**STRUCTURE SURVEY TEMPLATE**

<table>
<thead>
<tr>
<th>LOAD NAME</th>
<th>Pipes @ Confluence w/ SCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>STREAM NAME</td>
<td>Hones Barrance</td>
</tr>
<tr>
<td>STRUCTURE #</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TYPE</th>
<th>LENGTH</th>
<th>SIZE (W X H) &amp; SHAPE</th>
<th>MATERIAL</th>
<th>Road to Bed</th>
<th>INLET/OUTLET TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroad Bridge</td>
<td></td>
<td></td>
<td></td>
<td>Top of Road</td>
<td>EL</td>
</tr>
</tbody>
</table>

**SPECIAL NOTE**
(Conditions, Blockage, etc.

*lots of broken concrete, bricks, etc in embank*

**HIGH WATER MARK**
(Description, Witness, and Date)

<table>
<thead>
<tr>
<th>TYPE (Bridge)</th>
<th>CULVERT TYPE</th>
<th>MATERIAL</th>
<th>Road to Bed</th>
<th>INLET/OUTLET TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge Span Bridge</td>
<td>Number of Barrels</td>
<td>RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe)</td>
<td>Headwall Wingwalls Type 0°, 45°, 90°</td>
<td>Headwall Wingwalls Type 0°, 45°, 90°</td>
</tr>
<tr>
<td>Pier Shape</td>
<td>1) Circular</td>
<td>Bimetal Coated Steel</td>
<td>Projecting</td>
<td>From Topo Map</td>
</tr>
<tr>
<td>Culvert</td>
<td>2) Rectangle (Span X Rise)</td>
<td>Timber</td>
<td>Flush with Slope</td>
<td>(FT.NGVD)</td>
</tr>
<tr>
<td>Dam</td>
<td>3) Elliptical</td>
<td>Ductile</td>
<td>MES (Mitered End Section)</td>
<td>(FT.NAVD)</td>
</tr>
<tr>
<td>Spillway</td>
<td>4) Con/Span</td>
<td>Clay</td>
<td>FES (Flared End Section)</td>
<td></td>
</tr>
<tr>
<td>Riser Barrel</td>
<td>5) Elevated Arch</td>
<td>Masonry Rock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outlet</td>
<td>6) Pipe Arch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7) Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pier Shape**
1) Circular pier
2) Twin-Cylinder piers
3) Elongated pier
4) Triangular nose
5) Square nose

**Types (Shape) of Culvert**
1) Circular
2) Rectangle
3) Elliptical
4) Con/Span
5) Elevated Arch
6) Pipe Arch
7) Other

**Inlet/Outlet Type**
- Culvert with Headwall & Wingwalls
- Mitered to Conform to Slope
- Projecting from Fill
ADDITIONAL CHANNEL INFORMATION

Land Use

USP of pipes, oil pumps, and orchard on L, cattle on R.

Vegetative Cover

Flat, trees on left bank near residence.

Bed Material

Rocks, concrete, sand.

General Channel Condition

2:1

Banks

Flat.

Overbanks
<table>
<thead>
<tr>
<th>Type</th>
<th>Length</th>
<th>Size (W x H) &amp; Shape</th>
<th>Material</th>
<th>Road to Bed</th>
<th>Inlet/Outlet Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroad Bridge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Top of Road EL</td>
</tr>
</tbody>
</table>

**SPECIAL NOTE**
(Conditions, Blockage, etc)

**HIGH WATER MARK**
(Description, Witness, and Date)

<table>
<thead>
<tr>
<th>Type</th>
<th>Culvert Type</th>
<th>Material</th>
<th>Road to Bed</th>
<th>Inlet/Outlet Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of Barrels 2</td>
<td>RCP (Reinforced Concrete Pipe)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1) Circular 8&quot; x 8.5'</td>
<td>CMP (Corrugated Metal Pipe) Bitum Coated</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Rectangle (Span x Rise)</td>
<td>Steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) Elliptical</td>
<td>Timber</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4) Con/Span</td>
<td>Ductile</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5) Elevated Arch</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6) Pipe Arch</td>
<td>Masonry Rock</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7) Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Inlet/Outlet Type**
- Culvert with Headwall & Wingwalls
- Mitered to Conform to Slope
- Projecting from Fill

**Pier Shape**
1) Circular pier
2) Twin-Cylinder piers
3) Elongated pier
4) Triangular nose
5) Square nose

**Types (Shape) of Culvert**
1) Circular
2) Rectangle
3) Elliptical
4) Con/Span
5) Elevated Arch
6) Pipe Arch
7) Other

**Headwall**
Wingwalls Type 0°, 45°, 90°
Projecting
Flush with Slope
MES (Mitered End Section)
FES (Flared End Section)
ADDITIONAL CHANNEL INFORMATION

Land Use

open area
from HWY 126 4 1/2 ft frontage

D/F = D9, C4 R

Vegetative Cover

occasional Eucalyptus tree

Bed Material

cobbles/gravel on bottom thru length of culvert up to 6" Dis.

General Channel Condition

critter, some brush D/S

weeds D/S

Banks

flat D/S

orchard D/S, above frontage road

Overbanks

leaves (sporks) on both banks D/S
### Structure Survey Template

**Road Name:** Frontage → Faulkner Rd

**Stream Name:** Harris Barranca

**Structure #:** 3

**X,Y Coordinate:** [Top of Road: EL]

**Special Note:** R side filled higher with sediment

**High Water Mark:**
- Description: Witness, and Date

<table>
<thead>
<tr>
<th>Type</th>
<th>Material</th>
<th>Road to Bed</th>
<th>Inlet/Outlet Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge</td>
<td>RCP (Reinforced Concrete Pipe)</td>
<td>Height from Top of Road to Invert</td>
<td>Headwall</td>
</tr>
<tr>
<td>Span Bridge</td>
<td>CMP (Corrugated Metal Pipe)</td>
<td>Top of Road: EL</td>
<td>Wingwalls Type 0°, 45°, 90°</td>
</tr>
<tr>
<td>Pier Shape</td>
<td>Steel, Bituminous Coated</td>
<td>From Topo Map (FT.NGVD) or (FT.NAVD)</td>
<td>Projecting</td>
</tr>
<tr>
<td>Culvert</td>
<td>Timber</td>
<td>Flush with Slope</td>
<td>Headwall</td>
</tr>
<tr>
<td>Dam</td>
<td>Ductile</td>
<td>MES (Mitered End Section)</td>
<td>Wingwalls Type 0°, 45°, 90°</td>
</tr>
<tr>
<td>Spillway</td>
<td>Clay</td>
<td>FES (Flared End Section)</td>
<td>Wingwalls Type 0°, 45°, 90°</td>
</tr>
<tr>
<td>Riser Barrel</td>
<td>Masonry Rock</td>
<td></td>
<td>Wingwalls Type 0°, 45°, 90°</td>
</tr>
<tr>
<td>Outlet</td>
<td>RC box</td>
<td></td>
<td>Wingwalls Type 0°, 45°, 90°</td>
</tr>
</tbody>
</table>

**Number of Barrels:**
- 1) Circular
- 2) Rectangle (Span X Rise)
- 3) Elliptical
- 4) Con/Span
- 5) Elevated Arch
- 6) Pipe Arch
- 7) Other

**Height from Top of Road to Invert:** 8 ft 0.75

**From Topo Map (FT.NGVD) or (FT.NAVD):**

**Inlet/Outlet Type:**
- Culvert with Headwall & Wingwalls
- Mitered to Conform to Slope
- Projecting from Fill

**Pier Shape:**
- 1) Circular pier
- 2) Twin-Cylinder piers
- 3) Elongated pier
- 4) Triangular nose
- 5) Square nose

**Types (Shape) of Culvert:**
- 1) Circular
- 2) Rectangle
- 3) Elliptical
- 4) Con/Span
- 5) Elevated Arch
- 6) Pipe Arch
- 7) Other
ADDITIONAL CHANNEL INFORMATION

Land Use

orchard L & R u/s
open between frontage & HWY 126

Vegetative Cover

some local Eucalyptis

Bed Material

sand/ silt u/s
gravel u/s
coarse rocks / boulders D/s

General Channel Condition

willows on banks u/s

Banks

orchard

channel has levees both sides, 1/2 & 3/4

Overbanks

Road underpass

[Hand-drawn diagram with labeled sections and distances]
### STRUCTURE SURVEY TEMPLATE

**ROAD NAME**: Railroad  
**STREAM NAME**: Harris Branch  
**STRUCTURE #**: 4  
**DATE**: 3.4.08

<table>
<thead>
<tr>
<th>TYPE</th>
<th>LENGTH</th>
<th>SIZE (W X H) &amp; SHAPE</th>
<th>MATERIAL</th>
<th>ROAD TO BED</th>
<th>INLET/OUTLET TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroad Bridge</td>
<td>~28'</td>
<td></td>
<td></td>
<td>Top of Road: EL</td>
<td></td>
</tr>
</tbody>
</table>

**SPECIAL NOTE** (Conditions, Blockage, etc): NO piers

**HIGH WATER MARK** (Description, Witness, and Date):

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CULVERT TYPE</th>
<th>MATERIAL</th>
<th>ROAD TO BED</th>
<th>INLET/OUTLET TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge</td>
<td>Number of Barrels</td>
<td>RCP (Reinforced Concrete Pipe)</td>
<td>Height from Top of Road to Invert</td>
<td>Top of Road: EL</td>
</tr>
<tr>
<td>Span Bridge</td>
<td>1) Circular</td>
<td>CMP (Corrugated Metal Pipe)</td>
<td>Steel</td>
<td>Headwall</td>
</tr>
<tr>
<td>Pier Shape</td>
<td>2) Rectangle (Span X Rise)</td>
<td>Blinnus Coated</td>
<td>Timber</td>
<td>Wingwalls Type 0°, 45°, 90°</td>
</tr>
<tr>
<td>Culvert</td>
<td>3) Elliptical</td>
<td>Steel</td>
<td>Ductile</td>
<td>Projecting</td>
</tr>
<tr>
<td>Dam</td>
<td>4) Con/Span</td>
<td>Clay</td>
<td>Masonry Rock</td>
<td>Flush with Slope</td>
</tr>
<tr>
<td>Spillway</td>
<td>5) Elevated Arch</td>
<td>Steel</td>
<td>Masonry Rock</td>
<td>MES (Mitered End Section)</td>
</tr>
<tr>
<td>Tisner Barrel</td>
<td>6) Pipe Arch</td>
<td>Steel</td>
<td>Masonry Rock</td>
<td>FES (Flared End Section)</td>
</tr>
<tr>
<td>Outlet</td>
<td>7) Other</td>
<td>Steel</td>
<td>Masonry Rock</td>
<td></td>
</tr>
</tbody>
</table>

**Pier Shape**
1) Circular  
2) Twin-Cylinder piers  
3) Elongated pier  
4) Triangular nose  
5) Square nose

**Types (Shape) of Culvert**
1) Circular  
2) Rectangle  
3) Elliptical  
4) Con/Span  
5) Elevated Arch  
6) Pipe Arch  
7) Other

**Inlet/Outlet Type**
Culvert with Headwall & Wingwalls  
Mitered to Conform to Slope  
Projecting from Fill
Land Use

willows on banks

Vegetative Cover

sand/gravel/cobble

Bed Material

eastern will define D/S
more irregular U/S

General Channel Condition

levee banks with roads, D/S
no levees or roads U/S

Banks

orchards below top of levees D/S

Overbanks
**Structure Survey Template**

<table>
<thead>
<tr>
<th>Road Name</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telegraph Rd</td>
<td>Harris</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Structure #</th>
<th>X/Y Coordinate</th>
</tr>
</thead>
<tbody>
<tr>
<td>#5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Length</th>
<th>Size (W x H) &amp; Shape</th>
<th>Material</th>
<th>Road to Bed</th>
<th>Inlet/Outlet Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroad Bridge</td>
<td></td>
<td></td>
<td></td>
<td>Top of Road EL</td>
<td></td>
</tr>
</tbody>
</table>

**Special Note**

(Conditions, Blockage, etc)

**High Water Mark**

(Description, Witness, and Date)

<table>
<thead>
<tr>
<th>Type</th>
<th>Culvert Type</th>
<th>Material</th>
<th>Road to Bed</th>
<th>Inlet/Outlet Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge</td>
<td></td>
<td>RCP (Reinforced Concrete Pipe)</td>
<td></td>
<td>Headwall</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CMP (Corrugated Metal Pipe)</td>
<td></td>
<td>Wingwalls Type 0°, 45°, 90°</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bitum Coated</td>
<td></td>
<td>Projecting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Steel</td>
<td></td>
<td>Flush with Slope</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Timber</td>
<td></td>
<td>MES (Mitered End Section)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ductile</td>
<td></td>
<td>FES (Flared End Section)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Masonry Rock</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of Barrels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) Circular</td>
<td>14' 6&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Rectangle (Span x Rise)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3) Elliptical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4) Con/Span</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5) Elevated Arch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6) Pipe Arch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7) Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pier Shape**

1) Circular pier
2) Twin-Cylinder piers
3) Elongated pier
4) Triangular nose
5) Square nose

**Types (Shape) of Culvert**

1) Circular
2) Rectangle
3) Elliptical
4) Con/Span
5) Elevated Arch
6) Pipe Arch
7) Other

**Inlet/Outlet Type**

- Culvert with Headwall & Wingwalls
- Mitered to Conform to Slope
- Projecting from Fill

**Diagram**

- Illustrations of different types of structures and inlets/outlets
Land Use

- Residences, both banks 1/3
- L bank, 1/3 off r bank, 1/3

Vegetative Cover

- Tall trees 1/3, L 1/3
- Tall trees, both banks (eucalyptus) 1/3

Bed Material

- Cobbles/sand/gravel 1/3
- Sands/gravels/cobbles 1/3

General Channel Condition

- Irregular 1/3, graded rock @ outlet 1/3
- Silt tones, some veg (vines) & brush

Banks

- Houses 1/3
- Flat

Overbanks

- Warped inlet + graded riprap 1/3
- Steep Conc chute @ 1/3 end

Diagram:

1. Conc
2. Steep
3. Warped inlet + graded riprap
4. Steep Conc chute @ 1/3 end
5. Diagram of channel cross-section with labeled measurements
**STRUCTURE SURVEY TEMPLATE**

<table>
<thead>
<tr>
<th>ROAD NAME</th>
<th>COUNTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footmills (No Santa Barbara not visited)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STREAM NAME</th>
<th>PHOTO ID #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haines Barrier</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STRUCTURE #</th>
<th>X Y COORDINATE</th>
</tr>
</thead>
<tbody>
<tr>
<td># 6 → # 7</td>
<td>Top of Road EL</td>
</tr>
</tbody>
</table>

**SPECIAL NOTE**
(Conditions, Blockage, etc)

unaccessible -- need plans from County

**HIGH WATER MARK**
(Description, Witness, and Date)

**CULVERT TYPE**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>MATERIAL</th>
<th>Road to Bed</th>
<th>INLET/OUTLET TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge</td>
<td>RCP (Reinforced Concrete Pipe)</td>
<td>Height from Top of</td>
<td>Headwall</td>
</tr>
<tr>
<td>Span</td>
<td>CMP (Corrugated Metal Pipe)</td>
<td>Road to Invert</td>
<td>Wingwalls Type 0°, 45°, 90°</td>
</tr>
<tr>
<td>Pipe</td>
<td>Bitumin Coated</td>
<td></td>
<td>Projecting</td>
</tr>
<tr>
<td>Shape</td>
<td>Steel</td>
<td></td>
<td>Flush with Slope</td>
</tr>
<tr>
<td>Culvert</td>
<td>Timber</td>
<td></td>
<td>MES (Mitered End Section)</td>
</tr>
<tr>
<td>Dam</td>
<td>Ductile</td>
<td></td>
<td>FES (Flared End Section)</td>
</tr>
<tr>
<td>Spillway</td>
<td>Elevated Arch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riser Barrel</td>
<td>Pipe Arch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outlet</td>
<td>Masonry Rock</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Number of Barrels**

1) Circular
2) Rectangle (Span X Rise)
3) Elliptical
4) Con/Span
5) Elevated Arch
6) Pipe Arch
7) Other

**Pier Shape**

1) Circular pier
2) Twin-Cylinder piers
3) Elongated pier
4) Triangular nose
5) Square nose

**Types (Shape) of Culvert**

1) Circular
2) Rectangle
3) Elliptical
4) Con/Span
5) Elevated Arch
6) Pipe Arch
7) Other

**Inlet/Outlet Type**

- Culvert with Headwall & Wingwalls
- Mitered to Conform to Slope
- Projecting from Fill
**CHANNEL INFORMATION**

<table>
<thead>
<tr>
<th>ROAD TO BANK</th>
<th>CHANNEL TOP WIDTH</th>
<th>CHANNEL BOTTOM WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BRIDGE INFORMATION**

<table>
<thead>
<tr>
<th>DECK THICKNESS</th>
<th>TOP WIDTH</th>
<th>TOE WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HYDRAULIC WIDTH</th>
<th>NUMBER OF PIERS</th>
<th>PIER THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Photos**

- **As built**
- **Very deep channel below road**
- **45° wing walls ½ x ½**

**Photo List**

- HSB 7 
  #81 - #84
Land Use
orchard  on R bank well d/s of crossing
residence  on L bank v/s

Vegetative Cover
Eucalyptus  v/s
cobbles / boulders  v/s

Bed Material
deep incised channel
full of brush & trees - mostly willows

General Channel Condition
brushy + trees, v/s & ds

Banks

Overbanks
vert. conc wall on d/s side, L bank

Note: cannot see entire study reach upstream - Langdooby Ranch - private road. Stopped here