

# STRUCTURE SURVEY TEMPLATE

					DATE	3/4/08	
ROAD NAME				North Bank Dr		COUNTY	
STREAM NAME						PHOTO ID #	
STRUCTURE #			513 88		X-Y COORDINATE		
TYPE		LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE	
Railroad Bridge			30' x 8'		Top of Road: EL		
SPECIAL NOTE (Conditions, Blockage, etc)			There is a large (24" $\phi$ ) pipe under the bridge limiting clearance to 8' from channel bottom				
HIGH WATER MARK (Description, Witness, and Date)							
TYPE			CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE	
Bridge Span Bridge Pier Shape Culvert Dam Spillway Riser Barrel Outlet			Number of Barrels	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert  Top of Road: EL  From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)	
			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

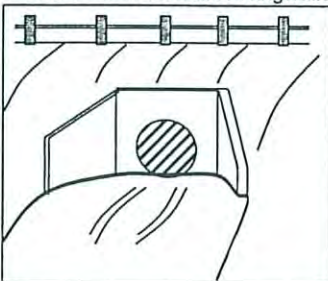


### Types (Shape) of Culvert

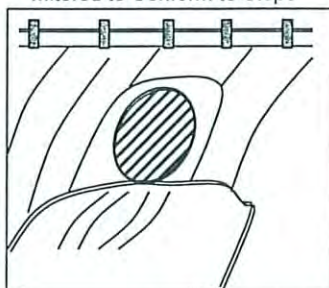
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|-------------|------------------|---------------|
|             |                  |               |
| 1) Circular | 2) Rectangle     | 3) Elliptical |
|             |                  |               |
| 4) Con/Span | 5) Elevated Arch | 6) Pipe Arch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

### Inlet/Outlet Type

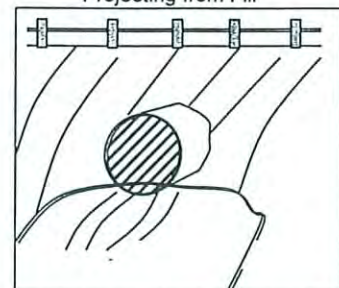
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

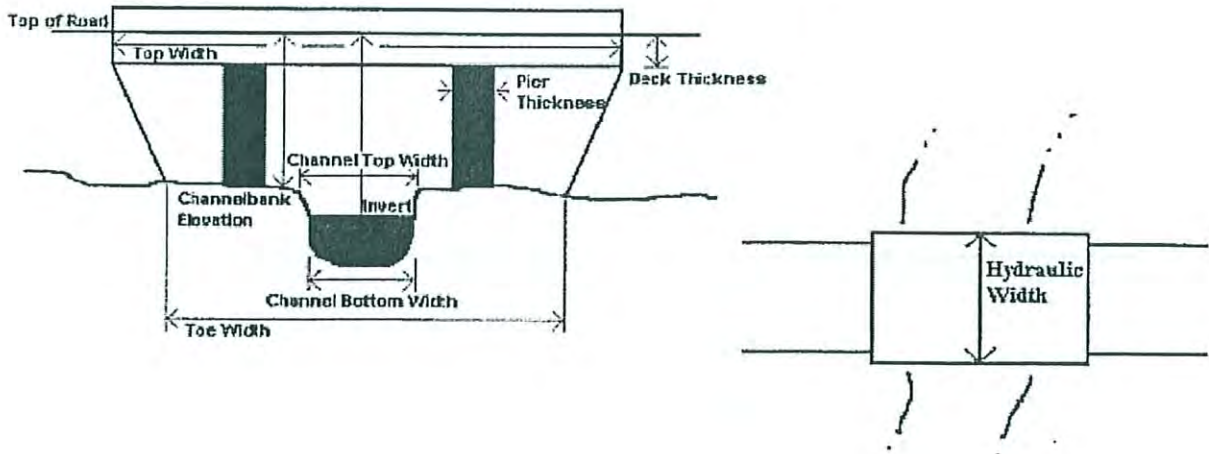


**CHANNEL INFORMATION**

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

**BRIDGE INFORMATION**

DECK THICKNESS	TOP WIDTH	TOE WIDTH
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



**PHOTOS**

Name	Description
81	v/s side of culvert looking d/s
82	d/s side of bridge looking d/s at baffles.
83	d/s side of bridge looking v/s

ADDITIONAL CHANNEL INFORMATION

Land Use

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dense vegetation (brush + grasses)  
↻ confluence w/ SCR

Vegetative Cover

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sand + gravel

Bed Material

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General Channel Condition

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Banks

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Overbanks

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## STRUCTURE SURVEY TEMPLATE







					DATE	3/5/08
ROAD NAME					COUNTY	
STREAM NAME					PHOTO ID #	
STRUCTURE #			XY COORDINATE			
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE	
Railroad Bridge				Top of Road EL		
SPECIAL NOTE (Conditions, Blockage, etc)			We started @ the ups end, so SB89 is the furthest d/s on Sudden Barranca			
HIGH WATER MARK (Description, Witness, and Date)						
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE	
Bridge		Number of Barrels	RCP (Reinforced Concrete Pipe)	Height from Top of Road to Invert	Headwall	
Span Bridge			CMP (Corrugated Metal Pipe)		Wingwalls Type 0°, 45°, 90°	
Pier Shape		1) Circular	Bitmus Coated	Top of Road EL	Projecting	
Culvert		2) Rectangle (Span X Rise)	Steel		Flush with Slope	
Dam		3) Elliptical	Timber	From Topo Map (FT.NGVD) or (FT.NAVD)	MES (Mitered End Section)	
Spillway		4) Con/Span	Ductile		FES (Flared End Section)	
Riser Barrel		5) Elevated Arch	Clay			
Outlet		6) Pipe Arch	Masonry Rock			
		7) Other				

### Pier Shape

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

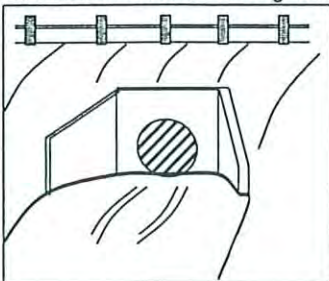


### Types (Shape) of Culvert

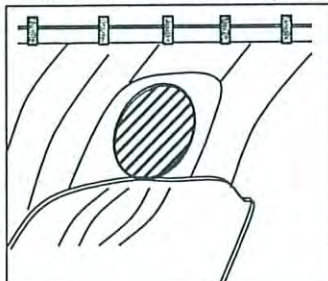
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|---|---|---|
|  |  |  |
| 1) Circular   | 2) Rectangle  | 3) Elliptical   |
|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

### Inlet/Outlet Type

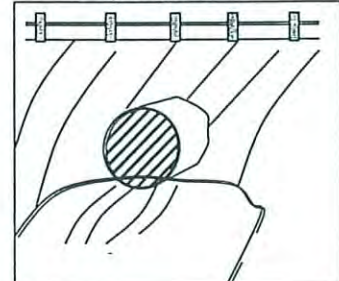
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

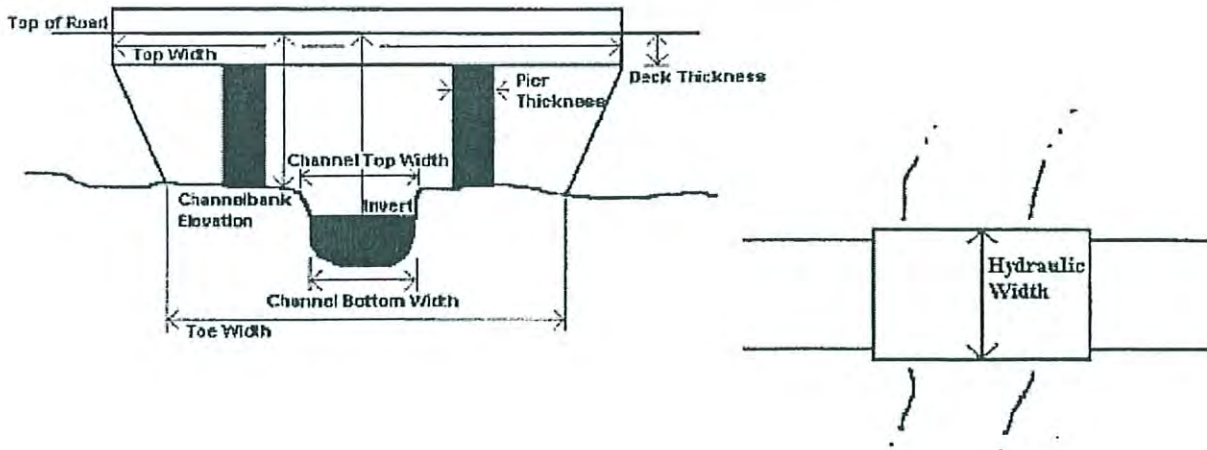


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



		PHOTOS
Name	Description	
79	d/s side of drop structure d/s of RR.	
80	channel d/s of drop structure looking d/s.	

ADDITIONAL CHANNEL INFORMATION

Land Use

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Vegetative Cover

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Sand + cobble  $d_{50} \sim 6''$

Bed Material

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General Channel Condition

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trapezoidal channel sand + gravel banks

Banks

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Overbanks

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## STRUCTURE SURVEY TEMPLATE







				DATE	3/3/08
ROAD NAME		RR		COUNTY	
STREAM NAME		Sudden Barranca		PHOTO ID #	
STRUCTURE #		SB 90		X, Y COORDINATE	
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		8' x 7'		Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)					
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape <u>Culvert</u> Dam Spillway Riser Barrel Outlet		Number of Barrels  1) Circular 2) Rectangle (Span X Rise) 3) Elliptical 4) Con/Span 5) Elevated Arch <u>6) Pipe Arch</u> 7) Other	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitumus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert  <u>Top of Road EL</u>  From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)

### Pier Shape

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

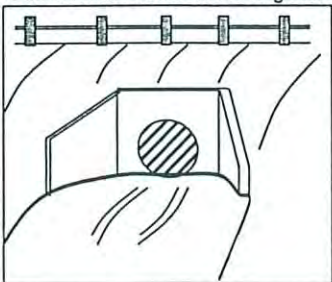


### Types (Shape) of Culvert

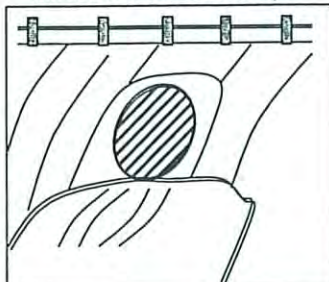
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|---|---|---|
|  |  |  |
| 1) Circular   | 2) Rectangle  | 3) Elliptical   |
|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

### Inlet/Outlet Type

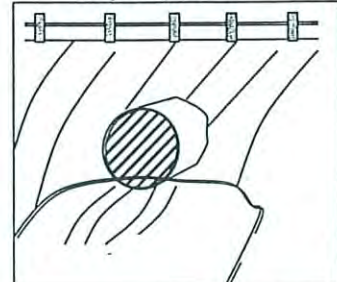
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

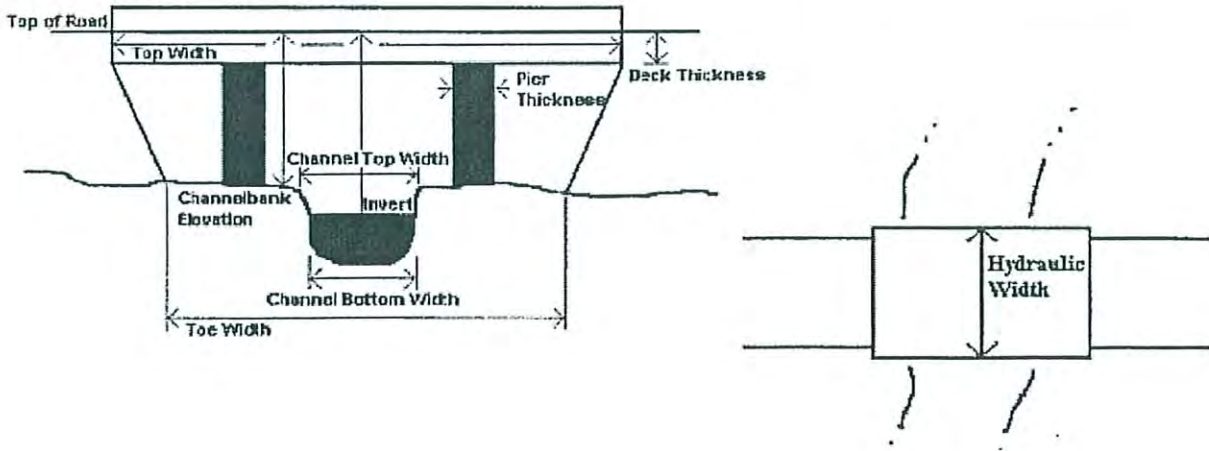


**CHANNEL INFORMATION**

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

**BRIDGE INFORMATION**

DECK THICKNESS	TOP WIDTH	TOE WIDTH
~5'		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



**PHOTOS**

Name	Description
76.	v/s side of culvert looking d/s
77	d/s side of culvert looking d/s
78	d/s side of culvert looking v/s



~ 4'

ADDITIONAL CHANNEL INFORMATION

large diameter <sup>^</sup> tributary coming in on rt bank d/s of RR bridge.

Land Use

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Vegetative Cover

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concrete severely damaged under culvert, eroded @ d/s end.  
— d/s of culvert there is some gravel, sand + cobble bed material.

Bed Material

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u/s of culvert ch is concrete lined, d/s of bridge channel is trapezoidal rather material

General Channel Condition

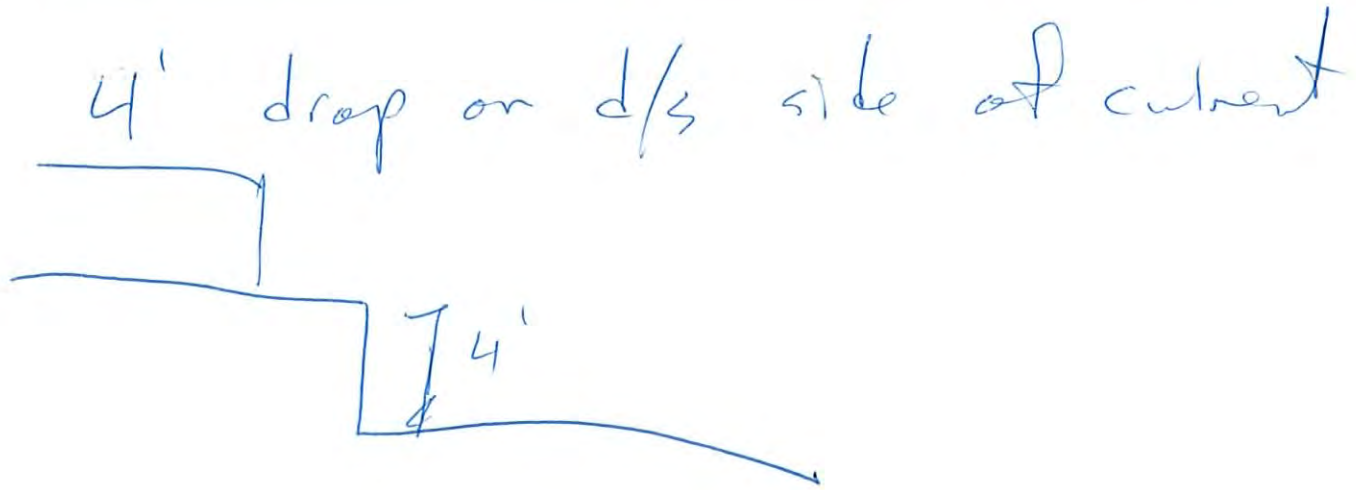
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Banks

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Overbanks

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# STRUCTURE SURVEY TEMPLATE







				DATE	3/5/08
ROAD NAME			Halifax		
STREAM NAME			Sudden Barrage		
STRUCTURE #		STB 91			
		X,Y COORDINATE			
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		9' x 6.5'		Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)					
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape		Number of Barrels	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated	Height from Top of Road to Invert	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope
Culvert		1) Circular	Steel	Top of Road EL	MES (Mitered End Section) FES (Flared End Section)
Dam		2) Rectangle (Span X Rise)	Timber		
Spillway		3) Elliptical	Ductile		
Riser Barrel		4) Con/Span	Clay	From Topo Map (FT.NGVD) or (FT.NAVD)	
Outlet		5) Elevated Arch	Masonry Rock		
		6) Pipe Arch			
		7) Other			

### Pier Shape

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

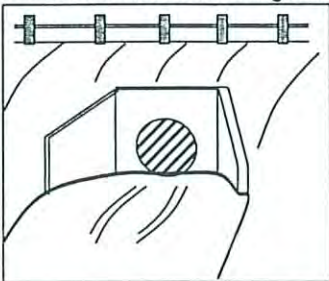


### Types (Shape) of Culvert

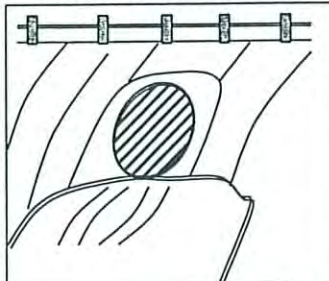
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|---|---|---|
|  |  |  |
| 1) Circular   | 2) Rectangle  | 3) Elliptical   |
|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

### Inlet/Outlet Type

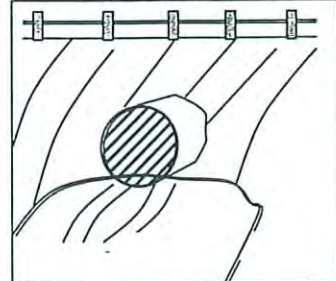
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

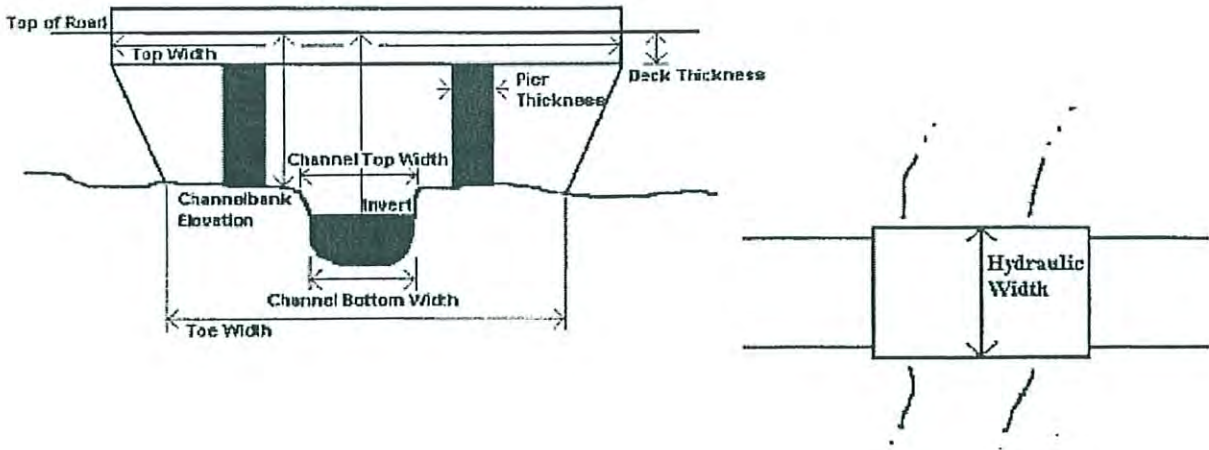


**CHANNEL INFORMATION**

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

**BRIDGE INFORMATION**

DECK THICKNESS	TOP WIDTH	TOE WIDTH
2'		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



**PHOTOS**

Name

Description

- 74 v/s side of culvert looking d/s
- 75 d/s side of culvert looking v/s

ADDITIONAL CHANNEL INFORMATION

Land Use

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Vegetative Cover

---

Bed Material

rectangular channel

General Channel Condition

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Banks

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Overbanks

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## STRUCTURE SURVEY TEMPLATE







				DATE	3/5/08
ROAD NAME		Lake Vista		COUNTY	
STREAM NAME		Sudden Barranca		PHOTO ID #	
STRUCTURE #		SB92		X, Y COORDINATE	
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		~ 7' x 9'	concrete	Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)		could not get in to measure.			
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge		Number of Barrels	RCP (Reinforced Concrete Pipe)	Height from Top of Road to Invert	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope
Span Bridge		1) Circular	CMP (Corrugated Metal Pipe)		
Pier Shape		2) Rectangle (Span X Rise)	Bitmus Coated	Top of Road EL	MES (Mitered End Section) FES (Flared End Section)
Culvert		3) Elliptical	Steel	From Topo Map (FT.NGVD) or (FT.NAVD)	
Dam		4) Con/Span	Timber		
Spillway		5) Elevated Arch	Ductile		
Riser Barrel		6) Pipe Arch	Clay		
Outlet		7) Other	Masonry Rock		

### Pier Shape

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

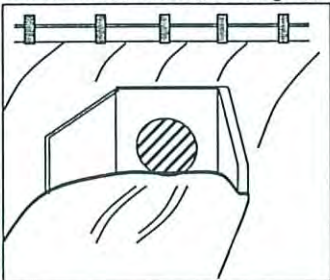


### Types (Shape) of Culvert

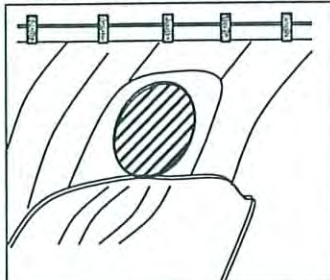
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|---|---|---|
|  |  |  |
| 1) Circular   | 2) Rectangle  | 3) Elliptical   |
|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

### Inlet/Outlet Type

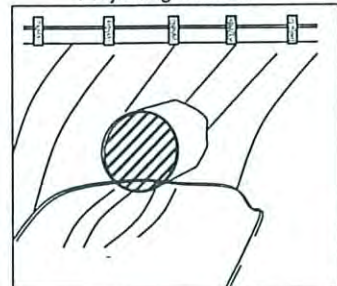
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

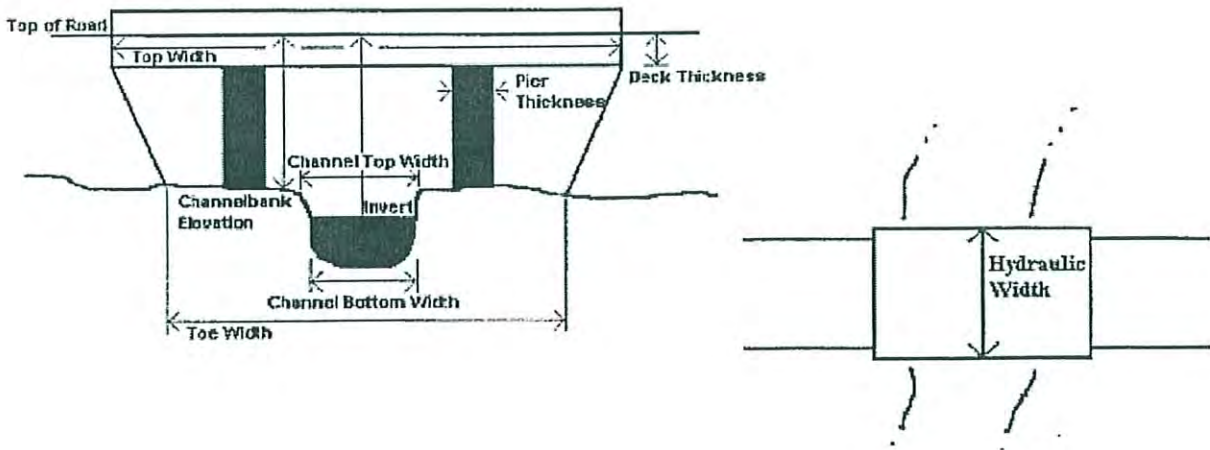


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
~ 3'		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



### PHOTOS

Name	Description
72	d/s side of culvert looking up/s
73	d/s side of culvert looking d/s channel is underground from Lake Vista to Las Cruces, and day lights d/s of Lake Vista.

ADDITIONAL CHANNEL INFORMATION

Residential

Land Use

---

Vegetative Cover

---

Bed Material

---

Rectangular concrete channel.

General Channel Condition

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Banks

---

maintenance Rd on right overbank

Overbanks

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# STRUCTURE SURVEY TEMPLATE

				DATE	3/5/08
ROAD NAME			Las Cruces		
STREAM NAME			Sudden Barranca		
STRUCTURE #		X, Y COORDINATE			
TYPE		LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed
Railroad Bridge			7.25' x 9'		Top of Road EL
SPECIAL NOTE (Conditions, Blockage, etc)		Culvert appears to turn left under Las Cruces			
HIGH WATER MARK (Description, Witness, and Date)		Culvert is buried from Las Cruces to Lake Vista.			
TYPE		CULVERT TYPE		MATERIAL	Road to Bed
Bridge Span Bridge Pier Shape Culvert Dam Spillway Riser Barrel Outlet		Number of Barrels  1) Circular 2) Rectangle (Span X Rise) 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other		RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert  Top of Road EL  From Topo Map (FT.NGVD) or (FT.NAVD)
					Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)

### Pier Shape

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

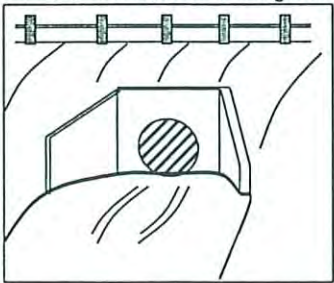


### Types (Shape) of Culvert

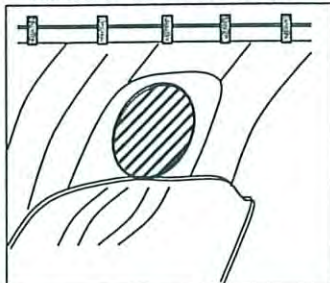
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|-------------|------------------|---------------|
|             |                  |               |
| 1) Circular | 2) Rectangle     | 3) Elliptical |
|             |                  |               |
| 4) Con/Span | 5) Elevated Arch | 6) Pipe Arch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

### Inlet/Outlet Type

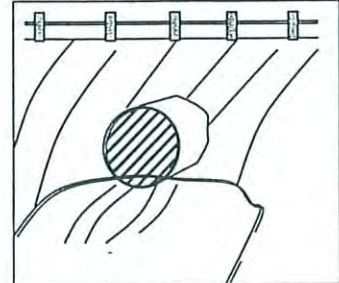
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill



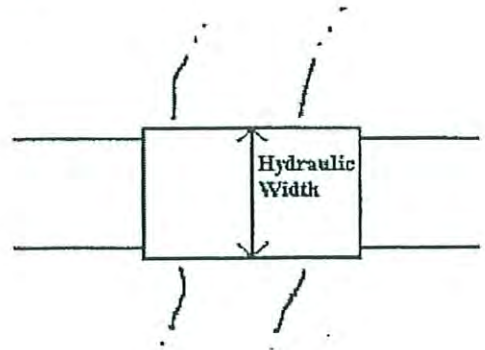
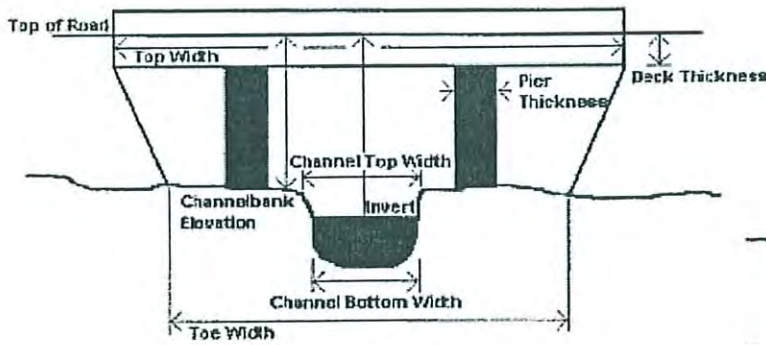


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
3'		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



### PHOTOS

Name	Description
70	u/s side of culvert looking d/s
71	u/s side of culvert looking u/s

ADDITIONAL CHANNEL INFORMATION

Land Use

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Vegetative Cover

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Bed Material

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General Channel Condition

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Banks

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Overbanks

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# STRUCTURE SURVEY TEMPLATE







				DATE	3/3/08
ROAD NAME		Pueblo St		COUNTY	
STREAM NAME		Sudden Barranca		PHOTO ID #	
STRUCTURE #		SB 94		X,Y COORDINATE	
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		10' x 6'		Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)		concrete rectangular channel			
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape <u>Culvert</u> Dam Spillway Riser Barrel Outlet		Number of Barrels  1) Circular <u>2) Rectangle (Span X Rise)</u> 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert  <u>Top of Road EL</u>  From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)

### Pier Shape

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

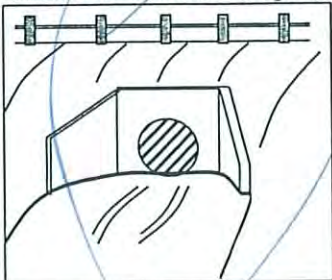


### Types (Shape) of Culvert

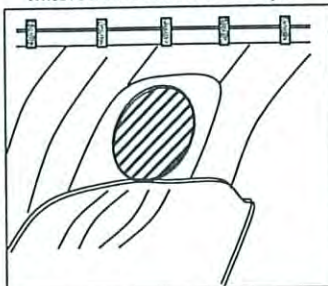
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|---|---|---|
|  |  |  |
| 1) Circular   | 2) Rectangle  | 3) Elliptical   |
|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

### Inlet/Outlet Type

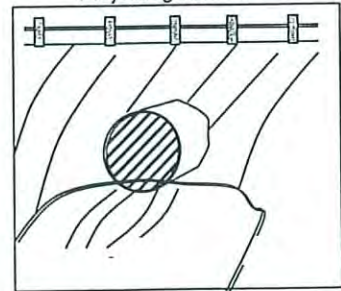
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

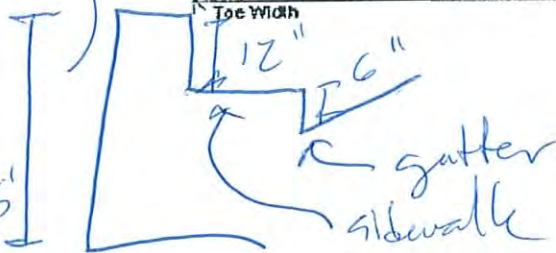
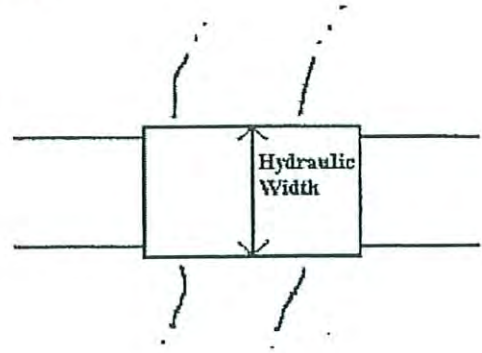
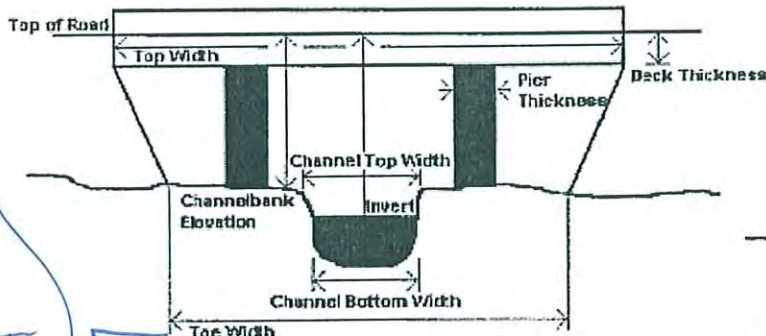


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



u/s end 4'  
d/s end 5'

### PHOTOS

Name

Description

68 u/s of culvert looking d/s.

69 d/s of culvert looking u/s

ADDITIONAL CHANNEL INFORMATION

Land Use

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Vegetative Cover

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Bed Material

rectangular concrete channel  
~ 6' deep.

General Channel Condition

---

Banks

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Overbanks

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# STRUCTURE SURVEY TEMPLATE

<b>ROAD NAME</b>				<b>DATE</b>	
Parking Rd				3/5/08	
<b>STREAM NAME</b>				<b>COUNTY</b>	
<b>STRUCTURE #</b>			<b>X,Y COORDINATE</b>		
SB 95					
<b>TYPE</b>	<b>LENGTH</b>	<b>SIZE (W X H) &amp; SHAPE</b>	<b>MATERIAL</b>	<b>Road to Bed</b>	<b>INLET/OUTLET TYPE</b>
Railroad Bridge		10' x 6'		Top of Road EL	
<b>SPECIAL NOTE</b> (Conditions, Blockage, etc)		Flow is below ground from Henderson Rd to Darling Rd.			

<b>HIGH WATER MARK</b> (Description, Witness, and Date)					
<b>TYPE</b>	<b>CULVERT TYPE</b>	<b>MATERIAL</b>	<b>Road to Bed</b>	<b>INLET/OUTLET TYPE</b>	
Bridge Span Bridge Pier Shape <u>Culvert</u> Dam Spillway Riser Barrel Outlet	Number of Barrels 1) Circular 2) Rectangle (Span X Rise) 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert Top of Road EL From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)	

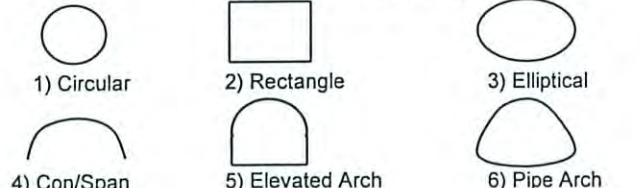
**Pier Shape**

- Circular pier
- Twin-Cylinder piers
- Elongated pier
- Triangular nose
- Square nose



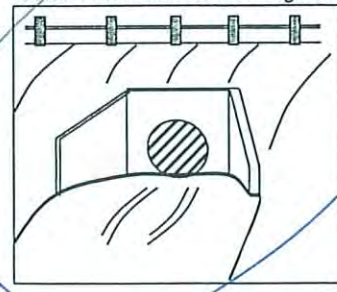
**Types (Shape) of Culvert**

- Circular
- Rectangle
- Elliptical
- Con/Span
- Elevated Arch
- Pipe Arch
- Other

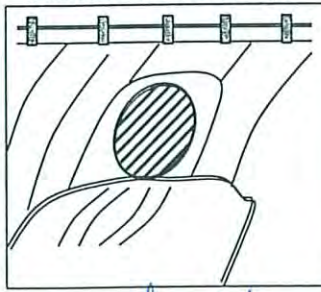


**Inlet/Outlet Type**

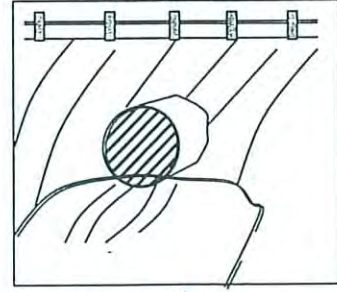
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill



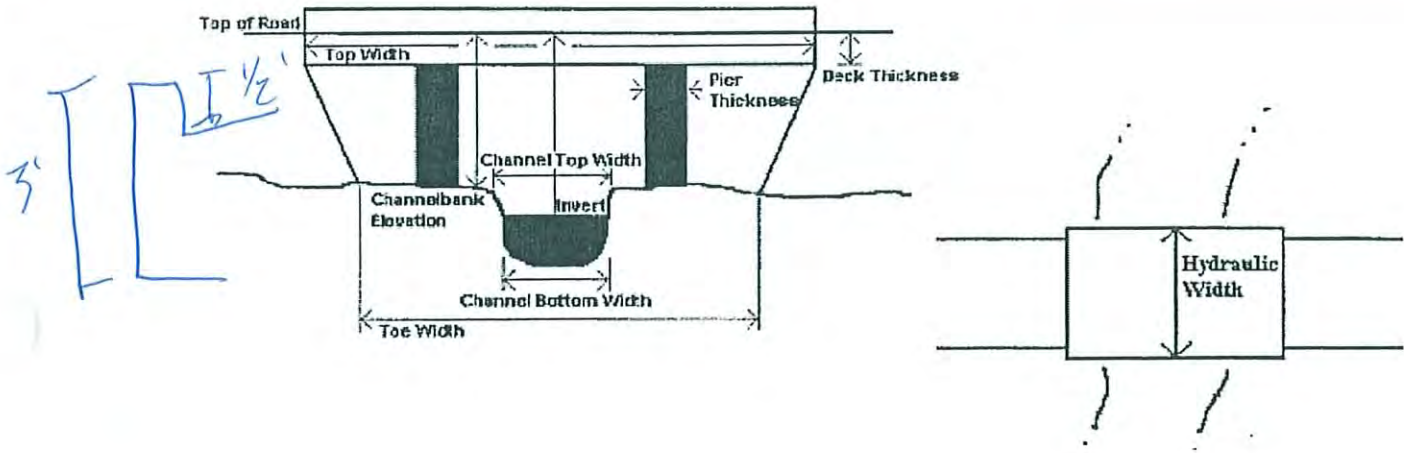
rectangular channel d/s of Darling Rd

### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
3'		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



### PHOTOS

Name

Description

66 d/s side of culvert looking r/s

67 d/s of culvert looking d/s

ADDITIONAL CHANNEL INFORMATION

Residential

Land Use

---

Vegetative Cover

---

Bed Material

rectangular concrete channel

---

General Channel Condition

---

Banks

---

Overbanks

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# STRUCTURE SURVEY TEMPLATE







				DATE	3/5/08
ROAD NAME			Henderson		
STREAM NAME			Sudden Barranca		
STRUCTURE #		X-Y COORDINATE			
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		~ 4' x 5'		Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)		small portion of open channel btwn Hwy 126 + <del>cross</del> Henderson			
HIGH WATER MARK (Description, Witness, and Date)		3 cells			
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape <u>Culvert</u> Dam Spillway Riser Barrel Outlet		Number of Barrels 3 1) Circular 2) Rectangle (Span X Rise) 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert  Top of Road EL  From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)

**Pier Shape**

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

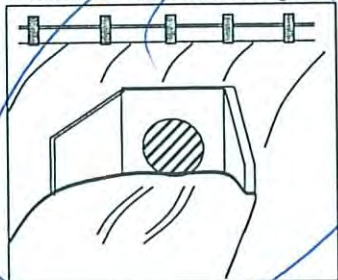


**Types (Shape) of Culvert**

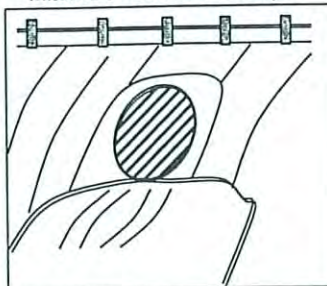
- |   |   |   |
|---|---|---|
|  |  |  |
| 1) Circular   | 2) Rectangle  | 3) Elliptical   |
|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

**Inlet/Outlet Type**

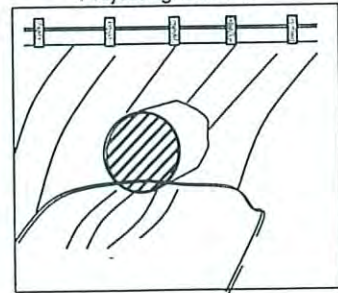
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

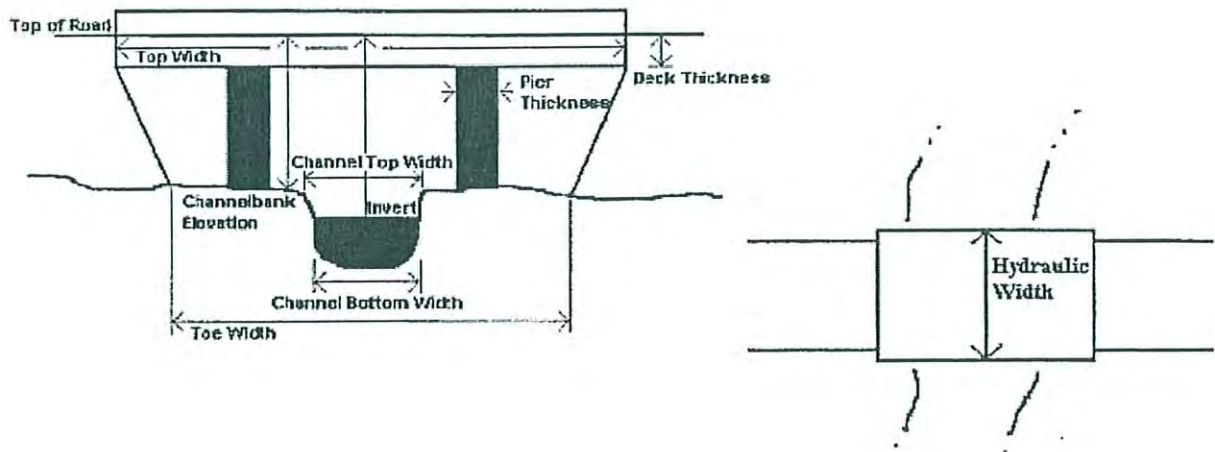


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
1.5'		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



Name	Description	PHOTOS
06	looking at Henderson culvert looking up/s.	
<p>Flow is contained underground below new development (school) to Darling Rd Citrus Glen Elementary school</p>		

ADDITIONAL CHANNEL INFORMATION

Land Use

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Vegetative Cover

---

Bed Material

---

General Channel Condition

---

Banks

---

Overbanks

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# STRUCTURE SURVEY TEMPLATE

				DATE	3/5/08
ROAD NAME			Telegraph		COUNTY
STREAM NAME			Sudden Barranca		PHOTO ID #
STRUCTURE #		SB 97		X,Y COORDINATE	
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		6' x 5'8"		Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)		v/s entrance @ telegraph appears to lead to underground culvert could not find d/s end. 2 steep portions of channel leading into culvert			
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge Span Bridge Pier Shape <u>Culvert</u> Dam Spillway Riser Barrel Outlet		Number of Barrels  1) Circular <u>2) Rectangle (Span X Rise)</u> 3) Elliptical 4) Con/Span 5) Elevated Arch 6) Pipe Arch 7) Other	RCP (Reinforced Concrete Pipe) CMP (Corrugated Metal Pipe) Bitmus Coated Steel Timber Ductile Clay Masonry Rock	Height from Top of Road to Invert  Top of Road EL  From Topo Map (FT.NGVD) or (FT.NAVD)	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope MES (Mitered End Section) FES (Flared End Section)

### Pier Shape

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

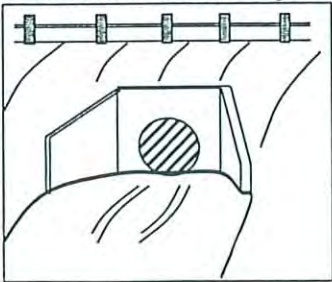


### Types (Shape) of Culvert

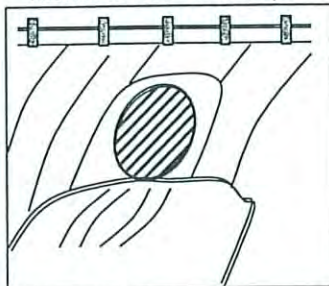
- |             |                  |               |
|-------------|------------------|---------------|
|             |                  |               |
| 1) Circular | 2) Rectangle     | 3) Elliptical |
|             |                  |               |
| 4) Con/Span | 5) Elevated Arch | 6) Pipe Arch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

### Inlet/Outlet Type

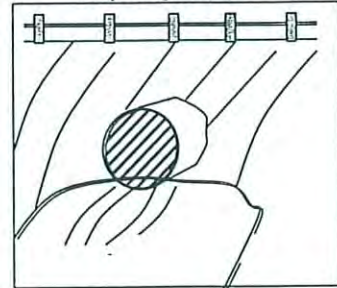
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

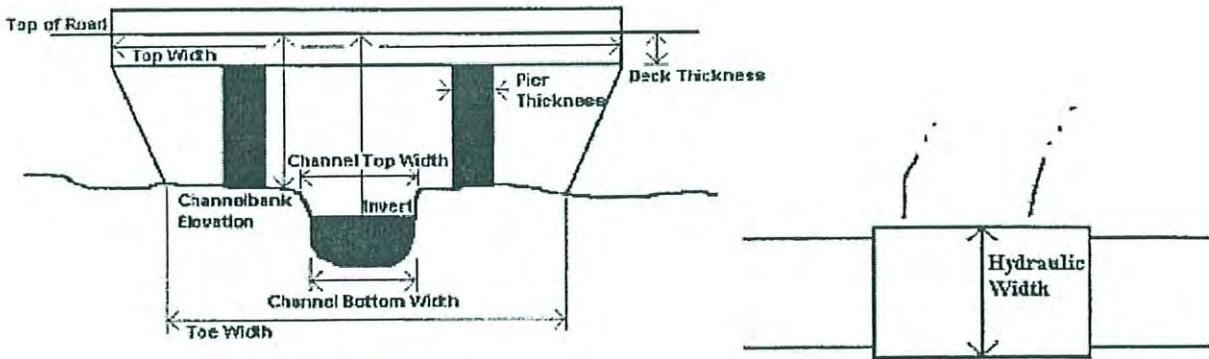


**CHANNEL INFORMATION**

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

**BRIDGE INFORMATION**

DECK THICKNESS	TOP WIDTH	TOE WIDTH
3'		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



buried culvert from Telegraph R.D. to Henderson. There is a small open channel section below Henderson Hwy 126, then the channel goes underground again.

**PHOTOS**

Name	Description
63	u/s end of culvert looking d/s
64	u/s end of culvert looking u/s

ADDITIONAL CHANNEL INFORMATION

Land Use

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Vegetative Cover

---

Bed Material

---

General Channel Condition

---

Banks

---

Overbanks

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# STRUCTURE SURVEY TEMPLATE







				DATE	3/5/08
ROAD NAME				COUNTY	
STREAM NAME				PHOTO ID #	
STRUCTURE #		X, Y COORDINATE			
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		8w x 3.5'		Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)		Pedestrian Bridge d/s of Football			
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge		Number of Barrels	RCP (Reinforced Concrete Pipe)	Height from Top of Road to Invert	Headwall
Span Bridge		1) Circular	CMP (Corrugated Metal Pipe)	Top of Road EL	Wingwalls Type 0°, 45°, 90°
Pier Shape		2) Rectangle (Span X Rise)	Bitmus Coated		Projecting
Culvert		3) Elliptical	Steel		Flush with Slope
Dam		4) Con/Span	Timber	From Topo Map (FT.NGVD) or (FT.NAVD)	MES (Mitered End Section)
Spillway		5) Elevated Arch	Ductile		FES (Flared End Section)
Riser Barrel		6) Pipe Arch	Clay		
Outlet		7) Other	Masonry Rock		

**Pier Shape**

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

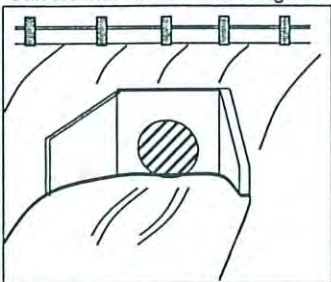


**Types (Shape) of Culvert**

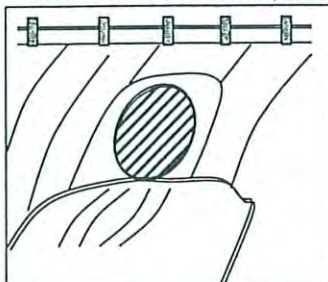
- |   |   |   |
|---|---|---|
|  |  |  |
| 1) Circular   | 2) Rectangle  | 3) Elliptical   |
|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

**Inlet/Outlet Type**

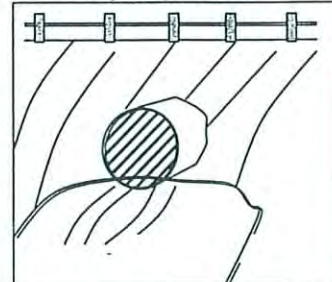
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

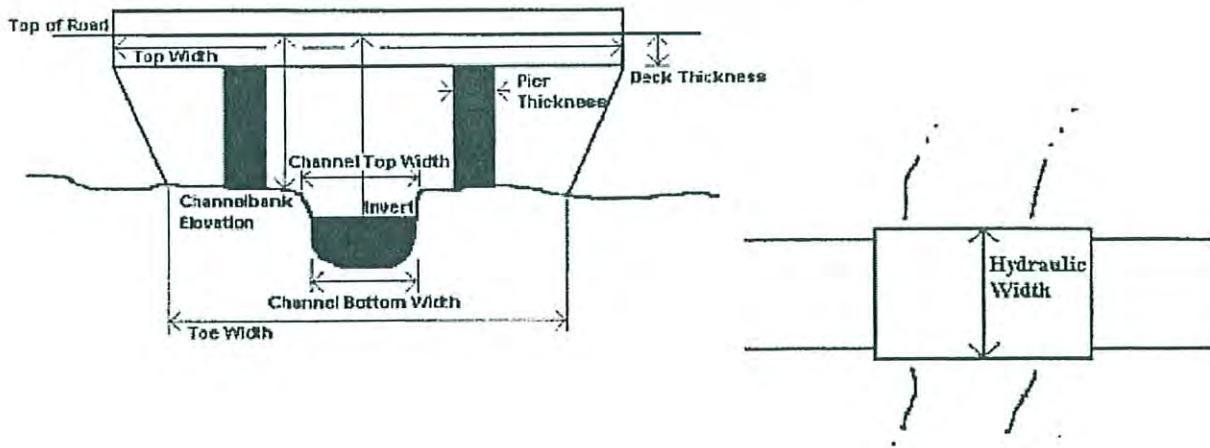


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
1.5'		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



### PHOTOS

Name

Description

62

1/3 side of ped. walk looking d/s



ADDITIONAL CHANNEL INFORMATION

1 era + accado.

Land Use

---

Vegetative Cover

---

concrete channel.

Bed Material

---

concrete lined.

General Channel Condition

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Banks

---

Overbanks

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# STRUCTURE SURVEY TEMPLATE







				DATE	3/3/08
ROAD NAME		Foothill		COUNTY	
STREAM NAME		Sudden Barranca		PHOTO ID #	
STRUCTURE #		SD98		X,Y COORDINATE	
TYPE	LENGTH	SIZE (W X H) & SHAPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Railroad Bridge		6' x 6'		Top of Road EL	
SPECIAL NOTE (Conditions, Blockage, etc)		1/3 side is drop from channel to culvert.			
HIGH WATER MARK (Description, Witness, and Date)					
TYPE		CULVERT TYPE	MATERIAL	Road to Bed	INLET/OUTLET TYPE
Bridge		Number of Barrels	RCP (Reinforced Concrete Pipe)	Height from Top of Road to Invert	Headwall Wingwalls Type 0°, 45°, 90° Projecting Flush with Slope
Span Bridge		1) Circular	CMP (Corrugated Metal Pipe)		
Pier Shape		2) Rectangle (Span X Rise)	Bitmus Coated	Top of Road EL	MES (Mitered End Section) FES (Flared End Section)
Culvert		3) Elliptical	Steel	From Topo Map (FT.NGVD) or (FT.NAVD)	
Dam		4) Con/Span	Timber		
Spillway		5) Elevated Arch	Ductile		
Riser Barrel		6) Pipe Arch	Clay		
Outlet		7) Other	Masonry Rock		

### Pier Shape

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

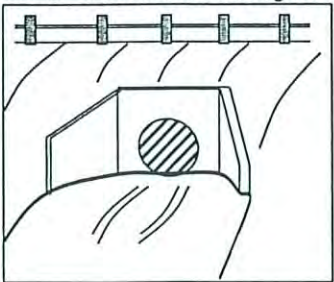


### Types (Shape) of Culvert

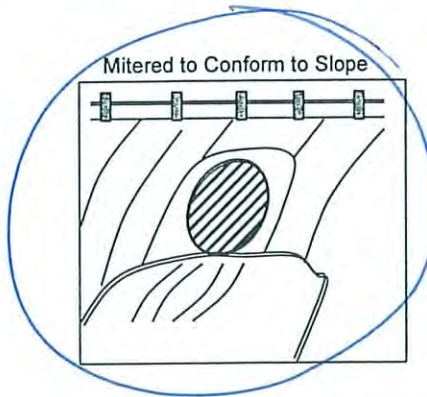
- |   |   |   |
|---|---|---|
|  |  |  |
| 1) Circular   | 2) Rectangle  | 3) Elliptical   |
|  |  |  |
| 4) Con/Span   | 5) Elevated Arch  | 6) Pipe Arch  |
| 7) Other  |   |   |

### Inlet/Outlet Type

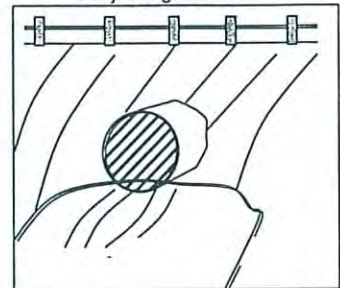
Culvert with Headwall & Wingwalls



Mitered to Conform to Slope



Projecting from Fill

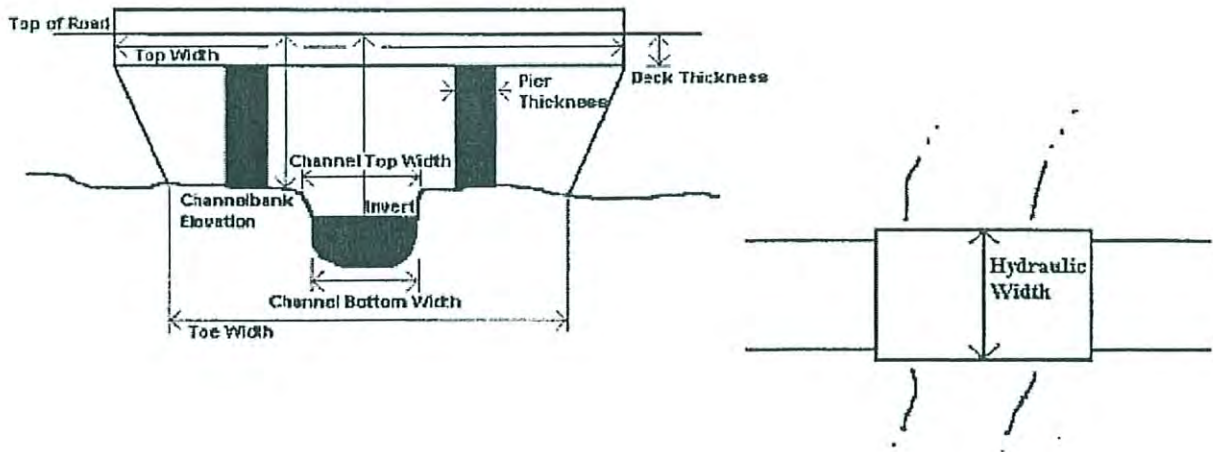


### CHANNEL INFORMATION

ROAD TO BANK	CHANNEL TOP WIDTH	CHANNEL BOTTOM WIDTH

### BRIDGE INFORMATION

DECK THICKNESS	TOP WIDTH	TOE WIDTH
4' ups side		
HYDRAULIC WIDTH	NUMBER OF PIERS	PIER THICKNESS



### PHOTOS

Name	Description
58	ups side of sudden Barrage looking d/s
59	ups of culvert looking ups,
60	d/s of culvert looking ups
61	d/s of culvert looking d/s

ADDITIONAL CHANNEL INFORMATION

Land Use

---

Vegetative Cover

---

Bed Material

---

concrete channel w/s

General Channel Condition

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Banks

---

d/s side 19" drop @ d/s side of culvert.  
profile

Overbanks

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