ROADS AND HIGHWAYS DEPARTMENT MINISTRY OF ROAD TRANSPORTATION AND BRIDGES THE PEOPLE'S REPUBLIC OF BANGLADESH

PREPARATORY SURVEY ON **WESTERN BANGLADESH BRIDGES IMPROVEMENT PROJECT**

FINAL REPORT VOLUME 3: APPENDIX 1

APRIL 2015

JAPAN INTERNATIONAL COOPERATION AGENCY ORIENTAL CONSULTANTS GLOBAL CO., LTD. KATAHIRA & ENGINEERS INTERNATIONAL CR(5)

4 R

15-027

ROADS AND HIGHWAYS DEPARTMENT
MINISTRY OF ROAD TRANSPORTATION AND BRIDGES
THE PEOPLE'S REPUBLIC OF BANGLADESH

PREPARATORY SURVEY ON WESTERN BANGLADESH BRIDGES IMPROVEMENT PROJECT

FINAL REPORT
VOLUME 3: APPENDIX 1

APRIL 2015

JAPAN INTERNATIONAL COOPERATION AGENCY
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
KATAHIRA & ENGINEERS INTERNATIONAL

People's Republic of Bangladesh Preparatory Survey on Western Bangladesh Bridges Improvement Project

Final Report Volume 3

List of Appendix

APPENDIX 1 (Final Report Volume 3)

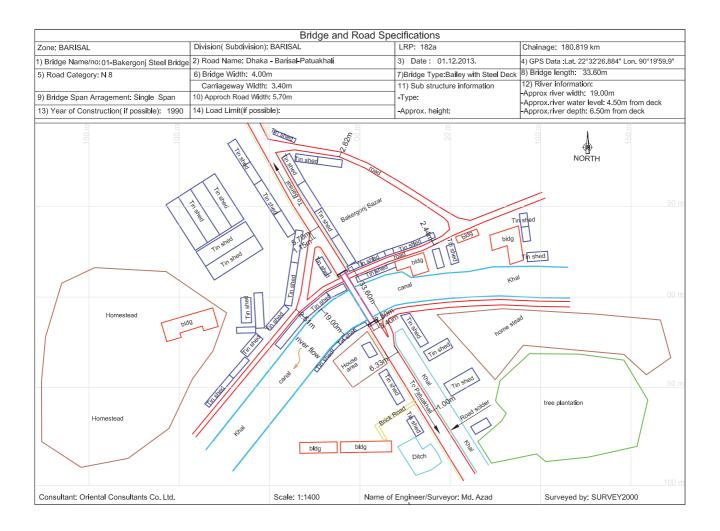
Appendix 1.1 The Result of Site Survey for 200 Bri	ages
--	------

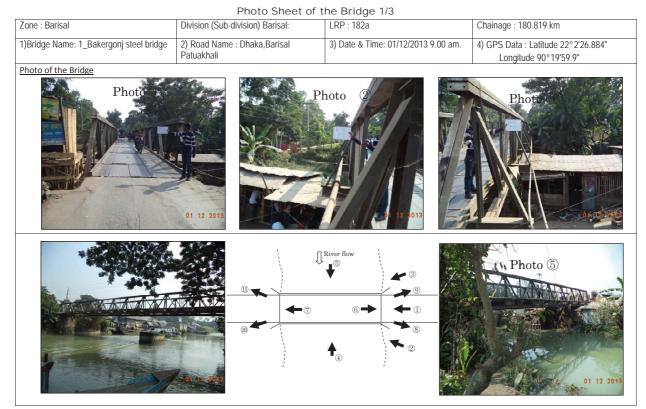
- Appendix 1.2 Minutes of Discussion (M/D) with RHD at 26th January
- Appendix 1.3 List of 105 Bridges with Score and Photos
- Appendix 1.4 Geological Survey Works
- Appendix 1.5 Additional investigation for application of weathering steel

APPENDIX 2 (Final Report Volume 4)

- Appendix 2.1 EIA Report (For 105 Bridges)
- Appendix 2.2 ARP Report (For 105 Bridges)
- Appendix 2.3 EIA Report (For EZ bridge)
- Appendix 2.4 ARP Report (For EZ Bridge)
- Appendix 2.5 Form of Monitoring
- Appendix 2.6 TOR for IA for ARP Implementation
- Appendix 2.7 TOR for External Monitoring Consultant

APPENDIX 1.1 The Result of Site Survey for 200 Bridges





Zone : Barisal	Division (Sub-division) Barisal:	LRP : 182a	Chainage : 180.819 km
1)Bridge Name: 1_Bakergonj steel bridge	2) Road Name : Dhaka,Barisal Patuakhali	3) Date & Time: 01/12/2013 9.00 am.	4) GPS Data: Latitude 22°2'26.884" Longitude 90°19'59.9"
	l .	l .	3

Photo of the Bridge











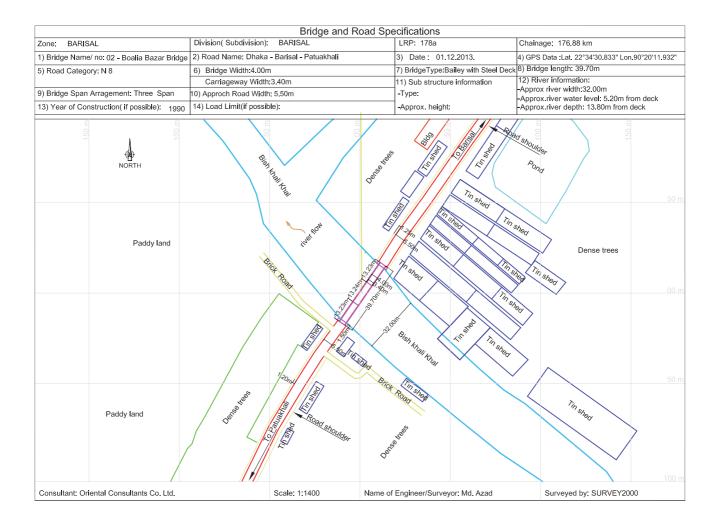


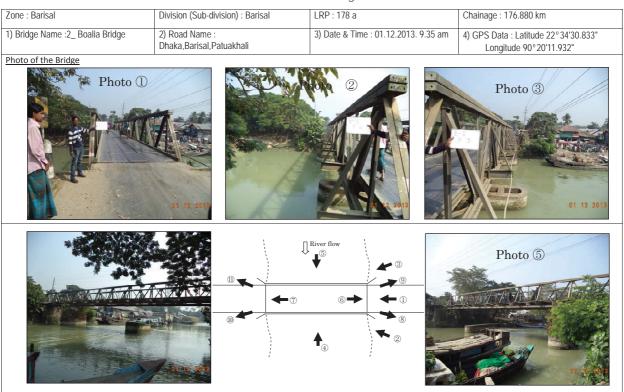
APPENDIX 3-3

APPENDIX 4

1. Description of Damages (Present Condition) of the Bridge

Zone : Ba	risal	Division (Sub-division) Barisal:	LRP : 182a		Chainage : 180.819 km	
1)Bridge N	Name: 1_Bakergonj steel bridge	2) Road Name : Dhaka,Barisal Patuakhali 3) Date & Time: 01/12/2013 9.00 am.		Fime: 01/12/2013 9.00 am.	4) GPS Data : Latitude 22°2'26.884" Longitude 90°19'59.9"		
	Damage 1		Damage 2		Damage 3		Damage 4
Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment
Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, VDeformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Voeformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others (For Steel Structure Corrosion, Missing bolt, VDeformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, VDeformed section Others ()
	B-01 P-1 U-1	とは、	8-01 P-2 b-2		B-01 P-3 D-3		Pb-1





Zone : Barisal	Division (Sub-division) : Barisal	LRP : 178 a	Chainage : 176.880 km
1) Bridge Name :2_ Boalia Bridge	2) Road Name : Dhaka,Barisal,Patuakhali	3) Date & Time: 01.12.2013. 9.35 am	4) GPS Data : Latitude 22°34'30.833" Longitude 90°20'11.932"
Photo of the Bridge Photo 6	Ph	noto ⑦	Photo ®











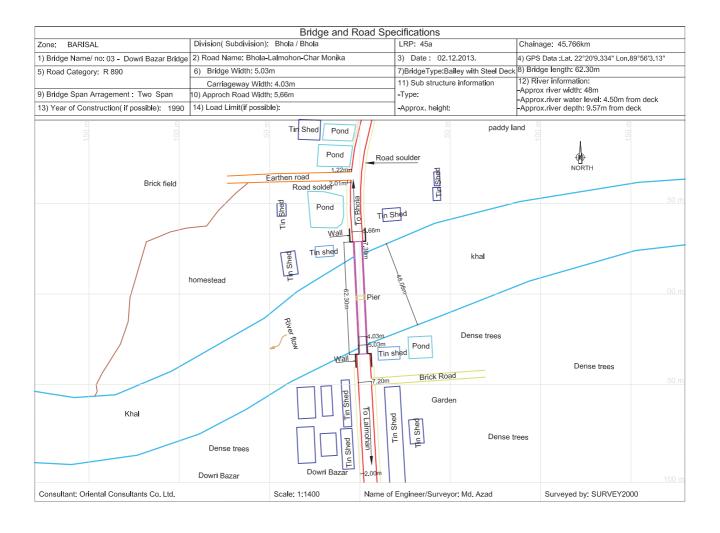


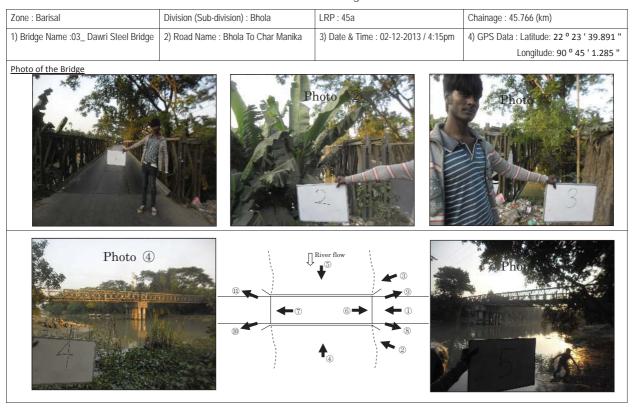
Photo Sheet of the Bridge 3/3

APPENDIX 3-3 APPENDIX 4

1. Description of Damages (Present Condition) of the Bridge

Zone : Barisal		Division (Sub-division) : Barisal		LRP : 178 a		Chainage : 176.880 km		
1) Bridge	1) Bridge Name :2_ Boalia Bridge 2) Road		2) Road Name : Dhaka,Barisal,Patuakhali		3) Date & Time: 01.12.2013. 9.35 am		4) GPS Data : Latitude 22°34'30.833" Longitude 90°20'11.932"	
	Damage 1		Damage 2		Damage 3	Damage 4		
Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment	
Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, vDeformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, vDeformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, vDeformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, vDeformed section Others ()	
	B-2 P-1 D-1		B-2 P-2 D-2		B-8 2013		B-2-4	
Coments								





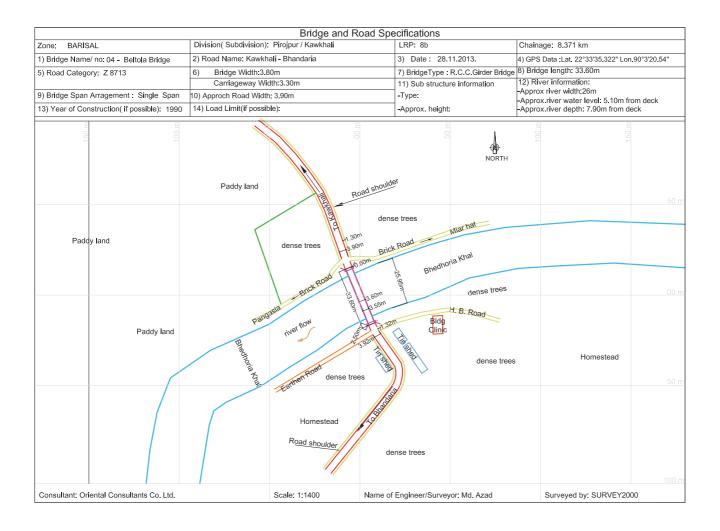
Zone : Barisal	Division (Sub-division) : Bhola	LRP: 45a	Chainage : 45.766 (km)
1) Bridge Name :03_ Dawri Steel Bridge	2) Road Name : Bhola To Char Manika	3) Date & Time : 02-12-2013 / 4:15pm	4) GPS Data : Latitude: 22 ° 23 ' 39.891 " Longitude: 90 ° 45 ' 1.285 "
Photo of the Bridge Photo 6		icto O	Photo: 8
Photo 9	Ph	noto D	

Photo Sheet of the Bridge 3/3

APPENDIX 3-3 APPENDIX 4

1. Description of Damages (Present Condition) of the Bridge

Zone : Bar	isal	Division (Sub-division) : Bhola	LRP : 45a		Chainage	: 45.766 (km)
1) Bridge Name :03_ Dawri Steel Bridge		2) Road N	lame : Bhola To Char Manika	3) Date &	3) Date & Time: 02-12-2013 / 4:15pm		ata : Latitude: 22 ° 23 ' 39.891 "
							Longitude: 90 ° 45 ' 1.285 "
	Damage 1		Damage 2		Damage 3		Damage 4
Damage Location	Slab, Girder, Pier, Abutment	Damage Location	/Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	Slab, Girder, Pier, Abutment
Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, /Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, JMissing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()
NA.			30 Mi B-93 B-22				
Coments							



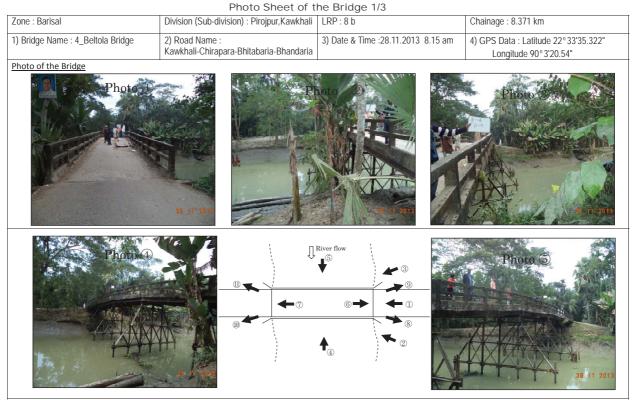


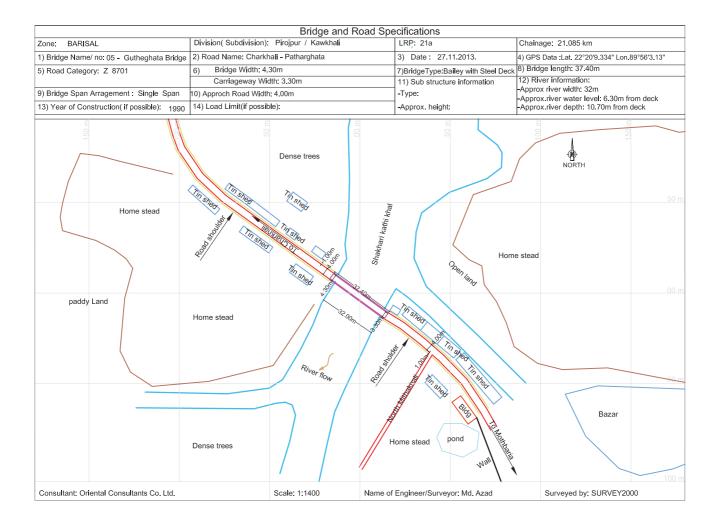
	Photo Sheet of t	ne bridge 2/3		
Zone : Barisal	Division (Sub-division) : Pirojpur,Kawkhali	LRP:8b	Chainage: 8.371 km	
1) Bridge Name : 4_Beltola Bridge	2) Road Name : Kawkhali-Chirapara-Bhitabaria-Bhandaria	3) Date & Time :28.11.2013 8.15 am	4) GPS Data : Latitude 22°33'35.322" Longitude 90°3'20.54"	
Photo of the Bridge Thoto 6	28 11 2011			
hoto	28/11 2011	28 11 2013		

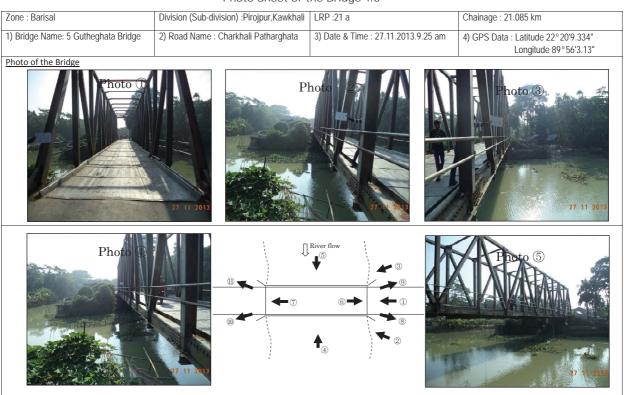
APPENDIX 3-3

APPENDIX 4

1. Description of Damages (Present Condition) of the Bridge

			burnage of the	ic Bridge (17)	,		
Zone : Ba	risal	Division (vision (Sub-division) : Pirojpur,Kawkhali LRP : 8 b Chainage : 8.371 km		: 8.371 km		
1) Bridge	Name : 4_Beltola Bridge	2) Road N Kawkhali-	lame : Chirapara-Bhitabaria-Bhandaria	3) Date & Time :28.11.2013 8.15 am		4) GPS Data: Latitude 22°33'35.322" Longitude 90°3'20.54"	
	Damage 1		Damage 2		Damage 3		Damage 4
Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	Slab, Girder, Pier, Abutment, √Railing
Damage Type	For Concrete Structure vCrack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure vCrack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure vCrack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure vCrack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()
			Sa w ma		B ₂₀₀ 28		28 17 201





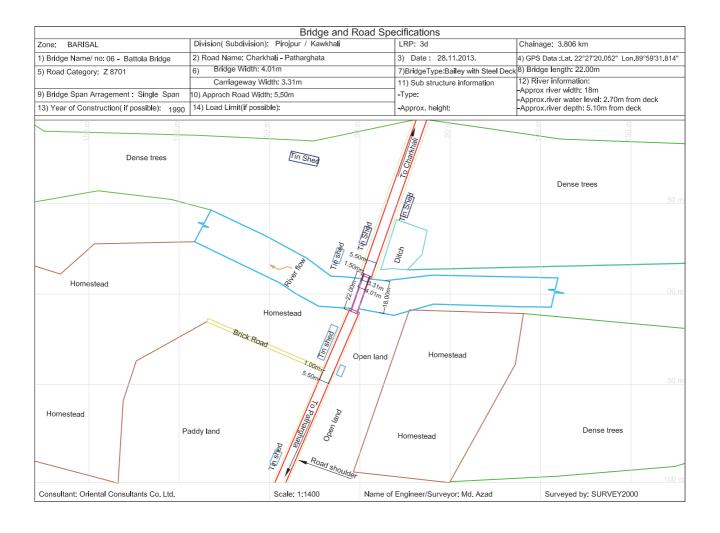
Zone : Barisal	Division (Sub-division) :Pirojpur,Kawkhal	i LRP :21 a	Chainage: 21.085 km
1) Bridge Name: 5 Gutheghata Bridge	2) Road Name : Charkhali Patharghata	3) Date & Time : 27.11.2013.9.25 am	4) GPS Data : Latitude 22°20'9.334" Longitude 89°56'3.13"
Photo of the Bridge			
		27-11 2018	
Photo 9		Photo (II)	

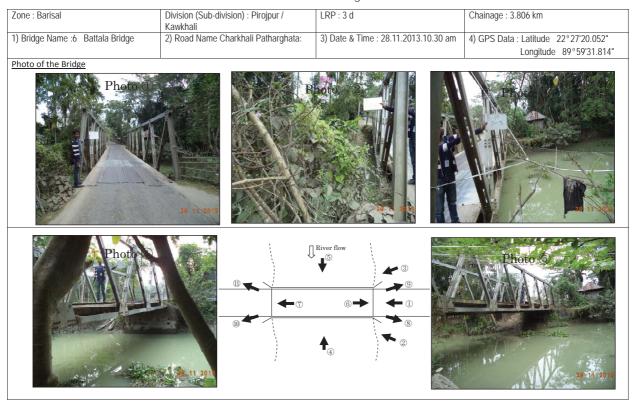
Photo Sheet of the Bridge 3/3

APPENDIX 3-3 APPENDIX 4

1. Description of Damages (Present Condition) of the Bridge

Zone : Bar	isal	Division (S	Sub-division) :Pirojpur,Kawkhali	LRP :21 a		Chainage	: 21.085 km
1) Bridge I	Name: 5 Gutheghata Bridge	2) Road N	2) Road Name : Charkhali Patharghata 3) Date & Time : 27.11.2013.9.25 am		Time : 27.11.2013.9.25 am	4) GPS Data : Latitude 22° 20'9.334" Longitude 89° 56'3.13"	
	Damage 1		Damage 2		Damage 3		Damage 4
Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	√Slab, Girder, Pier, Abutment
Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others (For Steel Structure Corrosion, Missing bolt, VDeformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, vDeformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, vDeformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, vDeformed section Others ()
Coments	B-5 D-1 P-1		BURR				
Coments							





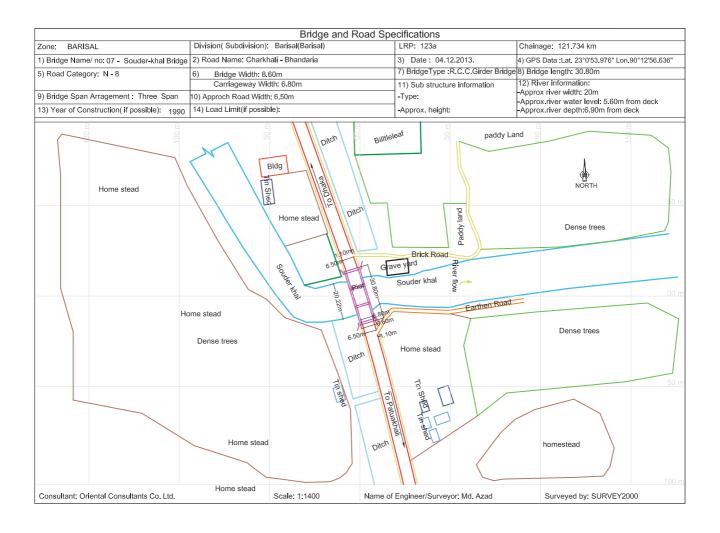
Zone : Barisal	Division (Sub-division) : Pirojpur / Kawkhali	LRP: 3 d	Chainage : 3.806 km
1) Bridge Name :6 Battala Bridge	2) Road Name Charkhali Patharghata:	3) Date & Time : 28.11.2013.10.30 am	4) GPS Data : Latitude 22°27'20.052" Longitude 89°59'31.814"
Photo of the Bridge Photo	28 11 201	28 4 2013	Photo 8
Photo (9)	Pl	noto (1)	PA

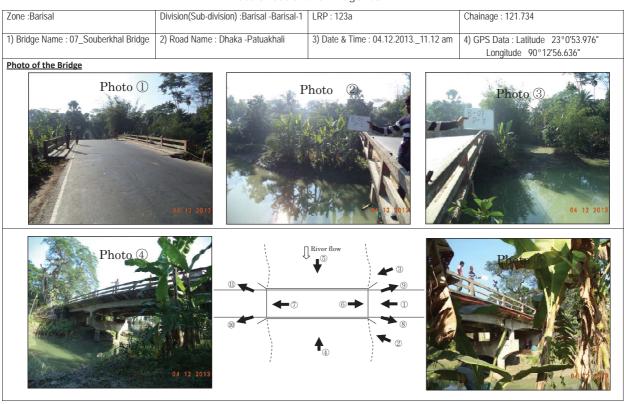
Photo Sheet of the Bridge 3/3

APPENDIX 3-3 APPENDIX 4

1. Description of Damages (Present Condition) of the Bridge

	3			
Zone : Barisal	Division (Sub-division) : Pirojpur / Kawkhali	LRP: 3 d	Chainage: 3.806 km	
1) Bridge Name :6 Battala Bridge	2) Road Name Charkhali Patharghata:	3) Date & Time: 28.11.2013.10.30 am	4) GPS Data : Latitude 22°27'20.052" Longitude 89°59'31.814"	
Damage 1	Damage 2	Damage 3	Damage 4	
Damage Location Slab, Girder, Pier, Abutment, √Iron	Damage Location √Slab, Girder, Pier, Abutment	Damage Location √Slab, Girder, Pier, Abutment	Damage Location √Slab, Girder, Pier, Abutment	
For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others (√Iron)	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, √Deformed section Others ()	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, √Deformed section Others ()	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, √Deformed section Others ()	
Comments	8-06 D-2 P-7	\$0 - 0		
Sommens				





	1 11010 011001 01			
Zone :Barisal	Division(Sub-division) :Barisal -Barisal-1	LRP: 123a	Chainage : 121.734	
1) Bridge Name : 07_Souberkhal Bridge	2) Road Name : Dhaka-Patuakhali	3) Date & Time : 04.12.201311.12 am	4) GPS Data : Latitude 23°0'53.976" Longitude 90°12'56.636"	
Photo of the Bridge	1		1 0	
Pkoto	06 12 2013	04 12 2639	978	
Photo (6)	3-07 P-9	hoto (10)	07	

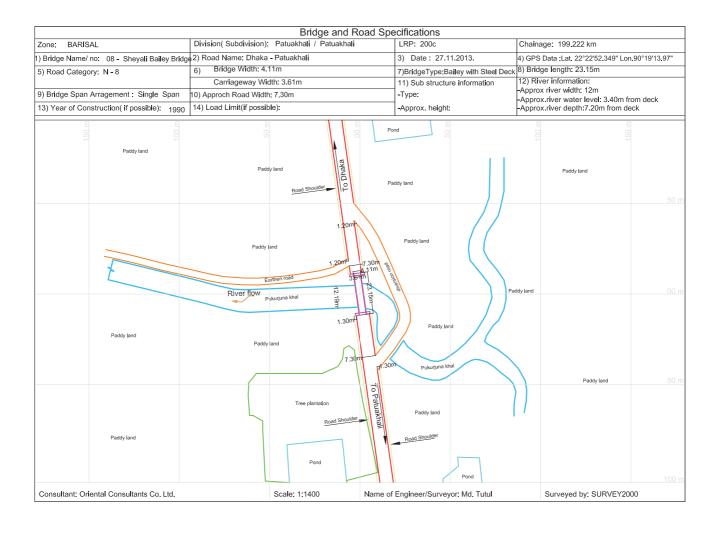
Photo Sheet of the Bridge 3/3

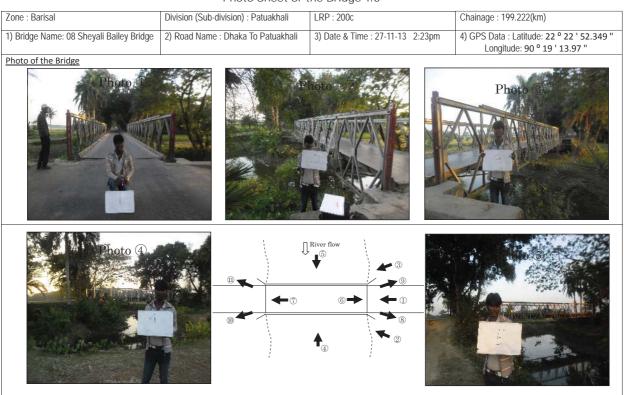
APPENDIX 3-3
APPENDIX 4

1. Description of Damages (Present Condition) of the Bridge

Zone :Barisal	Division(Sub-division) :Barisal -Barisal-1	LRP: 123a	Chainage : 121.734	
1) Bridge Name : 07_Souberkhal Bridge	2) Road Name : Dhaka -Patuakhali	3) Date & Time : 04.12.201311.12 am	4) GPS Data : Latitude 23°0'53.976" Longitude 90°12'56.636"	
Damage 1	Damage 2	Damage 3	Damage 4	
Damage Slab, Girder, Pier, Abutment, Location √Railing	Damage Slab, Girder, Pier, Abutment, Location √Railing	Damage Slab, Girder, Pier, Abutment, √Railing	Damage Slab, Girder, Pier, Abutment. Location √Railing	
For Concrete Structure Crack, Spalling, VRebar exposure Others () Type For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type Type Type	For Concrete Structure Crack, Spalling, VRebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type Type Type Type Type Type Type Typ	
Coments	B-or p-2 p-2	B-07 P-3 p-3	B-07 - P-4 - P-4	

Zone :Barisal		Division(Sub-division) :Barisal -Barisal-1		LRP : 123a		Chainage : 121.734	
1) Bridge	Bridge Name : 07_Souberkhal Bridge		2) Road Name : Dhaka -Patuakhali		3) Date & Time : 04.12.201311.12 am		ata : Latitude 23°0'53.976" gitude 90°12'56.636"
Damage Location	Slab, Girder, Pier, Abutment, √Railing	Damage Location	Slab, Girder, Pier, Abutment, √Railing	Damage Location	Slab, Girder, Pier, Abutment	Damage Location	Slab, Girder, Pier, Abutment
Damage Type	For Concrete Structure Crack, Spalling, VRebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, VRebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()
	Ta 1- 2013		B-07 P-6 p-6				
Comments							





Zone : Barisal	Division (Sub-division) : Patuakhali	LRP: 200c	Chainage : 199.222(km)
1) Bridge Name: 08 Sheyali Bailey Bridge	2) Road Name : Dhaka To Patuakhali	3) Date & Time: 27-11-13 2:23pm	4) GPS Data : Latitude: 22 ° 22 ' 52.349 " Longitude: 90 ° 19 ' 13.97"
Photo of the Bridge Photo (6)			
	P	noto (II)	Phote 4

Photo Sheet of the Bridge 3/3

APPENDIX 3-3 APPENDIX 4

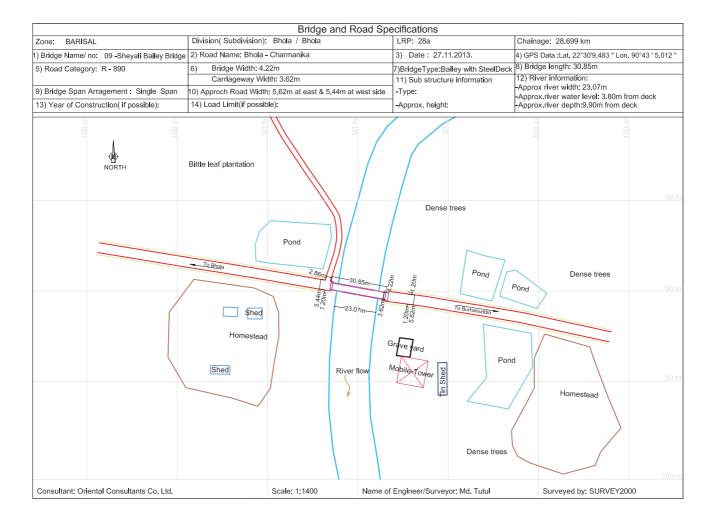
1. Description of Damages (Present Condition) of the Bridge

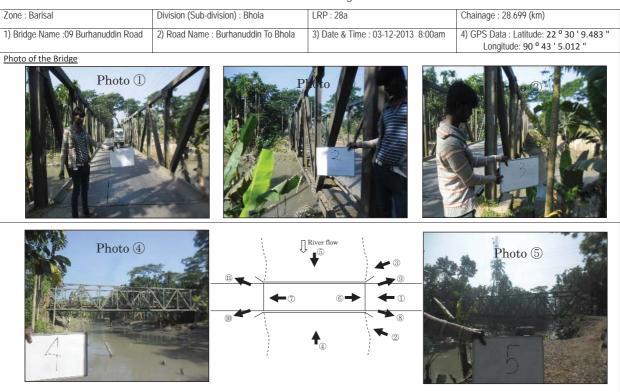
Damage Location For Cra Ret Damage Oth	Damage 1 Slab, Girder, Pier, Abutment or Concrete Structure ack, Spalling,	2) Road N Damage Location	Damage 2 /Slab, Girder, Pier, Abutment	3) Date & Damage	Time: 27-11-13 2:23pm Damage 3		ata : Latitude: 22 ° 22 ' 52.349 " ngitude: 90 ° 19 ' 13.97 " Damage 4
Location For Cra Ret Damage Oth	Slab, Girder, Pier, Abutment or Concrete Structure ack, Spalling,			Damage	Damage 3		Damage 4
Location For Cra Ret Damage Oth	or Concrete Structure ack, Spalling,		√Slab, Girder, Pier, Abutment	Damage			
Cra Reb Damage Oth	ack, Spalling,			Location	${\mathcal I}$ Slab, Girder, Pier, Abutment	Damage Location	Slab, Girder, Pier, Abutment, √Railing
Cor Def	ebar exposure hers () or Steel Structure orrosion, /Missing bolt, formed section hers ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, /Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure /Corrosion, Missing bolt, Deformed section Others ()
	B-8 B-1		B-81		B-8		B-8 D-4
Coments							

Damage of the Bridge (3/2)

Zone : Barisal	Division (Sub-division) : Patuakhali	LRP: 200c	Chainage : 199.222(km)
1) Bridge Name: 08 Sheyali Bailey Bridge	2) Road Name : Dhaka To Patuakhali	3) Date & Time : 27-11-13 2:23pm	4) GPS Data : Latitude: 22 ° 22 ' 52.349 " Longitude: 90 ° 19 ' 13.97 "
Damage 5	Damage 6	Damage 7	Damage 8
Damage Location √Slab, Girder, Pier, Abutment	Damage Location /Slab, Girder, Pier, Abutment	Damage Location /Slab, Girder, Pier, Abutment	Damage Slab, Girder, Pier, Abutment, Location √Railing
Damage Type Type Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () Type For Steel Structure Corrosion, Missing bolt, /Deformed section Others ()	For Concrete Structure Crack, Spalling, Rebar exposure Others (Type For Steel Structure /Corrosion, Missing bolt, Deformed section Others ()	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others (Whole)
Coments		B-8 D-7	B-8 D-8

Zone : Barisal	Division (Sub-division) : Patuakhali	LRP: 200c	Chainage : 199.222(km)	
1) Bridge Name: 08 Sheyali Bailey Bridge	2) Road Name : Dhaka To Patuakhali	3) Date & Time: 27-11-13 2:23pm	4) GPS Data : Latitude: 22 ° 22 ' 52.349 " Longitude: 90 ° 19 ' 13.97 "	
Damage	Damage 1	Damage 11	Damage 12	
Damage Slab, Girder, Pier, Abutment, √ Location Railing	Damage Location √Slab, Girder, Pier, Abutment	Damage Location /Slab, Girder, Pier, Abutment	Damage Location \(\sigma \) Slab, Girder, Pier, Abutment	
Damage Type Type Type Type Type Type Type Typ	For Concrete Structure	Damage Type Type Type Type Type Type Type Typ	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure /Corrosion, Missing bolt, Deformed section Others ()	
B-8 B-9	B-8 D-10	B-8 D-11	B-8 D-12	
Coments				





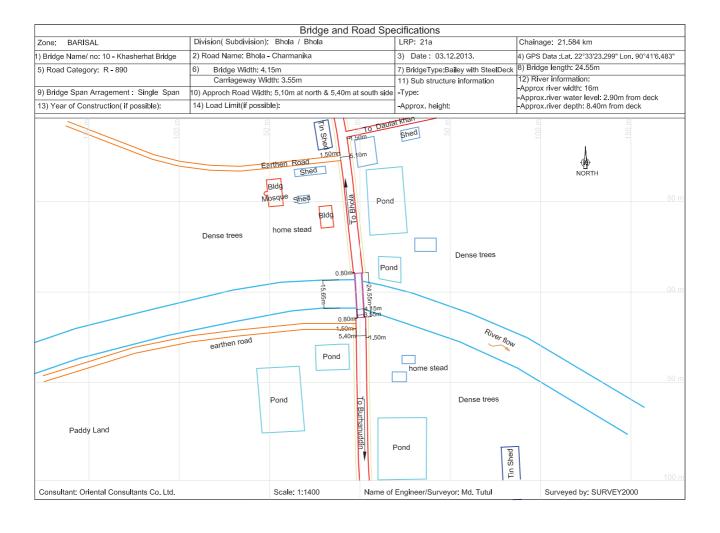
Zone : Barisal	Division (Sub-division) : Bhola	LRP : 28a	Chainage : 28.699 (km)
1) Bridge Name :09 Burhanuddin Road	2) Road Name : Burhanuddin To Bhola	3) Date & Time: 03-12-2013 8:00am	4) GPS Data : Latitude: 22 ° 30 ' 9.483 " Longitude: 90 ° 43 ' 5.012 "
Photo of the Bridge			
Photo			Photo ®
Photo			ote (II)

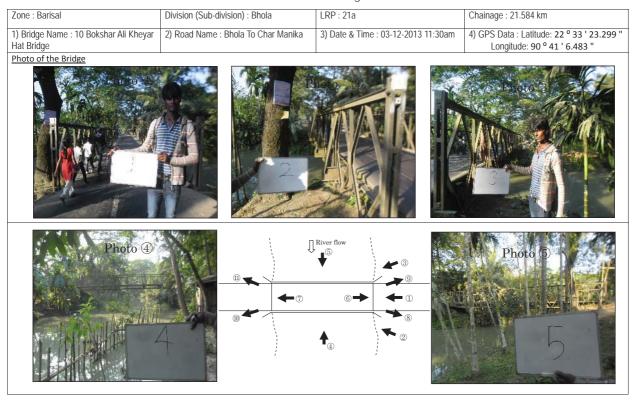
Photo Sheet of the Bridge 3/3

APPENDIX 3-3 APPENDIX 4

1. Description of Damages (Present Condition) of the Bridge

Zone : Ba	risal	Division (Sub-division) : Bhola	LRP : 28a		Chainage	: 28.699 (km)
1) Bridge	Name :09 Burhanuddin Road	2) Road N	Name : Burhanuddin To Bhola	3) Date &	Time: 03-12-2013 8:00am	4) GPS Data : Latitude: 22 ° 30 ' 9. Longitude: 90 ° 43 ' 5.012 "	
	Damage 1		Damage 2		Damage 3		Damage 4
Damage Location	√Slab, Girder, Pier, Abutment	Damage Location	Slab, Girder, Pier, Abutment	Damage Location	Slab, Girder, Pier, Abutment	Damage Location	Slab, Girder, Pier, Abutment
Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others (For Steel Structure Corrosion, JMissing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others (For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others (For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()
	Olles						
Coments							





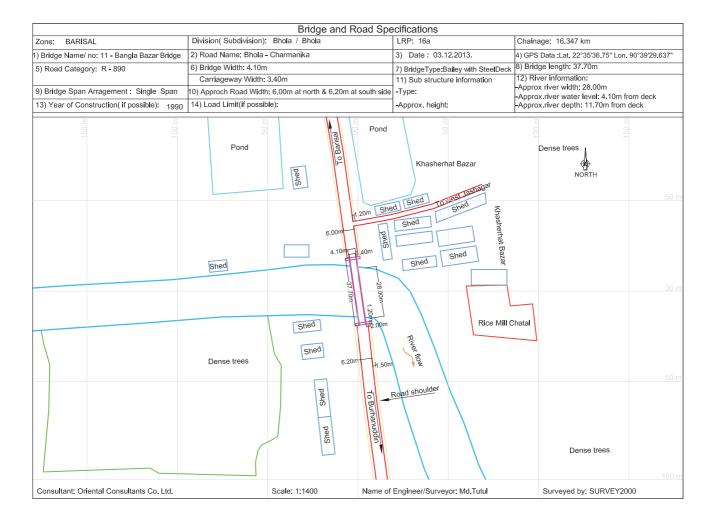
Zone : Barisal	Division (Sub-division) : Bhola	LRP : 21a	Chainage : 21.584 km
1) Bridge Name : 10 Bokshar Ali Kheyar Hat Bridge	2) Road Name : Bhola To Char Manika	3) Date & Time: 03-12-2013 11:30am	4) GPS Data : Latitude: 22 ° 33 ' 23.299 " Longitude: 90 ° 41 ' 6.483 "
Photo of the Bridge			
			Photo ®
		hote ©	

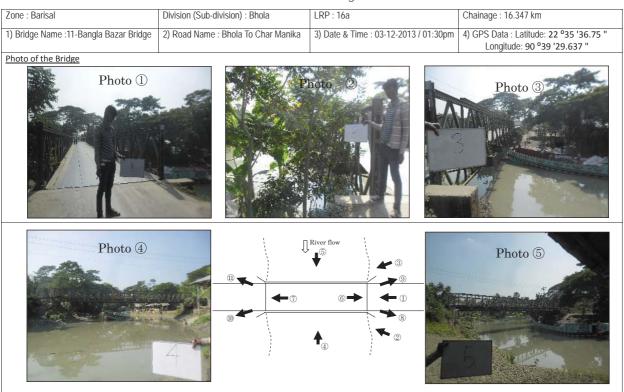
Photo Sheet of the Bridge 3/3

APPENDIX 3-3 APPENDIX 4

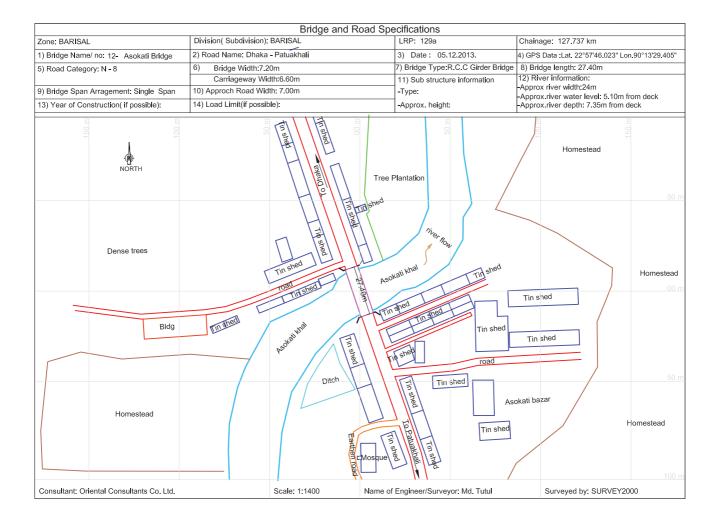
1. Description of Damages (Present Condition) of the Bridge

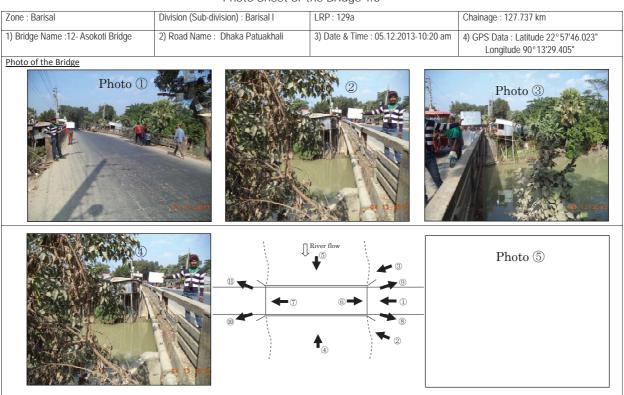
Dunings of the Bridge (117)							
Zone : Ba	risal	Division (Sub-division) : Bhola	LRP : 21a		Chainage	: 21.584 km
1) Bridge Name : 10 Bokshar Ali Kheyar Hat Bridge		2) Road N	lame : Bhola To Char Manika	3) Date &	3) Date & Time : 03-12-2013 11:30am		ata : Latitude: 22 ° 33 ' 23.299 " gitude: 90 ° 41 ' 6.483 "
Damage 1			Damage 2	Damage 3			Damage 4
Damage Location	Slab, Girder, Pier, Abutment, √Railing	Damage Location	Slab, Girder, Pier, Abutment, √Angle	Damage Location	Slab, Girder, Pier, Abutment	Damage Location	Slab, Girder, Pier, Abutment
Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, J Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others (For Steel Structure Corrosion, Missing bolt, //Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	Damage Type	For Concrete Structure Crack, Spalling, Rebar exposure Others () For Steel Structure Corrosion, Missing bolt, Deformed section Others ()
7	BOX B - 50 P - 1 0 - 1						
Coments							





Zone : Barisal	Division (Sub-division) : Bhola	LRP : 16a	Chainage: 16.347 km
1) Bridge Name :11-Bangla Bazar Bridge	2) Road Name : Bhola To Char Manika	3) Date & Time: 03-12-2013 / 01:30pm	4) GPS Data : Latitude: 22 °35 '36.75 " Longitude: 90 °39 '29.637 "
Photo of the Bridge		oto 7	8
			Photo ①





Zone : Barisal	Division (Sub-division) : Barisal I	LRP: 129a	Chainage: 127.737 km
1) Bridge Name :12- Asokoti Bridge	2) Road Name : Dhaka Patuakhali	3) Date & Time: 05.12.2013-10:20 am	4) GPS Data: Latitude 22°57'46.023"
			Longitudo 00º13'20 405"

Photo of the Bridge













Photo Sheet of the Bridge 3/3

APPENDIX 3-3 APPENDIX 4

1. Description of Damages (Present Condition) of the Bridge

Zone : Barisal	Division (Sub-division) : Barisal I	LRP : 129a	Chainage : 127.737 km
1) Bridge Name :12- Asokoti Bridge	2) Road Name : Dhaka Patuakhali	3) Date & Time : 05.12.2013-10:20 am	4) GPS Data : Latitude 22°57'46.023" Longitude 90°13'29.405"
Damage 1	Damage 2	Damage 3	Damage 4
Damage Slab, Girder, Pier, Abutment, Location √Railing	Damage Slab, Girder, Pier, Abutment, Location √Railing	Damage Slab, Girder, Pier, Abutment, Location √Railing	Damage Location Slab, Girder, Pier, Abutment
For Concrete Structure Crack, Spalling, Rebar exposure Others ()	Damage Type Type Type	For Concrete Structure Crack, Spalling, VRebar exposure Others () Type For Steel Structure Corrosion, Missing bolt, Deformed section Others ()	For Concrete Structure Crack, Spalling, Rebar exposure Others () Type For Steel Structure Corrosion, Missing bolt, Deformed section Others ()
DA 12 2013 Coments	B=12 B-2 D-2	B-12 F-3	