I-605 / I-5 PSR-PDS

Attachment B – Project Area and Alternatives Plans

Attachment C – Typical Cross Sections

Attachment J – Nonstandard Design Features Matrix

Attachment K – Preliminary Stage Construction Concepts for I-605/I-5

May 9, 2014

Note: I-605/I-5 PSR-PDS Other Attachments are bound separately

I-605 / I-5 PSR-PDS

Attachment B – Project Area and Alternatives Plans

MATCH LINE - JOIN I-605/SR-91 PSR

MATCH LINE - SEE SHEET 2

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = D/D
PeMS PEAK SPEED = 63 MPH
ACCIDENT RATE = BELOW AVERAGE

EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = D/D
PeMS PEAK SPEED = 40 MPH
ACCIDENT RATE = BELOW AVERAGE

KEY MAP

I-105
I-5
I-605

EXCELSIOR DR

MERGE ON-RAMP

WIDEN EXIST BRIDGE

CITY OF NORWALK

PIUMA AVE

MERGE ON-RAMP

WIDEN EXIST BRIDGE

CARROWS RESTAURANT

MOTEL 6

ROSECRANS AVE

RECONSTRUCT SB ON & OFF-RAMPS

AM: 772 PM: 817
(AM: 481 PM: 348)

AM: 396 PM: 451
(AM: 307 PM: 295)

AM: 835/9835 PM: 1490/9956
(AM: 426/8508 PM: 1094/8455)

AM: 747/5688 PM: 854/6085
(AM: 602/5581 PM: 748/6671)

AM: 835/10607 PM: 1490/10773
(AM: 425/8988 PM: 1094/8804)

I-605 SAN GABRIEL FWY

AM: 881/8725 PM: 1007/8975
(AM: 602/8562 PM: 837/8323)

AM: 3171 PM: 3045
(AM: 3071 PM: 2799)

AM: 1036 PM: 1457
(AM: 608 PM: 819)

AM: 132 PM: 115

BEHRENS AVE

WIDEN TO 3 LANES

CITY OF NORWALK

LEIBACHER AVE

14 BEGIN 12' CENTERLINE ADJUSTMENT

END TRANSITION
BEGIN FULL 12' CENTERLINE OFFSET

A (SEE TYPICAL SECTIONS)

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

691/8482 2035 BUILD HOV/MAINLINE VOLUMES
(691/8482) EXISTING (HOV/MAINLINE) VOLUMES
% 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 1
Sheet 1 of 21

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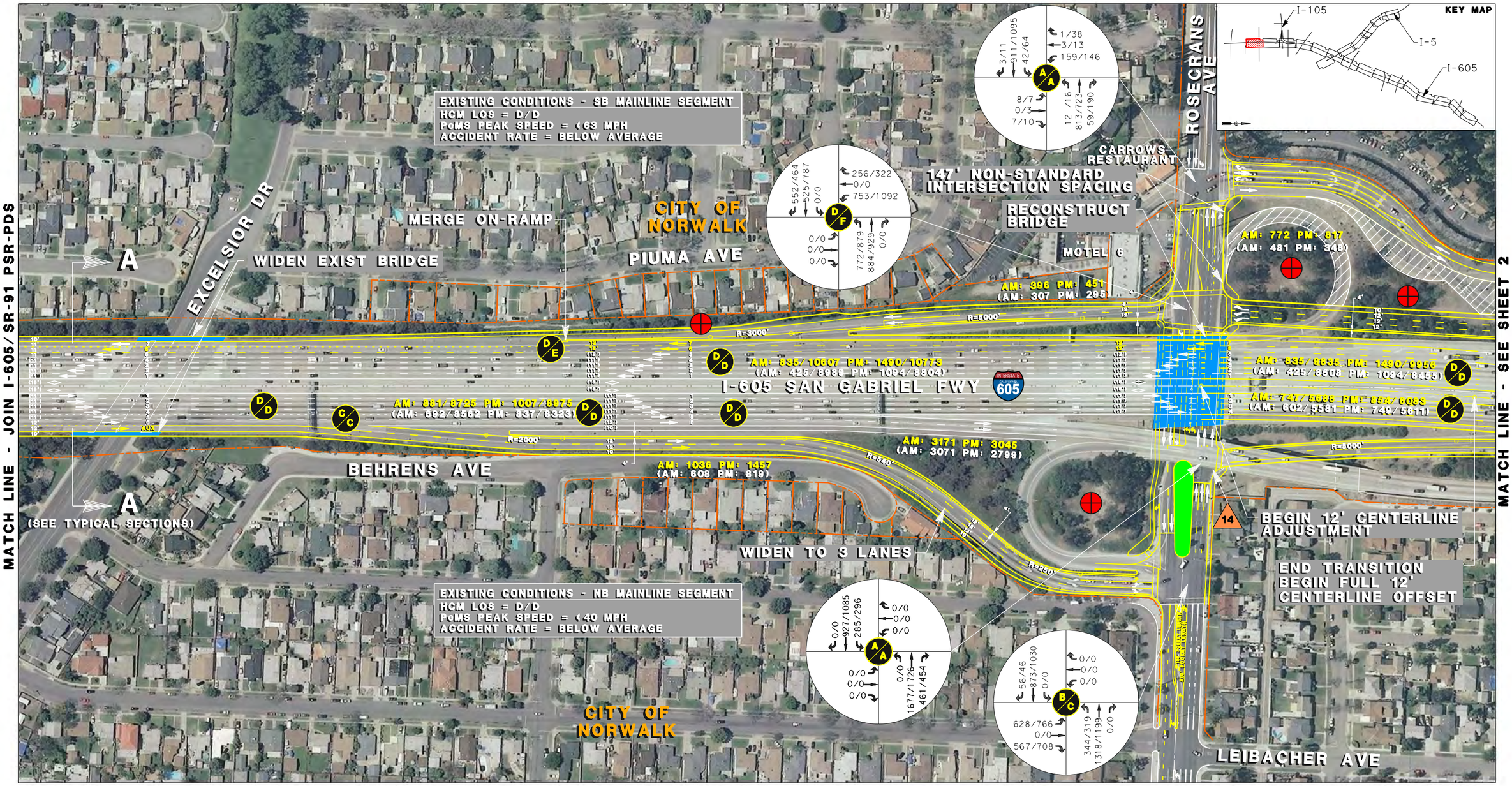

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
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- PROPOSED BRIDGE IMPROVEMENTS
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- EXISTING BRIDGE COLUMNS/CL (Approx)
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- XX FREEWAY MAINLINE LOCATIONS
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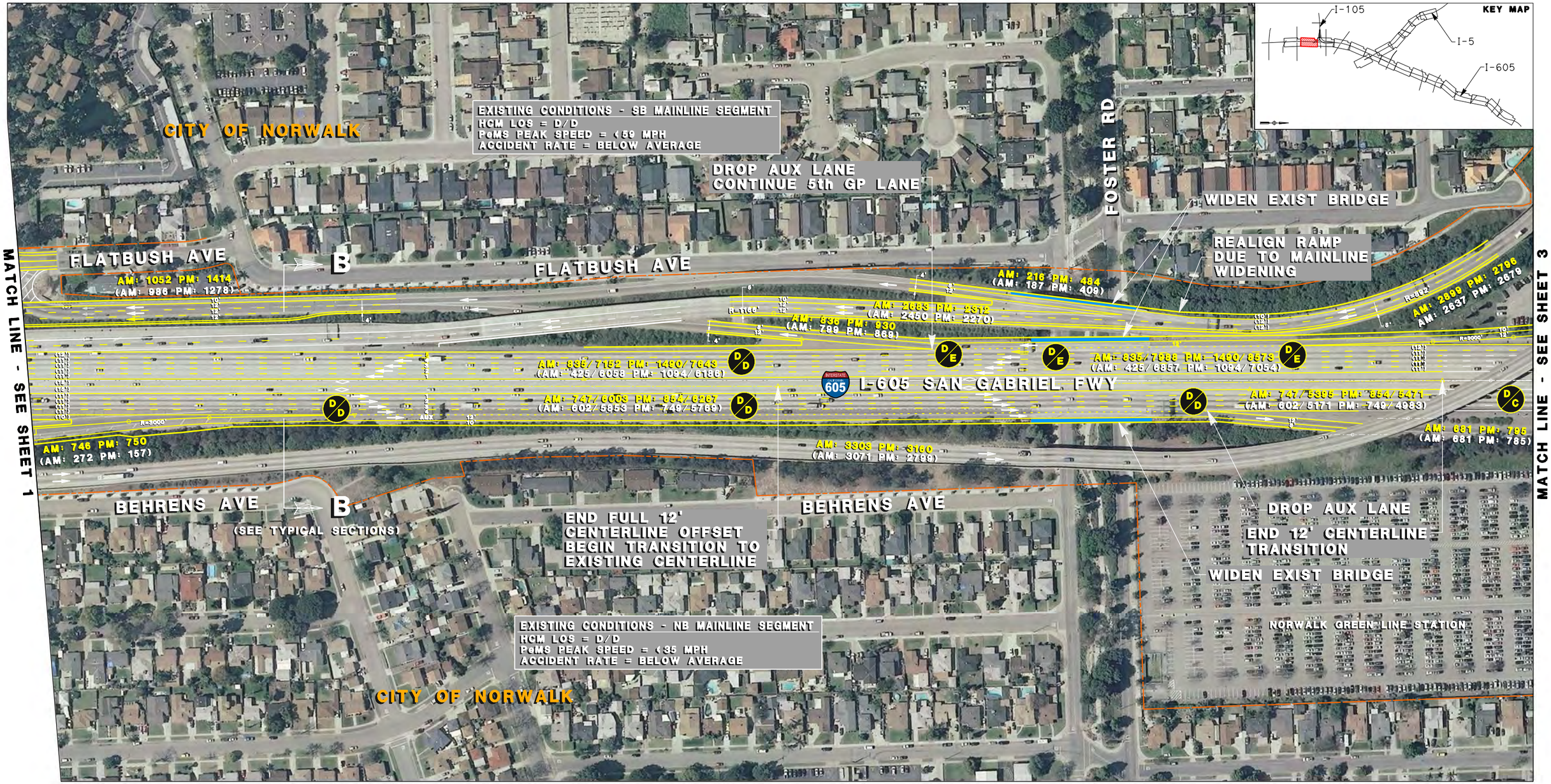
INTERSTATE 605 - ALTERNATIVE 1a
Sheet 1a of 21



SCALE: 1"=200'

LINEWORK LEGEND

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- PROPOSED BRIDGE IMPROVEMENTS
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- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

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- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- 2035 BUILD: AM/PM LOS

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- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
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- POTENTIAL MEDIA FILTERS
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- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- ARTERIAL INTERCHANGE RAMP LOCATIONS
- FREEWAY MAINLINE LOCATIONS
- FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 1
Sheet 2 of 21

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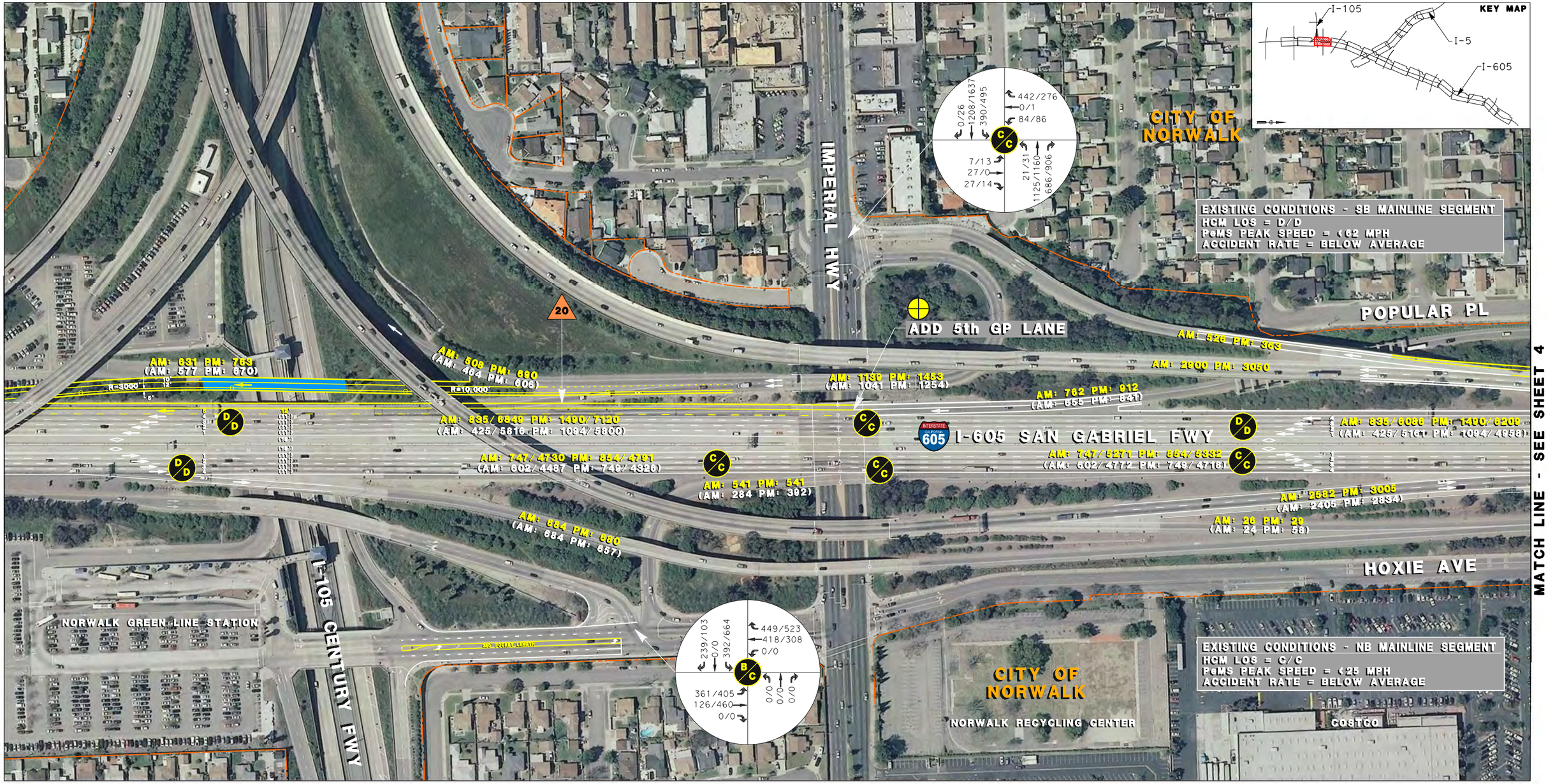

MATCH LINE - SEE SHEET 2

MATCH LINE - SEE SHEET 4

LINEWORK LEGEND

- EXISTING R/W
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- PROPOSED IMPROVEMENTS
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- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
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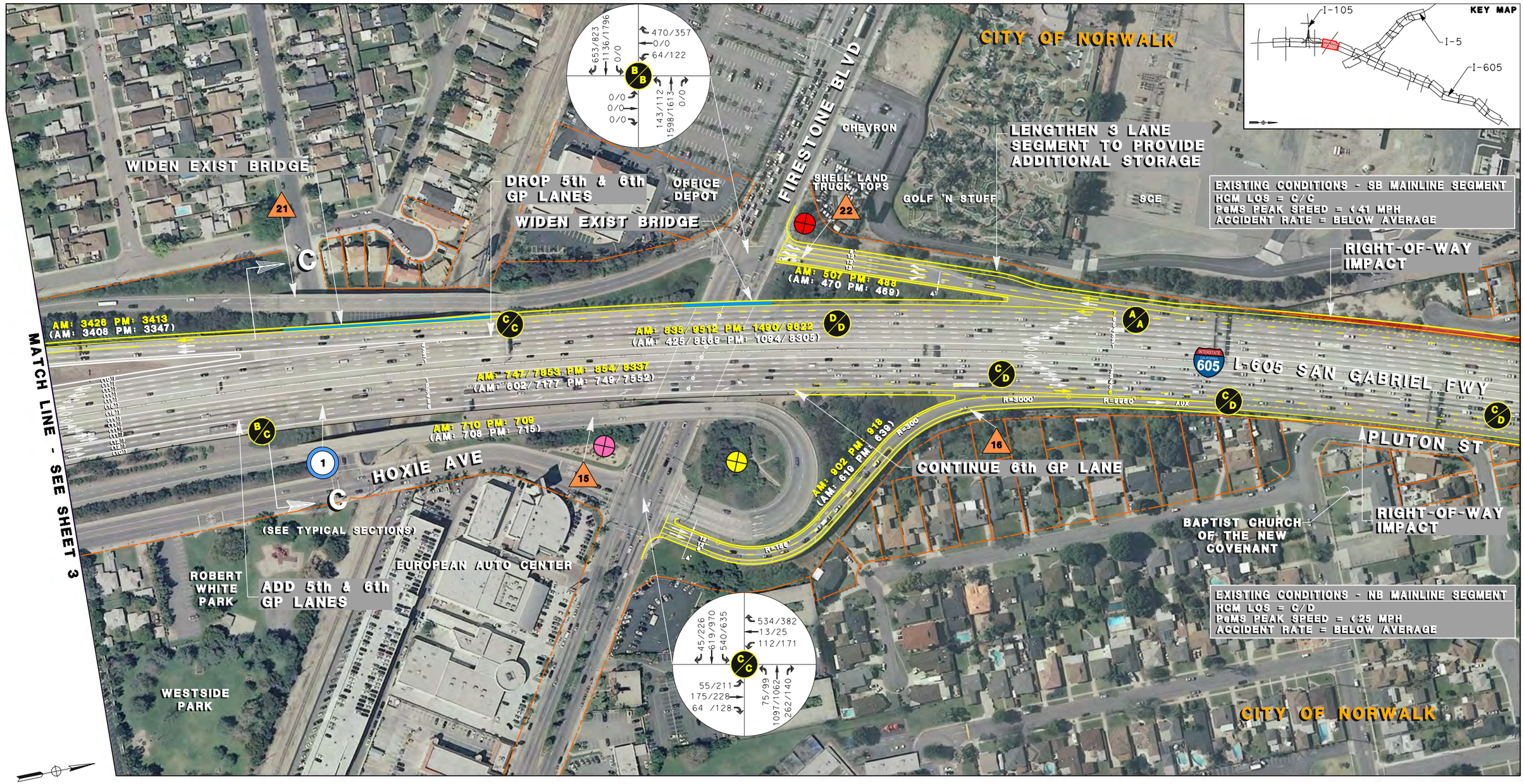
INTERSTATE 605 - ALTERNATIVE 1
Sheet 3 of 21



SCALE: 1"=200'

LINEWORK LEGEND

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POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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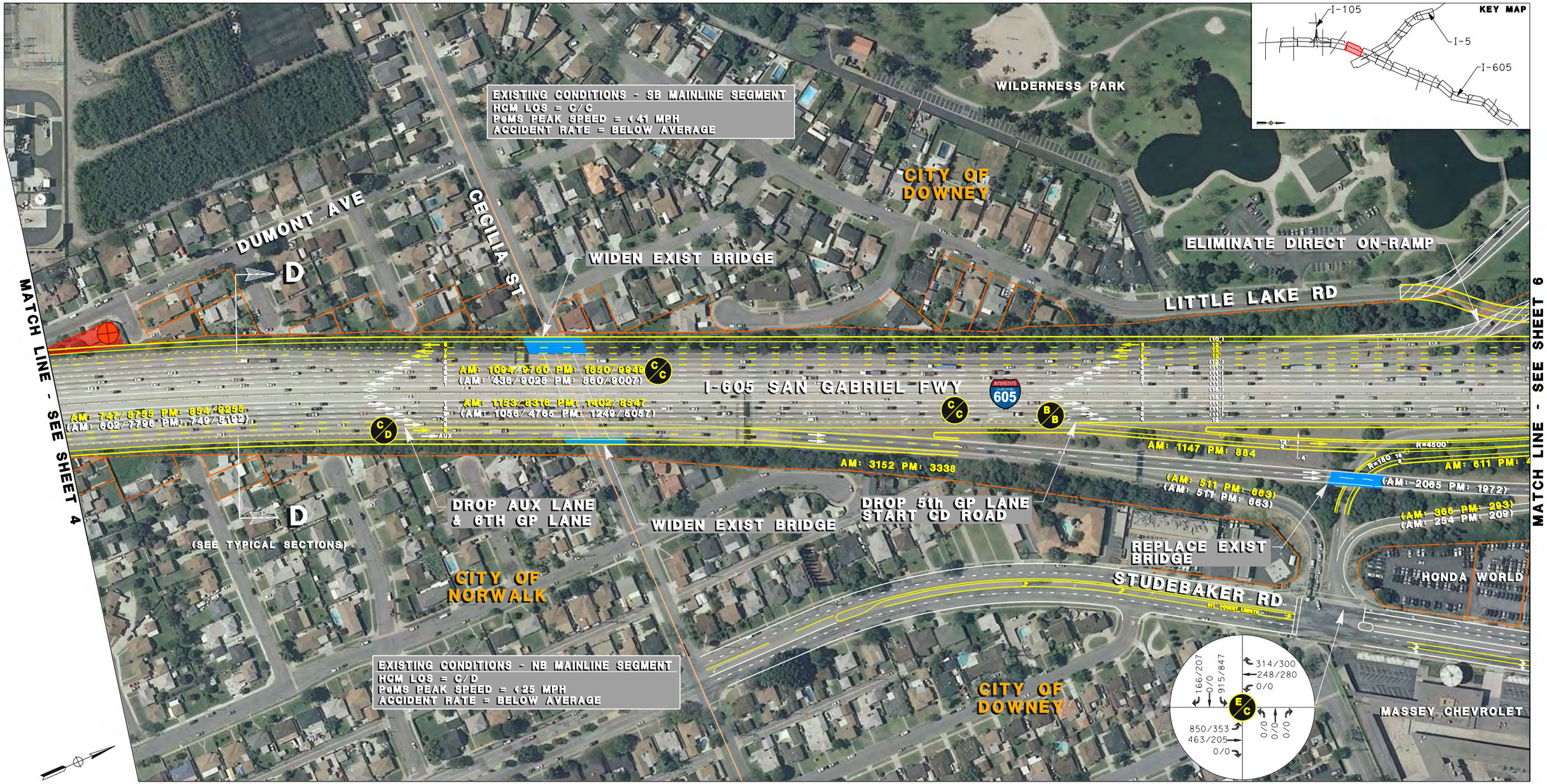

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- PROPOSED BRIDGE IMPROVEMENTS
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- EXISTING BMP
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POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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INTERSTATE 605 - ALTERNATIVE 1
Sheet 5 of 21

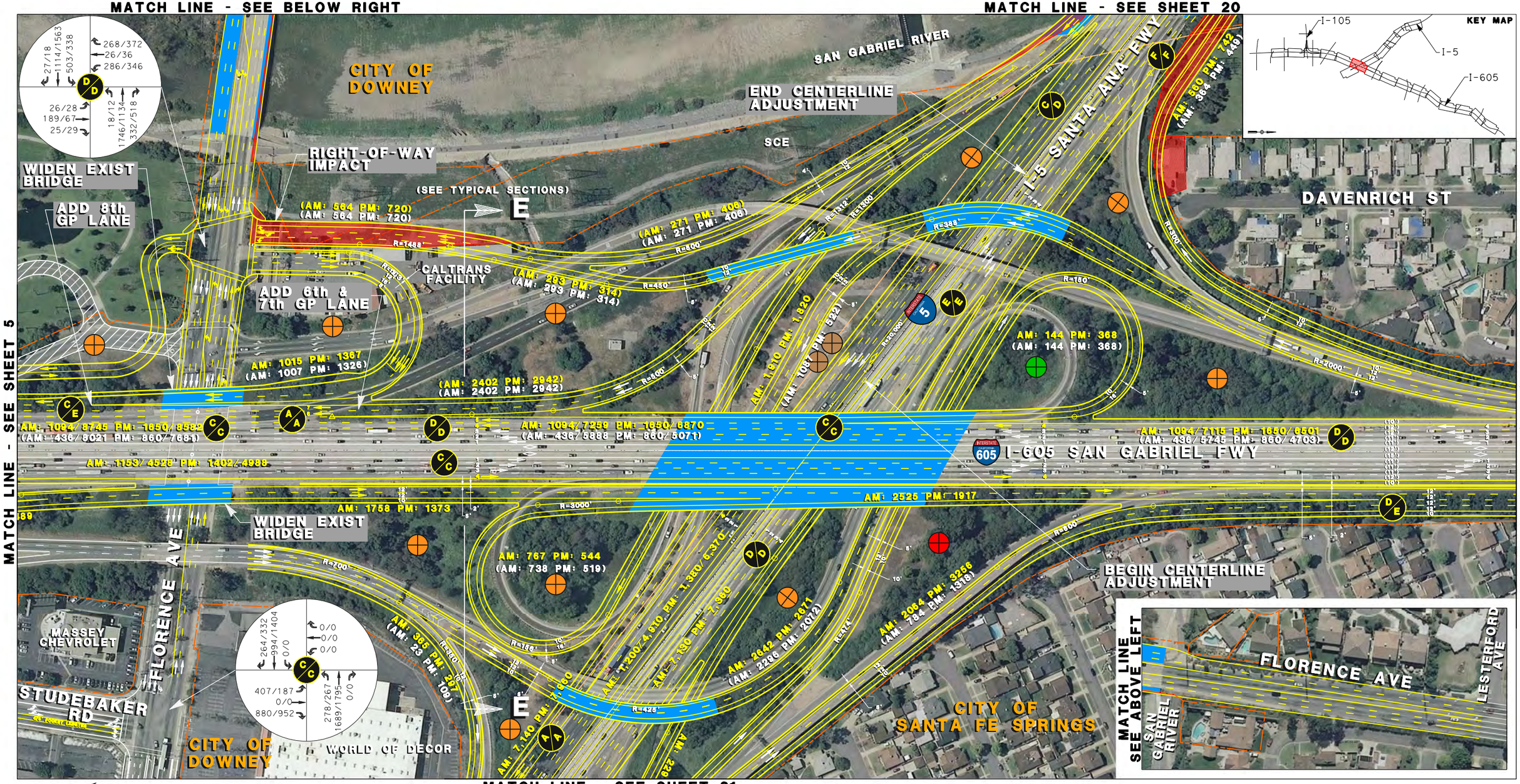
MATCH LINE - SEE BELOW RIGHT

MATCH LINE - SEE SHEET 20

MATCH LINE - SEE SHEET 5

MATCH LINE - SEE SHEET 7

MATCH LINE - SEE SHEET 21



SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
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- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/ 8482 — 2035 BUILD HOV/MAINLINE VOLUMES
- (691/ 8482) — EXISTING (HOV/MAINLINE) VOLUMES
- C/C — 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

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- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX — ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX — FREEWAY MAINLINE LOCATIONS
- XX — FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 1
Sheet 6 of 21

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MATCH LINE - SEE BELOW LEFT

MATCH LINE - SEE SHEETS 6

MATCH LINE - SEE SHEET 8

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = E/D
PeMS PEAK SPEED = <25 MPH
ACCIDENT RATE = ABOVE AVERAGE

CITY OF DOWNEY
CITY OF SANTA FE SPRINGS

DAVENRICH ST

WIDEN EXIST BRIDGE

DROP 5th & 6th GP LANES & AUX LANE
(SEE TYPICAL SECTIONS)

CEDARDALE DR

RIGHT-OF-WAY IMPACT

HORIZON NURSERY

WIDEN EXIST BRIDGE

SAN GABRIEL RIVER

SCE

CITY OF PICO RIVERA

ADD AUX LANE

AM: 2649 PM: 2277
(AM: 1722 PM: 1377)

AM: 1094/9764 PM: 1650/8778
(AM: 852/7051 PM: 992/5947)

I-605 SAN GABRIEL FWY

AM: 1311 PM: 1455
(AM: 1155 PM: 1331)

AM: 423 PM: 386
(AM: 414 PM: 386)

AM: 1094/8484 PM: 1650/7323
(AM: 852/5896 PM: 992/4616)

AM: 4589 PM: 5173

AM: 3442 PM: 4289

AM: 1153/7970 PM: 1402/9277

AM: 1147 PM: 884
(AM: 1147 PM: 878)

ELIMINATE DIRECT OFF-RAMP

WIDEN EXIST BRIDGE

RIGHT-OF-WAY IMPACT

ADD 3rd THRU LANE BOTH DIRECTIONS

AM: 497 PM: 484
(AM: 497 PM: 484)

MERGE ON-RAMP

EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = C/C
PeMS PEAK SPEED = <52 MPH
ACCIDENT RATE = BELOW AVERAGE

RECONFIGURE RAMPS TO ALIGN WITH INTERSECTION

FRIENDSHIP PARK

BARTLEY AVE

BARTLEY AVE
ELIMINATE CONNECTION TO TELEGRAPH RD

TELEGRAPH RD

BETHEL COMMUNITY CHURCH

CITY OF SANTA FE SPRINGS

ORR AND DAY RD

MATCH LINE SEE ABOVE TOP

TELEGRAPH RD

SAN GABRIEL RIVER

KEY MAP
I-105
I-5
I-605

SCALE: 1"=200'

LINEWORK LEGEND
- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND
- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS
- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS
- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 1
Sheet 7 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- D/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
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- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
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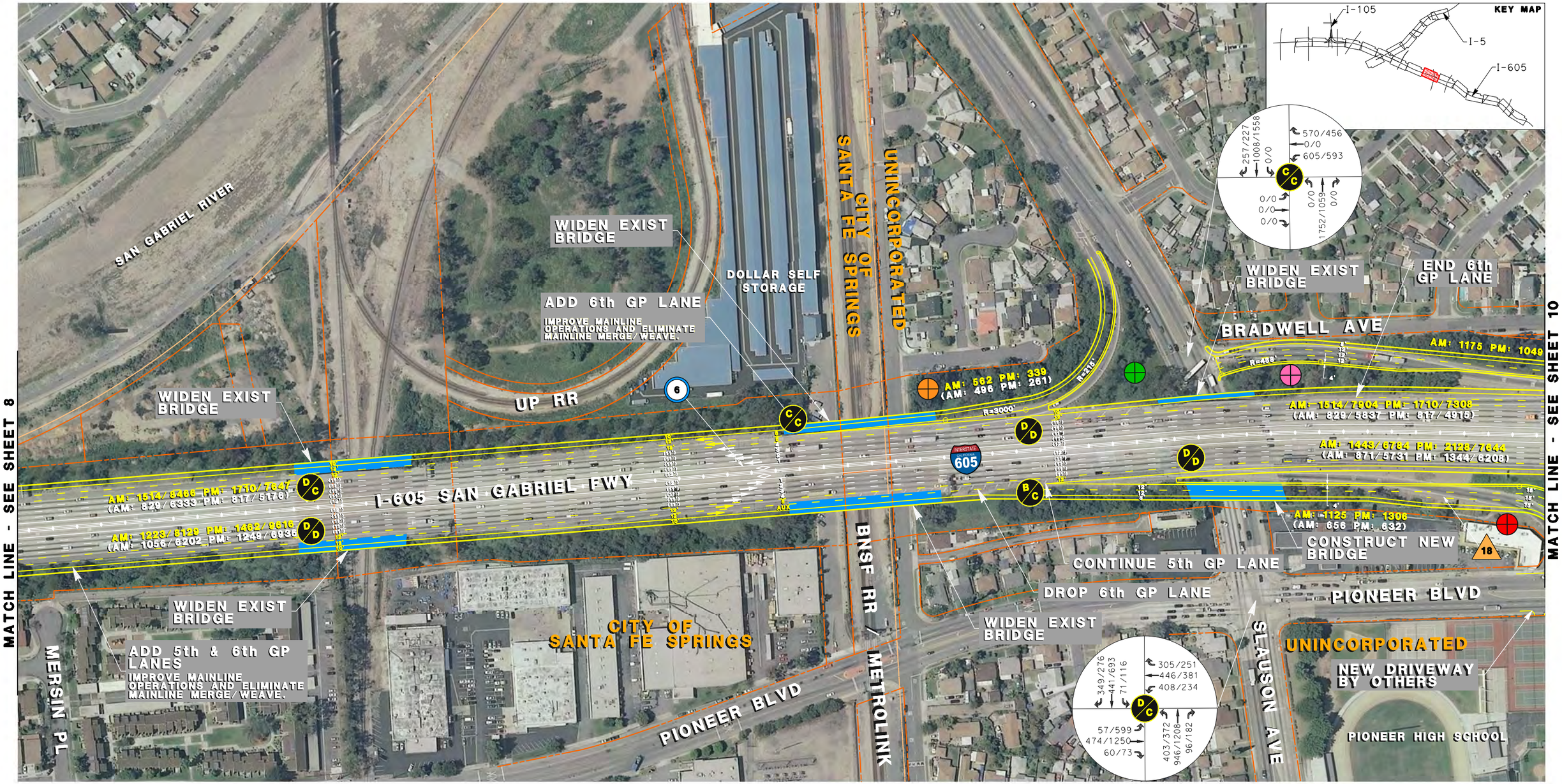
INTERSTATE 605 - ALTERNATIVE 1
Sheet 8 of 21



SCALE: 1"=200'

LINEWORK LEGEND

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INTERSTATE 605 - ALTERNATIVE 1
Sheet 9 of 21

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MATCH LINE - SEE LEFT INSERT

MATCH LINE - SEE SHEET 9

MATCH LINE - SEE SHEET 11

MATCH LINE SEE TOP RIGHT

WASHINGTON BLVD

SAN GABRIEL RIVER

SAN GABRIEL RIVER

UP RR

KEY MAP

I-105

I-5

I-605

UNINCORPORATED

ALLOW LEFT AND RIGHT TURNS

ELIMINATE CD ROAD WITH BRAIDED RAMP

IMPROVE MAINLINE OPERATIONS AND ELIMINATE MAINLINE MERGE/WEAVE.

CONSTRUCT NEW BRIDGE

SIGNALIZED

0/0 1804/1639 0/0

326/338 0/0 131/133

0/0 0/0 0/0

0/0 1402/1317 0/0

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = D/C
PeMS PEAK SPEED = <26 MPH
ACCIDENT RATE = ABOVE AVERAGE

WADDELL ST

BRADWELL AVE

AM: 457 PM: 471

AM: 738 PM: 671

AM: 515 PM: 586

AM: 1514/7389 PM: 1710/6722
(AM: 828/5141 PM: 817/4313)

AM: 1443/7679 PM: 2128/8454
(AM: 871/6440 PM: 1344/6888)

I-605 SAN GABRIEL FWY

AM: 446 PM: 685
(AM: 311 PM: 573)

AM: 895 PM: 810
(AM: 709 PM: 881)

MOTEL 6

(SEE TYPICAL SECTIONS)

RIGHT-OF-WAY IMPACT

EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = E/E
PeMS PEAK SPEED = <53 MPH
ACCIDENT RATE = BELOW AVERAGE

PIONEER HIGH SCHOOL

PIONEER BLVD

WASHINGTON BLVD

252/390 637/1061 80/143

518/327 228/274 194/112

281/214 739/824 247/282

129/183 1638/1014 46/82

269/275 0/0 190/344

0/0 546/587 0/0

0/0 612/774 0/0

UNINCORPORATED

SIGNALIZED

636/609 0/0 576/775

299/299 389/366 0/0

508/488 1119/1087 0/0

0/0 0/0 0/0

SIGNALIZED

SCALE: 1"=200'

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LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
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- ELIMINATION OF EXISTING PAVEMENT

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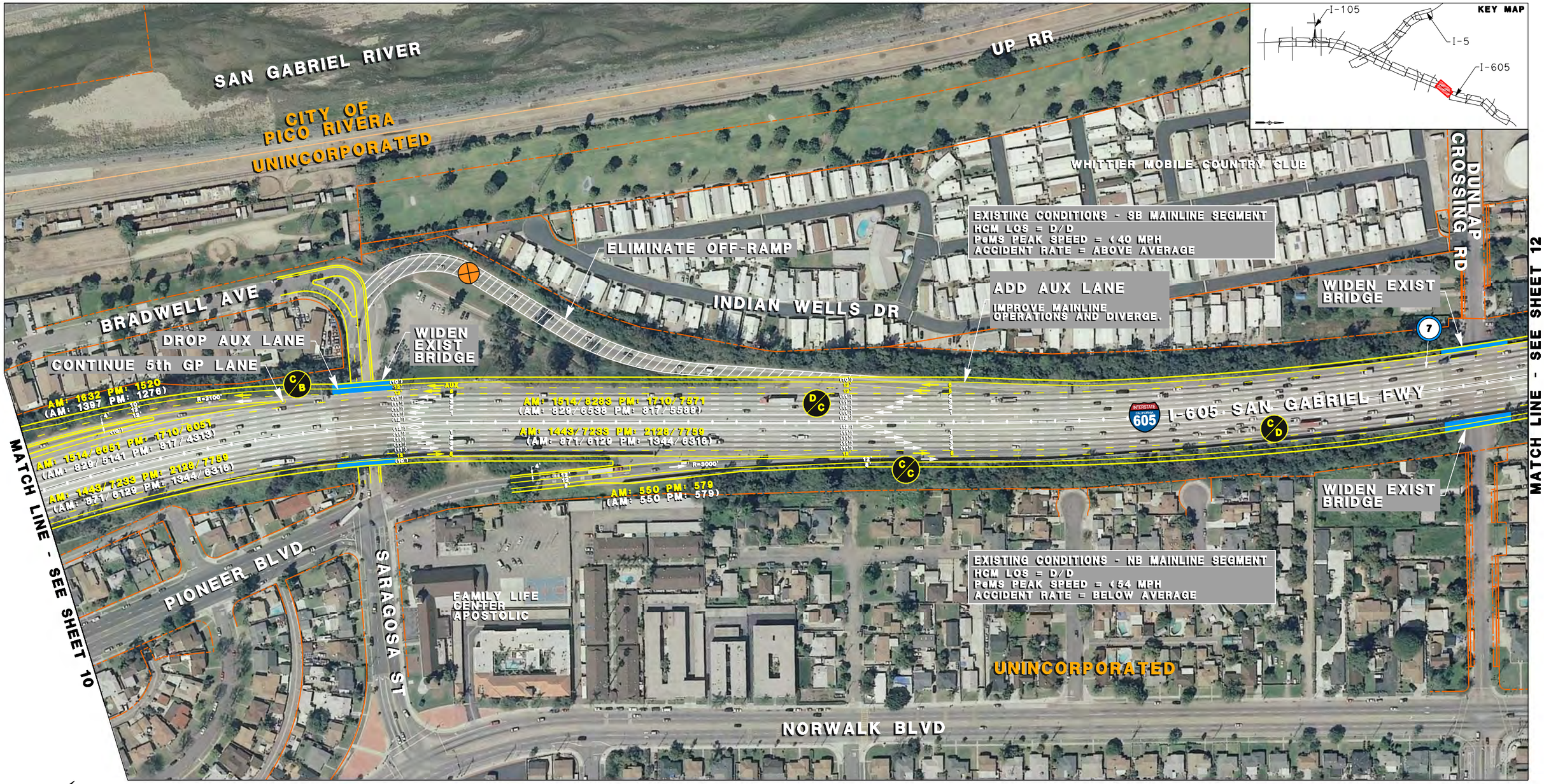
INTERSTATE 605 - ALTERNATIVE 1
Sheet 10 of 21



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INTERSTATE 605 - ALTERNATIVE 1
Sheet 11 of 21

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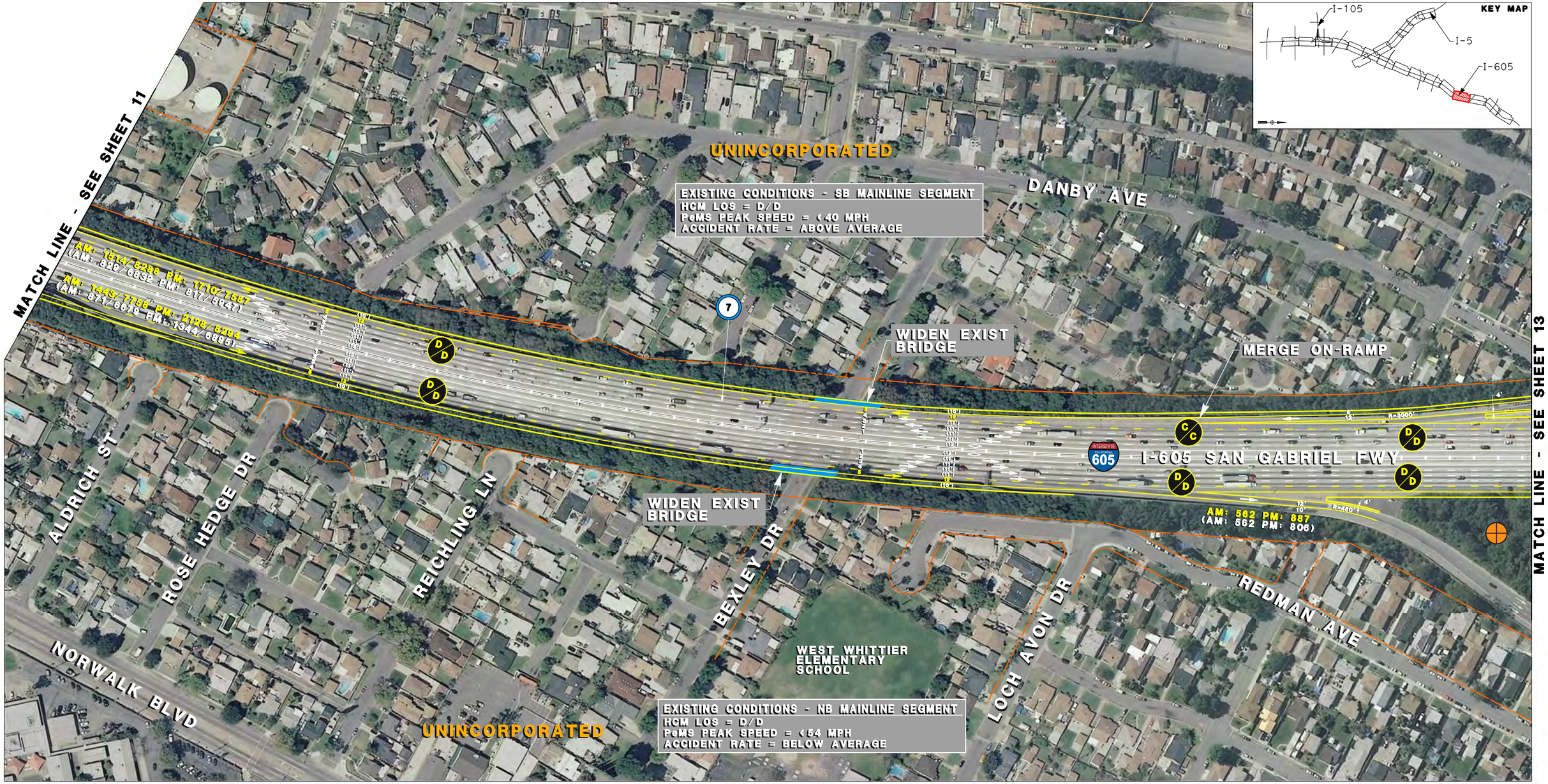

SCALE: 1"=200'

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- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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INTERSTATE 605 - ALTERNATIVE 1
Sheet 12 of 21

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 1
Sheet 13 of 21

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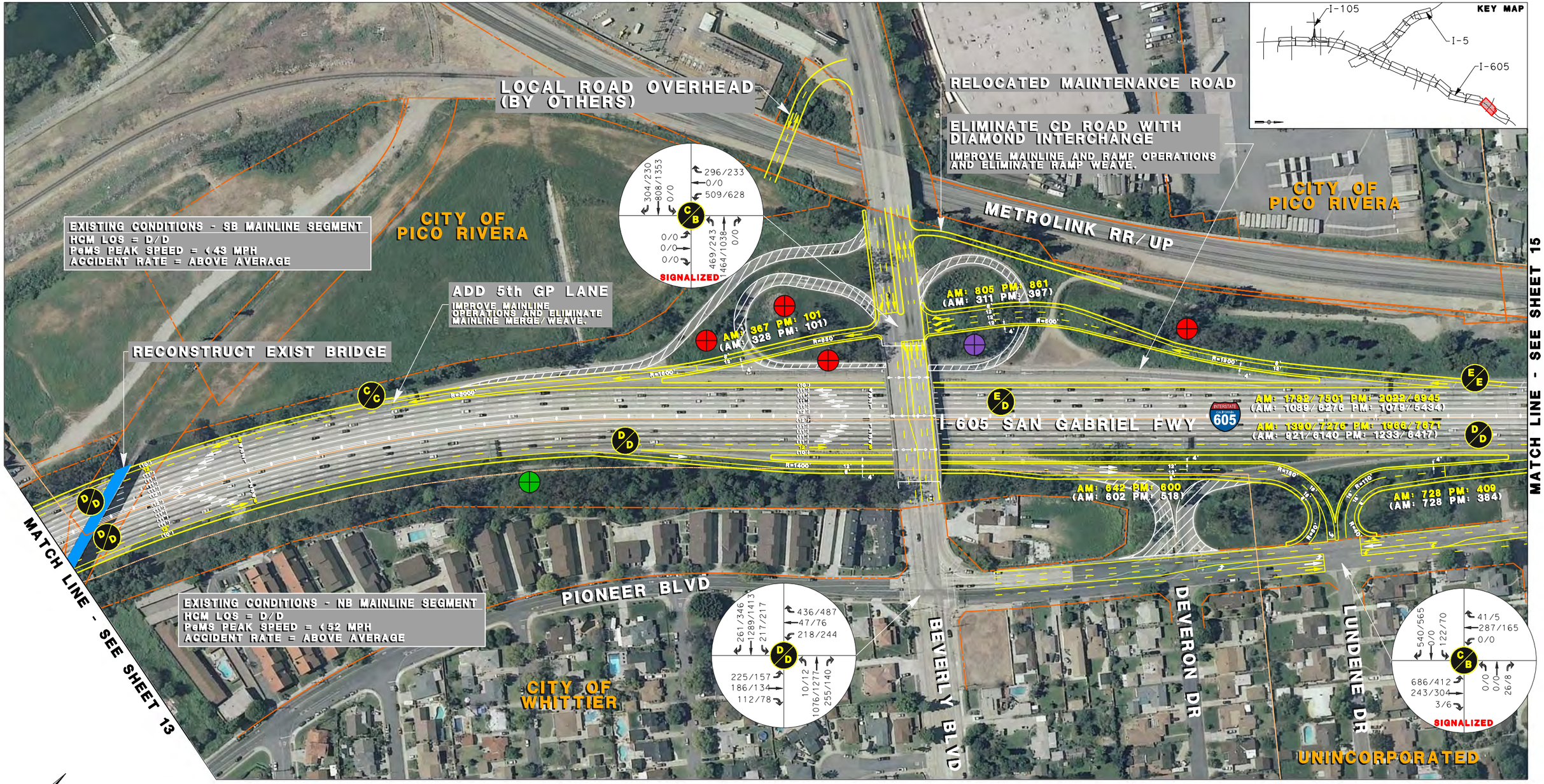

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 1
Sheet 14 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- D/D 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 1
Sheet 15 of 21

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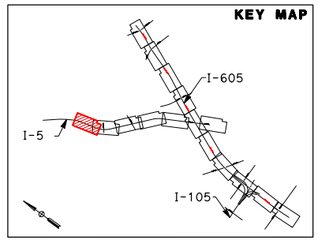

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 661/ 8462 2035 BUILD HOV/MAINLINE VOLUMES
- (661/ 8462) EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- F/E 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 1
Sheet 16 of 21

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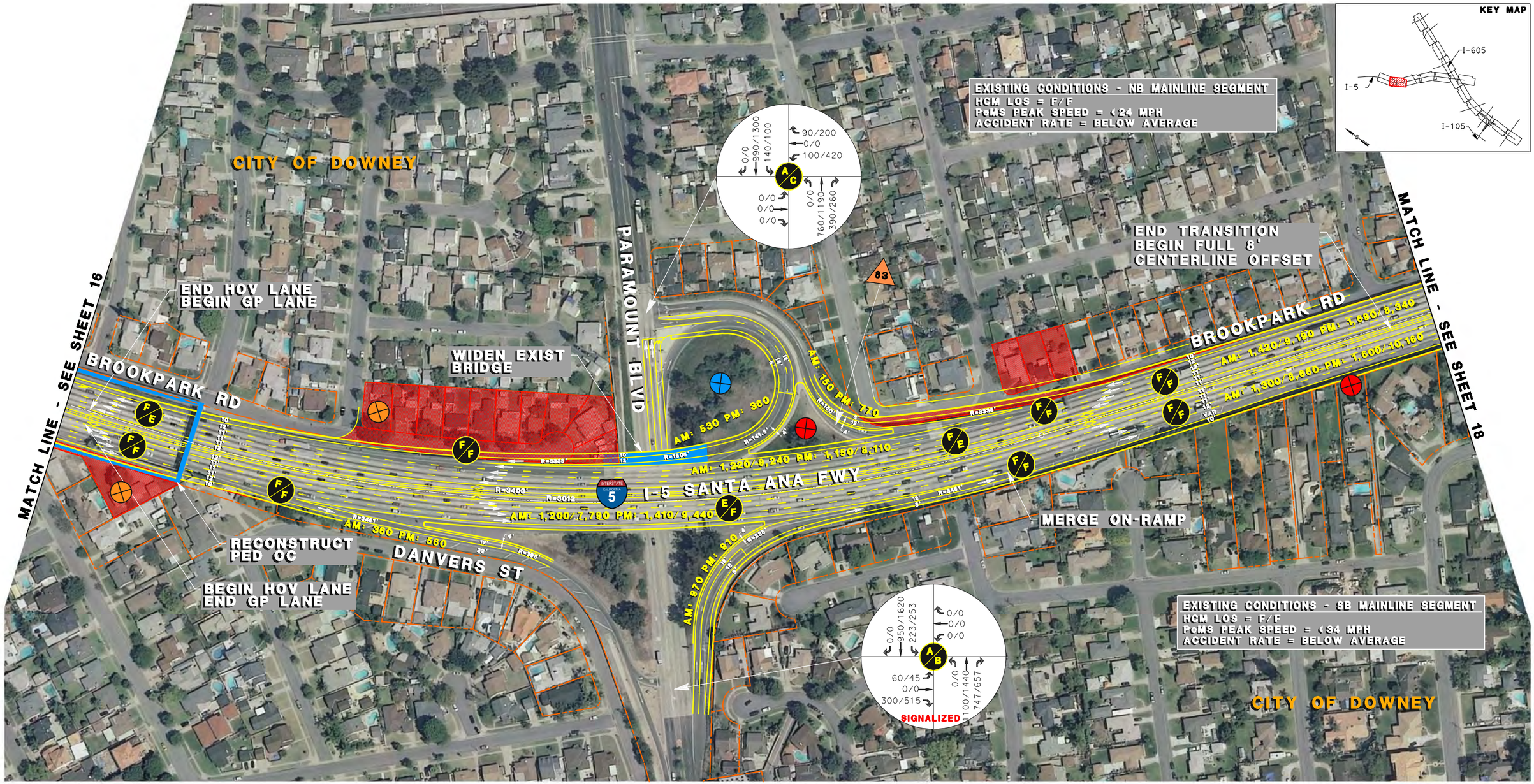

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 661/6462 — 2035 BUILD HOV/MAINLINE VOLUMES
- (661/6462) — EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- F/F — 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX — ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX — FREEWAY MAINLINE LOCATIONS
- XX — FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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INTERSTATE 5 - ALTERNATIVE 1
Sheet 17 of 21

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 1
Sheet 18 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 — 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) — EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- % — 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX — ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX — FREEWAY MAINLINE LOCATIONS
- XX — FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE CALIFORNIA 5

INTERSTATE 5 - ALTERNATIVE 1
Sheet 19 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 1
Sheet 20 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 6871/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (6871/8482) EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 1
Sheet 21 of 21

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MATCH LINE - JOIN I-605/SR-91 PSR-PDS

MATCH LINE - SEE SHEET 2

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = D/D
PeMS PEAK SPEED = ≤63 MPH
ACCIDENT RATE = BELOW AVERAGE

CITY OF NORWALK

EXCELSIOR DR

A

WIDEN EXIST BRIDGE

MERGE ON-RAMP

PIUMA AVE

RIGHT-OF-WAY IMPACT

R=6700'

R=3000'

AM: 881/8725 PM: 1007/8975
(AM: 692/8562 PM: 887/8823)

AM: 835/10607 PM: 1490/10773
(AM: 425/8989 PM: 1094/8804)

I-605 SAN GABRIEL FWY

AM: 1036 PM: 1457
(AM: 608 PM: 819)

BEHRENS AVE

RIGHT-OF-WAY IMPACT

A
(SEE TYPICAL SECTIONS)

R=2000'

R=660'

AM: 3171 PM: 3045
(AM: 3071 PM: 2799)

WIDEN TO 3 LANES

EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = D/D
PeMS PEAK SPEED = ≤40 MPH
ACCIDENT RATE = BELOW AVERAGE

CITY OF NORWALK

CARROW'S REST

WIDEN EXIST BRIDGE

RIGHT-OF-WAY IMPACT (PARTIAL TAKE BLDG CUT/RE-FACE)

MERGE ON-RAMP

MOTEL 6

AM: 396 PM: 451
(AM: 307 PM: 295)

ROSECRANS AVE

RECONSTRUCT SB ON & OFF-RAMPS

AM: 772 PM: 817
(AM: 481 PM: 348)

R=300'

R=150'

AM: 835/8635 PM: 1490/8956
(AM: 425/8508 PM: 1094/8455)

AM: 747/5688 PM: 854/6085
(AM: 602/5581 PM: 748/5671)

R=2000'

R=1950'

R=3000'

R=2814'

R=286'

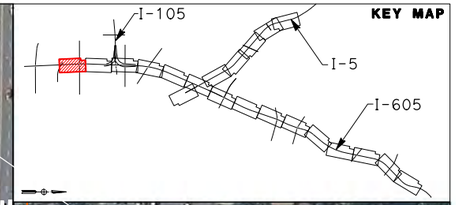
14

BEGIN 12' CENTERLINE ADJUSTMENT

END TRANSITION
BEGIN FULL 12' CENTERLINE OFFSET

LEIBACHER AVE

KEY MAP



SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2

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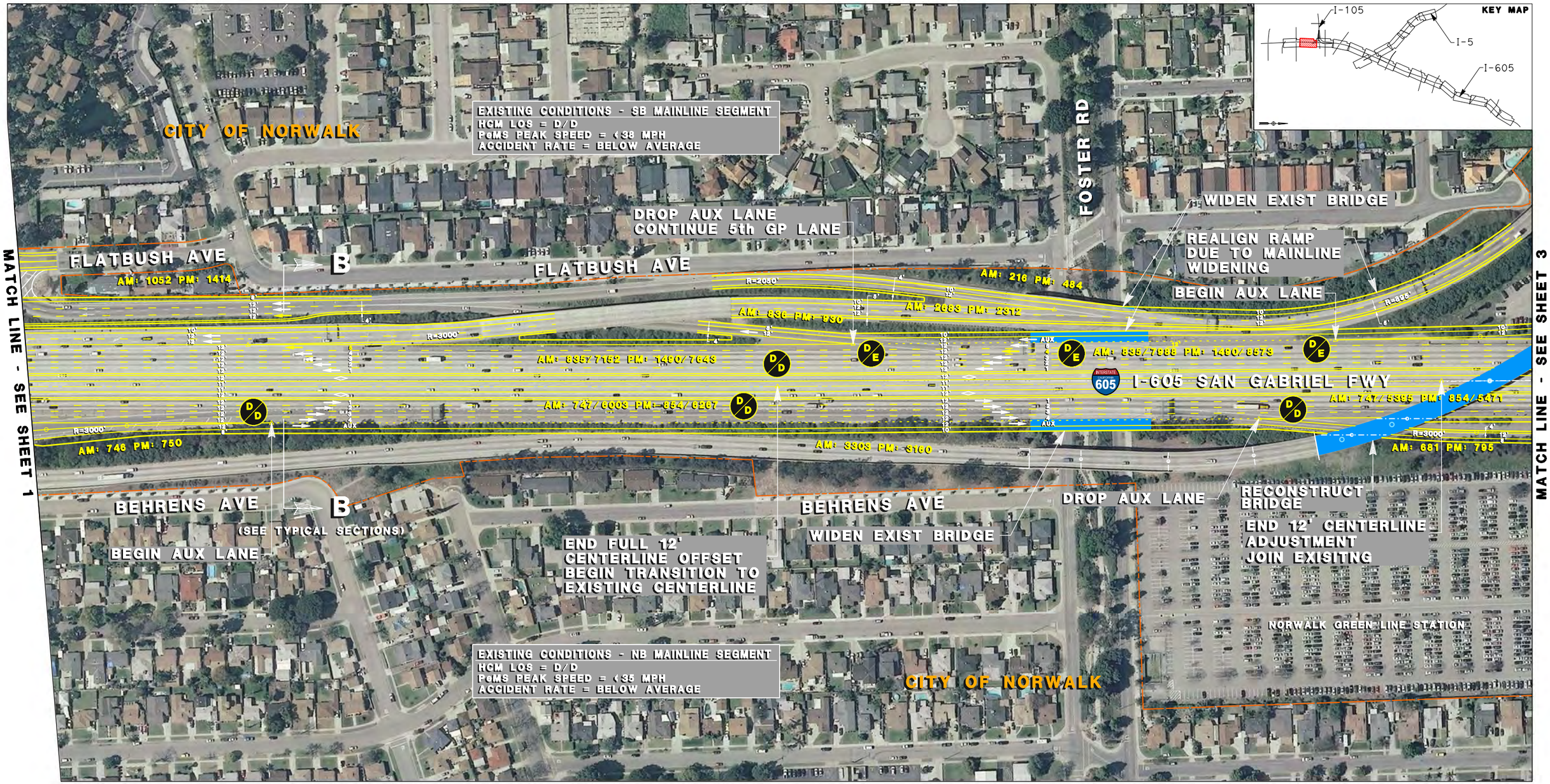

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- D/E 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2

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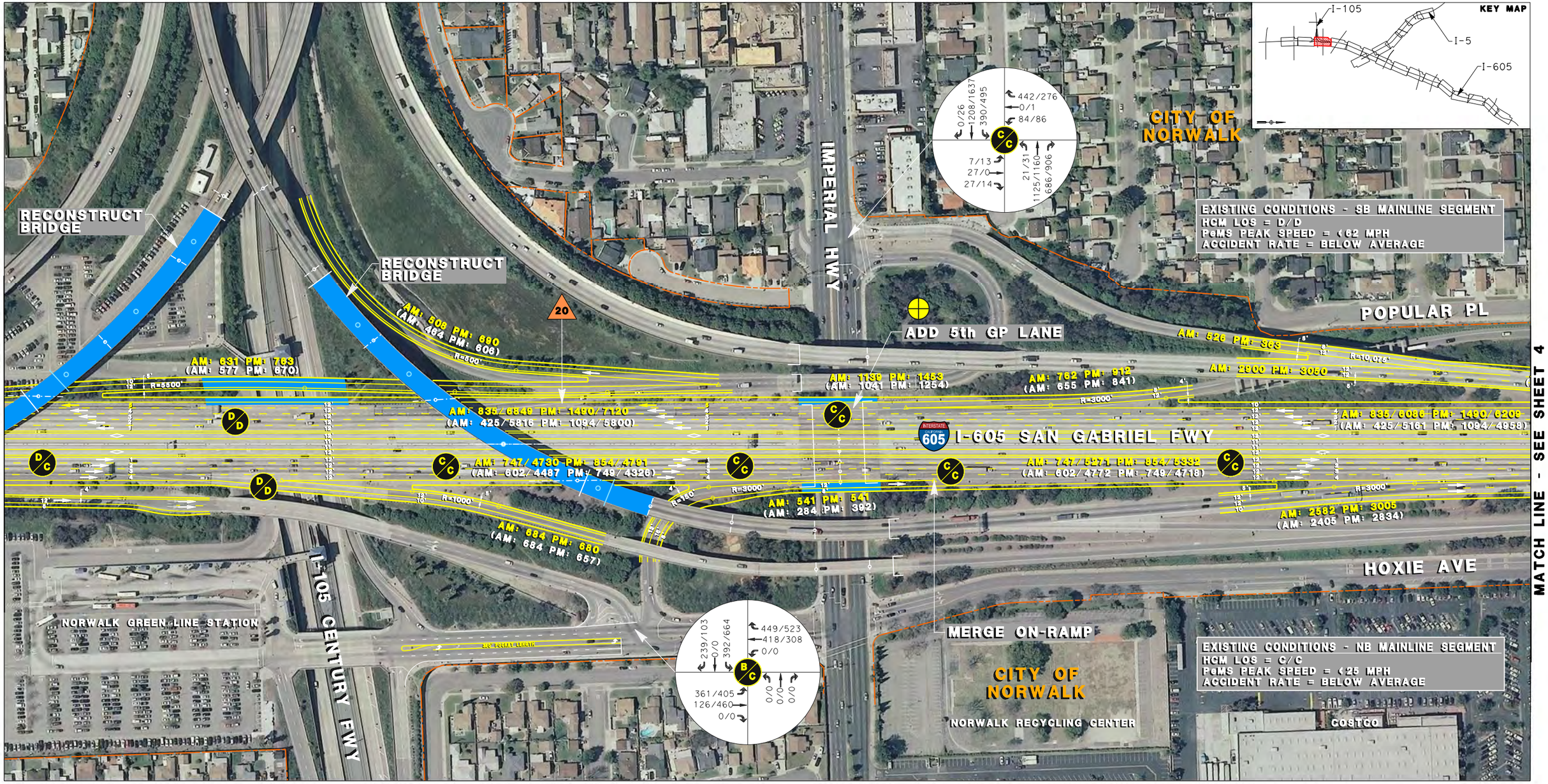

MATCH LINE - SEE SHEET 2

MATCH LINE - SEE SHEET 4

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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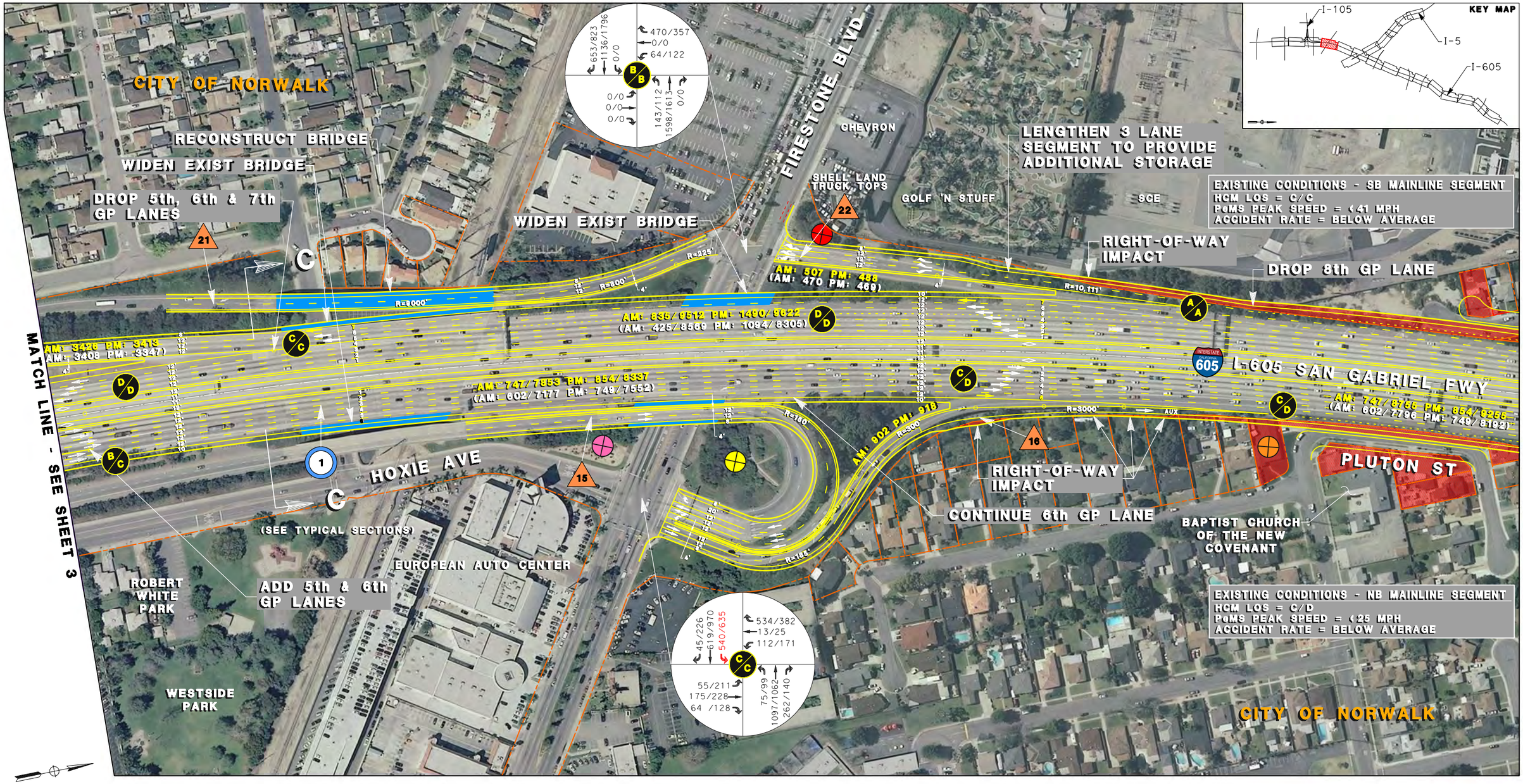
INTERSTATE 605 - ALTERNATIVE 2
Sheet 3 of 21



SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2
Sheet 4 of 21

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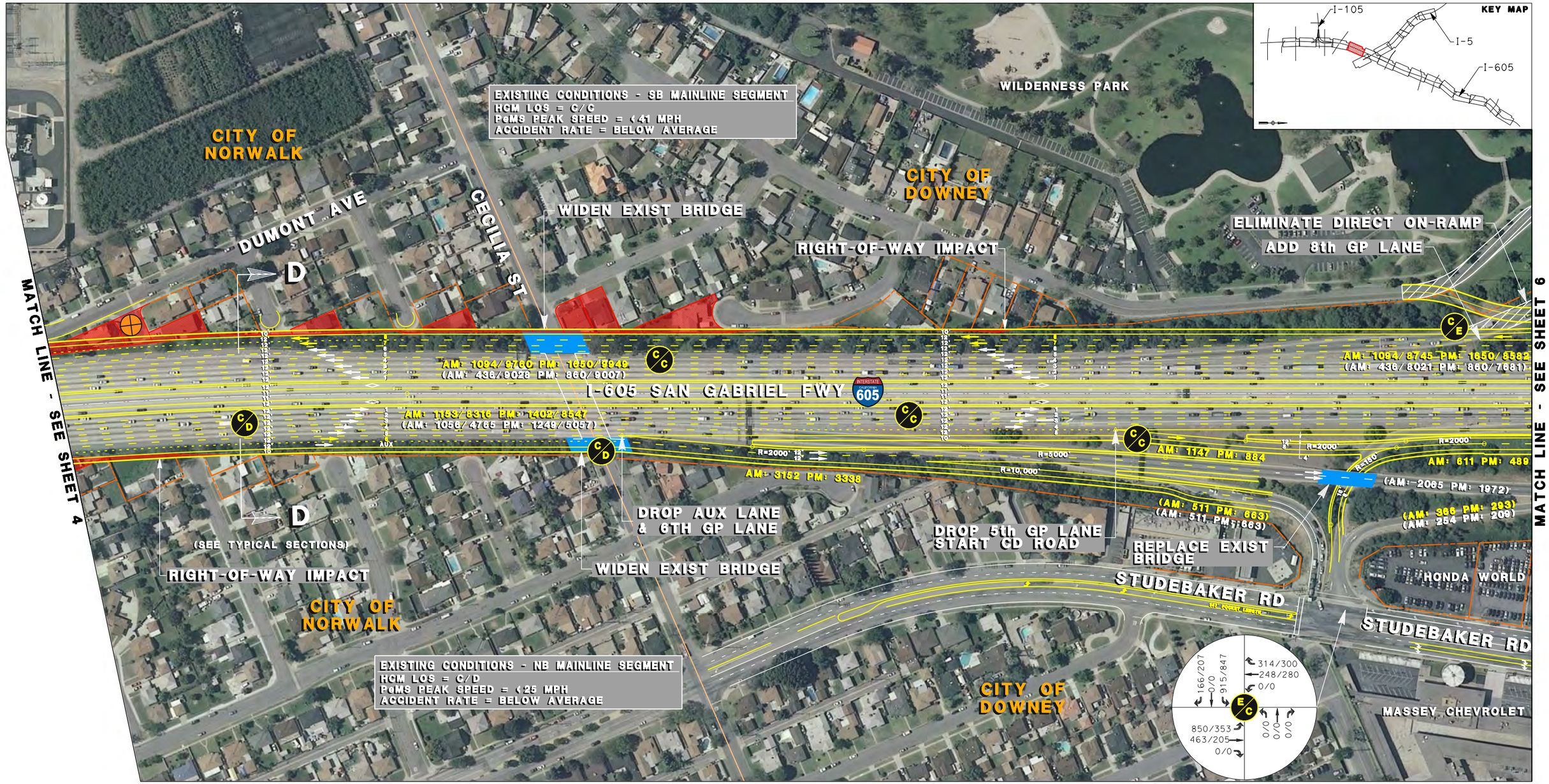

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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INTERSTATE 605 - ALTERNATIVE 2
Sheet 5 of 21

MATCH LINE - SEE BELOW RIGHT

MATCH LINE - SEE SHEET 20

MATCH LINE - SEE SHEET 5

MATCH LINE - SEE SHEET 7

MATCH LINE - SEE SHEET 21

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2
Sheet 6 of 21

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MATCH LINE - SEE BELOW LEFT

MATCH LINE - SEE SHEETS 6

MATCH LINE - SEE SHEET 8

KEY MAP

I-105

I-5

I-605

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = E/D
PeMS PEAK SPEED = <25 MPH
ACCIDENT RATE = ABOVE AVERAGE

EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = C/C
PeMS PEAK SPEED = <52 MPH
ACCIDENT RATE = BELOW AVERAGE

DAVENRICH ST

CEDARDALE DR

WIDEN EXIST BRIDGE

RIGHT-OF-WAY IMPACT

AM: 2649 PM: 2277
(AM: 1722 PM: 1377)

DROP 5th & 6th GP LANES & AUX LANE
(SEE TYPICAL SECTIONS)

AM: 1084/8764 PM: 1650/8778
(AM: 852/7051 PM: 992/5947)

AM: 4589 PM: 5173

I-605 SAN GABRIEL FWY

AM: 3442 PM: 4289

AM: 1147 PM: 884
(AM: 1147 PM: 878)

END TRANSITION BEGIN FULL 8' CENTERLINE OFFSET

END FULL 8' CENTERLINE OFFSET BEGIN TRANSITION TO EXISTING CENTERLINE

ELIMINATE DIRECT OFF-RAMP

END 8' CENTERLINE ADJUSTMENT

ADD 5th & 6TH GP LANES

ADD 3rd THRU LANE BOTH DIRECTIONS

RIGHT-OF-WAY IMPACT

HORIZON NURSERY

ADD AUX LANE

WIDEN EXIST BRIDGE

RIGHT-OF-WAY IMPACT

SAN GABRIEL RIVER

SAN GABRIEL RIVER TRAIL

CITY OF PICO RIVERA

SCE

AM: 423 PM: 388
(AM: 414 PM: 386)

AM: 1311 PM: 1455
(AM: 1155 PM: 1331)

AM: 1084/8454 PM: 1650/7323
(AM: 852/5896 PM: 992/4616)

AM: 1153/7970 PM: 1402/9277

RIGHT-OF-WAY IMPACT

AM: 1514/8466 PM: 1710/7647
(AM: 829/6393 PM: 817/5176)

AM: 1153/8191 PM: 1402/9676
(AM: 1056/6202 PM: 1249/6936)

AM: 497 PM: 484
(AM: 497 PM: 484)

WIDEN EXIST BRIDGE

RIGHT-OF-WAY IMPACT

MERGE ON-RAMP

RECONFIGURE RAMPS TO ALIGN WITH INTERSECTION

FRIENDSHIP PARK

ELIMINATE CONNECTION TO TELEGRAPH RD

RIGHT-OF-WAY IMPACT

BETHEL COMMUNITY CHURCH

BARTLEY AVE

CITY OF SANTA FE SPRINGS

TELEGRAPH RD

ORR AND DAY RD

MATCH LINE SEE ABOVE TOP

SAN GABRIEL RIVER

TELEGRAPH RD

32/85
1054/1333
413/275
115/116
0/0
410/229
15/21
24/10
6/17
2/11
1521/1192
923/1208

59/60
1235/1374
44/83
241/281
0/0
696/603
57/21
32/14
32/20
9/16
1767/1788
441/418

41/146
2138/1468
97/158
336/409
206/452
38/62
210/233
167/274
89/127
52/123
1635/1631
7/13

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2
Sheet 7 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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INTERSTATE 605 - ALTERNATIVE 2
Sheet 9 of 21

MATCH LINE - SEE LEFT INSERT

MATCH LINE - SEE SHEET 9

MATCH LINE - SEE SHEET 11

MATCH LINE SEE TOP RIGHT

WIDEN EXIST BRIDGE

RIGHT-OF-WAY IMPACT

WASHINGTON BLVD

SAN GABRIEL RIVER

UNINCORPORATED

SAN GABRIEL RIVER

UP RR

WIDEN EXIST BRIDGE

KEY MAP

I-105

I-5

I-605

ALLOW LEFT AND RIGHT TURNS

ELIMINATE CD ROAD WITH BRAIDED RAMP

IMPROVE MAINLINE OPERATIONS AND ELIMINATE MAINLINE MERGE/WEAVE.

AM: 457 PM: 471

CONSTRUCT NEW BRIDGE

253/257
0/0
102/101
1042/1317
0/0
0/0
1804/1639
0/0
0/0
0/0
0/0
0/0
SIGNALIZED

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = D/C
PeMS PEAK SPEED = <26 MPH
ACCIDENT RATE = ABOVE AVERAGE

BRADWELL AVE

WADDELL ST

WIDEN EXIST BRIDGE

H

R=5500'

R=3000'

R=2200'

R=880'

R=600'

R=400'

R=2020'

R=2017'

R=1600'

R=150'

AM: 515 PM: 586

AM: 738 PM: 671

AM: 1514/7389 PM: 1710/6722
(AM: 829/5141 PM: 817/4313)

AM: 1514/6651 PM: 1710/6051
(AM: 829/5141 PM: 817/4313)

I-605 SAN GABRIEL FWY

AM: 1443/7233 PM: 2128/7750
(AM: 871/6129 PM: 1344/6316)

AM: 1443/7679 PM: 2128/8454
(AM: 871/6440 PM: 1344/6889)

AM: 446 PM: 695
(AM: 311 PM: 573)

RIGHT-OF-WAY IMPACT

PIONEER BLVD

AM: 895 PM: 810
(AM: 709 PM: 881)

MOTEL 6

20' Min

H
(SEE TYPICAL SECTIONS)

RIGHT-OF-WAY IMPACT

WIDEN EXIST BRIDGE

PIONEER HIGH SCHOOL

EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = E/E
PeMS PEAK SPEED = <53 MPH
ACCIDENT RATE = BELOW AVERAGE

WASHINGTON BLVD

252/390
637/1061
80/143
518/327
228/274
194/112
281/214
231/336
247/282
129/183
1638/1014
46/82

UNINCORPORATED

269/275
0/0
190/344
0/0
546/587
0/0
0/0
612/774
0/0
0/0
0/0
0/0
SIGNALIZED

636/609
0/0
576/775
299/299
389/366
0/0
508/488
1119/1087
0/0
0/0
0/0
0/0
SIGNALIZED

SCALE: 1"=200'

10-JAN-2014

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LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

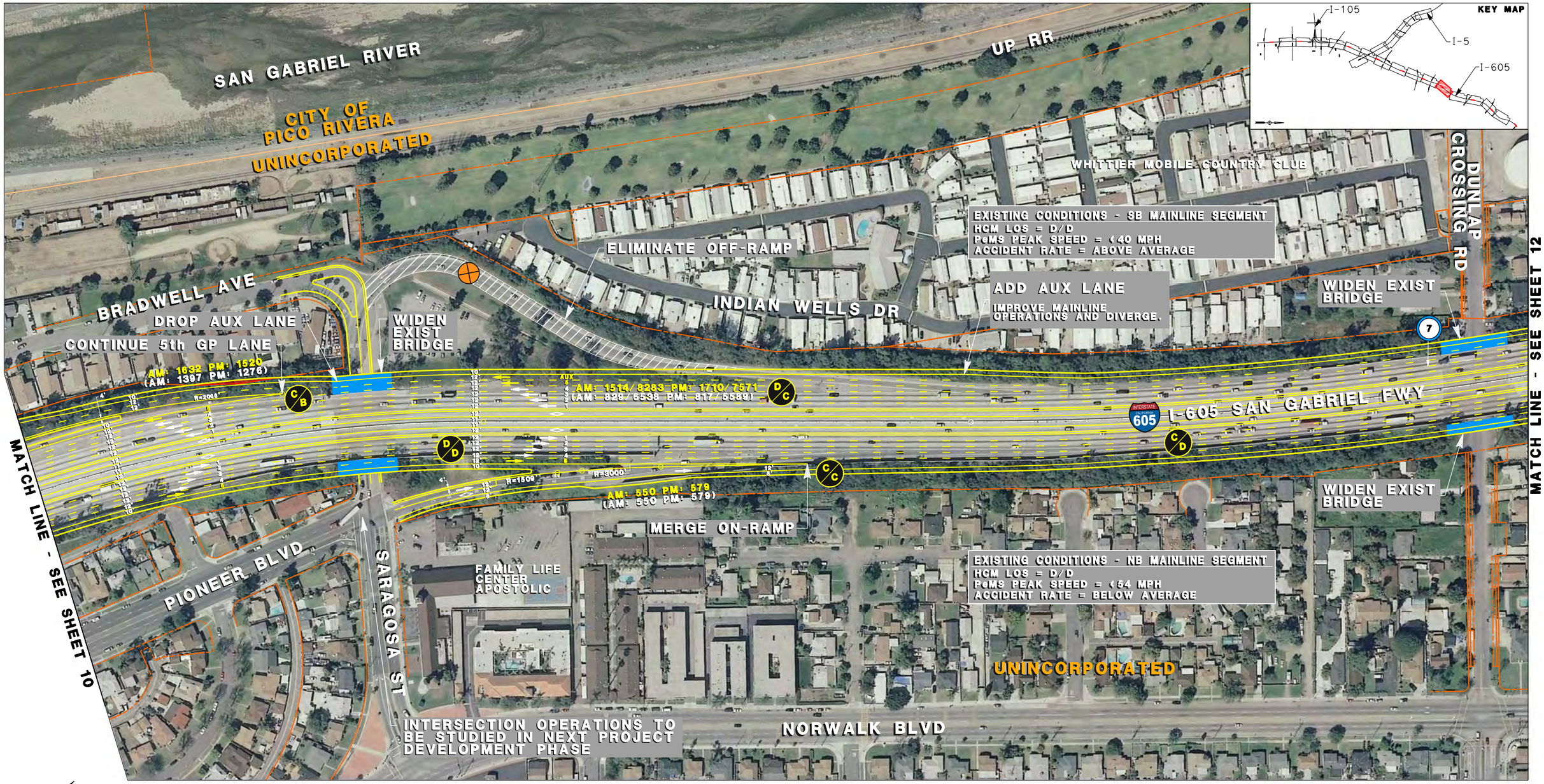
- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2

Sheet 10 of 21



SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
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- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

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- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
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- C/C 2035 BUILD: AM/PM LOS

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- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
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- POTENTIAL BIOFILTRATION STRIPS
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POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

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- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
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- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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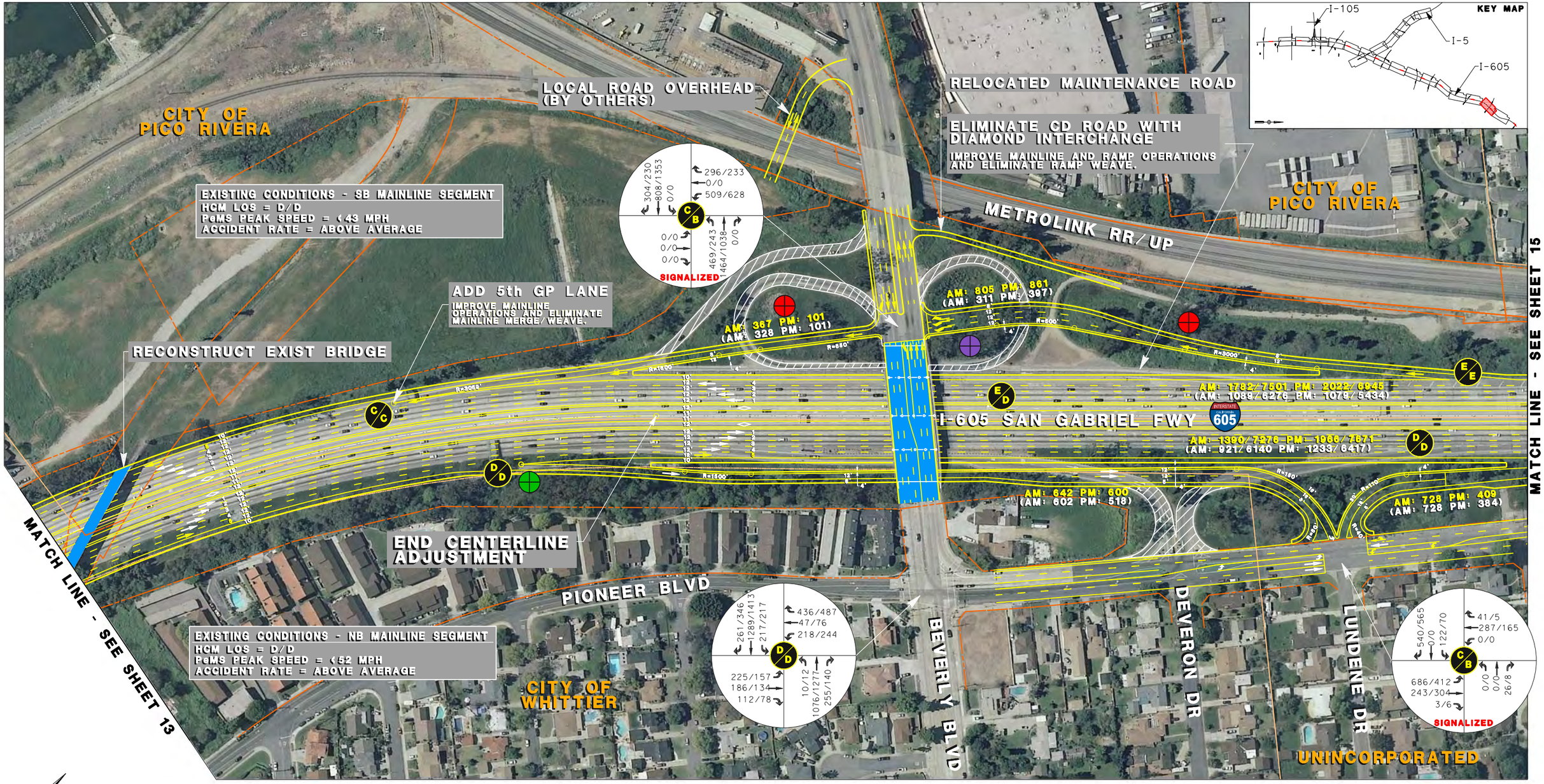
INTERSTATE 605 - ALTERNATIVE 2
Sheet 13 of 21



SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2
Sheet 14 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/ 8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/ 8482) EXISTING (HOV/MAINLINE) VOLUMES
- 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2
Sheet 15 of 21

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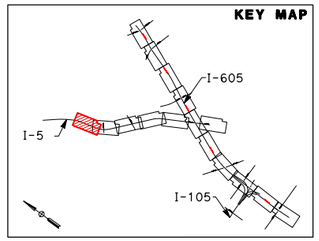

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/ 8482 — 2035 BUILD HOV/MAINLINE VOLUMES
- (691/ 8482) — EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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INTERSTATE 5 - ALTERNATIVE 2
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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8462 — 2035 BUILD HOV/MAINLINE VOLUMES
- (687/8482) — EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- C/C — 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX — ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX — FREEWAY MAINLINE LOCATIONS
- XX — FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 2
Sheet 17 of 21

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EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = F/F
PeMS PEAK SPEED = <24 MPH
ACCIDENT RATE = BELOW AVERAGE

ALLOW RIGHT-IN RIGHT-OUT ACCESS ONLY

ELIMINATE DIRECT ON-RAMP

END TRANSITION BEGIN FULL 2' CENTERLINE OFFSET

MERGE ON-RAMP

CITY OF DOWNEY
(SEE TYPICAL SECTIONS)

A
BROOKPARK RD

VISTA DEL ROSA ST

SUNSET VAN

THRIFTY

LA CAMPER SHELLS

LINDELL AVE

ELIMINATE LOCAL CONNECTION

2 LANE EXIT
DROP 6th LANE

DROP 5th GP LANE

EDITH UNSWORTH ELEMNTARY

AM: 670 PM: 240

AM: 820 PM: 1,000

R=185' R=200'

R=145' R=300'

R=3000'

AM: 1,360/8,690 PM: 1,390/8,290

190 PM: 1,690/8,340

60 PM: 1,600/10,160

AM: 1,250/7,990 PM: 1,340/9,540

I-5 SANTA ANA FWY

AM: 720 PM: 880

R=136' R=3000'

AM: 680 PM: 650

VISTA DEL RIO DR

RIGHT-OF-WAY IMPACT

ADD 5th GP LANE

DENNIS THE MENACE PARK

WIDEN EXIST BRIDGE

ELIMINATE DIRECT ON-RAMP

LAKEWOOD BLVD

CLANCEY AVE

CITY OF DOWNEY

A
VISTA DEL RIO DR

RIGHT-OF-WAY IMPACT

END FULL 6' CENTERLINE OFFSET
BEGIN TRANSITION TO 2' CENTERLINE OFFSET

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = F/F
PeMS PEAK SPEED = <34 MPH
ACCIDENT RATE = BELOW AVERAGE

MATCH LINE - SEE SHEET 17

MATCH LINE - SEE SHEET 19

KEY MAP
I-605
I-5
I-105

310/491
0/0
510/509
0/0
350/1320
280/40
0/0
0/0
200/130
0/0
340/1740
390/200
C/C

420/470
1050/1190
0/0
0/0
0/0
0/0
390/390
0/0
200/260
260/180
330/1550
0/0
B/B

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- F/F 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 2
Sheet 18 of 21

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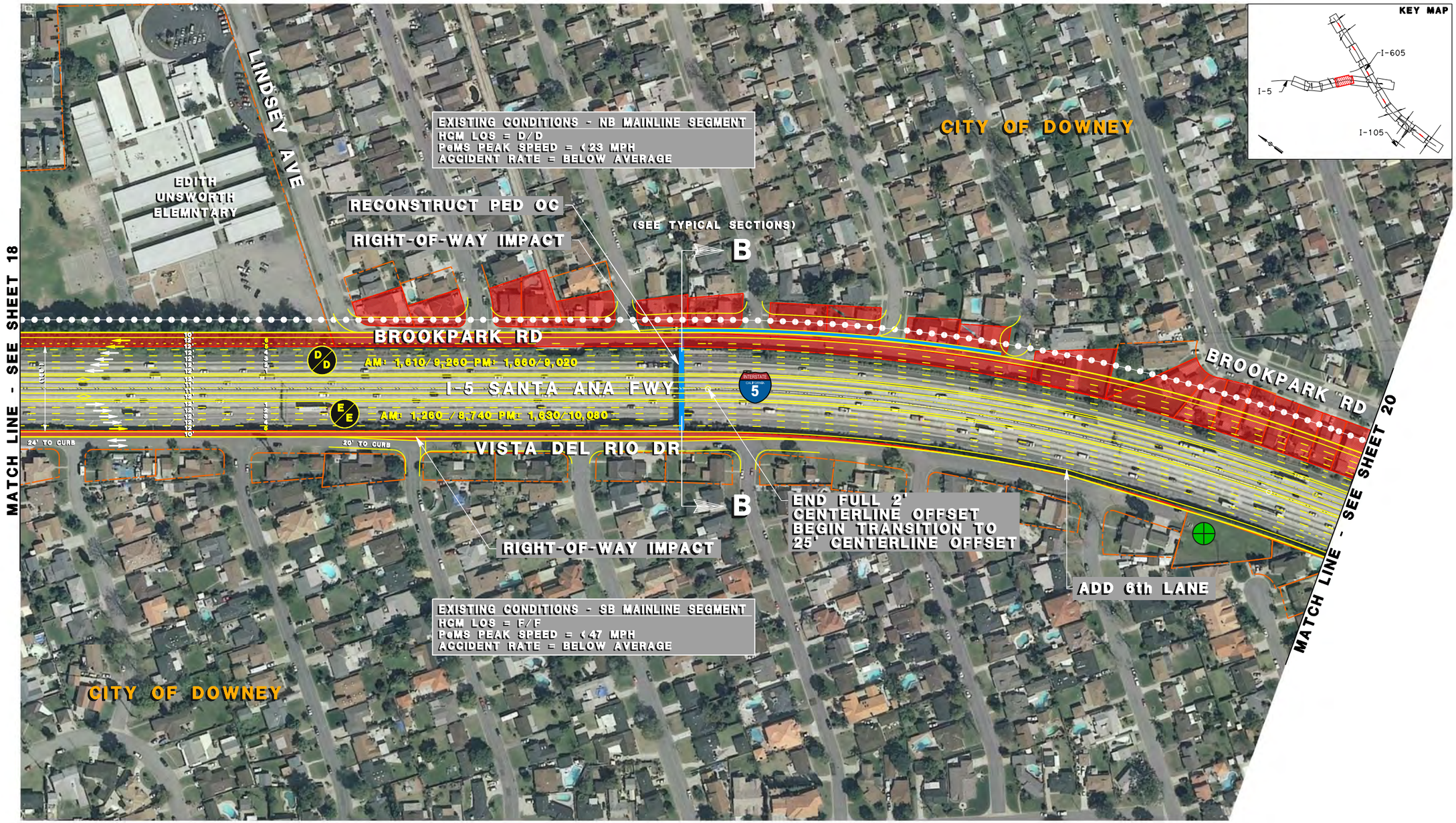

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 6971/8482 — 2035 BUILD HOV/MAINLINE VOLUMES
- (6971/8482) — EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- D/E — 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX — ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX — FREEWAY MAINLINE LOCATIONS
- XX — FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 2
Sheet 19 of 21

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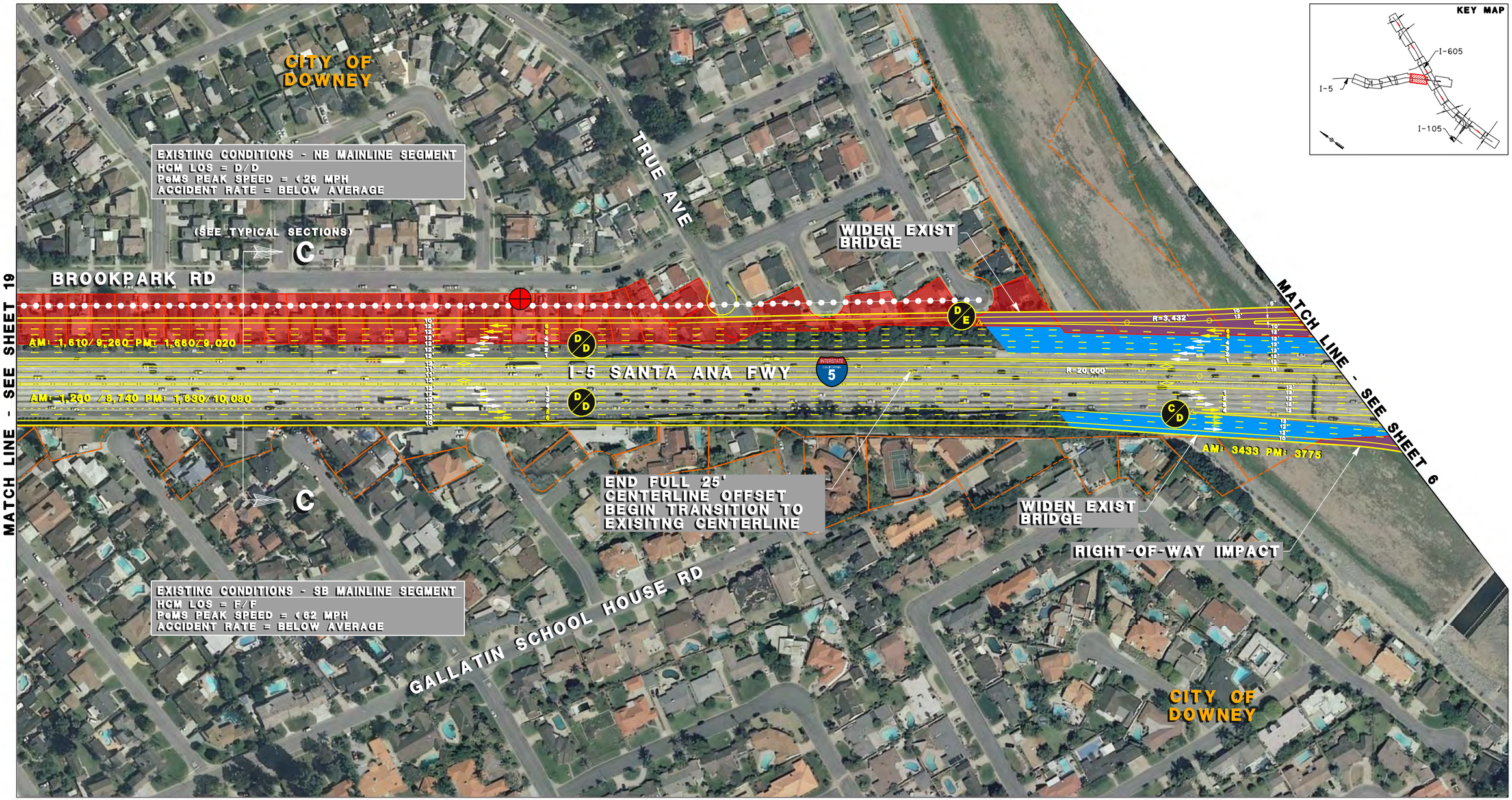

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- D/E 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE CALIFORNIA 5

INTERSTATE 5 - ALTERNATIVE 2
Sheet 20 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 — 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) — EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- C/C — 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX — ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX — FREEWAY MAINLINE LOCATIONS
- XX — FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 2
Sheet 21 of 21

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13-MAY-2014

MATCH LINE - JOIN I-605/SR-91 PSR-PDS

MATCH LINE - SEE SHEET 2

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = D/D
PeMS PEAK SPEED = ‹ 63 MPH
ACCIDENT RATE = BELOW AVERAGE

CITY OF NORWALK

EXCELSIOR DR

WIDEN EXIST BRIDGE

MERGE ON-RAMP

RIGHT-OF-WAY IMPACT

PIUMA AVE

AM: 396 PM: 451
(AM: 307 PM: 295)

MOTEL 6

WIDEN EXIST BRIDGE

MERGE ON-RAMP

CARROW'S REST

ROSECRANS AVE

RECONSTRUCT SB ON & OFF-RAMPS

AM: 772 PM: 817
(AM: 481 PM: 348)

AM: 835/10607 PM: 1490/10773
(AM: 425/8989 PM: 1094/8804)

AM: 835/9835 PM: 1490/9956
(AM: 425/8508 PM: 1094/8465)

I-605 SAN GABRIEL FWY

AM: 881/8725 PM: 1007/8975
(AM: 692/8562 PM: 837/8329)

AM: 747/6688 PM: 854/6083
(AM: 602/5581 PM: 749/5611)

AM: 3171 PM: 3045
(AM: 3071 PM: 2799)

BEHRENS AVE

AM: 1036 PM: 1457
(AM: 608 PM: 819)

(SEE TYPICAL SECTIONS)

RIGHT-OF-WAY IMPACT

WIDEN TO 3 LANES

14 BEGIN 12' CENTERLINE ADJUSTMENT

END TRANSITION
BEGIN FULL 12' CENTERLINE OFFSET

EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = D/D
PeMS PEAK SPEED = ‹ 40 MPH
ACCIDENT RATE = BELOW AVERAGE

CITY OF NORWALK

LEIBACHER AVE

KEY MAP

I-105

I-5

I-605

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2 OPTION I-105 HOV CONNECTORS

Sheet 1 of 7

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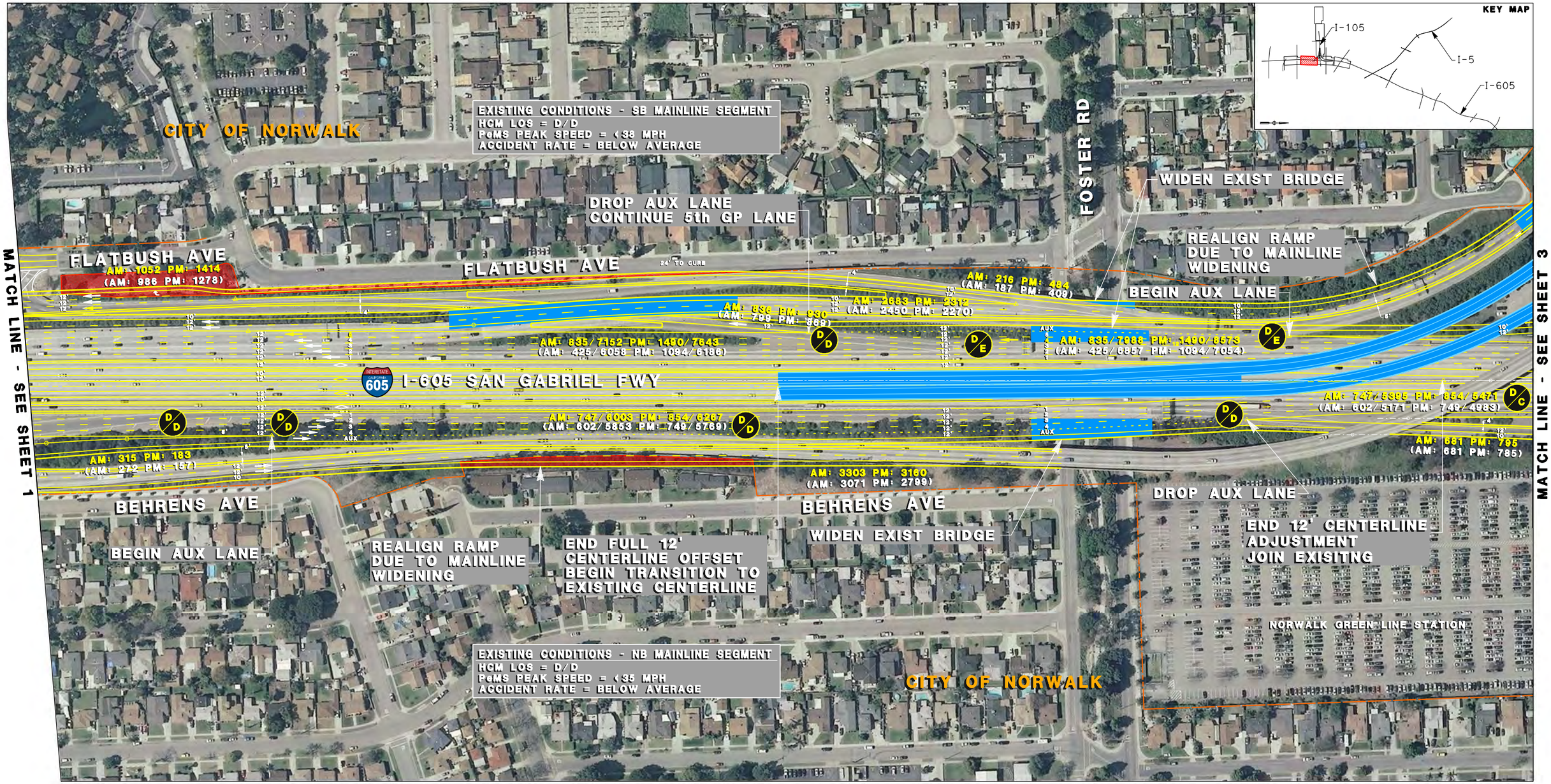

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- ARTERIAL INTERCHANGE RAMP LOCATIONS
- FREEWAY MAINLINE LOCATIONS
- FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2 OPTION I-105 HOV CONNECTORS

Sheet 2 of 7

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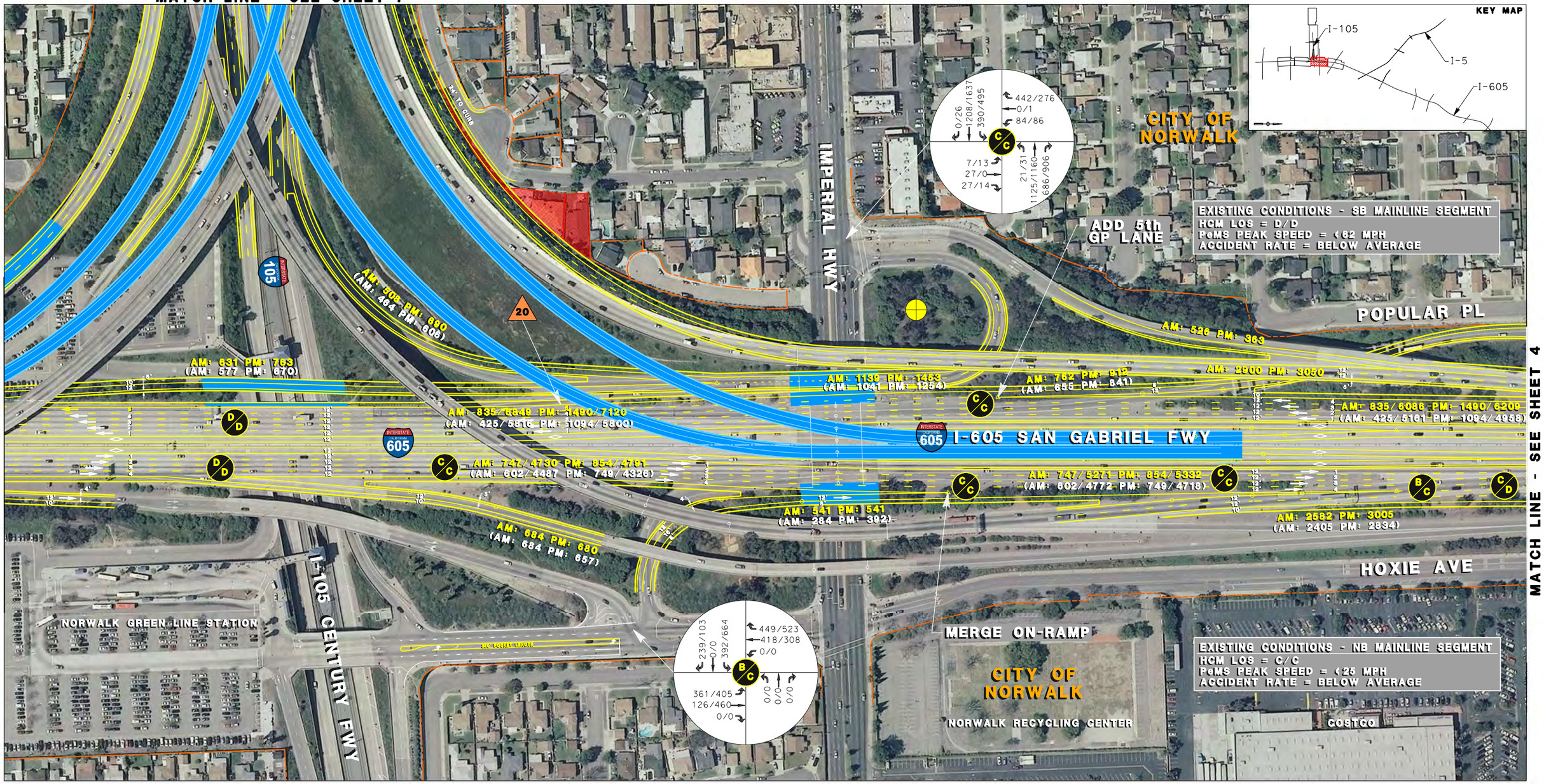
MATCH LINE - SEE SHEET 7

MATCH LINE - SEE SHEET 2

MATCH LINE - SEE SHEET 4



LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2 OPTION
I-105 HOV CONNECTORS
Sheet 3 of 7

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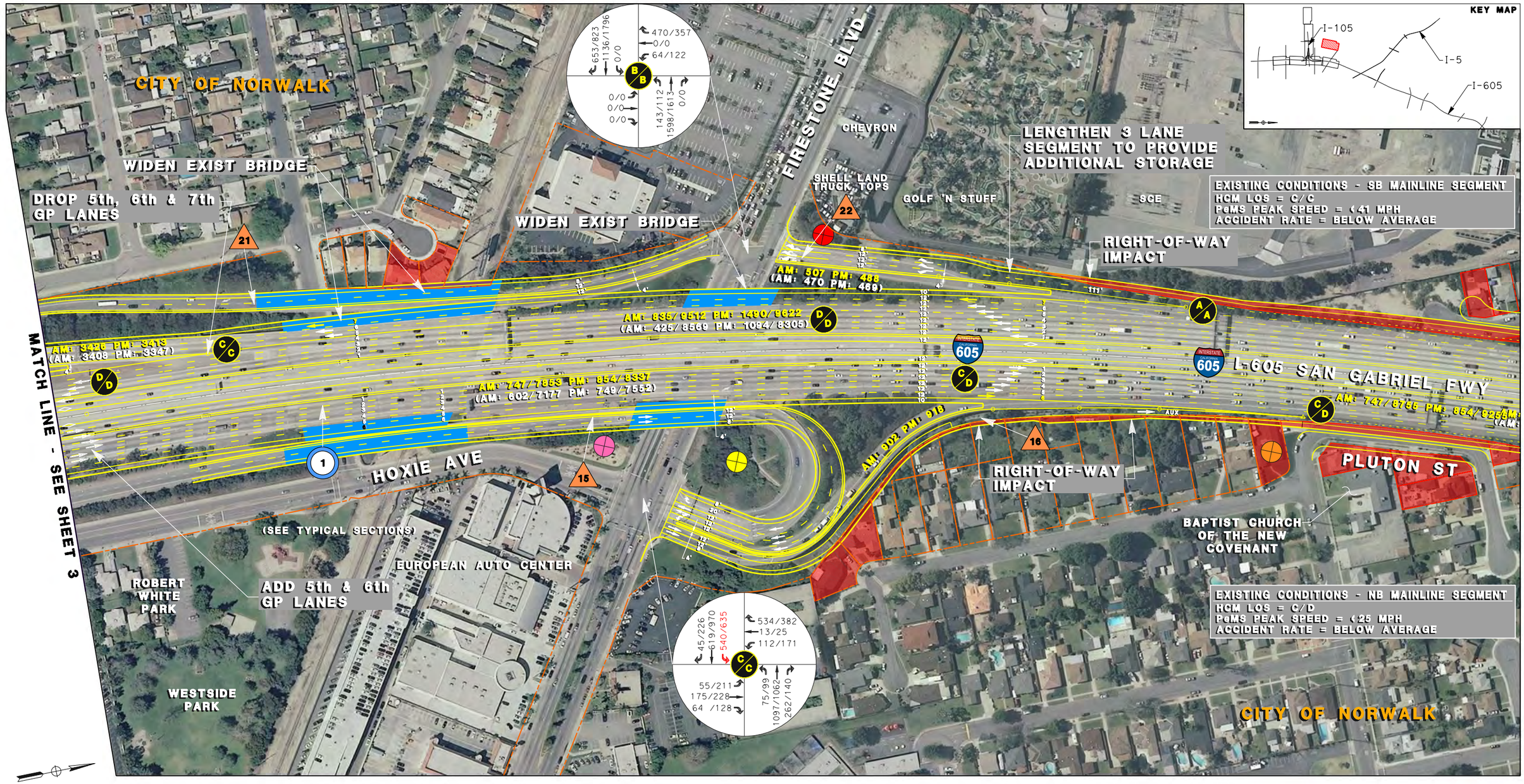

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 2 OPTION I-105 HOV CONNECTORS

Sheet 4 of 7

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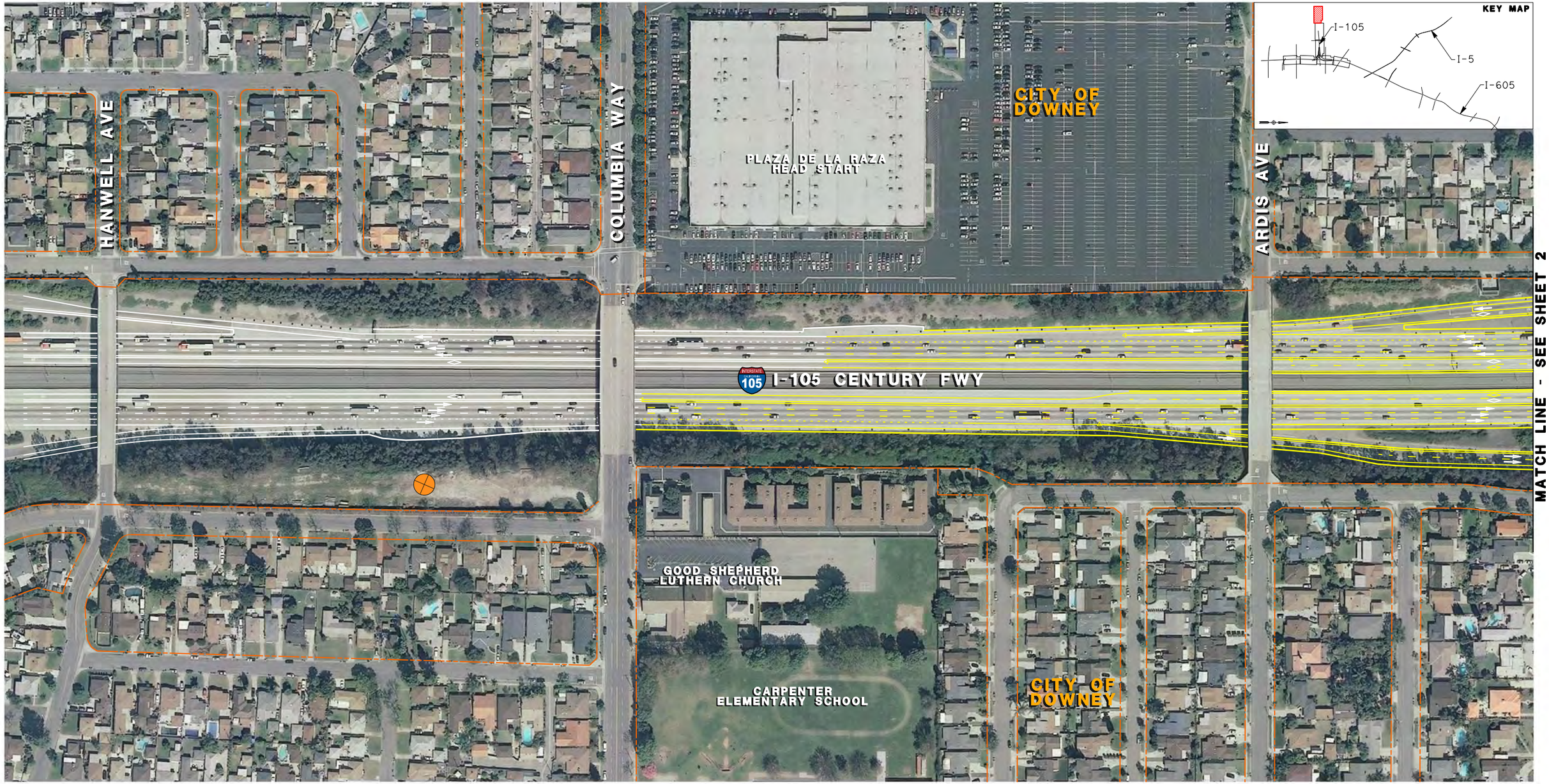

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 105 - ALTERNATIVE 2 OPTION
I-105 HOV CONNECTORS
Sheet 5 of 7

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LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/6482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/6482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 105 - ALTERNATIVE 2 OPTION
I-105 HOV CONNECTORS
Sheet 6 of 7

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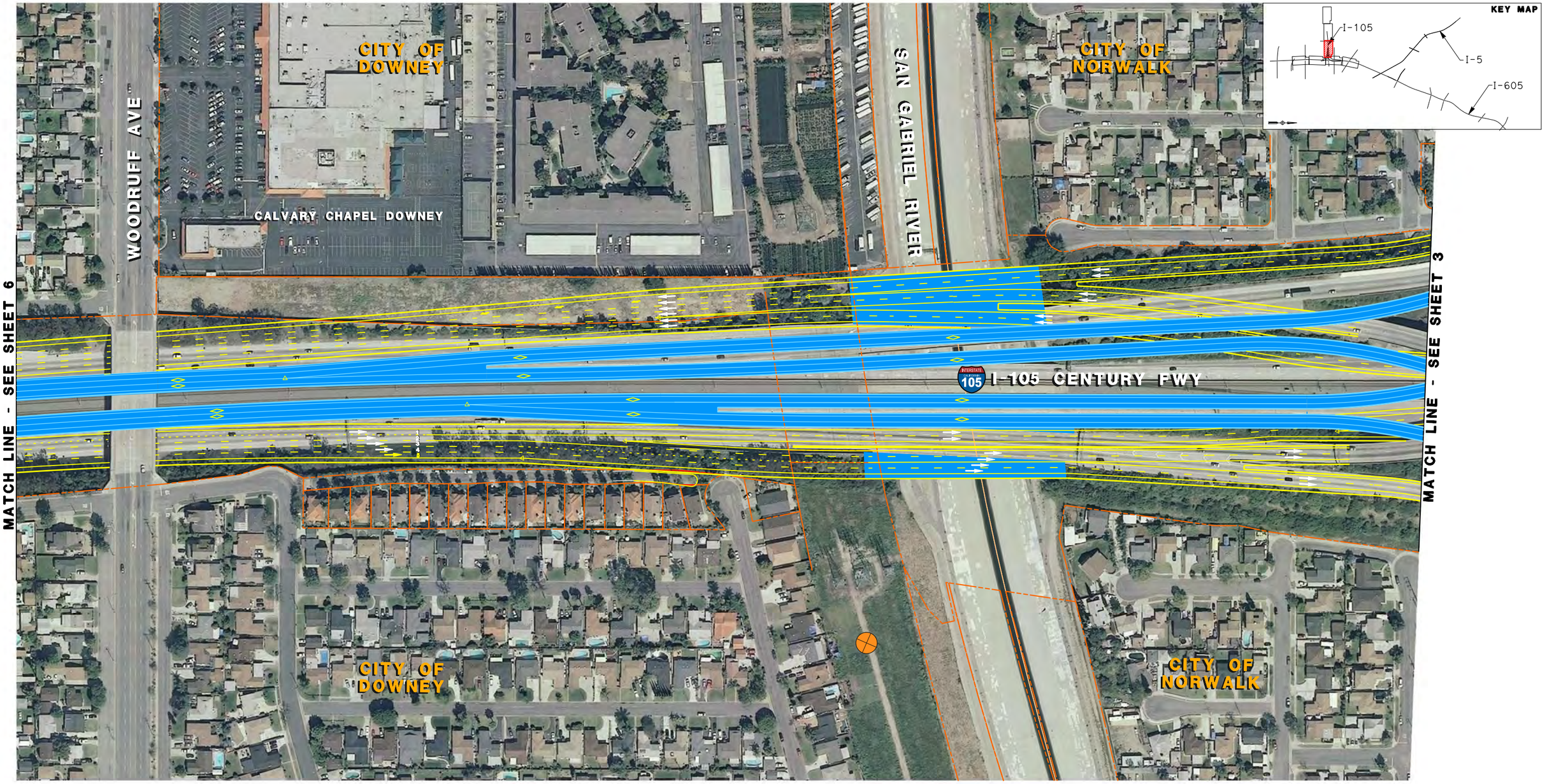

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/ 8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/ 8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 105 - ALTERNATIVE 2 OPTION
I-105 HOV CONNECTORS
Sheet 7 of 7

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CITY OF NORWALK

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = D/D
PeMS PEAK SPEED = 63 MPH
ACCIDENT RATE = BELOW AVERAGE

EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = D/D
PeMS PEAK SPEED = 40 MPH
ACCIDENT RATE = BELOW AVERAGE

KEY MAP
I-105
I-5
I-605

MATCH LINE - JOIN I-605/SR-91 PSR-PDS

MATCH LINE - SEE SHEET 2

EXCELSIOR DR

A

(SEE TYPICAL SECTIONS)

WIDEN EXIST BRIDGE

MERGE ON-RAMP

PIUMA AVE MERGE ON-RAMP

RECONSTRUCT SB ON & OFF-RAMPS

WIDEN EXIST BRIDGE

ROSECRANS AVE

AM: 396 PM: 451
(AM: 307 PM: 295)

AM: 772 PM: 817
(AM: 481 PM: 348)

AM: 835/ 10607 PM: 1490/ 10773
(AM: 425/ 8988 PM: 1094/ 8804)

I-605 SAN GABRIEL FWY

AM: 835/ 8835 PM: 1490/ 8956
(AM: 425/ 8508 PM: 1094/ 8455)

AM: 881/ 8725 PM: 1007/ 8975
(AM: 692/ 8562 PM: 837/ 8823)

AM: 747/ 5688 PM: 854/ 6085
(AM: 602/ 5581 PM: 748/ 5671)

BEHRENS AVE

AM: 1038 PM: 1457
(AM: 608 PM: 819)

AM: 3171 PM: 3045
(AM: 3071 PM: 2799)

AM: 132 PM: 115

14 BEGIN 12' CENTERLINE ADJUSTMENT

END TRANSITION
BEGIN FULL 12' CENTERLINE OFFSET

RIGHT-OF-WAY IMPACT

WIDEN TO 3 LANES

CITY OF NORWALK

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/ 8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/ 8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3

Sheet 1 of 21

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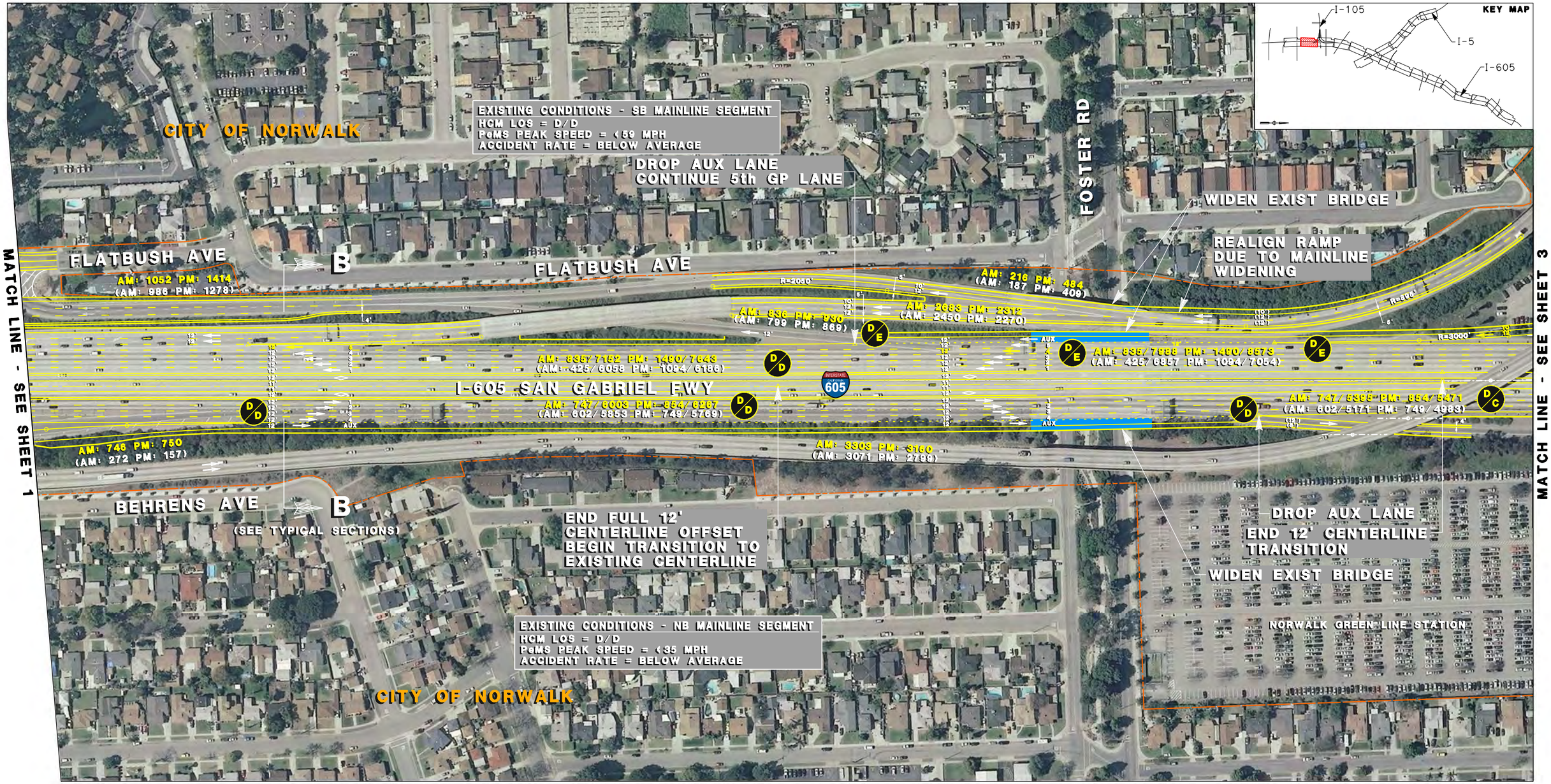

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/6482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/6482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
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POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3
Sheet 2 of 21

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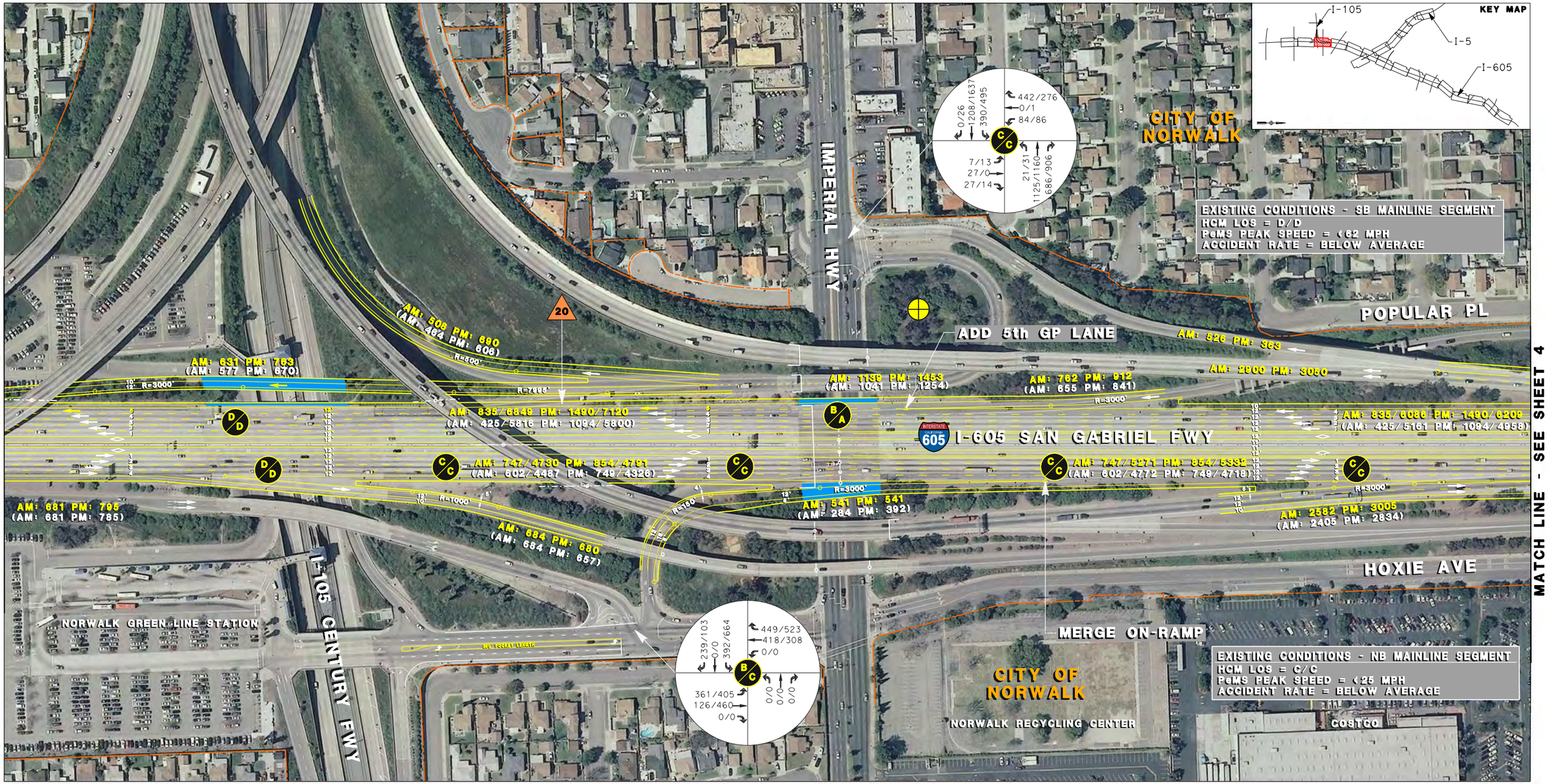

MATCH LINE - SEE SHEET 2

MATCH LINE - SEE SHEET 4

10-JAN-2014

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LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
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- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
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RECOMMENDED BMP LOCATIONS

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- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
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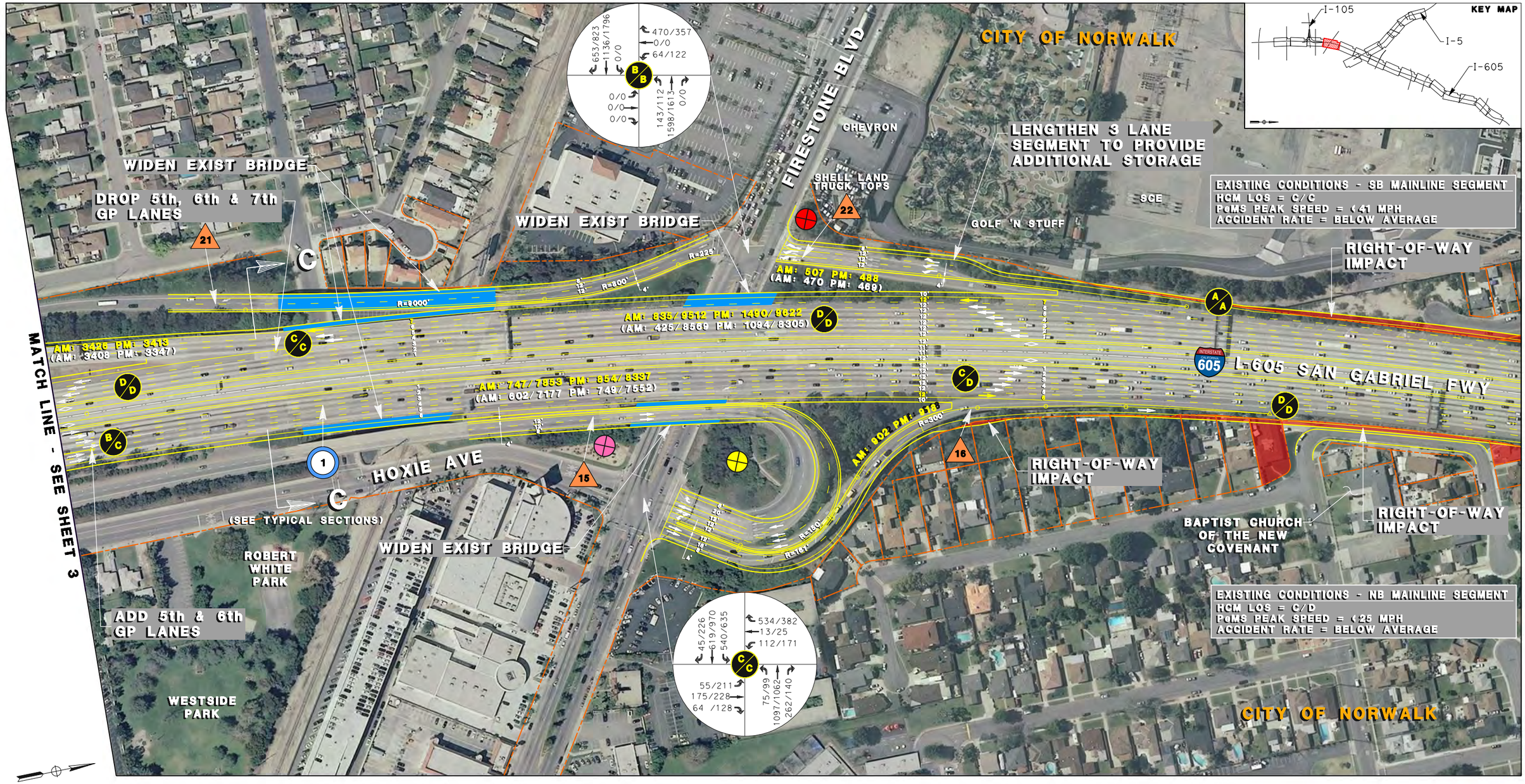
INTERSTATE 605 - ALTERNATIVE 3



SCALE: 1"=200'

10-JAN-2014

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LINEWORK LEGEND

- EXISTING R/W
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- PROPOSED BRIDGE IMPROVEMENTS
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- EXISTING BRIDGE COLUMNS/CL (Approx)
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VOLUME/LOS LEGEND

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- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
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POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
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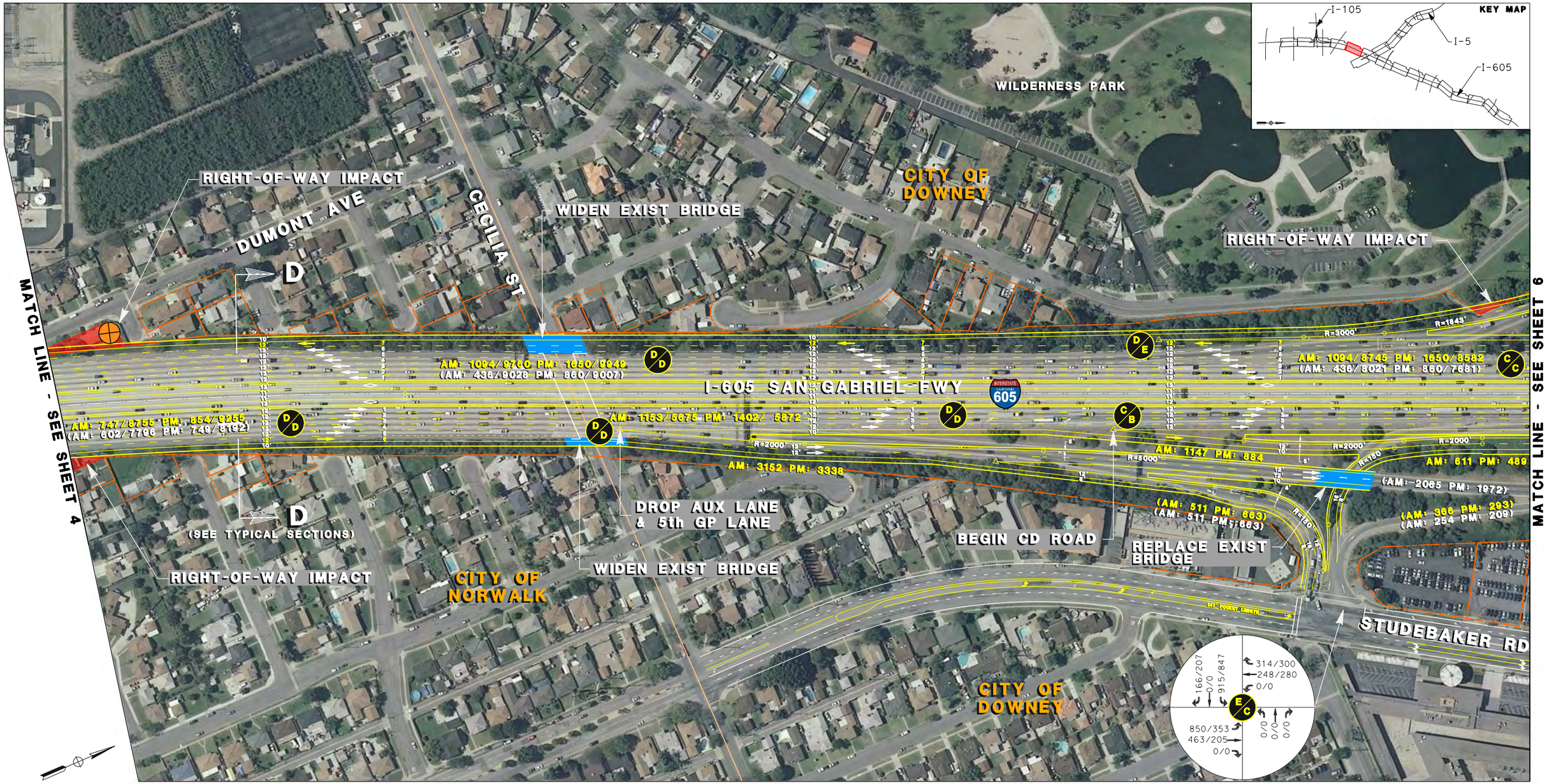
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3
Sheet 4 of 21



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LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
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VOLUME/LOS LEGEND

- 691/ 8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/ 8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3

Sheet 5 of 21

MATCH LINE - SEE SHEET 20

MATCH LINE - SEE SHEET 5

MATCH LINE - SEE SHEET 7

CITY OF DOWNEY

SAN GABRIEL RIVER

END CENTERLINE ADJUSTMENT

KEY MAP

I-105

I-5

I-605

AM: 384 PM: 743

(SEE TYPICAL SECTIONS)

E

WIDEN EXIST BRIDGE

CALTRANS FACILITY

ADD 6th & 7th GP LANE

AM: 1015 PM: 1367
(AM: 1007 PM: 1326)

(AM: 293 PM: 314)
(AM: 293 PM: 314)

(AM: 2402 PM: 2942)
(AM: 2402 PM: 2942)

AM: 1084/ 7259 PM: 1650/ 6870
(AM: 486/ 5888 PM: 860/ 5071)

AM: 1094/ 7115 PM: 1650/ 6501
(AM: 486/ 5745 PM: 860/ 4708)

I-605 SAN GABRIEL FWY

AM: 1153/ 4528 PM: 1402/ 4988

AM: 1758 PM: 1373

AM: 767 PM: 544
(AM: 738 PM: 519)

AM: 1810 PM: 1,820
(AM: 1087 PM: 822)

AM: 2525 PM: 1917

AM: 2642 PM: 2611
(AM: 2286 PM: 2072)

AM: 2084 PM: 3256
(AM: 784 PM: 1378)

FLORENCE AVE

WIDEN EXIST BRIDGE

BEGIN CENTERLINE ADJUSTMENT

BEGIN CENTERLINE ADJUSTMENT

MASSEY CHEVROLET

STUDEBAKER RD

WORLD OF DECOR

I-5 SANTA ANA FWY

CITY OF SANTA FE SPRINGS

AM: 365 PM: 297
(AM: 23 PM: 100)

AM: 1,140
PM: 1,960

MATCH LINE - SEE SHEET 21

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/ 8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/ 8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3
Sheet 6 of 21

13-MAY-2014

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MATCH LINE - SEE BELOW LEFT

MATCH LINE - SEE SHEETS 6

MATCH LINE - SEE SHEET 8

KEY MAP

I-105

I-5

I-605

CITY OF DOWNEY

CITY OF SANTA FE SPRINGS

CITY OF PICO RIVERA

SAN GABRIEL RIVER

SCE

CEDARDALE DR

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = E/D
PeMS PEAK SPEED = <25 MPH
ACCIDENT RATE = ABOVE AVERAGE

WIDEN EXIST BRIDGE

DROP 5th & 6th GP LANES & AUX LANE

(SEE TYPICAL SECTIONS)

F

5

AM: 2649 PM: 2277
(AM: 1722 PM: 1377)

AM: 1094/8764 PM: 1650/8778
(AM: 852/7051 PM: 992/5947)

AUX

I-605 SAN GABRIEL FWY

INTERSTATE 605

AM: 4589 PM: 5173

AM: 3442 PM: 4288

AM: 1147 PM: 884
(AM: 1147 PM: 878)

WIDEN EXIST BRIDGE

RIGHT-OF-WAY IMPACT

ELIMINATE DIRECT OFF-RAMP

ADD 3rd THRU LANE BOTH DIRECTIONS

RIGHT-OF-WAY IMPACT

HORIZON NURSERY

ADD AUX LANE

WIDEN EXIST BRIDGE

AM: 1311 PM: 1455
(AM: 1155 PM: 1331)

AM: 1094/8454 PM: 1650/7323
(AM: 852/5896 PM: 992/4616)

AM: 1153/7970 PM: 1402/9277

AM: 423 PM: 388
(AM: 414 PM: 386)

RIGHT-OF-WAY IMPACT

AM: 497 PM: 484
(AM: 497 PM: 484)

RIGHT-OF-WAY IMPACT

MERGE ON-RAMP

RECONFIGURE RAMPS TO ALIGN WITH INTERSECTION

FRIENDSHIP PARK

BARTLEY AVE

ELIMINATE CONNECTION TO TELEGRAPH RD

BETHEL COMMUNITY CHURCH

TELEGRAPH RD

CITY OF SANTA FE SPRINGS

ORR AND DAY RD

EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = C/C
PeMS PEAK SPEED = <52 MPH
ACCIDENT RATE = BELOW AVERAGE

MATCH LINE SEE ABOVE TOP

TELEGRAPH RD

SAN GABRIEL RIVER

WIDEN EXIST BRIDGE

SCALE: 1"=200'

LINEWORK LEGEND
- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND
- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS
- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS
- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3
Sheet 7 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

10-JAN-2014

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INTERSTATE 605 - ALTERNATIVE 3
Sheet 8 of 21

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
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POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3
Sheet 9 of 21

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MATCH LINE - SEE TOP LEFT

MATCH LINE - SEE SHEET 9

MATCH LINE - SEE SHEET 11

MATCH LINE SEE TOP RIGHT

WIDEN EXIST BRIDGE

WASHINGTON BLVD

SAN GABRIEL RIVER

WIDEN EXIST R/R BRIDGE

326/338
0/0
131/133
0/0
515/586
527/731
0/0
0/0
0/0
0/0
738/671
1804/1639
0/0
SIGNALIZED

WIDEN EXIST BRIDGE

ELIMINATE DIRECT ON-RAMP

EXISTING CONDITIONS - SB MAINLINE SEGMENT
HCM LOS = D/C
PeMS PEAK SPEED = <26 MPH
ACCIDENT RATE = ABOVE AVERAGE

WADDELL ST

BRADWELL AVE

AM: 738 PM: 671

AM: 1514/7389 PM: 1710/6722
(AM: 829/5141 PM: 817/4313)

I-605 SAN GABRIEL FWY

AM: 1443/7679 PM: 2128/8464
(AM: 871/6440 PM: 1344/6880)

AM: 1514/6851 PM: 1710/6061
(AM: 829/5141 PM: 817/4313)

AM: 1443/7933 PM: 2128/7767
(AM: 871/6128 PM: 1344/6376)

AM: 446 PM: 695
(AM: 311 PM: 573)

AM: 457 PM: 471

UNINCORPORATED

RIGHT-OF-WAY IMPACT

PIONEER BLVD

MOTEL 6

WIDEN EXIST BRIDGE

RELOCATE ON-RAMP

(SEE TYPICAL SECTIONS)

0/0
389/366
0/0
636/609
0/0
576/775
0/0
0/0
0/0
0/0
1627/1575
0/0
SIGNALIZED

NEW DRIVEWAY BY OTHERS

CITY OF WEST WHITTIER

EXISTING CONDITIONS - NB MAINLINE SEGMENT
HCM LOS = E/E
PeMS PEAK SPEED = <53 MPH
ACCIDENT RATE = BELOW AVERAGE

WASHINGTON BLVD

518/327
228/274
194/112
252/390
637/1061
80/143
281/214
739/824
247/282
129/183
1638/1014
46/82

550/579
546/587
0/0
269/275
0/0
190/344
0/0
0/0
0/0
508/488
612/774
0/0
SIGNALIZED

UNINCORPORATED

KEY MAP
I-105
I-5
I-605

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- ARTERIAL INTERCHANGE RAMP LOCATIONS
- FREEWAY MAINLINE LOCATIONS
- FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3
Sheet 10 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
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- PROPOSED BRIDGE IMPROVEMENTS
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VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
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POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3
Sheet 11 of 21

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3
Sheet 12 of 21

H:\pdata\134662\CADD\TransPW\Div\Layout\S-605Alt3\L-605 Sht 12_ALT3.dgn 10-JAN-2014

MATCH LINE - SEE SHEET 12

MATCH LINE - SEE SHEET 14

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- % 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

10-JAN-2014

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INTERSTATE 605 - ALTERNATIVE 3
Sheet 13 of 21

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3
Sheet 14 of 21

H:\pdata\134662\CADD\TransPW\Div\Layout\I5-605Alt3\I-605 Sht 14_ALT3.dgn 10-JAN-2014

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/ 8482 — 2035 BUILD HOV/MAINLINE VOLUMES
- (691/ 8482) — EXISTING (HOV/MAINLINE) VOLUMES
- 9/6 — 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX — ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX — FREEWAY MAINLINE LOCATIONS
- XX — FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 605 - ALTERNATIVE 3
Sheet 15 of 21

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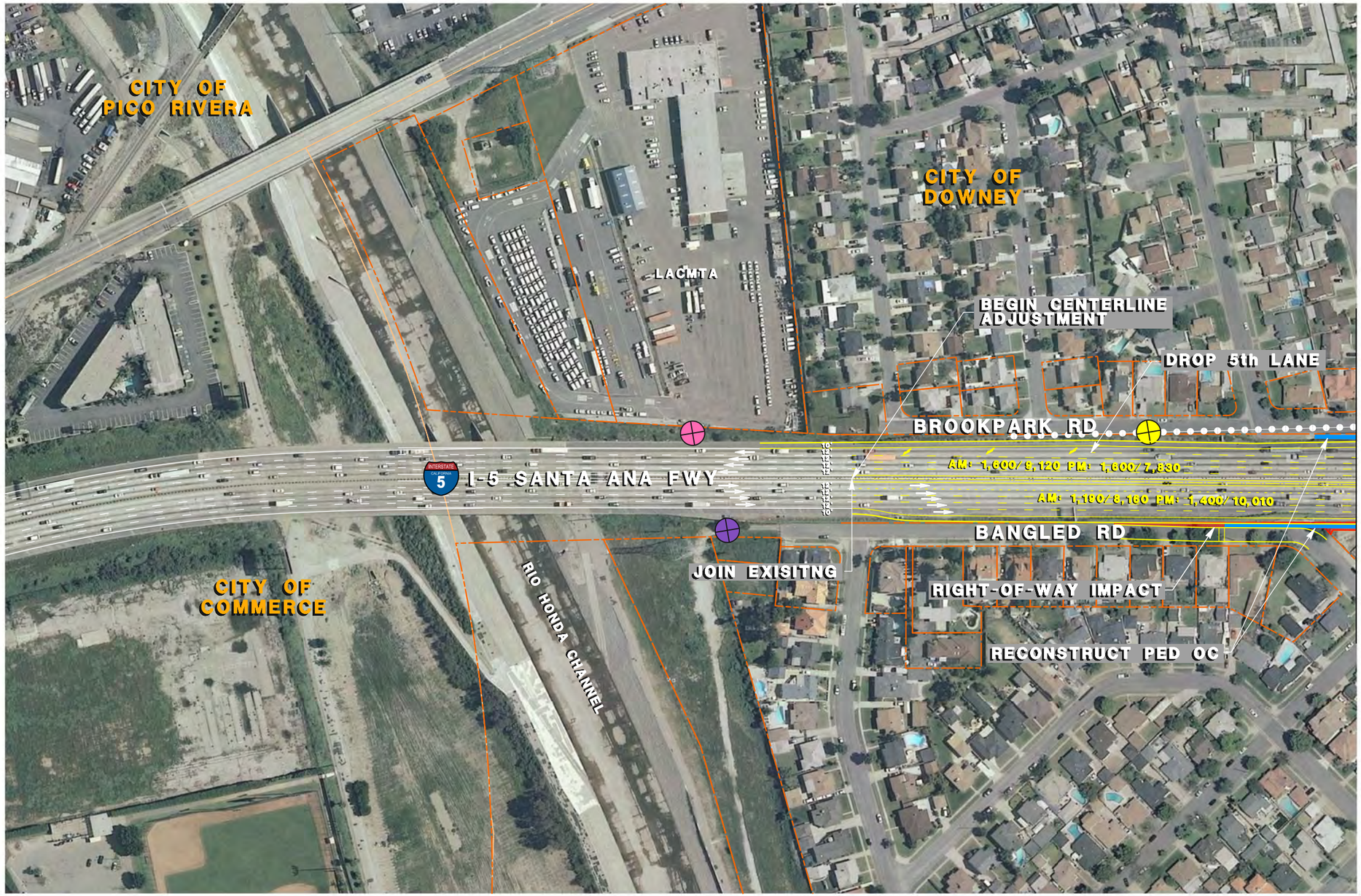

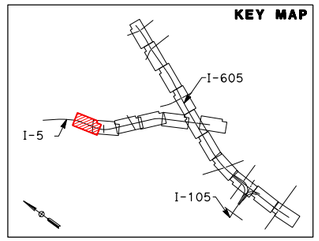

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8462 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8462) EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 3
Sheet 16 of 21

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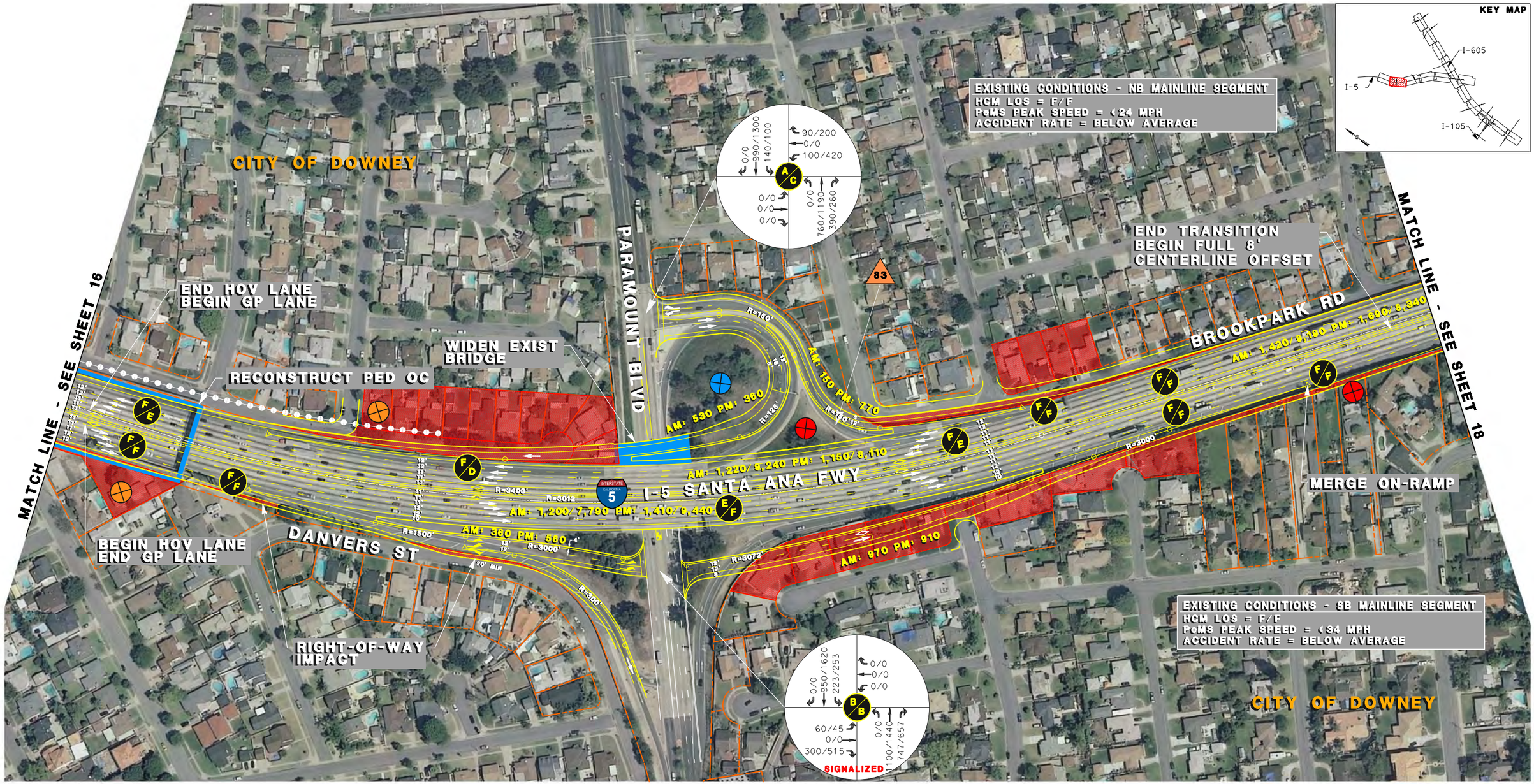

SCALE: 1"=200'

13-MAY-2014

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LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/ 8462 — 2035 BUILD HOV/MAINLINE VOLUMES
- (691/ 8462) — EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- C/C — 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX — ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX — FREEWAY MAINLINE LOCATIONS
- XX — FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 3
Sheet 17 of 21

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

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SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 6971/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (6971/8482) EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE CALIFORNIA 5

INTERSTATE 5 - ALTERNATIVE 3
Sheet 19 of 21

H:\pdata\134662\CADD\Trans\PW\DivLayout\I5-605\Alt3\I-5 Snr 19_ALT3.dgn 13-MAY-2014

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 — 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) — EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX — ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX — FREEWAY MAINLINE LOCATIONS
- XX — FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

INTERSTATE 5 - ALTERNATIVE 3
Sheet 20 of 21

H:\data\134662\CADD\Trans\PW\Civ\Layout\I5-605\Alt3\I-5 Snr 20_ALT3.dgn 13-MAY-2014

SCALE: 1"=200'

LINEWORK LEGEND

- EXISTING R/W
- EXISTING CITY LIMITS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE IMPROVEMENTS
- POTENTIAL R/W IMPACT
- EXISTING BRIDGE COLUMNS/CL (Approx)
- ELIMINATION OF EXISTING PAVEMENT

VOLUME/LOS LEGEND

- 691/8482 2035 BUILD HOV/MAINLINE VOLUMES
- (691/8482) EXISTING (HOV/MAINLINE) VOLUMES (SOURCE: LSA I-5 CORRIDOR IMPROVEMENT PROJECT DATED MARCH 2011)
- C/C 2035 BUILD: AM/PM LOS

RECOMMENDED BMP LOCATIONS

- POTENTIAL IFD
- POTENTIAL DETENTION DEVICES
- POTENTIAL BIOFILTRATION SWALES
- POTENTIAL GROSS SOLIDS REMOVAL DEVICES
- POTENTIAL BIOFILTRATION STRIPS
- POTENTIAL MEDIA FILTERS
- EXISTING BMP
- POTENTIAL SUPPLEMENTAL BMP LOCATIONS

POTENTIAL ACCIDENT CONCENTRATION LOCATIONS

- XX ARTERIAL INTERCHANGE RAMP LOCATIONS
- XX FREEWAY MAINLINE LOCATIONS
- XX FREEWAY-TO-FREEWAY DIRECT CONNECTOR LOCATIONS

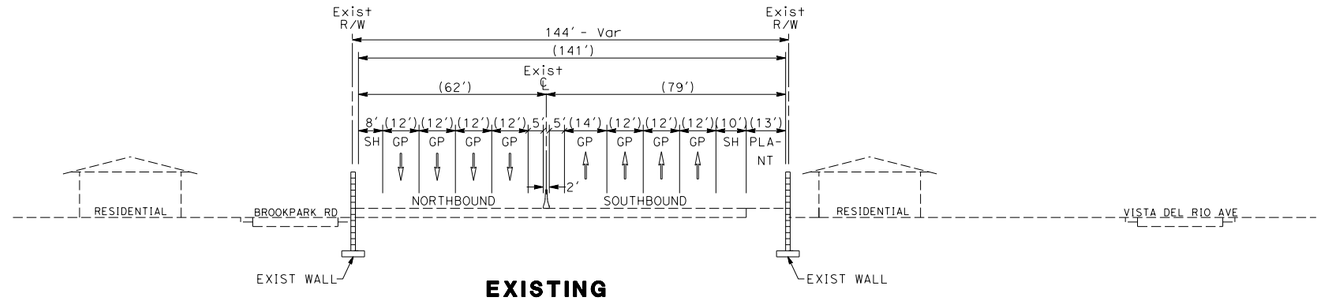
INTERSTATE 5 - ALTERNATIVE 3
Sheet 21 of 21

13-MAY-2014

H:\pdata\134662\CADD\Trans\PW\Div\Layout\5-605\Alt3\I-5 Sht 21_ALT3.dgn

I-605 / I-5 PSR-PDS

Attachment C – Typical Cross Sections



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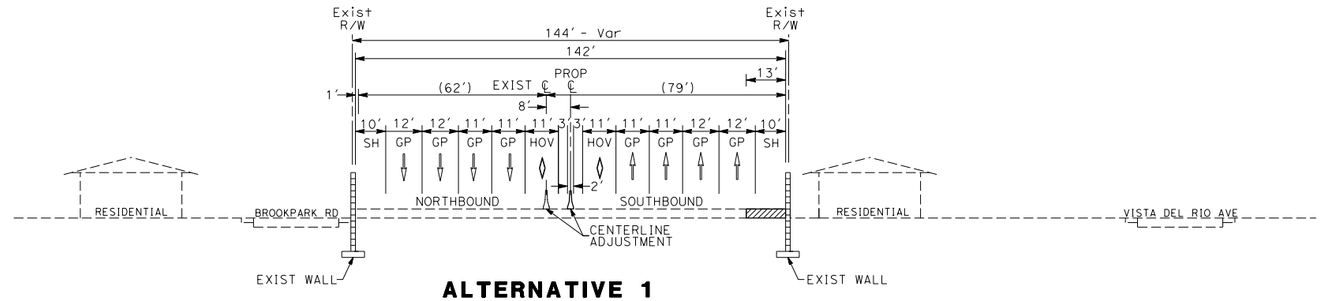

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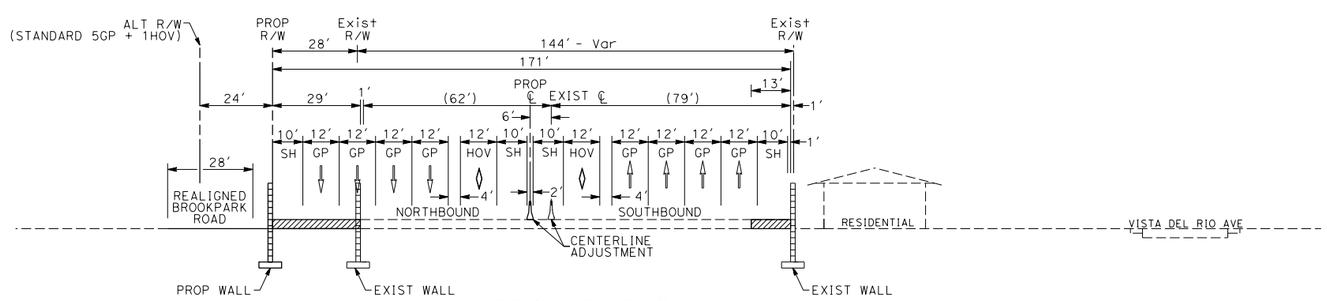

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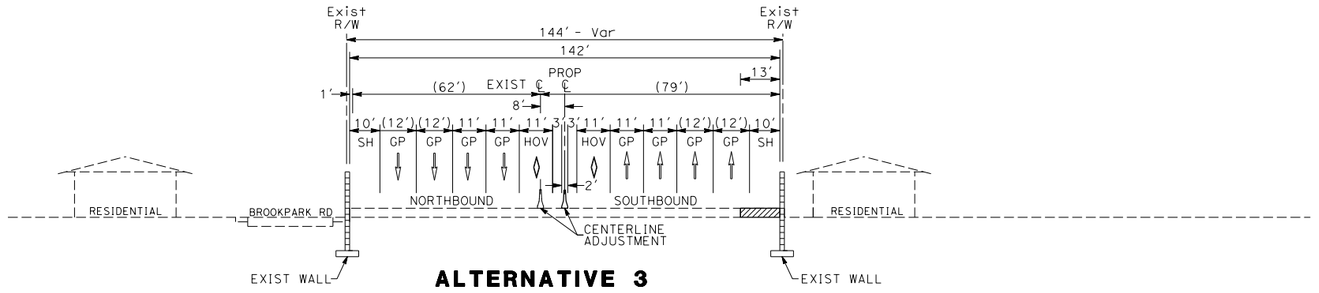
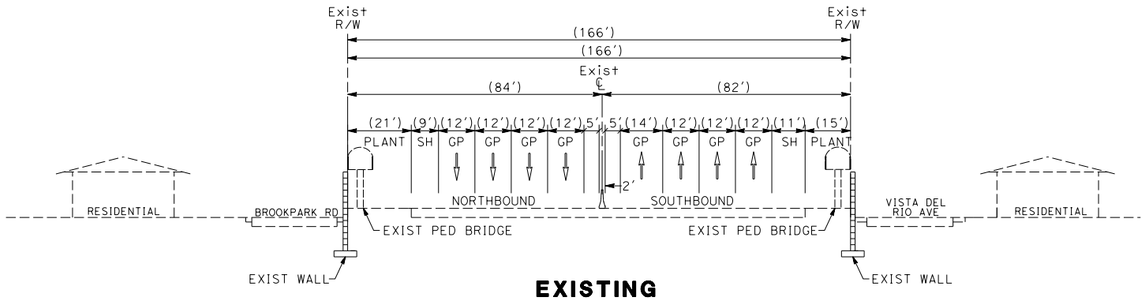


ALTERNATIVE 3

I-5 TYPICAL CROSS SECTIONS
SECTION A-A BETWEEN PARAMOUNT BLVD AND LAKEWOOD BLVD

H:\pdata\134662\CADD\Transp\N\Div\X_Sections\I-5 Sect A-A_Paramount-Lakewood.dgn 14-NOV-2013



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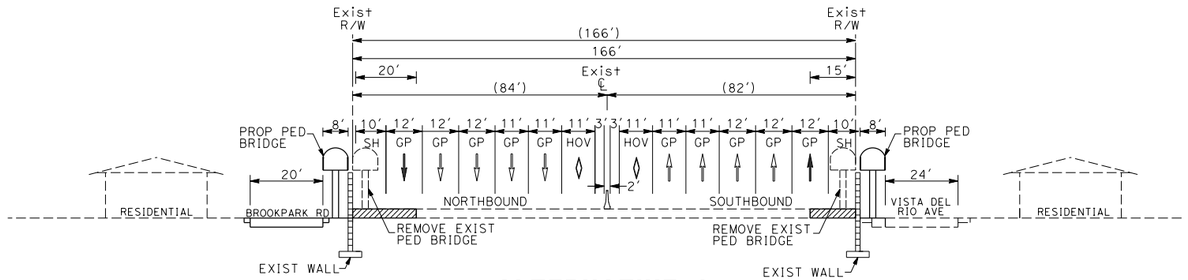

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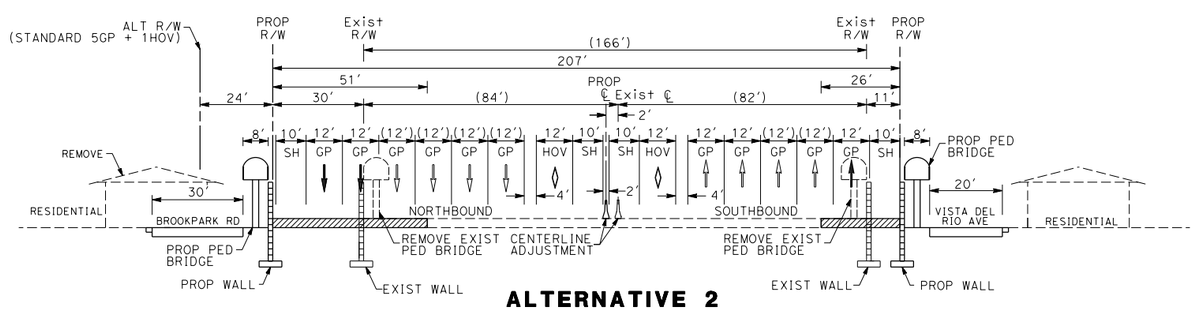

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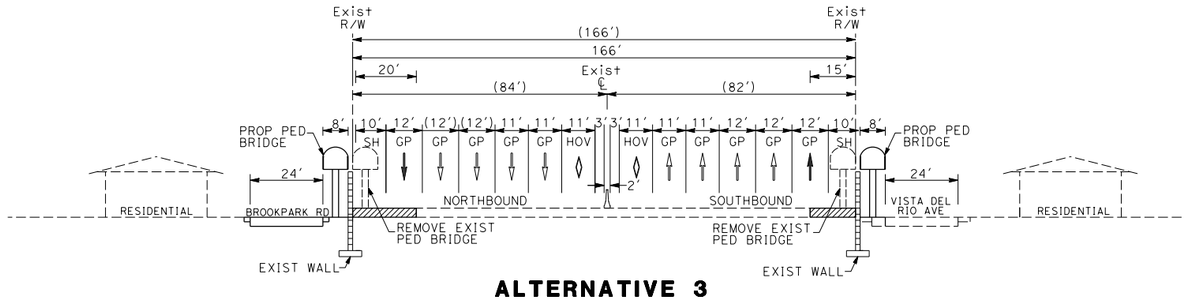
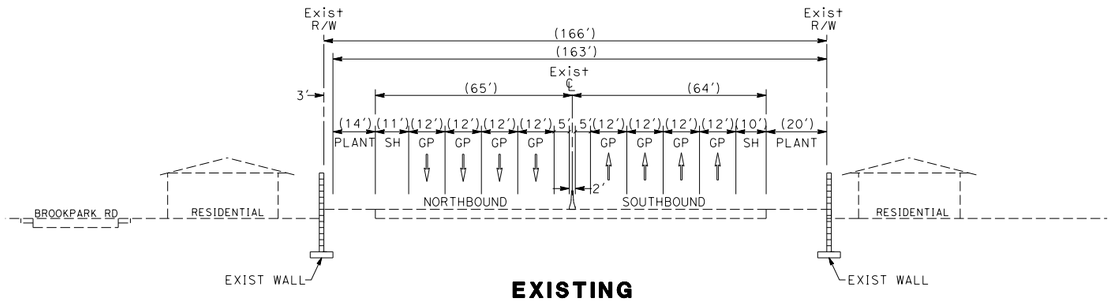


ALTERNATIVE 3

I-5 TYPICAL CROSS SECTIONS
SECTION B-B BETWEEN PARAMOUNT BLVD AND I-5/I-605 INTERCHANGE (PED BRIDGE)

H:\pdata\134662\CADD\TrompPlN\Div\X_Sections\I-5 Sect B-B_LAKEWOOD-I-605.dgn 14-NOV-2013



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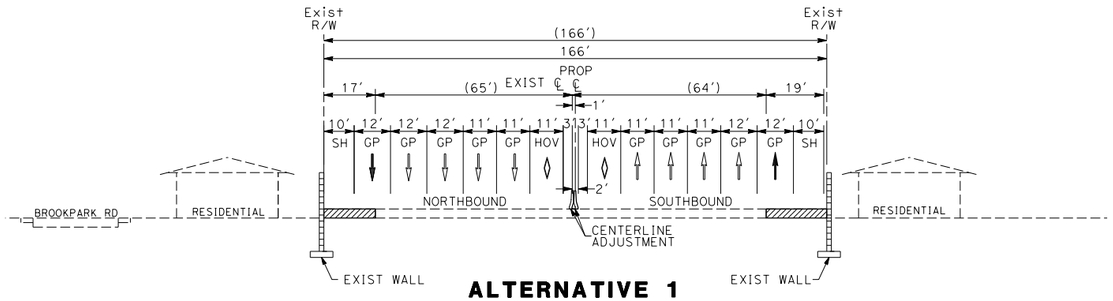

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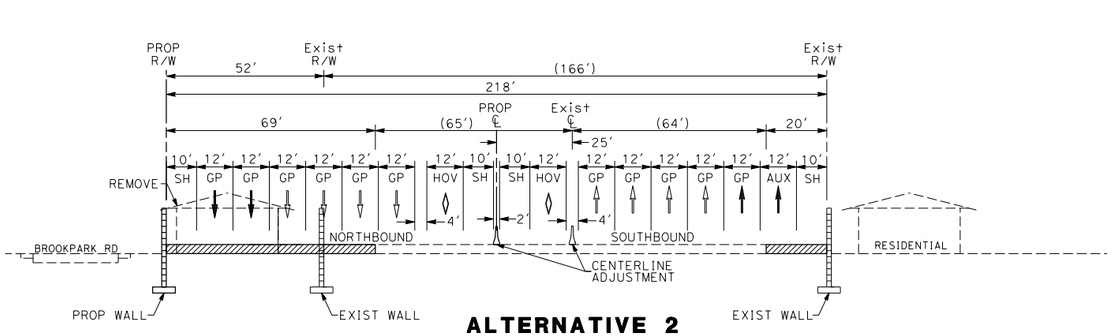

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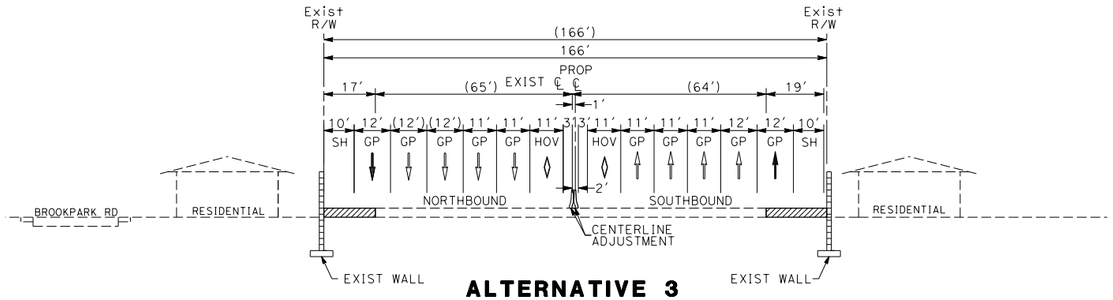

ALTERNATIVE 3

I-5 TYPICAL CROSS SECTIONS
SECTION C-C BETWEEN LAKEWOOD BLVD AND I-5/I-605 INTERCHANGE

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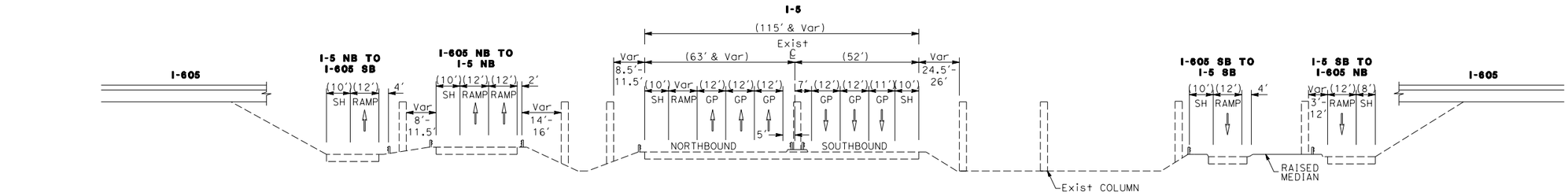

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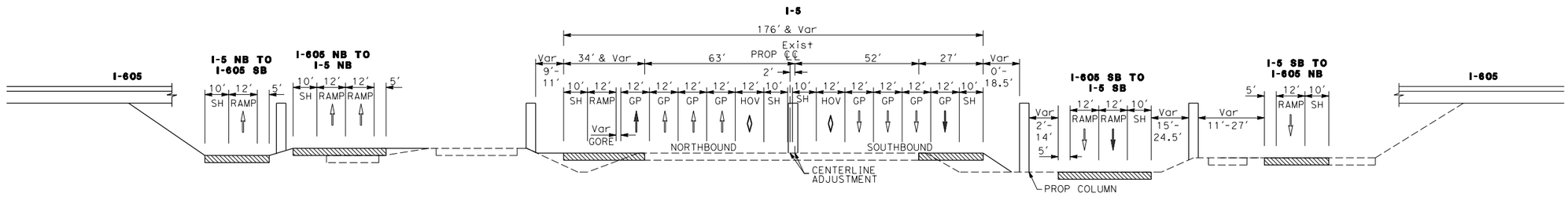
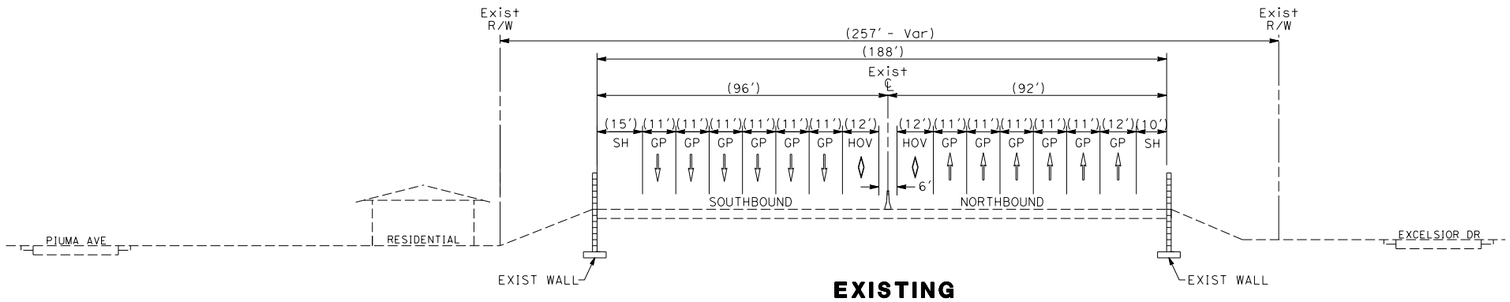


ALL ALTERNATIVES (10-LANE)

H:\pdata\134662\CADD\TrompPKWDiv\X_Sections\I-5 Sect D-D_605 Interchange - Existing.dgn 14-NOV-2013

I-5 TYPICAL CROSS SECTIONS
SECTION D-D AT I-5 AND I-605 INTERCAHNGE



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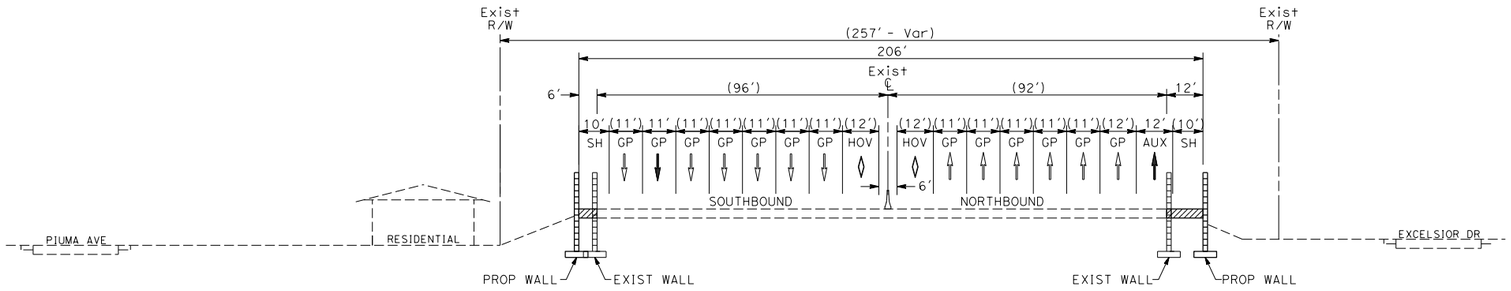

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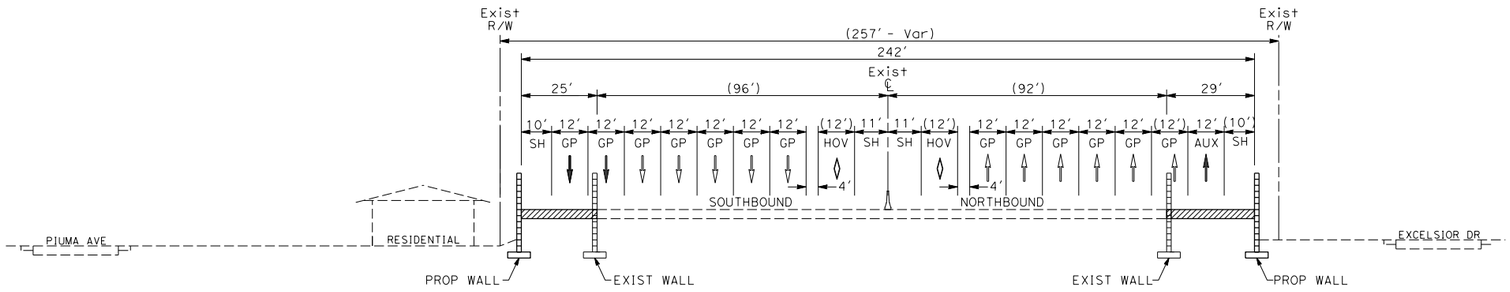

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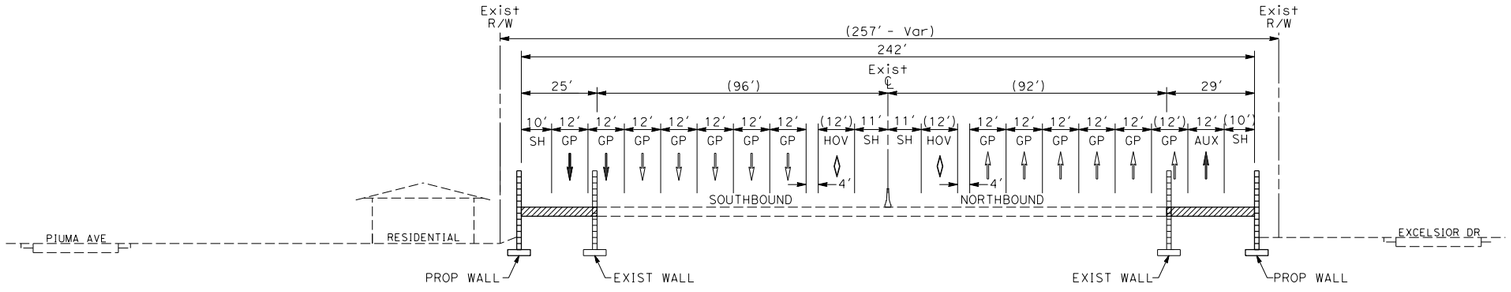

ALTERNATIVE 3

I-605 TYPICAL CROSS SECTIONS
SECTION A-A BETWEEN ALONDRA BLVD AND ROSECRANS AVE

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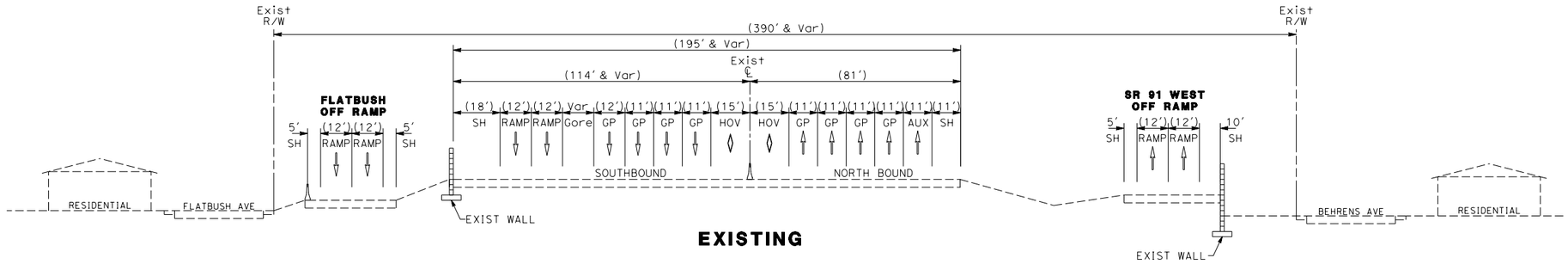

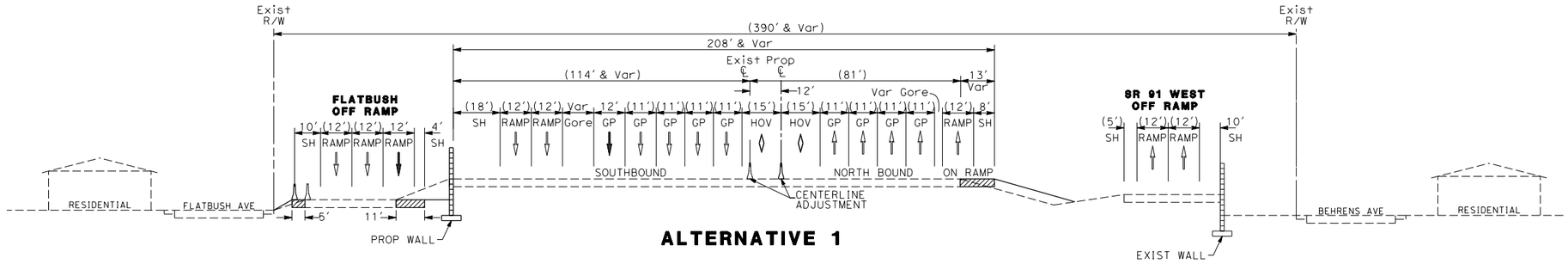

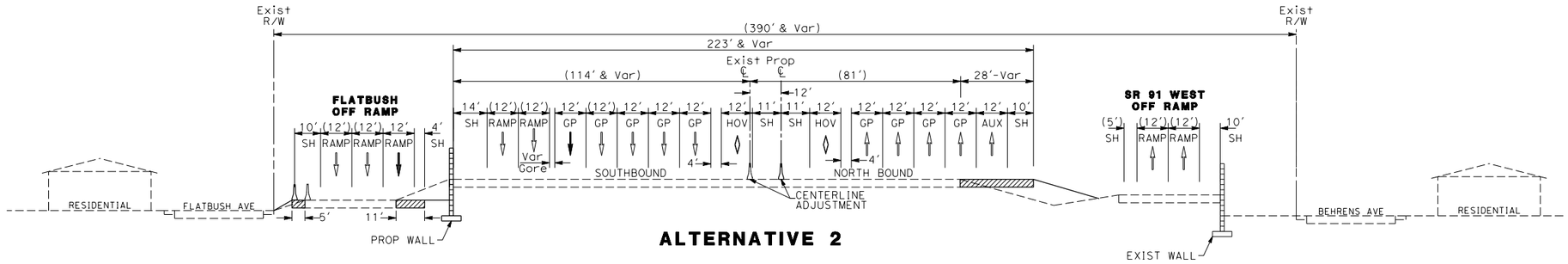

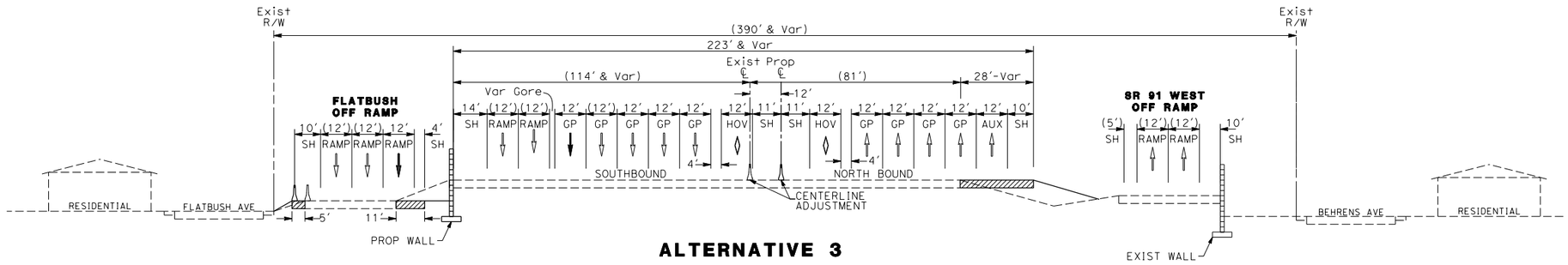

14-NOV-2013

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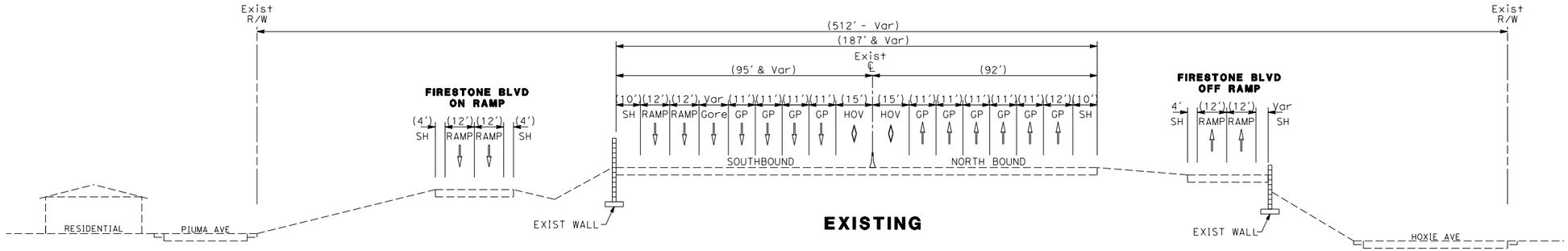
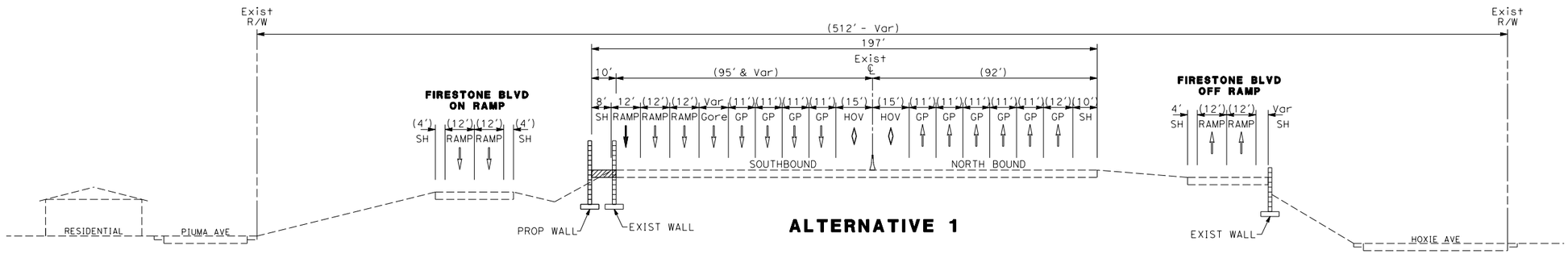
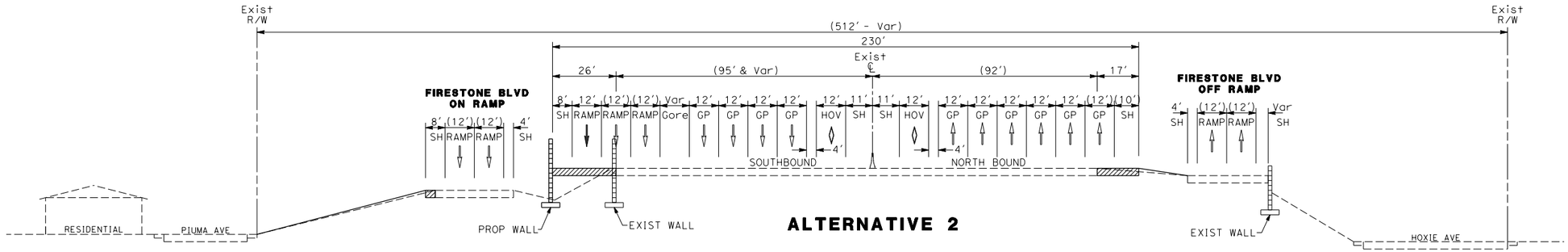
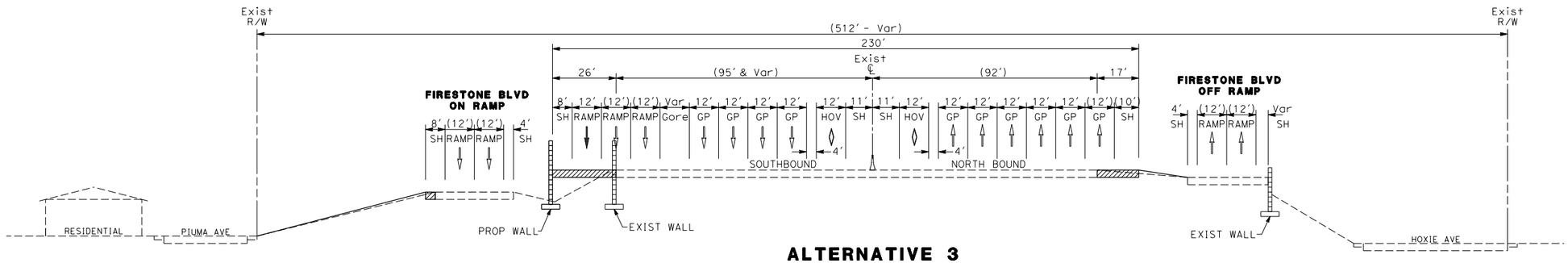
I-605 TYPICAL CROSS SECTIONS
SECTION B-B BETWEEN ROSECRANS AVE AND IMPERIAL HWY









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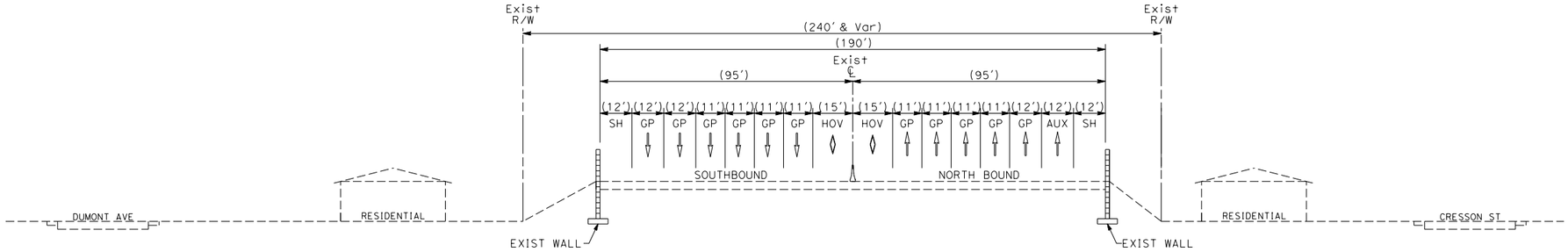
I-605 TYPICAL CROSS SECTIONS
SECTION C-C BETWEEN IMPERIAL HWY AND FIRESTONE BLVD



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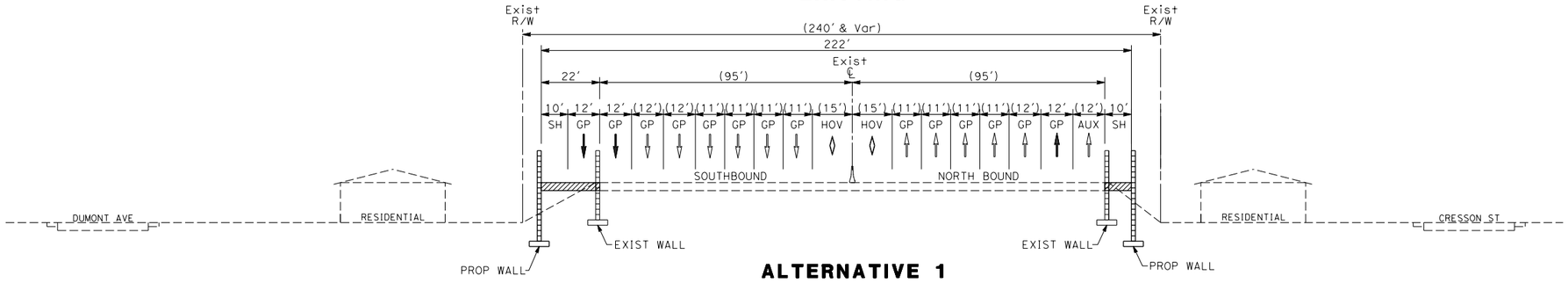

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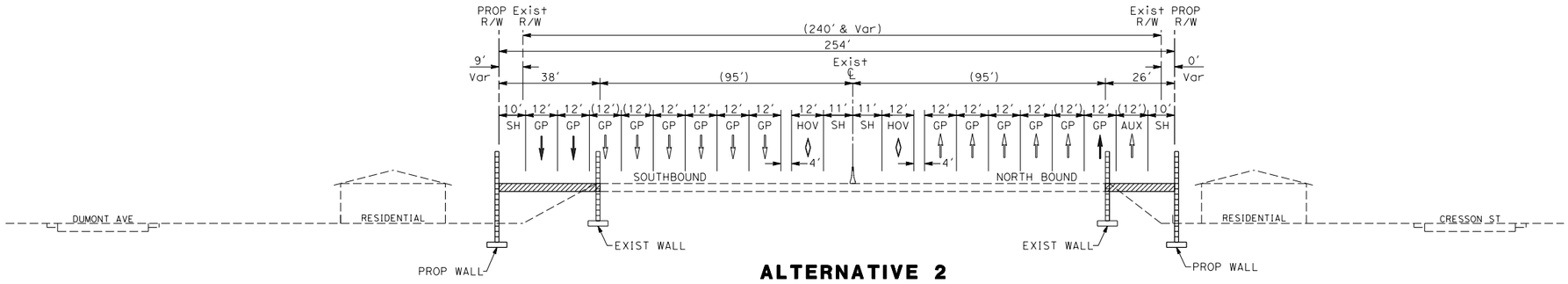

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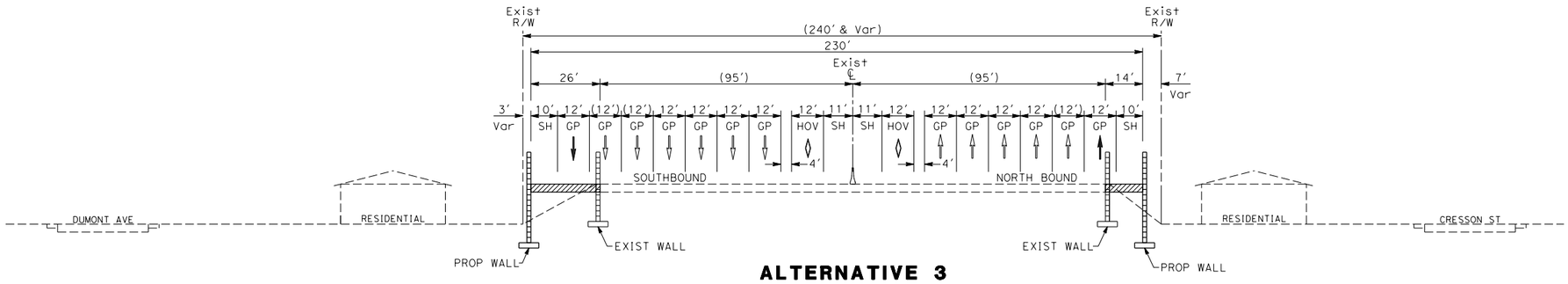

ALTERNATIVE 3

I-605 TYPICAL CROSS SECTIONS
SECTION D-D BETWEEN FIRESTONE BLVD AND FLORENCE AVE

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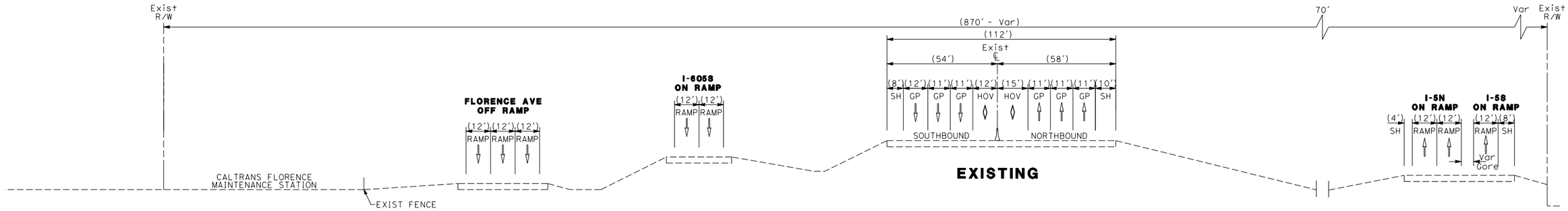

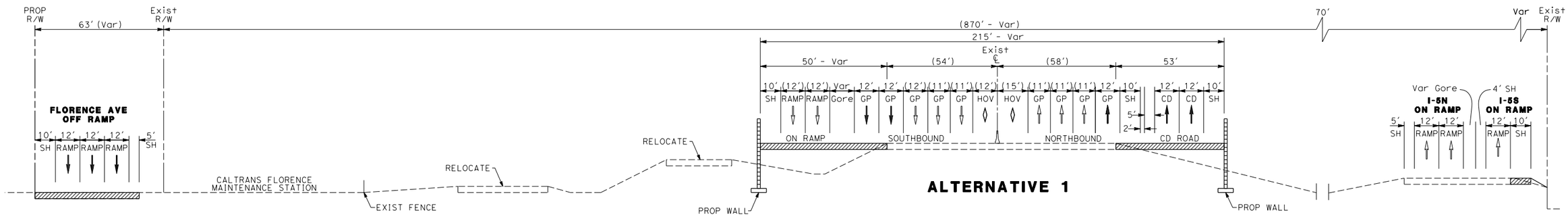

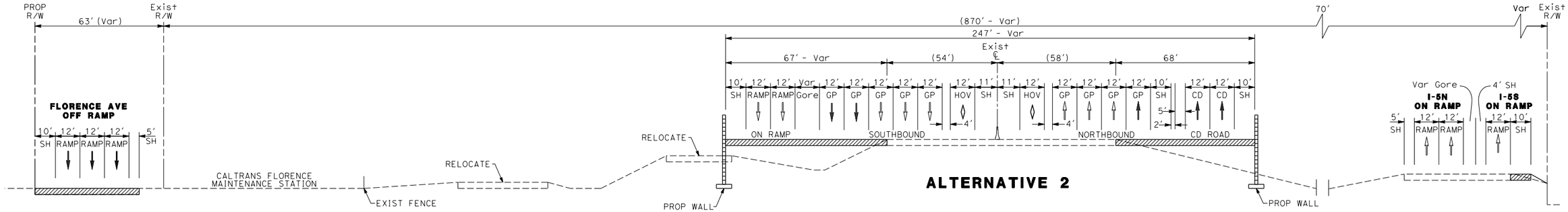

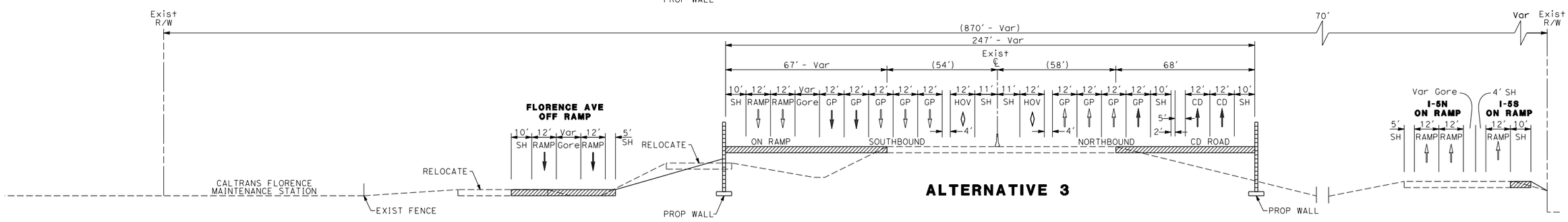

I-605 TYPICAL CROSS SECTIONS
SECTION E-E BETWEEN FLORENCE AVE AND I-5/I-605 INTERCHANGE

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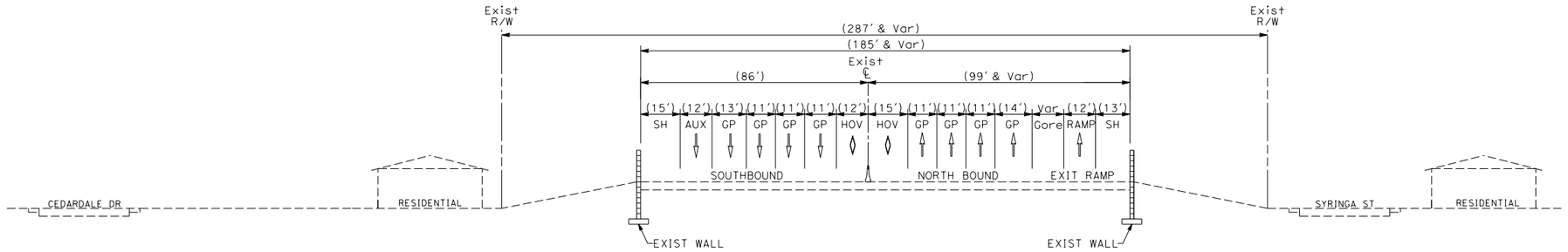

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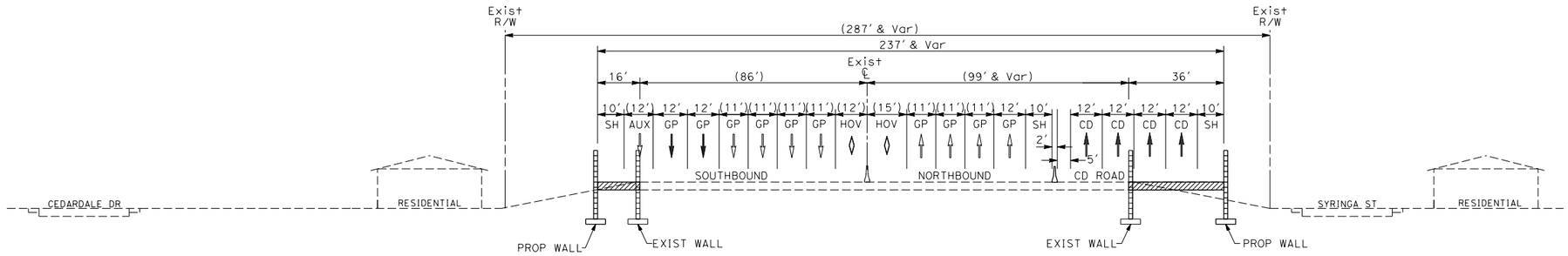

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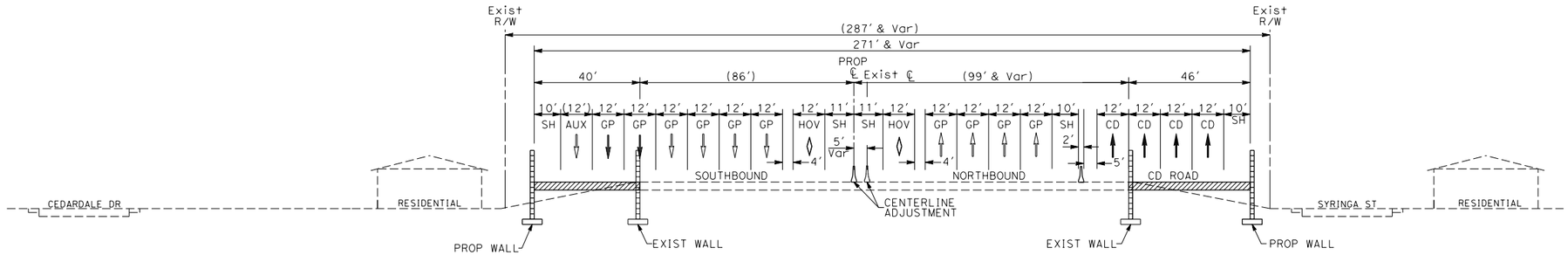

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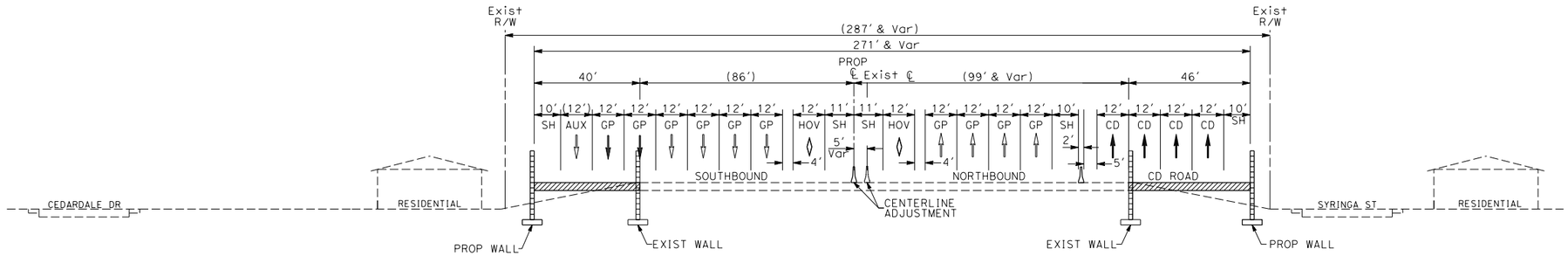
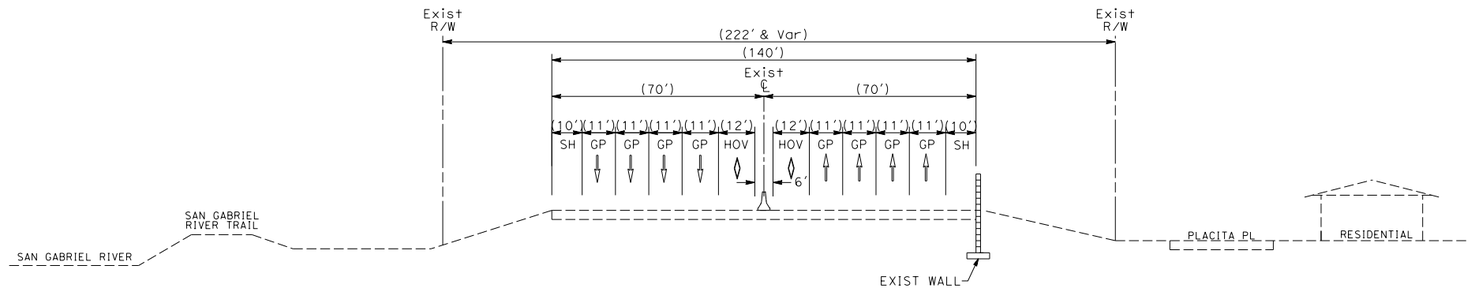


ALTERNATIVE 3

H:\pdata\134662\CADD\TransPM\DIVX_Sections\I-605 Sect F-F_I-5-Tele.dgn 14-NOV-2013

I-605 TYPICAL CROSS SECTIONS
SECTION F-F BETWEEN I-5/I-605 INTERCHANGE AND TELEGRAPH ROAD



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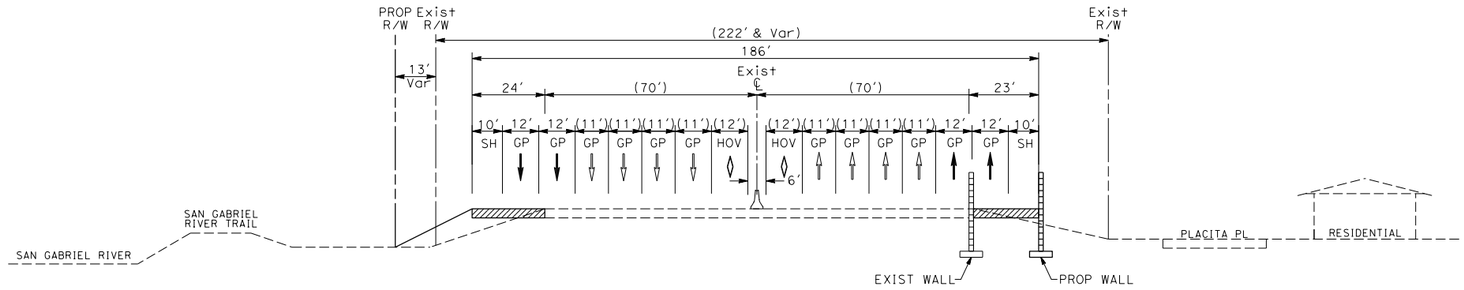

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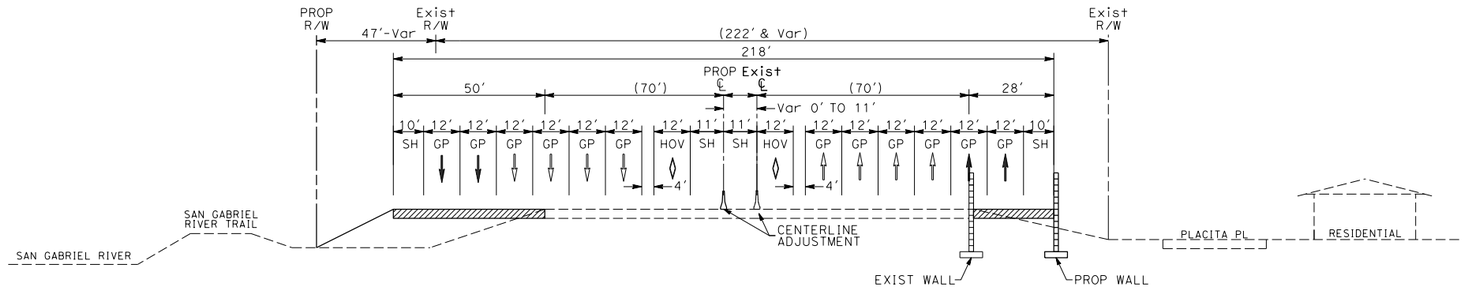
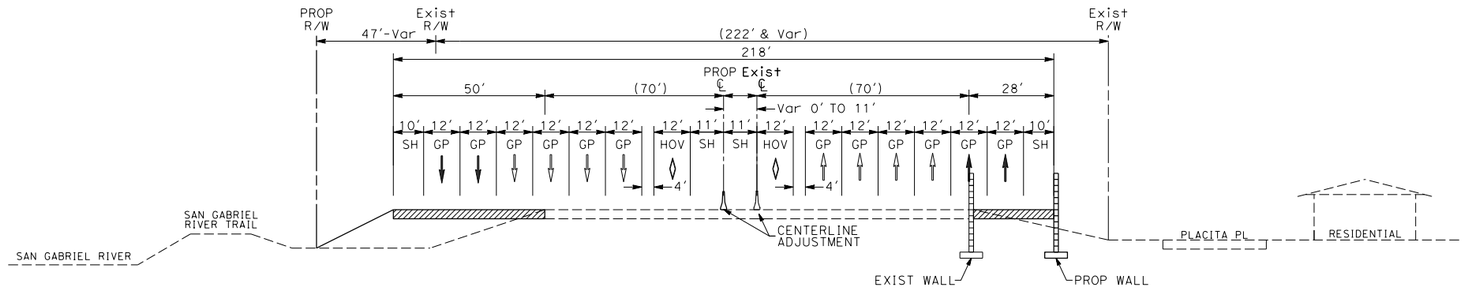


ALTERNATIVE 2



ALTERNATIVE 3

I-605 TYPICAL CROSS SECTIONS
SECTION G-G BETWEEN TELEGRAPH ROAD AND SLAUSON AVENUE

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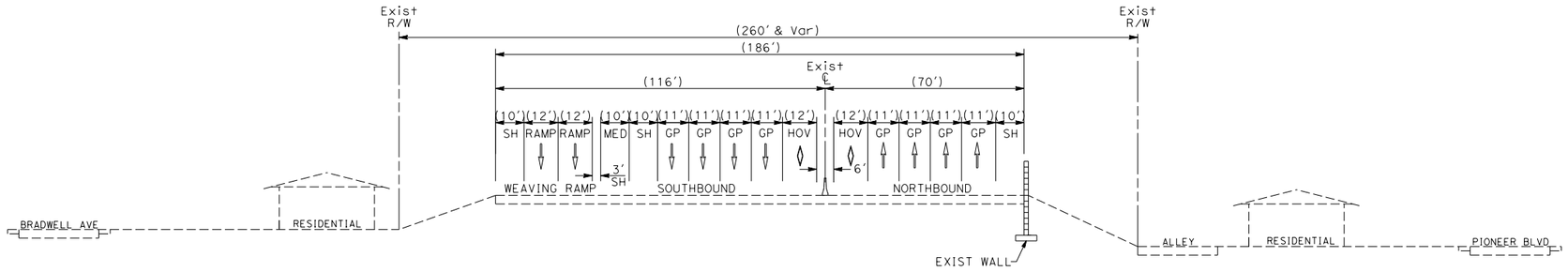

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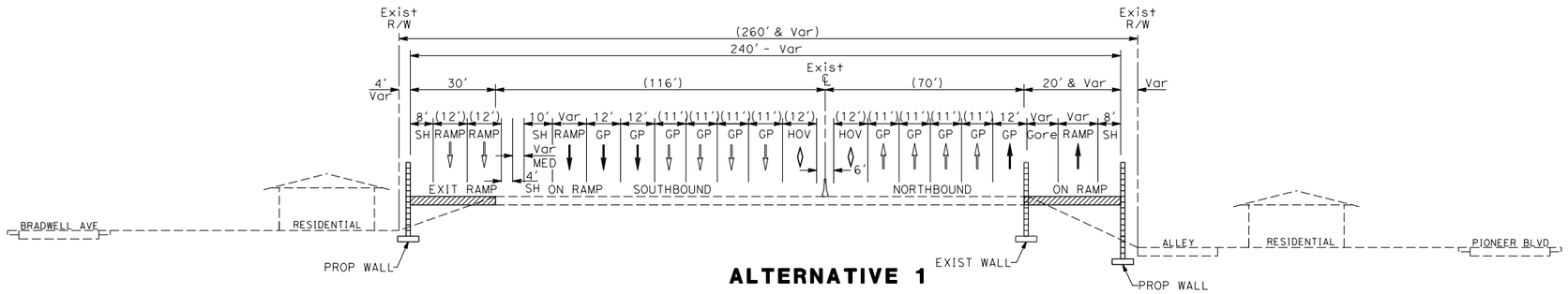
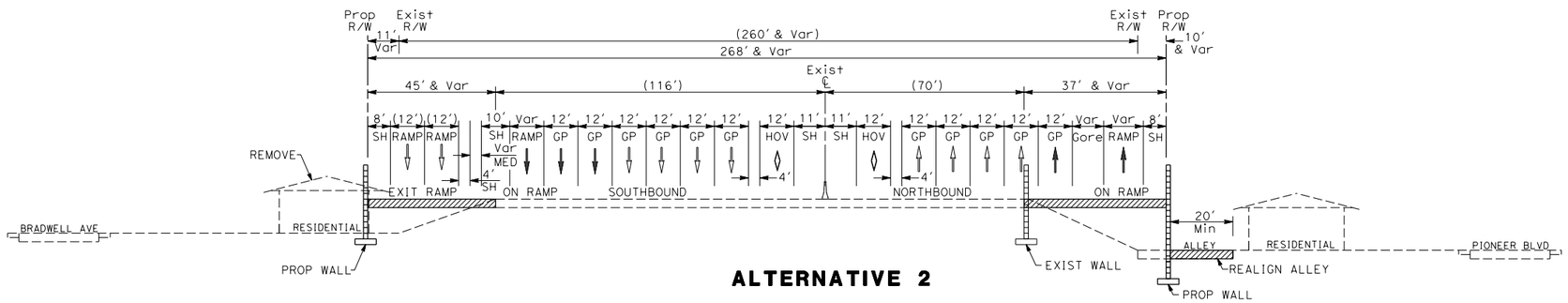


ALTERNATIVE 1



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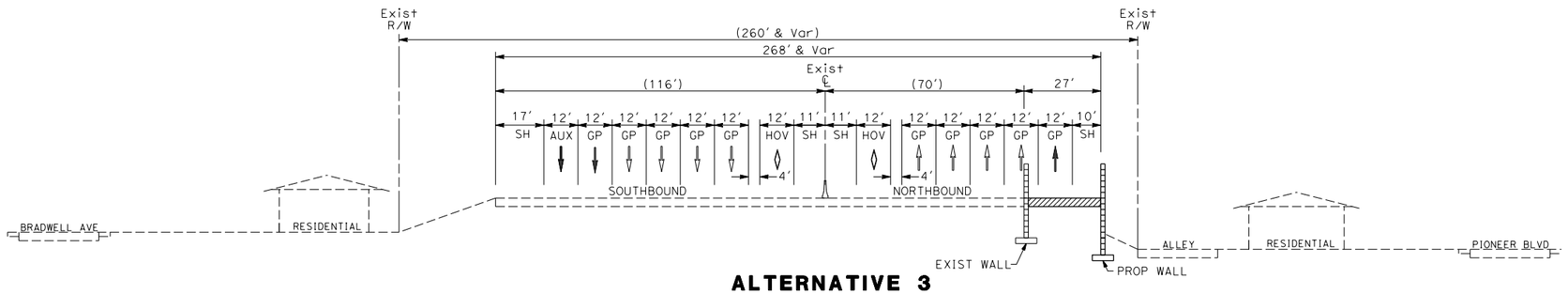
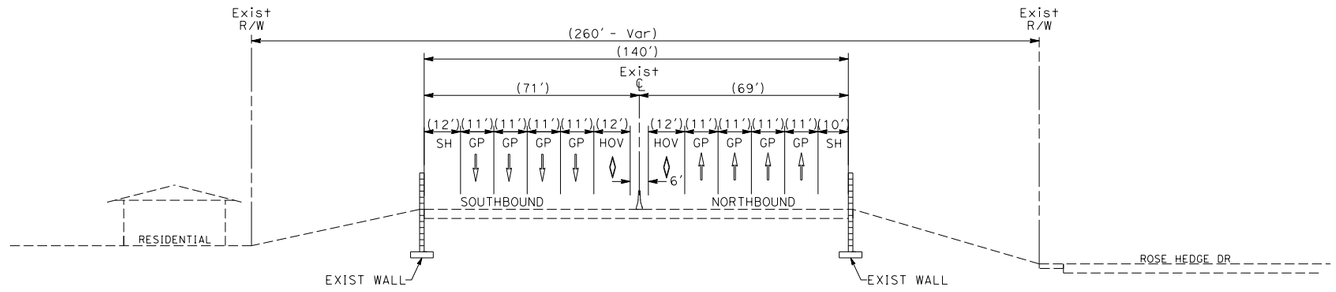


ALTERNATIVE 3

I-605 TYPICAL CROSS SECTIONS
SECTION H-H BETWEEN SLAUSON AVE AND WASHINGTON BLVD

H:\pdata\134662\CADD\TransPW\Divx_Sections\I-605 Sect H-H_Slauson-Wash.dgn 14-NOV-2013



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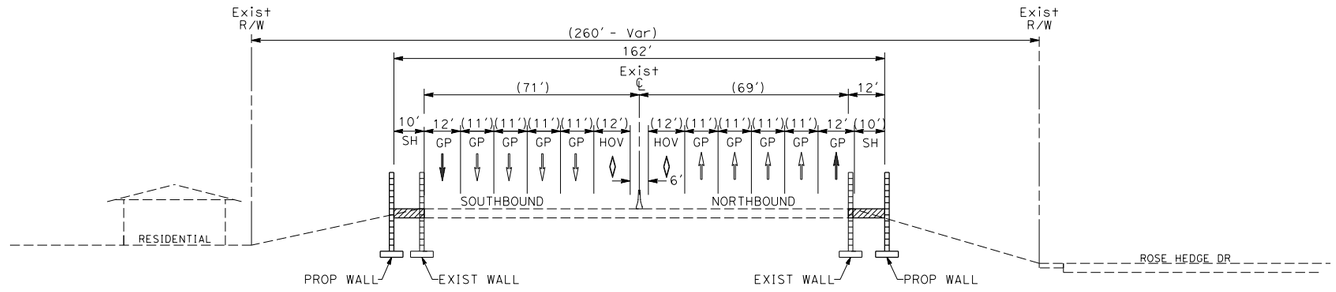

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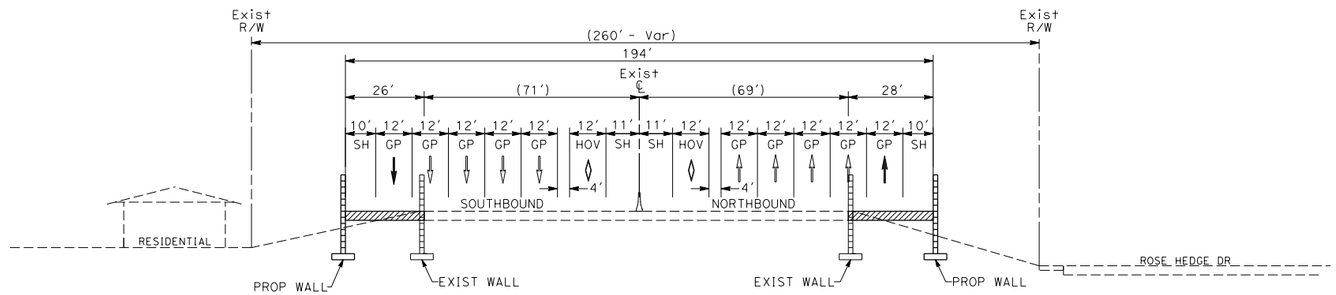

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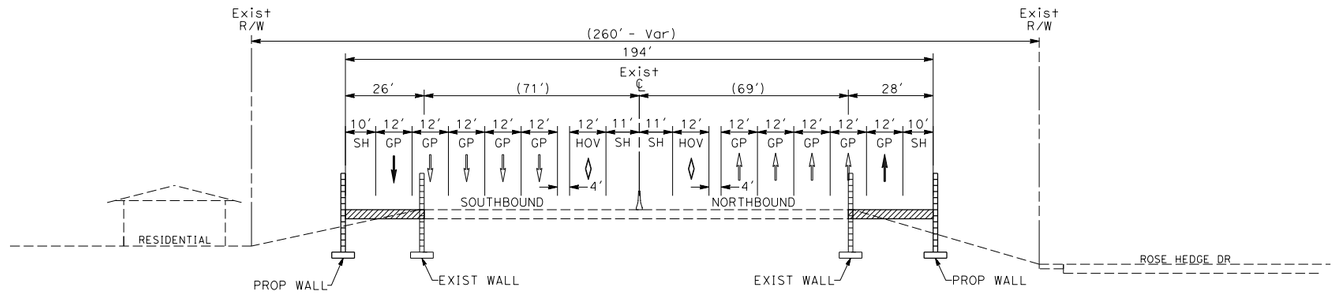
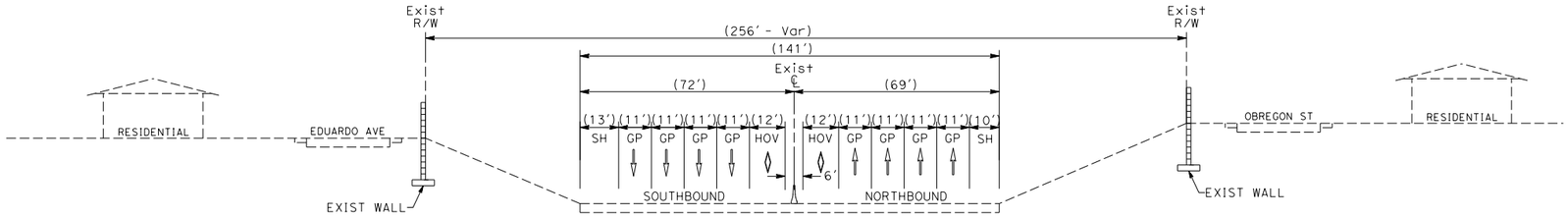


ALTERNATIVE 3

I-605 TYPICAL CROSS SECTIONS
SECTION I-I BETWEEN WASHINGTON BLVD AND WHITTIER AVE

H:\pdata\134662\CADD\TransPW\Div\X_Sections\I-605 Sect I-I_Wash-Whittier.dgn 14-NOV-2013



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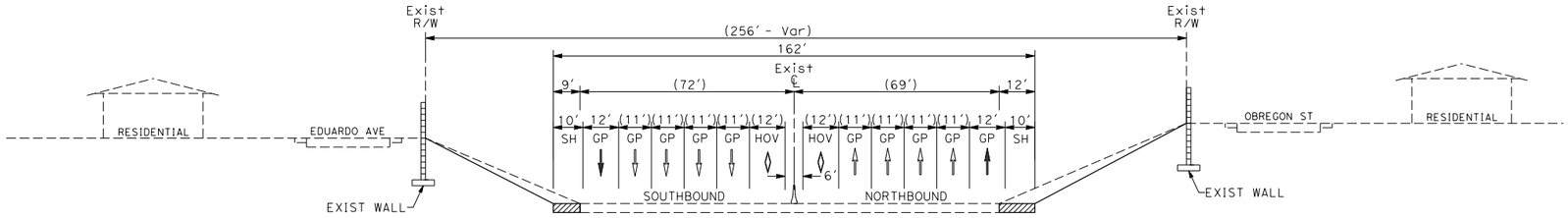

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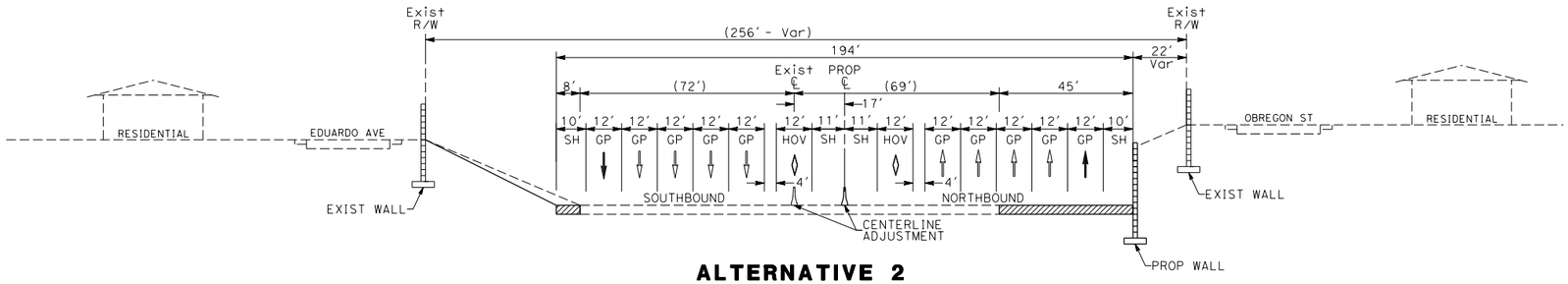

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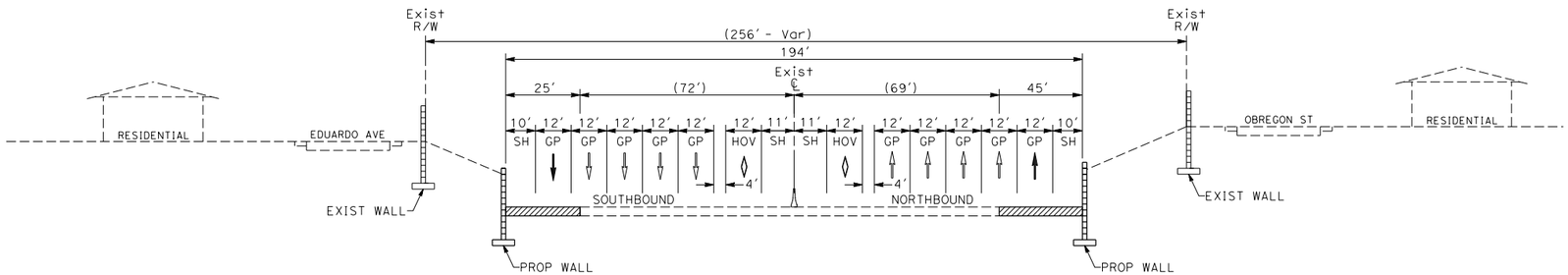
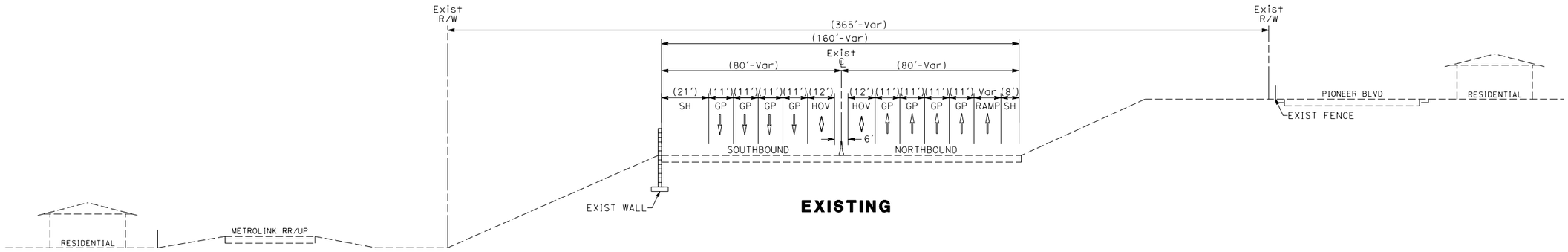


ALTERNATIVE 3

I-605 TYPICAL CROSS SECTIONS
SECTION J-J BETWEEN WHITTIER AVE AND BEVERLY BLVD

H:\projects\134662\CADD\TronePW\01\VX_Sections\I-605 Sect J-J_Whittier-Beverly.dgn 14-NOV-2013



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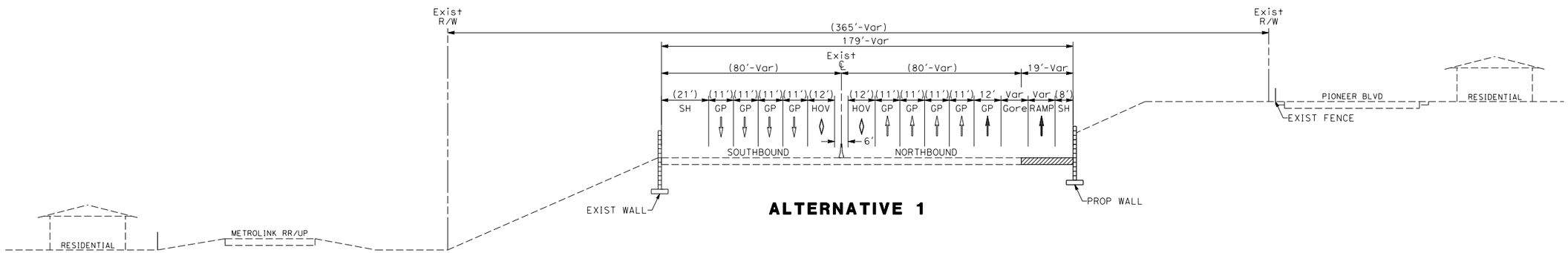

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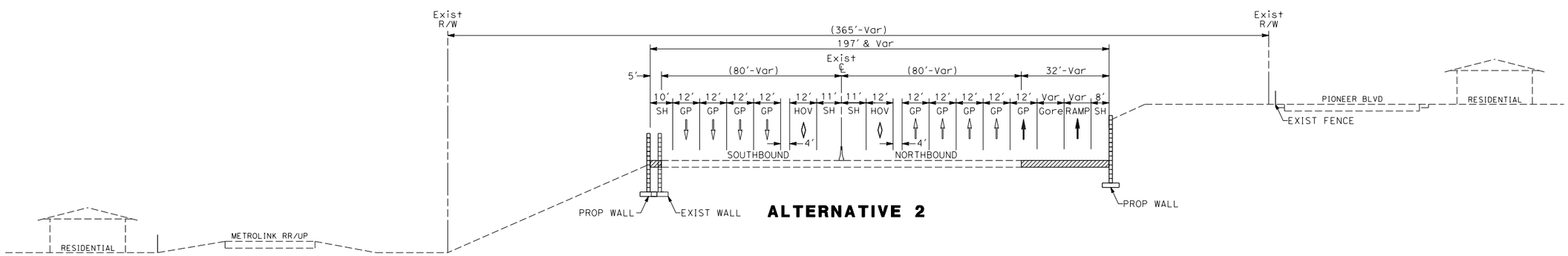

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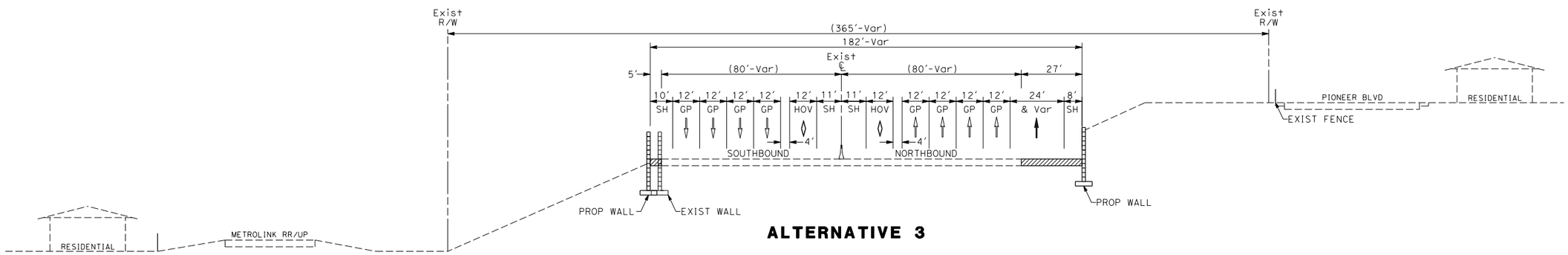

ALTERNATIVE 3

I-605 TYPICAL CROSS SECTIONS
SECTION K-K BETWEEN BEVERLY BLVD AND ROSE HILLS ROAD

14-NOV-2013

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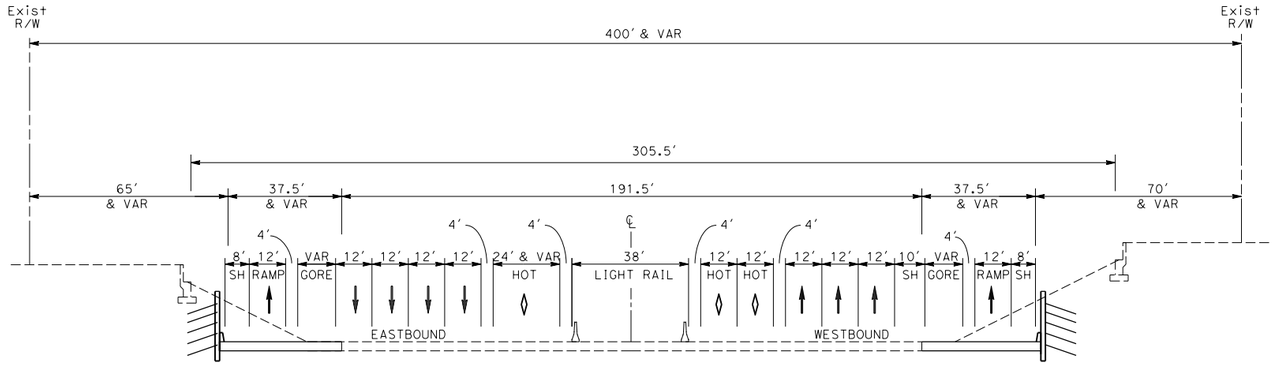
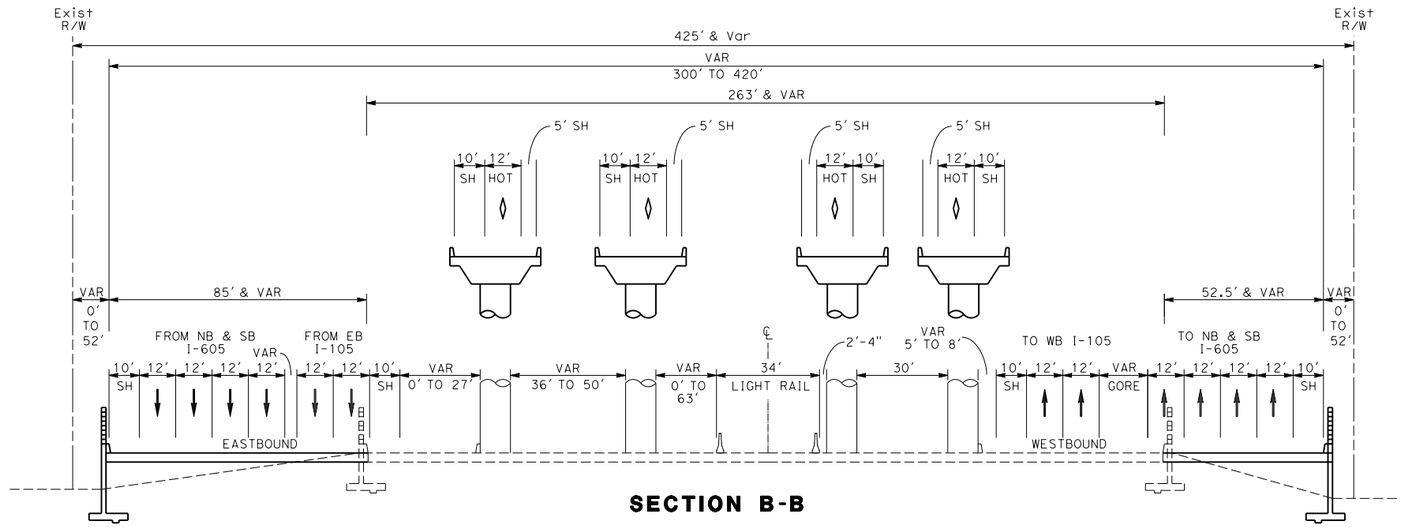


SECTION A-A



SECTION B-B

I-605/I-105 TYPICAL CROSS SECTIONS HOV CONNECTORS

I-605 / I-5 PSR-PDS

Attachment J – Nonstandard Design Features Matrix

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
1	**M**	100-1	101.1	Selection of Highway Design Speed	Local streets or roads within the State right of way, including facilities which will be relinquished after construction (such as frontage roads), shall have minimum design speeds conforming to AASHTO standards, as per the functional classification of the facility in question.	High	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
2	A	100-1	101.1	Selection of Highway Design Speed	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should apply.	High	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
3	**M**	100-2	101.1	Selection of Highway Design Speed	Where the local facility connects to a freeway or expressway (such as ramp terminal intersections), the design speed of the local facility shall be a minimum of 35 miles per hour.	Medium	M	M	M	M	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
4	A	100-2	101.1	Selection of Highway Design Speed	However, the design speed should be 45 miles per hour when feasible.	High	V	V	V	V	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
5	**M**	100-2	101.2	Highway Design Speed Standards	The following table (101.2) shows appropriate ranges of design speeds that shall be used for various conditions:	High	55	55	55	55	40	40	40	40	50	50	50	50	40	40	40	40	40	40	40	40
6	**M**	100-5	104.4	Protection of Access Rights	For proper control of acquired access rights, fencing or other approved barriers shall be installed on all controlled access highways except as provided in Index 701.2(3)(e).	Low	M	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
7	A	100-5	104.5	Relation Access Opening to a Median Opening	Access openings should not be placed within 300 feet of a median opening unless the access opening is directly opposite the median opening.	High	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
8	A	100-6	105.2	Sidewalks and Walkways	The minimum width of a sidewalk should be 8 feet between the curb and a building when in urban and rural main street place types. For all other locations the minimum width of sidewalk should be 6 feet when contiguous to a curb or 5 feet when separated by a planting strip.	Medium	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
9	A	100-10	105.5	Guidelines for the Location and Design of Curb Ramps	On new construction, two curb ramps should be installed at each corner as shown on the Standard Plans.	High	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
10	A	100-12	107.1	Roadway Connections	All connections to vista points, truck weighing or brake inspections stations, safety rest areas, park and ride lots, transit stations or any other connections used by the traveling public, should be constructed to standards commensurate with the standards established for the roadway to which they are connected.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	A	100-12	107.1	Roadway Connections	Only one means of exit and one means of entry to these installations should be allowed.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	**M**	200-1	201.1	General	Table 201.1 shows the minimum standards for stopping sight distance related to a design speed for motorists.	Low	M	M	M	M	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
13	A	200-2	201.3	Stopping Sight Distance	The stopping sight distances in Table 201.1 should be increased by 20 percent on sustained downgrades steeper than 3 percent and longer than one mile.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	A	200-3	201.7	Decision Sight Distance	On freeways and expressways the decision sight distance values in Table 201.7 should be used al lane drops and at off-ramp noses to interchanges, branch connections, roadside rests, vista points, and inspection stations.	Medium	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
15	**M**	200-4	202.2(1)	Standards for Superelevation	Based on an e_{max} selected by the designer for one of the conditions, superelevation rates from Table 202.2 shall be used within the given range of curve radii. If less than standard superelevation rates are approved (see index 82.1), Figure 202.2 shall be used to determine superelevation based on the curve radius and maximum comfortable speed.	Low	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
16	A	200-4	202.2(2)	Standards for Superelevation	On rural 2-lane roads, superelevation should be on the same plan for the full width of traveled way and shoulders, except on transitions (see Index 304.3 for cut widening conditions).	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	A	200-4	202.2(2)	Standards for Superelevation	Bikeways. Table 202.2 also applies to Class II and III bikeways. See Index 103.1 for Class I guidance.	High	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
18	A	200-9	202.5(1)	Superelevation Transitions	A superelevation transition should be designed in accordance with the diagram and tabular data shown in Figure 202.5A to satisfy the requirements of safety, comfort and pleasing appearance.	High	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
19	A	200-9	202.5(2)	Superelevation Transitions	Two-thirds of the superelevation runoff should be on the tangent and one-third within the curve.	High	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
20	A	200-12	202.5(3)	Superelevation Transitions	In such situations the highest possible superelevation rate(s) and transition length should be used, but the rate of change of cross slope should not exceed 6 percent per 100 feet.	Low	V	V	V	V	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	100-1	101.1	Selection of Highway Design Speed	Local streets or roads within the State right of way, including facilities which will be relinquished after construction (such as frontage roads), shall have minimum design speeds conforming to AASHTO standards, as per the functional classification of the facility in question.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	100-1	101.1	Selection of Highway Design Speed	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should apply.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	100-2	101.1	Selection of Highway Design Speed	Where the local facility connects to a freeway or expressway (such as ramp terminal intersections), the design speed of the local facility shall be a minimum of 35 miles per hour.	M	M	M	M	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	100-2	101.1	Selection of Highway Design Speed	However, the design speed should be 45 miles per hour when feasible.	V	V	V	V	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	100-2	101.2	Highway Design Speed Standards	The following table (101.2) shows appropriate ranges of design speeds that shall be used for various conditions:	55	55	55	55	40	40	40	40	50	50	50	50	35	35	35	35	40	40	40	40
M	100-5	104.4	Protection of Access Rights	For proper control of acquired access rights, fencing or other approved barriers shall be installed on all controlled access highways except as provided in Index 701.2(3)(e).	M	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	100-5	104.5	Relation Access Opening to a Median Opening	Access openings should not be placed within 300 feet of a median opening unless the access opening is directly opposite the median opening.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	100-6	105.2	Sidewalks and Walkways	The minimum width of a sidewalk should be 8 feet between the curb and a building when in urban and rural main street place types. For all other locations the minimum width of sidewalk should be 6 feet when contiguous to a curb or 5 feet when separated by a planting strip.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	100-10	105.5	Guidelines for the Location and Design of Curb Ramps	On new construction, two curb ramps should be installed at each corner as shown on the Standard Plans.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	100-12	107.1	Roadway Connections	All connections to vista points, truck weighing or brake inspections stations, safety rest areas, park and ride lots, transit stations or any other connections used by the traveling public, should be constructed to standards commensurate with the standards established for the roadway to which they are connected.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	100-12	107.1	Roadway Connections	Only one means of exit and one means of entry to these installations should be allowed.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-1	201.1	General	Table 201.1 shows the minimum standards for stopping sight distance related to a design speed for motorists.	M	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	200-2	201.3	Stopping Sight Distance	The stopping sight distances in Table 201.1 should be increased by 20 percent on sustained downgrades steeper than 3 percent and longer than one mile.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-3	201.7	Decision Sight Distance	On freeways and expressways the decision sight distance values in Table 201.7 should be used al lane drops and at off-ramp noses to interchanges, branch connections, roadside rests, vista points, and inspection stations.	TBD	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	200-4	202.2(1)	Standards for Superelevation	Based on an e_{max} selected by the designer for one of the conditions, superelevation rates from Table 202.2 shall be used within the given range of curve radii. If less than standard superelevation rates are approved (see index 82.1), Figure 202.2 shall be used to determine superelevation based on the curve radius and maximum comfortable speed.	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-4	202.2(2)	Standards for Superelevation	On rural 2-lane roads, superelevation should be on the same plan for the full width of traveled way and shoulders, except on transitions (see Index 304.3 for cut widening conditions).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-4	202.2(2)	Standards for Superelevation	Bikeways. Table 202.2 also applies to Class II and III bikeways. See Index 103.1 for Class I guidance.	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	200-9	202.5(1)	Superelevation Transitions	A superelevation transition should be designed in accordance with the diagram and tabular data shown in Figure 202.5A to satisfy the requirements of safety, comfort and pleasing appearance.	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-9	202.5(2)	Superelevation Transitions	Two-thirds of the superelevation runoff should be on the tangent and one-third within the curve.	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-12	202.5(3)	Superelevation Transitions	In such situations the highest possible superelevation rate(s) and transition length should be used, but the rate of change of cross slope should not exceed 6 percent per 100 feet.	V	V	V	V	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	100-1	101.1	Selection of Highway Design Speed	Local streets or roads within the State right of way, including facilities which will be relinquished after construction (such as frontage roads), shall have minimum design speeds conforming to AASHTO standards, as per the functional classification of the facility in question.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	100-1	101.1	Selection of Highway Design Speed	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should apply.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	100-2	101.1	Selection of Highway Design Speed	Where the local facility connects to a freeway or expressway (such as ramp terminal intersections), the design speed of the local facility shall be a minimum of 35 miles per hour.	M	M	M	M	V	V	V	V	M	M	M	M	M	M	M	M	M	M	M	M
A	100-2	101.1	Selection of Highway Design Speed	However, the design speed should be 45 miles per hour when feasible.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
M	100-2	101.2	Highway Design Speed Standards	The following table (101.2) shows appropriate ranges of design speeds that shall be used for various conditions:	40	40	40	40	25	25	25	25	55	55	55	55	35	35	35	35	40	40	40	40
M	100-5	104.4	Protection of Access Rights	For proper control of acquired access rights, fencing or other approved barriers shall be installed on all controlled access highways except as provided in Index 701.2(3)(e).	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	100-5	104.5	Relation Access Opening to a Median Opening	Access openings should not be placed within 300 feet of a median opening unless the access opening is directly opposite the median opening.	M	M	M	M	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	100-6	105.2	Sidewalks and Walkways	The minimum width of a sidewalk should be 8 feet between the curb and a building when in urban and rural main street place types. For all other locations the minimum width of sidewalk should be 6 feet when contiguous to a curb or 5 feet when separated by a planting strip.	V	V	V	V	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	100-10	105.5	Guidelines for the Location and Design of Curb Ramps	On new construction, two curb ramps should be installed at each corner as shown on the Standard Plans.	V	V	V	V	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	100-12	107.1	Roadway Connections	All connections to vista points, truck weighing or brake inspections stations, safety rest areas, park and ride lots, transit stations or any other connections used by the traveling public, should be constructed to standards commensurate with the standards established for the roadway to which they are connected.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	100-12	107.1	Roadway Connections	Only one means of exit and one means of entry to these installations should be allowed.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-1	201.1	General	Table 201.1 shows the minimum standards for stopping sight distance related to a design speed for motorists.	U	TBD	TBD	TBD	U	TBD	TBD	TBD	M	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	200-2	201.3	Stopping Sight Distance	The stopping sight distances in Table 201.1 should be increased by 20 percent on sustained downgrades steeper than 3 percent and longer than one mile.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-3	201.7	Decision Sight Distance	On freeways and expressways the decision sight distance values in Table 201.7 should be used al lane drops and at off-ramp noses to interchanges, branch connections, roadside rests, vista points, and inspection stations.	U	TBD	TBD	TBD	U	TBD	TBD	TBD	TBD	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	200-4	202.2(1)	Standards for Superelevation	Based on an e_{max} selected by the designer for one of the conditions, superelevation rates from Table 202.2 shall be used within the given range of curve radii. If less than standard superelevation rates are approved (see index 82.1), Figure 202.2 shall be used to determine superelevation based on the curve radius and maximum comfortable speed.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-4	202.2(2)	Standards for Superelevation	On rural 2-lane roads, superelevation should be on the same plan for the full width of traveled way and shoulders, except on transitions (see Index 304.3 for cut widening conditions).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-4	202.2(2)	Standards for Superelevation	Bikeways. Table 202.2 also applies to Class II and III bikeways. See Index 103.1 for Class I guidance.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	200-9	202.5(1)	Superelevation Transitions	A superelevation transition should be designed in accordance with the diagram and tabular data shown in Figure 202.5A to satisfy the requirements of safety, comfort and pleasing appearance.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-9	202.5(2)	Superelevation Transitions	Two-thirds of the superelevation runoff should be on the tangent and one-third within the curve.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-12	202.5(3)	Superelevation Transitions	In such situations the highest possible superelevation rate(s) and transition length should be used, but the rate of change of cross slope should not exceed 6 percent per 100 feet.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	V	V	V	V	M	TBD	TBD	TBD	M	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	100-1	101.1	Selection of Highway Design Speed	Local streets or roads within the State right of way, including facilities which will be relinquished after construction (such as frontage roads), shall have minimum design speeds conforming to AASHTO standards, as per the functional classification of the facility in question.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	100-1	101.1	Selection of Highway Design Speed	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should apply.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	100-2	101.1	Selection of Highway Design Speed	Where the local facility connects to a freeway or expressway (such as ramp terminal intersections), the design speed of the local facility shall be a minimum of 35 miles per hour.	M	M	M	M	M	M	M	M	M	M	M	M
A	100-2	101.1	Selection of Highway Design Speed	However, the design speed should be 45 miles per hour when feasible.	V	V	V	V	V	V	V	V	V	V	V	V
M	100-2	101.2	Highway Design Speed Standards	The following table (101.2) shows appropriate ranges of design speeds that shall be used for various conditions:	55	55	55	55	40	40	40	40	40	40	40	40
M	100-5	104.4	Protection of Access Rights	For proper control of acquired access rights, fencing or other approved barriers shall be installed on all controlled access highways except as provided in Index 701.2(3)(e).	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	100-5	104.5	Relation Access Opening to a Median Opening	Access openings should not be placed within 300 feet of a median opening unless the access opening is directly opposite the median opening.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	100-6	105.2	Sidewalks and Walkways	The minimum width of a sidewalk should be 8 feet between the curb and a building when in urban and rural main street place types. For all other locations the minimum width of sidewalk should be 6 feet when contiguous to a curb or 5 feet when separated by a planting strip.	N/A	N/A	N/A	N/A	M	M	M	M	V	V	V	V
A	100-10	105.5	Guidelines for the Location and Design of Curb Ramps	On new construction, two curb ramps should be installed at each corner as shown on the Standard Plans.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	100-12	107.1	Roadway Connections	All connections to vista points, truck weighing or brake inspections stations, safety rest areas, park and ride lots, transit stations or any other connections used by the traveling public, should be constructed to standards commensurate with the standards established for the roadway to which they are connected.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	100-12	107.1	Roadway Connections	Only one means of exit and one means of entry to these installations should be allowed.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-1	201.1	General	Table 201.1 shows the minimum standards for stopping sight distance related to a design speed for motorists.	M	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	200-2	201.3	Stopping Sight Distance	The stopping sight distances in Table 201.1 should be increased by 20 percent on sustained downgrades steeper than 3 percent and longer than one mile.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-3	201.7	Decision Sight Distance	On freeways and expressways the decision sight distance values in Table 201.7 should be used al lane drops and at off-ramp noses to interchanges, branch connections, roadside rests, vista points, and inspection stations.	TBD	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	200-4	202.2(1)	Standards for Superelevation	Based on an e_{max} selected by the designer for one of the conditions, superelevation rates from Table 202.2 shall be used within the given range of curve radii. If less than standard superelevation rates are approved (see index 82.1), Figure 202.2 shall be used to determine superelevation based on the curve radius and maximum comfortable speed.	M	M	M	M	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-4	202.2(2)	Standards for Superelevation	On rural 2-lane roads, superelevation should be on the same plan for the full width of traveled way and shoulders, except on transitions (see Index 304.3 for cut widening conditions).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-4	202.2(2)	Standards for Superelevation	Bikeways. Table 202.2 also applies to Class II and III bikeways. See Index 103.1 for Class I guidance.	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	200-9	202.5(1)	Superelevation Transitions	A superelevation transition should be designed in accordance with the diagram and tabular data shown in Figure 202.5A to satisfy the requirements of safety, comfort and pleasing appearance.	M	M	M	M	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	200-9	202.5(2)	Superelevation Transitions	Two-thirds of the superelevation runoff should be on the tangent and one-third within the curve.	M	M	M	M	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	200-12	202.5(3)	Superelevation Transitions	In such situations the highest possible superelevation rate(s) and transition length should be used, but the rate of change of cross slope should not exceed 6 percent per 100 feet.	M	M	M	M	M	TBD	TBD	TBD	M	TBD	TBD	TBD

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
21	A	200-12	202.6	Superelevation of Compound Curves	Superelevation of compound curves should follow the procedure as shown in Figure 202.6. Where feasible, the criteria in Index 202.5 should apply.	High	N/A	N/A	N/A	N/A	V	TBD	TBD	TBD	N/A	N/A	N/A	N/A	V	TBD	TBD	TBD	V	TBD	TBD	TBD
22	**M**	200-12	202.7	Superelevation on City Streets and County Roads	Superelevation rates of local streets and roads within the State right of way (with or without connection to State facilities) shall conform to AASHTO standards, for functional classification of the facility in question.	High	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
23	A	200-12	202.7	Superelevation on City Streets and County Roads	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should apply.	High	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
24	**M**	200-12	203.1	General Controls	For local facilities which are within State right of way and where there is no connection or the connection is to a non-controlled access facility (conventional highway), AASHTO standards shall prevail.	High	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	A	200-12	203.1	General Controls	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should prevail.	Medium	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	**M**	200-12	203.1	General Controls	Horizontal alignment shall provide at least the minimum stopping sight distance for the chosen design speed at all points on the highway, as given in Table 201.1 and explained in Index 201.3.	Low	M	M	M	M	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
27	**M**	200-16	203.2	Standards for Curvature	Table 203.2 shall be the minimum radius of curve for a specific design speeds on highways.	Medium	M	M	M	M	M	V	V	V	M	M	M	M	V	V	V	V	M	V	V	V
28	**M**	200-16	203.2	Standards for Curvature	If the minimum radii indicated in Table 203.2 does not provide the desired lateral clearance to an obstruction, Figure 201.6 shall govern.	Low	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	TBD	TBD	M
29	A	200-16	203.3	Alignment Consistency	Where physical restrictions on curve radius cannot be overcome and it becomes necessary to introduce curvature of lower standard than the design speed for a project, the design speed between successive curves should change not more than 10 miles per hour. Introduction of curves with lower design speeds should be avoided at the end of long tangents, steep downgrades, or at other locations where high approach speeds may be anticipated.	Medium	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
30	A	200-16 & 200-17	203.5	Compound Curves	Where compound curves are necessary, the shorter radius should be at least two-thirds the longer radius when the shorter radius is 1,000 feet or less.	High	N/A	N/A	N/A	N/A	V	V	V	V	M	M	M	M	M	M	V	V	M	M	V	V
31	A	200-16 & 200-17	203.5	Compound Curves	On one-way roads, the larger curve should follow the smaller radius.	High	N/A	N/A	N/A	N/A	M	M	M	M	M	M	V	V	M	M	M	M	M	M	V	V
32	A	200-17	203.6	Reversing Curves	When horizontal curves reverse direction the connecting tangents should be long enough to accommodate the standard superelevation runoffs given on Figure 202.5. If this is not possible, the 6 percent per 100 feet rate of change should govern (see Index 202.5(3)).	Medium	N/A	N/A	N/A	N/A	V	V	V	V	M	M	M	M	V	V	V	V	V	V	V	V
33	**M**	200-17	204.1	General Controls	For local facilities which are within State right of way and where there is no connection or the connection is to a non-controlled access facility (conventional highway), AASHTO standards shall prevail.	High	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34	A	200-17 & 200-18	204.1	General Controls	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should prevail.	Medium	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
35	**M**	200-18	204.3	Standards for Grade	Table 204.3 shows the maximum grades which shall not be exceeded for the condition indicated.	High	M	M	M	M	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
36	A	200-18	204.3	Standards for Grade	Minimum grades should be 0.5 percent in snow country and 0.3 percent at other locations.	Low	V	V	V	V	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
37	A	200-18	204.3	Standards for Grade	Ramp grades should not exceed 8 percent.	Low	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
38	A	200-18	204.4	Vertical Curves	For algebraic grade differences of 2 percent and greater, and design speeds equal to or greater than 40 miles per hour, the minimum length of vertical curve in feet should be equal to 10V, where V=design speed.	Medium	V	V	V	V	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
39	A	200-18	204.4	Vertical Curves	For algebraic grade differences of less than 2 percent, or design speeds less than 40 miles per hour, the vertical curve length should be a minimum of 200 feet.	Medium	M	M	M	M	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
40	A	200-19	204.5(2)	Sustained Grades	Decision sight distance (Table 201.7) should be provided at climbing lane drops on freeways.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	200-12	202.6	Superelevation of Compound Curves	Superelevation of compound curves should follow the procedure as shown in Figure 202.6. Where feasible, the criteria in Index 202.5 should apply.	N/A	N/A	N/A	N/A	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
M	200-12	202.7	Superelevation on City Streets and County Roads	Superelevation rates of local streets and roads within the State right of way (with or without connection to State facilities) shall conform to AASHTO standards, for functional classification of the facility in question.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	200-12	202.7	Superelevation on City Streets and County Roads	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should apply.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	200-12	203.1	General Controls	For local facilities which are within State right of way and where there is no connection or the connection is to a non-controlled access facility (conventional highway), AASHTO standards shall prevail.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-12	203.1	General Controls	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should prevail.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-12	203.1	General Controls	Horizontal alignment shall provide at least the minimum stopping sight distance for the chosen design speed at all points on the highway, as given in Table 201.1 and explained in Index 201.3.	M	M	M	M	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	200-16	203.2	Standards for Curvature	Table 203.2 shall be the minimum radius of curve for a specific design speeds on highways.	M	M	M	M	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
M	200-16	203.2	Standards for Curvature	If the minimum radii indicated in Table 203.2 does not provide the desired lateral clearance to an obstruction, Figure 201.6 shall govern.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	200-16	203.3	Alignment Consistency	Where physical restrictions on curve radius cannot be overcome and it becomes necessary to introduce curvature of lower standard than the design speed for a project, the design speed between successive curves should change not more than 10 miles per hour. Introduction of curves with lower design speeds should be avoided at the end of long tangents, steep downgrades, or at other locations where high approach speeds may be anticipated.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	200-16 & 200-17	203.5	Compound Curves	Where compound curves are necessary, the shorter radius should be at least two-thirds the longer radius when the shorter radius is 1,000 feet or less.	N/A	N/A	N/A	N/A	N/A	N/A	V	V	M	M	M	V	V	V	M	V	V	V	M	V
A	200-16 & 200-17	203.5	Compound Curves	On one-way roads, the larger curve should follow the smaller radius.	N/A	N/A	N/A	N/A	N/A	M	M	M	V	V	M	V	V	V	M	M	M	M	M	M
A	200-17	203.6	Reversing Curves	When horizontal curves reverse direction the connecting tangents should be long enough to accommodate the standard superelevation runoffs given on Figure 202.5. If this is not possible, the 6 percent per 100 feet rate of change should govern (see Index 202.5(3)).	N/A	N/A	N/A	N/A	M	V	V	V	M	V	V	V	V	V	V	V	M	M	V	M
M	200-17	204.1	General Controls	For local facilities which are within State right of way and where there is no connection or the connection is to a non-controlled access facility (conventional highway), AASHTO standards shall prevail.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-17 & 200-18	204.1	General Controls	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should prevail.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-18	204.3	Standards for Grade	Table 204.3 shows the maximum grades which shall not be exceeded for the condition indicated.	M	M	M	M	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	200-18	204.3	Standards for Grade	Minimum grades should be 0.5 percent in snow country and 0.3 percent at other locations.	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-18	204.3	Standards for Grade	Ramp grades should not exceed 8 percent.	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	200-18	204.4	Vertical Curves	For algebraic grade differences of 2 percent and greater, and design speeds equal to or greater than 40 miles per hour, the minimum length of vertical curve in feet should be equal to 10V, where V=design speed.	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-18	204.4	Vertical Curves	For algebraic grade differences of less than 2 percent, or design speeds less than 40 miles per hour, the vertical curve length should be a minimum of 200 feet.	M	M	M	M	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-19	204.5(2)	Sustained Grades	Decision sight distance (Table 201.7) should be provided at climbing lane drops on freeways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	200-12	202.6	Superelevation of Compound Curves	Superelevation of compound curves should follow the procedure as shown in Figure 202.6. Where feasible, the criteria in Index 202.5 should apply.	V	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	N/A	N/A	N/A	V	TBD	TBD	TBD	V	TBD	TBD	TBD
M	200-12	202.7	Superelevation on City Streets and County Roads	Superelevation rates of local streets and roads within the State right of way (with or without connection to State facilities) shall conform to AASHTO standards, for functional classification of the facility in question.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	200-12	202.7	Superelevation on City Streets and County Roads	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should apply.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	200-12	203.1	General Controls	For local facilities which are within State right of way and where there is no connection or the connection is to a non-controlled access facility (conventional highway), AASHTO standards shall prevail.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-12	203.1	General Controls	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should prevail.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-12	203.1	General Controls	Horizontal alignment shall provide at least the minimum stopping sight distance for the chosen design speed at all points on the highway, as given in Table 201.1 and explained in Index 201.3.	U	TBD	TBD	TBD	U	TBD	TBD	TBD	V	V	V	V	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	200-16	203.2	Standards for Curvature	Table 203.2 shall be the minimum radius of curve for a specific design speeds on highways.	V	V	V	V	V	N/A	N/A	V	M	M	M	M	M	M	V	V	V	V	V	V
M	200-16	203.2	Standards for Curvature	If the minimum radii indicated in Table 203.2 does not provide the desired lateral clearance to an obstruction, Figure 201.6 shall govern.	M	M	M	M	M	N/A	N/A	M	V	V	V	V	M	M	M	M	M	M	M	M
A	200-16	203.3	Alignment Consistency	Where physical restrictions on curve radius cannot be overcome and it becomes necessary to introduce curvature of lower standard than the design speed for a project, the design speed between successive curves should change not more than 10 miles per hour. Introduction of curves with lower design speeds should be avoided at the end of long tangents, steep downgrades, or at other locations where high approach speeds may be anticipated.	M	M	M	M	M	N/A	N/A	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	200-16 & 200-17	203.5	Compound Curves	Where compound curves are necessary, the shorter radius should be at least two-thirds the longer radius when the shorter radius is 1,000 feet or less.	V	V	M	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	V	V	N/A	N/A	M
A	200-16 & 200-17	203.5	Compound Curves	On one-way roads, the larger curve should follow the smaller radius.	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	V	N/A	N/A	M
A	200-17	203.6	Reversing Curves	When horizontal curves reverse direction the connecting tangents should be long enough to accommodate the standard superelevation runoffs given on Figure 202.5. If this is not possible, the 6 percent per 100 feet rate of change should govern (see Index 202.5(3)).	N/A	V	V	V	M	N/A	N/A	M	M	M	M	M	V	N/A	V	V	V	V	V	M
M	200-17	204.1	General Controls	For local facilities which are within State right of way and where there is no connection or the connection is to a non-controlled access facility (conventional highway), AASHTO standards shall prevail.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-17 & 200-18	204.1	General Controls	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should prevail.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-18	204.3	Standards for Grade	Table 204.3 shows the maximum grades which shall not be exceeded for the condition indicated.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	M	M	M	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	200-18	204.3	Standards for Grade	Minimum grades should be 0.5 percent in snow country and 0.3 percent at other locations.	M	TBD	TBD	TBD	V	TBD	TBD	TBD	V	V	V	V	V	TBD	TBD	TBD	M	TBD	TBD	TBD
A	200-18	204.3	Standards for Grade	Ramp grades should not exceed 8 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-18	204.4	Vertical Curves	For algebraic grade differences of 2 percent and greater, and design speeds equal to or greater than 40 miles per hour, the minimum length of vertical curve in feet should be equal to 10V, where V=design speed.	V	TBD	TBD	TBD	M	TBD	TBD	TBD	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-18	204.4	Vertical Curves	For algebraic grade differences of less than 2 percent, or design speeds less than 40 miles per hour, the vertical curve length should be a minimum of 200 feet.	V	TBD	TBD	TBD	M	TBD	TBD	TBD	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-19	204.5(2)	Sustained Grades	Decision sight distance (Table 201.7) should be provided at climbing lane drops on freeways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps)				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	200-12	202.6	Superelevation of Compound Curves	Superelevation of compound curves should follow the procedure as shown in Figure 202.6. Where feasible, the criteria in Index 202.5 should apply.	N/A	N/A	N/A	N/A	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	200-12	202.7	Superelevation on City Streets and County Roads	Superelevation rates of local streets and roads within the State right of way (with or without connection to State facilities) shall conform to AASHTO standards, for functional classification of the facility in question.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	200-12	202.7	Superelevation on City Streets and County Roads	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should apply.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	200-12	203.1	General Controls	For local facilities which are within State right of way and where there is no connection or the connection is to a non-controlled access facility (conventional highway), AASHTO standards shall prevail.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-12	203.1	General Controls	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should prevail.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-12	203.1	General Controls	Horizontal alignment shall provide at least the minimum stopping sight distance for the chosen design speed at all points on the highway, as given in Table 201.1 and explained in Index 201.3.	V	V	V	V	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	200-16	203.2	Standards for Curvature	Table 203.2 shall be the minimum radius of curve for a specific design speeds on highways.	M	M	M	M	V	V	V	V	V	V	V	V
M	200-16	203.2	Standards for Curvature	If the minimum radii indicated in Table 203.2 does not provide the desired lateral clearance to an obstruction, Figure 201.6 shall govern.	V	V	V	V	M	M	M	M	M	M	M	M
A	200-16	203.3	Alignment Consistency	Where physical restrictions on curve radius cannot be overcome and it becomes necessary to introduce curvature of lower standard than the design speed for a project, the design speed between successive curves should change not more than 10 miles per hour. Introduction of curves with lower design speeds should be avoided at the end of long tangents, steep downgrades, or at other locations where high approach speeds may be anticipated.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	200-16 & 200-17	203.5	Compound Curves	Where compound curves are necessary, the shorter radius should be at least two-thirds the longer radius when the shorter radius is 1,000 feet or less.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	200-16 & 200-17	203.5	Compound Curves	On one-way roads, the larger curve should follow the smaller radius.	N/A	N/A	N/A	N/A	V	V	M	M	V	V	M	M
A	200-17	203.6	Reversing Curves	When horizontal curves reverse direction the connecting tangents should be long enough to accommodate the standard superelevation runoffs given on Figure 202.5. If this is not possible, the 6 percent per 100 feet rate of change should govern (see Index 202.5(3)).	M	M	M	M	V	V	V	V	V	V	V	V
M	200-17	204.1	General Controls	For local facilities which are within State right of way and where there is no connection or the connection is to a non-controlled access facility (conventional highway), AASHTO standards shall prevail.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-17 & 200-18	204.1	General Controls	If the local agency having jurisdiction over the facility in question maintains design standards that exceed AASHTO standards, then the local agency standards should prevail.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-18	204.3	Standards for Grade	Table 204.3 shows the maximum grades which shall not be exceeded for the condition indicated.	M	M	M	M	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	200-18	204.3	Standards for Grade	Minimum grades should be 0.5 percent in snow country and 0.3 percent at other locations.	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-18	204.3	Standards for Grade	Ramp grades should not exceed 8 percent.	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	200-18	204.4	Vertical Curves	For algebraic grade differences of 2 percent and greater, and design speeds equal to or greater than 40 miles per hour, the minimum length of vertical curve in feet should be equal to 10V, where V=design speed.	V	V	V	V	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	200-18	204.4	Vertical Curves	For algebraic grade differences of less than 2 percent, or design speeds less than 40 miles per hour, the vertical curve length should be a minimum of 200 feet.	V	V	V	V	V	TBD	TBD	TBD	U	TBD	TBD	TBD
A	200-19	204.5(2)	Sustained Grades	Decision sight distance (Table 201.7) should be provided at climbing lane drops on freeways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
41	A	200-22	204.6	Coordination of Horizontal and Vertical Alignment	On highways in mountainous or rolling terrain where horizontal and vertical curves are superimposed at grade summit or sag, the design speed of the horizontal curve should be at least equal to that of the crest or sag, and not more than 10 miles per hour less than the measured or estimated running (85th percentile) speed of the vehicles on the approach roadway.	Medium	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD
42	**M**	200-23	204.8(5)	Grade Line of Structures (Falsework)	The minimum vertical falsework clearance over freeways and nonfreeways shall be 15 feet.	Low	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
43	A	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	Access openings should no be spaced closer than one-half mile to an adjacent public road intersection or to another private access opening that is wider than 30 feet.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
44	A	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	To discourage wrong-way movements, access openings should be located directly opposite, or at least 300 feet from a median opening.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
45	**M**	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	Sight distance equivalent to that required for public road intersections shall be provided (see Index 405.1).	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
46	A	200-28	206.3(1)	Pavement Reductions (Through Lane Drop)	When a lane is to be dropped, it should be done by tapering over a distance equal to WV, where W=Width of lane to be dropped and V=Design Speed.	Medium	V	V	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M
47	A	200-30	206.3(3)	Pavement Reductions (Lane Reductions)	At any location where lane widths are being reduced, the minimum length over which to accomplish the transition should be equal to WV.	Medium	V	V	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M
48	**M**	200-35	208.1(1)	Bridge Lane and Shoulder Width (State Highways)	The clear width of all bridges, including grade separation structures, shall equal the full width of the traveled way and paved shoulders on approaches with the following exceptions: (a) Bridges to be constructed as replacements on existing 2-lane, 2-way roads shall not have less than a 32-foot wide roadbed for ADT less then 400, and not less than 40-foot wide roadbed for ADT greater than 400. (see Index 307.2). (b) When the approach shoulder width is less than 4 feet, the minimum offset on each side shall be 4 feet, and shall be documented in accordance with Index 82.2.	Low	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
49	A	200-35	208.3	Median	On multilane divided highways a bridge median that is 36 feet wide or less should be decked.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50	**M**	200-37	208.4	Bridge Sidewalks	The minimum width of a bridge sidewalk shall be 6 feet.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
51	A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	The minimum width of walkway for pedestrian overcrossing should be 8 feet.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
52	A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	The minimum vertical clearance of a pedestrian undercrossing should be 10 feet	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
53	A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	Class I bikeways are designed for the exclusive use of bicyclists and pedestrians; equestrian access is prohibited.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
54	A	200-38	208.10(2)	Bridge Barriers and Railings (Policies)	To reduce the risk of objects being dropped or thrown upon vehicles, protective screening in the form of fence-type railings should be installed along new overcrossing structure sidewalks in urban areas (Sec. 92.6 California Streets and Highways Code).	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
55	**M**	200-38	208.10(2)	Bridge Barriers and Railings (Policies)	Any use of railings and barriers with sidewalks on structures with posted speeds greater than 45 miles per hour shall have a barrier separation between the roadway and the sidewalk.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
56	A	200-50	208.10(6)	Bridge Barriers and Railings (Bicycle Railing)	As a general policy, bicycle railings should be installed at the following locations: (a) On a Class I bikeway, except that a lower rail may be used if a curbed sidewalk, not signed for bicycle used. Separates the bikeway from the rail or a shoulder at least 8 feet wide exists on the other side of the rail. (b) On the outside of a Class II or III bikeway, unless a curbed sidewalk, not signed for bicycle use, separates the bikeway from the rail.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	200-22	204.6	Coordination of Horizontal and Vertical Alignment	On highways in mountainous or rolling terrain where horizontal and vertical curves are superimposed at grade summit or sag, the design speed of the horizontal curve should be at least equal to that of the crest or sag, and not more than 10 miles per hour less than the measured or estimated running (85th percentile) speed of the vehicles on the approach roadway.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	200-23	204.8(5)	Grade Line of Structures (Falsework)	The minimum vertical falsework clearance over freeways and nonfreeways shall be 15 feet.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	Access openings should no be spaced closer than one-half mile to an adjacent public road intersection or to another private access opening that is wider than 30 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	To discourage wrong-way movements, access openings should be located directly opposite, or at least 300 feet from a median opening.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	Sight distance equivalent to that required for public road intersections shall be provided (see Index 405.1).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-28	206.3(1)	Pavement Reductions (Through Lane Drop)	When a lane is to be dropped, it should be done by tapering over a distance equal to WV, where W=Width of lane to be dropped and V=Design Speed.	M	V	N/A	N/A	V	N/A	N/A	N/A	V	M	M	M	V	M	N/A	N/A	V	V	N/A	N/A
A	200-30	206.3(3)	Pavement Reductions (Lane Reductions)	At any location where lane widths are being reduced, the minimum length over which to accomplish the transition should be equal to WV.	M	V	N/A	N/A	V	N/A	N/A	N/A	V	M	M	M	V	M	N/A	N/A	V	V	N/A	N/A
M	200-35	208.1(1)	Bridge Lane and Shoulder Width (State Highways)	The clear width of all bridges, including grade separation structures, shall equal the full width of the traveled way and paved shoulders on approaches with the following exceptions: (a) Bridges to be constructed as replacements on existing 2-lane, 2-way roads shall not have less than a 32-foot wide roadbed for ADT less then 400, and not less than 40-foot wide roadbed for ADT greater than 400. (see Index 307.2). (b) When the approach shoulder width is less than 4 feet, the minimum offset on each side shall be 4 feet, and shall be documented in accordance with Index 82.2.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	200-35	208.3	Median	On multilane divided highways a bridge median that is 36 feet wide or less should be decked.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-37	208.4	Bridge Sidewalks	The minimum width of a bridge sidewalk shall be 6 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	The minimum width of walkway for pedestrian overcrossing should be 8 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	The minimum vertical clearance of a pedestrian undercrossing should be 10 feet	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	Class I bikeways are designed for the exclusive use of bicyclists and pedestrians; equestrian access is prohibited.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-38	208.10(2)	Bridge Barriers and Railings (Policies)	To reduce the risk of objects being dropped or thrown upon vehicles, protective screening in the form of fence-type railings should be installed along new overcrossing structure sidewalks in urban areas (Sec. 92.6 California Streets and Highways Code).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-38	208.10(2)	Bridge Barriers and Railings (Policies)	Any use of railings and barriers with sidewalks on structures with posted speeds greater than 45 miles per hour shall have a barrier separation between the roadway and the sidewalk.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-50	208.10(6)	Bridge Barriers and Railings (Bicycle Railing)	As a general policy, bicycle railings should be installed at the following locations: (a) On a Class I bikeway, except that a lower rail may be used if a curbed sidewalk, not signed for bicycle used. Separates the bikeway from the rail or a shoulder at least 8 feet wide exists on the other side of the rail. (b) On the outside of a Class II or III bikeway, unless a curbed sidewalk, not signed for bicycle use, separates the bikeway from the rail.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	200-22	204.6	Coordination of Horizontal and Vertical Alignment	On highways in mountainous or rolling terrain where horizontal and vertical curves are superimposed at grade summit or sag, the design speed of the horizontal curve should be at least equal to that of the crest or sag, and not more than 10 miles per hour less than the measured or estimated running (85th percentile) speed of the vehicles on the approach roadway.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	200-23	204.8(5)	Grade Line of Structures (Falsework)	The minimum vertical falsework clearance over freeways and nonfreeways shall be 15 feet.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	Access openings should no be spaced closer than one-half mile to an adjacent public road intersection or to another private access opening that is wider than 30 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	To discourage wrong-way movements, access openings should be located directly opposite, or at least 300 feet from a median opening.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	Sight distance equivalent to that required for public road intersections shall be provided (see Index 405.1).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-28	206.3(1)	Pavement Reductions (Through Lane Drop)	When a lane is to be dropped, it should be done by tapering over a distance equal to WV, where W=Width of lane to be dropped and V=Design Speed.	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	M	M	M	N/A	M	M	M	M
A	200-30	206.3(3)	Pavement Reductions (Lane Reductions)	At any location where lane widths are being reduced, the minimum length over which to accomplish the transition should be equal to WV.	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	M	M	M	M	M	M	M	M
M	200-35	208.1(1)	Bridge Lane and Shoulder Width (State Highways)	The clear width of all bridges, including grade separation structures, shall equal the full width of the traveled way and paved shoulders on approaches with the following exceptions: (a) Bridges to be constructed as replacements on existing 2-lane, 2-way roads shall not have less than a 32-foot wide roadbed for ADT less then 400, and not less than 40-foot wide roadbed for ADT greater than 400. (see Index 307.2). (b) When the approach shoulder width is less than 4 feet, the minimum offset on each side shall be 4 feet, and shall be documented in accordance with Index 82.2.	M	M	M	M	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	200-35	208.3	Median	On multilane divided highways a bridge median that is 36 feet wide or less should be decked.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-37	208.4	Bridge Sidewalks	The minimum width of a bridge sidewalk shall be 6 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	V
A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	The minimum width of walkway for pedestrian overcrossing should be 8 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	The minimum vertical clearance of a pedestrian undercrossing should be 10 feet	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	Class I bikeways are designed for the exclusive use of bicyclists and pedestrians; equestrian access is prohibited.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-38	208.10(2)	Bridge Barriers and Railings (Policies)	To reduce the risk of objects being dropped or thrown upon vehicles, protective screening in the form of fence-type railings should be installed along new overcrossing structure sidewalks in urban areas (Sec. 92.6 California Streets and Highways Code).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M
M	200-38	208.10(2)	Bridge Barriers and Railings (Policies)	Any use of railings and barriers with sidewalks on structures with posted speeds greater than 45 miles per hour shall have a barrier separation between the roadway and the sidewalk.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M
A	200-50	208.10(6)	Bridge Barriers and Railings (Bicycle Railing)	As a general policy, bicycle railings should be installed at the following locations: (a) On a Class I bikeway, except that a lower rail may be used if a curbed sidewalk, not signed for bicycle used. Separates the bikeway from the rail or a shoulder at least 8 feet wide exists on the other side of the rail. (b) On the outside of a Class II or III bikeway, unless a curbed sidewalk, not signed for bicycle use, separates the bikeway from the rail.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps)				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	200-22	204.6	Coordination of Horizontal and Vertical Alignment	On highways in mountainous or rolling terrain where horizontal and vertical curves are superimposed at grade summit or sag, the design speed of the horizontal curve should be at least equal to that of the crest or sag, and not more than 10 miles per hour less than the measured or estimated running (85th percentile) speed of the vehicles on the approach roadway.	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	200-23	204.8(5)	Grade Line of Structures (Falsework)	The minimum vertical falsework clearance over freeways and nonfreeways shall be 15 feet.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
A	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	Access openings should no be spaced closer than one-half mile to an adjacent public road intersection or to another private access opening that is wider than 30 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	To discourage wrong-way movements, access openings should be located directly opposite, or at least 300 feet from a median opening.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-25	205.1(1)	Access openings on Expressways (Criteria for Location)	Sight distance equivalent to that required for public road intersections shall be provided (see Index 405.1).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-28	206.3(1)	Pavement Reductions (Through Lane Drop)	When a lane is to be dropped, it should be done by tapering over a distance equal to WV, where W=Width of lane to be dropped and V=Design Speed.	M	V	V	V	M	V	N/A	N/A	V	V	N/A	N/A
A	200-30	206.3(3)	Pavement Reductions (Lane Reductions)	At any location where lane widths are being reduced, the minimum length over which to accomplish the transition should be equal to WV.	N/A	N/A	N/A	N/A	N/A	M	M	M	V	V	M	M
M	200-35	208.1(1)	Bridge Lane and Shoulder Width (State Highways)	The clear width of all bridges, including grade separation structures, shall equal the full width of the traveled way and paved shoulders on approaches with the following exceptions: (a) Bridges to be constructed as replacements on existing 2-lane, 2-way roads shall not have less than a 32-foot wide roadbed for ADT less then 400, and not less than 40-foot wide roadbed for ADT greater than 400. (see Index 307.2). (b) When the approach shoulder width is less than 4 feet, the minimum offset on each side shall be 4 feet, and shall be documented in accordance with Index 82.2.	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M
A	200-35	208.3	Median	On multilane divided highways a bridge median that is 36 feet wide or less should be decked.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-37	208.4	Bridge Sidewalks	The minimum width of a bridge sidewalk shall be 6 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	The minimum width of walkway for pedestrian overcrossing should be 8 feet.	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	The minimum vertical clearance of a pedestrian undercrossing should be 10 feet	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-37	208.6	Bicycle and Pedestrian Overcrossings and Undercrossings	Class I bikeways are designed for the exclusive use of bicyclists and pedestrians; equestrian access is prohibited.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-38	208.10(2)	Bridge Barriers and Railings (Policies)	To reduce the risk of objects being dropped or thrown upon vehicles, protective screening in the form of fence-type railings should be installed along new overcrossing structure sidewalks in urban areas (Sec. 92.6 California Streets and Highways Code).	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	200-38	208.10(2)	Bridge Barriers and Railings (Policies)	Any use of railings and barriers with sidewalks on structures with posted speeds greater than 45 miles per hour shall have a barrier separation between the roadway and the sidewalk.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	200-50	208.10(6)	Bridge Barriers and Railings (Bicycle Railing)	As a general policy, bicycle railings should be installed at the following locations: (a) On a Class I bikeway, except that a lower rail may be used if a curbed sidewalk, not signed for bicycle used. Separates the bikeway from the rail or a shoulder at least 8 feet wide exists on the other side of the rail. (b) On the outside of a Class II or III bikeway, unless a curbed sidewalk, not signed for bicycle use, separates the bikeway from the rail.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
57	**M**	200-50	208.10(7)	Bridge Barriers and Railings (Bridge Approach Railings)	Approach railings shall be installed at the ends of bridge railings exposed to approach traffic.	Low	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
58	A	200-54	210.6	Safety Railing, Fences, and Concrete Barriers	Cable railing should be installed for employee protection in areas where employees may work adjacent to and above vertical faces of retaining walls, wingwalls, abutments, etc. where the vertical fall is 4 feet or more.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
59	**M**	300-1	301.1	Lane Width	The minimum lane width on two-lane and multilane highways, ramps, collector roads, and other appurtenant roadways shall be 12 feet, except as follows: • For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volume) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet. Where a 2-lane conventional State highway connects to a freeway within an interchange, the lane width shall be 12 feet. Where a multilane State highway connects to a freeway within an interchange, the outer most lane of the highway in each direction shall be 12 feet.	Medium	V	V	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
60	**M**	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Class II bikeways (bike lanes), for preferential use of bicycles, may be established within the roadbed and shall be located immediately adjacent to a traffic lane as allowed in this manual.	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
61	**M**	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	The minimum Class II bikeway lane width shall be 4 feet, except where:	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
62	A	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Adjacent to on-street parking, the minimum bike lane should be 5 feet.	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
63	A	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Posted speeds are greater than 40 miles per hour, the minimum bike lane should be 6 feet. Or	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
64	**M**	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	On highways with concrete curb and gutter, a minimum width of 3 feet measured from the bike lane stripe to the joint between the shoulder pavement and the gutter shall be provided.	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
65	**M**	300-2	301.1(2)(a)	Cross Slopes (Standards)	The standard cross slope to be used for new construction on the traveled way for all types of surfaces shall be 2 percent.	Low	V	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
66	**M**	300-2	301.1(2)(b)	Cross Slopes (Standards)	For resurfacing or widening (only when necessary to match existing cross slope). The minimum shall be 1.5 percent and the maximum shall be 3 percent.	Low	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
67	**M**	300-2	301.1(2)(c)	Cross Slopes (Standards)	On unpaved roadway surfaces, including gravel and penetration treated earth, the cross slope shall be 2.5 percent to 5.0 percent.	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
68	A	300-2	301.1(2)	Cross Slopes (Standards)	For rehabilitation and widening projects, the maximum algebraic difference in cross slope between adjacent lanes of opposing traffic for either 2-lane or undivided multilane highways should be 6 percent.	Low	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
69	**M**	300-2	301.1(2)	Cross Slopes (Standards)	For new construction, the maximum shall be 4 percent.	Low	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
70	A	300-2	301.1(2)	Cross Slopes (Standards)	The maximum algebraic difference in cross slope between same direction traffic lanes of divided highway roadbeds should be 4 percent.	Low	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
71	A	300-2	301.1(2)	Cross Slopes (Standards)	The maximum difference in cross slope between the traveled way and the shoulder should not exceed 8 percent.	Low	M	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
72	A	300-3	301.1(2)	Cross Slopes (Standards)	At freeway entrances and exits, the maximum difference in cross slope between adjacent lanes, or between lanes and gore areas, should not exceed 5 percent.	Medium	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
73	**M**	300-3	302.1	Width	The shoulder widths given in Table 302.1 shall be the minimum continuous usable width of paved shoulder on highways.	Low	V	V	M	M	V	V	V	M	M	V	M	M	V	V	V	V	V	V	V	M
74	**M**	300-3	302.1	Width	Where rumble strips are placed in the shoulder, the shoulder shall be a minimum of 4 feet width to the right of the grooved rumble strip when a vertical element, such as curb or guardrail is present or a minimum of 3 feet width when the vertical element is not present.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
75	**M**	300-3	302.2(1)	Cross Slopes (General)	When a roadway crosses a bridge structure, the shoulder shall be in the same plane as the adjacent traveled way.	Medium	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
76	**M**	300-3	302.2(2)	Cross Slopes (Left Shoulders)	In depressed median sections, shoulders to the left of traffic shall be sloped at 2 percent away from the traveled way.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	200-50	208.10(7)	Bridge Barriers and Railings (Bridge Approach Railings)	Approach railings shall be installed at the ends of bridge railings exposed to approach traffic.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	200-54	210.6	Safety Railing, Fences, and Concrete Barriers	Cable railing should be installed for employee protection in areas where employees may work adjacent to and above vertical faces of retaining walls, wingwalls, abutments, etc. where the vertical fall is 4 feet or more.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	300-1	301.1	Lane Width	The minimum lane width on two-lane and multilane highways, ramps, collector roads, and other appurtenant roadways shall be 12 feet, except as follows: • For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volume) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet. Where a 2-lane conventional State highway connects to a freeway within an interchange, the lane width shall be 12 feet. Where a multilane State highway connects to a freeway within an interchange, the outer most lane of the highway in each direction shall be 12 feet.	V	V	M	M	M	M	M	M	V	M	M	M	M	V	V	V	V	V	V	V
M	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Class II bikeways (bike lanes), for preferential use of bicycles, may be established within the roadbed and shall be located immediately adjacent to a traffic lane as allowed in this manual.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	The minimum Class II bikeway lane width shall be 4 feet, except where:	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Adjacent to on-street parking, the minimum bike lane should be 5 feet.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Posted speeds are greater than 40 miles per hour, the minimum bike lane should be 6 feet. Or	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	On highways with concrete curb and gutter, a minimum width of 3 feet measured from the bike lane stripe to the joint between the shoulder pavement and the gutter shall be provided.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-2	301.1(2)(a)	Cross Slopes (Standards)	The standard cross slope to be used for new construction on the traveled way for all types of surfaces shall be 2 percent.	V	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
M	300-2	301.1(2)(b)	Cross Slopes (Standards)	For resurfacing or widening (only when necessary to match existing cross slope). The minimum shall be 1.5 percent and the maximum shall be 3 percent.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
M	300-2	301.1(2)(c)	Cross Slopes (Standards)	On unpaved roadway surfaces, including gravel and penetration treated earth, the cross slope shall be 2.5 percent to 5.0 percent.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-2	301.1(2)	Cross Slopes (Standards)	For rehabilitation and widening projects, the maximum algebraic difference in cross slope between adjacent lanes of opposing traffic for either 2-lane or undivided multilane highways should be 6 percent.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
M	300-2	301.1(2)	Cross Slopes (Standards)	For new construction, the maximum shall be 4 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-2	301.1(2)	Cross Slopes (Standards)	The maximum algebraic difference in cross slope between same direction traffic lanes of divided highway roadbeds should be 4 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-2	301.1(2)	Cross Slopes (Standards)	The maximum difference in cross slope between the traveled way and the shoulder should not exceed 8 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-3	301.1(2)	Cross Slopes (Standards)	At freeway entrances and exits, the maximum difference in cross slope between adjacent lanes, or between lanes and gore areas, should not exceed 5 percent.	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	300-3	302.1	Width	The shoulder widths given in Table 302.1 shall be the minimum continuous usable width of paved shoulder on highways.	V	V	M	M	V	V	V	V	V	V	M	M	V	V	V	V	V	V	V	V
M	300-3	302.1	Width	Where rumble strips are placed in the shoulder, the shoulder shall be a minimum of 4 feet width to the right of the grooved rumble strip when a vertical element, such as curb or guardrail is present or a minimum of 3 feet width when the vertical element is not present.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-3	302.2(1)	Cross Slopes (General)	When a roadway crosses a bridge structure, the shoulder shall be in the same plane as the adjacent traveled way.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
M	300-3	302.2(2)	Cross Slopes (Left Shoulders)	In depressed median sections, shoulders to the left of traffic shall be sloped at 2 percent away from the traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	200-50	208.10(7)	Bridge Barriers and Railings (Bridge Approach Railings)	Approach railings shall be installed at the ends of bridge railings exposed to approach traffic.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	200-54	210.6	Safety Railing, Fences, and Concrete Barriers	Cable railing should be installed for employee protection in areas where employees may work adjacent to and above vertical faces of retaining walls, wingwalls, abutments, etc. where the vertical fall is 4 feet or more.	TBD	TBD	TBD	TBD	V	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	300-1	301.1	Lane Width	The minimum lane width on two-lane and multilane highways, ramps, collector roads, and other appurtenant roadways shall be 12 feet, except as follows: • For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volume) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet. Where a 2-lane conventional State highway connects to a freeway within an interchange, the lane width shall be 12 feet. Where a multilane State highway connects to a freeway within an interchange, the outer most lane of the highway in each direction shall be 12 feet.	V	V	V	V	V	N/A	N/A	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
M	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Class II bikeways (bike lanes), for preferential use of bicycles, may be established within the roadbed and shall be located immediately adjacent to a traffic lane as allowed in this manual.	V	V	V	V	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	The minimum Class II bikeway lane width shall be 4 feet, except where:	V	V	V	V	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Adjacent to on-street parking, the minimum bike lane should be 5 feet.	V	V	V	V	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Posted speeds are greater than 40 miles per hour, the minimum bike lane should be 6 feet. Or	V	V	V	V	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	On highways with concrete curb and gutter, a minimum width of 3 feet measured from the bike lane stripe to the joint between the shoulder pavement and the gutter shall be provided.	V	V	V	V	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-2	301.1(2)(a)	Cross Slopes (Standards)	The standard cross slope to be used for new construction on the traveled way for all types of surfaces shall be 2 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
M	300-2	301.1(2)(b)	Cross Slopes (Standards)	For resurfacing or widening (only when necessary to match existing cross slope). The minimum shall be 1.5 percent and the maximum shall be 3 percent.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
M	300-2	301.1(2)(c)	Cross Slopes (Standards)	On unpaved roadway surfaces, including gravel and penetration treated earth, the cross slope shall be 2.5 percent to 5.0 percent.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-2	301.1(2)	Cross Slopes (Standards)	For rehabilitation and widening projects, the maximum algebraic difference in cross slope between adjacent lanes of opposing traffic for either 2-lane or undivided multilane highways should be 6 percent.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
M	300-2	301.1(2)	Cross Slopes (Standards)	For new construction, the maximum shall be 4 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-2	301.1(2)	Cross Slopes (Standards)	The maximum algebraic difference in cross slope between same direction traffic lanes of divided highway roadbeds should be 4 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-2	301.1(2)	Cross Slopes (Standards)	The maximum difference in cross slope between the traveled way and the shoulder should not exceed 8 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-3	301.1(2)	Cross Slopes (Standards)	At freeway entrances and exits, the maximum difference in cross slope between adjacent lanes, or between lanes and gore areas, should not exceed 5 percent.	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	300-3	302.1	Width	The shoulder widths given in Table 302.1 shall be the minimum continuous usable width of paved shoulder on highways.	V	V	V	V	V	V	V	V	V	V	M	M	V	V	M	V	V	V	M	V
M	300-3	302.1	Width	Where rumble strips are placed in the shoulder, the shoulder shall be a minimum of 4 feet width to the right of the grooved rumble strip when a vertical element, such as curb or guardrail is present or a minimum of 3 feet width when the vertical element is not present.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-3	302.2(1)	Cross Slopes (General)	When a roadway crosses a bridge structure, the shoulder shall be in the same plane as the adjacent traveled way.	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M
M	300-3	302.2(2)	Cross Slopes (Left Shoulders)	In depressed median sections, shoulders to the left of traffic shall be sloped at 2 percent away from the traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps)				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	200-50	208.10(7)	Bridge Barriers and Railings (Bridge Approach Railings)	Approach railings shall be installed at the ends of bridge railings exposed to approach traffic.	M	M	M	M	M	M	M	M	M	M	M	M
A	200-54	210.6	Safety Railing, Fences, and Concrete Barriers	Cable railing should be installed for employee protection in areas where employees may work adjacent to and above vertical faces of retaining walls, wingwalls, abutments, etc. where the vertical fall is 4 feet or more.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	300-1	301.1	Lane Width	The minimum lane width on two-lane and multilane highways, ramps, collector roads, and other appurtenant roadways shall be 12 feet, except as follows: • For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volume) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet. Where a 2-lane conventional State highway connects to a freeway within an interchange, the lane width shall be 12 feet. Where a multilane State highway connects to a freeway within an interchange, the outer most lane of the highway in each direction shall be 12 feet.	M	M	M	V	V	V	V	V	V	V	M	M
M	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Class II bikeways (bike lanes), for preferential use of bicycles, may be established within the roadbed and shall be located immediately adjacent to a traffic lane as allowed in this manual.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	The minimum Class II bikeway lane width shall be 4 feet, except where:	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Adjacent to on-street parking, the minimum bike lane should be 5 feet.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	Posted speeds are greater than 40 miles per hour, the minimum bike lane should be 6 feet. Or	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-1	301.2(1)	Class II Bikeway (Bike Lanes) Lane Width (General)	On highways with concrete curb and gutter, a minimum width of 3 feet measured from the bike lane stripe to the joint between the shoulder pavement and the gutter shall be provided.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-2	301.1(2)(a)	Cross Slopes (Standards)	The standard cross slope to be used for new construction on the traveled way for all types of surfaces shall be 2 percent.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
M	300-2	301.1(2)(b)	Cross Slopes (Standards)	For resurfacing or widening (only when necessary to match existing cross slope). The minimum shall be 1.5 percent and the maximum shall be 3 percent.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
M	300-2	301.1(2)(c)	Cross Slopes (Standards)	On unpaved roadway surfaces, including gravel and penetration treated earth, the cross slope shall be 2.5 percent to 5.0 percent.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-2	301.1(2)	Cross Slopes (Standards)	For rehabilitation and widening projects, the maximum algebraic difference in cross slope between adjacent lanes of opposing traffic for either 2-lane or undivided multilane highways should be 6 percent.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
M	300-2	301.1(2)	Cross Slopes (Standards)	For new construction, the maximum shall be 4 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-2	301.1(2)	Cross Slopes (Standards)	The maximum algebraic difference in cross slope between same direction traffic lanes of divided highway roadbeds should be 4 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-2	301.1(2)	Cross Slopes (Standards)	The maximum difference in cross slope between the traveled way and the shoulder should not exceed 8 percent.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-3	301.1(2)	Cross Slopes (Standards)	At freeway entrances and exits, the maximum difference in cross slope between adjacent lanes, or between lanes and gore areas, should not exceed 5 percent.	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	300-3	302.1	Width	The shoulder widths given in Table 302.1 shall be the minimum continuous usable width of paved shoulder on highways.	V	M	M	V	V	V	V	V	V	V	V	V
M	300-3	302.1	Width	Where rumble strips are placed in the shoulder, the shoulder shall be a minimum of 4 feet width to the right of the grooved rumble strip when a vertical element, such as curb or guardrail is present or a minimum of 3 feet width when the vertical element is not present.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-3	302.2(1)	Cross Slopes (General)	When a roadway crosses a bridge structure, the shoulder shall be in the same plane as the adjacent traveled way.	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-3	302.2(2)	Cross Slopes (Left Shoulders)	In depressed median sections, shoulders to the left of traffic shall be sloped at 2 percent away from the traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
77	**M**	300-3	302.2(2)	Cross Slopes (Left Shoulders)	In paved median sections, shoulders to the left of traffic shall be designed in the plane of the traveled way.	Low	M	M	M	M	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
78	**M**	300-3	302.2(3)	Cross Slopes (Right Shoulders)	In normal tangent sections, shoulders to the right of traffic shall be sloped at 2 percent to 5 percent away from the traveled way.	Low	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
79	A	300-7	303.1	General Policy	The use of curb should be avoided on facilities with posted speeds greater than or equal to 40 miles per hour, except as noted in Table 303.1. For projects where the use of curb is appropriate, it should be the type shown in Table 303.1.	High	V	M	M	M	V	V	V	V	N/A	M	M	M	V	V	V	V	V	V	V	V
80	A	300-9	303.3	Dike Types and Uses	Dikes should be selected as illustrated in Figure 303.3.	Medium	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
81	A	300-11	303.4(1)	Curb Extensions (Bulbouts)	Bulbouts should conform to Figure 303.4, other design elements are not shown.	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
82	**M**	300-11	303.4(1)	Curb Extensions (Bulbouts)	The curb face of the bulbout shall be setback from the edge of traveled way such that there is a minimum of 3 feet measured from the edge of traveled way to the joint between the shoulder pavement and the gutter pan or 3 feet to curb face without gutter pan.	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
83	A	300-13	304.1	Side Slope Standards	For new construction, widening, or where slopes are otherwise being modified, embankment (fill) slopes should be 4:1 or flatter.	Medium	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
84	A	300-13	304.1	Side Slope Standards	In light grading where normal slopes catch in a distance less than 18 feet from the edge of shoulder, a uniform catch point, at least 18 feet from edge of the shoulder, should be used.	Low	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
85	A	300-16	305.1	Width	Where pedestrians are allowed to cross 4 or more lanes at a marked or unmarked crosswalk, a pedestrian refuge island should be provided.	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
86	A	300-16	305.1	Width	Minimum median widths for the design year (as described below) should be used in order to accommodate the ultimate highway facility (type and number of lanes).	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
87	A	300-16	305.1(1)(a)	Width (Freeways and Expressways)(Urban Areas)	the minimum median width for freeways and expressways in urban areas should be 36 feet.	Medium	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
88	A	300-16	305.1(1)(b)	Width (Freeways and Expressways)(Rural Areas)	The minimum median width for freeways and expressways in rural areas should be 62 feet.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
89	A	300-16	305.1(2)	Width (Conventional Highways)	In Urban and Rural Main Street areas, the minimum median width for multilane conventional highways should be 18 feet. For two lane conventional highways, the minimum median width should be 12 feet.	High	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
90	**M**	300-17	305.1(2)	Width (Conventional Highways)	In rural areas the minimum median width for multilane conventional highways shall be 12 feet.	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
91	A	300-17	305.1(2)	Width (Conventional Highways)	At locations where a climbing or passing lane is added to a 2-lane conventional highway, a 4-foot median (or "soft barrier") between opposing traffic lanes should be used.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
92	**M**	300-17	305.1(3)(a)	Width (Facilities under Restrictive Conditions) (Freeways and Expressways))	In areas where restrictive conditions prevail the minimum median width shall be 22 feet.	Low	V	V	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
93	A	300-17	305.2	Median Cross Slopes	Unsurfaced medians up to 65 feet wide should be sloped downward from the adjoining shoulders to form a shallow valley in the center. Cross slopes should be 10:1 or flatter	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
94	**M**	300-20	307.2	Two-lane Cross Sections for New Construction	Shoulder widths based on design year traffic volumes shall conform to the standards given in Table 307.2.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
95	**M**	300-24	308.1	City Streets and County Roads	Where a local facility within the State right of way crosses over or under a freeway or expressway but has no connection to the State facility, the minimum design standards for the cross section of the local facility within the State's right of way shall be those found in AASHTO.	High	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
96	A	300-24	308.1	City Streets and County Roads	If the local agency has standards that exceed AASHTO standards, then the local agency standards should apply.	High	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
97	**M**	300-24	308.1	City Streets and County Roads	The minimum width of 2-lane overcrossing structures shall not be less than 32 feet face of curb to face of curb.	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	300-3	302.2(2)	Cross Slopes (Left Shoulders)	In paved median sections, shoulders to the left of traffic shall be designed in the plane of the traveled way.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
M	300-3	302.2(3)	Cross Slopes (Right Shoulders)	In normal tangent sections, shoulders to the right of traffic shall be sloped at 2 percent to 5 percent away from the traveled way.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-7	303.1	General Policy	The use of curb should be avoided on facilities with posted speeds greater than or equal to 40 miles per hour, except as noted in Table 303.1. For projects where the use of curb is appropriate, it should be the type shown in Table 303.1.	V	M	M	M	V	V	V	V	V	M	M	M	V	V	V	V	V	V	V	V
A	300-9	303.3	Dike Types and Uses	Dikes should be selected as illustrated in Figure 303.3.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	300-11	303.4(1)	Curb Extensions (Bulbouts)	Bulbouts should conform to Figure 303.4, other design elements are not shown.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-11	303.4(1)	Curb Extensions (Bulbouts)	The curb face of the bulbout shall be setback from the edge of traveled way such that there is a minimum of 3 feet measured from the edge of traveled way to the joint between the shoulder pavement and the gutter pan or 3 feet to curb face without gutter pan.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-13	304.1	Side Slope Standards	For new construction, widening, or where slopes are otherwise being modified, embankment (fill) slopes should be 4:1 or flatter.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	300-13	304.1	Side Slope Standards	In light grading where normal slopes catch in a distance less than 18 feet from the edge of shoulder, a uniform catch point, at least 18 feet from edge of the shoulder, should be used.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
A	300-16	305.1	Width	Where pedestrians are allowed to cross 4 or more lanes at a marked or unmarked crosswalk, a pedestrian refuge island should be provided.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A
A	300-16	305.1	Width	Minimum median widths for the design year (as described below) should be used in order to accommodate the ultimate highway facility (type and number of lanes).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-16	305.1(1)(a)	Width (Freeways and Expressways)(Urban Areas)	the minimum median width for freeways and expressways in urban areas should be 36 feet.	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-16	305.1(1)(b)	Width (Freeways and Expressways)(Rural Areas)	The minimum median width for freeways and expressways in rural areas should be 62 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-16	305.1(2)	Width (Conventional Highways)	In Urban and Rural Main Street areas, the minimum median width for multilane conventional highways should be 18 feet. For two lane conventional highways, the minimum median width should be 12 feet.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
M	300-17	305.1(2)	Width (Conventional Highways)	In rural areas the minimum median width for multilane conventional highways shall be 12 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-17	305.1(2)	Width (Conventional Highways)	At locations where a climbing or passing lane is added to a 2-lane conventional highway, a 4-foot median (or "soft barrier") between opposing traffic lanes should be used.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-17	305.1(3)(a)	Width (Facilities under Restrictive Conditions) (Freeways and Expressways))	In areas where restrictive conditions prevail the minimum median width shall be 22 feet.	V	V	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-17	305.2	Median Cross Slopes	Unsurfaced medians up to 65 feet wide should be sloped downward from the adjoining shoulders to form a shallow valley in the center. Cross slopes should be 10:1 or flatter	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-20	307.2	Two-lane Cross Sections for New Construction	Shoulder widths based on design year traffic volumes shall conform to the standards given in Table 307.2.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-24	308.1	City Streets and County Roads	Where a local facility within the State right of way crosses over or under a freeway or expressway but has no connection to the State facility, the minimum design standards for the cross section of the local facility within the State's right of way shall be those found in AASHTO.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-24	308.1	City Streets and County Roads	If the local agency has standards that exceed AASHTO standards, then the local agency standards should apply.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-24	308.1	City Streets and County Roads	The minimum width of 2-lane overcrossing structures shall not be less than 32 feet face of curb to face of curb.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	300-3	302.2(2)	Cross Slopes (Left Shoulders)	In paved median sections, shoulders to the left of traffic shall be designed in the plane of the traveled way.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
M	300-3	302.2(3)	Cross Slopes (Right Shoulders)	In normal tangent sections, shoulders to the right of traffic shall be sloped at 2 percent to 5 percent away from the traveled way.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-7	303.1	General Policy	The use of curb should be avoided on facilities with posted speeds greater than or equal to 40 miles per hour, except as noted in Table 303.1. For projects where the use of curb is appropriate, it should be the type shown in Table 303.1.	V	V	V	V	M	M	M	M	V	V	M	M	V	V	V	V	V	V	V	V
A	300-9	303.3	Dike Types and Uses	Dikes should be selected as illustrated in Figure 303.3.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	300-11	303.4(1)	Curb Extensions (Bulbouts)	Bulbouts should conform to Figure 303.4, other design elements are not shown.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-11	303.4(1)	Curb Extensions (Bulbouts)	The curb face of the bulbout shall be setback from the edge of traveled way such that there is a minimum of 3 feet measured from the edge of traveled way to the joint between the shoulder pavement and the gutter pan or 3 feet to curb face without gutter pan.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-13	304.1	Side Slope Standards	For new construction, widening, or where slopes are otherwise being modified, embankment (fill) slopes should be 4:1 or flatter.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	300-13	304.1	Side Slope Standards	In light grading where normal slopes catch in a distance less than 18 feet from the edge of shoulder, a uniform catch point, at least 18 feet from edge of the shoulder, should be used.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
A	300-16	305.1	Width	Where pedestrians are allowed to cross 4 or more lanes at a marked or unmarked crosswalk, a pedestrian refuge island should be provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A
A	300-16	305.1	Width	Minimum median widths for the design year (as described below) should be used in order to accommodate the ultimate highway facility (type and number of lanes).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-16	305.1(1)(a)	Width (Freeways and Expressways)(Urban Areas)	the minimum median width for freeways and expressways in urban areas should be 36 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-16	305.1(1)(b)	Width (Freeways and Expressways)(Rural Areas)	The minimum median width for freeways and expressways in rural areas should be 62 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-16	305.1(2)	Width (Conventional Highways)	In Urban and Rural Main Street areas, the minimum median width for multilane conventional highways should be 18 feet. For two lane conventional highways, the minimum median width should be 12 feet.	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
M	300-17	305.1(2)	Width (Conventional Highways)	In rural areas the minimum median width for multilane conventional highways shall be 12 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-17	305.1(2)	Width (Conventional Highways)	At locations where a climbing or passing lane is added to a 2-lane conventional highway, a 4-foot median (or "soft barrier") between opposing traffic lanes should be used.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-17	305.1(3)(a)	Width (Facilities under Restrictive Conditions) (Freeways and Expressways))	In areas where restrictive conditions prevail the minimum median width shall be 22 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-17	305.2	Median Cross Slopes	Unsurfaced medians up to 65 feet wide should be sloped downward from the adjoining shoulders to form a shallow valley in the center. Cross slopes should be 10:1 or flatter	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-20	307.2	Two-lane Cross Sections for New Construction	Shoulder widths based on design year traffic volumes shall conform to the standards given in Table 307.2.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-24	308.1	City Streets and County Roads	Where a local facility within the State right of way crosses over or under a freeway or expressway but has no connection to the State facility, the minimum design standards for the cross section of the local facility within the State's right of way shall be those found in AASHTO.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-24	308.1	City Streets and County Roads	If the local agency has standards that exceed AASHTO standards, then the local agency standards should apply.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-24	308.1	City Streets and County Roads	The minimum width of 2-lane overcrossing structures shall not be less than 32 feet face of curb to face of curb.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps)				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	300-3	302.2(2)	Cross Slopes (Left Shoulders)	In paved median sections, shoulders to the left of traffic shall be designed in the plane of the traveled way.	M	M	M	M	M	M	M	M	M	M	M	M
M	300-3	302.2(3)	Cross Slopes (Right Shoulders)	In normal tangent sections, shoulders to the right of traffic shall be sloped at 2 percent to 5 percent away from the traveled way.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	300-7	303.1	General Policy	The use of curb should be avoided on facilities with posted speeds greater than or equal to 40 miles per hour, except as noted in Table 303.1. For projects where the use of curb is appropriate, it should be the type shown in Table 303.1.	V	V	M	M	V	M	M	M	V	V	V	V
A	300-9	303.3	Dike Types and Uses	Dikes should be selected as illustrated in Figure 303.3.	M	M	M	M	M	M	M	M	M	M	M	M
A	300-11	303.4(1)	Curb Extensions (Bulbouts)	Bulbouts should conform to Figure 303.4, other design elements are not shown.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-11	303.4(1)	Curb Extensions (Bulbouts)	The curb face of the bulbout shall be setback from the edge of traveled way such that there is a minimum of 3 feet measured from the edge of traveled way to the joint between the shoulder pavement and the gutter pan or 3 feet to curb face without gutter pan.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-13	304.1	Side Slope Standards	For new construction, widening, or where slopes are otherwise being modified, embankment (fill) slopes should be 4:1 or flatter.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	300-13	304.1	Side Slope Standards	In light grading where normal slopes catch in a distance less than 18 feet from the edge of shoulder, a uniform catch point, at least 18 feet from edge of the shoulder, should be used.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
A	300-16	305.1	Width	Where pedestrians are allowed to cross 4 or more lanes at a marked or unmarked crosswalk, a pedestrian refuge island should be provided.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A
A	300-16	305.1	Width	Minimum median widths for the design year (as described below) should be used in order to accommodate the ultimate highway facility (type and number of lanes).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-16	305.1(1)(a)	Width (Freeways and Expressways)(Urban Areas)	the minimum median width for freeways and expressways in urban areas should be 36 feet.	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-16	305.1(1)(b)	Width (Freeways and Expressways)(Rural Areas)	The minimum median width for freeways and expressways in rural areas should be 62 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-16	305.1(2)	Width (Conventional Highways)	In Urban and Rural Main Street areas, the minimum median width for multilane conventional highways should be 18 feet. For two lane conventional highways, the minimum median width should be 12 feet.	N/A	N/A	N/A	N/A	M	M	M	M	V	V	V	V
M	300-17	305.1(2)	Width (Conventional Highways)	In rural areas the minimum median width for multilane conventional highways shall be 12 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-17	305.1(2)	Width (Conventional Highways)	At locations where a climbing or passing lane is added to a 2-lane conventional highway, a 4-foot median (or "soft barrier") between opposing traffic lanes should be used.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-17	305.1(3)(a)	Width (Facilities under Restrictive Conditions) (Freeways and Expressways))	In areas where restrictive conditions prevail the minimum median width shall be 22 feet.	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-17	305.2	Median Cross Slopes	Unsurfaced medians up to 65 feet wide should be sloped downward from the adjoining shoulders to form a shallow valley in the center. Cross slopes should be 10:1 or flatter	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-20	307.2	Two-lane Cross Sections for New Construction	Shoulder widths based on design year traffic volumes shall conform to the standards given in Table 307.2.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-24	308.1	City Streets and County Roads	Where a local facility within the State right of way crosses over or under a freeway or expressway but has no connection to the State facility, the minimum design standards for the cross section of the local facility within the State's right of way shall be those found in AASHTO.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-24	308.1	City Streets and County Roads	If the local agency has standards that exceed AASHTO standards, then the local agency standards should apply.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-24	308.1	City Streets and County Roads	The minimum width of 2-lane overcrossing structures shall not be less than 32 feet face of curb to face of curb.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
98	**M**	300-25	308.1	City Streets and County Roads	Where a local facility crosses over or under a freeway or expressway and connects to the State facility (such as ramp terminal intersections), the minimum design standards for the cross section of the local facility shall be at least equal to those for a conventional highway with the exception that the outside shoulder width shall match the approach roadway, but not less than 4 feet, and as shown below.	High	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
99	**M**	300-25	308.1	City Streets and County Roads	Where the 2-lane local facility connects to a freeway within an interchange, the lane width of the local facility shall be 12 feet.	High	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100	**M**	300-25	308.1	City Streets and County Roads	Where a multilane local facility connects to a freeway within an interchange, the outer most lane in each direction of the local facility shall be 12 feet.	High	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
101	**M**	300-25	308.1	City Streets and County Roads	Shoulder width shall not be less than 5 feet when railings or other lateral obstructions are adjacent to the right edge of shoulder.	High	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
102	**M**	300-25	308.1	City Streets and County Roads	If gutter pans are used, then the minimum shoulder width shall be 3 feet wider than the width of the gutter pan being used.	High	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
103	**M**	300-25	308.1	City Streets and County Roads	The minimum width for two-lane overcrossing structures at interchanges shall be 40 feet curb-to-curb.	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
104	**M**	300-25	309.1(1)	Horizontal Clearances for Highways (General)	Horizontal clearances greater than those cited below under subsection (3) - "Minimum Clearances" shall be provided where necessary to meet horizontal stopping sight distance requirements.	Low	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
105	A	300-25	309.1(2)	Horizontal Clearances for Highways (Clear Recovery Zone (CRZ))	Fixed objects, including bridge piers, abutments, retaining walls, and noise barriers closer to the edge of traveled way than the distances listed above should be eliminated, moved, redesigned to be made yielding, or shielded in accordance with the following guidelines:	Low	M	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD
106	**M**	300-26	309.1(2)	Horizontal Clearances for Highways (Clear Recovery Zone (CRZ))	Where compliance with the above stated clear recovery zone guidelines are impractical, the minimum horizontal clearance cited below shall apply to the unshielded fixed object. These minimum horizontal clearances apply to yielding objects as well.	Low	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
107	**M**	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	The following minimum horizontal clearances shall apply to all objects that are closer to the edge of traveled way than the clear recovery zone distances listed above: (a) The minimum horizontal clearances to all objects, such as bridge rails and safety-shaped concrete barriers, as well as sand-filled barrels, metal beam guardrail, etc., on freeway and expressway facilities, including auxiliary lanes, ramps, and collector roads, shall be equal to the standard shoulder width of the highway facility as stated in Table 302.1. A minimum clearance of 4 feet shall be provided where the standard shoulder is less than 4 feet.	Low	V	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
108	**M**	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	(b) The minimum horizontal clearance to walls, such as abutment walls, retaining walls in cut locations, and noise barriers on all facilities, including auxiliary lanes, ramps and collector roads, shall be not less than 10 feet per Table 203.1.	Low	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
109	**M**	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	(c) On conventional highways, frontage roads, city streets and county roads (all without curbs), the minimum horizontal clearance shall be the standard shoulder width as listed in Tables 302.1 and 307.2.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
110	A	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	On conventional highways with curbs, typically in urban conditions, a minimum horizontal clearance of 1 foot 6 inches should be provided beyond the face of curbs to any obstruction.	Low	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
111	A	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	In areas without curbs, the face of Type 60 concrete barrier should be constructed integrally at the base of any retaining, pier, or abutment wall which faces traffic and is 15 feet or less from the edge of traveled way (right or left of traffic and measured from the face of the wall).	Low	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	300-25	308.1	City Streets and County Roads	Where a local facility crosses over or under a freeway or expressway and connects to the State facility (such as ramp terminal intersections), the minimum design standards for the cross section of the local facility shall be at least equal to those for a conventional highway with the exception that the outside shoulder width shall match the approach roadway, but not less than 4 feet, and as shown below.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-25	308.1	City Streets and County Roads	Where the 2-lane local facility connects to a freeway within an interchange, the lane width of the local facility shall be 12 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-25	308.1	City Streets and County Roads	Where a multilane local facility connects to a freeway within an interchange, the outer most lane in each direction of the local facility shall be 12 feet.	N/A	N/A	N/A	N/A	V	M	M	V	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
M	300-25	308.1	City Streets and County Roads	Shoulder width shall not be less than 5 feet when railings or other lateral obstructions are adjacent to the right edge of shoulder.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-25	308.1	City Streets and County Roads	If gutter pans are used, then the minimum shoulder width shall be 3 feet wider than the width of the gutter pan being used.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-25	308.1	City Streets and County Roads	The minimum width for two-lane overcrossing structures at interchanges shall be 40 feet curb-to-curb.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-25	309.1(1)	Horizontal Clearances for Highways (General)	Horizontal clearances greater than those cited below under subsection (3) - "Minimum Clearances" shall be provided where necessary to meet horizontal stopping sight distance requirements.	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	300-25	309.1(2)	Horizontal Clearances for Highways (Clear Recovery Zone (CRZ))	Fixed objects, including bridge piers, abutments, retaining walls, and noise barriers closer to the edge of traveled way than the distances listed above should be eliminated, moved, redesigned to be made yielding, or shielded in accordance with the following guidelines:	M	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
M	300-26	309.1(2)	Horizontal Clearances for Highways (Clear Recovery Zone (CRZ))	Where compliance with the above stated clear recovery zone guidelines are impractical, the minimum horizontal clearance cited below shall apply to the unshielded fixed object. These minimum horizontal clearances apply to yielding objects as well.	M	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
M	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	The following minimum horizontal clearances shall apply to all objects that are closer to the edge of traveled way than the clear recovery zone distances listed above: (a) The minimum horizontal clearances to all objects, such as bridge rails and safety-shaped concrete barriers, as well as sand-filled barrels, metal beam guardrail, etc., on freeway and expressway facilities, including auxiliary lanes, ramps, and collector roads, shall be equal to the standard shoulder width of the highway facility as stated in Table 302.1. A minimum clearance of 4 feet shall be provided where the standard shoulder is less than 4 feet.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
M	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	(b) The minimum horizontal clearance to walls, such as abutment walls, retaining walls in cut locations, and noise barriers on all facilities, including auxiliary lanes, ramps and collector roads, shall be not less than 10 feet per Table 203.1.	V	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD
M	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	(c) On conventional highways, frontage roads, city streets and county roads (all without curbs), the minimum horizontal clearance shall be the standard shoulder width as listed in Tables 302.1 and 307.2.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	On conventional highways with curbs, typically in urban conditions, a minimum horizontal clearance of 1 foot 6 inches should be provided beyond the face of curbs to any obstruction.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	In areas without curbs, the face of Type 60 concrete barrier should be constructed integrally at the base of any retaining, pier, or abutment wall which faces traffic and is 15 feet or less from the edge of traveled way (right or left of traffic and measured from the face of the wall).	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	300-25	308.1	City Streets and County Roads	Where a local facility crosses over or under a freeway or expressway and connects to the State facility (such as ramp terminal intersections), the minimum design standards for the cross section of the local facility shall be at least equal to those for a conventional highway with the exception that the outside shoulder width shall match the approach roadway, but not less than 4 feet, and as shown below.	V	V	V	V	V	N/A	N/A	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-25	308.1	City Streets and County Roads	Where the 2-lane local facility connects to a freeway within an interchange, the lane width of the local facility shall be 12 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	N/A	N/A	N/A	N/A
M	300-25	308.1	City Streets and County Roads	Where a multilane local facility connects to a freeway within an interchange, the outer most lane in each direction of the local facility shall be 12 feet.	V	M	M	V	V	N/A	N/A	V	N/A	N/A	N/A	N/A	M	M	M	M	V	M	M	M
M	300-25	308.1	City Streets and County Roads	Shoulder width shall not be less than 5 feet when railings or other lateral obstructions are adjacent to the right edge of shoulder.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-25	308.1	City Streets and County Roads	If gutter pans are used, then the minimum shoulder width shall be 3 feet wider than the width of the gutter pan being used.	V	V	V	V	V	N/A	N/A	V	N/A	N/A	N/A	N/A	M	M	M	M	V	V	V	V
M	300-25	308.1	City Streets and County Roads	The minimum width for two-lane overcrossing structures at interchanges shall be 40 feet curb-to-curb.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-25	309.1(1)	Horizontal Clearances for Highways (General)	Horizontal clearances greater than those cited below under subsection (3) - "Minimum Clearances" shall be provided where necessary to meet horizontal stopping sight distance requirements.	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	300-25	309.1(2)	Horizontal Clearances for Highways (Clear Recovery Zone (CRZ))	Fixed objects, including bridge piers, abutments, retaining walls, and noise barriers closer to the edge of traveled way than the distances listed above should be eliminated, moved, redesigned to be made yielding, or shielded in accordance with the following guidelines:	V	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
M	300-26	309.1(2)	Horizontal Clearances for Highways (Clear Recovery Zone (CRZ))	Where compliance with the above stated clear recovery zone guidelines are impractical, the minimum horizontal clearance cited below shall apply to the unshielded fixed object. These minimum horizontal clearances apply to yielding objects as well.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
M	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	The following minimum horizontal clearances shall apply to all objects that are closer to the edge of traveled way than the clear recovery zone distances listed above: (a) The minimum horizontal clearances to all objects, such as bridge rails and safety-shaped concrete barriers, as well as sand-filled barrels, metal beam guardrail, etc., on freeway and expressway facilities, including auxiliary lanes, ramps, and collector roads, shall be equal to the standard shoulder width of the highway facility as stated in Table 302.1. A minimum clearance of 4 feet shall be provided where the standard shoulder is less than 4 feet.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
M	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	(b) The minimum horizontal clearance to walls, such as abutment walls, retaining walls in cut locations, and noise barriers on all facilities, including auxiliary lanes, ramps and collector roads, shall be not less than 10 feet per Table 203.1.	M	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
M	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	(c) On conventional highways, frontage roads, city streets and county roads (all without curbs), the minimum horizontal clearance shall be the standard shoulder width as listed in Tables 302.1 and 307.2.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	On conventional highways with curbs, typically in urban conditions, a minimum horizontal clearance of 1 foot 6 inches should be provided beyond the face of curbs to any obstruction.	M	M	M	M	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	In areas without curbs, the face of Type 60 concrete barrier should be constructed integrally at the base of any retaining, pier, or abutment wall which faces traffic and is 15 feet or less from the edge of traveled way (right or left of traffic and measured from the face of the wall).	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

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TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps)				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	300-25	308.1	City Streets and County Roads	Where a local facility crosses over or under a freeway or expressway and connects to the State facility (such as ramp terminal intersections), the minimum design standards for the cross section of the local facility shall be at least equal to those for a conventional highway with the exception that the outside shoulder width shall match the approach roadway, but not less than 4 feet, and as shown below.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-25	308.1	City Streets and County Roads	Where the 2-lane local facility connects to a freeway within an interchange, the lane width of the local facility shall be 12 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-25	308.1	City Streets and County Roads	Where a multilane local facility connects to a freeway within an interchange, the outer most lane in each direction of the local facility shall be 12 feet.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
M	300-25	308.1	City Streets and County Roads	Shoulder width shall not be less than 5 feet when railings or other lateral obstructions are adjacent to the right edge of shoulder.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-25	308.1	City Streets and County Roads	If gutter pans are used, then the minimum shoulder width shall be 3 feet wider than the width of the gutter pan being used.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	300-25	308.1	City Streets and County Roads	The minimum width for two-lane overcrossing structures at interchanges shall be 40 feet curb-to-curb.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-25	309.1(1)	Horizontal Clearances for Highways (General)	Horizontal clearances greater than those cited below under subsection (3) - "Minimum Clearances" shall be provided where necessary to meet horizontal stopping sight distance requirements.	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	300-25	309.1(2)	Horizontal Clearances for Highways (Clear Recovery Zone (CRZ))	Fixed objects, including bridge piers, abutments, retaining walls, and noise barriers closer to the edge of traveled way than the distances listed above should be eliminated, moved, redesigned to be made yielding, or shielded in accordance with the following guidelines:	M	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
M	300-26	309.1(2)	Horizontal Clearances for Highways (Clear Recovery Zone (CRZ))	Where compliance with the above stated clear recovery zone guidelines are impractical, the minimum horizontal clearance cited below shall apply to the unshielded fixed object. These minimum horizontal clearances apply to yielding objects as well.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
M	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	The following minimum horizontal clearances shall apply to all objects that are closer to the edge of traveled way than the clear recovery zone distances listed above: (a) The minimum horizontal clearances to all objects, such as bridge rails and safety-shaped concrete barriers, as well as sand-filled barrels, metal beam guardrail, etc., on freeway and expressway facilities, including auxiliary lanes, ramps, and collector roads, shall be equal to the standard shoulder width of the highway facility as stated in Table 302.1. A minimum clearance of 4 feet shall be provided where the standard shoulder is less than 4 feet.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD
M	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	(b) The minimum horizontal clearance to walls, such as abutment walls, retaining walls in cut locations, and noise barriers on all facilities, including auxiliary lanes, ramps and collector roads, shall be not less than 10 feet per Table 203.1.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
M	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	(c) On conventional highways, frontage roads, city streets and county roads (all without curbs), the minimum horizontal clearance shall be the standard shoulder width as listed in Tables 302.1 and 307.2.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	On conventional highways with curbs, typically in urban conditions, a minimum horizontal clearance of 1 foot 6 inches should be provided beyond the face of curbs to any obstruction.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	300-26	309.1(3)	Horizontal Clearances for Highways (Minimum Clearances)	In areas without curbs, the face of Type 60 concrete barrier should be constructed integrally at the base of any retaining, pier, or abutment wall which faces traffic and is 15 feet or less from the edge of traveled way (right or left of traffic and measured from the face of the wall).	M	M	M	M	M	M	M	M	M	M	M	M

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
112	A	300-27	309.1(4)	Horizontal Clearances for Highway (High Speed Rail Clearances)	When a high speed rail corridor is to be constructed longitudinally to a freeway, expressway or a conventional highway with posted speeds over 40 miles per hour, the nearest fixed object or feature associated with the operation of the rail facility should be located a minimum of 52 feet horizontally from the planned ultimate edge of the traveled way.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
113	**M**	300-27	309.2(1)(a)	Vertical Clearances (Major Structures)	Freeways and Expressways, All construction except overlay projects - 16 feet 6 inches shall be the minimum vertical clearance over the roadbed of the State facility (e.g., main lanes, shoulders, ramps, collector-distributor roads, speed change lanes, etc.).	Medium	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A
114	**M**	300-27	309.2(1)(b)	Vertical Clearances (Major Structures)	Freeways and Expressways, Overlay projects - 16 feet shall be the minimum vertical clearance over the roadbed of the State facility .	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
115	**M**	300-27	309.2(1)(c)	Vertical Clearances (Major Structures)	Conventional Highways, Parkways, and Local Facilities, All projects - 15 feet shall be the minimum vertical clearance over the traveled way and 14 feet 6 inches shall be the minimum vertical clearance over the shoulders of all portions of the roadbed.	Low	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
116	**M**	300-27	309.2(2)	Vertical Clearances (Minor Structures)	Pedestrian over-crossings shall have a minimum vertical clearance 2 feet greater than the standard for major structures for the State facility in question.	Low	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
117	**M**	300-27	309.2(2)	Vertical Clearances (Minor Structures)	Sign structures shall have a minimum vertical clearance of 18 feet over the roadbed of the State facility.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
118	**M**	300-27	309.2(3)	Vertical Clearances (Rural Interstates and Single Routing in Urban Areas)	Vertical clearance for structures on this system shall meet the standards listed above for freeways and expressways.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
119	**M**	300-32	309.3(1)	Tunnel Clearances (Horizontal Clearances)	In one-way tunnels on conventional highways the minimum side clearance from the edge of the traveled way shall be 4 feet 6 inches on the left and 6 feet on the right.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
120	**M**	300-32	309.3(1)	Tunnel Clearances (Horizontal Clearances)	For two-way tunnels, this clearance shall be 6 feet on each side.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
121	**M**	300-32	309.3(2)	Tunnel Clearances (Vertical Clearances)	The minimum vertical clearance shall be 15 feet measured at any point over the traveled way and 14 feet 6 inches above the gutter at the curb line. On freeways and expressways, the minimum vertical clearance listed in Index 309.2(1)(a) shall be used.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
122	**M**	300-32	309.4	Lateral Clearance for Elevated Structures	The minimum horizontal clearance between elevated highway structures, such as freeway viaducts and ramps, and adjoining buildings or other structures, shall be 15 feet for single-deck structures 20 feet for double-decked structures. Spot encroachment on this clearance shall be approved in accordance with Index 82.2.	Low	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
123	A	300-32	309.5(1)	Structures Across or Adjacent to Railroads (Normal Horizontal and Vertical Clearances)	A minimum of 23 feet 4 inches should be used in design to allow for reballasting and normal maintenance of track. Railroads on which freight cars are not operated, should have a minimum vertical clearance of 19 feet.	Low	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	M	M	M	U	TBD	TBD	TBD	N/A	N/A	N/A	N/A
124	**M**	300-33	309.5(1)	Structures Across or Adjacent to Railroads (Normal Horizontal and Vertical Clearances)	However, the greater clearances specified under Index 309.2 shall be used.	Low	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	M	M	M	U	TBD	TBD	TBD	N/A	N/A	N/A	N/A
125	**M**	300-33	310.1	Frontage Roads (Cross Section)	However, the minimum paved 2-lane cross section width, including 4-foot shoulders without curb and gutter shall be: • 32 feet if 12-foot lanes are to be provided; • 30 feet if 11-foot lanes are to be provided.	High	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
126	**M**	300-33	310.1	Frontage Roads (Cross Section)	The minimum paved 2-lane cross section width, including 5-foot shoulders and curb and gutter shall be: • 34 feet if 12-foot lanes are to be provided; • 32 feet if 11-foot lanes are to be provided.	High	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
127	A	300-33	310.2	Frontage Roads (Outer Separation)	In urban areas and in mountainous terrain, the width of the outer separation should be a minimum of 26 feet from edge of traveled way to edge of traveled way.	High	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
128	A	300-33	310.2	Frontage Roads (Outer Separation)	In rural areas, other than mountainous terrain, the width of the outer separation should be a minimum of 40 feet from edge of traveled way to edge of traveled way.	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

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V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	300-27	309.1(4)	Horizontal Clearances for Highway (High Speed Rail Clearances)	When a high speed rail corridor is to be constructed longitudinally to a freeway, expressway or a conventional highway with posted speeds over 40 miles per hour, the nearest fixed object or feature associated with the operation of the rail facility should be located a minimum of 52 feet horizontally from the planned ultimate edge of the traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(1)(a)	Vertical Clearances (Major Structures)	Freeways and Expressways, All construction except overlay projects - 16 feet 6 inches shall be the minimum vertical clearance over the roadbed of the State facility (e.g., main lanes, shoulders, ramps, collector-distributor roads, speed change lanes, etc.).	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(1)(b)	Vertical Clearances (Major Structures)	Freeways and Expressways, Overlay projects - 16 feet shall be the minimum vertical clearance over the roadbed of the State facility .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(1)(c)	Vertical Clearances (Major Structures)	Conventional Highways, Parkways, and Local Facilities, All projects - 15 feet shall be the minimum vertical clearance over the traveled way and 14 feet 6 inches shall be the minimum vertical clearance over the shoulders of all portions of the roadbed.	V	V	V	V	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
M	300-27	309.2(2)	Vertical Clearances (Minor Structures)	Pedestrian over-crossings shall have a minimum vertical clearance 2 feet greater than the standard for major structures for the State facility in question.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(2)	Vertical Clearances (Minor Structures)	Sign structures shall have a minimum vertical clearance of 18 feet over the roadbed of the State facility.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	300-27	309.2(3)	Vertical Clearances (Rural Interstates and Single Routing in Urban Areas)	Vertical clearance for structures on this system shall meet the standards listed above for freeways and expressways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.3(1)	Tunnel Clearances (Horizontal Clearances)	In one-way tunnels on conventional highways the minimum side clearance from the edge of the traveled way shall be 4 feet 6 inches on the left and 6 feet on the right.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.3(1)	Tunnel Clearances (Horizontal Clearances)	For two-way tunnels, this clearance shall be 6 feet on each side.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.3(2)	Tunnel Clearances (Vertical Clearances)	The minimum vertical clearance shall be 15 feet measured at any point over the traveled way and 14 feet 6 inches above the gutter at the curb line. On freeways and expressways, the minimum vertical clearance listed in Index 309.2(1)(a) shall be used.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.4	Lateral Clearance for Elevated Structures	The minimum horizontal clearance between elevated highway structures, such as freeway viaducts and ramps, and adjoining buildings or other structures, shall be 15 feet for single-deck structures 20 feet for double-decked structures. Spot encroachment on this clearance shall be approved in accordance with Index 82.2.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	300-32	309.5(1)	Structures Across or Adjacent to Railroads (Normal Horizontal and Vertical Clearances)	A minimum of 23 feet 4 inches should be used in design to allow for reballasting and normal maintenance of track. Railroads on which freight cars are not operated, should have a minimum vertical clearance of 19 feet.	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD
M	300-33	309.5(1)	Structures Across or Adjacent to Railroads (Normal Horizontal and Vertical Clearances)	However, the greater clearances specified under Index 309.2 shall be used.	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD
M	300-33	310.1	Frontage Roads (Cross Section)	However, the minimum paved 2-lane cross section width, including 4-foot shoulders without curb and gutter shall be: • 32 feet if 12-foot lanes are to be provided; • 30 feet if 11-foot lanes are to be provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	V	M	M	M	M	M
M	300-33	310.1	Frontage Roads (Cross Section)	The minimum paved 2-lane cross section width, including 5-foot shoulders and curb and gutter shall be: • 34 feet if 12-foot lanes are to be provided; • 32 feet if 11-foot lanes are to be provided.	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	V	M	M	M	M	M
A	300-33	310.2	Frontage Roads (Outer Separation)	In urban areas and in mountainous terrain, the width of the outer separation should be a minimum of 26 feet from edge of traveled way to edge of traveled way.	M	M	N/A	N/A	N/A	V	V	M	N/A	N/A	N/A	N/A	M	M	V	M	V	V	V	V
A	300-33	310.2	Frontage Roads (Outer Separation)	In rural areas, other than mountainous terrain, the width of the outer separation should be a minimum of 40 feet from edge of traveled way to edge of traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	300-27	309.1(4)	Horizontal Clearances for Highway (High Speed Rail Clearances)	When a high speed rail corridor is to be constructed longitudinally to a freeway, expressway or a conventional highway with posted speeds over 40 miles per hour, the nearest fixed object or feature associated with the operation of the rail facility should be located a minimum of 52 feet horizontally from the planned ultimate edge of the traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(1)(a)	Vertical Clearances (Major Structures)	Freeways and Expressways, All construction except overlay projects - 16 feet 6 inches shall be the minimum vertical clearance over the roadbed of the State facility (e.g., main lanes, shoulders, ramps, collector-distributor roads, speed change lanes, etc.).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V	M	M	M	M
M	300-27	309.2(1)(b)	Vertical Clearances (Major Structures)	Freeways and Expressways, Overlay projects - 16 feet shall be the minimum vertical clearance over the roadbed of the State facility .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(1)(c)	Vertical Clearances (Major Structures)	Conventional Highways, Parkways, and Local Facilities, All projects - 15 feet shall be the minimum vertical clearance over the traveled way and 14 feet 6 inches shall be the minimum vertical clearance over the shoulders of all portions of the roadbed.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	N/A	M	M	M
M	300-27	309.2(2)	Vertical Clearances (Minor Structures)	Pedestrian over-crossings shall have a minimum vertical clearance 2 feet greater than the standard for major structures for the State facility in question.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(2)	Vertical Clearances (Minor Structures)	Sign structures shall have a minimum vertical clearance of 18 feet over the roadbed of the State facility.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	300-27	309.2(3)	Vertical Clearances (Rural Interstates and Single Routing in Urban Areas)	Vertical clearance for structures on this system shall meet the standards listed above for freeways and expressways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.3(1)	Tunnel Clearances (Horizontal Clearances)	In one-way tunnels on conventional highways the minimum side clearance from the edge of the traveled way shall be 4 feet 6 inches on the left and 6 feet on the right.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.3(1)	Tunnel Clearances (Horizontal Clearances)	For two-way tunnels, this clearance shall be 6 feet on each side.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.3(2)	Tunnel Clearances (Vertical Clearances)	The minimum vertical clearance shall be 15 feet measured at any point over the traveled way and 14 feet 6 inches above the gutter at the curb line. On freeways and expressways, the minimum vertical clearance listed in Index 309.2(1)(a) shall be used.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.4	Lateral Clearance for Elevated Structures	The minimum horizontal clearance between elevated highway structures, such as freeway viaducts and ramps, and adjoining buildings or other structures, shall be 15 feet for single-deck structures 20 feet for double-decked structures. Spot encroachment on this clearance shall be approved in accordance with Index 82.2.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	300-32	309.5(1)	Structures Across or Adjacent to Railroads (Normal Horizontal and Vertical Clearances)	A minimum of 23 feet 4 inches should be used in design to allow for reballasting and normal maintenance of track. Railroads on which freight cars are not operated, should have a minimum vertical clearance of 19 feet.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	TBD	TBD	TBD	TBD
M	300-33	309.5(1)	Structures Across or Adjacent to Railroads (Normal Horizontal and Vertical Clearances)	However, the greater clearances specified under Index 309.2 shall be used.	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	TBD	TBD	TBD	TBD
M	300-33	310.1	Frontage Roads (Cross Section)	However, the minimum paved 2-lane cross section width, including 4-foot shoulders without curb and gutter shall be: • 32 feet if 12-foot lanes are to be provided; • 30 feet if 11-foot lanes are to be provided.	N/A	N/A	N/A	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-33	310.1	Frontage Roads (Cross Section)	The minimum paved 2-lane cross section width, including 5-foot shoulders and curb and gutter shall be: • 34 feet if 12-foot lanes are to be provided; • 32 feet if 11-foot lanes are to be provided.	N/A	N/A	N/A	M	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-33	310.2	Frontage Roads (Outer Separation)	In urban areas and in mountainous terrain, the width of the outer separation should be a minimum of 26 feet from edge of traveled way to edge of traveled way.	N/A	N/A	V	V	N/A	N/A	N/A	N/A	M	M	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-33	310.2	Frontage Roads (Outer Separation)	In rural areas, other than mountainous terrain, the width of the outer separation should be a minimum of 40 feet from edge of traveled way to edge of traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps)				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	300-27	309.1(4)	Horizontal Clearances for Highway (High Speed Rail Clearances)	When a high speed rail corridor is to be constructed longitudinally to a freeway, expressway or a conventional highway with posted speeds over 40 miles per hour, the nearest fixed object or feature associated with the operation of the rail facility should be located a minimum of 52 feet horizontally from the planned ultimate edge of the traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(1)(a)	Vertical Clearances (Major Structures)	Freeways and Expressways, All construction except overlay projects - 16 feet 6 inches shall be the minimum vertical clearance over the roadbed of the State facility (e.g., main lanes, shoulders, ramps, collector-distributor roads, speed change lanes, etc.).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(1)(b)	Vertical Clearances (Major Structures)	Freeways and Expressways, Overlay projects - 16 feet shall be the minimum vertical clearance over the roadbed of the State facility .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(1)(c)	Vertical Clearances (Major Structures)	Conventional Highways, Parkways, and Local Facilities, All projects - 15 feet shall be the minimum vertical clearance over the traveled way and 14 feet 6 inches shall be the minimum vertical clearance over the shoulders of all portions of the roadbed.	N/A	N/A	N/A	TBD	N/A	N/A	TBD	TBD	M	M	TBD	TBD
M	300-27	309.2(2)	Vertical Clearances (Minor Structures)	Pedestrian over-crossings shall have a minimum vertical clearance 2 feet greater than the standard for major structures for the State facility in question.	V	V	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-27	309.2(2)	Vertical Clearances (Minor Structures)	Sign structures shall have a minimum vertical clearance of 18 feet over the roadbed of the State facility.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	300-27	309.2(3)	Vertical Clearances (Rural Interstates and Single Routing in Urban Areas)	Vertical clearance for structures on this system shall meet the standards listed above for freeways and expressways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.3(1)	Tunnel Clearances (Horizontal Clearances)	In one-way tunnels on conventional highways the minimum side clearance from the edge of the traveled way shall be 4 feet 6 inches on the left and 6 feet on the right.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.3(1)	Tunnel Clearances (Horizontal Clearances)	For two-way tunnels, this clearance shall be 6 feet on each side.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.3(2)	Tunnel Clearances (Vertical Clearances)	The minimum vertical clearance shall be 15 feet measured at any point over the traveled way and 14 feet 6 inches above the gutter at the curb line. On freeways and expressways, the minimum vertical clearance listed in Index 309.2(1)(a) shall be used.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-32	309.4	Lateral Clearance for Elevated Structures	The minimum horizontal clearance between elevated highway structures, such as freeway viaducts and ramps, and adjoining buildings or other structures, shall be 15 feet for single-deck structures 20 feet for double-decked structures. Spot encroachment on this clearance shall be approved in accordance with Index 82.2.	M	M	M	M	M	M	M	M	M	M	M	M
A	300-32	309.5(1)	Structures Across or Adjacent to Railroads (Normal Horizontal and Vertical Clearances)	A minimum of 23 feet 4 inches should be used in design to allow for reballasting and normal maintenance of track. Railroads on which freight cars are not operated, should have a minimum vertical clearance of 19 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-33	309.5(1)	Structures Across or Adjacent to Railroads (Normal Horizontal and Vertical Clearances)	However, the greater clearances specified under Index 309.2 shall be used.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-33	310.1	Frontage Roads (Cross Section)	However, the minimum paved 2-lane cross section width, including 4-foot shoulders without curb and gutter shall be: • 32 feet if 12-foot lanes are to be provided; • 30 feet if 11-foot lanes are to be provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	300-33	310.1	Frontage Roads (Cross Section)	The minimum paved 2-lane cross section width, including 5-foot shoulders and curb and gutter shall be: • 34 feet if 12-foot lanes are to be provided; • 32 feet if 11-foot lanes are to be provided.	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-33	310.2	Frontage Roads (Outer Separation)	In urban areas and in mountainous terrain, the width of the outer separation should be a minimum of 26 feet from edge of traveled way to edge of traveled way.	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	300-33	310.2	Frontage Roads (Outer Separation)	In rural areas, other than mountainous terrain, the width of the outer separation should be a minimum of 40 feet from edge of traveled way to edge of traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
129	A	400-5	403.3	Angle of Intersection	When a right angle cannot be provided due to physical constraints, the interior angle should be designed as close to 90 degrees as is practical, but should not be less than 75 degrees. Mitigation should be considered for the affected intersection design features.	Medium	N/A	N/A	N/A	N/A	M	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	M	M	M	M
130	A	400-6	403.6(1)	Turning Traffic (Treatment of Intersections with Right-Turn-Only Lanes)	Optional right-turn lanes should not be used in combination with right-turn-only lanes on roads where bicycle travel is permitted.	Low	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
131	A	400-6	403.6(1)	Turning Traffic (Treatment of Intersections with Right-Turn-Only Lanes)	Locations with right-turn-only lanes should provide a minimum 4-foot width for bicycle use between the right-turn and through lane when bikes are permitted.	Low	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
132	**M**	400-10	404.2(1)(b)	Design Considerations (Traveled Way)	The tracking and swept widths lines for the design vehicle shall stay within the lane as defined in Index 301.1 and Table 504.3A.	Low	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
133	A	400-12	404.4(1)(b)	Design Vehicles and Related Definitions (The Surface Transportation Assistance Act of 1982 (STAA))	The STAA Design Vehicle in Figures 404.5A or B should be used in the design of all projects on the National Network and on Terminal Access routes.	Low	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
134	**M**	400-12	404.4(1)(b)	Design Vehicles and Related Definitions (The Surface Transportation Assistance Act of 1982 (STAA))	Where the use of the STAA Deign Vehicle is not practical, the California Legal Design Vehicle shall be used.	Medium	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
135	A	400-12	404.4(2)(b)	Design Vehicles and Related Definitions (California Legal)	The California Legal Design Vehicle in Figures 404.5C and D should be used in the design of all non-STAA route interchanges and intersections on California Legal routes and California Legal KPRA Advisory routes for both new construction and rehabilitation projects.	Low	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
136	A	400-13	404.4(4)(b)	Design Vehicles and Related Definitions (45-foot Bus and Motorhome)	The 45-foot Bus and Motorhome Design Vehicle in Figure 404.5F should be used in the design of all interchanges and intersections on all green routes on the "Motorcoach and Motorhome Map" for both new construction and rehabilitation projects.	Low	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
137	**M**	400-14	405.1(2)(a)	Sight Distance (Corner Sight Distance)	Set back for the driver of the vehicle on the crossroad shall be a minimum of 10 feet plus the shoulder width of the major road but not less than 15 feet.	Low	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
138	A	400-22	405.1(2)(b)	Sight Distance (Corner Sight Distance)	At unsignalized public road intersections (see Index 405.7) corner sight distance values given in Table 405.1A should be provided.	Low	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
139	**M**	400-22	405.1(2)(b)	Sight Distance (Corner Sight Distance)	Where restrictive conditions exist, similar to those listed in Index 405.1(2)(a), the minimum value for corner sight distance at both signalized and unsignalized intersections shall be equal to the stopping sight distance as given in Table 201.1, measured as previously described.	Medium	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
140	**M**	400-22	405.1(2)(c)	Sight Distance (Corner Sight Distance)	The minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1, measured as previously described.	Low	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
141	A	400-22	405.1(3)	Sight Distance (Decision Sight Distance)	At intersections where the State route turns or crosses another State route, the decision sight distance values given in Table 201.7 should be used. In computing and measuring decision sight distance, the 3.5-foot eye height and the 0.5-foot object height should be used, the object being located on the side of the intersection nearest the approaching driver.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
142	**M**	400-23	405.2(2)(a)	Left-turn Channelization (Design Elements - Lane Widths)	The lane width for both single and double left-turn lanes on State highways shall be 12-feet	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
143	**M**	400-23	405.2(2)(a)	Left-turn Channelization (Design Elements - Lane Widths)	For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volumes) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet.	Medium	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
144	**M**	400-25	405.2(4)	Left-turn Channelization (Two-way Left-turn Lane (TWLTL))	The minimum width for a TWLTL shall be 12 feet (see Index 301.1).	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
145	**M**	400-25	405.3(2)(a)	Right-turn Channelization (Design Elements)	Lane and Shoulder Width - Index 301.1 shall be used for right-turn lane width requirements. Shoulder width shall be a minimum of 4 feet.	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	400-5	403.3	Angle of Intersection	When a right angle cannot be provided due to physical constraints, the interior angle should be designed as close to 90 degrees as is practical, but should not be less than 75 degrees. Mitigation should be considered for the affected intersection design features.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	V	V	V	V	M	M	M	V
A	400-6	403.6(1)	Turning Traffic (Treatment of Intersections with Right-Turn-Only Lanes)	Optional right-turn lanes should not be used in combination with right-turn-only lanes on roads where bicycle travel is permitted.	N/A	N/A	N/A	N/A	V	TBD	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	400-6	403.6(1)	Turning Traffic (Treatment of Intersections with Right-Turn-Only Lanes)	Locations with right-turn-only lanes should provide a minimum 4-foot width for bicycle use between the right-turn and through lane when bikes are permitted.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	400-10	404.2(1)(b)	Design Considerations (Traveled Way)	The tracking and swept widths lines for the design vehicle shall stay within the lane as defined in Index 301.1 and Table 504.3A.	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-12	404.4(1)(b)	Design Vehicles and Related Definitions (The Surface Transportation Assistance Act of 1982 (STAA))	The STAA Design Vehicle in Figures 404.5A or B should be used in the design of all projects on the National Network and on Terminal Access routes.	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	400-12	404.4(1)(b)	Design Vehicles and Related Definitions (The Surface Transportation Assistance Act of 1982 (STAA))	Where the use of the STAA Deign Vehicle is not practical, the California Legal Design Vehicle shall be used.	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-12	404.4(2)(b)	Design Vehicles and Related Definitions (California Legal)	The California Legal Design Vehicle in Figures 404.5C and D should be used in the design of all non-STAA route interchanges and intersections on California Legal routes and California Legal KPRA Advisory routes for both new construction and rehabilitation projects.	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-13	404.4(4)(b)	Design Vehicles and Related Definitions (45-foot Bus and Motorhome)	The 45-foot Bus and Motorhome Design Vehicle in Figure 404.5F should be used in the design of all interchanges and intersections on all green routes on the "Motorcoach and Motorhome Map" for both new construction and rehabilitation projects.	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	400-14	405.1(2)(a)	Sight Distance (Corner Sight Distance)	Set back for the driver of the vehicle on the crossroad shall be a minimum of 10 feet plus the shoulder width of the major road but not less than 15 feet.	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	400-22	405.1(2)(b)	Sight Distance (Corner Sight Distance)	At unsignalized public road intersections (see Index 405.7) corner sight distance values given in Table 405.1A should be provided.	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	M	TBD	TBD	TBD
M	400-22	405.1(2)(b)	Sight Distance (Corner Sight Distance)	Where restrictive conditions exist, similar to those listed in Index 405.1(2)(a), the minimum value for corner sight distance at both signalized and unsignalized intersections shall be equal to the stopping sight distance as given in Table 201.1, measured as previously described.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	400-22	405.1(2)(c)	Sight Distance (Corner Sight Distance)	The minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1, measured as previously described.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-22	405.1(3)	Sight Distance (Decision Sight Distance)	At intersections where the State route turns or crosses another State route, the decision sight distance values given in Table 201.7 should be used. In computing and measuring decision sight distance, the 3.5-foot eye height and the 0.5-foot object height should be used, the object being located on the side of the intersection nearest the approaching driver.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	400-23	405.2(2)(a)	Left-turn Channelization (Design Elements - Lane Widths)	The lane width for both single and double left-turn lanes on State highways shall be 12-feet	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A
M	400-23	405.2(2)(a)	Left-turn Channelization (Design Elements - Lane Widths)	For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volumes) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	V	V	V	M	M	N/A	N/A
M	400-25	405.2(4)	Left-turn Channelization (Two-way Left-turn Lane (TWLTL))	The minimum width for a TWLTL shall be 12 feet (see Index 301.1).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	400-25	405.3(2)(a)	Right-turn Channelization (Design Elements)	Lane and Shoulder Width - Index 301.1 shall be used for right-turn lane width requirements. Shoulder width shall be a minimum of 4 feet.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	400-5	403.3	Angle of Intersection	When a right angle cannot be provided due to physical constraints, the interior angle should be designed as close to 90 degrees as is practical, but should not be less than 75 degrees. Mitigation should be considered for the affected intersection design features.	M	M	M	M	M	N/A	N/A	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	400-6	403.6(1)	Turning Traffic (Treatment of Intersections with Right-Turn-Only Lanes)	Optional right-turn lanes should not be used in combination with right-turn-only lanes on roads where bicycle travel is permitted.	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	400-6	403.6(1)	Turning Traffic (Treatment of Intersections with Right-Turn-Only Lanes)	Locations with right-turn-only lanes should provide a minimum 4-foot width for bicycle use between the right-turn and through lane when bikes are permitted.	V	V	V	V	V	N/A	N/A	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	400-10	404.2(1)(b)	Design Considerations (Traveled Way)	The tracking and swept widths lines for the design vehicle shall stay within the lane as defined in Index 301.1 and Table 504.3A.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-12	404.4(1)(b)	Design Vehicles and Related Definitions (The Surface Transportation Assistance Act of 1982 (STAA))	The STAA Design Vehicle in Figures 404.5A or B should be used in the design of all projects on the National Network and on Terminal Access routes.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	400-12	404.4(1)(b)	Design Vehicles and Related Definitions (The Surface Transportation Assistance Act of 1982 (STAA))	Where the use of the STAA Deign Vehicle is not practical, the California Legal Design Vehicle shall be used.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-12	404.4(2)(b)	Design Vehicles and Related Definitions (California Legal)	The California Legal Design Vehicle in Figures 404.5C and D should be used in the design of all non-STAA route interchanges and intersections on California Legal routes and California Legal KPRA Advisory routes for both new construction and rehabilitation projects.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-13	404.4(4)(b)	Design Vehicles and Related Definitions (45-foot Bus and Motorhome)	The 45-foot Bus and Motorhome Design Vehicle in Figure 404.5F should be used in the design of all interchanges and intersections on all green routes on the "Motorcoach and Motorhome Map" for both new construction and rehabilitation projects.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	M	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	400-14	405.1(2)(a)	Sight Distance (Corner Sight Distance)	Set back for the driver of the vehicle on the crossroad shall be a minimum of 10 feet plus the shoulder width of the major road but not less than 15 feet.	M	TBD	TBD	TBD	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	400-22	405.1(2)(b)	Sight Distance (Corner Sight Distance)	At unsignalized public road intersections (see Index 405.7) corner sight distance values given in Table 405.1A should be provided.	N/A	TBD	TBD	TBD	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	400-22	405.1(2)(b)	Sight Distance (Corner Sight Distance)	Where restrictive conditions exist, similar to those listed in Index 405.1(2)(a), the minimum value for corner sight distance at both signalized and unsignalized intersections shall be equal to the stopping sight distance as given in Table 201.1, measured as previously described.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	400-22	405.1(2)(c)	Sight Distance (Corner Sight Distance)	The minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1, measured as previously described.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-22	405.1(3)	Sight Distance (Decision Sight Distance)	At intersections where the State route turns or crosses another State route, the decision sight distance values given in Table 201.7 should be used. In computing and measuring decision sight distance, the 3.5-foot eye height and the 0.5-foot object height should be used, the object being located on the side of the intersection nearest the approaching driver.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A
M	400-23	405.2(2)(a)	Left-turn Channelization (Design Elements - Lane Widths)	The lane width for both single and double left-turn lanes on State highways shall be 12-feet	N/A	N/A	N/A	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A
M	400-23	405.2(2)(a)	Left-turn Channelization (Design Elements - Lane Widths)	For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volumes) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet.	M	M	N/A	V	V	N/A	N/A	V	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
M	400-25	405.2(4)	Left-turn Channelization (Two-way Left-turn Lane (TWLTL))	The minimum width for a TWLTL shall be 12 feet (see Index 301.1).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	400-25	405.3(2)(a)	Right-turn Channelization (Design Elements)	Lane and Shoulder Width - Index 301.1 shall be used for right-turn lane width requirements. Shoulder width shall be a minimum of 4 feet.	V	M	V	V	V	N/A	N/A	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps)				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	400-5	403.3	Angle of Intersection	When a right angle cannot be provided due to physical constraints, the interior angle should be designed as close to 90 degrees as is practical, but should not be less than 75 degrees. Mitigation should be considered for the affected intersection design features.	N/A	N/A	N/A	N/A	V	V	V	M	M	M	M	M
A	400-6	403.6(1)	Turning Traffic (Treatment of Intersections with Right-Turn-Only Lanes)	Optional right-turn lanes should not be used in combination with right-turn-only lanes on roads where bicycle travel is permitted.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	400-6	403.6(1)	Turning Traffic (Treatment of Intersections with Right-Turn-Only Lanes)	Locations with right-turn-only lanes should provide a minimum 4-foot width for bicycle use between the right-turn and through lane when bikes are permitted.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	400-10	404.2(1)(b)	Design Considerations (Traveled Way)	The tracking and swept widths lines for the design vehicle shall stay within the lane as defined in Index 301.1 and Table 504.3A.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-12	404.4(1)(b)	Design Vehicles and Related Definitions (The Surface Transportation Assistance Act of 1982 (STAA))	The STAA Design Vehicle in Figures 404.5A or B should be used in the design of all projects on the National Network and on Terminal Access routes.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	400-12	404.4(1)(b)	Design Vehicles and Related Definitions (The Surface Transportation Assistance Act of 1982 (STAA))	Where the use of the STAA Deign Vehicle is not practical, the California Legal Design Vehicle shall be used.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-12	404.4(2)(b)	Design Vehicles and Related Definitions (California Legal)	The California Legal Design Vehicle in Figures 404.5C and D should be used in the design of all non-STAA route interchanges and intersections on California Legal routes and California Legal KPRA Advisory routes for both new construction and rehabilitation projects.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-13	404.4(4)(b)	Design Vehicles and Related Definitions (45-foot Bus and Motorhome)	The 45-foot Bus and Motorhome Design Vehicle in Figure 404.5F should be used in the design of all interchanges and intersections on all green routes on the "Motorcoach and Motorhome Map" for both new construction and rehabilitation projects.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	400-14	405.1(2)(a)	Sight Distance (Corner Sight Distance)	Set back for the driver of the vehicle on the crossroad shall be a minimum of 10 feet plus the shoulder width of the major road but not less than 15 feet.	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	400-22	405.1(2)(b)	Sight Distance (Corner Sight Distance)	At unsignalized public road intersections (see Index 405.7) corner sight distance values given in Table 405.1A should be provided.	N/A	N/A	N/A	N/A	U	TBD	TBD	TBD	U	TBD	TBD	TBD
M	400-22	405.1(2)(b)	Sight Distance (Corner Sight Distance)	Where restrictive conditions exist, similar to those listed in Index 405.1(2)(a), the minimum value for corner sight distance at both signalized and unsignalized intersections shall be equal to the stopping sight distance as given in Table 201.1, measured as previously described.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	400-22	405.1(2)(c)	Sight Distance (Corner Sight Distance)	The minimum corner sight distance shall be equal to the stopping sight distance as given in Table 201.1, measured as previously described.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	400-22	405.1(3)	Sight Distance (Decision Sight Distance)	At intersections where the State route turns or crosses another State route, the decision sight distance values given in Table 201.7 should be used. In computing and measuring decision sight distance, the 3.5-foot eye height and the 0.5-foot object height should be used, the object being located on the side of the intersection nearest the approaching driver.	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A
M	400-23	405.2(2)(a)	Left-turn Channelization (Design Elements - Lane Widths)	The lane width for both single and double left-turn lanes on State highways shall be 12-feet	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A
M	400-23	405.2(2)(a)	Left-turn Channelization (Design Elements - Lane Widths)	For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volumes) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
M	400-25	405.2(4)	Left-turn Channelization (Two-way Left-turn Lane (TWLTL))	The minimum width for a TWLTL shall be 12 feet (see Index 301.1).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	400-25	405.3(2)(a)	Right-turn Channelization (Design Elements)	Lane and Shoulder Width - Index 301.1 shall be used for right-turn lane width requirements. Shoulder width shall be a minimum of 4 feet.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
146	A	400-30	405.4(3)	Traffic Islands (Pedestrian Refuge)	Traffic islands used as pedestrian refuge should be large enough to provide a minimum of 6 feet in the direction of pedestrian travel.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
147	A	400-32	405.5(2)	Median Openings) Spacing and Location)	Emergency passageways should be located only where decision sight distance is available (see Table 201.7).	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
148	A	400-32	405.5(2)	Median Openings) Spacing and Location)	Median openings should be spaced at intervals no closer than 1600 feet. If a median opening falls within 300 feet of an access opening, it should be placed opposite the access opening.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
149	**M**	500-1	501.3	Spacing	The minimum interchange spacing shall be one mile in urban areas, two miles in rural areas, and two miles between freeway-to-freeway interchanges and other interchanges. The minimum interchange spacing on Interstates outside a Transportation Management Area shall be three miles.	High	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
150	**M**	500-2	502.2	Local Street Interchanges	Isolated off-ramps or partial interchanges shall not be used because of the potential for wrong way movements.	Medium	V	M	M	M	V	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
151	**M**	500-6	502.3(1)	Freeway-to-Freeway Interchanges (General)	Interstate routes shall maintain route continuity. Where both the designated route and heavier traffic volume route are present, the interchange configuration shall keep the designated route to the left through the interchange.	Low	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
152	**M**	500-11	504.2(1)	Freeway Entrances and Exits (Basic Policy)	All freeway entrances and exits, except for direct connections with median High-Occupancy Vehicle (HOV) lanes, Express Toll lanes or BRT lanes, shall connect to the right of through traffic.	Low	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
153	A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	Design of freeway entrances and exits should conform to the standard design illustrated in Figure 504.2A-B (single lane) and Figure 504.3L (two-lane entrances and exits) and/or Figure 504.4 (diverging branch connections), as appropriate.	Medium	N/A	N/A	N/A	N/A	V	V	M	V	M	V	V	V	V	V	V	V	M	V	M	M
154	**M**	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The minimum deceleration length shown on Figure 504.2B shall be provided prior to the first curve beyond the exit nose to ensure adequate distance for vehicles to decelerate before entering the curve.	Medium	N/A	N/A	N/A	N/A	V	M	V	V	M	M	M	M	M	M	M	M	M	V	M	M
155	A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The same standard should apply for the first curve after the exit from a collector-distributor road.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
156	A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The exit nose shown in Figure 504.2B may be located downstream of the 23-foot dimension; however, the maximum paved width between the mainline and ramp shoulder edge should be 20 feet.	Medium	M	M	M	M	V	V	M	M	M	M	M	M	V	V	M	M	V	V	M	M
157	A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	Contrasting surface treatment beyond the gore pavement should be provided on both entrance and exit ramps as shown on Figures 504.2A, 504.2B, and 504.3L.	Medium	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
158	A	500-14	504.2(3)	Freeway Entrances and Exits (Location on a Curve)	When an exit must be located where physical restrictions to visibility cannot be corrected by cut widening or object removal, an auxiliary lane in advance of the exit should be a minimum of 600 feet, 1,000 feet preferred.	Medium	N/A	N/A	N/A	N/A	N/A	M	M	M	N/A	M	M	M	N/A	M	M	M	N/A	M	M	M
159	A	500-14	504.2(4)	Freeway Entrances and Exits (Design Speed Considerations)	The design speed at the exit nose should be 50 miles per hour or greater for both ramps and branch connections.	Low	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
160	A	500-14	504.2(4)(a)	Freeway Entrances and Exits (Design Speed Considerations - Freeway Exit)	Decision sight distance given in Table 201.7 should be provided at freeway exits and branch connectors. At secondary exits on collector-distributor roads, a minimum of 600 feet of decision sight distance should be provided.	Medium	N/A	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
161	A	500-14	504.2(4)(b)	Freeway Entrances and Exits (Design Speed Considerations - Freeway Entrance)	The design speed at the inlet nose should be consistent with approaching alignment standards. If the approach is a branch connection of diamond ramp with high alignment standards, the design speed should be at least 50 miles per hour.	Medium	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
162	A	500-14	504.2(5)	Freeway Entrances and Exits (Grades)	Ramp profile grades should not exceed 8 percent with the exception of descending entrance ramps and ascending exit ramps, where a 1 percent steeper grade is allowed. However, the 1 percent steeper grade should be avoided on descending loops to minimize overdriving of the ramp (see Index 504.3(8)).	Medium	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
163	A	500-14	504.2(5)	Freeway Entrances and Exits (Grades)	Where adjacent lanes or lanes and paved gore areas at freeway entrances and exits are not in the same plane, the algebraic differences in pavement cross slope should not exceed 5 percent (see Index 301.2).	Low	N/A	N/A	N/A	N/A	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	400-30	405.4(3)	Traffic Islands (Pedestrian Refuge)	Traffic islands used as pedestrian refuge should be large enough to provide a minimum of 6 feet in the direction of pedestrian travel.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	M	V	V	V	N/A	N/A	N/A	N/A
A	400-32	405.5(2)	Median Openings) Spacing and Location)	Emergency passageways should be located only where decision sight distance is available (see Table 201.7).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	400-32	405.5(2)	Median Openings) Spacing and Location)	Median openings should be spaced at intervals no closer than 1600 feet. If a median opening falls within 300 feet of an access opening, it should be placed opposite the access opening.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-1	501.3	Spacing	The minimum interchange spacing shall be one mile in urban areas, two miles in rural areas, and two miles between freeway-to-freeway interchanges and other interchanges. The minimum interchange spacing on Interstates outside a Transportation Management Area shall be three miles.	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-2	502.2	Local Street Interchanges	Isolated off-ramps or partial interchanges shall not be used because of the potential for wrong way movements.	V	V	V	V	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	V	V	M	V
M	500-6	502.3(1)	Freeway-to-Freeway Interchanges (General)	Interstate routes shall maintain route continuity. Where both the designated route and heavier traffic volume route are present, the interchange configuration shall keep the designated route to the left through the interchange.	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-11	504.2(1)	Freeway Entrances and Exits (Basic Policy)	All freeway entrances and exits, except for direct connections with median High-Occupancy Vehicle (HOV) lanes, Express Toll lanes or BRT lanes, shall connect to the right of through traffic.	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	Design of freeway entrances and exits should conform to the standard design illustrated in Figure 504.2A-B (single lane) and Figure 504.3L (two-lane entrances and exits) and/or Figure 504.4 (diverging branch connections), as appropriate.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	M
M	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The minimum deceleration length shown on Figure 504.2B shall be provided prior to the first curve beyond the exit nose to ensure adequate distance for vehicles to decelerate before entering the curve.	N/A	N/A	N/A	N/A	V	V	M	V	N/A	N/A	N/A	N/A	M	M	M	M	V	V	V	M
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The same standard should apply for the first curve after the exit from a collector-distributor road.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	M	V	N/A	N/A	N/A	V	N/A	N/A	N/A	N/A
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The exit nose shown in Figure 504.2B may be located downstream of the 23-foot dimension; however, the maximum paved width between the mainline and ramp shoulder edge should be 20 feet.	V	M	M	M	V	M	M	M	V	M	M	M	M	M	M	M	M	M	M	M
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	Contrasting surface treatment beyond the gore pavement should be provided on both entrance and exit ramps as shown on Figures 504.2A, 504.2B, and 504.3L.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	500-14	504.2(3)	Freeway Entrances and Exits (Location on a Curve)	When an exit must be located where physical restrictions to visibility cannot be corrected by cut widening or object removal, an auxiliary lane in advance of the exit should be a minimum of 600 feet, 1,000 feet preferred.	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	M	M	N/A	N/A	M	M	N/A	N/A	M	M
A	500-14	504.2(4)	Freeway Entrances and Exits (Design Speed Considerations)	The design speed at the exit nose should be 50 miles per hour or greater for both ramps and branch connections.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A	500-14	504.2(4)(a)	Freeway Entrances and Exits (Design Speed Considerations - Freeway Exit)	Decision sight distance given in Table 201.7 should be provided at freeway exits and branch connectors. At secondary exits on collector-distributor roads, a minimum of 600 feet of decision sight distance should be provided.	N/A	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	500-14	504.2(4)(b)	Freeway Entrances and Exits (Design Speed Considerations - Freeway Entrance)	The design speed at the inlet nose should be consistent with approaching alignment standards. If the approach is a branch connection of diamond ramp with high alignment standards, the design speed should be at least 50 miles per hour.	N/A	N/A	N/A	N/A	M	M	M	M	V	M	M	M	M	M	M	M	M	M	M	M
A	500-14	504.2(5)	Freeway Entrances and Exits (Grades)	Ramp profile grades should not exceed 8 percent with the exception of descending entrance ramps and ascending exit ramps, where a 1 percent steeper grade is allowed. However, the 1 percent steeper grade should be avoided on descending loops to minimize overdriving of the ramp (see Index 504.3(8)).	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	500-14	504.2(5)	Freeway Entrances and Exits (Grades)	Where adjacent lanes or lanes and paved gore areas at freeway entrances and exits are not in the same plane, the algebraic differences in pavement cross slope should not exceed 5 percent (see Index 301.2).	N/A	N/A	N/A	N/A	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	400-30	405.4(3)	Traffic Islands (Pedestrian Refuge)	Traffic islands used as pedestrian refuge should be large enough to provide a minimum of 6 feet in the direction of pedestrian travel.	N/A	N/A	N/A	N/A	V	N/A	N/A	V	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A
A	400-32	405.5(2)	Median Openings) Spacing and Location)	Emergency passageways should be located only where decision sight distance is available (see Table 201.7).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	400-32	405.5(2)	Median Openings) Spacing and Location)	Median openings should be spaced at intervals no closer than 1600 feet. If a median opening falls within 300 feet of an access opening, it should be placed opposite the access opening.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
M	500-1	501.3	Spacing	The minimum interchange spacing shall be one mile in urban areas, two miles in rural areas, and two miles between freeway-to-freeway interchanges and other interchanges. The minimum interchange spacing on Interstates outside a Transportation Management Area shall be three miles.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-2	502.2	Local Street Interchanges	Isolated off-ramps or partial interchanges shall not be used because of the potential for wrong way movements.	V	V	V	M	V	V	V	V	M	M	V	V	M	M	V	V	M	M	M	M
M	500-6	502.3(1)	Freeway-to-Freeway Interchanges (General)	Interstate routes shall maintain route continuity. Where both the designated route and heavier traffic volume route are present, the interchange configuration shall keep the designated route to the left through the interchange.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-11	504.2(1)	Freeway Entrances and Exits (Basic Policy)	All freeway entrances and exits, except for direct connections with median High-Occupancy Vehicle (HOV) lanes, Express Toll lanes or BRT lanes, shall connect to the right of through traffic.	M	M	M	M	M	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	Design of freeway entrances and exits should conform to the standard design illustrated in Figure 504.2A-B (single lane) and Figure 504.3L (two-lane entrances and exits) and/or Figure 504.4 (diverging branch connections), as appropriate.	V	V	V	M	M	M	M	M	N/A	N/A	N/A	N/A	V	M	M	M	V	M	V	M
M	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The minimum deceleration length shown on Figure 504.2B shall be provided prior to the first curve beyond the exit nose to ensure adequate distance for vehicles to decelerate before entering the curve.	V	V	V	M	M	N/A	N/A	M	N/A	N/A	N/A	N/A	V	V	M	M	V	M	M	V
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The same standard should apply for the first curve after the exit from a collector-distributor road.	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	N/A	N/A	N/A
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The exit nose shown in Figure 504.2B may be located downstream of the 23-foot dimension; however, the maximum paved width between the mainline and ramp shoulder edge should be 20 feet.	V	M	M	M	M	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	Contrasting surface treatment beyond the gore pavement should be provided on both entrance and exit ramps as shown on Figures 504.2A, 504.2B, and 504.3L.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	500-14	504.2(3)	Freeway Entrances and Exits (Location on a Curve)	When an exit must be located where physical restrictions to visibility cannot be corrected by cut widening or object removal, an auxiliary lane in advance of the exit should be a minimum of 600 feet, 1,000 feet preferred.	N/A	N/A	M	M	N/A	N/A	N/A	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-14	504.2(4)	Freeway Entrances and Exits (Design Speed Considerations)	The design speed at the exit nose should be 50 miles per hour or greater for both ramps and branch connections.	M	M	M	M	M	N/A	N/A	M	N/A	M	M	M	M	M	M	M	M	M	M	M
A	500-14	504.2(4)(a)	Freeway Entrances and Exits (Design Speed Considerations - Freeway Exit)	Decision sight distance given in Table 201.7 should be provided at freeway exits and branch connectors. At secondary exits on collector-distributor roads, a minimum of 600 feet of decision sight distance should be provided.	U	TBD	TBD	TBD	U	N/A	N/A	U	N/A	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	500-14	504.2(4)(b)	Freeway Entrances and Exits (Design Speed Considerations - Freeway Entrance)	The design speed at the inlet nose should be consistent with approaching alignment standards. If the approach is a branch connection of diamond ramp with high alignment standards, the design speed should be at least 50 miles per hour.	M	M	M	M	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-14	504.2(5)	Freeway Entrances and Exits (Grades)	Ramp profile grades should not exceed 8 percent with the exception of descending entrance ramps and ascending exit ramps, where a 1 percent steeper grade is allowed. However, the 1 percent steeper grade should be avoided on descending loops to minimize overdriving of the ramp (see Index 504.3(8)).	M	TBD	TBD	TBD	M	M	M	TBD	N/A	TBD	TBD	TBD	M	TBD	TBD	TBD	V	TBD	TBD	TBD
A	500-14	504.2(5)	Freeway Entrances and Exits (Grades)	Where adjacent lanes or lanes and paved gore areas at freeway entrances and exits are not in the same plane, the algebraic differences in pavement cross slope should not exceed 5 percent (see Index 301.2).	U	TBD	TBD	TBD	U	TBD	TBD	TBD	N/A	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps)				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	400-30	405.4(3)	Traffic Islands (Pedestrian Refuge)	Traffic islands used as pedestrian refuge should be large enough to provide a minimum of 6 feet in the direction of pedestrian travel.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A
A	400-32	405.5(2)	Median Openings) Spacing and Location)	Emergency passageways should be located only where decision sight distance is available (see Table 201.7).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	400-32	405.5(2)	Median Openings) Spacing and Location)	Median openings should be spaced at intervals no closer than 1600 feet. If a median opening falls within 300 feet of an access opening, it should be placed opposite the access opening.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
M	500-1	501.3	Spacing	The minimum interchange spacing shall be one mile in urban areas, two miles in rural areas, and two miles between freeway-to-freeway interchanges and other interchanges. The minimum interchange spacing on Interstates outside a Transportation Management Area shall be three miles.	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-2	502.2	Local Street Interchanges	Isolated off-ramps or partial interchanges shall not be used because of the potential for wrong way movements.	M	M	M	M	M	M	M	M	M	M	M	M
M	500-6	502.3(1)	Freeway-to-Freeway Interchanges (General)	Interstate routes shall maintain route continuity. Where both the designated route and heavier traffic volume route are present, the interchange configuration shall keep the designated route to the left through the interchange.	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-11	504.2(1)	Freeway Entrances and Exits (Basic Policy)	All freeway entrances and exits, except for direct connections with median High-Occupancy Vehicle (HOV) lanes, Express Toll lanes or BRT lanes, shall connect to the right of through traffic.	M	M	M	M	M	M	M	M	M	M	M	M
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	Design of freeway entrances and exits should conform to the standard design illustrated in Figure 504.2A-B (single lane) and Figure 504.3L (two-lane entrances and exits) and/or Figure 504.4 (diverging branch connections), as appropriate.	N/A	N/A	N/A	N/A	V	M	V	V	V	V	V	V
M	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The minimum deceleration length shown on Figure 504.2B shall be provided prior to the first curve beyond the exit nose to ensure adequate distance for vehicles to decelerate before entering the curve.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	M	V
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The same standard should apply for the first curve after the exit from a collector-distributor road.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	The exit nose shown in Figure 504.2B may be located downstream of the 23-foot dimension; however, the maximum paved width between the mainline and ramp shoulder edge should be 20 feet.	N/A	N/A	N/A	N/A	V	M	M	M	V	M	M	M
A	500-11	504.2(2)	Freeway Entrances and Exits (Standard Designs)	Contrasting surface treatment beyond the gore pavement should be provided on both entrance and exit ramps as shown on Figures 504.2A, 504.2B, and 504.3L.	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	500-14	504.2(3)	Freeway Entrances and Exits (Location on a Curve)	When an exit must be located where physical restrictions to visibility cannot be corrected by cut widening or object removal, an auxiliary lane in advance of the exit should be a minimum of 600 feet, 1,000 feet preferred.	N/A	N/A	N/A	N/A	N/A	TBD	M	M	N/A	M	M	V
A	500-14	504.2(4)	Freeway Entrances and Exits (Design Speed Considerations)	The design speed at the exit nose should be 50 miles per hour or greater for both ramps and branch connections.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-14	504.2(4)(a)	Freeway Entrances and Exits (Design Speed Considerations - Freeway Exit)	Decision sight distance given in Table 201.7 should be provided at freeway exits and branch connectors. At secondary exits on collector-distributor roads, a minimum of 600 feet of decision sight distance should be provided.	N/A	TBD	TBD	TBD	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	500-14	504.2(4)(b)	Freeway Entrances and Exits (Design Speed Considerations - Freeway Entrance)	The design speed at the inlet nose should be consistent with approaching alignment standards. If the approach is a branch connection of diamond ramp with high alignment standards, the design speed should be at least 50 miles per hour.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-14	504.2(5)	Freeway Entrances and Exits (Grades)	Ramp profile grades should not exceed 8 percent with the exception of descending entrance ramps and ascending exit ramps, where a 1 percent steeper grade is allowed. However, the 1 percent steeper grade should be avoided on descending loops to minimize overdriving of the ramp (see Index 504.3(8)).	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	500-14	504.2(5)	Freeway Entrances and Exits (Grades)	Where adjacent lanes or lanes and paved gore areas at freeway entrances and exits are not in the same plane, the algebraic differences in pavement cross slope should not exceed 5 percent (see Index 301.2).	N/A	N/A	N/A	N/A	U	TBD	TBD	TBD	U	TBD	TBD	TBD

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
164	A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	Vertical curves located just beyond the exit nose should be designed with a minimum 50 miles per hour stopping sight distance.	Low	N/A	N/A	N/A	N/A	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
165	A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	If the ramp ends in a crest vertical curve, the last 50 feet of the ramp should be on a 5 percent grade or less.	Low	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
166	A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	On descending off-ramps, the sag vertical curve at the ramp terminal should be a minimum of 100 feet in length.	Low	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
167	A	500-15	504.2(5)(b)	Freeway Entrances and Exits (Grades - Freeway Entrances)	Where truck volumes (three-axle or more) exceed 20 per hour on ascending entrance ramps to freeways and expressways with sustained grades exceeding 2 percent, a 1,500-foot length of auxiliary lane should be provided in order to ensure satisfactory operating conditions.	Medium	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
168	A	500-15	504.3(1)(a)	Ramps (General - Design Speed)	When ramps terminate at an intersection at which all traffic is expected to make a turning movement, the minimum design speed along the ramp should be 25 miles per hour.	Medium	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
169	A	500-15	504.3(1)(a)	Ramps (General - Design Speed)	When a "through" movement is provided at the ramp terminus, the minimum ramp design speed should meet or exceed the design speed of the highway facility for which the through movement is provided.	Low	N/A	N/A	N/A	N/A	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
170	**M**	500-15	504.3(1)(b)	Ramps (General - Lane Width)	Ramp lanes shall be a minimum of 12 feet in width.	Low	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
171	**M**	500-15	504.3(1)(b)	Ramps (General - Lane Width)	Where ramps have curve radii of 300 feet or less, measured almond the outside edge of traveled way for single lane ramps or along the outside lane line for multilane ramps, with a central angle greater than 60 degrees, the single ramp lane, or the lane furthest to the right if the ramp is multilane, shall be widened in accordance with 504.3 in order to accommodate large truck wheel paths.	Low	N/A	N/A	N/A	N/A	M	V	V	V	N/A	N/A	N/A	N/A	V	V	V	M	M	V	V	V
172	**M**	500-16	504.3(1)(c)	Ramps (General - Shoulder Width)	Shoulder width for ramps shall be as indicated in Table 302.1.	Low	N/A	N/A	N/A	N/A	V	M	M	M	M	V	V	V	V	V	V	V	V	V	M	M
173	A	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	Depending on approach geometry and speed, the lane drop transition between the limit line and the 6-foot separation point should be accomplished with a taper of between 30:1 and 50:1 (longitudinal to lateral).	High	N/A	N/A	N/A	N/A	M	V	V	V	N/A	N/A	N/A	N/A	V	V	M	V	M	M	M	M
174	**M**	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	However, the lane drop taper past the limit line shall not be less than 15 to 1.	Medium	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
175	A	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	Lane drop tapers should not extend beyond the 6-foot point (the beginning of the weaving length) without the provision of an auxiliary lane.	Medium	N/A	N/A	N/A	N/A	TBD	M	V	M	N/A	N/A	N/A	N/A	TBD	M	V	M	TBD	M	M	V
176	A	500-16	504.3(2)(a)	Ramps (Ramp Metering - Metered Single-Lane Entrance Ramps)	Where truck volumes (three-axle or more) are 5 percent or greater on ascending entrance ramps to freeways with sustained grades exceeding 3 percent (i.e., at least throughout the merge area) a minimum 500-foot length of auxiliary lane should be provided beyond the ramp convergence point.	Medium	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
177	A	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	Therefore, depending on approach geometry and speed, the lane drop transition between the limit line and the 6-foot separation point should be accomplished with a taper of between 30:1 and 50:1 (longitudinal to lateral).	High	N/A	N/A	N/A	N/A	M	V	V	V	N/A	N/A	N/A	N/A	V	V	M	V	M	M	M	M
178	**M**	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	However, the lane drop taper past the limit line shall not be less than 15 to 1.	Medium	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
179	A	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	Where truck volumes (three-axle or more) are 5 percent or greater on ascending entrance ramps to freeways with sustained grades exceeding 3 percent (i.e., at least throughout the merge area) a minimum 1,000-foot length of auxiliary lane should be provided beyond the ramp convergence point.	Medium	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
180	**M**	500-17	504.3(2)(c)	Ramps (Ramp Metering - Metered Freeway-to-Freeway Connectors)	The installation of ramp meters on connector ramps shall be limited to those facilities which meet or exceed the following geometric design criteria: • Standard lane and shoulder widths. •"Tail light" sight distance, measured from 3 1/2 feet eye height to a 2-foot object height, is provided for a design speed of 50 miles per hour minimum.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
181	**M**	500-18	504.3(2)(c)	Ramps (Ramp Metering - Metered Freeway-to-Freeway Connectors)	All lane drop transitions on connectors shall be accomplished with a taper of 50:1 (Longitudinal to lateral).	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	Vertical curves located just beyond the exit nose should be designed with a minimum 50 miles per hour stopping sight distance.	N/A	N/A	N/A	N/A	V	TBD	TBD	TBD	V	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	If the ramp ends in a crest vertical curve, the last 50 feet of the ramp should be on a 5 percent grade or less.	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	On descending off-ramps, the sag vertical curve at the ramp terminal should be a minimum of 100 feet in length.	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	TBD	TBD	TBD	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	500-15	504.2(5)(b)	Freeway Entrances and Exits (Grades - Freeway Entrances)	Where truck volumes (three-axle or more) exceed 20 per hour on ascending entrance ramps to freeways and expressways with sustained grades exceeding 2 percent, a 1,500-foot length of auxiliary lane should be provided in order to ensure satisfactory operating conditions.	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
A	500-15	504.3(1)(a)	Ramps (General - Design Speed)	When ramps terminate at an intersection at which all traffic is expected to make a turning movement, the minimum design speed along the ramp should be 25 miles per hour.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-15	504.3(1)(a)	Ramps (General - Design Speed)	When a "through" movement is provided at the ramp terminus, the minimum ramp design speed should meet or exceed the design speed of the highway facility for which the through movement is provided.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	V	M	M	M	N/A	N/A	N/A	N/A
M	500-15	504.3(1)(b)	Ramps (General - Lane Width)	Ramp lanes shall be a minimum of 12 feet in width.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
M	500-15	504.3(1)(b)	Ramps (General - Lane Width)	Where ramps have curve radii of 300 feet or less, measured almond the outside edge of traveled way for single lane ramps or along the outside lane line for multilane ramps, with a central angle greater than 60 degrees, the single ramp lane, or the lane furthest to the right if the ramp is multilane, shall be widened in accordance with 504.3 in order to accommodate large truck wheel paths.	N/A	N/A	N/A	N/A	V	M	V	V	V	V	M	M	V	M	M	M	V	V	M	V
M	500-16	504.3(1)(c)	Ramps (General - Shoulder Width)	Shoulder width for ramps shall be as indicated in Table 302.1.	N/A	N/A	N/A	N/A	V	M	M	M	V	V	M	M	V	M	M	M	V	M	M	M
A	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	Depending on approach geometry and speed, the lane drop transition between the limit line and the 6-foot separation point should be accomplished with a taper of between 30:1 and 50:1 (longitudinal to lateral).	N/A	N/A	N/A	N/A	V	V	M	V	N/A	N/A	N/A	M	V	V	V	M	N/A	V	V	M
M	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	However, the lane drop taper past the limit line shall not be less than 15 to 1.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	M	M	M	V	M	N/A	M	M	M
A	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	Lane drop tapers should not extend beyond the 6-foot point (the beginning of the weaving length) without the provision of an auxiliary lane.	N/A	N/A	N/A	N/A	M	M	V	V	N/A	N/A	N/A	M	M	M	M	V	N/A	N/A	V	M
A	500-16	504.3(2)(a)	Ramps (Ramp Metering - Metered Single-Lane Entrance Ramps)	Where truck volumes (three-axle or more) are 5 percent or greater on ascending entrance ramps to freeways with sustained grades exceeding 3 percent (i.e., at least throughout the merge area) a minimum 500-foot length of auxiliary lane should be provided beyond the ramp convergence point.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	Therefore, depending on approach geometry and speed, the lane drop transition between the limit line and the 6-foot separation point should be accomplished with a taper of between 30:1 and 50:1 (longitudinal to lateral).	N/A	N/A	N/A	N/A	V	V	M	V	N/A	N/A	N/A	M	V	V	V	M	N/A	V	V	M
M	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	However, the lane drop taper past the limit line shall not be less than 15 to 1.	N/A	N/A	N/A	N/A	M	V	M	M	N/A	N/A	N/A	M	M	M	V	M	N/A	M	M	M
A	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	Where truck volumes (three-axle or more) are 5 percent or greater on ascending entrance ramps to freeways with sustained grades exceeding 3 percent (i.e., at least throughout the merge area) a minimum 1,000-foot length of auxiliary lane should be provided beyond the ramp convergence point.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	500-17	504.3(2)(c)	Ramps (Ramp Metering - Metered Freeway-to-Freeway Connectors)	The installation of ramp meters on connector ramps shall be limited to those facilities which meet or exceed the following geometric design criteria: • Standard lane and shoulder widths. •"Tail light" sight distance, measured from 3 1/2 feet eye height to a 2-foot object height, is provided for a design speed of 50 miles per hour minimum.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-18	504.3(2)(c)	Ramps (Ramp Metering - Metered Freeway-to-Freeway Connectors)	All lane drop transitions on connectors shall be accomplished with a taper of 50:1 (Longitudinal to lateral).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	Vertical curves located just beyond the exit nose should be designed with a minimum 50 miles per hour stopping sight distance.	M	TBD	TBD	TBD	M	N/A	N/A	TBD	N/A	TBD	TBD	TBD	V	TBD	TBD	TBD	V	TBD	TBD	TBD
A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	If the ramp ends in a crest vertical curve, the last 50 feet of the ramp should be on a 5 percent grade or less.	N/A	TBD	TBD	TBD	N/A	N/A	N/A	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	M	TBD	TBD	TBD
A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	On descending off-ramps, the sag vertical curve at the ramp terminal should be a minimum of 100 feet in length.	M	TBD	TBD	TBD	N/A	N/A	N/A	TBD	N/A	TBD	TBD	TBD	M	TBD	TBD	TBD	N/A	TBD	TBD	TBD
A	500-15	504.2(5)(b)	Freeway Entrances and Exits (Grades - Freeway Entrances)	Where truck volumes (three-axle or more) exceed 20 per hour on ascending entrance ramps to freeways and expressways with sustained grades exceeding 2 percent, a 1,500-foot length of auxiliary lane should be provided in order to ensure satisfactory operating conditions.	N/A	TBD	TBD	TBD	N/A	N/A	N/A	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	V	TBD	TBD	TBD
A	500-15	504.3(1)(a)	Ramps (General - Design Speed)	When ramps terminate at an intersection at which all traffic is expected to make a turning movement, the minimum design speed along the ramp should be 25 miles per hour.	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-15	504.3(1)(a)	Ramps (General - Design Speed)	When a "through" movement is provided at the ramp terminus, the minimum ramp design speed should meet or exceed the design speed of the highway facility for which the through movement is provided.	N/A	N/A	N/A	N/A	M	N/A	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-15	504.3(1)(b)	Ramps (General - Lane Width)	Ramp lanes shall be a minimum of 12 feet in width.	M	M	M	M	M	N/A	M	M	N/A	N/A	N/A	N/A	V	M	M	M	V	M	M	M
M	500-15	504.3(1)(b)	Ramps (General - Lane Width)	Where ramps have curve radii of 300 feet or less, measured almond the outside edge of traveled way for single lane ramps or along the outside lane line for multilane ramps, with a central angle greater than 60 degrees, the single ramp lane, or the lane furthest to the right if the ramp is multilane, shall be widened in accordance with 504.3 in order to accommodate large truck wheel paths.	V	V	V	M	V	N/A	N/A	V	N/A	N/A	N/A	N/A	V	M	M	M	V	M	M	M
M	500-16	504.3(1)(c)	Ramps (General - Shoulder Width)	Shoulder width for ramps shall be as indicated in Table 302.1.	V	M	M	M	V	V	M	V	N/A	N/A	N/A	N/A	V	M	M	M	V	M	M	M
A	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	Depending on approach geometry and speed, the lane drop transition between the limit line and the 6-foot separation point should be accomplished with a taper of between 30:1 and 50:1 (longitudinal to lateral).	N/A	M	M	V	M	M	M	N/A	N/A	N/A	N/A	N/A	V	V	M	V	V	M	M	V
M	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	However, the lane drop taper past the limit line shall not be less than 15 to 1.	N/A	M	M	M	M	M	M	N/A	N/A	N/A	N/A	N/A	TBD	M	M	M	V	M	M	M
A	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	Lane drop tapers should not extend beyond the 6-foot point (the beginning of the weaving length) without the provision of an auxiliary lane.	N/A	M	V	V	M	M	V	N/A	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-16	504.3(2)(a)	Ramps (Ramp Metering - Metered Single-Lane Entrance Ramps)	Where truck volumes (three-axle or more) are 5 percent or greater on ascending entrance ramps to freeways with sustained grades exceeding 3 percent (i.e., at least throughout the merge area) a minimum 500-foot length of auxiliary lane should be provided beyond the ramp convergence point.	TBD	TBD	TBD	TBD	TBD	N/A	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	Therefore, depending on approach geometry and speed, the lane drop transition between the limit line and the 6-foot separation point should be accomplished with a taper of between 30:1 and 50:1 (longitudinal to lateral).	N/A	M	M	V	M	M	M	N/A	N/A	N/A	N/A	N/A	V	V	M	V	V	M	M	V
M	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	However, the lane drop taper past the limit line shall not be less than 15 to 1.	N/A	M	M	M	M	M	M	N/A	N/A	N/A	N/A	N/A	TBD	M	M	M	V	M	M	M
A	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	Where truck volumes (three-axle or more) are 5 percent or greater on ascending entrance ramps to freeways with sustained grades exceeding 3 percent (i.e., at least throughout the merge area) a minimum 1,000-foot length of auxiliary lane should be provided beyond the ramp convergence point.	TBD	TBD	TBD	TBD	TBD	N/A	TBD	TBD	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	500-17	504.3(2)(c)	Ramps (Ramp Metering - Metered Freeway-to-Freeway Connectors)	The installation of ramp meters on connector ramps shall be limited to those facilities which meet or exceed the following geometric design criteria: • Standard lane and shoulder widths. •"Tail light" sight distance, measured from 3 1/2 feet eye height to a 2-foot object height, is provided for a design speed of 50 miles per hour minimum.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-18	504.3(2)(c)	Ramps (Ramp Metering - Metered Freeway-to-Freeway Connectors)	All lane drop transitions on connectors shall be accomplished with a taper of 50:1 (Longitudinal to lateral).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	Vertical curves located just beyond the exit nose should be designed with a minimum 50 miles per hour stopping sight distance.	N/A	N/A	N/A	N/A	U	TBD	TBD	TBD	U	TBD	TBD	TBD
A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	If the ramp ends in a crest vertical curve, the last 50 feet of the ramp should be on a 5 percent grade or less.	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	500-15	504.2(5)(a)	Freeway Entrances and Exits (Grades - Freeway Exits)	On descending off-ramps, the sag vertical curve at the ramp terminal should be a minimum of 100 feet in length.	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	M	TBD	TBD	TBD
A	500-15	504.2(5)(b)	Freeway Entrances and Exits (Grades - Freeway Entrances)	Where truck volumes (three-axle or more) exceed 20 per hour on ascending entrance ramps to freeways and expressways with sustained grades exceeding 2 percent, a 1,500-foot length of auxiliary lane should be provided in order to ensure satisfactory operating conditions.	N/A	N/A	N/A	N/A	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
A	500-15	504.3(1)(a)	Ramps (General - Design Speed)	When ramps terminate at an intersection at which all traffic is expected to make a turning movement, the minimum design speed along the ramp should be 25 miles per hour.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	V
A	500-15	504.3(1)(a)	Ramps (General - Design Speed)	When a "through" movement is provided at the ramp terminus, the minimum ramp design speed should meet or exceed the design speed of the highway facility for which the through movement is provided.	N/A	N/A	N/A	N/A	M	M	N/A	N/A	N/A	N/A	N/A	N/A
M	500-15	504.3(1)(b)	Ramps (General - Lane Width)	Ramp lanes shall be a minimum of 12 feet in width.	N/A	N/A	N/A	N/A	M	M	M	M	V	V	M	M
M	500-15	504.3(1)(b)	Ramps (General - Lane Width)	Where ramps have curve radii of 300 feet or less, measured almond the outside edge of traveled way for single lane ramps or along the outside lane line for multilane ramps, with a central angle greater than 60 degrees, the single ramp lane, or the lane furthest to the right if the ramp is multilane, shall be widened in accordance with 504.3 in order to accommodate large truck wheel paths.	N/A	N/A	N/A	N/A	V	M	M	V	V	V	M	V
M	500-16	504.3(1)(c)	Ramps (General - Shoulder Width)	Shoulder width for ramps shall be as indicated in Table 302.1.	N/A	N/A	N/A	N/A	V	M	M	M	V	V	M	M
A	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	Depending on approach geometry and speed, the lane drop transition between the limit line and the 6-foot separation point should be accomplished with a taper of between 30:1 and 50:1 (longitudinal to lateral).	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	However, the lane drop taper past the limit line shall not be less than 15 to 1.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-16	504.3(1)(d)	Ramps (General - Lane Drops)	Lane drop tapers should not extend beyond the 6-foot point (the beginning of the weaving length) without the provision of an auxiliary lane.	N/A	N/A	N/A	N/A	U	M	M	M	U	M	M	M
A	500-16	504.3(2)(a)	Ramps (Ramp Metering - Metered Single-Lane Entrance Ramps)	Where truck volumes (three-axle or more) are 5 percent or greater on ascending entrance ramps to freeways with sustained grades exceeding 3 percent (i.e., at least throughout the merge area) a minimum 500-foot length of auxiliary lane should be provided beyond the ramp convergence point.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	Therefore, depending on approach geometry and speed, the lane drop transition between the limit line and the 6-foot separation point should be accomplished with a taper of between 30:1 and 50:1 (longitudinal to lateral).	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	However, the lane drop taper past the limit line shall not be less than 15 to 1.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-17	504.3(2)(b)	Ramps (Ramp Metering - Metered Multilane Ramps)	Where truck volumes (three-axle or more) are 5 percent or greater on ascending entrance ramps to freeways with sustained grades exceeding 3 percent (i.e., at least throughout the merge area) a minimum 1,000-foot length of auxiliary lane should be provided beyond the ramp convergence point.	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	500-17	504.3(2)(c)	Ramps (Ramp Metering - Metered Freeway-to-Freeway Connectors)	The installation of ramp meters on connector ramps shall be limited to those facilities which meet or exceed the following geometric design criteria: • Standard lane and shoulder widths. •"Tail light" sight distance, measured from 3 1/2 feet eye height to a 2-foot object height, is provided for a design speed of 50 miles per hour minimum.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-18	504.3(2)(c)	Ramps (Ramp Metering - Metered Freeway-to-Freeway Connectors)	All lane drop transitions on connectors shall be accomplished with a taper of 50:1 (Longitudinal to lateral).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
182	A	500-20	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	Ramp terminals should connect where the grade of the overcrossing is 4 percent or less to avoid potential overturning of trucks.	Medium	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	M	M	M	M	M	TBD	TBD	TBD
183	A	500-20	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	For left-turn maneuvers from an off-ramp at an unsignalized intersection, the length of crossroads open to view should be greater then the product of the prevailing speed of vehicles on the crossroads, and the time required for a stopped vehicle on the ramp to execute a left-turn maneuver. This time is estimated to be 7 1/2 seconds.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
184	A	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	Where a separate right-turn lane is provided at ramp terminals, the turn lane should not continue as a "free" right.	Low	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
185	**M**	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	The minimum distance (curb return to curb return) between ramp intersections and local road intersections shall be 400 feet.	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	M	M	M	M	V	V	V	V
186	A	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	The preferred minimum distance should be 500 feet.	High	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
187	A	500-21	504.3(5)	Ramps (Single-lane Ramps)	When additional lanes are provided near an entrance ramp intersection, the lane drop should be accomplished over a distance equal to WV.	Medium	N/A	N/A	N/A	N/A	V	V	M	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
188	A	500-22	504.3(5)	Ramps (Single-lane Ramps)	The lane to be dropped should be on the right so that traffic merges left.	Low	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
189	A	500-22	504.3(5)	Ramps (Single-lane Ramps)	If the length of a single lane ramp exceeds 1,000 feet, an additional lane should be provided on the ramp to permit passing maneuvers.	High	N/A	N/A	N/A	N/A	M	M	M	M	V	V	V	V	M	M	M	M	V	V	V	V
190	A	500-22	504.3(6)	Ramps (Two-lane Exit Ramps)	Where design year estimated volumes exceed 1500 equivalent passenger cars per hour, a 2-lane ramp should be provided.	Medium	N/A	N/A	N/A	N/A	U	M	M	M	M	M	M	M	U	N/A	N/A	N/A	U	N/A	N/A	N/A
191	A	500-22	504.3(6)	Ramps (Two-lane Exit Ramps)	An auxiliary lane approximately 1,300 feet long should be provided in advance of a 2-lane exist. For volumes less than 1500 but more than 900, a one-lane width exit ramp should be provided with provisions for adding auxiliary lanes and an additional lane on the ramp.	Medium	N/A	N/A	N/A	N/A	U	M	M	M	M	M	M	M	U	N/A	N/A	N/A	U	N/A	N/A	N/A
192	A	500-22	504.3(9)	Ramps (Distance Between Successive On-Ramps)	This distance should be about 1,000 feet unless the upstream ramp adds an auxiliary lane in which case the downstream ramp should merge with the auxiliary lane in a standard 50:1 (longitudinal to lateral) convergence.	Medium	N/A	N/A	N/A	N/A	M	M	M	V	N/A	N/A	N/A	N/A	V	M	M	M	M	M	M	M
193	A	500-35	504.3(10)	Ramps (Distance Between Successive Exits)	The minimum distance between successive exit ramps for guide signing should be 1,000 feet on the freeway and 600 feet on collector-distributor roads.	Medium	N/A	N/A	N/A	N/A	M	M	V	V	M	M	M	M	M	M	M	M	M	M	M	M
194	A	500-35	504.4(2)	Freeway-to-Freeway Connections (Design Speed)	The design speed for single lane directional and all branch connections should be a minimum of 50 miles per hour. When smaller radius curves, with lower design speeds, are used the vertical sight distance should be consistent with approaching vehicle speeds.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
195	A	500-35	504.4(3)	Freeway-to-Freeway Connections (Grades)	The maximum profile grade on freeway-to-freeway connections should not exceed 6 percent.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
196	**M**	500-35	504.4(4)(a)	Freeway-to-Freeway Connections (Shoulder Width - Single-lane and Two-lane Connections)	The width of shoulders on single-lane and two-lane (except as described below) freeway-to-freeway connectors shall be 5 feet on the left and 10 feet on the right. A single-lane freeway-to-freeway connector that has been widened to two lanes solely to provide passing opportunities and not due to capacity requirements shall have a 5-foot left shoulder and at least a 5-foot right shoulder.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
197	**M**	500-35	504.4(4)(b)	Freeway-to-Freeway Connections (Shoulder Width - Three-lane Connections)	The width of shoulders on three-lane connectors shall be 10 feet on both the left and right sides.	Low	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	500-20	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	Ramp terminals should connect where the grade of the overcrossing is 4 percent or less to avoid potential overturning of trucks.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-20	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	For left-turn maneuvers from an off-ramp at an unsignalized intersection, the length of crossroads open to view should be greater then the product of the prevailing speed of vehicles on the crossroads, and the time required for a stopped vehicle on the ramp to execute a left-turn maneuver. This time is estimated to be 7 1/2 seconds.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	Where a separate right-turn lane is provided at ramp terminals, the turn lane should not continue as a "free" right.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	V	M	M	M	M	M	M	M
M	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	The minimum distance (curb return to curb return) between ramp intersections and local road intersections shall be 400 feet.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	The preferred minimum distance should be 500 feet.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
A	500-21	504.3(5)	Ramps (Single-lane Ramps)	When additional lanes are provided near an entrance ramp intersection, the lane drop should be accomplished over a distance equal to WV.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-22	504.3(5)	Ramps (Single-lane Ramps)	The lane to be dropped should be on the right so that traffic merges left.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-22	504.3(5)	Ramps (Single-lane Ramps)	If the length of a single lane ramp exceeds 1,000 feet, an additional lane should be provided on the ramp to permit passing maneuvers.	N/A	N/A	N/A	N/A	M	M	M	M	V	V	V	V	N/A	N/A	N/A	N/A	N/A	V	V	V
A	500-22	504.3(6)	Ramps (Two-lane Exit Ramps)	Where design year estimated volumes exceed 1500 equivalent passenger cars per hour, a 2-lane ramp should be provided.	N/A	N/A	N/A	N/A	U	N/A	N/A	N/A	U	N/A	M	M	U	M	N/A	M	U	M	M	M
A	500-22	504.3(6)	Ramps (Two-lane Exit Ramps)	An auxiliary lane approximately 1,300 feet long should be provided in advance of a 2-lane exist. For volumes less than 1500 but more than 900, a one-lane width exit ramp should be provided with provisions for adding auxiliary lanes and an additional lane on the ramp.	N/A	N/A	N/A	N/A	U	M	M	M	U	M	M	M	U	M	M	M	U	M	M	M
A	500-22	504.3(9)	Ramps (Distance Between Successive On-Ramps)	This distance should be about 1,000 feet unless the upstream ramp adds an auxiliary lane in which case the downstream ramp should merge with the auxiliary lane in a standard 50:1 (longitudinal to lateral) convergence.	N/A	N/A	N/A	N/A	M	M	M	N/A	N/A	N/A	N/A	V	N/A	N/A	N/A	N/A	N/A	M	N/A	N/A
A	500-35	504.3(10)	Ramps (Distance Between Successive Exits)	The minimum distance between successive exit ramps for guide signing should be 1,000 feet on the freeway and 600 feet on collector-distributor roads.	N/A	N/A	N/A	N/A	M	V	M	M	M	V	M	M	N/A	N/A	M	M	N/A	N/A	M	M
A	500-35	504.4(2)	Freeway-to-Freeway Connections (Design Speed)	The design speed for single lane directional and all branch connections should be a minimum of 50 miles per hour. When smaller radius curves, with lower design speeds, are used the vertical sight distance should be consistent with approaching vehicle speeds.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-35	504.4(3)	Freeway-to-Freeway Connections (Grades)	The maximum profile grade on freeway-to-freeway connections should not exceed 6 percent.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	TBD	TBD	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-35	504.4(4)(a)	Freeway-to-Freeway Connections (Shoulder Width - Single-lane and Two-lane Connections)	The width of shoulders on single-lane and two-lane (except as described below) freeway-to-freeway connectors shall be 5 feet on the left and 10 feet on the right. A single-lane freeway-to-freeway connector that has been widened to two lanes solely to provide passing opportunities and not due to capacity requirements shall have a 5-foot left shoulder and at least a 5-foot right shoulder.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-35	504.4(4)(b)	Freeway-to-Freeway Connections (Shoulder Width - Three-lane Connections)	The width of shoulders on three-lane connectors shall be 10 feet on both the left and right sides.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	500-20	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	Ramp terminals should connect where the grade of the overcrossing is 4 percent or less to avoid potential overturning of trucks.	M	M	M	M	M	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-20	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	For left-turn maneuvers from an off-ramp at an unsignalized intersection, the length of crossroads open to view should be greater then the product of the prevailing speed of vehicles on the crossroads, and the time required for a stopped vehicle on the ramp to execute a left-turn maneuver. This time is estimated to be 7 1/2 seconds.	M	N/A	N/A	TBD	M	N/A	N/A	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	N/A	N/A	N/A
A	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	Where a separate right-turn lane is provided at ramp terminals, the turn lane should not continue as a "free" right.	M	M	M	M	N/A	N/A	N/A	M	N/A	N/A	N/A	N/A	V	V	V	V	V	M	M	V
M	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	The minimum distance (curb return to curb return) between ramp intersections and local road intersections shall be 400 feet.	M	M	M	V	V	V	V	M	N/A	N/A	N/A	N/A	V	V	V	V	V	M	M	M
A	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	The preferred minimum distance should be 500 feet.	M	M	M	V	V	V	V	M	N/A	N/A	N/A	N/A	V	V	V	V	V	M	M	M
A	500-21	504.3(5)	Ramps (Single-lane Ramps)	When additional lanes are provided near an entrance ramp intersection, the lane drop should be accomplished over a distance equal to WV.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-22	504.3(5)	Ramps (Single-lane Ramps)	The lane to be dropped should be on the right so that traffic merges left.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-22	504.3(5)	Ramps (Single-lane Ramps)	If the length of a single lane ramp exceeds 1,000 feet, an additional lane should be provided on the ramp to permit passing maneuvers.	N/A	M	M	M	M	N/A	N/A	M	N/A	N/A	N/A	N/A	N/A	N/A	V	V	N/A	M	M	N/A
A	500-22	504.3(6)	Ramps (Two-lane Exit Ramps)	Where design year estimated volumes exceed 1500 equivalent passenger cars per hour, a 2-lane ramp should be provided.	U	M	M	M	U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	U	N/A	N/A	N/A	U	N/A	N/A	N/A
A	500-22	504.3(6)	Ramps (Two-lane Exit Ramps)	An auxiliary lane approximately 1,300 feet long should be provided in advance of a 2-lane exist. For volumes less than 1500 but more than 900, a one-lane width exit ramp should be provided with provisions for adding auxiliary lanes and an additional lane on the ramp.	U	M	M	M	U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	U	N/A	N/A	N/A	U	N/A	N/A	N/A
A	500-22	504.3(9)	Ramps (Distance Between Successive On-Ramps)	This distance should be about 1,000 feet unless the upstream ramp adds an auxiliary lane in which case the downstream ramp should merge with the auxiliary lane in a standard 50:1 (longitudinal to lateral) convergence.	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	V	N/A	N/A	N/A	N/A
A	500-35	504.3(10)	Ramps (Distance Between Successive Exits)	The minimum distance between successive exit ramps for guide signing should be 1,000 feet on the freeway and 600 feet on collector-distributor roads.	M	N/A	N/A	M	M	N/A	N/A	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	N/A	N/A	N/A
A	500-35	504.4(2)	Freeway-to-Freeway Connections (Design Speed)	The design speed for single lane directional and all branch connections should be a minimum of 50 miles per hour. When smaller radius curves, with lower design speeds, are used the vertical sight distance should be consistent with approaching vehicle speeds.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-35	504.4(3)	Freeway-to-Freeway Connections (Grades)	The maximum profile grade on freeway-to-freeway connections should not exceed 6 percent.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-35	504.4(4)(a)	Freeway-to-Freeway Connections (Shoulder Width - Single-lane and Two-lane Connections)	The width of shoulders on single-lane and two-lane (except as described below) freeway-to-freeway connectors shall be 5 feet on the left and 10 feet on the right. A single-lane freeway-to-freeway connector that has been widened to two lanes solely to provide passing opportunities and not due to capacity requirements shall have a 5-foot left shoulder and at least a 5-foot right shoulder.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-35	504.4(4)(b)	Freeway-to-Freeway Connections (Shoulder Width - Three-lane Connections)	The width of shoulders on three-lane connectors shall be 10 feet on both the left and right sides.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	500-20	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	Ramp terminals should connect where the grade of the overcrossing is 4 percent or less to avoid potential overturning of trucks.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-20	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	For left-turn maneuvers from an off-ramp at an unsignalized intersection, the length of crossroads open to view should be greater then the product of the prevailing speed of vehicles on the crossroads, and the time required for a stopped vehicle on the ramp to execute a left-turn maneuver. This time is estimated to be 7 1/2 seconds.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	U	TBD	TBD	TBD
A	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	Where a separate right-turn lane is provided at ramp terminals, the turn lane should not continue as a "free" right.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	The minimum distance (curb return to curb return) between ramp intersections and local road intersections shall be 400 feet.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-21	504.3(3)	Ramps (Location and Design of Ramp Intersections on the Crossroads)	The preferred minimum distance should be 500 feet.	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
A	500-21	504.3(5)	Ramps (Single-lane Ramps)	When additional lanes are provided near an entrance ramp intersection, the lane drop should be accomplished over a distance equal to WV.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-22	504.3(5)	Ramps (Single-lane Ramps)	The lane to be dropped should be on the right so that traffic merges left.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-22	504.3(5)	Ramps (Single-lane Ramps)	If the length of a single lane ramp exceeds 1,000 feet, an additional lane should be provided on the ramp to permit passing maneuvers.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	N/A	N/A
A	500-22	504.3(6)	Ramps (Two-lane Exit Ramps)	Where design year estimated volumes exceed 1500 equivalent passenger cars per hour, a 2-lane ramp should be provided.	N/A	N/A	N/A	N/A	U	N/A	N/A	N/A	U	N/A	N/A	N/A
A	500-22	504.3(6)	Ramps (Two-lane Exit Ramps)	An auxiliary lane approximately 1,300 feet long should be provided in advance of a 2-lane exist. For volumes less than 1500 but more than 900, a one-lane width exit ramp should be provided with provisions for adding auxiliary lanes and an additional lane on the ramp.	N/A	N/A	N/A	N/A	U	M	M	M	U	N/A	N/A	N/A
A	500-22	504.3(9)	Ramps (Distance Between Successive On-Ramps)	This distance should be about 1,000 feet unless the upstream ramp adds an auxiliary lane in which case the downstream ramp should merge with the auxiliary lane in a standard 50:1 (longitudinal to lateral) convergence.	N/A	N/A	N/A	N/A	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-35	504.3(10)	Ramps (Distance Between Successive Exits)	The minimum distance between successive exit ramps for guide signing should be 1,000 feet on the freeway and 600 feet on collector-distributor roads.	N/A	N/A	N/A	N/A	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-35	504.4(2)	Freeway-to-Freeway Connections (Design Speed)	The design speed for single lane directional and all branch connections should be a minimum of 50 miles per hour. When smaller radius curves, with lower design speeds, are used the vertical sight distance should be consistent with approaching vehicle speeds.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-35	504.4(3)	Freeway-to-Freeway Connections (Grades)	The maximum profile grade on freeway-to-freeway connections should not exceed 6 percent.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-35	504.4(4)(a)	Freeway-to-Freeway Connections (Shoulder Width - Single-lane and Two-lane Connections)	The width of shoulders on single-lane and two-lane (except as described below) freeway-to-freeway connectors shall be 5 feet on the left and 10 feet on the right. A single-lane freeway-to-freeway connector that has been widened to two lanes solely to provide passing opportunities and not due to capacity requirements shall have a 5-foot left shoulder and at least a 5-foot right shoulder.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	500-35	504.4(4)(b)	Freeway-to-Freeway Connections (Shoulder Width - Three-lane Connections)	The width of shoulders on three-lane connectors shall be 10 feet on both the left and right sides.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
198	A	500-35	504.4(5)	Freeway-to-Freeway Connections (Single-lane Connections)	Where design year volume is between 900 and 1500 equivalent passenger cars per hour, initial construction should provide a single lane connection with the capability of adding an additional lane. Single lane directional connectors should be designed using the general configurations shown in Figure 504.2A and 504.2B, but utilizing the flatter divergence angle shown in Figure 504.4.	High	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
199	A	500-36	504.4(5)	Freeway-to-Freeway Connections (Single-lane Connections)	Single lane connectors in exceed of 1,000 feet in length should be widened to two lanes to provide for passing maneuvers.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
200	A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	A branch connection should be provided when the design year volume exceeds 1500 equivalent passenger cars per hour.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
201	A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	Merging branch connections should be designed as shown in Figure 504.3L.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
202	A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	Diverging branch connections should be designed as shown in Figure 504.4.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
203	A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	At a branch merge, a 2,500-foot length of auxiliary lane should be provided beyond the merge of one lane of the inlet, except where it does not appear that capacity on the freeway will be reached until five or more years after the 20 year design period. In this case the length of auxiliary lane should be a minimum of 1,000 feet.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
204	A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	For diverging connections where less than capacity conditions beyond the design year are anticipated, the length of auxiliary lane in advance of the exit should be 1,300 feet.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
205	A	500-36	504.4(7)	Freeway-to-Freeway Connections (Lane Drops)	The lane drop taper on a freeway-to-freeway connector should not be less than WV.	Low	V	TBD	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
206	A	500-36	504.5	Auxiliary Lanes	Auxiliary lanes should be considered in all cases when the weaving distance, measured as shown in Figure 504.2A, is less than 2,000 feet.	Medium	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
207	A	500-36	504.6	Mainline Lane Reduction at Interchanges	The basic number of mainline lanes should not be dropped through a local service interchange.	High	V	M	M	M	V	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	V	M	M	M
208	**M**	500-39	504.7	Weaving Sections	The minimum weaving length, measured as shown in Figures 504.2A and 504.2B shall be 2,000 feet in urban areas, 5,000 feet in rural areas, and 5,000 feet between freeway-to-freeway interchanges and other interchanges.	Medium	M	V	V	V	M	V	V	M	M	M	M	M	M	M	M	M	M	M	M	M
209	**M**	500-39	504.8	Access Control	Access rights shall be acquired along interchange ramps to their junction with the nearest public road.	Low	N/A	N/A	N/A	N/A	V	M	M	M	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
210	A	500-39	504.8	Access Control	At such junctions, for new construction, access control should extend 100 feet beyond the end of the curb return or ramp radius in urban areas and 300 feet in rural areas, or as far as necessary to ensure that entry onto the facility does not impair operational characteristics.	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	M	M	M	M	V	V	V	V
211	**M**	500-39	504.8	Access Control	Access control shall extend at least 50 feet beyond the end of the curb return, ramp radius, or taper.	Medium	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	M	M	M	M	M	M	M	M
212	**M**	500-39	504.8	Access Control	For new construction or major reconstruction, access rights shall be acquired on the opposite side of the local road from ramp terminals to preclude the construction of future driveways or local roads within the ramp intersection.	Medium	N/A	N/A	N/A	N/A	V	V	M	M	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
213	**M**	610-1	612.2	New Construction and Reconstruction	The minimum pavement design life for new construction and reconstruction projects shall be not less than the values in Table 612.2 or the project design period (see Index 103.2), which ever is greater.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
214	**M**	610-1	612.3	Widening	The pavement design life for widening projects shall either match the remaining pavement service life of the adjacent roadway (but not less than the project design period as defined in Index 103.2), or the pavement design life values in Table 612.2 depending on which has the lowest life-cycle costs.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	500-35	504.4(5)	Freeway-to-Freeway Connections (Single-lane Connections)	Where design year volume is between 900 and 1500 equivalent passenger cars per hour, initial construction should provide a single lane connection with the capability of adding an additional lane. Single lane directional connectors should be designed using the general configurations shown in Figure 504.2A and 504.2B, but utilizing the flatter divergence angle shown in Figure 504.4.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(5)	Freeway-to-Freeway Connections (Single-lane Connections)	Single lane connectors in exceed of 1,000 feet in length should be widened to two lanes to provide for passing maneuvers.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	A branch connection should be provided when the design year volume exceeds 1500 equivalent passenger cars per hour.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	Merging branch connections should be designed as shown in Figure 504.3L.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M	M	M	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	Diverging branch connections should be designed as shown in Figure 504.4.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	At a branch merge, a 2,500-foot length of auxiliary lane should be provided beyond the merge of one lane of the inlet, except where it does not appear that capacity on the freeway will be reached until five or more years after the 20 year design period. In this case the length of auxiliary lane should be a minimum of 1,000 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	For diverging connections where less than capacity conditions beyond the design year are anticipated, the length of auxiliary lane in advance of the exit should be 1,300 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(7)	Freeway-to-Freeway Connections (Lane Drops)	The lane drop taper on a freeway-to-freeway connector should not be less than WV.	V	M	N/A	N/A	N/A	N/A	N/A	N/A	V	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.5	Auxiliary Lanes	Auxiliary lanes should be considered in all cases when the weaving distance, measured as shown in Figure 504.2A, is less than 2,000 feet.	M	M	M	M	M	M	M	M	V	M	M	M	M	M	M	M	M	M	M	M
A	500-36	504.6	Mainline Lane Reduction at Interchanges	The basic number of mainline lanes should not be dropped through a local service interchange.	V	V	M	M	M	M	N/A	N/A	N/A	N/A	N/A	N/A	M	M	N/A	N/A	M	V	N/A	N/A
M	500-39	504.7	Weaving Sections	The minimum weaving length, measured as shown in Figures 504.2A and 504.2B shall be 2,000 feet in urban areas, 5,000 feet in rural areas, and 5,000 feet between freeway-to-freeway interchanges and other interchanges.	M	M	M	M	M	M	M	M	V	M	M	M	M	M	M	M	M	M	M	M
M	500-39	504.8	Access Control	Access rights shall be acquired along interchange ramps to their junction with the nearest public road.	N/A	N/A	N/A	N/A	V	M	M	V	M	M	M	M	M	M	M	M	M	M	M	M
A	500-39	504.8	Access Control	At such junctions, for new construction, access control should extend 100 feet beyond the end of the curb return or ramp radius in urban areas and 300 feet in rural areas, or as far as necessary to ensure that entry onto the facility does not impair operational characteristics.	N/A	N/A	N/A	N/A	V	V	V	V	N/A	N/A	N/A	N/A	V	M	M	M	M	M	M	M
M	500-39	504.8	Access Control	Access control shall extend at least 50 feet beyond the end of the curb return, ramp radius, or taper.	N/A	N/A	N/A	N/A	M	M	M	M	N/A	N/A	N/A	N/A	V	M	M	M	M	M	M	M
M	500-39	504.8	Access Control	For new construction or major reconstruction, access rights shall be acquired on the opposite side of the local road from ramp terminals to preclude the construction of future driveways or local roads within the ramp intersection.	N/A	N/A	N/A	N/A	M	V	V	V	N/A	N/A	N/A	N/A	V	V	V	V	M	M	M	M
M	610-1	612.2	New Construction and Reconstruction	The minimum pavement design life for new construction and reconstruction projects shall be not less than the values in Table 612.2 or the project design period (see Index 103.2), which ever is greater.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-1	612.3	Widening	The pavement design life for widening projects shall either match the remaining pavement service life of the adjacent roadway (but not less than the project design period as defined in Index 103.2), or the pavement design life values in Table 612.2 depending on which has the lowest life-cycle costs.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	500-35	504.4(5)	Freeway-to-Freeway Connections (Single-lane Connections)	Where design year volume is between 900 and 1500 equivalent passenger cars per hour, initial construction should provide a single lane connection with the capability of adding an additional lane. Single lane directional connectors should be designed using the general configurations shown in Figure 504.2A and 504.2B, but utilizing the flatter divergence angle shown in Figure 504.4.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(5)	Freeway-to-Freeway Connections (Single-lane Connections)	Single lane connectors in exceed of 1,000 feet in length should be widened to two lanes to provide for passing maneuvers.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	A branch connection should be provided when the design year volume exceeds 1500 equivalent passenger cars per hour.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	Merging branch connections should be designed as shown in Figure 504.3L.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	Diverging branch connections should be designed as shown in Figure 504.4.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	At a branch merge, a 2,500-foot length of auxiliary lane should be provided beyond the merge of one lane of the inlet, except where it does not appear that capacity on the freeway will be reached until five or more years after the 20 year design period. In this case the length of auxiliary lane should be a minimum of 1,000 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	For diverging connections where less than capacity conditions beyond the design year are anticipated, the length of auxiliary lane in advance of the exit should be 1,300 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(7)	Freeway-to-Freeway Connections (Lane Drops)	The lane drop taper on a freeway-to-freeway connector should not be less than WV.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.5	Auxiliary Lanes	Auxiliary lanes should be considered in all cases when the weaving distance, measured as shown in Figure 504.2A, is less than 2,000 feet.	TBD	TBD	M	M	TBD	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M
A	500-36	504.6	Mainline Lane Reduction at Interchanges	The basic number of mainline lanes should not be dropped through a local service interchange.	M	M	N/A	N/A	M	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M
M	500-39	504.7	Weaving Sections	The minimum weaving length, measured as shown in Figures 504.2A and 504.2B shall be 2,000 feet in urban areas, 5,000 feet in rural areas, and 5,000 feet between freeway-to-freeway interchanges and other interchanges.	M	M	M	M	M	N/A	N/A	N/A	M	M	M	M	M	M	M	M	M	M	M	M
M	500-39	504.8	Access Control	Access rights shall be acquired along interchange ramps to their junction with the nearest public road.	M	M	M	M	M	M	M	M	N/A	N/A	N/A	N/A	V	M	M	M	M	M	M	M
A	500-39	504.8	Access Control	At such junctions, for new construction, access control should extend 100 feet beyond the end of the curb return or ramp radius in urban areas and 300 feet in rural areas, or as far as necessary to ensure that entry onto the facility does not impair operational characteristics.	V	V	V	M	V	V	V	M	N/A	N/A	N/A	N/A	V	V	V	V	M	M	M	M
M	500-39	504.8	Access Control	Access control shall extend at least 50 feet beyond the end of the curb return, ramp radius, or taper.	M	M	V	M	V	V	V	M	N/A	N/A	N/A	N/A	V	V	V	V	M	M	M	M
M	500-39	504.8	Access Control	For new construction or major reconstruction, access rights shall be acquired on the opposite side of the local road from ramp terminals to preclude the construction of future driveways or local roads within the ramp intersection.	M	M	M	M	V	V	V	M	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	610-1	612.2	New Construction and Reconstruction	The minimum pavement design life for new construction and reconstruction projects shall be not less than the values in Table 612.2 or the project design period (see Index 103.2), which ever is greater.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-1	612.3	Widening	The pavement design life for widening projects shall either match the remaining pavement service life of the adjacent roadway (but not less than the project design period as defined in Index 103.2), or the pavement design life values in Table 612.2 depending on which has the lowest life-cycle costs.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
A	500-35	504.4(5)	Freeway-to-Freeway Connections (Single-lane Connections)	Where design year volume is between 900 and 1500 equivalent passenger cars per hour, initial construction should provide a single lane connection with the capability of adding an additional lane. Single lane directional connectors should be designed using the general configurations shown in Figure 504.2A and 504.2B, but utilizing the flatter divergence angle shown in Figure 504.4.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(5)	Freeway-to-Freeway Connections (Single-lane Connections)	Single lane connectors in exceed of 1,000 feet in length should be widened to two lanes to provide for passing maneuvers.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	A branch connection should be provided when the design year volume exceeds 1500 equivalent passenger cars per hour.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	Merging branch connections should be designed as shown in Figure 504.3L.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	Diverging branch connections should be designed as shown in Figure 504.4.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	At a branch merge, a 2,500-foot length of auxiliary lane should be provided beyond the merge of one lane of the inlet, except where it does not appear that capacity on the freeway will be reached until five or more years after the 20 year design period. In this case the length of auxiliary lane should be a minimum of 1,000 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(6)	Freeway-to-Freeway Connections (Branch Connections)	For diverging connections where less than capacity conditions beyond the design year are anticipated, the length of auxiliary lane in advance of the exit should be 1,300 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.4(7)	Freeway-to-Freeway Connections (Lane Drops)	The lane drop taper on a freeway-to-freeway connector should not be less than WV.	V	V	V	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	500-36	504.5	Auxiliary Lanes	Auxiliary lanes should be considered in all cases when the weaving distance, measured as shown in Figure 504.2A, is less than 2,000 feet.	M	M	M	M	M	M	M	M	M	M	M	M
A	500-36	504.6	Mainline Lane Reduction at Interchanges	The basic number of mainline lanes should not be dropped through a local service interchange.	N/A	N/A	N/A	M	M	V	V	M	M	M	M	M
M	500-39	504.7	Weaving Sections	The minimum weaving length, measured as shown in Figures 504.2A and 504.2B shall be 2,000 feet in urban areas, 5,000 feet in rural areas, and 5,000 feet between freeway-to-freeway interchanges and other interchanges.	M	M	M	M	M	M	M	M	M	M	M	M
M	500-39	504.8	Access Control	Access rights shall be acquired along interchange ramps to their junction with the nearest public road.	N/A	N/A	N/A	N/A	V	V	V	V	M	M	M	M
A	500-39	504.8	Access Control	At such junctions, for new construction, access control should extend 100 feet beyond the end of the curb return or ramp radius in urban areas and 300 feet in rural areas, or as far as necessary to ensure that entry onto the facility does not impair operational characteristics.	N/A	N/A	N/A	N/A	V	V	V	V	V	V	V	V
M	500-39	504.8	Access Control	Access control shall extend at least 50 feet beyond the end of the curb return, ramp radius, or taper.	N/A	N/A	N/A	N/A	V	V	V	V	M	M	M	M
M	500-39	504.8	Access Control	For new construction or major reconstruction, access rights shall be acquired on the opposite side of the local road from ramp terminals to preclude the construction of future driveways or local roads within the ramp intersection.	N/A	N/A	N/A	N/A	V	V	V	V	M	M	M	M
M	610-1	612.2	New Construction and Reconstruction	The minimum pavement design life for new construction and reconstruction projects shall be not less than the values in Table 612.2 or the project design period (see Index 103.2), which ever is greater.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-1	612.3	Widening	The pavement design life for widening projects shall either match the remaining pavement service life of the adjacent roadway (but not less than the project design period as defined in Index 103.2), or the pavement design life values in Table 612.2 depending on which has the lowest life-cycle costs.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
215	**M**	610-3	612.5	Roadway Rehabilitation	The minimum pavement design life for rehabilitation projects shall be 20 years except for roadways with existing rigid pavements or a current Annual Average Daily Traffic (AADT) of at least 15,000 vehicles, where the minimum pavement design life shall be 20 or 40 years depending on which design life has the lowest life-cycle costs.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
216	A	610-3	612.6	Temporary Pavements and Detours	Temporary pavements and detours should be engineered to accommodate the anticipated traffic loading that the pavement will experience during the construction period.	Medium	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
217	**M**	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	New or reconstructed shoulders shall be engineered to match the TI of the adjacent traffic lanes when any of the following conditions apply: • the shoulder width is less than 5 feet. • the median width is 14 feet or less. • on roads with less than two lanes in the direction of travel and there is a sustained (greater than 1 mile in length) grade of over 4 percent without a truck climbing lane. • the shoulders are adjacent to exclusive truck or bus only lanes, or weigh station ramps.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
218	**M**	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	For all other cases, the minimum TI for the shoulder shall match the TI of the adjacent traffic lane for the first 2 feet of the outside shoulder width and 1 foot of the inside shoulder measured from the edge of the traveled way.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
219	**M**	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	For the remaining width of the shoulder, the TI shall: • be no less than 2 percent of the projected ESALs of the adjacent traffic lane or a TI of 5, whichever is greater. • not exceed 9.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
220	**M**	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	The total depth of the shoulder pavement structure (depth from the surface to the subgrade) shall match the pavement structure grading plan of the adjacent traffic lane.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
221	**M**	620-3	622.4	Dowel Bars and Tie Bars	New or reconstructed rigid pavements and lane replacements shall be doweled except as noted below:	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
222	**M**	620-6	622.8	Transitions and Anchors	For CRCP, a terminal anchor or terminal joint shall be used at all transitions to or from structure approach slabs, JPCP, PPCP, or flexible pavement.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
223	**M**	620-22	625.1(2)	Rigid Pavement Rehabilitation Strategies (Overlay Limits)	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
224	A	620-22	625.1(3)	Rigid Pavement Rehabilitation Strategies (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
225	**M**	620-26	626.2(4)(a)	Shoulder (Selection Criteria)	Tied rigid shoulders shall be used for: • Rigid pavements constructed in the High Mountain and High Desert climate regions (See climate map in Topic 615). • Paved buffers between rigid High-Occupancy Vehicle (HOV) lanes and rigid mixed flow lanes. Same for High-Occupancy Toll (HOT) lanes.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
226	**M**	620-26	626.2(4)(b)	Shoulder (Selection Criteria)	Either tied rigid shoulders or widened slabs shall be used for: • Continuously reinforced concrete pavement. • Horizontal radii 300 feet or less. • Truck and bus only lanes.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
227	**M**	620-26	626.2(4)	Shoulder (Selection Criteria)	Where tied rigid shoulders or widened slabs are used, they shall continue through ramp and gore areas (see Figure 626.2B).	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
228	**M**	630-7	633.1(3)	Empirical Method (Modifications for Pavement Design Life Greater than 20 Years)	The following enhancements shall be incorporated into all flexible pavements with a design life greater than twenty years.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
229	**M**	630-10	635.1(1)	Empirical Method (General)	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
230	A	630-19	635.1(8)	Empirical Method (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	610-3	612.5	Roadway Rehabilitation	The minimum pavement design life for rehabilitation projects shall be 20 years except for roadways with existing rigid pavements or a current Annual Average Daily Traffic (AADT) of at least 15,000 vehicles, where the minimum pavement design life shall be 20 or 40 years depending on which design life has the lowest life-cycle costs.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	610-3	612.6	Temporary Pavements and Detours	Temporary pavements and detours should be engineered to accommodate the anticipated traffic loading that the pavement will experience during the construction period.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	New or reconstructed shoulders shall be engineered to match the TI of the adjacent traffic lanes when any of the following conditions apply: • the shoulder width is less than 5 feet. • the median width is 14 feet or less. • on roads with less than two lanes in the direction of travel and there is a sustained (greater than 1 mile in length) grade of over 4 percent without a truck climbing lane. • the shoulders are adjacent to exclusive truck or bus only lanes, or weigh station ramps.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	For all other cases, the minimum TI for the shoulder shall match the TI of the adjacent traffic lane for the first 2 feet of the outside shoulder width and 1 foot of the inside shoulder measured from the edge of the traveled way.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	For the remaining width of the shoulder, the TI shall: • be no less than 2 percent of the projected ESALs of the adjacent traffic lane or a TI of 5, whichever is greater. • not exceed 9.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	The total depth of the shoulder pavement structure (depth from the surface to the subgrade) shall match the pavement structure grading plan of the adjacent traffic lane.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-3	622.4	Dowel Bars and Tie Bars	New or reconstructed rigid pavements and lane replacements shall be doweled except as noted below:	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-6	622.8	Transitions and Anchors	For CRCP, a terminal anchor or terminal joint shall be used at all transitions to or from structure approach slabs, JPCP, PPCP, or flexible pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-22	625.1(2)	Rigid Pavement Rehabilitation Strategies (Overlay Limits)	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	620-22	625.1(3)	Rigid Pavement Rehabilitation Strategies (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-26	626.2(4)(a)	Shoulder (Selection Criteria)	Tied rigid shoulders shall be used for: • Rigid pavements constructed in the High Mountain and High Desert climate regions (See climate map in Topic 615). • Paved buffers between rigid High-Occupancy Vehicle (HOV) lanes and rigid mixed flow lanes. Same for High-Occupancy Toll (HOT) lanes.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-26	626.2(4)(b)	Shoulder (Selection Criteria)	Either tied rigid shoulders or widened slabs shall be used for: • Continuously reinforced concrete pavement. • Horizontal radii 300 feet or less. • Truck and bus only lanes.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-26	626.2(4)	Shoulder (Selection Criteria)	Where tied rigid shoulders or widened slabs are used, they shall continue through ramp and gore areas (see Figure 626.2B).	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	630-7	633.1(3)	Empirical Method (Modifications for Pavement Design Life Greater than 20 Years)	The following enhancements shall be incorporated into all flexible pavements with a design life greater than twenty years.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	630-10	635.1(1)	Empirical Method (General)	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	630-19	635.1(8)	Empirical Method (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	610-3	612.5	Roadway Rehabilitation	The minimum pavement design life for rehabilitation projects shall be 20 years except for roadways with existing rigid pavements or a current Annual Average Daily Traffic (AADT) of at least 15,000 vehicles, where the minimum pavement design life shall be 20 or 40 years depending on which design life has the lowest life-cycle costs.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	610-3	612.6	Temporary Pavements and Detours	Temporary pavements and detours should be engineered to accommodate the anticipated traffic loading that the pavement will experience during the construction period.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	New or reconstructed shoulders shall be engineered to match the TI of the adjacent traffic lanes when any of the following conditions apply: • the shoulder width is less than 5 feet. • the median width is 14 feet or less. • on roads with less than two lanes in the direction of travel and there is a sustained (greater than 1 mile in length) grade of over 4 percent without a truck climbing lane. • the shoulders are adjacent to exclusive truck or bus only lanes, or weigh station ramps.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	For all other cases, the minimum TI for the shoulder shall match the TI of the adjacent traffic lane for the first 2 feet of the outside shoulder width and 1 foot of the inside shoulder measured from the edge of the traveled way.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	For the remaining width of the shoulder, the TI shall: • be no less than 2 percent of the projected ESALs of the adjacent traffic lane or a TI of 5, whichever is greater. • not exceed 9.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	The total depth of the shoulder pavement structure (depth from the surface to the subgrade) shall match the pavement structure grading plan of the adjacent traffic lane.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-3	622.4	Dowel Bars and Tie Bars	New or reconstructed rigid pavements and lane replacements shall be doweled except as noted below:	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-6	622.8	Transitions and Anchors	For CRCP, a terminal anchor or terminal joint shall be used at all transitions to or from structure approach slabs, JPCP, PPCP, or flexible pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-22	625.1(2)	Rigid Pavement Rehabilitation Strategies (Overlay Limits)	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	620-22	625.1(3)	Rigid Pavement Rehabilitation Strategies (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-26	626.2(4)(a)	Shoulder (Selection Criteria)	Tied rigid shoulders shall be used for: • Rigid pavements constructed in the High Mountain and High Desert climate regions (See climate map in Topic 615). • Paved buffers between rigid High-Occupancy Vehicle (HOV) lanes and rigid mixed flow lanes. Same for High-Occupancy Toll (HOT) lanes.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-26	626.2(4)(b)	Shoulder (Selection Criteria)	Either tied rigid shoulders or widened slabs shall be used for: • Continuously reinforced concrete pavement. • Horizontal radii 300 feet or less. • Truck and bus only lanes.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-26	626.2(4)	Shoulder (Selection Criteria)	Where tied rigid shoulders or widened slabs are used, they shall continue through ramp and gore areas (see Figure 626.2B).	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	630-7	633.1(3)	Empirical Method (Modifications for Pavement Design Life Greater than 20 Years)	The following enhancements shall be incorporated into all flexible pavements with a design life greater than twenty years.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	630-10	635.1(1)	Empirical Method (General)	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	630-19	635.1(8)	Empirical Method (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

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U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps)				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	610-3	612.5	Roadway Rehabilitation	The minimum pavement design life for rehabilitation projects shall be 20 years except for roadways with existing rigid pavements or a current Annual Average Daily Traffic (AADT) of at least 15,000 vehicles, where the minimum pavement design life shall be 20 or 40 years depending on which design life has the lowest life-cycle costs.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	610-3	612.6	Temporary Pavements and Detours	Temporary pavements and detours should be engineered to accommodate the anticipated traffic loading that the pavement will experience during the construction period.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	New or reconstructed shoulders shall be engineered to match the TI of the adjacent traffic lanes when any of the following conditions apply: • the shoulder width is less than 5 feet. • the median width is 14 feet or less. • on roads with less than two lanes in the direction of travel and there is a sustained (greater than 1 mile in length) grade of over 4 percent without a truck climbing lane. • the shoulders are adjacent to exclusive truck or bus only lanes, or weigh station ramps.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	For all other cases, the minimum TI for the shoulder shall match the TI of the adjacent traffic lane for the first 2 feet of the outside shoulder width and 1 foot of the inside shoulder measured from the edge of the traveled way.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	For the remaining width of the shoulder, the TI shall: • be no less than 2 percent of the projected ESALs of the adjacent traffic lane or a TI of 5, whichever is greater. • not exceed 9.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	610-10	613.5(2)(b)	Specific Traffic Loading Considerations (Shoulders - New Construction and Reconstruction)	The total depth of the shoulder pavement structure (depth from the surface to the subgrade) shall match the pavement structure grading plan of the adjacent traffic lane.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-3	622.4	Dowel Bars and Tie Bars	New or reconstructed rigid pavements and lane replacements shall be doweled except as noted below:	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-6	622.8	Transitions and Anchors	For CRCP, a terminal anchor or terminal joint shall be used at all transitions to or from structure approach slabs, JPCP, PPCP, or flexible pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-22	625.1(2)	Rigid Pavement Rehabilitation Strategies (Overlay Limits)	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	620-22	625.1(3)	Rigid Pavement Rehabilitation Strategies (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-26	626.2(4)(a)	Shoulder (Selection Criteria)	Tied rigid shoulders shall be used for: • Rigid pavements constructed in the High Mountain and High Desert climate regions (See climate map in Topic 615). • Paved buffers between rigid High-Occupancy Vehicle (HOV) lanes and rigid mixed flow lanes. Same for High-Occupancy Toll (HOT) lanes.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-26	626.2(4)(b)	Shoulder (Selection Criteria)	Either tied rigid shoulders or widened slabs shall be used for: • Continuously reinforced concrete pavement. • Horizontal radii 300 feet or less. • Truck and bus only lanes.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	620-26	626.2(4)	Shoulder (Selection Criteria)	Where tied rigid shoulders or widened slabs are used, they shall continue through ramp and gore areas (see Figure 626.2B).	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	630-7	633.1(3)	Empirical Method (Modifications for Pavement Design Life Greater than 20 Years)	The following enhancements shall be incorporated into all flexible pavements with a design life greater than twenty years.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	630-10	635.1(1)	Empirical Method (General)	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	630-19	635.1(8)	Empirical Method (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
231	**M**	640-3	645.1	Empirical Method	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
232	A	640-3	645.1(3)	Empirical Method (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
233	**M**	700-1	701.2(1)	Fences on Freeways and Expressways (Policy)	Fences shall be provided on freeways and expressways to control access (except as otherwise provided under paragraph (3)(e)).	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
234	A	700-1	701.2(1)	Fences on Freeways and Expressways (Policy)	Freeway fencing or equivalent access control should extend to the limit of the legal access control on local streets at ramp termini.	Low	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
235	A	900-3	902.1(1)(b)	General (Design Considerations)	Median Planting - Median planting should not be permitted on freeways.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
236	A	900-3	902.2(1)	Sight Distance and Clear Recovery Zone Standards (Sight Distance Setbacks)	Proposed mature planting should maintain horizontal and vertical sight distances required by the design speed of the facility. In cases where, due to geometric restrictions, the existing facility does not provide 80 miles per hour sight distance, no further reduction should be caused by planting.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
237	A	900-4	902.2(2)	Sight Distance and Clear Recovery Zone Standards (Clear Recovery Zone)	The policy along freeways and expressways, including interchange areas, should be to strive for 40 feet or more of clearance between the edge of traveled way and large trees, but with a minimum clearance of 30 feet.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
238	**M**	900-5	902.3(4)	Planting Guidelines (Trees Planted on Conventional Highways)	Trees in the median shall be at least 100 feet from the longitudinal end of the median.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
239	A	900-5	902.3(4)(a)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees should be permitted on the roadside (excluding medians) with posted speeds of 35 miles per hour or less without curb or barrier, or with posted speeds of greater than 35 miles per hour with the following condition: • Trees should be planted at least 30 feet from the edge of traveled way.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
240	A	900-6	902.3(4)(b)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees should be permitted on the roadside of convention highways (excluding medians) with posted speeds of 35 miles per hour or less with curb or barrier with the following conditions:	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
241	**M**	900-6	902.3(4)(c)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of 35 miles per hour or less, only if the following conditions are met:	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
242	**M**	900-6	902.3(4)(d)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of less than 45 miles per hour, only if the following conditions are met:	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
243	**M**	900-6	902.3(4)(e)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of less than 45 miles per hour, only if the following conditions are met:	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
244	**M**	900-11	903.5(1)	Site Preparation (Ingress and Egress)	Rest areas designed for freeways shall have standard freeway exit and entrance ramps, in accordance with Chapter 500.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
245	A	900-18	904.3(1)	Design Features and Facilities (Road Connections)	The design of connections to vista points should be in accordance with Index 107.1.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
246	**M**	900-18	904.3(1)	Design Features and Facilities (Road Connections)	Vista points designed for freeways shall have standard freeway exit and entrance ramps (see Chapter 500).	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
247	**M**	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	The minimum paved width of the travel way for a two-way bike path shall be 8 feet	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
248	**M**	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	The minimum paved width for a one-way bike path shall be 5 feet.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
249	**M**	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	A minimum 2-foot wide shoulder, composed of the same pavement material as the path or all weather surface, free of vegetation, shall be provided adjacent to the traveled way of the path when not on a structure.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
250	**M**	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	A minimum 2-foot horizontal clearance from the paved edge of a bike path to obstructions shall be provided.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
251	A	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	3 feet should be provided.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	640-3	645.1	Empirical Method	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	640-3	645.1(3)	Empirical Method (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	700-1	701.2(1)	Fences on Freeways and Expressways (Policy)	Fences shall be provided on freeways and expressways to control access (except as otherwise provided under paragraph (3)(e)).	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	700-1	701.2(1)	Fences on Freeways and Expressways (Policy)	Freeway fencing or equivalent access control should extend to the limit of the legal access control on local streets at ramp termini.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	900-3	902.1(1)(b)	General (Design Considerations)	Median Planting - Median planting should not be permitted on freeways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-3	902.2(1)	Sight Distance and Clear Recovery Zone Standards (Sight Distance Setbacks)	Proposed mature planting should maintain horizontal and vertical sight distances required by the design speed of the facility. In cases where, due to geometric restrictions, the existing facility does not provide 80 miles per hour sight distance, no further reduction should be caused by planting.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-4	902.2(2)	Sight Distance and Clear Recovery Zone Standards (Clear Recovery Zone)	The policy along freeways and expressways, including interchange areas, should be to strive for 40 feet or more of clearance between the edge of traveled way and large trees, but with a minimum clearance of 30 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-5	902.3(4)	Planting Guidelines (Trees Planted on Conventional Highways)	Trees in the median shall be at least 100 feet from the longitudinal end of the median.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-5	902.3(4)(a)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees should be permitted on the roadside (excluding medians) with posted speeds of 35 miles per hour or less without curb or barrier, or with posted speeds of greater than 35 miles per hour with the following condition: • Trees should be planted at least 30 feet from the edge of traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-6	902.3(4)(b)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees should be permitted on the roadside of convention highways (excluding medians) with posted speeds of 35 miles per hour or less with curb or barrier with the following conditions:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-6	902.3(4)(c)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of 35 miles per hour or less, only if the following conditions are met:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-6	902.3(4)(d)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of less than 45 miles per hour, only if the following conditions are met:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-6	902.3(4)(e)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of less than 45 miles per hour, only if the following conditions are met:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-11	903.5(1)	Site Preparation (Ingress and Egress)	Rest areas designed for freeways shall have standard freeway exit and entrance ramps, in accordance with Chapter 500.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-18	904.3(1)	Design Features and Facilities (Road Connections)	The design of connections to vista points should be in accordance with Index 107.1.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-18	904.3(1)	Design Features and Facilities (Road Connections)	Vista points designed for freeways shall have standard freeway exit and entrance ramps (see Chapter 500).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	The minimum paved width of the travel way for a two-way bike path shall be 8 feet	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	The minimum paved width for a one-way bike path shall be 5 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	A minimum 2-foot wide shoulder, composed of the same pavement material as the path or all weather surface, free of vegetation, shall be provided adjacent to the traveled way of the path when not on a structure.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	A minimum 2-foot horizontal clearance from the paved edge of a bike path to obstructions shall be provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	3 feet should be provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	640-3	645.1	Empirical Method	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	640-3	645.1(3)	Empirical Method (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	700-1	701.2(1)	Fences on Freeways and Expressways (Policy)	Fences shall be provided on freeways and expressways to control access (except as otherwise provided under paragraph (3)(e)).	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	700-1	701.2(1)	Fences on Freeways and Expressways (Policy)	Freeway fencing or equivalent access control should extend to the limit of the legal access control on local streets at ramp termini.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	900-3	902.1(1)(b)	General (Design Considerations)	Median Planting - Median planting should not be permitted on freeways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-3	902.2(1)	Sight Distance and Clear Recovery Zone Standards (Sight Distance Setbacks)	Proposed mature planting should maintain horizontal and vertical sight distances required by the design speed of the facility. In cases where, due to geometric restrictions, the existing facility does not provide 80 miles per hour sight distance, no further reduction should be caused by planting.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-4	902.2(2)	Sight Distance and Clear Recovery Zone Standards (Clear Recovery Zone)	The policy along freeways and expressways, including interchange areas, should be to strive for 40 feet or more of clearance between the edge of traveled way and large trees, but with a minimum clearance of 30 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-5	902.3(4)	Planting Guidelines (Trees Planted on Conventional Highways)	Trees in the median shall be at least 100 feet from the longitudinal end of the median.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-5	902.3(4)(a)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees should be permitted on the roadside (excluding medians) with posted speeds of 35 miles per hour or less without curb or barrier, or with posted speeds of greater than 35 miles per hour with the following condition: • Trees should be planted at least 30 feet from the edge of traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-6	902.3(4)(b)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees should be permitted on the roadside of convention highways (excluding medians) with posted speeds of 35 miles per hour or less with curb or barrier with the following conditions:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-6	902.3(4)(c)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of 35 miles per hour or less, only if the following conditions are met:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-6	902.3(4)(d)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of less than 45 miles per hour, only if the following conditions are met:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-6	902.3(4)(e)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of less than 45 miles per hour, only if the following conditions are met:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-11	903.5(1)	Site Preparation (Ingress and Egress)	Rest areas designed for freeways shall have standard freeway exit and entrance ramps, in accordance with Chapter 500.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-18	904.3(1)	Design Features and Facilities (Road Connections)	The design of connections to vista points should be in accordance with Index 107.1.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-18	904.3(1)	Design Features and Facilities (Road Connections)	Vista points designed for freeways shall have standard freeway exit and entrance ramps (see Chapter 500).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	The minimum paved width of the travel way for a two-way bike path shall be 8 feet	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	The minimum paved width for a one-way bike path shall be 5 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	A minimum 2-foot wide shoulder, composed of the same pavement material as the path or all weather surface, free of vegetation, shall be provided adjacent to the traveled way of the path when not on a structure.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	A minimum 2-foot horizontal clearance from the paved edge of a bike path to obstructions shall be provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	3 feet should be provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	640-3	645.1	Empirical Method	On overlay projects, the entire traveled way and paved shoulder shall be overlaid.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	640-3	645.1(3)	Empirical Method (Preparation of Existing Pavement)	Existing pavement distresses should be repaired before overlaying the pavement.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M	700-1	701.2(1)	Fences on Freeways and Expressways (Policy)	Fences shall be provided on freeways and expressways to control access (except as otherwise provided under paragraph (3)(e)).	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	700-1	701.2(1)	Fences on Freeways and Expressways (Policy)	Freeway fencing or equivalent access control should extend to the limit of the legal access control on local streets at ramp termini.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
A	900-3	902.1(1)(b)	General (Design Considerations)	Median Planting - Median planting should not be permitted on freeways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-3	902.2(1)	Sight Distance and Clear Recovery Zone Standards (Sight Distance Setbacks)	Proposed mature planting should maintain horizontal and vertical sight distances required by the design speed of the facility. In cases where, due to geometric restrictions, the existing facility does not provide 80 miles per hour sight distance, no further reduction should be caused by planting.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-4	902.2(2)	Sight Distance and Clear Recovery Zone Standards (Clear Recovery Zone)	The policy along freeways and expressways, including interchange areas, should be to strive for 40 feet or more of clearance between the edge of traveled way and large trees, but with a minimum clearance of 30 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-5	902.3(4)	Planting Guidelines (Trees Planted on Conventional Highways)	Trees in the median shall be at least 100 feet from the longitudinal end of the median.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-5	902.3(4)(a)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees should be permitted on the roadside (excluding medians) with posted speeds of 35 miles per hour or less without curb or barrier, or with posted speeds of greater than 35 miles per hour with the following condition: • Trees should be planted at least 30 feet from the edge of traveled way.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-6	902.3(4)(b)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees should be permitted on the roadside of convention highways (excluding medians) with posted speeds of 35 miles per hour or less with curb or barrier with the following conditions:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-6	902.3(4)(c)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of 35 miles per hour or less, only if the following conditions are met:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-6	902.3(4)(d)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of less than 45 miles per hour, only if the following conditions are met:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-6	902.3(4)(e)	Planting Guidelines (Trees Planted on Conventional Highways)	The planting of large trees shall be permitted in medians with posted speeds of less than 45 miles per hour, only if the following conditions are met:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-11	903.5(1)	Site Preparation (Ingress and Egress)	Rest areas designed for freeways shall have standard freeway exit and entrance ramps, in accordance with Chapter 500.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	900-18	904.3(1)	Design Features and Facilities (Road Connections)	The design of connections to vista points should be in accordance with Index 107.1.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	900-18	904.3(1)	Design Features and Facilities (Road Connections)	Vista points designed for freeways shall have standard freeway exit and entrance ramps (see Chapter 500).	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	The minimum paved width of the travel way for a two-way bike path shall be 8 feet	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	The minimum paved width for a one-way bike path shall be 5 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(1)	Class I Bikeways (Bike Paths)	A minimum 2-foot wide shoulder, composed of the same pavement material as the path or all weather surface, free of vegetation, shall be provided adjacent to the traveled way of the path when not on a structure.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	A minimum 2-foot horizontal clearance from the paved edge of a bike path to obstructions shall be provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	3 feet should be provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CALTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo during either PA/ED or PS&E phase as appropriate)
TBD = To Be Determined during PA/ED

							Excelsior Dr. to Firestone Blvd.				Rosecrans Ave. (Street & Ramps)				I-605/I-105 Connectors				Imperial Hwy (Street & Ramps)				Firestone Blvd. (Street & Ramps)			
No.	M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Probability of Approval	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
252	**M**	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	The clear width of a bicycle path on structures between railings shall be not less than 10 feet.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
253	**M**	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	The vertical clearance to obstructions across the width of a bicycle path shall be a minimum of 8 feet and 7 feet over shoulder.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
254	**M**	1000-5	1003.1(6)	Class I Bikeways (Bike Paths Parallel and Adjacent to Streets and Highways)	The minimum separation between the edge of pavement of a one-way or two-way bicycle path and the edge of travel way of a parallel road or street shall be 5 feet plus the standard shoulder width. Bike paths within the clear recovery zone of freeways shall include a physical barrier separation.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
255	**M**	1000-8	1003.1(7)	Class I Bikeways (Bike Paths in the Median of Highway or Roadway)	Bike paths shall not be placed in the median of State highways or roadways, especially freeways or expressways.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
256	**M**	1000-8	1003.1(8)	Class I Bikeways (Bicycle Path Design Speed)	The design speed given in Table 1003.1 shall be the minimum.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
257	**M**	1000-9	1003.1(10)	Class I Bikeways (Stopping Sight Distance)	The minimum stopping sight distance based on design speed shall be 125 feet for 20 miles per hour, 175 feet for 25 miles per hour and 230 feet for 30 miles per hour.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
258	**M**	1000-10	1003.1(16)	Class I Bikeways (Entry Control for Bicycle Paths)	Fold-down obstacle posts or bollards shall not be used within the paved area of bicycle paths.	Medium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
259	**M**	1100-2	1102.2 (1)	Noise Barrier Location (lateral Clearances)	Minimum lateral clearances to noise barriers shall be as provided in Topic 309.1, Horizontal Clearances, of this manual, but shall not be less than 10 feet.	Low	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
260	**M**	1100-2	1102.2(1)	Noise Barrier Location (lateral Clearances)	When the lateral clearance is 15 feet or less, the noise barrier shall be placed on a safety shape concrete barrier.	Low	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD

M Delegated to Distrcit for Approval (added to Advisory Fact Sheet)
M Deferred to Maintenace for approval

LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					Firestone Blvd. to Telegraph Rd.				Florence Ave. (Street & Ramps)				I-605/I-5 Connectors				Telegraph Rd. (Street & Ramps)				Slauson Ave. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	The clear width of a bicycle path on structures between railings shall be not less than 10 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	The vertical clearance to obstructions across the width of a bicycle path shall be a minimum of 8 feet and 7 feet over shoulder.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-5	1003.1(6)	Class I Bikeways (Bike Paths Parallel and Adjacent to Streets and Highways)	The minimum separation between the edge of pavement of a one-way or two-way bicycle path and the edge of travel way of a parallel road or street shall be 5 feet plus the standard shoulder width. Bike paths within the clear recovery zone of freeways shall include a physical barrier separation.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-8	1003.1(7)	Class I Bikeways (Bike Paths in the Median of Highway or Roadway)	Bike paths shall not be placed in the median of State highways or roadways, especially freeways or expressways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-8	1003.1(8)	Class I Bikeways (Bicycle Path Design Speed)	The design speed given in Table 1003.1 shall be the minimum.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-9	1003.1(10)	Class I Bikeways (Stopping Sight Distance)	The minimum stopping sight distance based on design speed shall be 125 feet for 20 miles per hour, 175 feet for 25 miles per hour and 230 feet for 30 miles per hour.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-10	1003.1(16)	Class I Bikeways (Entry Control for Bicycle Paths)	Fold-down obstacle posts or bollards shall not be used within the paved area of bicycle paths.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1100-2	1102.2 (1)	Noise Barrier Location (lateral Clearances)	Minimum lateral clearances to noise barriers shall be as provided in Topic 309.1, Horizontal Clearances, of this manual, but shall not be less than 10 feet.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
M	1100-2	1102.2(1)	Noise Barrier Location (lateral Clearances)	When the lateral clearance is 15 feet or less, the noise barrier shall be placed on a safety shape concrete barrier.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD

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LTRANS DESIGN EXCEPTION CHECKLIST (for HDM dated 11-2-12)

I-605/I-5 PSR-PDS (EA 07-29820)

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					Washington Blvd. (St & Ramps)				Saragosa St. (St & Ramps)				Dunlop Crossing Rd. to Rose Hills Rd.				Whittier Blvd. (SR-72) (Street & Ramps)				Beverly Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	The clear width of a bicycle path on structures between railings shall be not less than 10 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	The vertical clearance to obstructions across the width of a bicycle path shall be a minimum of 8 feet and 7 feet over shoulder.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-5	1003.1(6)	Class I Bikeways (Bike Paths Parallel and Adjacent to Streets and Highways)	The minimum separation between the edge of pavement of a one-way or two-way bicycle path and the edge of travel way of a parallel road or street shall be 5 feet plus the standard shoulder width. Bike paths within the clear recovery zone of freeways shall include a physical barrier separation.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-8	1003.1(7)	Class I Bikeways (Bike Paths in the Median of Highway or Roadway)	Bike paths shall not be placed in the median of State highways or roadways, especially freeways or expressways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-8	1003.1(8)	Class I Bikeways (Bicycle Path Design Speed)	The design speed given in Table 1003.1 shall be the minimum.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-9	1003.1(10)	Class I Bikeways (Stopping Sight Distance)	The minimum stopping sight distance based on design speed shall be 125 feet for 20 miles per hour, 175 feet for 25 miles per hour and 230 feet for 30 miles per hour.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-10	1003.1(16)	Class I Bikeways (Entry Control for Bicycle Paths)	Fold-down obstacle posts or bollards shall not be used within the paved area of bicycle paths.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1100-2	1102.2 (1)	Noise Barrier Location (lateral Clearances)	Minimum lateral clearances to noise barriers shall be as provided in Topic 309.1, Horizontal Clearances, of this manual, but shall not be less than 10 feet.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
M	1100-2	1102.2(1)	Noise Barrier Location (lateral Clearances)	When the lateral clearance is 15 feet or less, the noise barrier shall be placed on a safety shape concrete barrier.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD

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I-605/I-5 PSR-PDS (EA 07-29820)

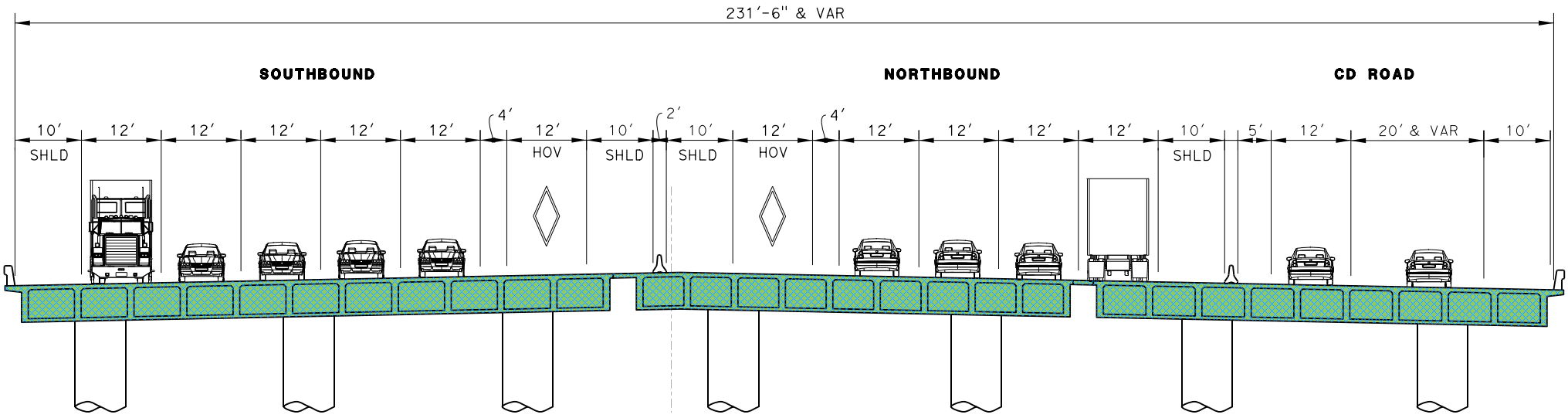
M = Meets Design Std.
V = Violates Design Std. (exception needed)
N/A = Not Applicable
U = Unknown (needs to be calc'd from topo)
TBD = To Be Determined during PAED

					I-5 (Florence to Paramount)				Lakewood Blvd. (SR-19) Street & Ramps)				Paramount Blvd. (Street & Ramps)			
M or A	HDM Page #	HDM Index	HDM Index Heading	Design Standard	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3	Existing	Alt 1	Alt 2	Alt 3
M	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	The clear width of a bicycle path on structures between railings shall be not less than 10 feet.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-4	1003.1(2)	Class I Bikeways (Clearance to Obstructions)	The vertical clearance to obstructions across the width of a bicycle path shall be a minimum of 8 feet and 7 feet over shoulder.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-5	1003.1(6)	Class I Bikeways (Bike Paths Parallel and Adjacent to Streets and Highways)	The minimum separation between the edge of pavement of a one-way or two-way bicycle path and the edge of travel way of a parallel road or street shall be 5 feet plus the standard shoulder width. Bike paths within the clear recovery zone of freeways shall include a physical barrier separation.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-8	1003.1(7)	Class I Bikeways (Bike Paths in the Median of Highway or Roadway)	Bike paths shall not be placed in the median of State highways or roadways, especially freeways or expressways.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-8	1003.1(8)	Class I Bikeways (Bicycle Path Design Speed)	The design speed given in Table 1003.1 shall be the minimum.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-9	1003.1(10)	Class I Bikeways (Stopping Sight Distance)	The minimum stopping sight distance based on design speed shall be 125 feet for 20 miles per hour, 175 feet for 25 miles per hour and 230 feet for 30 miles per hour.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1000-10	1003.1(16)	Class I Bikeways (Entry Control for Bicycle Paths)	Fold-down obstacle posts or bollards shall not be used within the paved area of bicycle paths.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M	1100-2	1102.2 (1)	Noise Barrier Location (lateral Clearances)	Minimum lateral clearances to noise barriers shall be as provided in Topic 309.1, Horizontal Clearances, of this manual, but shall not be less than 10 feet.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD
M	1100-2	1102.2(1)	Noise Barrier Location (lateral Clearances)	When the lateral clearance is 15 feet or less, the noise barrier shall be placed on a safety shape concrete barrier.	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD	N/A	TBD	TBD	TBD

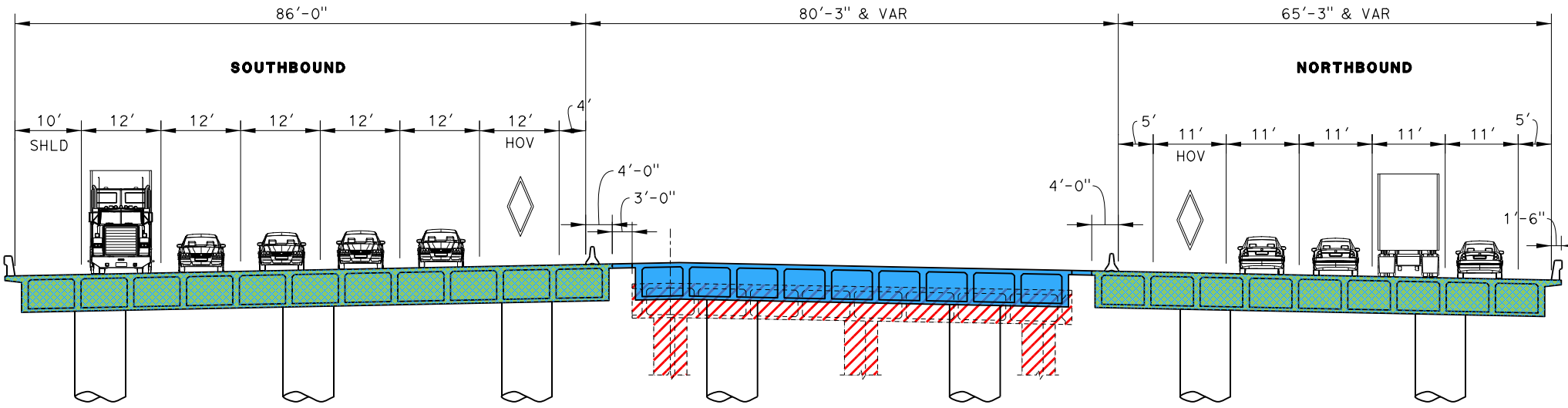
M Delegated to Distrcit for Approval (added to Advisory Fact Sheet)
M Deferred to Maintenace for approval

I-605 / I-5 PSR-PDS

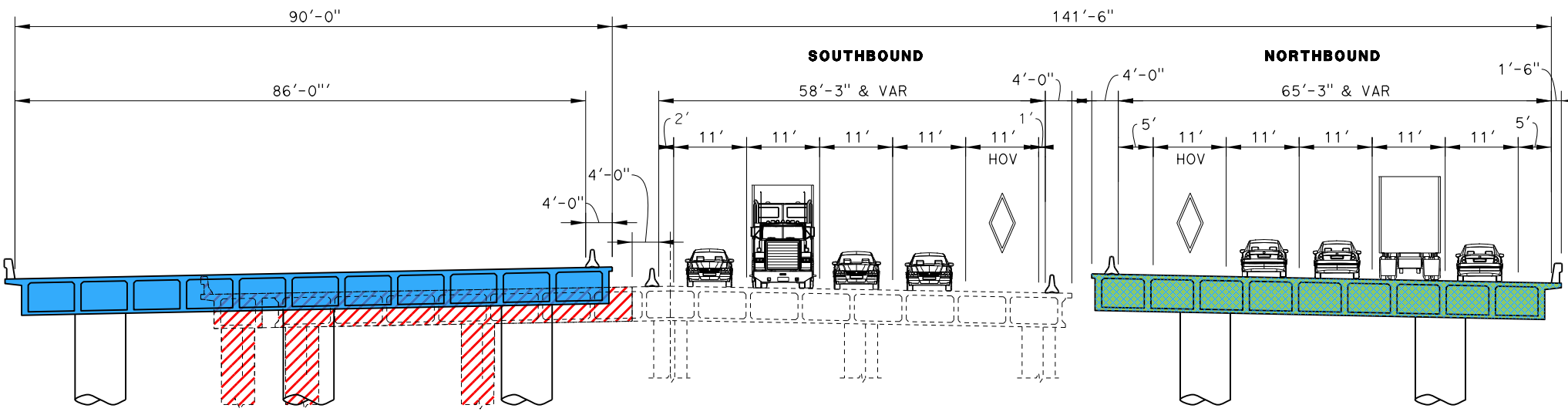
Attachment K – Preliminary Stage Construction Concepts for I-605/I-5



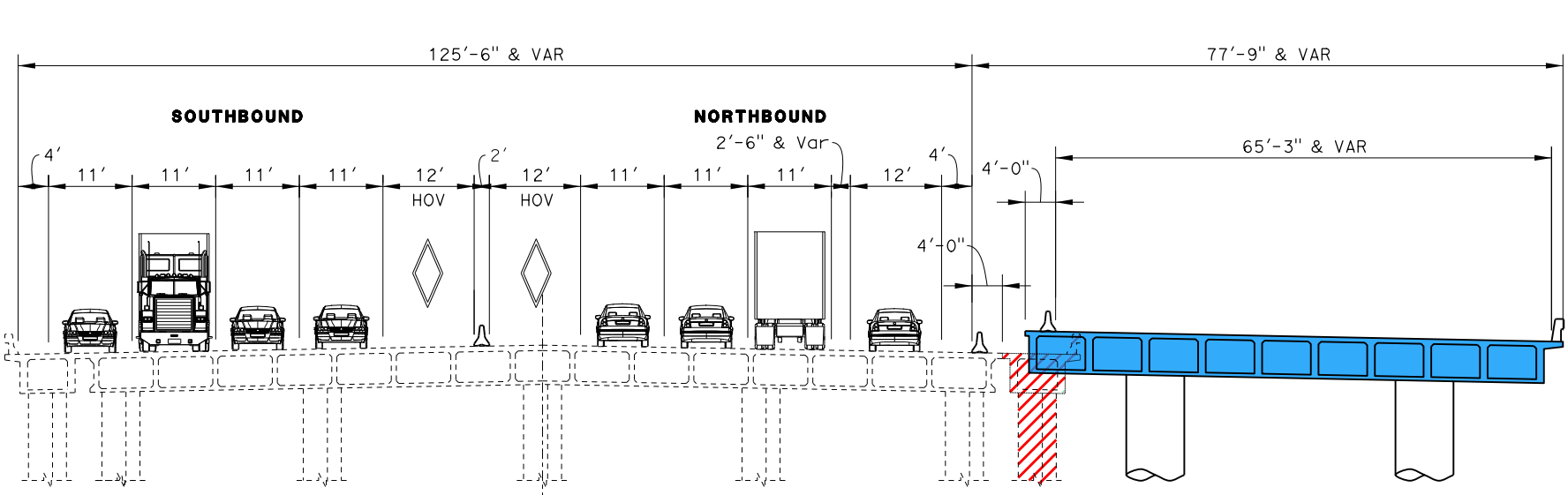
FINAL PROPOSED



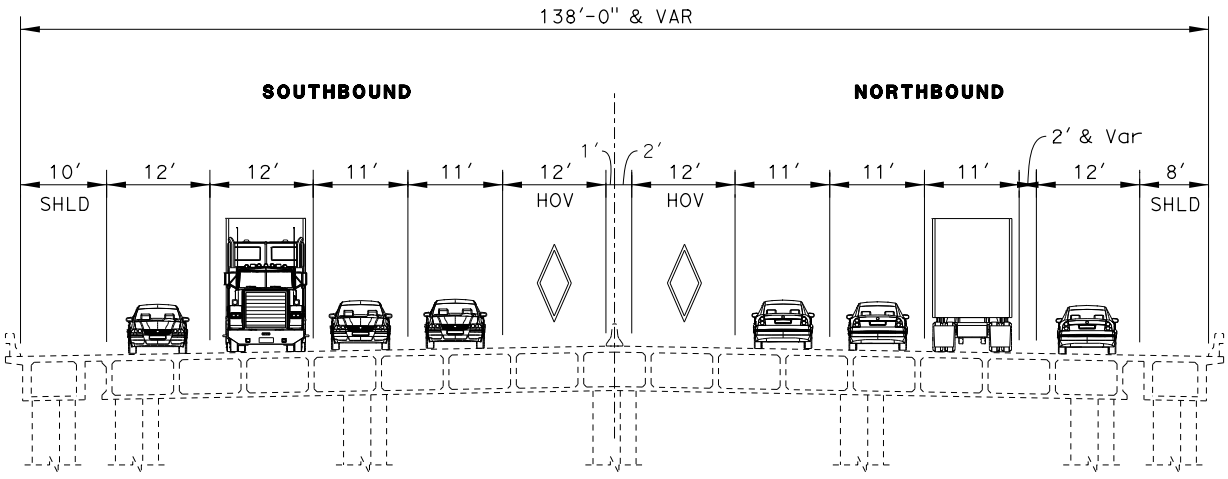
STAGE 3



STAGE 2



STAGE 1



EXISTING

TYPICAL CROSS SECTIONS

LEGEND

- CONSTRUCTION IN CURRENT STAGE
- CONSTRUCTION IN PREVIOUS STAGES
- REMOVAL
- NEW BRIDGE CONSTRUCTION
- BRIDGE CONSTRUCTION IN PREVIOUS STAGES

FLORENCE AVE

1A.0
1A.1
1A.2
1A.3
1A.4
1A.5
1A.6
1A.7
1A.8
1A.9
1A.10

INTERSTATE 605
INTERSTATE 5

0 50 100 200
SCALE: 1"=200'

STAGE 1A CONSTRUCTION ACTIVITIES

1A.0 - CONSTRUCT I-5 PAVEMENT TO PROVIDE FOR MEDIAN COLUMN CONSTRUCTION
1A.1 - SHIFT I-605 MEDIAN BARRIER 5' WESTERLY ON I-5 OC BRIDGE
1A.2 - TRANSITION TRAVEL WAY 5' WESTERLY
1A.3 - MODIFY SB I-5, NB I-605 LOOP CONNECTOR CONNECTION
1A.4 - REMOVE 10' FROM EASTERLY SIDE OF I-5 OC BRIDGE
1A.5 - CONSTRUCT NB I-605/NB I-5 CONNECTOR BRIDGE
1A.6 - CONSTRUCT/STRIPE TEMPORARY PAVEMENT SB I-605/SB I-5 CONNECTOR
1A.7 - CONSTRUCT NB/SB I-605 FLORENCE BRIDGE WIDENING
1A.8 - CONSTRUCT SB I-605 OFF RAMP BRIDGES TO FLORENCE
1A.9 - CONSTRUCT NB/SB I-605 TELEGRAPH & DAVENRICH BRIDGE WIDENING
1A.10 - CONSTRUCT TEMPORARY PAVEMENT FOR STAGE 1B STRIPING

I-5/I-605 SEPARATION (REPLACEMENT) STAGE 1A

LEGEND

- CONSTRUCTION IN CURRENT STAGE
- CONSTRUCTION IN PREVIOUS STAGES
- REMOVAL
- NEW BRIDGE CONSTRUCTION
- BRIDGE CONSTRUCTION IN PREVIOUS STAGES

FLORENCE AVE

1B.1 1B.2 1B.3 1B.4 1B.5 1B.6 1B.7 1B.8 1B.9 1B.10 1B.11 1B.12

INTERSTATE 605

INTERSTATE 5

SCALE: 1" =200'

STAGE 1B CONSTRUCTION ACTIVITIES

1B.1 - RESTRIPE NB I-605 LOOP ON RAMP UNDER BRIDGE TO JOIN EXISTING
1B.2 - REMOVE PORTION OF NB I-605 LOOP ON RAMP
1B.3 - CONSTRUCT NB I-605 E'LY PORTION OF NEW BRIDGE & NB I-605 LOOP RAMP
1B.4 - CONSTRUCT PORTION OF NB I-605 EASTERLY PAVEMENT
1B.5 - STRIPE TEMPORARY NB I-605/NB I-5 CONNECTOR
1B.6 - REMOVE PORTION OF NB I-605/NB I-5 CONNECTOR
1B.7 - STRIPE NB I-605/SB I-5 CONNECTOR
1B.8 - REMOVE PORTION OF NB I-605/SB I-5 PAVEMENT
1B.9 - CONSTRUCT PORTION OF SB I-605/NB I-5 CONNECTOR
1B.10 - CONSTRUCT PORTION OF SB I-605/FLORENCE OFF RAMP
1B.11 - CONSTRUCT NB/SB I-5 BRIDGE WIDENING OVER SAN GABRIEL RIVER
1B.12 - CONSTRUCT TEMPORARY PAVEMENT NB I-605/I-5 CONNECTOR TO MAINTAIN CIRCULATION DURING W'LY I-605 BRIDGE COLUMN CONSTRUCTION

I-5/I-605 SEPARATION (REPLACEMENT) STAGE 1B

LEGEND

- CONSTRUCTION IN CURRENT STAGE
- CONSTRUCTION IN PREVIOUS STAGES
- REMOVAL
- NEW BRIDGE CONSTRUCTION
- BRIDGE CONSTRUCTION IN PREVIOUS STAGES

FLORENCE AVE

1C.1 1C.10 1C.2 1C.3 1C.4 1C.5 1C.6 1C.7 1C.8 1C.9

STAGE 1C CONSTRUCTION ACTIVITIES

1C.1 - RESTRIPE NB/SB I-605
1C.2 - RESTRIPE SB I-605 LOOP ON RAMP TO JOIN SHIFTED MAINLINE STRIPING
1C.3 - STRIPE NB I-605 LOOP ON RAMP TO JOIN NEW BRIDGE
1C.4 - REMOVE EXISTING NB I-605 LOOP ON RAMP PAVEMENT
1C.5 - CONSTRUCT NB I-5/NB I-605 RAMP PAVEMENT
1C.6 - CONSTRUCT PORTION OF NB I-5/SB I-605 ON RAMP PAVEMENT
1C.7 - TEMPORARY RESTRIPE OF SB I-605/NB I-5 CONNECTOR
1C.8 - CONSTRUCT PORTION OF SB I-605/FLORENCE OFF RAMP
1C.9 - STRIPE NB I-605/I-5 TEMPORARY CONNECTOR
1C.10 - REMOVE WESTERLY PORTION OF EXISTING I-605 BRIDGE

0 50 100 200
SCALE: 1"=200'

I-5/I-605 SEPARATION (REPLACEMENT) STAGE 1C

LEGEND

- CONSTRUCTION IN CURRENT STAGE
- CONSTRUCTION IN PREVIOUS STAGES
- REMOVAL
- NEW BRIDGE CONSTRUCTION
- BRIDGE CONSTRUCTION IN PREVIOUS STAGES

FLORENCE AVE

2A.1
2A.2
2A.3
2A.4
2A.5
2A.6

INTERSTATE 605
INTERSTATE 5

STAGE 2A CONSTRUCTION ACTIVITIES

2A.1 - RESTRIPE TEMPORARY NB I-5/I-605 CONNECTOR
2A.2 - REMOVE PORTION OF NB I-5/I-605 CONNECTOR PAVEMENT
2A.3 - CONSTRUCT PORTION OF FLORENCE/NB I-5 ON RAMP
2A.4 - CONSTRUCT SB I-605 LOOP ON RAMP PAVEMENT
2A.5 - CONSTRUCT STAGE 2 OF I-605 SB BRIDGE
2A.6 - CONSTRUCT PORTION OF SB I-5/SB I-605 CONNECTOR PAVEMENT

0 50 100 200
SCALE: 1"=200'

I-5/I-605 SEPARATION (REPLACEMENT) STAGE 2A

LEGEND

- CONSTRUCTION IN CURRENT STAGE
- CONSTRUCTION IN PREVIOUS STAGES
- REMOVAL
- NEW BRIDGE CONSTRUCTION
- BRIDGE CONSTRUCTION IN PREVIOUS STAGES

FLORENCE AVE

2B.1
2B.2
2B.3
2B.4
2B.5
2B.6
2B.7
2B.8

STAGE 2B CONSTRUCTION ACTIVITIES

2B.1 - RESTRIPE SB I-605
2B.2 - REMOVE MIDDLE PORTION OF EXISTING I-605 BRIDGE
2B.3 - CONSTRUCT SB I-605/I-5 CONNECTOR PAVEMENT
2B.4 - REMOVE EXISTING SB I-605/FLORENCE CONNECTOR
2B.5 - STRIPE SB I-605/FLORENCE CONNECTOR
2B.6 - CONSTRUCT PARTIAL NB I-5/SB I-605 LOOP ON RAMP PAVEMENT
2B.7 - CONSTRUCT PARTIAL NB I-605/NB I-5 CONNECTOR
2B.8 - CONSTRUCT REMAINING PORTIONS OF SB I-5/SBI-605 CONNECTOR AT SB I-5/FLORENCE OFF RAMP

0 50 100 200
SCALE: 1"=200'

I-5/I-605 SEPARATION (REPLACEMENT) STAGE 2B

LEGEND

- CONSTRUCTION IN CURRENT STAGE
- CONSTRUCTION IN PREVIOUS STAGES
- REMOVAL
- NEW BRIDGE CONSTRUCTION
- BRIDGE CONSTRUCTION IN PREVIOUS STAGES

FLORENCE AVE

3A.1
3A.2
3A.3
3A.4
3A.5
3A.6
3A.7
3A.8
3A.9

STAGE 3A CONSTRUCTION ACTIVITIES

3A.1 - CONSTRUCT STAGE 3 OF I-605 BRIDGE

3A.2 - CONSTRUCT NB I-605/NB I-5 CONNECTOR PAVEMENT AND NB I-5/FLORENCE ON RAMP

3A.3 - STRIPE NB I-5/SB I-605 LOOP ON RAMP

3A.4 - REMOVE EXISTING NB I-5/SB I-605 LOOP ON RAMP

3A.5 - STRIPE NB I-605/NB I-5 CONNECTOR PAVEMENT

3A.6 - STRIPE SB I-5/SB I-605 CONNECTOR

3A.7 - CONSTRUCT PORTION OF SB I-5/NB I-605 LOOP CONNECTOR

3A.8 - STRIPE SB I-605/SB I-5 CONNECTOR

3A.9 - REMOVE PORTION OF EXISTING SB I-5/NB I-605 CONNECTOR

0 50 100 200

SCALE: 1"=200'

I-5/I-605 SEPARATION (REPLACEMENT) STAGE 3A

LEGEND

- CONSTRUCTION IN CURRENT STAGE
- CONSTRUCTION IN PREVIOUS STAGES
- REMOVAL
- NEW BRIDGE CONSTRUCTION
- BRIDGE CONSTRUCTION IN PREVIOUS STAGES

FLORENCE AVE

INTERSTATE 605

INTERSTATE 5

3B.1

STAGE 3B CONSTRUCTION ACTIVITIES

3B.1 - STRIPE NB/SB I-605

0 50 100 200

SCALE: 1"=200'

I-5/I-605 SEPARATION (REPLACEMENT) STAGE 3B