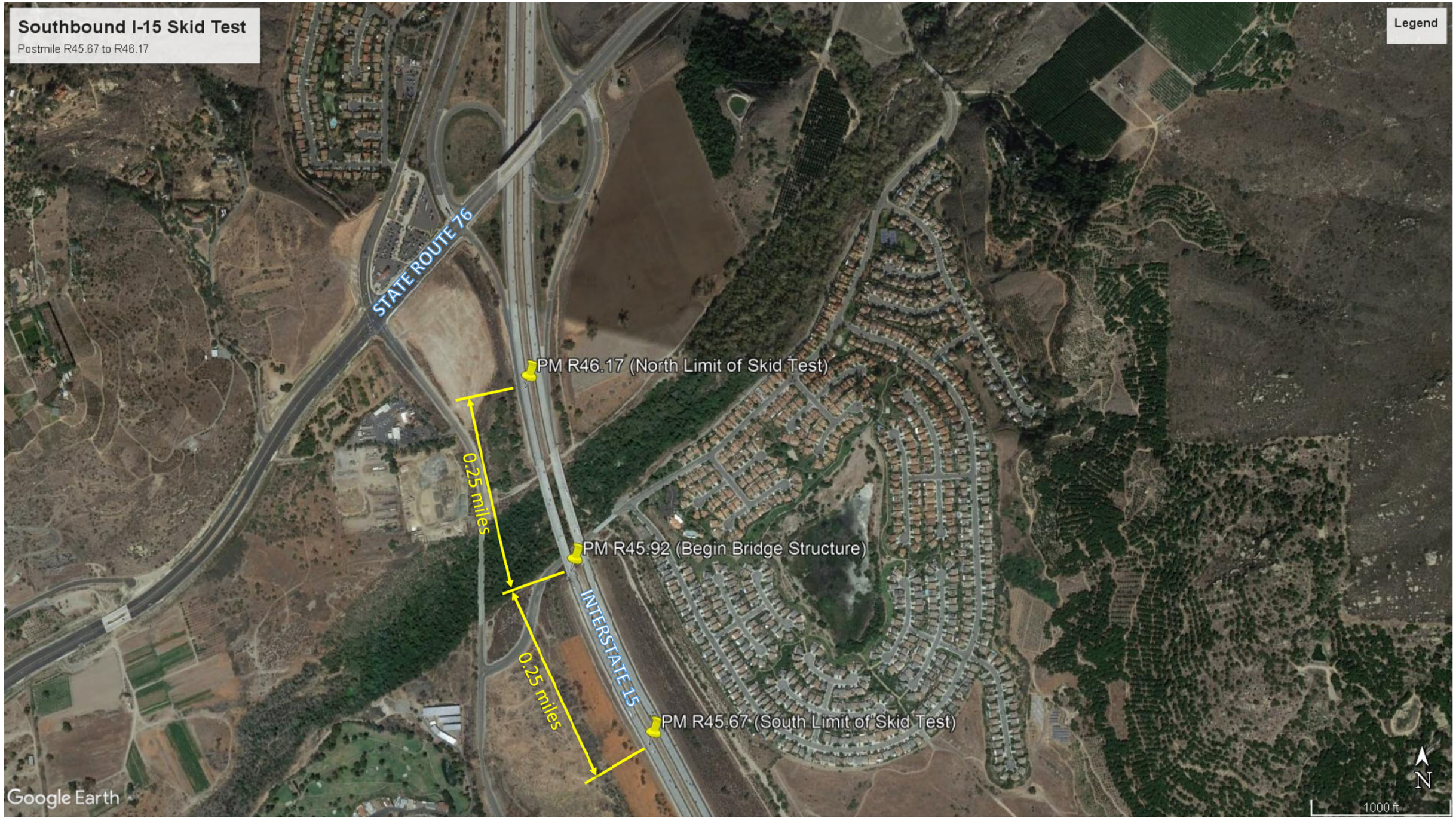
# HIGHWAY FACTORS GROUP CHAIRMAN'S FACTUAL REPORT

## Highway Attachment – Skid Test Data for I-15 in Vicinity of Crash Location

**Pala Mesa, California**

**HWY20FH003**

(10 pages)


Southbound I-15 Skid Test
Postmile R45.67 to R46.17
Legend
STATE ROUTE 76
PM R46.17 (North Limit of Skid Test)
0.25 miles
PM R45.92 (Begin Bridge Structure)
INTERSTATE 15
0.25 miles
PM R45.67 (South Limit of Skid Test)
Google Earth
N
1000 ft

**STATE OF CALIFORNIA**
**DEPARTMENT OF TRANSPORTATION**
District 11 – Kearny Mesa Materials Laboratories
7177 Opportunity Road .
San Diego CA 92111

DISTRIBUTION
- TRANSPORTATION LAB
- RESIDENT ENGINEER
- ASST. DIST. DIR. OF TRANS-CONST
- OFFICE OF STRUCTURES

# *REPORT OF SKID TEST*
## *CALIFORNIA TEST 342*

Sheet: 1

| | |
|---|---|
| Dist, Co-Rte: 11, SD-15 | Number of Lanes: 4 |
| Contract: Patrick Lee/ Guy Poirier | Bridge Width: |
| EFIS 1117000101 | Air Temperature: 49 |
| Work Requested by: Patrick Lee/ Guy Poirier | |
| Requestor's Phone No: [redacted] | Fax Number: |
| Test by: Javad Rhezaii | Bridge No: 57-0871L |
| Direction of Traffic: SB | Bridge Name: San Luis Rey River |

Position: In the direction of traffic flow, denotes feet to the Left or Right edge of Travel Way.
RS = Right side Shoulder ( used for Lane 2,3, and 4 )

Pavement passing = 0.30 Structure passing = 0.35

| Test No. | Date of Test | Location | | | % Grade | Test Measurement | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | Station | Lane | Position | | Measured | Corrected | Ave.* | |
| 1 | 3/21/20 | 400+96 | 2 | 26' RS | 0.5 | 0.35 | 0.36 | 0.37 | **Pass** |
| | | 400+71 | 2 | 26' RS | 0.5 | 0.37 | 0.38 | | |
| | | 400+46 | 2 | 26' RS | 0.6 | 0.35 | 0.36 | | |
| Lane 2 Roadway | | 400+21 | 2 | 26' RS | 0.9 | 0.35 | 0.36 | | |
| | | 300+96 | 2 | 26' RS | 1.0 | 0.38 | 0.39 | | |
| | | | | | | | | | |
| 2 | 3/21/20 | 0+18 | 2 | 30' RS | 2.0 | 0.34 | 0.36 | 0.36 | Pass |
| 3 | 3/21/20 | 0+58 | 2 | 27' RS | 2.4 | 0.35 | 0.37 | 0.37 | Pass |
| Lane 2 Roadway | | | | | | | | | |
| | | | | | | | | | |
| 4 | 3/21/20 | 500+50 | 2 | 27' RS<br>26' RS | 2.4 | 0.33 | 0.35 | 0.37 | **Pass** |
| | | 500+46 | 2 | 26' RS | 2.5 | 0.36 | 0.38 | | |
| | | 500+42 | 2 | 27' RS | 2.7 | 0.35 | 0.38 | | |
| North half of the Bridge-Lane 2 | | | | | | | | | |
| | | | | | | | | | |
| 5 | 3/21/20 | 0+55 | 2 | 27' RS | 3.1 | 0.35 | 0.38 | 0.37 | Pass |
| | | 0+52 | 2 | 28' RS | 3.1 | 0.32 | 0.35 | | |
| | | 0+49 | 2 | 27' RS | 3.1 | 0.35 | 0.38 | | |
| South End of the Bridge- Lane 2 | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Remarks: [redacted] 3/24/2020 P. 1 of 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
District 11 – Kearny Mesa Materials Laboratories
7177 Opportunity Road .
San Diego CA 92111

DISTRIBUTION
- TRANSPORTATION LAB
- RESIDENT ENGINEER
- ASST. DIST. DIR. OF TRANS-CONST
- OFFICE OF STRUCTURES

# *REPORT OF SKID TEST*
## *CALIFORNIA TEST 342*

Sheet: 2

| | |
|---|---|
| Dist, Co-Rte: 11, SD-015 | Number of Lanes: 4 |
| Contract: Patrick Lee/ Guy Poirier | Bridge Width: |
| EFIS 1117000101 | Air Temperature: 49 |
| Work Requested by: Patrick Lee/ Guy Poirier | |
| Requestor's Phone No: [redacted] | Fax Number: |
| Test by: Javad Rhezaii | Bridge No: 57-0871L |
| Direction of Traffic: SB | Bridge Name: San Luis Rey River |

Position: In the direction of traffic flow, denotes feet to the Left or Right edge of Travel Way.
RS = Right side Shoulder ( used for Lane 2,3, and 4 )

Pavement passing = 0.30 Structure passing = 0.35

| Test No. | Date of Test | Location | | | % Grade | Test Measurement | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | Station | Lane | Position | | Measured | Corrected | Ave.* | |
| 6 | 3/21/20 | 600+06 | 3 | 24' RS | 0.6 | 0.35 | 0.36 | 0.358 | **Pass** |
| Lane 3 Roadway | | 500+81 | 3 | 24' RS | 0.6 | 0.35 | 0.36 | | |
| | | 500+56 | 3 | 24' RS | 0.8 | 0.34 | 0.35 | | |
| | | 500+31 | 3 | 24' RS | 0.7 | 0.37 | 0.38 | | |
| | | 500+06 | 3 | 23' RS | 0.8 | 0.33 | 0.34 | | |
| | | | | | | | | | |
| 7 | 3/21/20 | 200+0 | 3 | 24' RS | 1.4 | 0.35 | 0.36 | 0.36 | Pass |
| 8 | 3/21/20 | 0+21 | 3 | 24' RS | 1.9 | 0.33 | 0.34 | 0.34 | Pass |
| Lane 3 Roadway | | | | | | | | | |
| | | | | | | | | | |
| 9 | 3/21/20 | 200+44 | 3 | 23' RS | 2.2 | 0.22 | 0.24 | 0.274 | **Fail** |
| North half of the Bridge-Lane 3 | | 200+40 | 3 | 23' RS | 2.2 | 0.25 | 0.27 | | |
| | | 200+37 | 3 | 23' RS | 2.2 | 0.24 | 0.26 | | |
| | | 200+34 | 3 | 23' RS | 2.2 | 0.27 | 0.29 | | |
| | | 200+30 | 3 | 23' RS | 2.2 | 0.29 | 0.31 | | |
| 10 | 3/21/20 | 200+32 | 3 | 23' RS | 2.8 | 0.30 | 0.36 | 0.357 | Pass |
| South End of the Bridge- Lane 3 | | 200+28 | 3 | 23' RS | 3.1 | 0.35 | 0.38 | | |
| | | 200+24 | 3 | 23' RS | 3.1 | 0.30 | 0.33 | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Remarks: [redacted] 3/24/2020 P. 2 of 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
District 11 – Kearny Mesa Materials Laboratories
7177 Opportunity Road .
San Diego CA 92111

DISTRIBUTION
- TRANSPORTATION LAB
- RESIDENT ENGINEER
- ASST. DIST. DIR. OF TRANS-CONST
- OFFICE OF STRUCTURES

# *REPORT OF SKID TEST*
## *CALIFORNIA TEST 342*

Sheet: 3

| | |
|---|---|
| Dist, Co-Rte: 11, SD-015 | Number of Lanes: 4 |
| Contract: Patrick Lee/ Guy Poirier | Bridge Width: |
| EFIS 1117000101 | Air Temperature: 49 |
| Work Requested by: Patrick Lee/ Guy Poirier | |
| Requestor's Phone No: [redacted] | Fax Number: |
| Test by: Javad Rhezaii | Bridge No: 57-0871L |
| Direction of Traffic: SB | Bridge Name: San Luis Rey River |

Position: In the direction of traffic flow, denotes feet to the Left or Right edge of Travel Way.
RS = Right side Shoulder ( used for Lane 2,3, and 4 )

Pavement passing = 0.30 Structure passing = 0.35

| Test No. | Date of Test | Location | | | | Test Measurement | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | Station | Lane | Position | % Grade | Measured | Corrected | Ave.* | |
| 11 | 3/21/20 | 200+76 | 4 | 10' RS | 1.4 | 0.37 | 0.38 | 0.354 | **Pass** |
| Lane 4 Roadway | | 200+51 | 4 | 10' RS | 1.3 | 0.37 | 0.38 | | |
| | | 200+26 | 4 | 9' RS | 1.2 | 0.33 | 0.34 | | |
| | | 200+01 | 4 | 9' RS | 1.4 | 0.32 | 0.33 | | |
| | | 100+76 | 4 | 10' RS | 1.5 | 0.33 | 0.34 | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 12 | 3/21/20 | 200+42 | 4 | 5' RS | 2.5 | 0.34 | 0.37 | 0.367 | **Pass** |
| North half of the Bridge-Lane 4 | | 200+38 | 4 | 5' RS | 2.5 | 0.34 | 0.37 | | |
| | | 200+34 | 4 | 5' RS | 2.7 | 0.33 | 0.36 | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 13 | 3/21/20 | 0+33 | 4 | 10' RS | 3.2 | 0.18 | 0.20 | 0.256 | Fail |
| South End of the Bridge- Lane 4 | | 0+30 | 4 | 10' RS | 3.2 | 0.22 | 0.24 | | |
| | | 0+28 | 4 | 11' RS | 3.1 | 0.24 | 0.26 | | |
| | | 0+26 | 4 | 10' RS | 3.1 | 0.26 | 0.29 | | |
| | | 0+24 | 4 | 11' RS | 3.1 | 0.26 | 0.29 | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Remarks: [redacted] 3/24/2020 P. 3 of 5

**STATE OF CALIFORNIA**
**DEPARTMENT OF TRANSPORTATION**
District 11 – Kearny Mesa Materials Laboratories
7177 Opportunity Road .
San Diego CA 92111

DISTRIBUTION
- TRANSPORTATION LAB
- RESIDENT ENGINEER
- ASST. DIST. DIR. OF TRANS-CONST
- OFFICE OF STRUCTURES

## *REPORT OF SKID TEST*
## *CALIFORNIA TEST 342*

Sheet: 4

| | |
|---|---|
| Dist, Co-Rte: 11, SD-015 | Number of Lanes: 4 |
| Contract: Patrick Lee/ Guy Poirier | Bridge Width: |
| EFIS 1117000101 | Air Temperature: 49 |
| Work Requested by: Patrick Lee/ Guy Poirier | |
| Requestor's Phone No: [redacted] | Fax Number: |
| Test by: Javad Rhezaii | Bridge No: 57-0871L |
| Direction of Traffic: SB | Bridge Name: San Luis Rey River |

Position: In the direction of traffic flow, denotes feet to the Left or Right edge of Travel Way.
RS = Right side Shoulder ( used for Lane 2,3, and 4)

Pavement passing = 0.30 Structure passing = 0.35

| Test No. | Date of Test | Location | | | | Test Measurement | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | Station | Lane | Position | % Grade | Measured | Corrected | Ave.* | |
| 14 | 3/21/20 | 1089+00 | 4 | 10' RS | 4.4 | 0.34 | 0.39 | 0.392 | Pass |
| | | 1089+25 | 4 | 10' RS | 4.2 | 0.33 | 0.38 | | |
| | | 1089+50 | 4 | 10' RS | 4.4 | 0.32 | 0.37 | | |
| Lane 4 Roadway | | 1089+75 | 4 | 10' RS | 4.3 | 0.33 | 0.38 | | |
| South of Bridge | | 1089+100 | 4 | 10' RS | 4.0 | 0.38 | 0.44 | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Remarks: [redacted] 3/24/2020 P.4 of 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
District 11 – Kearny Mesa Materials Laboratories
7177 Opportunity Road .
San Diego CA 92111

DISTRIBUTION
- TRANSPORTATION LAB
- RESIDENT ENGINEER
- ASST. DIST. DIR. OF TRANS-CONST
- OFFICE OF STRUCTURES

# *REPORT OF SKID TEST*
## *CALIFORNIA TEST 342*

Sheet: 5

| | |
|---|---|
| Dist, Co-Rte: 11, SD-015 | Number of Lanes: 4 |
| Contract: Patrick Lee/ Guy Poirier | Bridge Width: |
| EFIS 1117000101 | Air Temperature: 49 |
| Work Requested by: Patrick Lee/ Guy Poirier | |
| Requestor's Phone No: [redacted] | Fax Number: |
| Test by: Javad Rhezaii | Bridge No: 57-0871L |
| Direction of Traffic: SB | Bridge Name: San Luis Rey River |

Position: In the direction of traffic flow, denotes feet to the Left or Right edge of Travel Way.
LS = Left side Shoulder, ( used for Lane 1 only)

Pavement passing = 0.30 Structure passing = 0.35

| Test No. | Date of Test | Location | | | % Grade | Test Measurement | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | Station | Lane | Position | | Measured | Corrected | Ave.* | |
| 15 | 3/21/20 | 200+77 | 1 | 7' LS | 1.3 | 0.38 | 0.39 | 0.40 | **Pass** |
| | | 200+52 | 1 | 6' LS | 1.4 | 0.90 | 0.40 | | |
| | | 200+27 | 1 | 7' LS | 1.5 | 0.37 | 0.39 | | |
| Lane 1 Roadway | | 200+02 | 1 | 7' LS | 1.4 | 0.38 | 0.39 | | |
| | | 100+77 | 1 | 8' LS | 1.5 | 0.40 | 0.43 | | |
| 16 | 3/21/20 | | | | | | | 0.43 | **Pass** |
| | | | | | | | | | |
| | | 00+31 | 1 | 7' LS | 1.7 | 0.40 | 0.43 | | |
| Lane 1 Roadway | | | | | | | | | |
| | | | | | | | | | |
| 17 | 3/21/20 | 600+27 | 1 | 9' LS | 2.0 | 0.40 | 0.43 | 0.416 | **Pass** |
| | | 600+23 | 1 | 9' LS | 2.1 | 0.38 | 0.41 | | |
| North half of the Bridge-Lane 1 | | 600+20 | 1 | 9' LS | 2.1 | 0.38 | 0.41 | | |
| | | | | | | | | | |
| 18 | 3/21/20 | 500+14 | 1 | 8' LS | 2.4 | 0.35 | 0.37 | 0.37 | Pass |
| 19 | 3/21/20 | 00+90 | 1 | 2' LS | 3.7 | 0.28 | 0.32 | 0.312 | Fail |
| | | 00+88 | 1 | 2' LS | 3.5 | 0.28 | 0.32 | | |
| | | 00+86 | 1 | 2' LS | 3.3 | 0.28 | 0.31 | | |
| South End of the Bridge- Lane 1 | | 00+84 | 1 | 2' LS | 3.4 | 0.27 | 0.30 | | |
| | | 00+82 | 1 | 2' LS | 3.4 | 0.28 | 0.31 | | |
| 20 | 3/21/20 | | | | | | | 0.31 | Fail |
| | | 00+11 | 1 | 2' LS | 3.3 | 0.28 | 0.31 | | |
| South End of the Bridge- Lane 1 | | | | | | | | | |
| | | | | | | | | | |

Remarks: [redacted] 3/24/2020 P. 5 of 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans District 11 – Kearny Mesa Materials Laboratories
7177 Opportunity Road
San Diego CA 92111

DISTRIBUTION
- TRANSPORTATION LAB
- RESIDENT ENGINEER
- ASST. DIST. DIR. OF TRANS-CONST
- OFFICE OF STRUCTURES

[redacted]

# *REPORT OF SKID TEST*
## *CALIFORNIA TEST 342*

Sheet: 1 OF 2

| | | | |
|---|---|---|---|
| Dist, Co-Rte: | 11-SD-15 | Number of Lanes: | 4 |
| Contract: | 11170000101 | Bridge Width: | |
| EFIS | | Air Temperature: | 50°F - 68°F |
| Work Requested by: | PATRICK LEE | | |
| Requestor's Phone No: | [redacted] | Fax Number: | |
| Test by: | DANIEL PAUL SMITH | Bridge No: | |
| Direction of Traffic: | SOUTHBOUND | Bridge Name: | SAN LUIS REY RIVER BRIDGE |

Position: In the direction of traffic flow, denotes feet to the Left or Right edge of Travel Way.

Pavement passing = 0.30 Structure passing = 0.35

| Test No. | Date of Test | Location: Station | Lane | Position | % Grade | Test Measurement: Measured | Corrected | Ave.* | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3/21/20 | 131' S/O Br | 2 | 2' RT | +2 | .35 | .37 | .37 | |
| | | 156' | | | +2 | .35 | .37.5 | | |
| | | 181' | | | +2.5 | .33 | .35.5 | | |
| | | 206' | | | +2.5 | .32 | .34 | | |
| | | 231' | | | +2.5 | .35 | .37 | | |
| 2 | 3/21/20 | 753' S/O Br | 2 | 2' RT | +4 | .31 | .35 | .38 | |
| | | 778' | | | +4 | .33 | .38 | | |
| | | 803' | | | +4 | .34 | .39 | | |
| | | 828' | | | +4 | .35 | .40 | | |
| | | 853' | | | +4 | .33 | .38 | | |
| 3 | 3/21/20 | 5' S/O Br | 3 | 2' RT | 0 | .22 | .22 | .31 | AVG OF 5 SHOTS |
| | | 30' | | | 0 | .32 | .32 | | |
| | | 55' | | | +1 | .32 | .33 | | |
| | | 80' | | | +1 | .31 | .32 | | |
| | | 105' | | | +2 | .32 | .34 | | |
| 4 | 3/21/20 | 944' S/O Br | 3 | 2' RT | +4 | .28 | .32 | .33 | |
| | | 969' | | | +4 | .28 | .32 | | |
| | | 994' | | | +4 | .29 | .33 | | AVG OF 5 SHOTS |
| | | 1019' | | | +4 | .30 | .34 | | |
| | | 1044' | | | +4 | .30 | .34 | | |
| 5 | 3/21/20 | 125' S/O Br | 4 | 2' LT | +2 | .30 | .32 | .28 | |
| | | 150' | | | +2 | .27 | .29 | | AVG OF 5 SHOTS |
| | | 175' | | | +2.5 | .24 | .265 | | |
| | | 200' | | | +2.5 | .23 | .255 | | |
| | | 225' | | | +2.5 | .25 | .275 | | |

NOTES - S/O - SOUTH OF Br - Bridge AVG - AVERAGE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
Caltrans
District 11 – Kearny Mesa Materials Laboratories
7177 Opportunity Road
San Diego CA 92111

DISTRIBUTION
- TRANSPORTATION LAB
- RESIDENT ENGINEER
- ASST. DIST. DIR. OF TRANS-CONST
- OFFICE OF STRUCTURES

[redacted]

# *REPORT OF SKID TEST*
## *CALIFORNIA TEST 342*

Sheet: 2 OF 2

| | | | |
|---|---|---|---|
| Dist, Co-Rte: | 11-SD-15 | Number of Lanes: | 4 |
| Contract: | 1117000101 | Bridge Width: | |
| EFIS | | Air Temperature: | 50°F - 68°F |
| Work Requested by: | PATRICK LEE | | |
| Requestor's Phone No: | [redacted] | Fax Number: | |
| Test by: | DANIEL PAUL SMITH | Bridge No: | |
| Direction of Traffic: | SOUTH BOUND | Bridge Name: | SAN LUIS REY RIVER BRIDGE |

Position: In the direction of traffic flow, denotes feet to the Left or Right edge of Travel Way.

Pavement passing = 0.30 Structure passing = 0.35

| Test No. | Date of Test | Location: Station | Lane | Position | % Grade | Test Measurement: Measured | Corrected | Ave.* | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 6 | 3/21/20 | 485' S/o Br | 1 | 2' RT | +4 | .35 | .40 | .41 | |
| | | 510' | | | +4 | .38 | .44 | | |
| | | 535' | | | +4 | .33 | .38 | | |
| | | 560' | | | +4 | .35 | .40 | | |
| | | 585' | | | +4 | .36 | .41 | | |
| 7 | 3/21/20 | 1089' S/o Br | 1 | 2' RT | +4 | .38 | .44 | .41 | |
| | | 1114' | | | +4 | .35 | .40 | | |
| | | 1139' | | | +4 | .36 | .41 | | |
| | | 1164' | | | +4 | .35 | .40 | | |
| | | 1189' | | | +4 | .36 | .41 | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Remarks: S/o = SOUTH OF Br - Bridge

# 1117000101 SKID TEST RESULTS

Date Performed 3/21/20
Date Updated 9/9/20