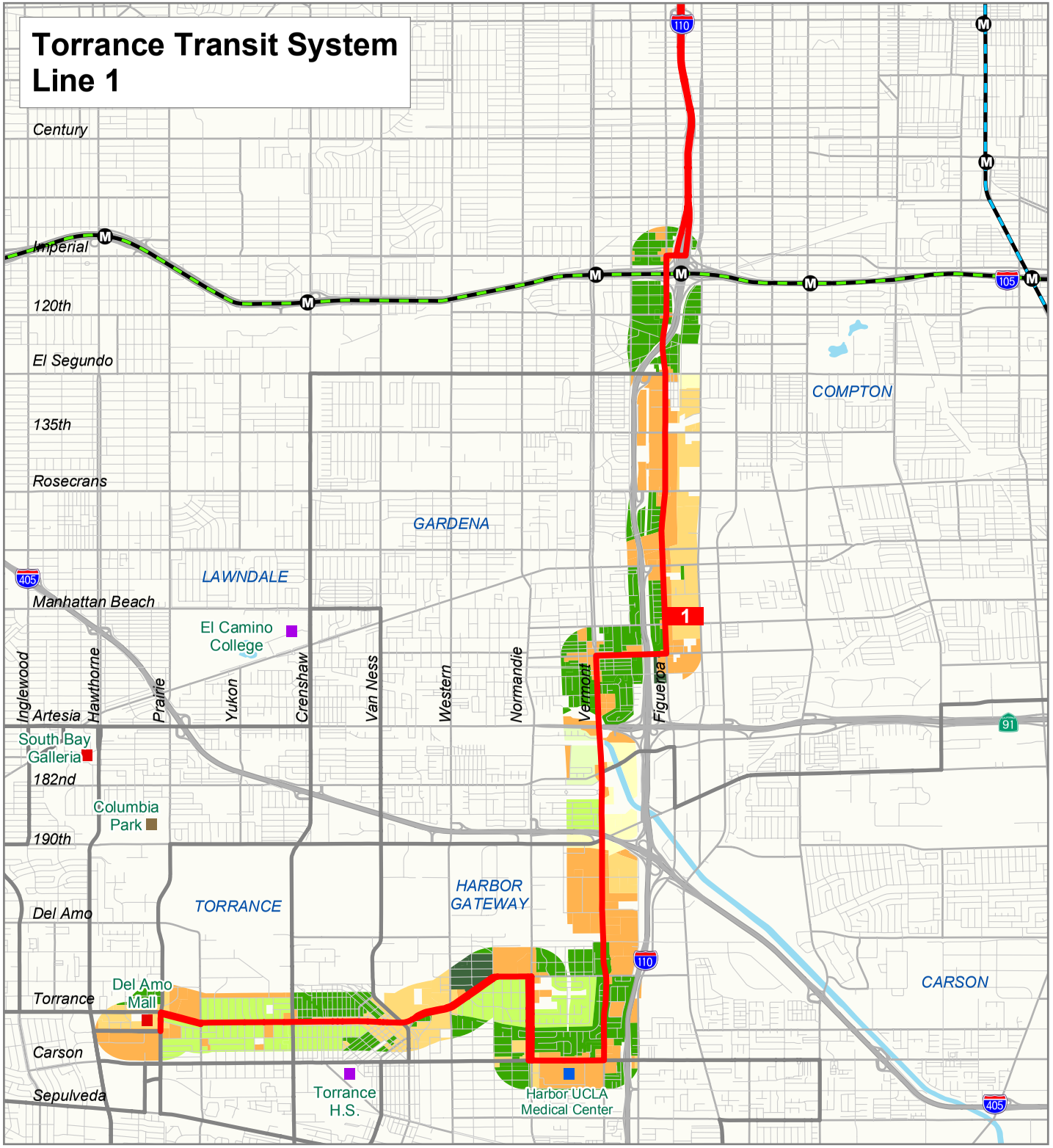
0 0.5 1 Miles

1 inch equals 0.96 miles

TMD

Appendix B
Route Profiles

TMP



Line 1

Description

Del Amo Mall - Union Station, via Torrance Blvd and 110 Freeway

Prevailing Service Frequencies (Minutes)

	Weekday					Sat	Sun
	Dawn	AM	Mid	PM	EVE		
Northbound	30	30	35	30	60	60	60
Southbound	30	30	35	30	45	60	60

Current Span of Service

	Northbound	Southbound
Weekday	04:45 - 22:10	06:00 - 23:10
Saturday	05:30 - 21:10	06:20 - 22:00
Sunday	05:20 - 19:30	06:05 - 20:20

Service Performance

	Unlinked Boardings	Passengers per Revenue Hour	Subsidy per Passenger
Weekday	2,004	33	($2.92)
Saturday	1,002	47	($1.86)
Sunday	452	23	($4.39)

	Peak Number of Vehicles	Revenue Hours	Revenue Miles
Weekday	7	61	992
Saturday	2	21	325
Sunday	2	20	305

Demographics (within 1/4 mile buffer of bus route)

Population (# of persons)	39,124
Residential Density (persons/residential acre)	24
Employment (# of jobs)	33,586
Employment Density (jobs/commercial acre)	21

Employment Density

Jobs per Commercial Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10
- Non-Employment/Non-Residential Landuse

Population Density

Persons per Residential Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit, Census 2000,
Southern California Association of Government (SCAG)

Date Prepared

December 2005

0 1 2 Miles

1 inch equals 1.20 miles

TMD

Route 1– Del Amo Mall/Metro Green Line

Route Alignment and Operation

Route Type: Rail Feeder

Orientation: North/South

Major Streets Served: Madrona, Torrance, Normandie, Carson, Vermont, Gardena, Figueroa; express trips serve Hill, Olive, 1st, and Los Angeles in downtown.

Key Activity Centers: Del Amo Fashion Ctr., Harbor UCLA Medical Ctr., Artesia Transit Center, Green Line Harbor Freeway Station, Union Station (Metro Red Line & Metrolink).

Trip Patterns:
Weekdays

- Basic service pattern operates between Del Amo Fashion Center and Green Line Harbor Fwy. Station. Weekday peak-period and selected evening trips operate between L.A. Union Station and Del Amo Fashion Center.

Weekends

- Del Amo Fashion Center and Green Line Harbor Fwy. Station.

Service Span

Weekday	04:45 – 23:10
Saturday	05:30 – 22:00
Sunday	05;20 – 20:20

Headways

Peak	30
Base	35
Saturday	60
Sunday	60

Field Observation Notes

Daily Ridership, Major Stops & Transfers

Daily Boardings (November 2005)

Weekday:	2,004
Saturday:	1,002
Sunday:	452

On weekdays, the peak periods generate twice the number of midday boardings (1,290 vs. 618), while the early morning and evening periods combined generate less than 100 boardings. On weekends the midday is the heaviest boarding period.

Major stops include: Green Line Harbor Fwy. Station, Vermont & Gardena/Hoover, Artesia Transit Center, Harbor/UCLA Medical center, and Del Amo Fashion Center

Major transfer locations include:

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Service Effectiveness Indicators

Passengers per Revenue Hour

Date of ridecheck

Weekday:	32.9
Saturday:	47.0
Sunday:	22.6

TTS Weekday System-wide Average: 36.8 pph

Weekday

- Strongest segment: Artesia TC-Green Line (52.4 pph)
- Weakest segment: Green Line Station – Union Station (9.3 pph)
- Strongest period: AM peak (43.1 pph)
- Weakest period: Off Peak (11.2 pph)

Saturday

- Strongest segment: Artesia TC-Green Line (53.4 pph)
- Strongest period: PM peak (57.0 pph)

Sunday

- Strongest segment: Artesia TC-Green Line (26.0 pph)
- Strongest period: Midday (28.3 pph)

Capacity & Passenger Loading Analysis

Capacity Issues

Loads exceeding 120%: The ridecheck showed loads exceeding 125 percent on the following trips and segments:

Weekday—Southbound:

The 6:28am and 5:10pm trips exceeded seated capacity.

Saturday—Direction 1

•

Saturday –Direction 2

•

Sunday—Direction 1

•

Sunday—Direction 1

•

Financial Performance Indicators

Date of ridecheck

	Operating Ratio	Subsidy/Boarding
Weekday:	14.1%	$2.92
Saturday:	20.5%	$1.86
Sunday:	9.9%	$4.39

Schedule Adherence Assessment

On-Time Performance

Day	Dir.	On-Time	Late	Early
Weekday	N	41.5%	50.0%	8.5%
Weekday	S	48.1%	42.7%	9.2%
Saturday	N	73.4%	12.5%	14.1%
Saturday	S	67.9%	12.8%	19.2%
Sunday	N	76.3%	15.3%	8.5%
Sunday	S	84.9%	2.7%	12.3%

(Any trends or patterns in the on-time performance?)

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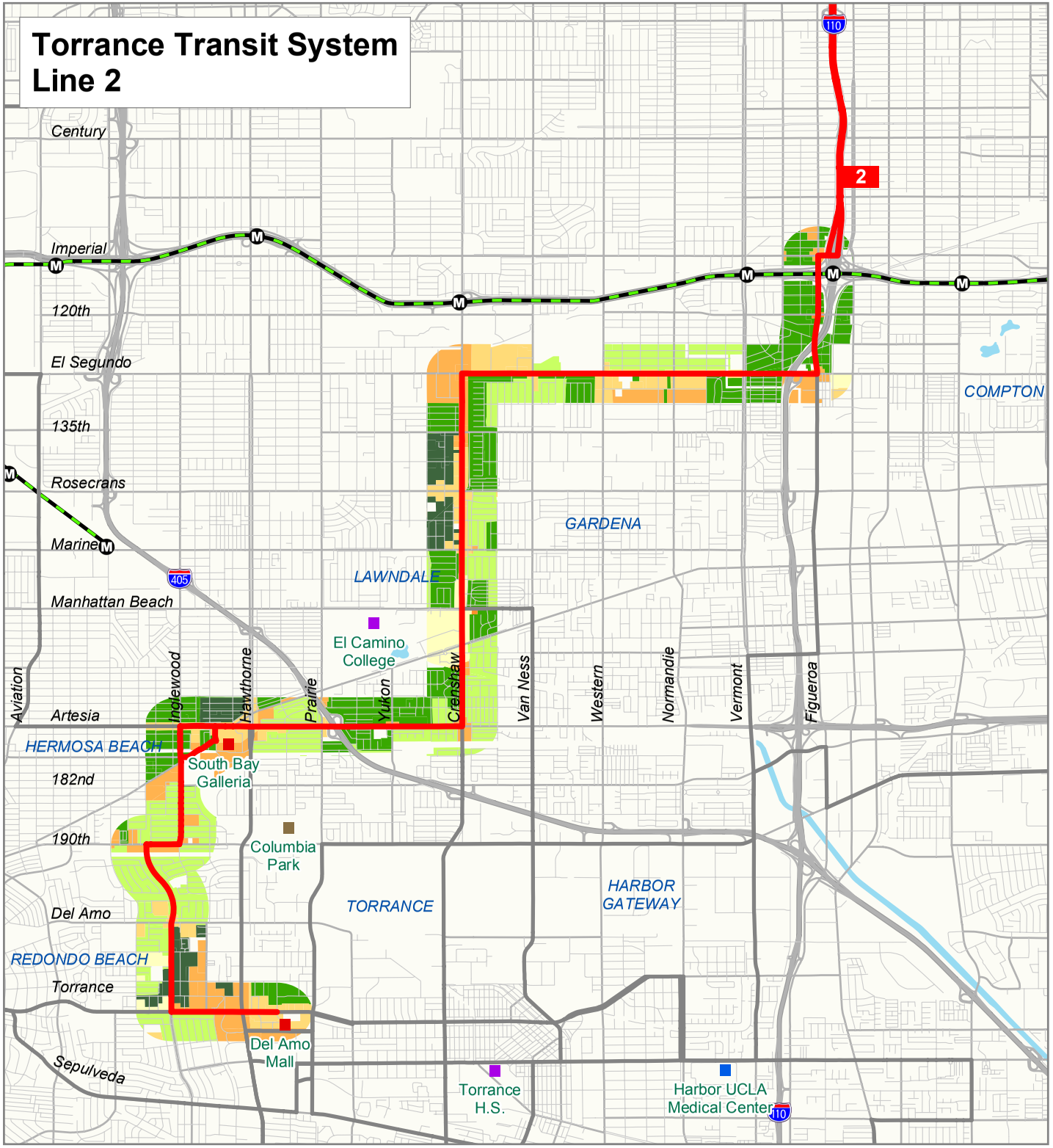

Line 2

Description

Del Amo Mall - Union Station, via Torrance Blvd and 110 Freeway

Prevailing Service Frequencies (Minutes)

	Weekday					Sat	Sun
	Dawn	AM	Mid	PM	EVE		
Northbound	25	60	60	60	60	60	-
Southbound	90	60	60	60	60	60	-

Current Span of Service

	Northbound	Southbound
Weekday	05:35 - 20:13	06:31 - 20:40
Saturday	06:00 - 19:13	07:30 - 20:40
Sunday	-	-

Service Performance

	Unlinked Boardings	Passengers per Revenue Hour	Subsidy per Passenger
Weekday	899	26	($3.93)
Saturday	585	18	($5.96)
Sunday	--	--	--

	Peak Number of Vehicles	Revenue Hours	Revenue Miles
Weekday	3	35	596
Saturday	3	33	559
Sunday	--	--	--

Demographics (within 1/4 mile buffer of bus route)

Population (# of persons)	61,018
Residential Density (persons/residential acre)	26
Employment (# of jobs)	24,795
Employment Density (jobs/commercial acre)	23

Employment Density

Jobs per Commercial Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10
- Non-Employment/Non-Residential Landuse

Population Density

Persons per Residential Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit, Census 2000,
Southern California Association of Government (SCAG)

Date Prepared

December 2005

0 0.6 1.2 Miles

1 inch equals 1.20 miles

TMD

Route 2– Del Amo Mall/Union Station

Route Alignment and Operation

Route Type: Rail Feeder

Orientation: North/South

Major Streets Served: Torrance, Anza, Artesia, Crenshaw, El Segundo, Hill, Olive, Los Angeles, Alameda.

Key Activity Centers: Del Amo Fashion Ctr., Little Company of Mary Hospital, Galleria at South Bay, El Camino College, Union Station (Metro Red Line & Metrolink).

Trip Patterns:
Weekdays

- Basic service pattern operates between Del Amo Fashion Center and Union Station. Select morning and evening periods operate between Del Amo Mall and South Bay Galleria, or between Green Line Harbor Station and Del Amo Mall.

Weekends

- The weekend service operates between Del Amo Mall and Union Station, with the last northbound trip going from Del Amo Mall to South Bay Galleria.

Service Span

Weekday	05:35 – 20:40
Saturday	06:00 – 20:40
Sunday	No Service

Headways

Peak	60
Base	60
Saturday	60
Sunday	No Service

Field Observation Notes

Daily Ridership, Major Stops & Transfers

Daily Boardings (November 2005)

Weekday:	899
Saturday:	585
Sunday:	No Service

On weekdays, the peak periods generate more boardings than the midday produced (517 vs. 359), while the off peak period generated only 23 boardings. Weekends had less boardings in general, but generated the same boarding patterns as weekdays, with peak periods producing more than midday, and off peak producing only 17 boardings.

Major stops include: Del Amo Mall, Torrance/Amie, Anza/Torrance, South Bay Galleria, El Camino College, Harbor Green Line, Olive/5th, Crenshaw/Rosecrans, Artesia/Hawthorne, and Union Station.

Major transfer locations include:

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Service Effectiveness Indicators

Passengers per Revenue Hour

Date of ridecheck

Weekday:	25.7
Saturday:	17.5
Sunday:	No Service

TTS Weekday System-wide Average: 36.8 pph

Weekday

- Strongest segment: South Bay Galleria – El Camino College (45.1pph)
- Weakest segment: Green Line Station – Union Station (9.1 pph)
- Strongest period: AM peak (33.2 pph)
- Weakest period: Off Peak (9.5 pph)

Saturday

- Strongest segment: El Camino College – Green Line Station (32.2 pph)
- Strongest period: Mid-Day (20.0 pph)

Sunday

- Strongest segment: No Service
- Strongest period: No Service

Capacity & Passenger Loading Analysis

Capacity Issues

Loads exceeding 120%: The ridecheck showed no loads exceeding 120 percent.

Financial Performance Indicators

Date of ridecheck

	Operating Ratio	Subsidy/Boarding
Weekday:	10.9%	$0.61
Saturday:	7.5%	$5.96
Sunday:	No Service	No Service

Schedule Adherence Assessment

On-Time Performance

Day	Dir.	On-Time	Late	Early
Weekday	N	50.0%	37.5%	12.5%
Weekday	S	43.8%	52.1%	4.1%
Saturday	N	53.2%	31.6%	15.2%
Saturday	S	46.8%	48.1%	5.2%
Sunday		No Service		
Sunday		No Service		

(Any trends or patterns in the on-time performance?)

Route 2 Southbound trips appear to run less on time than the Northbound trips.

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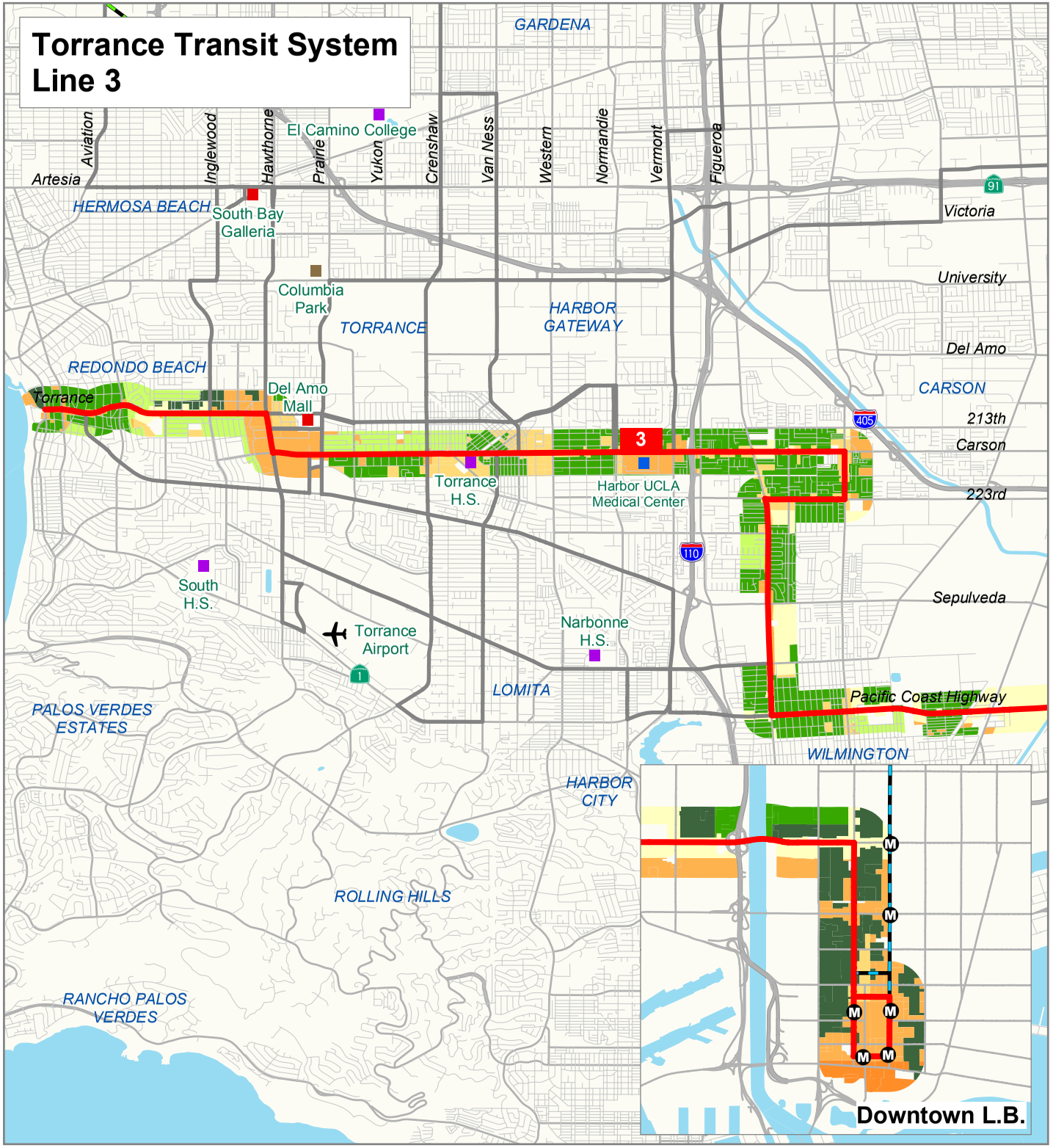

Line 3

Description

Redondo Beach Pier - Downtown Long Beach, via Carson St and Main St.

Prevailing Service Frequencies *(Minutes)*

	Weekday					Sat	Sun
	Dawn	AM	Mid	PM	EVE		
Eastbound	15	15	15	15	30	30	30
Westbound	15	15	15	15	30	30	30

Current Span of Service

	Eastbound	Westbound
Weekday	04:30 - 22:25	04:45 - 22:40
Saturday	05:50 - 21:15	06:55 - 22:25
Sunday	06:10 - 21:10	07:15 - 20:55

Service Performance

	Unlinked Boardings	Passengers per Revenue Hour	Subsidy per Passenger
Weekday	7,905	52	($1.63)
Saturday	4,272	62	($1.26)
Sunday	3,358	58	($1.42)

	Peak Number of Vehicles	Revenue Hours	Revenue Miles
Weekday	12	154	2236
Saturday	6	69	982
Sunday	6	58	888

Demographics *(within 1/4 mile buffer of bus route)*

Population (# of persons)	99,921
Residential Density (persons/residential acre)	34
Employment (# of jobs)	45,833
Employment Density (jobs/commercial acre)	21

Employment Density

Jobs per Commercial Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10
- Non-Employment/Non-Residential Landuse

Population Density

Persons per Residential Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit, Census 2000,
Southern California Association of Government (SCAG)

Date Prepared

December 2005

0 1 2 Miles

1 inch equals 1.52 miles

TMD

Route 3– Redondo Beach Pier/Long Beach

Route Alignment and Operation

Route Type: Rail Feeder

Orientation: East/West

Major Streets Served: Torrance, Hawthorne, Carson, Avalon, 223rd, Main, PCH, Pacific, 1st, Long Beach, 6th.

Key Activity Centers: Redondo Beach Pier, Del Amo Fashion Ctr., Little Company of Mary Hospital, Torrance High School, Harbor UCLA Medical Center, Carson Civic Center, Banning High School, Long Beach Convention Center, Long Beach Transit Center (Metro Blue Line).

Trip Patterns:
Weekdays

- Basic service pattern operates between Redondo Beach Pier and Downtown Long Beach. Select morning and evening trips operate between Del Amo Mall and Downtown Long Beach. Two late night tips run between Redondo Beach Pier and Del Amo Mall.

Weekends

- The weekend service operates between Redondo Beach Pier and Downtown Long Beach, with select trips running from Del Amo Mall to Downtown or from Redondo Beach Pier to Del Amo Mall.

Service Span

Weekday	4:30 – 22:40
Saturday	5:50 – 22:25
Sunday	6:10 – 21:10

Headways

Peak	15
Base	15
Saturday	30
Sunday	30

Field Observation Notes

Daily Ridership, Major Stops & Transfers

Daily Boardings (November 2005)

Weekday:	7,905
Saturday:	4,272
Sunday:	3,358

On weekdays, the peak periods generate more boardings than the midday produced (3,762 vs. 3,513), while the off peak period generated only 630 boardings. Weekends had less boardings in general, with peak periods producing fewer boardings than midday produced, and off peak periods producing significantly less than peak periods.

Major stops include: Redondo Pier, Hawthorne/Torrance, Del Amo Mall, Pacific/PCH, Long Beach/6th, PCH/Wilmington, Carson/Western, Harbor/UCLA, Carson/Vermont, Carson/Aviation, and Long Beach Transit

Mall.*Major transfer locations include:*

- Hawthorne Blvd. & Torrance Blvd
- Del Amo Mall
- Long Beach Transit Mall
- Harbor/UCLA

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Service Effectiveness Indicators

Passengers per Revenue Hour

Date of ridecheck

Weekday:	51.5
Saturday:	62.4
Sunday:	57.9

TTS Weekday System-wide Average: 36.8 pph

Weekday

- Strongest segment: Del Amo Mall – Harbor/UCLA (72.0 pph)
- Weakest segment: Redondo Beach – Del Amo Mall (24.7 pph)
- Strongest period: AM Peak (61.2 pph)
- Weakest period: Off Peak (25.7 pph)

Saturday

- Strongest segment: PCH/Wilmington – Long Beach Transit Center (87.9 pph)
- Strongest period: Mid-Day (72.5 pph)

Sunday

- Strongest segment: PCH/Wilmington – Long Beach Transit Center (85.3 pph)
- Strongest period: Mid-Day (65.6 pph)

Capacity & Passenger Loading Analysis

Capacity Issues

Loads exceeding 120%: The ride-check showed loads exceeding 125 percent on the following trips and segments:

Weekday—Eastbound:
The majority of the trips between 2:05pm – 3:50pm exceeded seated capacity as well as the 12:45pm and 5:30pm trips.

Weekday—Westbound:

The 6:20am - 7:20am trips and the 1:05pm trip exceeded seated capacity.

Saturday – Eastbound:
The 9:05am, 10:05am, 11:05am, 12:35pm, and 3:05pm – 5:05pm trips exceeded seating capacity.

Saturday—Westbound:
The 6:55am, 7:25am, 11:25am, 12:55pm – 1:55pm trips exceeded seating capacity.

Sunday—Eastbound:
The 2:25pm, 3:55pm, and 4:25pm trips exceeded seating capacity.

Sunday—Westbound:
The 7:15am and 10:45am trips exceeded seating capacity.

Financial Performance Indicators

Date of ridecheck

	Operating Ratio	Subsidy/Boarding
Weekday:	22.7%	$1.63
Saturday:	27.6%	$1.26
Sunday:	25.2%	$1.42

Schedule Adherence Assessment

On-Time Performance

Day	Dir.	On-Time	Late	Early
Weekday	E	60.3%	33.0%	6.7%
Weekday	W	54.7%	41.7%	3.6%
Saturday	E	54.5%	36.6%	9.0%
Saturday	W	56.1%	34.8%	9.1%
Sunday	E	62.7%	10.9%	26.4%
Sunday	W	66.7%	25.0%	8.3%

(Any trends or patterns in the on-time performance?)

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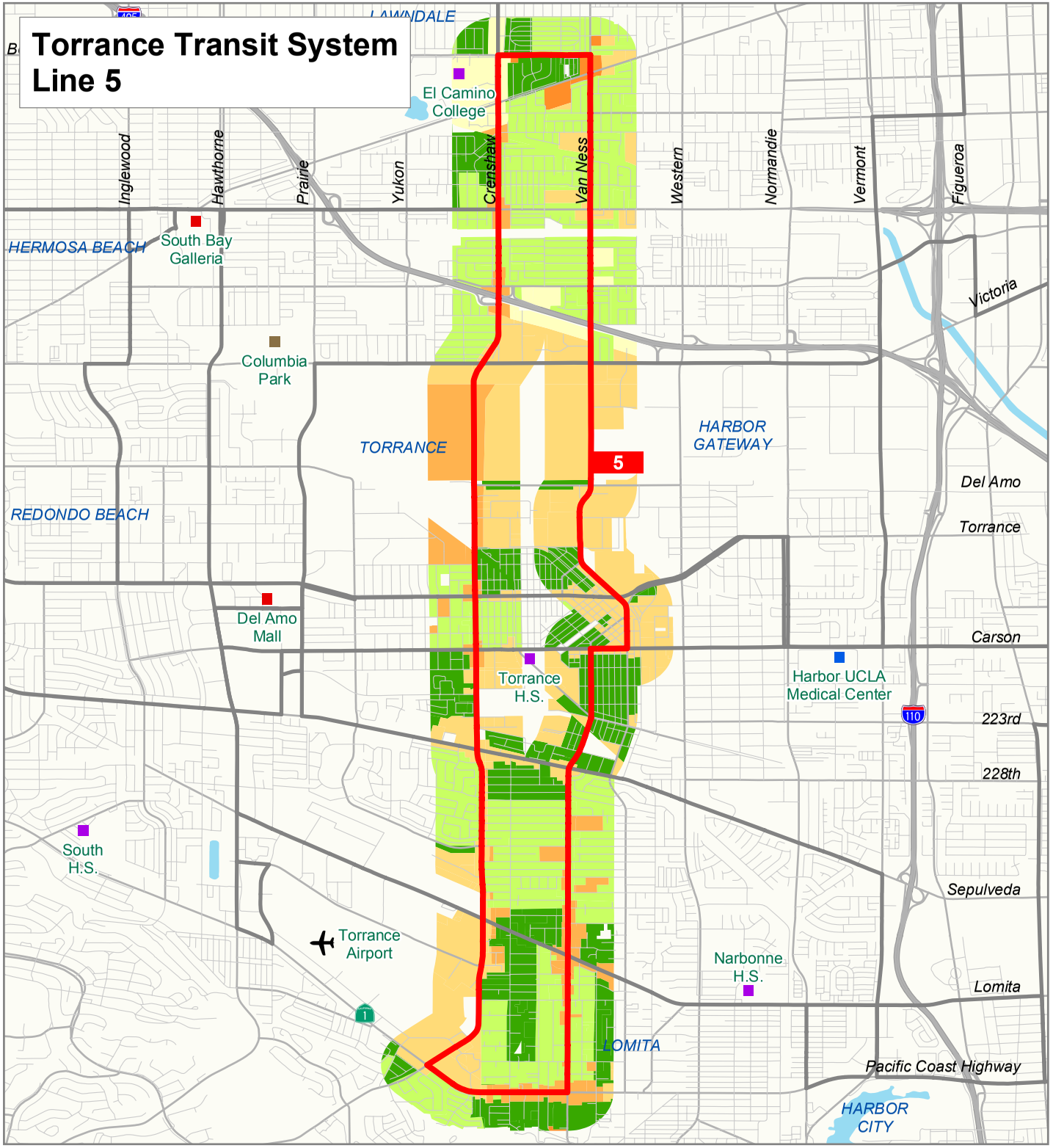

Line 5

Description

El Camino College - PCH, via Crenshaw and Van Ness/Arlington Ave.

Prevailing Service Frequencies (Minutes)

	Weekday					Sat	Sun
	Dawn	AM	Mid	PM	EVE		
Clockwise	60	60	60	60	60	60	-
Counter-CW	40	40	40	40	60	60	-

Current Span of Service

	Clockwise	Counter Clockwise
Weekday	06:20 - 20:55	06:00 - 22:35
Saturday	07:50 - 20:35	07:35 - 20:20
Sunday	-	-

Service Performance

	Unlinked Boardings	Passengers per Revenue Hour	Subsidy per Passenger
Weekday	1,076	31	($3.17)
Saturday	336	16	($6.73)
Sunday	--	--	--

	Peak Number of Vehicles	Revenue Hours	Revenue Miles
Weekday	3	35	563
Saturday	2	21	380
Sunday	--	--	--

Demographics (within 1/4 mile buffer of bus route)

Population (# of persons)	49,584
Residential Density (persons/residential acre)	20
Employment (# of jobs)	32,872
Employment Density (jobs/commercial acre)	18

Employment Density

Jobs per Commercial Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10
- Non-Employment/Non-Residential Landuse

Population Density

Persons per Residential Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit, Census 2000,
Southern California Association of Government (SCAG)

Date Prepared

December 2005

0 0.5 1 Miles

1 inch equals 0.92 miles

TMD

Route 5– El Camino College/Downtown Torrance

Route Alignment and Operation

Route Type: Rail Feeder

Orientation: Clockwise/Counter-Clockwise

Major Streets Served: PCH, Arlington, Crenshaw, Carson, Van Ness, and Manhattan Beach.

Key Activity Centers: Torrance Airport, Torrance High School, Torrance Station, El Camino College (ECC).

Trip Patterns:
Weekdays

- Basic service pattern operates between ECC and Downtown Torrance with the last Clockwise trip going from ECC to Torrance Station, and one counter-clockwise trip going from ECC to Crenshaw and Torrance, and the last counter-clockwise trip going from ECC and ending at Torrance Station.

Weekends

- The weekend service operates between ECC and Downtown Torrance. Clockwise and counter-clockwise each has shortened trips between Crenshaw and ECC as well as between ECC and Torrance Station. They occur on the first and last trip for each direction.

Service Span

Weekday	06:00 – 22:35
Saturday	07:35 – 20:35
Sunday	No Service

Headways

Clockwise	60
Counter-clockwise	40
Saturday	60
Sunday	No Service

Field Observation Notes

Daily Ridership, Major Stops & Transfers

Daily Boardings (November 2005)

Weekday:	1,076
Saturday:	336
Sunday:	No Service

On weekdays, the peak periods generate more boardings than the midday produced (586 vs. 450), while the off peak period generated only 40 boardings. Saturday had less boardings in general, and generated fewer boardings in the peak periods than the midday periods. Moreover, only 9 boardings took place during off peak periods.

Major stops include: Manhattan/Crenshaw, Crenshaw/PCH, Crenshaw/Artesia, Crenshaw/Redondo, Crenshaw/Airport, El Camino College, Arlington.237th, Narbonne/PCH

Major transfer locations include:

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Service Effectiveness Indicators

Passengers per Revenue Hour

Date of ridecheck

Weekday:	30.5
Saturday:	16.0
Sunday:	No Service

TTS Weekday System-wide Average: 36.8 pph

Weekday

- Strongest segment: El Camino College (55.3 pph)
- Weakest segment: El Camino College – Cabrillo/Carson (19.5 pph)
- Strongest period: AM peak (41.7 pph)
- Weakest period: Off Peak (10.2 pph)

Saturday

- Strongest segment: El Camino College (20.0 pph)
- Strongest period: Mid-Day (19.0 pph)

Sunday

- Strongest segment: No Service
- Strongest period: No Service

Capacity & Passenger Loading Analysis

Capacity Issues

Loads exceeding 100%: The ride-check showed no loads exceeding 100 percent.

Financial Performance Indicators

Date of ridecheck

	Operating Ratio	Subsidy/Boarding
Weekday:	13.2%	$3.17
Saturday:	6.7%	$6.73
Sunday:	No Service	No Service

Schedule Adherence Assessment

On-Time Performance

(Any trends or patterns in the on-time performance?)

Day	Dir.	On-Time	Late	Early
Weekday	CW	32.4%	60.6%	7.0%
Weekday	CCW	63.7%	24.8%	11.5%
Saturday	CW	86.7%	11.7%	1.7%
Saturday	CCW	67.2%	26.2%	6.6%
Sunday		No Service		
Sunday		No Service		

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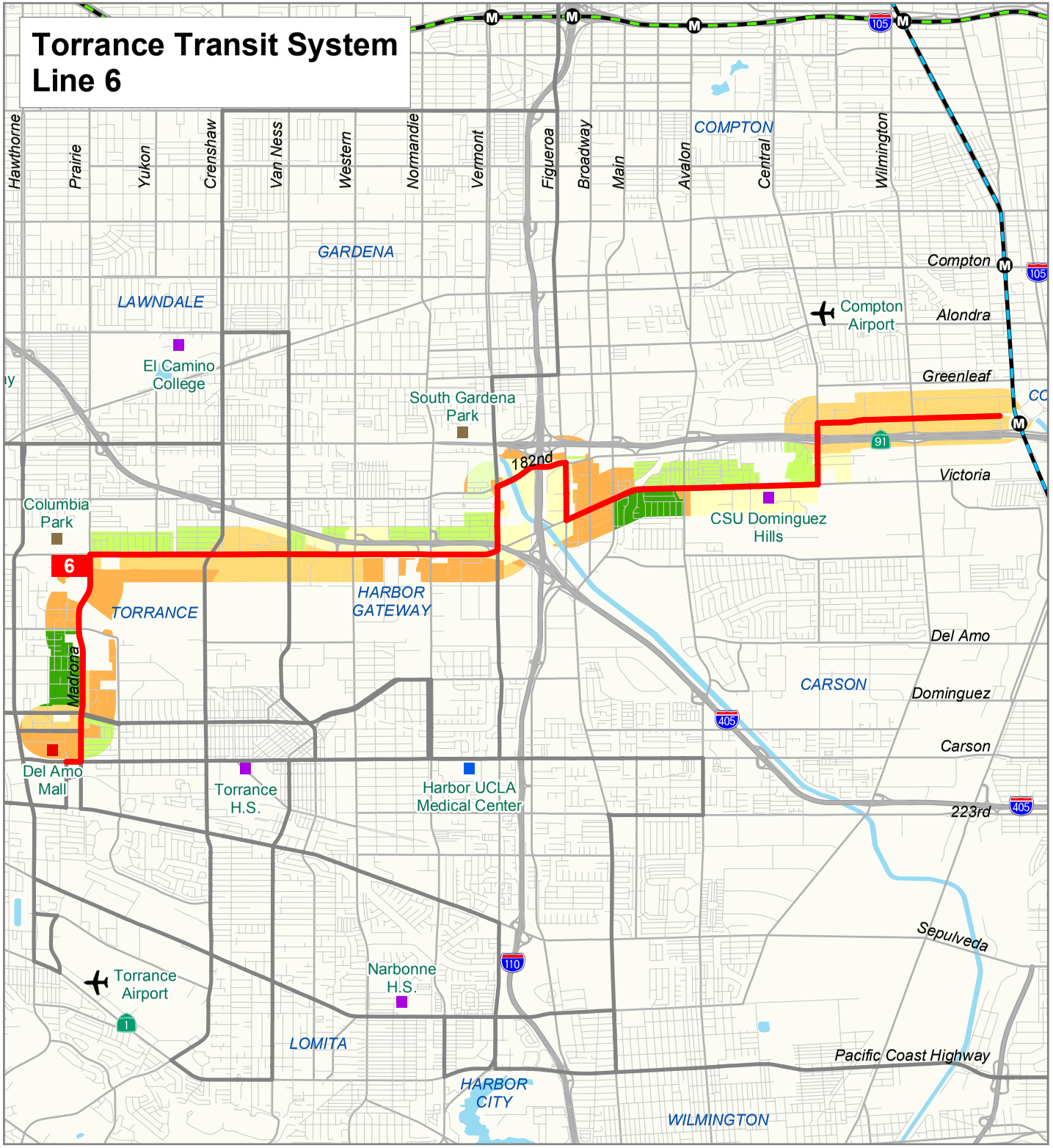
Torrance Transit System
Line 6



Line 6

Description

Del Amo Mall - Metro Blue Line, via 190th St and Victoria St.

Prevailing Service Frequencies *(Minutes)*

	Weekday					Sat	Sun
	Dawn	AM	Mid	PM	EVE		
Eastbound	30	30	90	30	30	-	-
Westbound	30	30	90	30	30	-	-

Current Span of Service

	Eastbound	Westbound
Weekday	05:00 - 19:12	05:41 - 19:52
Saturday	-	-
Sunday	-	-

Service Performance

	Unlinked Boardings	Passengers per Revenue Hour	Subsidy per Passenger
Weekday	614	25	($3.96)
Saturday	--	--	--
Sunday	--	--	--

	Peak Number of Vehicles	Revenue Hours	Revenue Miles
Weekday	3	24	396
Saturday	--	--	--
Sunday	--	--	--

Demographics *(within 1/4 mile buffer of bus route)*

Population (# of persons)	15,240
Residential Density (persons/residential acre)	22
Employment (# of jobs)	30,702
Employment Density (jobs/commercial acre)	16

Employment Density

Jobs per Commercial Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10
- Non-Employment/Non-Residential Landuse

Population Density

Persons per Residential Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit, Census 2000,
Southern California Association of Government (SCAG)

Date Prepared

December 2005

0 0.5 1 Miles
1 inch equals 1.27 miles

TMD

Route 6– Madrona Ave./Artesia T.C. /CSUDH

Route Alignment and Operation

Route Type: Rail Feeder

Orientation: East/West

Major Streets Served: Madrona, 190th, Vermont, 182nd, Figueroa, Victoria, Central, Walnut.

Key Activity Centers: Del Amo Fashion Center, Artesia transit center, CSU at Dominguez Hills, Metro Blue Line.

Trip Patterns:
Weekdays

- All trips run between Del Amo Fashion Center and Metro Blue Line.

Weekends
- No Service

Service Span

Weekday	05:00 – 19:52
Saturday	No Service
Sunday	No Service

Headways

Peak	30
Base	30
Saturday	No Service
Sunday	No Service

Field Observation Notes

Daily Ridership, Major Stops & Transfers

Daily Boardings (November 2005)

Weekday:	614
Saturday:	No Service
Sunday:	No Service

On weekdays, the peak periods generate more than five times the boardings midday produced (485 vs. 83), while the off peak period generated only 46 boardings.

Major stops include: Del Amo Mall, Torrance/Madrona, 190th/Western, Artesia Transit Center, Victoria/Tamcliff, Central/Artesia, Central/Walnut, Blue Line Artesia Station

Major transfer locations include:

- Blue Line Artesia Station
- Del Amo Mall
- Artesia Transit Center

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Service Effectiveness Indicators

Passengers per Revenue Hour

Date of ridecheck

Weekday: 25.2
Saturday: No Service
Sunday: No Service

TTS Weekday System-wide Average: 36.8 pph

Weekday

- Strongest segment: CSUDH – Blue Line Station (45.9 pph)
- Weakest segment: Artesia TC - CSUDH (15.6 pph)
- Strongest period: AM Peak (32.7 pph)
- Weakest period: Mid-Day (17.1 pph)

Capacity & Passenger Loading Analysis

Capacity Issues

Loads exceeding 100%: The ride-check showed no loads exceeding 100 percent.

Financial Performance Indicators

Date of ridecheck

	Operating Ratio	Subsidy/Boarding
Weekday:	10.8%	$3.96
Saturday:	No Service	
Sunday:	No Service	

Schedule Adherence Assessment

On-Time Performance

(Any trends or patterns in the on-time performance?)

Day	Dir.	On-Time	Late	Early
Weekday	E	74.7%	16.5%	8.9%
Weekday	W	66.3%	28.8%	5.0%
Saturday	E	No Service		
Saturday	W	No Service		
Sunday	E	No Service		
Sunday	W	No Service		

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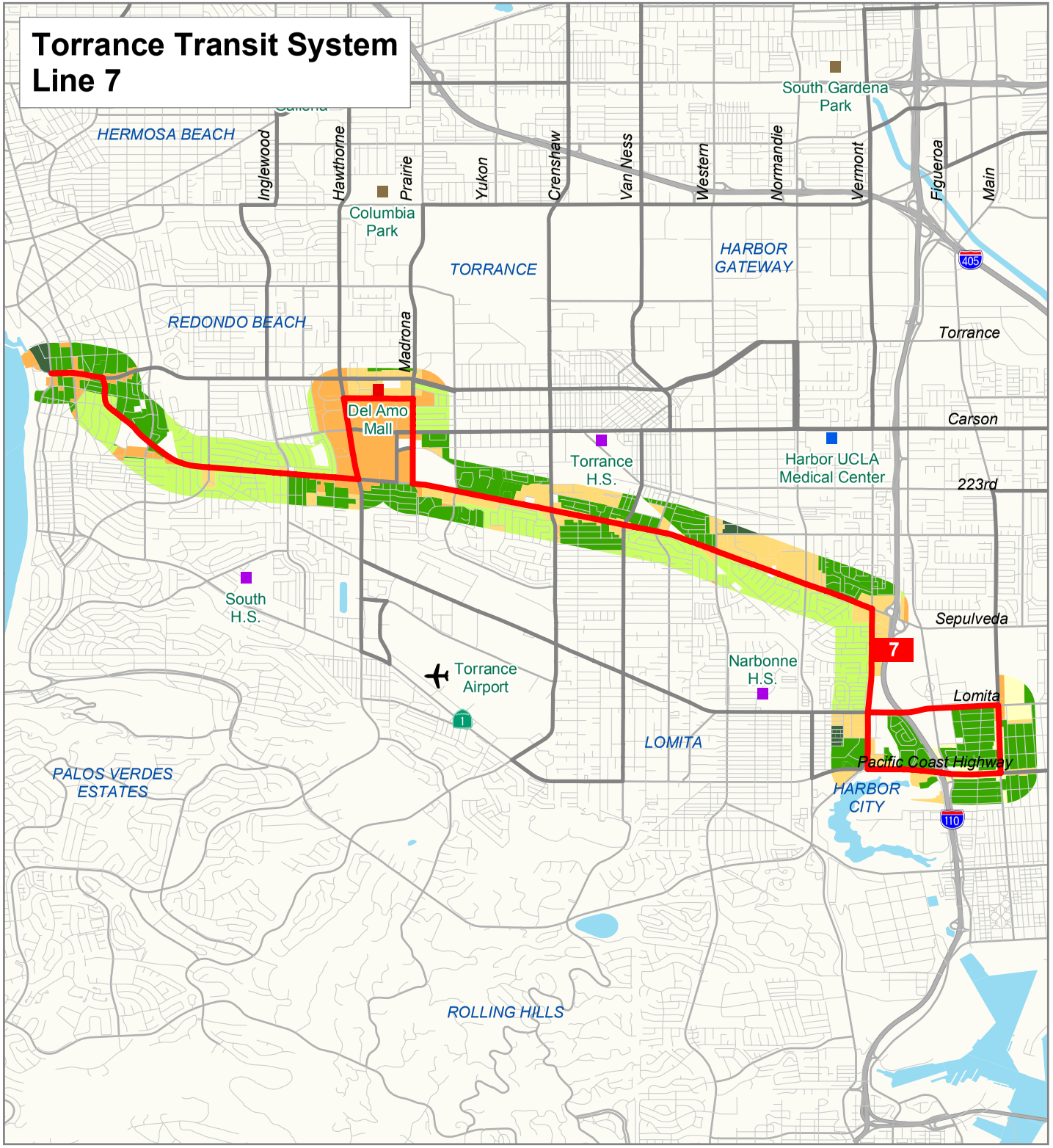
Torrance Transit System
Line 7



Line 7

Description

Redondo Beach Pier - PCH @ Wilmington, via El Camino Real and Sepulveda Blvd

Prevailing Service Frequencies *(Minutes)*

	Weekday					Sat	Sun
	Dawn	AM	Mid	PM	EVE		
Eastbound	30	30	30	30	30	30	-
Westbound	30	30	30	30	30	30	-

Current Span of Service

	Eastbound	Westbound
Weekday	06:25 - 20:18	06:48 - 20:49
Saturday	06:55 - 19:18	07:18 - 19:40
Sunday	-	-

Service Performance

	Unlinked Boardings	Passengers per Revenue Hour	Subsidy per Passenger
Weekday	897	25	($3.85)
Saturday	728	23	($4.22)
Sunday	--	--	--

	Peak Number of Vehicles	Revenue Hours	Revenue Miles
Weekday	3	36	529
Saturday	3	31	470
Sunday	--	--	--

Demographics *(within 1/4 mile buffer of bus route)*

Population (# of persons)	41,426
Residential Density (persons/residential acre)	21
Employment (# of jobs)	20,440
Employment Density (jobs/commercial acre)	20

Employment Density

Jobs per Commercial Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10
- Non-Employment/Non-Residential Landuse

Population Density

Persons per Residential Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit, Census 2000,
Southern California Association of Government (SCAG)

Date Prepared

December 2005

0 0.5 1 Miles

1 inch equals 1.16 miles

TMD

Route 7– Redondo Beach/Wilmington

Route Alignment and Operation

Route Type: Rail Feeder

Orientation: East/West

Major Streets Served: Camino Real, Hawthorne, Torrance, Madrona, Sepulveda, Vermont, PCH, and Wilmington.

Key Activity Centers: Redondo Beach Pier, Del Amo Fashion Center, Kaiser Medical Center, Los Angeles Harbor College.

Trip Patterns:
Weekdays

- Weekday basic service runs from Redondo Beach Pier to PCH and Wilmington with two morning and three evening trips servicing only Del Amo Mall to PCH and Wilmington.

Weekends

- Saturday basic service runs similar to the weekday service with all runs going from Redondo Beach Pier to PCH and Wilmington except for two morning trips and three evening trips that run from Del Amo Mall to PCH and Wilmington.

Service Span

Weekday	06:25 – 20:49
Saturday	06:55 – 19:40
Sunday	No Service

Headways

Peak	30
Base	30
Saturday	30
Sunday	No Service

Field Observation Notes

Daily Ridership, Major Stops & Transfers

Daily Boardings (November 2005)

Weekday:	897
Saturday:	728
Sunday:	No Service

On weekdays, the peak periods generated more boardings than the midday produced (460 vs. 419), while the off peak period generated only 18 boardings.

Major stops include: PCH/Wilmington, Sepulveda/Vermont, Sepulveda/Western, Hawthorne/Del Amo Circle, and Redondo Beach Pier.

Major transfer locations include:

- PCH/Wilmington
- Del Amo Mall
- Sepulveda/Vermont

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Service Effectiveness Indicators

Passengers per Revenue Hour

Date of ridecheck

Weekday:	25.3
Saturday:	23.4
Sunday:	No Service

TTS Weekday System-wide Average: 36.8 pph

Weekday

- Strongest segment: Lomita/Vermont/PCH/Normandie Loop (48.4 pph)
- Weakest segment: Hawthorne/Fashion Way – Sepulveda/Crenshaw (18.7 pph)
- Strongest period: AM Peak (28.9 pph)
- Weakest period: Off Peak (6.2 pph)

Saturday

- Strongest segment: Lomita/Vermont/PCH/Normandie Loop (48.4 pph)
- Strongest period: Mid-Day (29.1 pph)

Capacity & Passenger Loading Analysis

Capacity Issues

Loads exceeding 100%: The ride-check showed no loads exceeding 100 percent.

Financial Performance Indicators

Date of ridecheck

	Operating Ratio	Subsidy/Boarding
Weekday:	11.1%	$3.85
Saturday:	10.2%	$4.22
Sunday:	No Service	

Schedule Adherence Assessment

On-Time Performance

(Any trends or patterns in the on-time performance?)

Day	Dir.	On-Time	Late	Early
Weekday	E	70.6%	15.6%	13.8%
Weekday	W	60.8%	27.5%	11.8%
Saturday	E	75.0%	16.7%	8.3%
Saturday	W	72.2%	21.1%	6.7%
Sunday	E	No Service		
Sunday	W	No Service		

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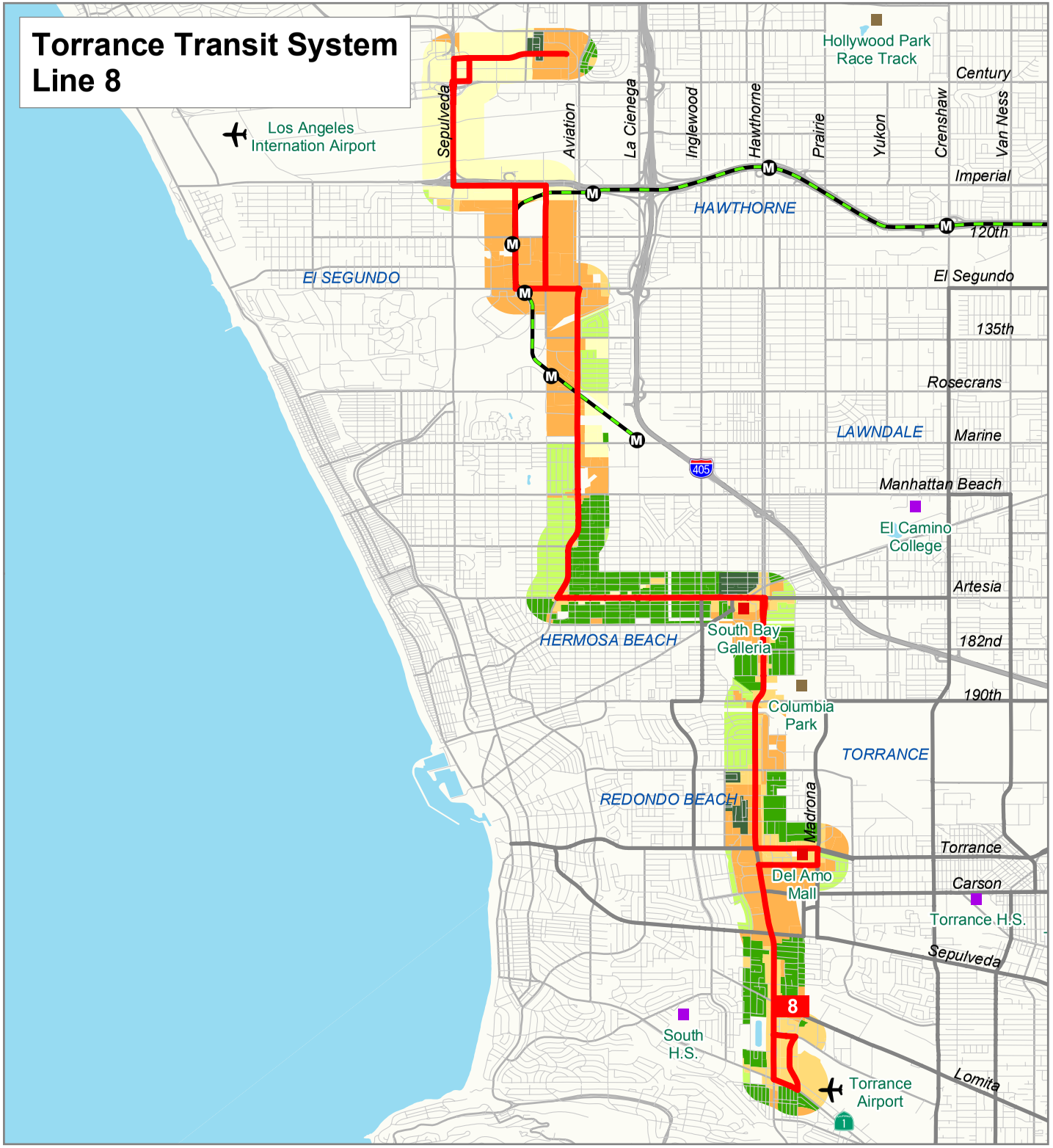

Line 8

Description

PCH @ Madison - LAX Transit Center, via Hawthorne Blvd and Aviation Blvd

Prevailing Service Frequencies *(Minutes)*

	Weekday					Sat	Sun
	Dawn	AM	Mid	PM	EVE		
Northbound	20	30	30	20	30	30	60
Southbound	20	30	30	20	30	30	60

Current Span of Service

	Northbound	Southbound
Weekday	05:00 - 22:19	06:00 - 23:15
Saturday	07:30 - 18:59	08:05 - 19:25
Sunday	08:00 - 18:29	08:56 - 18:50

Service Performance

	Unlinked Boardings	Passengers per Revenue Hour	Subsidy per Passenger
Weekday	2,227	30	($3.20)
Saturday	1,104	37	($2.46)
Sunday	505	27	($3.57)

	Peak Number of Vehicles	Revenue Hours	Revenue Miles
Weekday	8	80	1080
Saturday	4	30	450
Sunday	2	19	287

Demographics *(within 1/4 mile buffer of bus route)*

Population (# of persons)	41,622
Residential Density (persons/residential acre)	26
Employment (# of jobs)	66,051
Employment Density (jobs/commercial acre)	23

Employment Density

Jobs per Commercial Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10
- Non-Employment/Non-Residential Landuse

Population Density

Persons per Residential Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit, Census 2000,
Southern California Association of Government (SCAG)

Date Prepared

December 2005

0 0.5 1 Miles
1 inch equals 1.37 miles

TMD

Route 8– Torrance/LAX via South Bay Galleria

Route Alignment and Operation

Route Type: Rail Feeder

Orientation: North/South

Major Streets Served: Madison, PCH, Hawthorne, Artesia, Aviation, El Segundo, Douglas, Imperial, Nash, and Sepulveda.

Key Activity Centers: Torrance Airport, Torrance Memorial Hospital, Del Amo Hospital, Del Amo Fashion Center, Little Company of Mary Hospital, South Bay Galleria, LAX Green Line Station, LAX Transit Center.

Trip Patterns:
Weekdays

- Weekday basic service runs from Madison and PCH to LAX Transit Center. Several trips only go from Madison and PCH to Artesia and Firmona, and one trip goes from Madison and PCH to Torrance and Madrona. Traveling Southbound the first trip only travels between LAX and Torrance and Madrona.

Weekends
Basic weekend service runs from Madison and PCH to LAX Transit Center with every other trip on Saturdays going only from Madison and PCH to Artesia and Kingsdale.

Service Span

Weekday	05:00 – 23:15
Saturday	07:30 – 18:59
Sunday	08:00 – 18:50

Headways

Peak	30
Base	30
Saturday	30
Sunday	30

Field Observation Notes

Daily Ridership, Major Stops & Transfers

Daily Boardings (November 2005)

Weekday:	2,227
Saturday:	1,104
Sunday:	505

On weekdays, the peak periods generated more boardings than the midday produced (1,214 vs. 839), while the off peak period generated 174 boardings.

Major stops include: LAX Transit Center, Hawthorne/Artesia, Artesia/Kingsdale, Hawthorne/Torrance, PCH/Hawthorne, Hawthorne/Carson, Hawthorne/Del Amo Circle

Major transfer locations include:

- LAX Transit Center
- Hawthorne/Artesia
- Hawthorne/Torrance

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Service Effectiveness Indicators

Passengers per Revenue Hour

Date of ridecheck

Weekday:	29.5
Saturday:	37.4
Sunday:	27.3

TTS Weekday System-wide Average: 36.8 pph

Weekday

- Strongest segment: Del Amo Fashion Center – South Bay Galleria (46.8 pph)
- Weakest segment: South Bay Galleria – Imperial/National (19.5 pph)
- Strongest period: PM Peak (35.6 pph)
- Weakest period: Off Peak (12.0 pph)

Saturday

- Strongest segment: Del Amo Fashion Center – South Bay Galleria (55.6 pph)
- Strongest period: AM Peak (39.0 pph)

Sunday

- Strongest segment: Del Amo Fashion Center – South Bay Galleria (50.7 pph)
- Strongest period: PM Peak (34.8 pph)

Capacity & Passenger Loading Analysis

Capacity Issues

Loads exceeding 100%: The ride-check showed the following loads exceeding 100 percent:

Saturday—Northbound:

5:00pm trip exceeds 100% seating capacity.

Financial Performance Indicators

Date of ridecheck

	Operating Ratio	Subsidy/Boarding
Weekday:	13.1%	$3.20
Saturday:	16.3%	$2.46
Sunday:	11.9%	$3.57

Schedule Adherence Assessment

On-Time Performance

(Any trends or patterns in the on-time performance?)

Day	Dir.	On-Time	Late	Early
Weekday	N	65.6%	16.6%	17.9%
Weekday	S	60.1%	30.8%	9.1%
Saturday	N	72.3%	9.2%	18.5%
Saturday	S	42.1%	47.4%	10.5%
Sunday	N	52.4%	35.7%	11.9%
Sunday	S	37.5%	50.0%	12.5%

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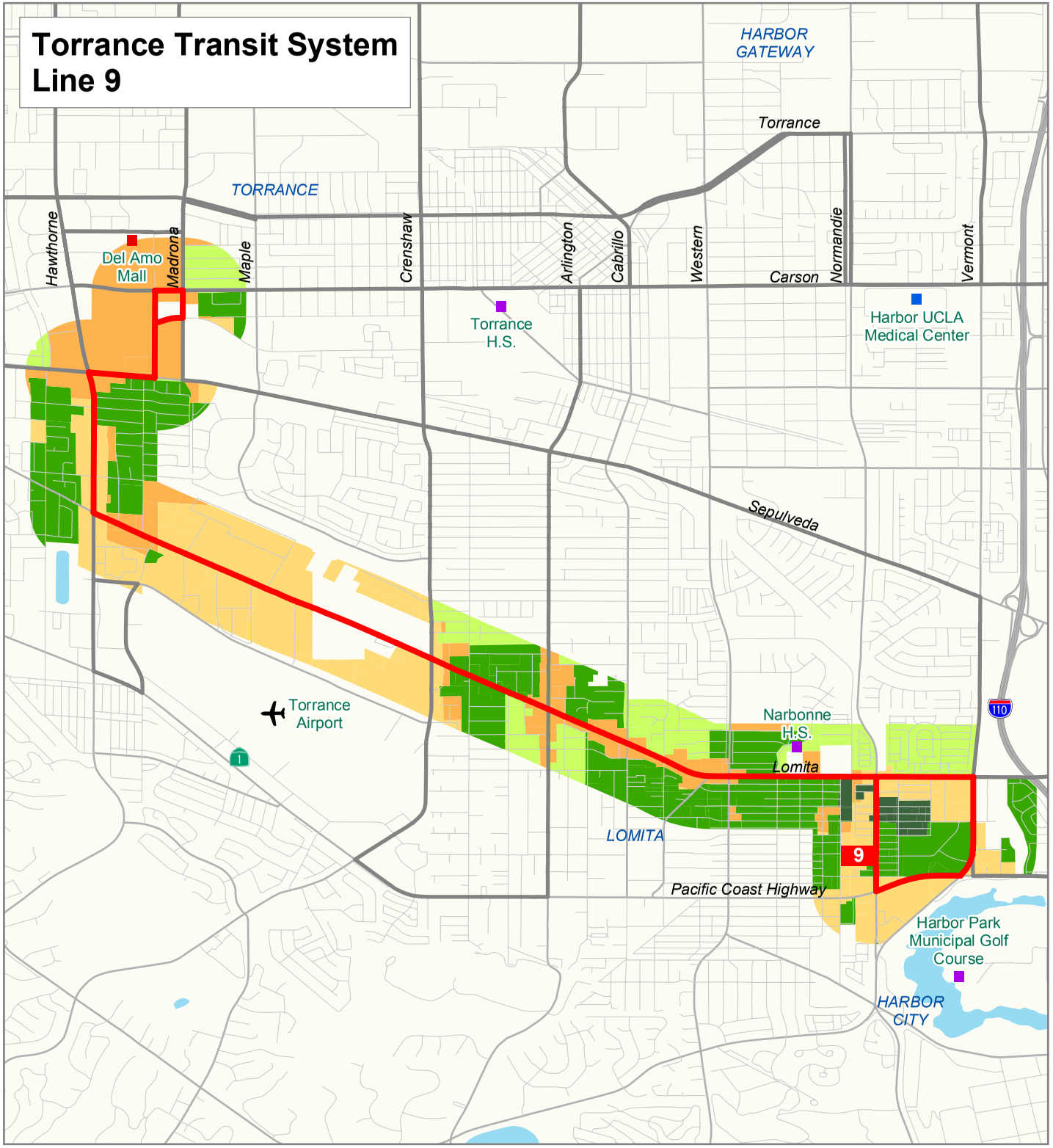

Line 9

Description

Del Amo Mall - Lomita/Vermont, via Hawthorne Blvd and Lomita Blvd

Prevailing Service Frequencies *(Minutes)*

	Weekday					Sat	Sun
	Dawn	AM	Mid	PM	EVE		
Eastbound	60	60	60	60	60	60	-
Westbound	60	60	60	60	60	60	-

Current Span of Service

	Eastbound	Westbound
Weekday	06:00 - 18:25	06:25 - 18:50
Saturday	08:00 - 18:25	08:25 - 18:50
Sunday	-	-

Service Performance

	Unlinked Boardings	Passengers per Revenue Hour	Subsidy per Passenger
Weekday	213	20	($4.96)
Saturday	98	11	($9.53)
Sunday	--	--	--

	Peak Number of Vehicles	Revenue Hours	Revenue Miles
Weekday	1	11	147
Saturday	1	9	124
Sunday	--	--	--

Demographics *(within 1/4 mile buffer of bus route)*

Population (# of persons)	22,118
Residential Density (persons/residential acre)	26
Employment (# of jobs)	18,470
Employment Density (jobs/commercial acre)	21

Employment Density

Jobs per Commercial Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10
- Non-Employment/Non-Residential Landuse

Population Density

Persons per Residential Acre

- Above 50
- 20 - 50
- 10 - 20
- 0 - 10

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit, Census 2000,
Southern California Association of Government (SCAG)

Date Prepared

December 2005

0 0.5 1 Miles

1 inch equals 0.67 miles

TMD

Route 9–Torrance/Harbor City via Lomita Blvd.

Route Alignment and Operation

Route Type: Community Circulator

Orientation: East/West

Major Streets Served: Del Amo Ciricle, Hawthorne, Lomita, Wilmington, PCH, and Figueroa.

Key Activity Centers: Del Amo Fashion Center, Narbonne High School, Kaiser Medical Center.

Trip Patterns:
Weekdays

- All weekday trips run from Del Amo Fashion Center to Lomita and Vermont.

Weekends
All weekend trips serve Lomita and Vermont to Del Amo Fashion Center.

Service Span

Weekday	06:00 – 18:50
Saturday	08:00 – 18:50
Sunday	No Service

Headways

Peak	60
Base	60
Saturday	60
Sunday	No Service

Field Observation Notes

Daily Ridership, Major Stops & Transfers

Daily Boardings (November 2005)

Weekday:	213
Saturday:	98
Sunday:	No Service

On weekdays, the peak periods generated the same number of boardings as the midday produced (106 vs. 107), while the off peak period did not generate any boardings.

Major stops include: Lomita/Crenshaw, Lomita/Narbonne, Lomita/Western, Carson/Madrona, and Hawthorne/Sepulveda.

Major transfer locations include:

- Del Amo Fashion Center

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Service Effectiveness Indicators

Passengers per Revenue Hour

Date of ridecheck

Weekday:	19.7
Saturday:	10.7
Sunday:	No Service

TTS Weekday System-wide Average: 36.8 pph

Weekday

- Strongest segment: Del Amo Fashion Center – Lomita/Crenshaw (29.6 pph)
- Weakest segment: Lomita/Crenshaw – Kaiser Hospital (11.0 pph)
- Strongest period: AM Peak (21.6 pph)
- Weakest period: Off Peak (0.0 pph)

Saturday

- Strongest segment: Del Amo Fashion Center – Lomita/Crenshaw (16.7 pph)
- Strongest period: Off Peak (0.0 pph)

Capacity & Passenger Loading Analysis

Capacity Issues

Loads exceeding 100%: The ride-check showed no loads exceeding 100 percent:

Financial Performance Indicators

Date of ridecheck

	Operating Ratio	Subsidy/Boarding
Weekday:	8.8%	$4.96
Saturday:	4.8%	$9.53
Sunday:	No Service	

Schedule Adherence Assessment

On-Time Performance

(Any trends or patterns in the on-time performance?)

Day	Dir.	On-Time	Late	Early
Weekday	E	82.1%	17.9%	0.0%
Weekday	W	84.6%	15.4%	0.0%
Saturday	E	90.9%	6.1%	3.0%
Saturday	W	95.5%	4.5%	0.0%
Sunday	E	No Service		
Sunday	W	No Service		

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Appendix C
Survey Forms

TMP

TRIP SURVEY SHEET

Line # / Direction:	1	Northbound
Day Type:	Sunday	
Block ID:	101	
Driver ID / Trip#:	1	131001
Vehicle #:		

Checker Shift ID / Name:	3001
Survey Date:	___/___/___
Report Time:	__ __ : __ __
Scheduled Trip Start Time:	05:20 AM
Weather:	

Passenger On by Group 卌 |

Access/Paratransit Pass:		***Metrolink Pass:***	
Wheelchairs:		***EZ Pass:***	

Stop	Stop Name		Off Passengers Off	On Passengers On	Load Passenger Load	Time Arriving at Stop	Time Leaving Stop
Example Stop		*TP*	12	卌 |	29	14:35	14:37

To record at trip start: Passenger Load _____

1	**Del Amo Mall**	***TP***					
2	Madrona & Torrance						
3	Torrance & Maple						
4	Torrance & Hickory						
5	Torrance & Fern						
6	Torrance & Crenshaw						
7	Torrance & Madrid						
8	Torrance & Cota						
9	Torrance & Arlington						
10	Torrance & Engracia						
11	Torrance & Cabrillo						
12	Torrance & Western						
13	Torrance & Denker						
14	Normandie & Torrance						
15	Normandie & 212th						
16	Normandie & Levinson						
17	Carson & Normandie						
18	Normandie & Budlong						
19	Harbor & UCLA						
20	**Vermont & Carson**	***TP***					
21	Vermont & 214th						
22	Vermont & Javelin						
23	Vermont & Torrance						
24	Vermont & Del Amo						
25	Vermont & Francisco						

Stop	Stop Name	Off Passengers Off	On Passengers On	Load Passenger Load	Time Arriving at Stop	Time Leaving Stop
26	Vermont & Knox					
27	Vermont & 190th					
28	Vermont & 186th					
29	Vermont & 182nd					
30	**Artesia Transit Center** ***TP***					
31	Vermont & Artesia					
32	Vermont & 168th					
33	**Vermont & Gardena** ***TP***					
34	Gardena & Hoover					
35	Figueroa & Gardena					
36	Figueroa & Alondra					
37	Figueroa & 157th					
38	Figueroa & Redondo Beach					
39	Figueroa & Compton Blvd					
40	Figueroa & Rosecrans NS					
41	Figueroa & Rosecrans FS					
42	Figueroa & 135th					
43	Figueroa & 132nd					
44	Figueroa & El Segundo					
45	Figueroa & 120th					
46	**Harbor Green Line St** ***TP***					

Ons for this last stop should be recorded in the first stop of the next trip

To record at trip end: Passenger Load _____

Torrance Transit System (TTS) – Riders Survey

Please help us meet your transit needs by completing the following survey. Please return your completed survey form to the surveyor. **If you have already filled out a survey today, you do not need to fill out another one**.

Check the appropriate box: ☒

1. What is the main purpose of your trip today?

   1☐ Work
   2☐ Shopping
   3☐ School
   4☐ Medical/Dental
   5☐ Childcare
   6☐ Social/Recreation
   7☐ Personal Business
   8☐ Other

2. How did you get to the bus stop where you boarded this bus?

   1☐ Transfer from other Torrance Bus Line _____
   2☐ Transfer from other transit agency bus
   3☐ Transfer from Metro Rail Line or Metrolink
   4☐ Walked
   5☐ Got a ride
   6☐ Bicycle
   7☐ Other

3. What is the nearest **major street intersection** to where you boarded (e.g. Torrance Blvd. and Anza Ave.)

   _____ and _____
   or **nearest landmark** (e.g., El Camino College)?

   _____

4. What is your fare category?

   1☐ Regular/Adult
   2☐ Senior/Disabled/Medicare Card Holder/LACTOA

5. How did you pay for your fare on this bus?

   1☐ Cash
   2☐ Torrance Transfer
   3☐ Interagency Transfer
   4☐ Metro Pass
   5☐ EZ Pass
   6☐ Access Services ID
   7☐ Downtown Zone fare
   8☐ Metrolink Pass

6. When you get off this bus, what will you do?

   1☐ Transfer to other Torrance Bus Line _____
   2☐ Transfer to other transit agency bus
   3☐ Transfer to Metro Rail Line or Metrolink
   4☐ Walk to destination
   5☐ Get a ride
   6☐ Bicycle
   7☐ Other

7. Did you have a car available to make this trip?

   1☐ Yes 2☐ No

8. How many **days** a week do you ride the bus?

   ☐ 1 ☐ 2 ☐ 3 ☐ 4
   ☐ 5 ☐ 6 ☐ 7

9. Are you?

   1☐ Male 2☐ Female

10. What is your age?

    1☐ Under 16
    2☐ 16 – 17
    3☐ 18 – 24
    4☐ 25 - 34
    5☐ 35 - 44
    6☐ 45 - 54
    7☐ 55 - 64
    8☐ 65 or over

11. What is your ethnicity?

    1☐ White
    2☐ Hispanic
    3☐ African-American
    4☐ Asian
    5☐ Native American
    6☐ Other

12. What is your yearly household income?

    1☐ Under $10,000
    2☐ $10,000 - $19,999
    3☐ $20,000 - $29,999
    4☐ $30,000 - $39,999
    5☐ $40,000 - $49,000
    6☐ $50,000 - $99,999
    7☐ $100,000 and over

13. If Torrance Transit operated a Metro Rapid-like service with limited stops, which of the following destinations would be the most important to serve?

    1☐ LAX
    2☐ South Bay Galleria
    3☐ Downtown LA
    4☐ Artesia Transit Center
    5☐ Long Beach
    5☐ Other _____

14. How can Torrance Transit improve service?

    _____

    _____

    _____

Thank you for your cooperation
Please, return this survey to the collection envelope or surveyor

TMD TRANSPORTATION MANAGEMENT & DESIGN, INC.

TORRANCE TRANSIT

Interviewer Name _____

Location (check one)
☐ Hawthorne Blvd. & Torrance Blvd.
☐ Carson St. & Del Amo Circle E.
☐ Madrona Ave. & Torrance Blvd.
☐ Madrona Ave. & Carson St.

Time Recorded: _____

1. Do you work at the Del Amo Fashion Center? ☐ Yes ☐ No
2. **Are you shopping at the Del Amo** Fashion Center **today?** ☐ Yes ☐ No
3. **Which Routes have you taken today?** _____
4. **What Routes are you transferring to?** _____
5. **How many blocks do you walk to make your transfer?** ☐ 0 ☐ 1 ☐ 2 ☐ 3+
6. **Are you able to make your transfers?** ☐ Yes ☐ No
7. **Would a centralized station facilitate your trip?** ☐ Yes ☐ No
8. **Suggestions:**

_____

_____

Time Recorded: _____

1. Do you work at the Del Amo Fashion Center? ☐ Yes ☐ No
2. **Are you shopping at the Del Amo** Fashion Center **today?** ☐ Yes ☐ No
3. **Which Routes have you taken today?** _____
4. **What Routes are you transferring to?** _____
5. **How many blocks do you walk to make your transfer?** ☐ 0 ☐ 1 ☐ 2 ☐ 2+
6. **Are you able to make your transfers?** ☐ Yes ☐ No
7. **Would a centralized station facilitate your trip?** ☐ Yes ☐ No
8. **Suggestions:**

_____

_____

Appendix D
Route Alignment &
Service Recommendations

TMD

Line 1

Description

Del Amo Mall - Union Station, via Torrance Blvd and 110 Freeway

Proposed Service Frequencies (Minutes)

	Weekday		Sat	Sun
	Peak	Midday		
Northbound	30	30	60	60
Southbound	30	30	60	60

Proposed Span of Service

Weekday	04:30 - 23:00
Saturday	05:30 - 22:00
Sunday	05:30 - 20:30

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit
Southern California Association of Government (SCAG)

Date Prepared

January 2006

0 1 2 Miles
1 inch equals 1.20 miles

TMD

Line 2

Description

Del Amo Mall - Green Line, Harboy Freeway Station via Anza and Inglewood

Proposed Service Frequencies (Minutes)

	Weekday		Sat	Sun
	Peak	Midday		
Northbound	60	60	60	-
Southbound	60	60	60	-

Proposed Span of Service

Weekday	05:30 - 20:30
Saturday	06:00 - 20:30
Sunday	-

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

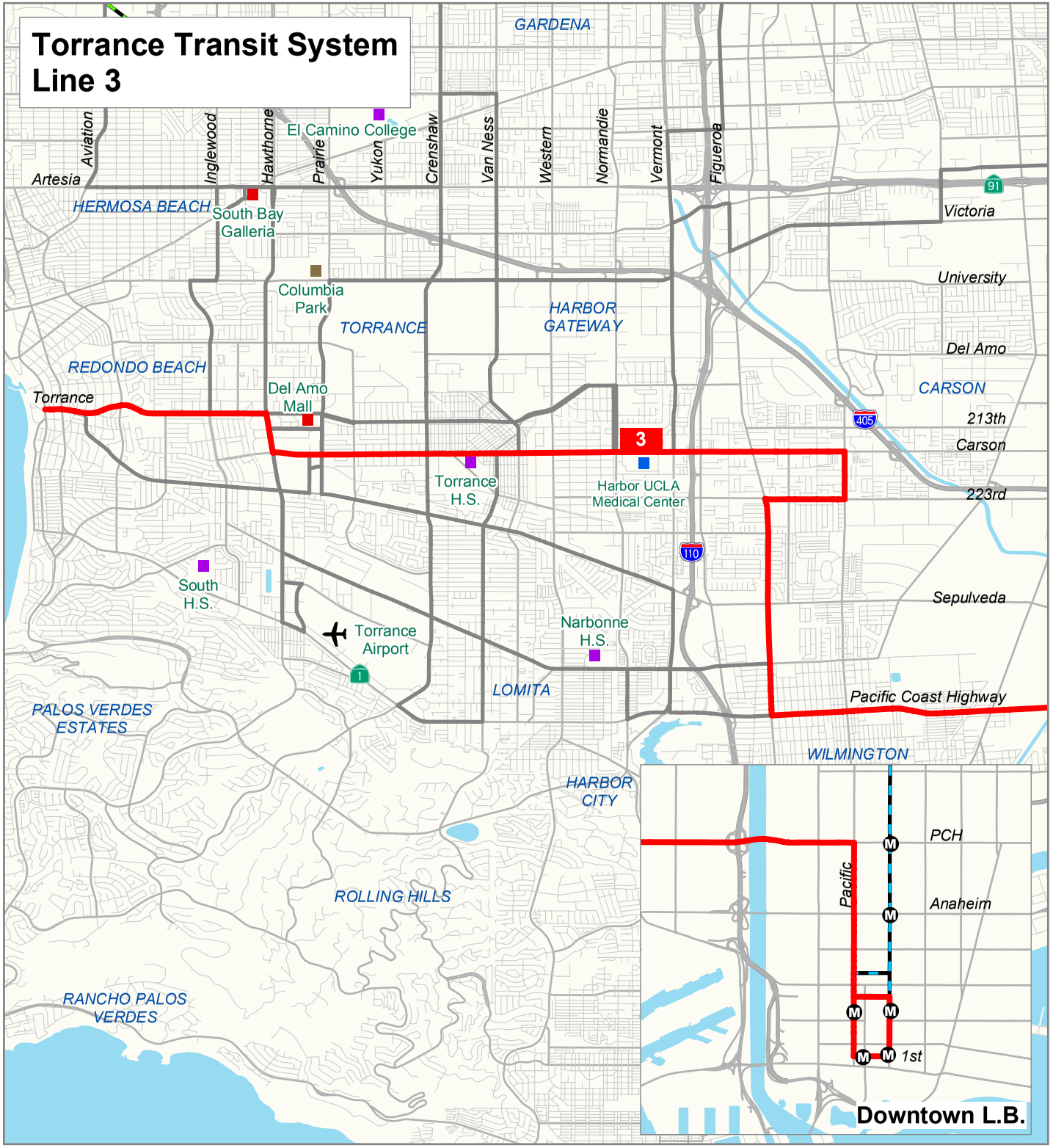
Torrance Transit
Southern California Association of Government (SCAG)

Date Prepared

January 2006

0 0.9 1.8 Miles
1 inch equals 1.07 miles

TMD



Line 3

Description

Redondo Beach Pier - Downtown Long Beach, via Carson St and Main St.

Proposed Service Frequencies (Minutes)

	Weekday		Sat	Sun
	Peak	Midday		
Eastbound	15	15	15	15
Westbound	15	15	15	15

Proposed Span of Service

Weekday	04:30 - 22:30
Saturday	05:00 - 22:30
Sunday	05:30 - 21:00

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit
Southern California Association of Government (SCAG)

Date Prepared

January 2006

0 1 2 Miles
1 inch equals 1.52 miles

TMD

Line 5A

Description

El Camino College - PCH, via Crenshaw Blvd.

Proposed Service Frequencies (Minutes)

	Weekday		Sat	Sun
	Peak	Midday		
Clockwise	30	30	30	-
Counter-CW	30	30	30	-

Proposed Span of Service

Weekday	06:00 - 23:00
Saturday	07:00 - 21:00
Sunday	-

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit
Southern California Association of Government (SCAG)

Date Prepared

January 2006

0 0.5 1 Miles
1 inch equals 0.92 miles

TMD

Line 5B

Description

El Camino College - PCH, via Van Ness; Arlington and Narbonne.

Proposed Service Frequencies (Minutes)

	Weekday		Sat	Sun
	Peak	Midday		
Clockwise	60	60	60	-
Counter-CW	60	60	60	-

Proposed Span of Service

Weekday	06:00 - 23:00
Saturday	07:00 - 21:00
Sunday	-

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit
Southern California Association of Government (SCAG)

Date Prepared

January 2006

0 0.5 1 Miles
1 inch equals 0.92 miles

TMD

Line 6

Description

Del Amo Mall - Metro Blue Line, via 190th St and Victoria St.

Proposed Service Frequencies (Minutes)

	Weekday Peak	Weekday Midday	Sat	Sun
Eastbound	30	60	-	-
Westbound	30	60	-	-

Proposed Span of Service

Weekday	05:00 - 20:00
Saturday	-
Sunday	-

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit
Southern California Association of Government (SCAG)

Date Prepared

January 2006

0 1 2 Miles
1 inch equals 1.27 miles

TMD

Line 7

Description

Redondo Beach Pier - PCH @ Wilmington, via El Camino Real and Sepulveda Blvd

Proposed Service Frequencies (Minutes)

	Weekday		Sat	Sun
	Peak	Midday		
Eastbound	30	30	30	-
Westbound	30	30	30	-

Proposed Span of Service

Weekday	06:30 - 21:00
Saturday	07:00 - 19:30
Sunday	-

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit
Southern California Association of Government (SCAG)

Date Prepared

January 2006

0 1 2 Miles
1 inch equals 1.16 miles

TMD

Line 8

Description

PCH @ Madison - LAX Transit Center, via Hawthorne Blvd and Aviation Blvd

Proposed Service Frequencies (Minutes)

	Weekday		Sat	Sun
	Peak	Midday		
Northbound	15	30	30	30
Southbound	15	30	30	30

Proposed Span of Service

Weekday	05:00 - 23:30
Saturday	07:30 - 19:30
Sunday	08:00 - 19:00

Symbols

- Featured Route
- Competing Route
- Metro Blue Line
- Metro Green Line
- Metro Station
- High School/College
- Public Facility
- Hospital
- Shopping Center

Data Sources

Torrance Transit
Southern California Association of Government (SCAG)

Date Prepared

January 2006

0 1 2 Miles
1 inch equals 1.37 miles

TMD