ALTERNATIVE 5
GRADING AND DRAINAGE
ROAD CROSSING STA. 20942+00

PLAN

MIXTC LINE ( CV-G4509 )

DATE AVE

OFFSITE DITCH
CURB OUTLET

PPEF
PTEF

PLAN

MATCH LINE ( CV-G4541 )

DATE AVE

ELM AVE

LASHA ST

W JACKMAN ST

W MILLING ST

FERN AVE

FIC AVE

W LANCASTER BLVD

DATE AVE

GARDEN AVE

G A D
S
D
E
N
A V
E

FIG AVE

FIG AVE

FERN AVE

W KILDARE ST

W KETTERING ST

W JACKMAN ST

W MILLING ST

FERN AVE

FIC AVE

W LANCASTER BLVD

GARDEN AVE

GARDEN AVE

CALIFORNIA HIGH-SPEED RAIL PROJECT
BAKERSFIELD TO PALMDALE

ALTERNATIVE 5
GRADING AND DRAINAGE
ROAD CROSSING STA. 20942+00
PLAN

DESIGNED BY
R. KRAFT

DRAWN BY
A. CAROLINO

CHECKED BY
G. CAMPBELL

IN CHARGE
S. SMITH

DATE
10/31/2017

CHECK APP BY

REV

DESCRIPTION

PROJECT NO.

DATE CHK

APP

REV

INDEX

10/31/2017

QIC ADODGE

RECORD

PEPD

SUBMITTAL

NOT FOR
CONSTRUCTION

CALIFORNIA HIGH-SPEED RAIL PROJECT
BAKERSFIELD TO PALMDALE

CONTRACT NO.

HSR13-44

DRAWING NO.

CV-G4542

SCALE

AS SHOWN

SHEET NO.
HSR SB LINE STA 17528+47

HSR SB LINE STA 17545+99

DITCH TRANSITION
OFFSITE CULVERT TO
OG/FG

CULVERT TRANSITION
OFFSITE DITCH TO

FL Elev 578.06
7' x 12' x 8' x 465' RCB

S=1.0%
7 - 12' x 8' x 400' RCB

FL Elev 547.64

7 - 12' x 8' x 400' RCB

FL Elev 543.16

DITCH TRANSITION
OFFSITE CULVERT TO

S=1.0%

DATE CHK
APP

IN CHARGE
10/31/2017

DESIGNED BY
J. ABRAMS
DRAWN BY
N. SANDERS
CHECKED BY
G. CAMPBELL

CONTRACT NO.
HSR15-44
DRAWING NO.
CV-G1003
SCALEAS SHOWN
SHEET NO.
CALIFORNIA HIGH-SPEED RAIL PROJECT
BAKERSFIELD TO PALMDALE
CONTRACT NO. HSR13-44
DRAWING NO. CV-G1008
SCALE AS SHOWN
SHEET NO.

ALTERNATIVE 1,3,5
GRADING AND DRAINAGE
STA. 17829+30, 17833+50
PROFILE

DESIGNED BY
J. ABRAMS
DRAWN BY
N. SANDERS
CHECKED BY
G. CAMPBELL
IN CHARGE
S. SMITH
DATE
10/31/2017

DATE CHK APP BY REV
Projects\701206.00_CHSRBP\00 CADD\Sheet Files\CV\G\BP-CV-G1008.dgn
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RECORD PE PD SUBMITTAL NOT FOR CONSTRUCTION

CALIFORNIA HIGH-SPEED RAIL PROJECT
BAKERSFIELD TO PALMDALE
ALTERNATIVE 1,3,5
GRADING AND DRAINAGE
STA. 17829+30, 17833+50
PROFILE

DESIGNED BY
J. ABRAMS
DRAWN BY
N. SANDERS
CHECKED BY
G. CAMPBELL
IN CHARGE
S. SMITH
DATE
10/31/2017
ALTERNATIVE 1,3,5

GRADING AND DRAINAGE

STA. 17872

PROFILE

HSR SB LINE STA 17872+78

FG

OG

HW

S=0.6%

72" x 1300' RCP

CULVERT TRANSITION

OFFSITE DITCH TO

SEE ABOVE

MATCH LINE

SEE BELOW

MATCH LINE

CALIFORNIA HIGH-SPEED RAIL PROJECT
BAKERSFIELD TO PALMDALE
CONTRACT NO. HSR13-44
DRAWING NO. CV-G1009
SCALE AS SHOWN
SHEET NO.
ALTERNATIVE 1, 2, 3, 5
GRADING AND DRAINAGE

STA. 18188
PROFILE

0 40 80

SCALE APPLICABLE FOR FULL SIZE ONLY

HSR SB LINE STA 18188+54

• NB
• SB
MH

WATERCOURSE TRANSITION
OFFSITE CULVERT TO
HW

MH
FG

FL Elev 1648.28
72" x 263' RCP

FL Elev 1837.22
S = 3.1 4

S=10
3.0%

OG

HW

S

3.1%

FL Elev 1640.00
72" x 235' RCP

FL Elev 1639.34
72" x 52' RCP

DATE
CHK
APP
BY
REV
DESCRIPTION

DESIGNED BY
J. ABRAMS
DRAWN BY
N. SANDERS
CHECKED BY
G. CAMPBELL
IN CHARGE
S. SMITH

DATE
10/31/2017

Projects\701206.00_CHSRBP\00 CADD\Sheet Files\CV\G\BP-CV-G1020.dgn
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11/7/2017

QIC.ADodge

RECORD
PEPD
SUBMITTAL

NOT FOR CONSTRUCTION
ALTERNATIVE 1, 2, 5
GRADING AND DRAINAGE

STA. 20028
PROFILE

OFFSITE DITCH TO
CULVERT TRANSITION
FL Elev 2650.00
3-10' x 6' x 325' RCB

FLOOD CONTROL SPREADING BASIN
FL Elev 2675.90

OFFSITE CULVERT TO
WATERCOURSE TRANSITION
FL Elev 2675.90

10' = 1'-0"
SCALE APPLICABLE FOR FULL SIZE ONLY

DESIGNED BY
R. KRAFT
DRAWN BY
A. CAROLINO
CHECKED BY
G. CAMPBELL
IN CHARGE
S. SMITH

DATE
10/31/2017

CONTRACT NO.
HSR13-44
DRAWING NO.
CV-G1054
SCALE
AS SHOWN
SHEET NO.

CALIFORNIA HIGH-SPEED RAIL PROJECT
BAKERSFIELD TO PALMDALE
ALTERNATIVE 1, 2, 5
GRADING AND DRAINAGE
STA. 20028
PROFILE

NOT FOR CONSTRUCTION

PEPD
SUBMITTAL
RECORD
NP

CALIFORNIA HIGH-SPEED RAIL AUTHORITY
CALIFORNIA HIGH-SPEED RAIL PROJECT
BAKERSFIELD TO PALMDALE
CONTRACT NO. HSR13-44
DRAWING NO. CV-G1201
SCALE AS SHOWN
SHEET NO.

ALTERNATIVE 3
GRADING AND DRAINAGE
STA. 19617
PROFILE

DESIGNED BY R. KRAFT
DRAWN BY A. CAROLINO
CHECKED BY G. CAMPBELL
IN CHARGE S. SMITH
DATE 10/31/2017

SCALE APPLICABLE FOR FULL SIZE ONLY

HSR SB LINE STA 19617+92

OVERCROSSING TO WATERCOURSE TRANSITION
FL Elev 3844.29

OVERCROSSING TRANSITION
OFFSITE DITCH TO WATERCOURSE TRANSITION

FL Elev 3903.77

OVERCROSSING TRANSITION TO
2-72" x 834' RCP PROPOSED DRAINAGE OVERCROSSING

2-72" x 834' RCP PROPOSED DRAINAGE OVERCROSSING
S=1.1%
ALTERNATIVE 3
GRADING AND DRAINAGE
STA. 20001, 20026
PROFILE

HSR SB LINE STA 20001+54

- 6-10' x 8' x 353' RCB
- FL Elev 2715.51
- S=0.6%
- 3-10' x 8' x 372' RCB
- FL Elev 2690.72

HSR SB LINE STA 20026+73

- 4-10' x 8' x 35.5 RCB
- FL Elev 2713.38

BASIN TRANSITION
OFFSITE CULVERT TO CULVERT TRANSITION
OFFSITE DITCH TO CULVERT TRANSITION
WATERCOURSE TRANSITION
OFFSITE CULVERT TO 144' OFFSITE DITCH
FLOOD CONTROL SPREADING BASIN
OFFSITE DITCH TO 160' OFFSITE DITCH
FLOOD CONTROL SPREADING BASIN

R. KRAFT
A. CAROLINO
G. CAMPBELL
S. SMITH

10/31/2017

11/7/2017

CALIFORNIA HIGH-SPEED RAIL PROJECT
BAKERSFIELD TO PALMDALE
CONTRACT NO. HSR13-44
DRAWING NO. CV-G1208
SCALE AS SHOWN
SHEET NO. CV-01208

NOT FOR CONSTRUCTION
### Alignment and Profile

**PLAN AND PROFILE**

#### Typical Wall Section

**Line Data**

<table>
<thead>
<tr>
<th>No.</th>
<th>Bearing</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N 89°55'50&quot; W</td>
<td>442.06'</td>
</tr>
<tr>
<td>2</td>
<td>N 62°29'12&quot; E</td>
<td>17.10'</td>
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<tr>
<td>3</td>
<td>N 81°02'23&quot; E</td>
<td>64.48'</td>
</tr>
<tr>
<td>4</td>
<td>N 89°55'50&quot; W</td>
<td>436.32'</td>
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<tr>
<td>5</td>
<td>N 84°31'27&quot; W</td>
<td>41.74'</td>
</tr>
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</table>

#### Curve Data

<table>
<thead>
<tr>
<th>No.</th>
<th>RÀTL</th>
<th>T</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1236.00'</td>
<td>8°50'47&quot;</td>
<td>95.61'</td>
</tr>
<tr>
<td>2</td>
<td>1164.00'</td>
<td>6°01'40&quot;</td>
<td>122.46'</td>
</tr>
</tbody>
</table>

**Profile**

- **20942NE**: Station 0+00
- **20942SE**: Station 0+64.48

**Typical Wall Section**

- **Cable Railing**: Max = 38', Varies
- **Footings**: Top of Wall
- **OG**: Wall Top of Footing
- **FG**: Face of Wall
- ** sidewall**
- **FG at Back of Wall**

**Record**

- **PTEF**: Submit
- **Submittal**: Not for Construction

**Contract No.**

- HSR13-44

**Drawing No.**

- ST-G1040

**Scale**

- AS SHOWN

**Date**

- 10/31/2017

**Authors**

- Designed by: A. Dodge
- Drawn by: A. Dodge
- Checked by: G. Campbell
- In Charge: S. Smith

**Projects**

- California High-Speed Rail Project
- Bakersfield to Palmdale
- Contract No.: HSR13-44
- Drawing No.: ST-G1040
### Line Data

<table>
<thead>
<tr>
<th>No.</th>
<th>Bearing</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N 89°57'56&quot; W</td>
<td>46.63'</td>
</tr>
<tr>
<td>2</td>
<td>N 84°01'41&quot; E</td>
<td>99.71'</td>
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<tr>
<td>3</td>
<td>N 85°35'21&quot; E</td>
<td>4.90'</td>
</tr>
<tr>
<td>4</td>
<td>N 84°01'41&quot; E</td>
<td>99.81'</td>
</tr>
</tbody>
</table>

### Curve Data

<table>
<thead>
<tr>
<th>No.</th>
<th>R</th>
<th>Δ</th>
<th>T</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7939'</td>
<td>3°14'05&quot;</td>
<td>224,17'</td>
<td>448,22'</td>
</tr>
<tr>
<td>2</td>
<td>4061'</td>
<td>1°53'53&quot;</td>
<td>55,28'</td>
<td>110,54'</td>
</tr>
<tr>
<td>3</td>
<td>8061'</td>
<td>2°20'21&quot;</td>
<td>164,56'</td>
<td>329,08'</td>
</tr>
<tr>
<td>4</td>
<td>3939'</td>
<td>1°45'42&quot;</td>
<td>60,56'</td>
<td>121,10'</td>
</tr>
</tbody>
</table>

### Profile

**Profile "20860SW"**

- BEG 1860.00 0+00.00 ET
- END 1860.00 5+94.85 ET

**Profile "20860NW"**

- BEG 20860NW 0+00.00 ET
- END 20860NW 7+10.00 ET

### Curve Table

<table>
<thead>
<tr>
<th>No.</th>
<th>Type</th>
<th>Radius</th>
<th>T</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C</td>
<td>7939'</td>
<td>224,17'</td>
<td>448,22'</td>
</tr>
<tr>
<td>2</td>
<td>C</td>
<td>4061'</td>
<td>55,28'</td>
<td>110,54'</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>8061'</td>
<td>164,56'</td>
<td>329,08'</td>
</tr>
<tr>
<td>4</td>
<td>C</td>
<td>3939'</td>
<td>60,56'</td>
<td>121,10'</td>
</tr>
</tbody>
</table>

---

**Typical Wall Section**

- Top of Wall
- FG at Back of Wall
- Concrete Barrier
- Concrete Barrier

**Plan and Profile**

- Plan and Profile of retaining wall along Avenue H.
- Profile sections at stations 0+00.00 to 7+10.00 for both "20860SW" and "20860NW".

---

**Details**

- Designed by: A. Dodge
- Drawn by: A. Dodge
- Checked by: G. Campbell
- In Charge: S. Smith
- Date: 10/31/2017

---

**Projects**

- Bakersfield to Palmdale
- CONTRACT NO.: HSR13-44
- DRAWING NO.: ST-G1053
- SCALE: AS SHOWN
- SHEET NO.: 3

---

**Lines Data**

- Recorded by: A. Dodge
- *(Other lines data and comments about the project)*

---

**California High-Speed Rail Project**

- California High-Speed Rail Authority
- Photographs and drawings by: T.Y. Lin International

---

**Drawn To**

- Sheet Files: ST-G1053.dgn
- 4:11:51 PM 11/3/2017
- Project: 701206.00_CHSRBP

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**Record**

- PE/PEP SUBMITTAL NOT FOR CONSTRUCTION

---

**Scales**

- 20' = 1'-0" 50' = 1'-0" 100' = 1'-0"
- 1" = 25' VERT
- 1" = 100' HOR

---

**Notes**

- 7TH ST W
- WAVE
- SIERRA HWY
- UPRR R/W
- CHSR R/W
- PROP CHSR R/W

---

**Measurements**

- 710' TOTAL LENGTH MEASURED ALONG RW LOL
- 398' 56' 40' 56' 64' 56' 40'

---

**Construction**

- By: S. Smith
- Date: 10/31/2017

---

**Title**

- Plan and Profile

---

**Scale**

- AS SHOWN

---

**Check and App**

- CHK
- APP
- REV
- DESCRIPTION

---

**Figure**

- Projects/1001206.00_CHSRBP/00 CADD/SHEET FILES/ST/G/BP-ST-G1053.dgn
- 4:11:51 PM 11/3/2017

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**Notations**

- Projects/1001206.00_CHSRBP/00 CADD/SHEET FILES/ST/G/BP-ST-G1053.dgn
- 4:11:51 PM 11/3/2017
- 10/31/2017 QIC ARIVERA