

Bridge Inventory

SER. No. 17 N.H. Rt. 5 57 Km

NAME OF BRIDGE Mach; Khola		CLASS OF ROAD N.H. Rt. No. 5		CROSSING, NAME OF RIVER OR ROAD Mach; Khola		MAINTENANCE BY	
DESIGN INFORMATION		COMPLETED 1990		Date of Preparation 16/10/99		Prepared by M. H. S. B. S.	
Type of Bridge		Design Loading		Load Limitation		No. of Lanes	
Superstructure Timber Truss		Design Standard		18 t		8 t	
Substructure Masonry		Skew of Bridge		US, MS			
Length of Bridge		Condition of Crossing		Road			
Width of Bridge		m		Span		17.6	
Overall		m		Carriageway		3.89	
Aligned Articles		Ratio of Heavy Vehicle %		Paving			
Traffic Volume		Deck Slab		Main Beam		Paving	
Final Record of Repair		Pavement		Others		Expansion Joints	
Others		Substructure		Bearing		Drainage	
Raising		Curb		Affixed Articles			

Elevation		Cross Section	

Plan		Surrounding Condition	

1. Designed by New Zealanders.
2. Timber bridge is only for temporary use.
3. To be replaced with a permanent structure.
4. Repaint is suggested on steel.

Result of Visual Inspection	Date of Inspection	Comment
Pavement	—	Abutment
Curb	—	Pier
Railing	—	Wing Wall
Deck Slab	—	River Bank
Main Beam	—	Approach
Others	—	Others
Superstructure	2.2	Substructure
Overall Rating	2.2	1.0

Comments

1. No damage detected on the basis of the inspection results.
2. Damage has been detected and a follow-up survey is required.
3. There is significant damage and a detailed survey needs to be carried out to establish whether repair work is to be carried out or not.
4. There is significant damage and urgent repair is required or the bridge has to be closed to traffic or restriction on vehicle weight have to be imposed.

1. Joints of truss etc.
2. Abutments both on rock.
3. Good maintenance.

Photographs

NAME OF BRIDGE *Mech. Khas / a*

SER. No. *17*

Date of Inspection

Front

Photo Album No. _____

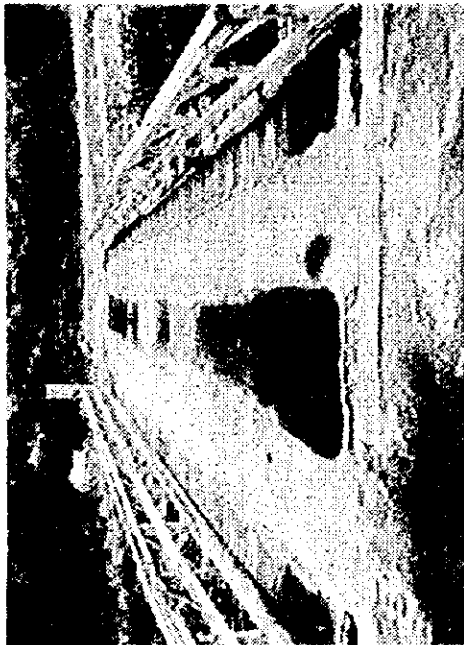
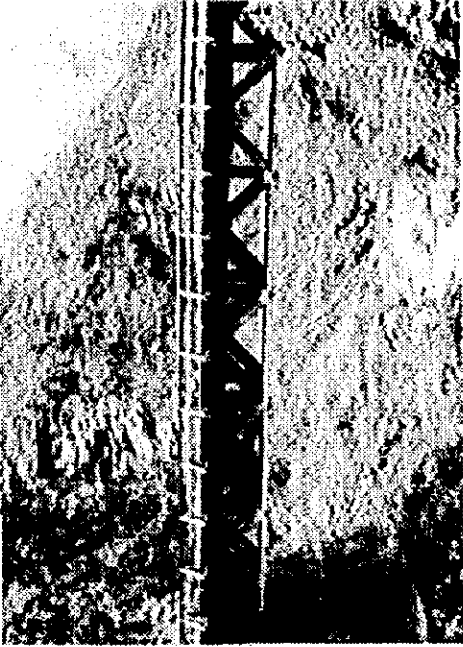
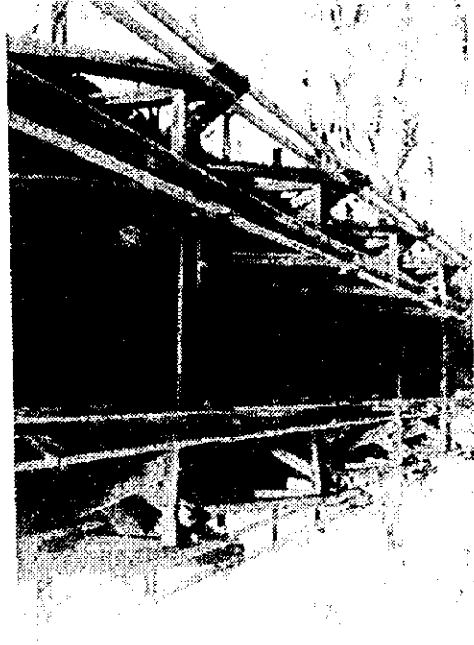


Photo Album No. _____



Elevation

Photo Album No. _____



Photographs

NAME OF BRIDGE

Mashiki

SER No. *17*

Date of Inspection

Front

Photo Album No. *(21)*

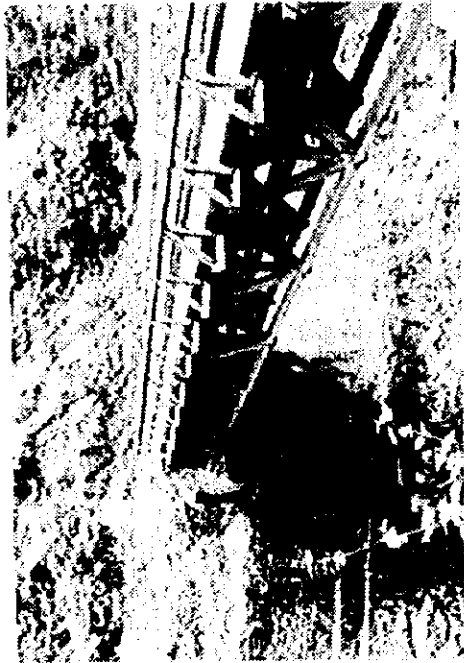


Photo Album No.



Elevation

Photo Album No.

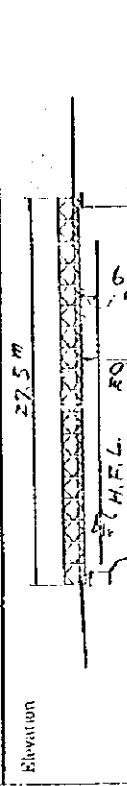


Bridge Inventory

SER NO. 18 M.H. Rt. 5 67km

NAME OF BRIDGE Burichu		CLASS OF ROAD M.H. Rt. 5		CROSSING: NAME OF SUPPORT ROAD BURICHU		MAINTENANCE BY	
Design Information		No		Date of Preparation 16/9/99		Prepared by NS/184	
Type of Bridge		Superstructure Bailey DS		Design Loading 24t		Load Limitation 80/18t	
Substructure		Abutment Masonry		Slew Square		deg. Km	
Pier		m. Span 27.5		Width 27.3		Slew 0%	
Overall		m. Camberway 4.99		Width of Abutment 27.3		Design Quantity m	
Allied Articles		Ratio of Heavy Vehicle 0%		Depth m		Free Board m	
Traffic Volume		Main Span 27.5		Repair etc.		m	
Final Record of Repair		Deck Slab		Expansion Joint		Curb	
Others		Painting		Substructure		Allied Articles	

1. Sag of main girder is 10cm.
2. No lateral displacement.
3. Good maintenance.

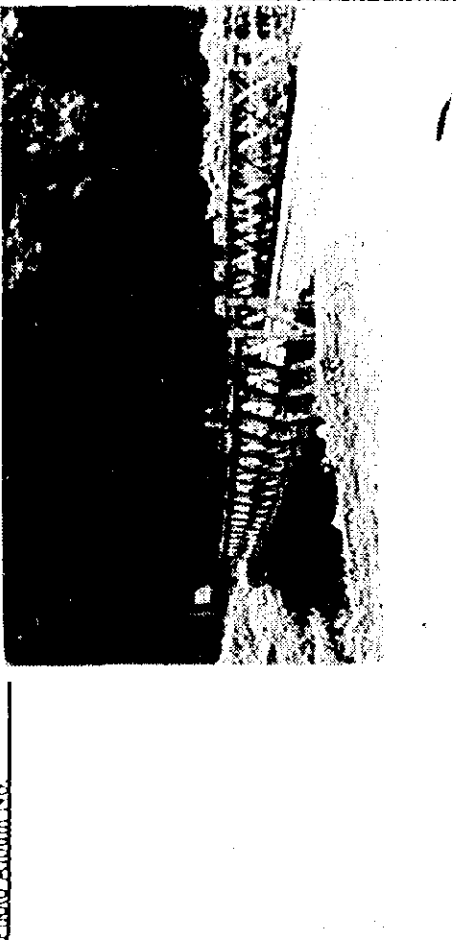

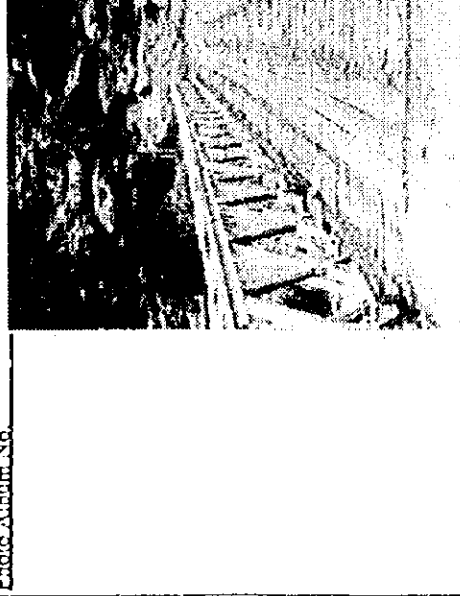
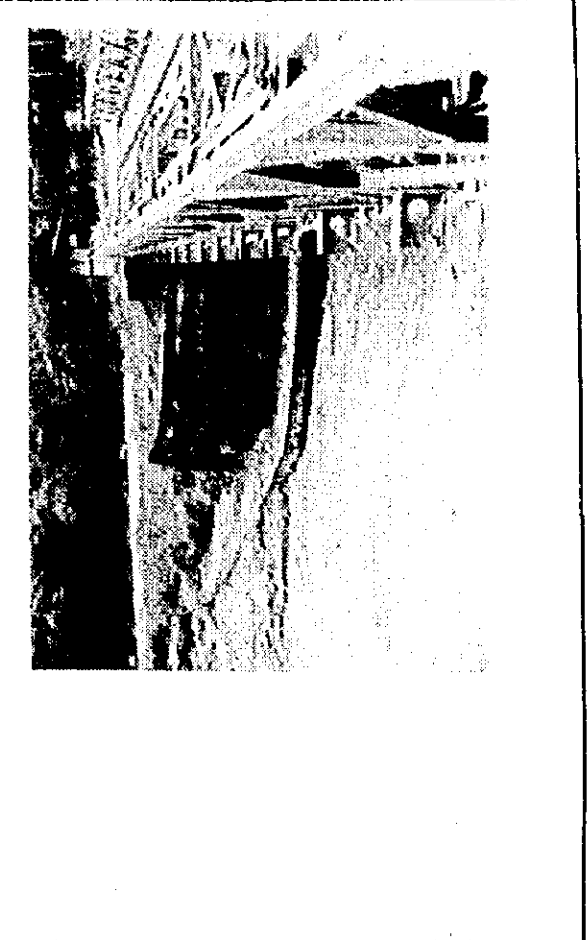

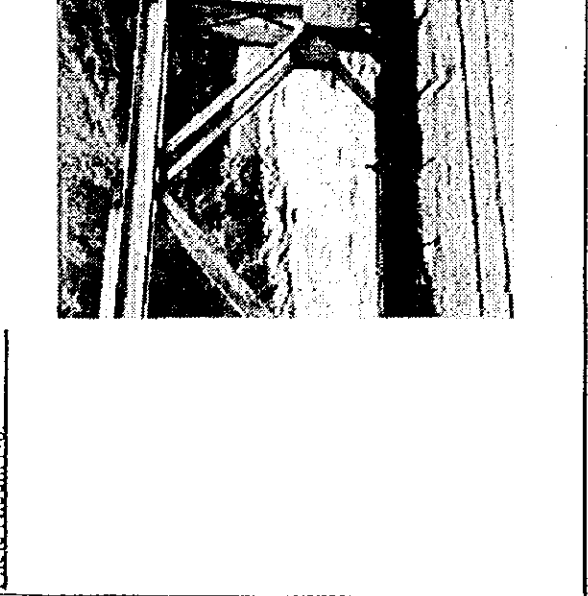


Result of Visual Inspection	Beams	Expansion Joint	Drainage	Abutment	Other
Pavement	2	1	1	1	1
Curb	1	1	1	1	1
Railing	1	1	1	1	1
Deck Slab	1	1	1	1	1
Main Beam	1	1	1	1	1
Others	1	1	1	1	1
Substructure	1	1	1	1	1
Overall Rating	1.3	1.3	1.3	1.3	1.3

Comment:
1. Maintenance good.
2. Bearing, paint ok.
3. Abutments have no staining.
4. Highest flood level was 0.90m below the lower chord.

Surrounding Condition

Photographs

NAME OF BRIDGE <i>Burichal</i>	SER. No. <i>18</i>	Date of Inspection
Front	Photo Album No.	Photo Album No.
		
Elevation	Photo Album No.	Photo Album No.
		

Photographs

NAME OF BRIDGE Burich

ISER No. 13

Date of Inspection

Front

Photo Album No. (X)



Photo Album No.

Good maintenance on bearings



Elevation

Photo Album No.

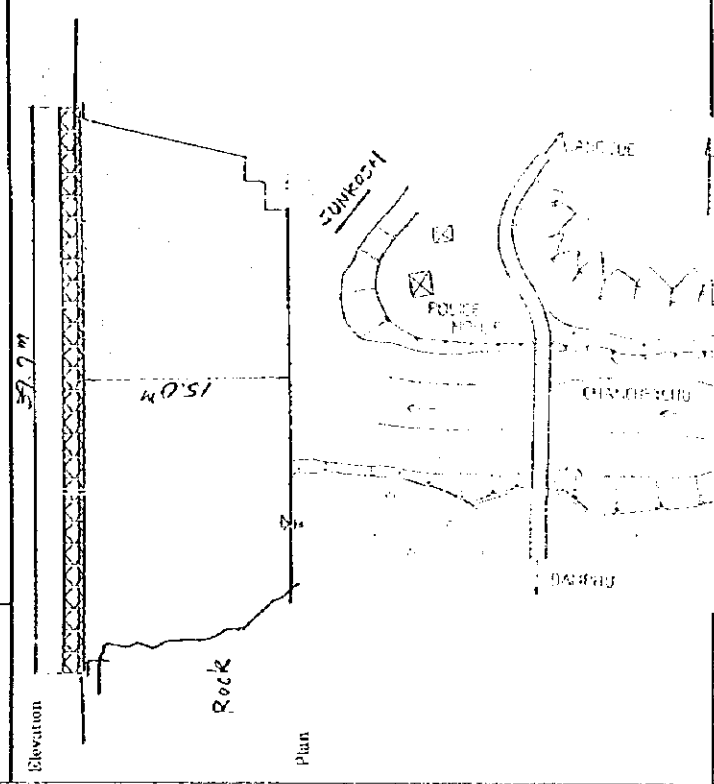
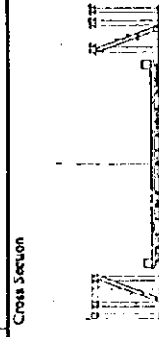


Bridge Inventory

SER. NO. 19 N.H. Rt. 5. 54.5km

NAME OF BRIDGE Chanchey		CLASS OF ROAD N.H. Rt. 125		CROSSING: NAME OF (EVEN) ROAD Chanchey school		COMPLETED 1986		MAINTENANCE BY	
Design Information		Yes		No		Date of Inspection 18/9/97		Prepared by ZAT	
Type of bridge		Superstructure Bailey TS		Substructure Masonry		Design Loading Rock Timber		Load limitation NOV 18T	
Length of bridge		m Span 37.7		m Footway 39.5		Skew of bridge		Skew	
Width of bridge		m Carriageway 5.43		m Footway 3.31		Condition of crossing		Road	
Allied Ancillaries		Traffic Volume		Ratio of Heavy Vehicle (year)		Expansion Joint		Bearing	
Final Record of Repair		Pavement		Deck Slab		Main Beam		Panelling	
Over		Quers		Substructure		Cross Section		Elevation	




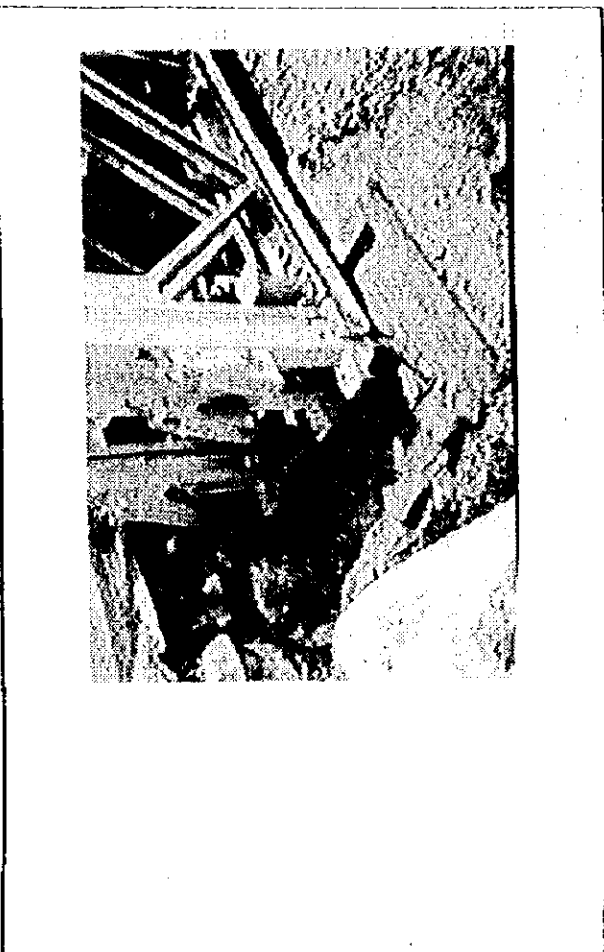
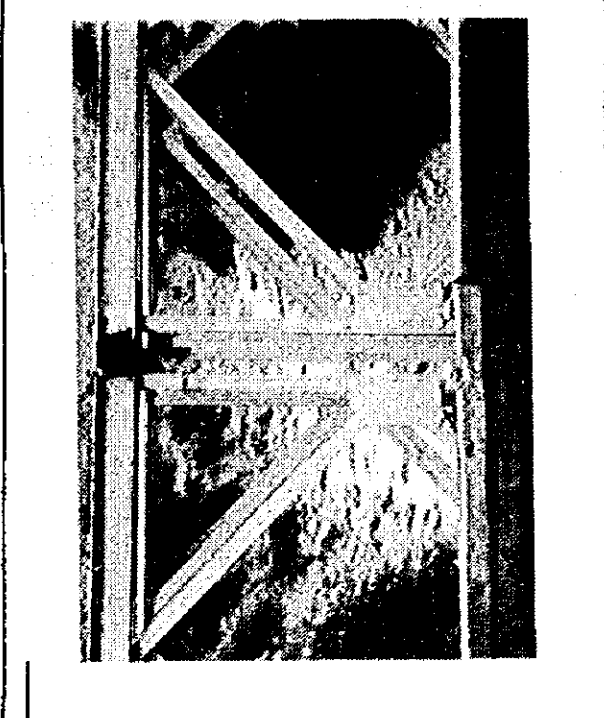

1. Sag of main girder is 16 cm.
 2. Lateral displacement is 4 cm.
 3. No reinforcement at top and bottom, even though TS.
 4. 1 panel was replaced in 1996. after collision by a vehicle.



Result of Visual Inspection	Date of Inspection	
Pavement	Bearing	Abutment
Curb	Expansion Joint	Pier
Railing	Drainage	Wing Wall
Deck Slab	Allied Ancillaries	River Bank
Main Beam		Approach
Others	Others	Others
Superstructure	Bridge Accessory	Substructure
Overall Rating	1.0	1.0

- Comments
- No damage detected on the basis of the inspection results.
 - Damage has been detected and a follow-up survey is required.
 - There is significant damage and a detailed survey needs to be carried out to establish whether repair work is to be carried out or not.
 - There is significant damage and urgent repair is required or the bridge has to be closed to traffic or restriction on vehicle weight have to be imposed.

Photographs

NAME OF BRIDGE <i>Chamney</i>	SER. No. <i>19</i>	Date of Inspection
Photo Album No.	Photo Album No.	
		
Elevation	Photo Album No.	
		

Photographs

NAME OF BRIDGE *Chauchey*

SER No. *79*

Date of Inspection

Front

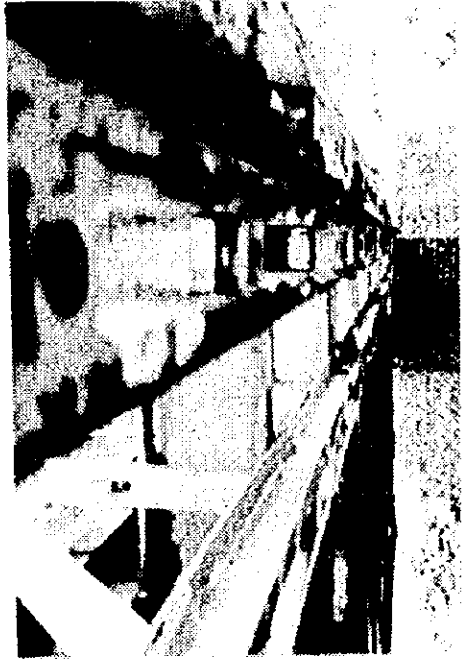
Photo Album No. *(2)*

Photo Album No.



Elevation

Photo Album No.



Bridge Inspection Form

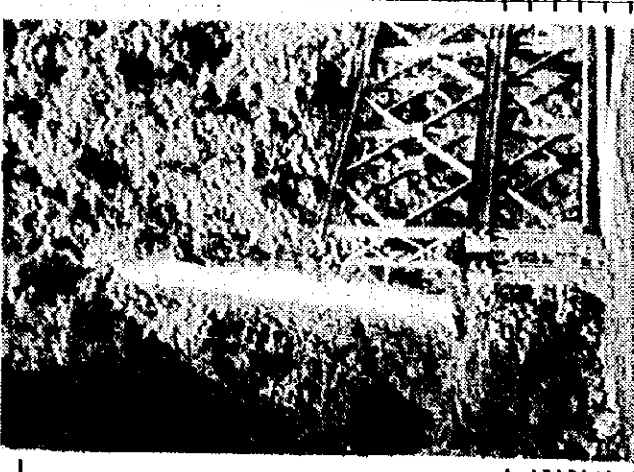
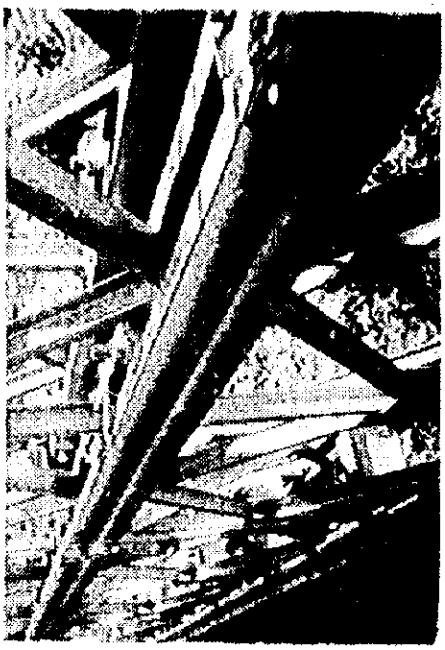
SER. No. 20

NAME OF BRIDGE Levin Park CLASS OF ROAD Local

COMPLETED DATE OF INSPECTION

MAINTENANCE BY

Component	Condition of Damage	Rating
Pavement Type <u>Asphalt</u> Good, Wearing, Rutting, Check, No hole, Others Type <u>"</u> Good, Sealing, Cracking, Spalling, Exposure and corrosion of reinforcement, Wear of surfaces Rating <u>FAIR</u> Good, Sealing, Cracking, Spalling, Exposure and corrosion of reinforcement, Wear of surfaces	Conclusion <u>FAIR</u> 1. Minor 2. Intermediate 3. Major	
Deck Slab Type <u>Timber stringers</u> Good 1. direction 2. direction 3. direction Rebar exposed Others	Conclusion <u>FAIR</u> 1. Minor 2. Intermediate 3. Major	
Main Beam Type <u>Boiler</u> Good, Rust, Corrosion, Buckling, Excessive deformation, Rivets off, Others	Conclusion <u>FAIR</u>	
Main Structure Type <u>"</u> Good, Rust, Corrosion, Buckling, Excessive deformation, Rivets off, Others	Conclusion <u>FAIR</u>	
Dupingim Sway Bracing Lateral Bracing	Conclusion <u>POOR</u>	
Piering Expansion Joint Bearing Drainage	Conclusion <u>POOR</u> Type <u>"</u> Invariable, Eased, Good, Abnormal sound, Clogged, Deformation, Gap, Others Type <u>"</u> Invariable, Eased, Good, Broken, Anchor bolt, Abnormal displacement Condition	
Abutment A1 A2	Condition <u>POOR</u> Type <u>"</u> Invariable, Eased, Good, Abnormal sound, Clogged, Deformation, Gap, Others Type <u>"</u> Invariable, Eased, Good, Broken, Anchor bolt, Abnormal displacement Condition	
Pier Foundation Wing Wall	Condition <u>POOR</u> Type <u>"</u> Invariable, Eased, Good, Abnormal sound, Clogged, Deformation, Gap, Others Type <u>"</u> Invariable, Eased, Good, Broken, Anchor bolt, Abnormal displacement Condition	
Embankment Approach Traffic Sign Others	Condition <u>POOR</u> Type <u>"</u> Invariable, Eased, Good, Abnormal sound, Clogged, Deformation, Gap, Others Type <u>"</u> Invariable, Eased, Good, Broken, Anchor bolt, Abnormal displacement Condition	



Comments on rehabilitation method

Components of photographs (Name of Bridge)	1	2	3	4	5	6	7	8	9
0 Black Board (Name of Bridge)									
1 Front									
2 Road Surface									
3 Expansion Joint									
4 Deck Slab (Underface)									
5 Main Beam									
6 Sway Br									
7 Drainage									
8 Bearing									
9 Elevation									

Note: Further inspection shall be carried out on the "major damage" detected in this inspection.

- No damage detected on the basis of the inspection results.
- Damage has been detected and a follow-up survey is required.
- There is significant damage and a detailed survey needs to be carried out to establish whether repair work is to be carried out or not.
- There is significant damage and urgent repair is required or the bridge has to be closed to traffic or restriction on vehicle weight to be imposed.

Photographs

NAME OF BRIDGE *Loring Falls*

SER No. *20*

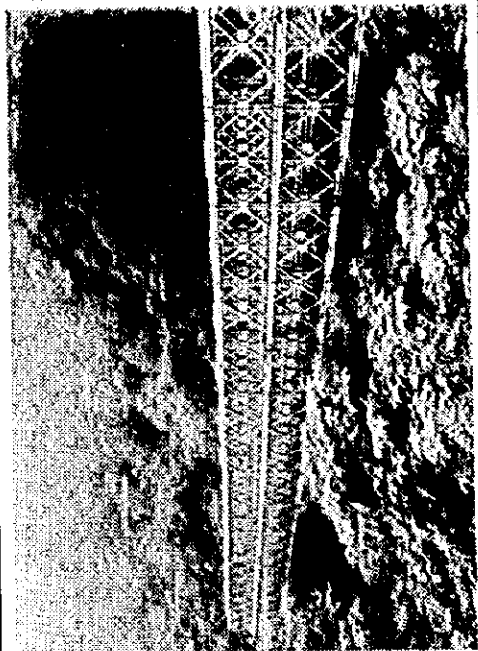
Date of Inspection

Front

Photo Album No. _____

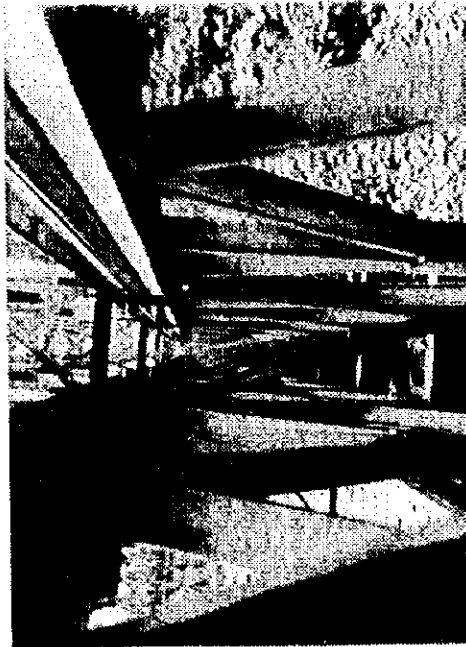
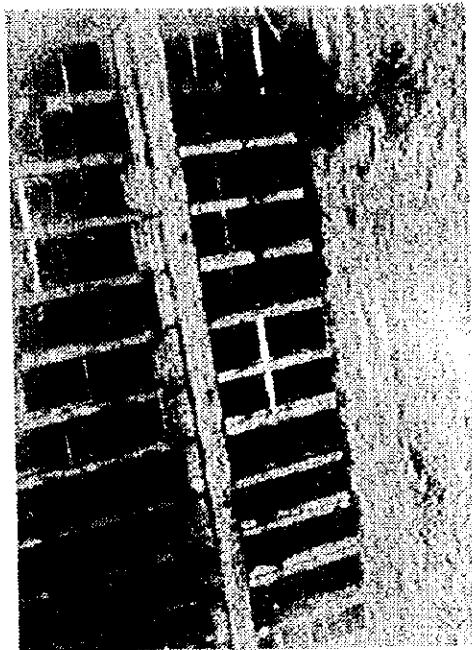


Photo Album No. _____



Elevation

Photo Album No. _____



Photographs

NAME OF BRIDGE Landing ISER No. 20 Date of Inspection

Front

Photo Album No.

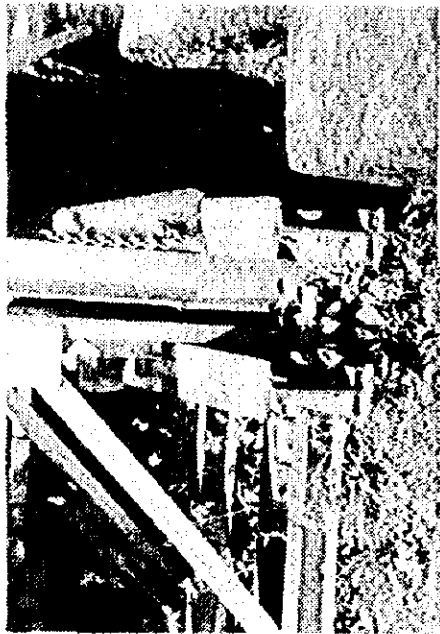
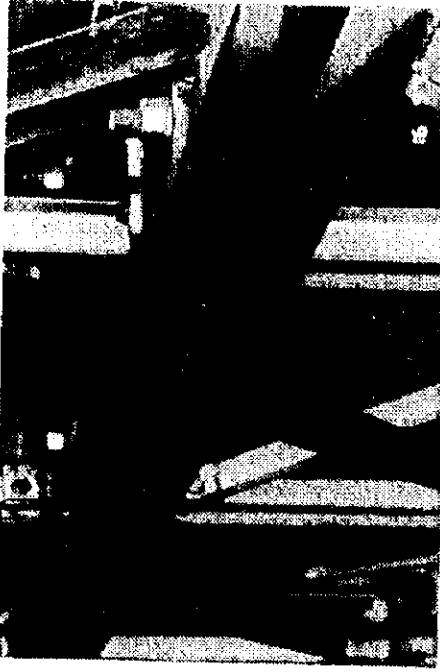
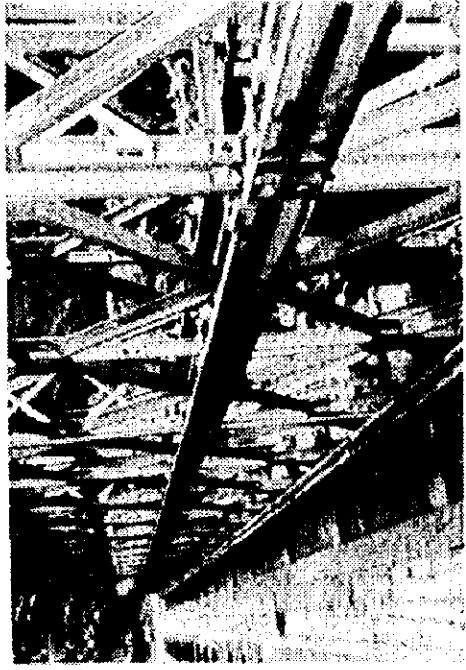
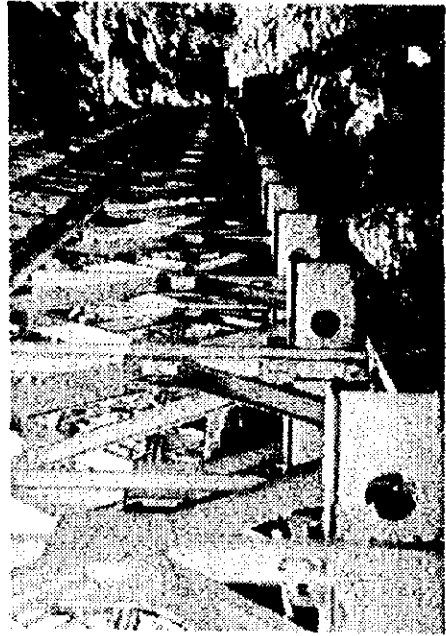


Photo Album No.



Elevation

Photo Album No.



Photographs

NAME OF BRIDGE *Zerins Plains* SER No. *20*

Date of Inspection

Front

Photo Album No.

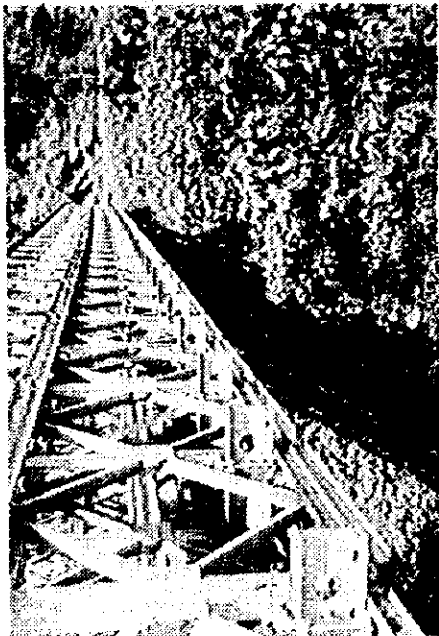
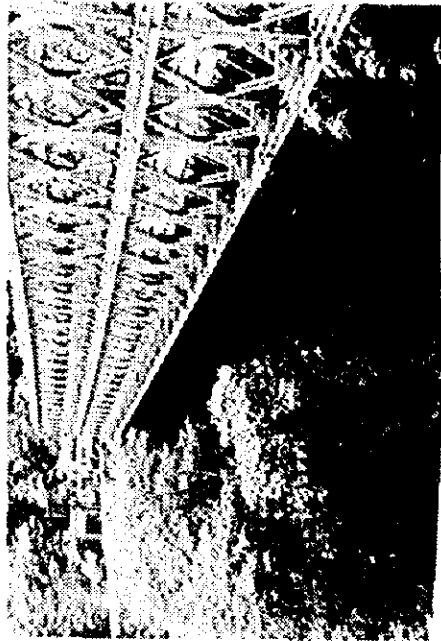


Photo Album No.



Elevation

Photo Album No.

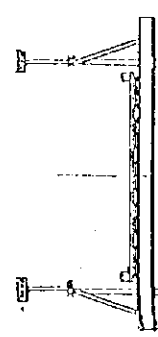
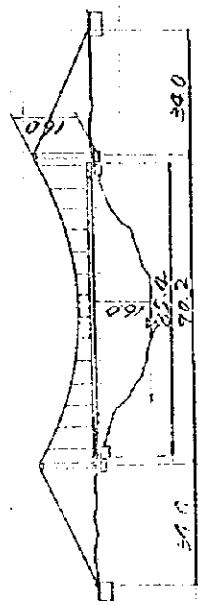


Bridge Inventory

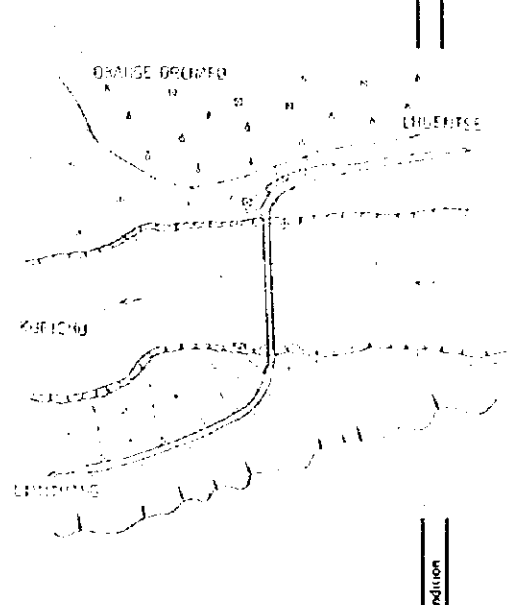
SER. NO. 21 *Mogor-Luarzhi 50km*

NAME OF BRIDGE <i>Tampachul</i>		CLASS OF ROAD <i>Distric. Rd.</i>		CROSSING: NAME OF ROAD OR ROAD		COMPLETED <i>1982</i>		MAINTENANCE BY	
Yes		No		Manufacture		Date of Preparation <i>13/9/97</i>		Prepared by <i>Y. S. Z. Z. Z.</i>	
Type of Bridge		Supersubstructure <i>Barley, Suspension</i>		Design Loading		Stew		Load Limitation <i>10t</i>	
Substructure <i>Masonry</i>		Abutment		Slew of Bridge		Width		Clearance	
Pier		m Span		Condition of Crossing		m		m	
85.4		85.2		Road		deg.		Free Board	
Width of Bridge		m Carriageway		River		Depth		Design Quantity	
4.12		3.3		Repair etc.		m		m	
Allied Articles		Ratio of Heavy Vehicle %		Expansion Joint		Drainage		Curb	
Pavement		Deck Slab		Substructure		Railing		Affixed Articles	
Others		Painting		Cross Section					

Elevation



Plan



Result of Visual Inspection	Date of Inspection
Pavement	1
Curb	1
Railing	1
Deck Slab	1
Main Beam / Tower / Cable	3
Others	1
Supersubstructure	1.7
Overall Rating	2.4

Comments
 1. No damage detected on the basis of the inspection results.
 2. Damage has been detected and a follow-up survey is required.
 3. There is significant damage and a detailed survey needs to be carried out to establish whether repair work is to be carried out or not.
 4. There is significant damage and urgent repair is required or the bridge has to be closed to traffic or restriction on vehicle weight have to be imposed.

1. Bearing is not slided, because of much sag.

Surrounding Condition

Photographs

NAME OF BRIDGE Truss Bridge SER No. 2 Date of Inspection

Front

Photo Album No.

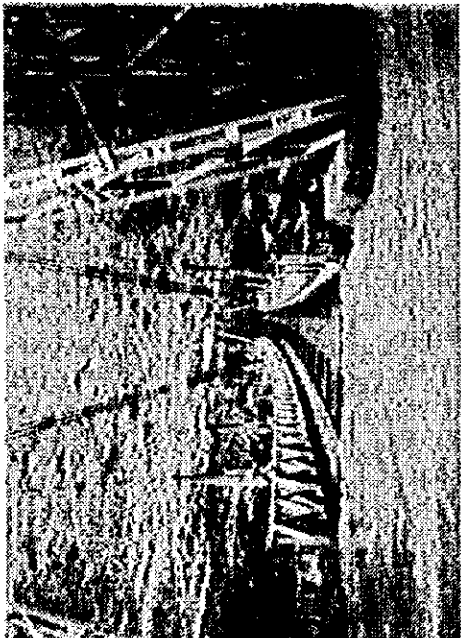
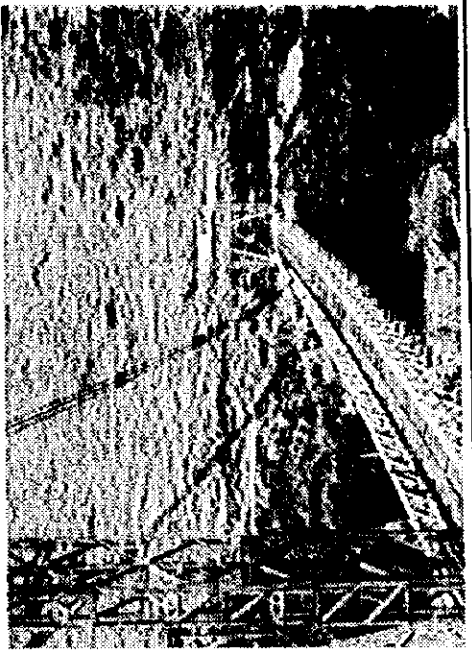
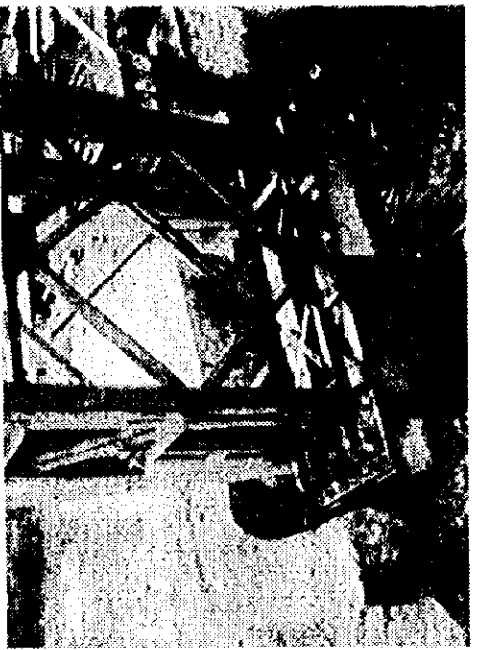
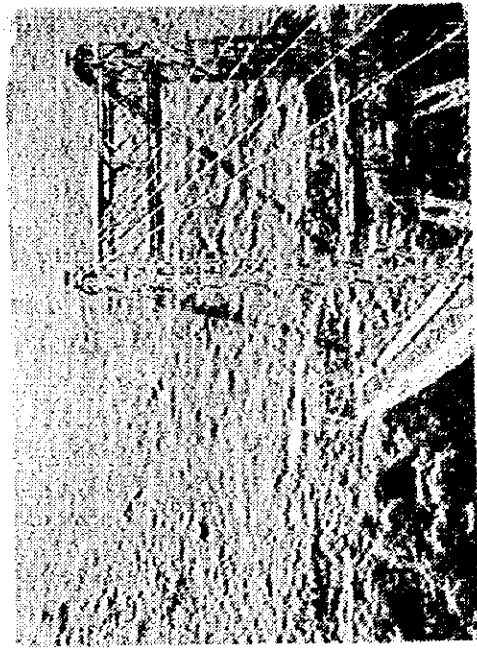


Photo Album No.

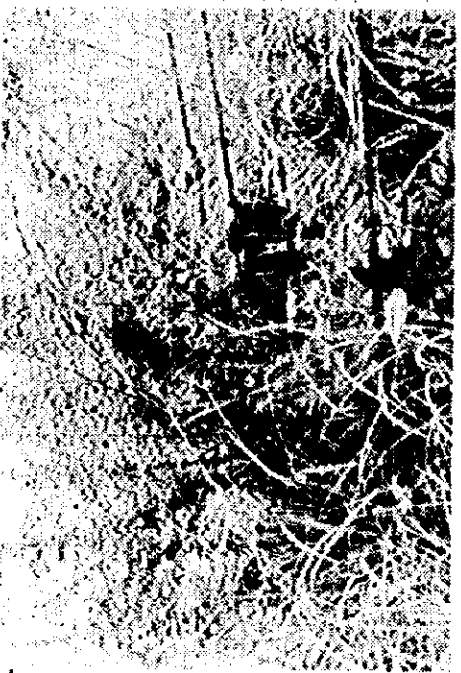
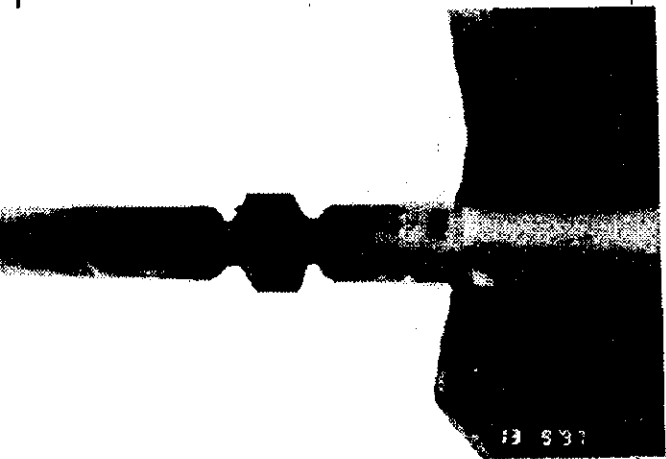



Elevation

Photo Album No.



Photographs

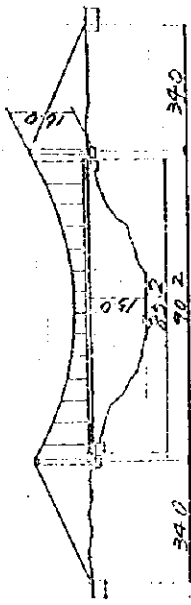
NAME OF BRIDGE <i>Taniguchi</i>		SER. No. <i>21</i>		Date of inspection	
Front					
Photo Album No. <i>(2)</i> <i>Under loading bearing plate didn't slide.</i>		Photo Album No. <i>(3)</i> <i>Bad maintenance on anchorage</i>			
Elevation					
Photo Album No. <i>(3)</i> <i>Hanger at span has no space to screw up.</i>		Photo Album No. <i>(4)</i> <i>Very rusty deck soffit.</i>		 	

Bridge Inventory

SER. No. 22 Sunikosh ~ Dafo 0.1 km

NAME OF BRIDGE Sunikosh	CLASS OF ROAD T.H.R.T. No. 5	CROSSING NAME OF BRIDGE ROAD Sunikosh	COMPLETED 1982	MAINTENANCE BY
Design Information	No.	Manufacture	Date of Preparation 16/1/99 ± 3/10/99	Prepared by Sunikosh
Type of Bridge	Superstructure Abutment Substructure	Design Loading Design Standard	Load Limitation	No. of Lanes 12t
Length of Bridge	Span 85.4	Skew	KL	deg. Re
Width of Bridge	Carriageway 3.3	Condition of Crossing	Width m	Skew deg.
Allied Assets	Overall 4.12	Skew of Bridge	Width of River m	Free Board m
Traffic Volume	Ratio of Heavy Vehicle %	Others	Depth m	Design Quantity m ² /sec
Final Record of Repair	Pavement Deck Slab	Expansion Joint	Drainage	Railing
Others	Others	Substructure	Curb	Affixed Articles

Elevation

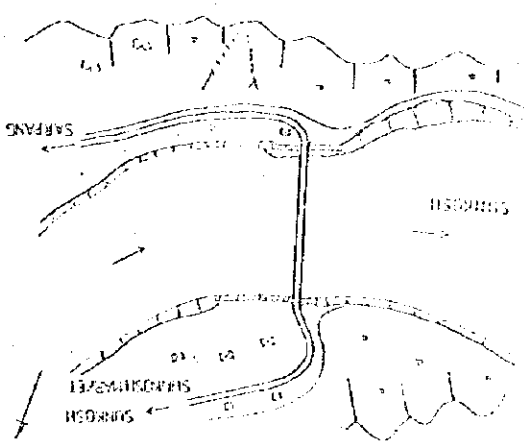


Cross Section



1. Sag of main girder is 37cm.
2. Lateral displacement is 3cm.
3. Reprint material is poor, no foreign materials were not removed, and painted.
3. Tower, hangers and anchorage is ok.
4. No defect on members.
5. Bailey is not of good size.

Plan



Result of Visual Inspection	Count	Remarks
Pavement	2	Beating
Curb	1	Expansion Joint
Railing	1	Drainage
Deck Slab	2	Affixed Articles
Main Beam/Tower/Keel	2	Approaches
Others	1	Others
Supernode	2.0	Bridge Necessary
Overall Rating	2.4	

- Comment
1. Average Abutment 05.
 2. Maintenance on bearing is required.
 3. Under loading, no slide of bearing plate.

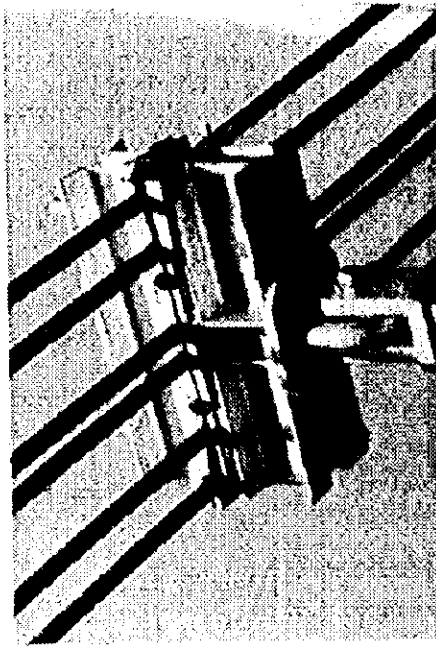
1. No damage detected on the basis of the inspection results.
2. Damage has been detected and a follow-up survey is required.
3. There is significant damage and a detailed survey needs to be carried out to establish whether repair work is to be carried out or not.
4. There is significant damage and urgent repair is required or the bridge has to be closed to traffic or restriction on vehicle weight have to be imposed.

Surrounding Condition

Bridge Inspection Form

SIR No. Z Z

NAME OF BRIDGE		CLASS OF ROAD		CROSSING NAME OF RIVER OR ROAD		DATE OF INSPECTION		MAINTENANCE BY		
Component		Condition of Damage		Rating		Sketch and Comments on major damage				
Substructure	Pavement	Type <u>Timber</u>	Condition <u>Not good</u>							
	Curb	Good, Wearing, Rutting, Cracks, etc. Note, Others	Condition <u>Fail</u>							
	Bridge Surface	Good, Scaling, Cracking, Spalling, Exposure and corrosion of reinforcement, Wear of surfaces	Condition <u>Fail</u>							
	Reinforcing	Type <u>Reinforcing</u>	Condition <u>Fail</u>							
	Deck Slab	Good, Scaling, Cracking, Spalling, Exposure and corrosion of reinforcement, Wear of surfaces	Condition <u>Fail</u>							
	Main Beam	Type <u>Timber</u>	Condition <u>Fail</u>							
	Main Structure	Good, Rust, Corrosion, Buckling, Excessive deformation, Rivet off, Others	Condition <u>Fail</u>							
	Diaphragm	Type <u>Timber</u>	Condition <u>Fail</u>							
	Sway Bracing	Good, Rust, Corrosion, Buckling, Excessive deformation, Rivet off, Others	Condition <u>Fail</u>							
	Lateral Bracing	Condition <u>Fail</u>								
Accessories	Parking	Type <u>Timber</u>	Condition <u>Fail</u>							
	Expansion Joint	Good, Rust, Corrosion, Buckling, Excessive deformation, Rivet off, Others	Condition <u>Fail</u>							
	Beaming	Type <u>Timber</u>	Condition <u>Fail</u>							
	Drainage	Good, Rust, Corrosion, Buckling, Excessive deformation, Rivet off, Others	Condition <u>Fail</u>							
	Abutment	Condition <u>Fail</u>								
	Abutment	Good, Rust, Corrosion, Buckling, Excessive deformation, Rivet off, Others	Condition <u>Fail</u>							
	Pier	Type <u>Timber</u>	Condition <u>Fail</u>							
	Pier	Good, Rust, Corrosion, Buckling, Excessive deformation, Rivet off, Others	Condition <u>Fail</u>							
	Foundation	Condition <u>Fail</u>								
	Wing Wall	Good, Rust, Corrosion, Buckling, Excessive deformation, Rivet off, Others	Condition <u>Fail</u>							
Other	Embankment	Good, Rust, Corrosion, Buckling, Excessive deformation, Rivet off, Others	Condition <u>Fail</u>							
	Alfred Arch	Type <u>Timber</u>	Condition <u>Fail</u>							
	Traffic Sign	Good, Rust, Corrosion, Buckling, Excessive deformation, Rivet off, Others	Condition <u>Fail</u>							
	Approach	Condition <u>Fail</u>								
	Other	Condition <u>Fail</u>								
	Rating	1. No damage detected on the basis of the inspection results.		2. Damage has been detected and a follow-up survey is required.		3. There is significant damage and a detailed survey needs to be carried out to establish whether repair work is to be carried out or not.		4. There is significant damage and urgent repair is required on the bridge has to be closed to traffic or restriction on vehicle weight to be imposed.		



Wooden piling was broken. 1 cable is almost to go out.




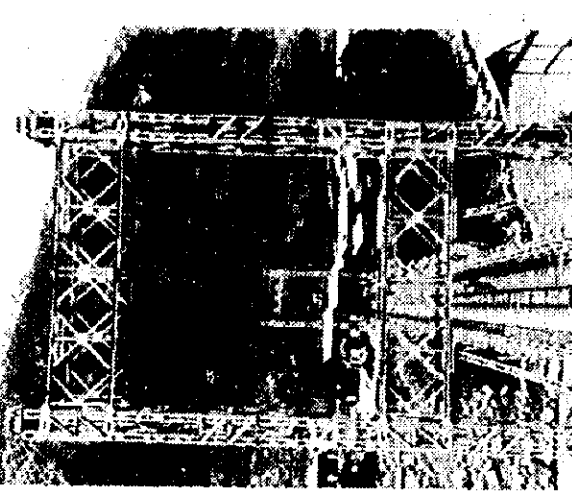
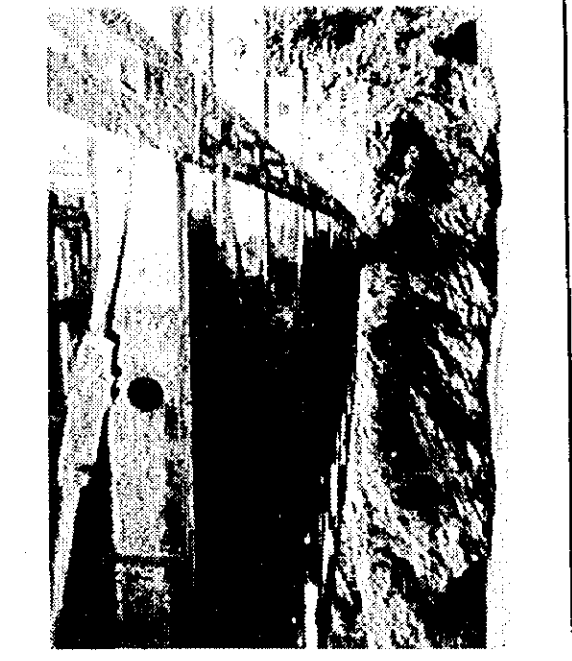
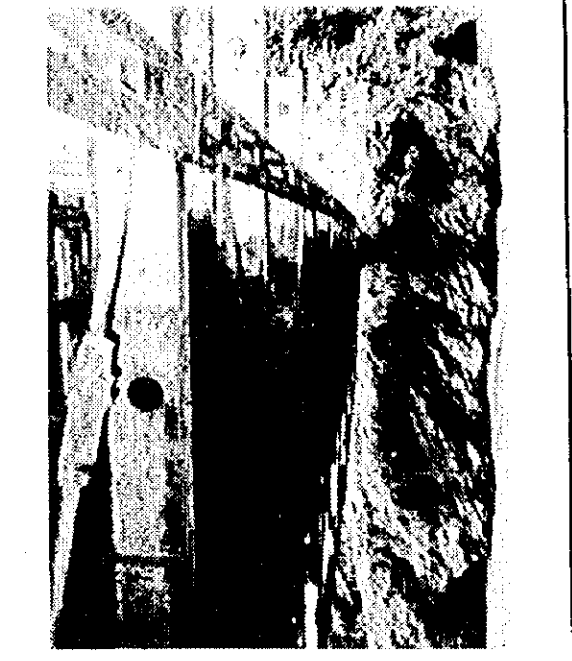


Rusty members. This pier was replaced, when buckling occurred.

Components of photographs taken	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Black Board (Name of Bridge)																					
Front																					
Road Surface																					
Expansion Joint																					
Deck Slab (Underface)																					

Note: Further inspection shall be carried out on the "major damage" detected in this inspection.

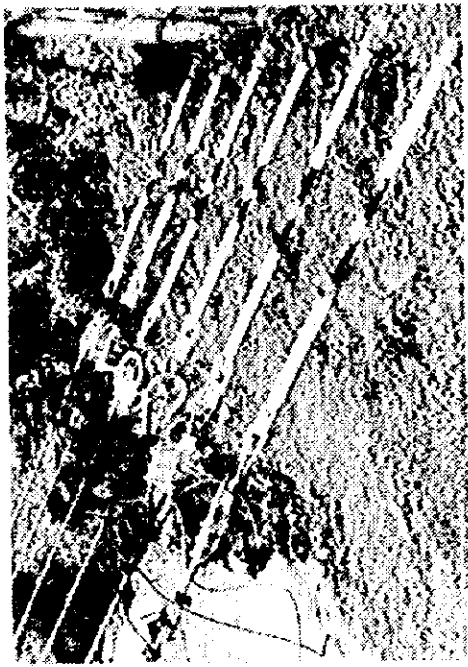
Photographs

NAME OF BRIDGE	SER No. 22	Date of Inspection
Front		
Photo Album No.		Photo Album No.
		
Elevation		
Photo Album No. (9)		
		
	<p><i>underside of girders were very rusty.</i></p>	

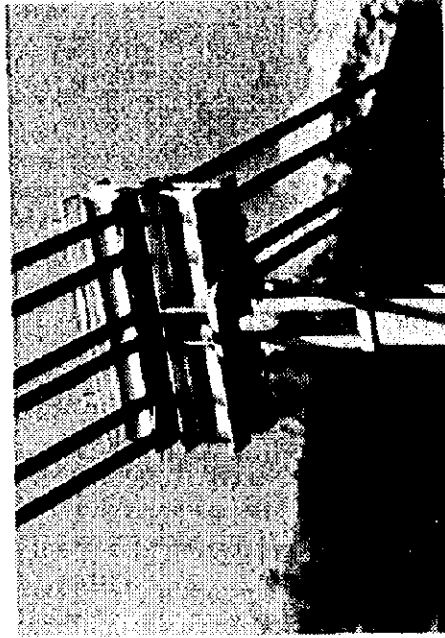
Photographs

NAME OF BRIDGE Sunkosh SER No. 22 Date of Inspection _____



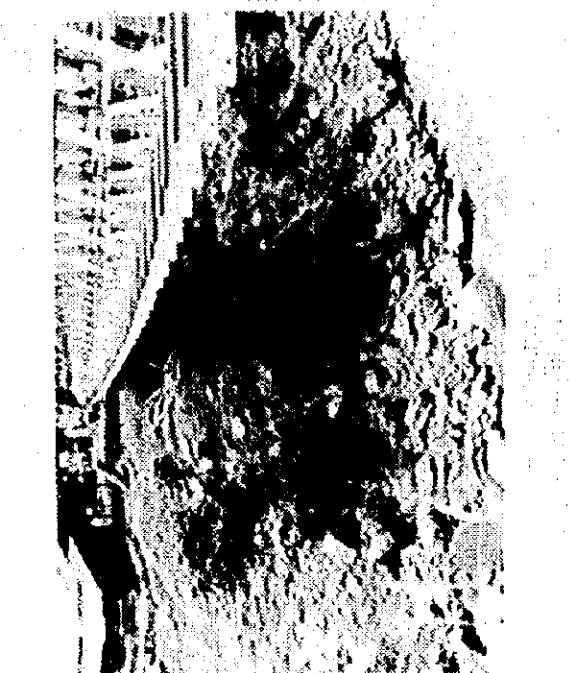
Front Photo Album No. _____ Photo Album No. _____




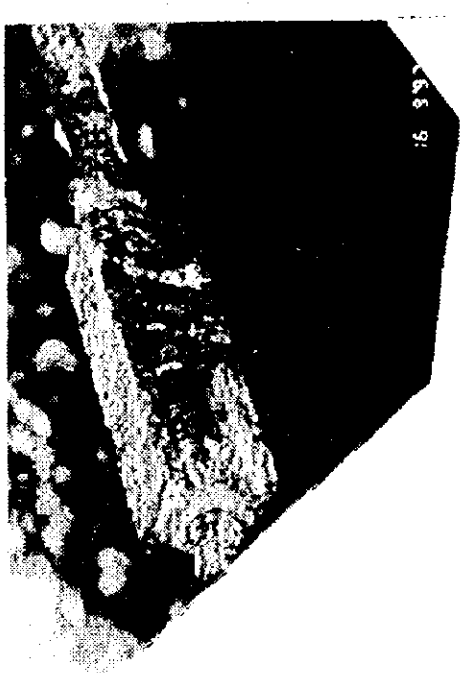
Elevation _____ Photo Album No. _____

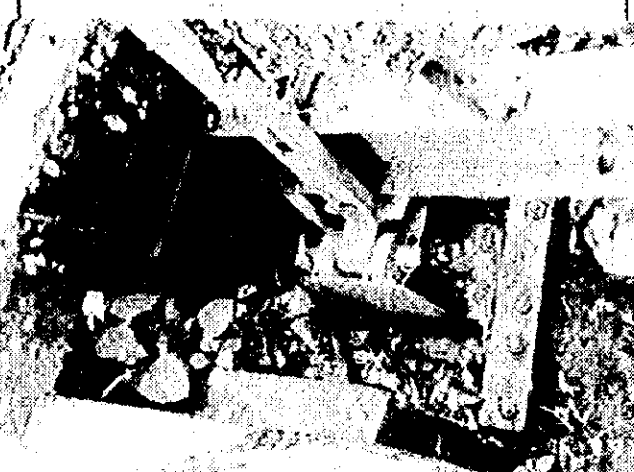
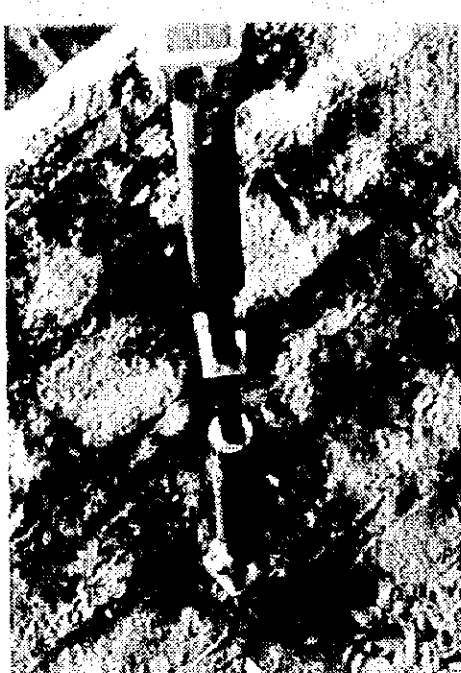


Photographs

NAME OF BRIDGE	SER No.	Date of Inspection
Sunkosh	22	
Front	Photo Album No.	Photo Album No.
	No movement of anchor blocks.	
Elevation	Photo Album No.	Photo Album No.
Aboutment on sand rock	Ditto	

Photographs

NAME OF BRIDGE	S. Dakota	ISER No.	22	Date of Inspection	
Front					
Photo Album No. (5)					
					
Photo Album No.					
No way to screen.					
					

Elevation				
Photo Album No.				
Maintenance on bearings is not fair.				
				
				

Photographs

NAME OF BRIDGE *SUN KASH*

SER No. *22*

Date of Inspection

Front

Photo Album No. _____

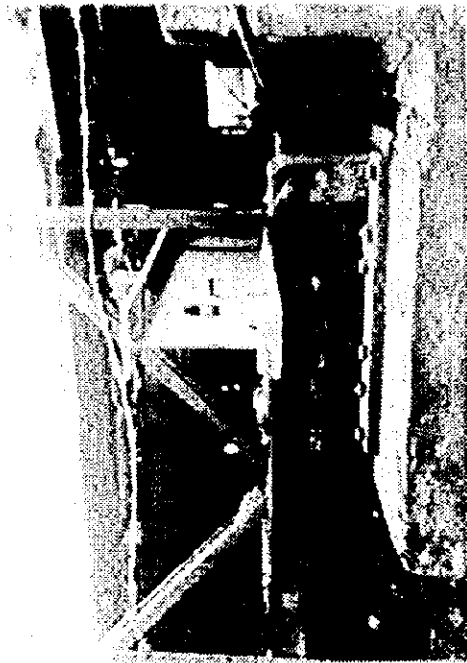


Photo Album No. _____



Elevation

Photo Album No. _____

Appendix-D

List of Permanent Bridges on National Highways in Bhutan

List of Permanent Bridges on National Highways in Bhutan

Route No. 1

Bridge Name	Location (km)	Bridge Type	Br. Length (m)	No. of Span	Br. Width (m)	Design Load	Year of Completion
Rolongchu	16.2	RCT Beam	13.0	1	4.5	Class A	1968
Rovingiri	27.5	RCT Beam	13.0	1	4.5	Class A	1982
Godarichu	42.0	RCT Beam	13.0	1	4.5	Class A	1982
Naming Zam	150.0	RC Slab	16.0	2	4.5	Class A	1982
Gay Zam	210.0	RCT Beam	27.6	1	4.5	Class A	1982
Liri Zam	233.5	RCT Beam	27.6	1	4.5	Class A	1983
Tangchu	273.5	RCT Beam	33.5	2	4.5	Class A	1987
Rabren Zam	301.0	RCT Beam	52.0	1	4.5	Class A	1982
Yemta Zam	301.1	RCT Beam	8.0	1	4.5	Class A	1980
Rewang Zam	304.2	RC Slab	7.5	1	4.5	Class A	1980
Hurchu/Bong Zam	304.9	RCT Beam	19.0	1	4.5	Class A	1980
Domikarchu	309.4	RCT Beam	18.0	1	4.5	Class A	1981
Gyesa Zam I	310.0	RCT Beam	23.6	1	4.5	Class A	1981
Bong Zam	318.7	RCT Beam	23.5	1	4.5	30 ton	1981
Nangmichu	376.1	RCT Beam	24.7	1	4.5	Class A	1982
N/R	385.6	RC Slab	22.5	3	6.8	Class A	1981
Chenebji Zam	393.0	RC Slab	7.0	1	4.5	Class A	1981
Nika	402.8	RCT Beam	28.0	1	4.5	Class A	1982
Wakha Zam	457.6	Composite	12.5	1	4.5	Class A	1969
Gazikha	467.0	Composite	10.6	1	4.5	Class A	1982
Chuzomsa	472.0	RCT Beam	28.0	1	4.5	Class A	1988
NA	511.4	RC Slab	7.0	1	6.4	Class A	1978
Semtokha Flyover	546.0	RCT Beam	15.0	1	4.5	30 ton	1964

Route No. 2

Bridge Name	Location (km)	Bridge Type	Br. Length (m)	No. of Span	Br. Width (m)	Design Load	Year of Completion
N/R	67.6	Composite	9.0	1	4.5	30 ton	
N/R	69.4	RC T Beam	9.0	1	4.5	45 ton	
N/R	81.3	RC T Beam	9.0	1	4.5	30 ton	
Wangchu	82.4	PC Beam	74.0	1	7.5	Class AA	
Tenalum	113.2	PC Beam	74.0	1	7.5	Class AA	
N/R	113.2	RC T Beam	10.0	1	4.5	30 ton	
Horongchu	143.3	Composite	10.0	1	4.5	30 ton	
Basesa	161.9	Composite	12.0	1	4.5	30 ton	
Oiaranachu	166.8	Composite	10.5	1	4.5	30 ton	

Route No.3

Bridge Name	Location (km)	Bridge Type	Br. Length (m)	No. of span	Br. Width (m)	Design Load	Year of Completion
Dasho Lonchen Zam	4.4	Composite	18.0	1	4.5	Class A	1964
N/R	5.4	Composite	10.0	1	4.5	Class A	
Druk Gea Zam	7.5	RC T Beam	22.0	1	4.5	Class AA	
N/R	7.6	Composite	12.0	1	4.5	Class A	
N/R	8.2	Composite	8.0	1	4.5	Class A	
N/R	8.3	Composite	13.0	1	4.5	Class A	
N/R	9.7	Composite	10.0	1	4.5	Class A	
Jeganathan Zam	51.2	RC T Beam	19.0	1	4.5	Class A	
Stan	121.8	RC T Beam	11.0	1	4.5	Class A	
Jerichu	125.5	RC T Beam	19.0	1	7.5	Class A	

Route No. 4

Bridge Name	Location (km)	Bridge Type	Br. Length (m)	No. of Span	Br. Width (m)	Design Load	Year of Completion
N/R	0.85	RCT Beam	8.0	1	4.5	Class A	1965
N/R	3.4	RCT Beam	8.0	1	4.5	Class A	1965
N/R	3.9	Composite	12.0	1	4.5	30 ton	1965
Katley 1	20.0	Composite	11.0	1	4.5	Class A	1964
Katley 3	25.0	RCT Beam	25.0	1	4.5	Class A	1981
Betni	58.9	RCT Beam	25.0	1	4.5	Class A	1987
Champlekhola	53.3	RCT Beam	22.0	1	4.5	Class A	1967
Sulbrong	62.3	RCT Beam	13.0	1	4.5	Class A	1967
Lower Phungsing	108.3	Composite	12.0	1	4.5	30 ton	1973
Pantachu	168.8	RCT Beam	17.0	1	4.5	Class A	1981
Dungdung	188.8	RCT Beam	25.0	1	4.5	Class A	1983
Yoormu	198.7	RCT Beam	23.0	1	4.5	Class A	1984
Telegang Zam	241.4	RCT Beam	19.0	1	4.5	Class A	1981

Route No. 5

Bridge Name	Location (km)	Bridge Type	Br. Length (m)	No. of Span	Br. Width (m)	Design Load	Year of Completion
Gelephu	0.2	RCT Beam	10.0	1	4.5	Class A	1965
N/R	1.1	Composite	9.0	1	4.5	Class A	1965
N/R	1.9	Composite	8.0	1	4.5	Class A	1965
Bhur	9.0	Composite	9.0	1	7.5	Class A	1973
Chuwababari	12.3	Composite	9.0	1	7.5	Class A	1965
Toribari	14.2	Composite	9.0	1	4.5	Class A	1965
Rateyakhola	14.8	Composite	9.0	1	4.5	Class A	1965

List of Bridges in Each type

RCT Beam

NH Route No.	Bridge Name	Location (km)	Br. Length (m)	No. of Span	Br. Width (m)	Design Load	Year of Completion
1	Rolongchu	16.2	13.0	1	4.5	Class A	1968
1	Rovingin	27.5	13.0	1	4.5	Class A	1982
1	Godarichu	42.0	13.0	1	4.5	Class A	1982
1	Gay Zam	210.0	27.6	1	4.5	Class A	1982
1	Liri Zam	233.5	27.6	1	4.5	Class A	1983
1	Tangchu	273.5	33.5	2	4.5	Class A	1987
1	Rabten Zam	301.0	52.0	1	4.5	Class A	1982
1	Yemta Zam	301.1	8.0	1	4.5	Class A	1980
1	Hurchu/Bong Zam	304.9	19.0	1	4.5	Class A	1980
1	Domikarchu	309.4	18.0	1	4.5	Class A	1981
1	Gyesa Zam 1	310.0	23.6	1	4.5	Class A	1981
1	Bong Zam	318.7	23.5	1	4.5	30 ton	1981
1	Nangnichu	376.1	24.7	1	4.5	Class A	1982
1	Nika	402.8	28.0	1	4.5	Class A	1982
1	Chuzomsa	472.0	28.0	1	4.5	Class A	1988
1	Semtokha Flyover	546.0	15.0	1	4.5	30 ton	1964
2	N/R	69.4	9.0	1	4.5	45 ton	
2	N/R	81.3	9.0	1	4.5	30 ton	
2	N/R	113.2	10.0	1	4.5	30 ton	
3	Druk Gea Zam	7.5	22.0	1	4.5	Class AA	
3	Jeganathan Zam	51.2	19.0	1	4.5	Class A	
3	Stan	121.8	11.0	1	4.5	Class A	
3	Jerichu	125.5	19.0	1	7.5	Class A	

4	N/R	0.85	8.0	1	4.5	Class A	1965
4	N/R	3.4	8.0	1	4.5	Class A	1965
4	Katley 3	25.0	25.0	1	4.5	Class A	1981
4	Betm	38.9	25.0	1	4.5	Class A	1987
4	Champlekhola	53.3	22.0	1	4.5	Class A	1967
4	Sulbrong	62.3	13.0	1	4.5	Class A	1967
4	Pantachu	168.8	17.0	1	4.5	Class A	1981
4	Dungdung	188.8	25.0	1	4.5	Class A	1983
4	Yoormu	198.7	23.0	1	4.5	Class A	1984
4	Telegang Zam	241.4	19.0	1	4.5	Class A	1981
5	Gelephu	1.1	10.0	1	4.5	Class A	1965

RC Slab

NH Route No.	Bridge Name	Location (km)	Br. Length (m)	No. of Span	Br. Width (m)	Design Load	Year of Completion
1	Narmling Zam	150.0	16.0	2	4.5	Class A	1982
1	Rewang Zam	304.2	7.5	1	4.5	Class A	1980
1	N/R	385.6	22.5	3	6.8	Class A	1981
1	Chenebji Zam	393.0	7.0	1	4.5	Class A	1981
1	NA	511.4	7.0	1	6.4	Class A	1978

PC Beam

NH Route No.	Bridge Name	Location (km)	Br. Length (m)	No. of Span	Br. Width (m)	Design Load	Year of Completion
2	Wangchu	82.4	74.0	1	7.5	Class AA	
2	Tenalum	113.2	74.0	1	7.5	Class AA	

Composite

NH Route No.	Bridge Name	Location (km)	Br. Length (m)	No. of Span	Br. Width (m)	Design Load	Year of Completion
1	Wakha Zam	457.6	12.5	1	4.5	Class A	1969
1	Gazikha	467.0	10.6	1	4.5	Class A	1982
2	N/R	67.6	9.0	1	4.5	30 ton	
2	Horongchu	143.3	10.0	1	4.5	30 ton	
2	Besesa	161.9	12.0	1	4.5	30 ton	
2	Olaranachu	166.8	10.5	1	4.5	30 ton	
3	Dasho Lonchen Zam	4.4	18.0	1	4.5	Class A	1964
3	N/R	5.4	10.0	1	4.5	Class A	
3	N/R	7.6	12.0	1	4.5	Class A	
3	N/R	8.2	8.0	1	4.5	Class A	
3	N/R	8.3	13.0	1	4.5	Class A	
3	Jeganathan Zam	9.7	10.0	1	4.5	Class A	
4	N/R	3.9	12.0	1	4.5	30 ton	
4	Katley 1	20.0	11.0	1	4.5	Class A	
4	Lower Phungsing	108.3	12.0	1	4.5	30 ton	
5	N/R	1.1	10.0	1	4.5	Class A	1965
5	N/R	1.9	9.0	1	4.5	Class A	1965
5	Bhur	9.0	9.0	1	7.5	Class A	1973
5	Chuwababari	12.3	8.0	1	7.5	Class A	1965
5	Tortbari	14.2	9.0	1	4.5	Class A	1965