Appendix-6

Bridge Inspection Sheets of Visual Survey

Bridge name	Opening	Authority	Туре	定期点検、日常的な補修の継続 で対応可能(損傷少ない)	定期点検、日常的な補修の継続 で対応可能(損傷有り)	定期点検までに落橋の危険性は ないが詳細な点検が望ましい	全面改修が必要	補修履歴	補修計画
01_Patum Tani	1984	DOH	PC-Box	概ね健全である					
02_Patom Tani2	2009	DOH	PC-Box	概ね健全である					
03_Nonthaburi	1959	DOH	Truss				全面的に腐食、ひび割れがある	高欄追加	なし
04_Rama 4	2006	DRR	PC-Box	概ね健全である					
05_New Phra Nangklao	2008	DOH	PC-Box	概ね健全である					
06_Phra Nangklao	1985	DOH	PC-Box		ヒンジの抜け、支承の移動、漏水				
07_Rama 5	2002	DRR	PC-Box	概ね健全である					
08_Rama 7	1992	DRR	PC-Box	概ね健全である					
10_Krung Thon	1958	DRR	Truss			断面減少、ひび割れが多い			来年度全 面補修
11_Rama 8	2002	BMA	Cable-stayed	概ね健全である					
12_Pinklao	1973	DRR	PC-Box		伸縮排水の劣化、取付橋ひび割れ	l			
13_Memorial	1932	DRR	Truss			歩道床版の橋軸ひび割れ、車両 衝突、船舶衝突による部材変形		大規模補償	歩道床版 打ち替え
14_Phra Pokklao	1984	DRR	PC-Box	概ね健全である					
15_Taksin	1982	DRR	PC-Box		斜めひびわれの可能性				
16_Rama 3	2000	DRR	PC-Box	概ね健全である					
17_Krung Thep	1959	DRR	Truss		中央支間の一部断面減少			塗装が新し	,61
18_Rama 9	1987	EXAT	Cable-stayed	大規模点検が行われ補修中				20年点検泳	Ž,
19_IRR North	2006	DRR	Cable-stayed			塔柱のひび割れの可能性			
20_IRR_South	2006	DRR	Cable-stayed			塔柱のひび割れの可能性			
21_Kanchanapisek	2007	DOH	Cable-stayed						

Bridge name	Completior	Authority	Туре	Superstru	cture			Slab		Pavement	Pier,pylon	Bearing	Expansion	joint	Drainage		Barrier	rier Handrail Others	
				Main girder, chord	Other member	Ship collision	Vehicle collision	Main road	Walkway				Spacing, Structure	Drain	Blocked	Others			
01_Patum Tani	1984	DOH	PC-Box	lime, crack under medium								set error of side block, rust		partly			chipped		difference of grade of longitudinal joint
02_Patom Tani2	2009	DOH	PC-Box	lime												lack of catch basin			
03_Nonthaburi	1959	DOH	Truss	rust	reduce thickness			breaking exfoliation	breaking	breaking			fixed	leakage		rust			Lighting
04_Rama 4	2006	DRR	PC-Box	lime leakage of rust											partly				
05_New Phra Nangklao	2008	DOH	PC-Box												partly				
06_Phra Nangklao	1985	DOH	PC-Box	lime								rust, movement		leakage	partly		chipped		Hinge breaking, leakage of water supply
07_Rama 5	2002	DRR	PC-Box	lime		scratch							extension spacing		upstream	lack of catch basin		stolen	
08_Rama 7	1992	DRR	PC-Box	lime on approach										leakage	partly			lost bolt	leakage of water supply, lighting cover
10_Krung Thon	1958	DRR	Truss	rust	reduce thickness		surface, under girder		crack exfoliation			rust soil dump		leakage		pipe falling	chipped		
11_Rama 8	2002	BMA	Cable-stayed							pot-hole									leakage from cable
12_Pinklao	1973	DRR	PC-Box	lime									corrosion	leakage					leakage from manhole, crack of approach pier
13_Memorial	1932	DRR	Truss	rust remaining water	rust remaining water	1 member lost		lime, crack	lime, crack		crack under bearing	rust soil dump	rust						rivet lost
14_Phra Pokklao	1984	DRR	PC-Box	lime on center bridge		scratch											chipped		
15_Taksin	1982	DRR	PC-Box	lime, cold joint or crack				-		unevenness (small)		rust, movement		partly			cover disappear		
16_Rama 3	2000	DRR	PC-Box									-	-	-	-	-	-	-	
17_Krung Thep	1959	DRR	Truss	rust	reduced thickness at center span			lime, crack	crack exfoliation		crack under bearing (approach)	rust		partly		lack of catch basin			
18_Rama 9	1987	EXAT	Cable-stayed																
20_IRR North	2006	DRR	Cable-stayed	remaining water					crack		crack .		noise						unevenness of vertical alignment
21_IRR_South	2006	DRR	Cable-stayed	-					crack		crack								
22_Kanchanapisek	2007	DOH	Cable-stayed																

Slight defect Remarkable defect Difficult to approach and measure the defect. Possibility of remarkable defect

Br	idg	e No.	<u>Insp</u>	ec	ction	n shee	t of	vi	sual	survey			Photo No.	(~)
	Bri	dge name	Patum Thani Bridge	Rou	ute name	3110, 346		Auth	ority	DOH		Code of authorit No.	y	-	
	ΡI	ace	Amphue Lat Lun Kaeo Amphoe Mueang Pathum Thani	Dista	ance from to	km+ km+	-		_			Survey date		2009/10/28	
c.	E ES	Bridge type Bridge type Bridge type	2) bridge · viaduct · plank pass		Differer	er deform Ice in glade Is of barrie	· -	j	ltem Main girder Cross beam	Type PC-Box -	Leakage -	from gap betweer	State n girder		
		Total leng Span	47 + 73 + 73 + 47 (m)	t	Continuc N	us of curve loise	yes ∙ no yes ∙ no		Stringer Cross frame	-	-				
Bridge		Nos. of spa Width Completion	32.21 (m) / 10.6-original (m)	Survey result	diffe	ice change rence grade ning damage		age	Lateral brace Slab Abutment	e - Rectangular	free li	me, leakage			
+ ion		Horizonta Gradient	One way (・・・) parabo (凸・凹)	Su	Crack o Damage	d drainage of pavement of lighting	yes ∙ no yes ∙ no yes ∙ no	line	Pier Bearing Barrier	Plate, rectangu Slide bearing Trapezoidal	Spacing General	is seen in side ly healthy	block		
infor		Nearby tunn learby cross Traffic			Damage	e of sign of handrail ity of scou			Railing Curb Pavement	Steel - asphalt concre	-	ly healthy ly healthy			
L		ommercial tra	ffic Much · Medium · Little 2.Suburbs 3.Mountain 4.Seaside		Walkway Vehicle	yes • no yes • no			Joint Drainage	drained •undrai yes∙ no	ned Leakage Blocked				
	5 1 9	.Industrial .Salty .Shinkansen	6.Harbor 7.Residential 8.Bussiness 10.Cold and snow 11.Heavy snow 12.Others 2.Railway 3.Highway 4.Road	ection way				-				n under longitudi Omm?) is appeared	·····	leakage	
Indor hr	5	5.River 0.Waterway 3.Vacant	6.Lake 7.Ravine 8.Valley 10.Parking 11.Bike parkin 12.Park 14.Harbor Name (Chao Phraya)	Inspec				essions							
mothod		Superstructu	6.0n boat 7.special camera 8.0thers()		Height of Deter	girde ioration of k	about 10r	- Idu							
	ACCESS IIIEL	Substructu Reason	e 6.0n boat 7.Special camera 8.0thers() • All bridge section is on the water • If inspection car is not available, false work will be required	Diagnosis	deficien Notic • Fractu • Differ		good under gap ide of			of repair ;	ional 2-bo o, Mr.Kudo	ox girder was oper	ned at 2006. Repain	nt; - yy	

Preser	nt state (1	/6)					
Authority	DOH	Address	Bangkok	Data	28-0ct-09		
Bridge	Patum Tani bridge						

	Picture No.	1
	Span	1
	Member	Side view
the second s		
	Picture No.	2
	Span	2
	Member	View on road
and the second sec		
	D	
	Picture No.	3
	Span	1
	Member	View under bridge
	1.4	and haddee
and the second s	Lett; origi	nal bridge tional bridge
	Kight; addi	tional pridge
the set of		
Town of the second second		
and the second se		
A Level of the Alignet of the Alignet		

Presen	t state (2	/6)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Patum Tani bridq	je			

		4
May 194	Picture No.	4
A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O	Span	1
	Member	Longitudinal joint
all this is a lot	Longitudina	al joint between girder
strong the second second	Leakage fro	om ioint
the is the		joint
The second se		
and the second se		
	Picture No.	5
	Span	1
A DESCRIPTION OF THE PARTY OF T	Member	Longitudinal joint
where and the second	member	
	Longituding	al joint between girden
A State of the second s	Longi tuurna	ar joint between grider
	Exfoliation	n of concrete
and the second s		
A CONTRACTOR OF THE CASE OF THE OWNER		
a survey of the set of the set of the		
and the second of the second of the second of		
the second secon		
and the strength of the strength of the		
La BARREN BARREN		
contral to an and the second second second		
A REAL PROPERTY OF A REAL PROPER		
	Picture No.	6
	Span	1
	Member	Approach bridge
	Limit of ve	ehicle heignt, 3.5m
		5 5 5 5
90		

Prese	nt state (3	/6)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Patum Tani brido	ge			
		100		ure No.	7

	Chon	1
Market and the second s	Span	
	Member	Side barror
	コンクリー	~の剥離
A A A A A A A A A A A A A A A A A A A		
South State		
	Picture No.	8
	Span	1
	Member	Expansion joint
	Leakage	
THE REPORT OF THE ASSAULT		
Blut and Spaine		
NOV CONTRACTOR		
The second se		
A A REAL PROPERTY OF THE PROPERTY OF THE REAL PROPE		
	Picture No.	9
	Span	1
	Member	Longitudinal joint
		zongredamar jonne
	Difference	of grade
and the second se		
이 아는 지난 바이 아이에 가지 않는 것이 아이지 않는 같이 아이지 않는 것이 아이지 않는 것이 같이 아이지 않는 것이 않는 것이 않는 것이 않는 것이 아이지 않는 것이 같이 않는 것이 않는 것이 않는 것이 없는 것이 않는 않는 것이 않는 않는 것이 않는 것이 않는 것이 않는 것이 않는 것이 않는 것이 않		

Preser	nt state (4	/6)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Patum Tani bridg	je			

	Picture No.	10
	Span	1
THE REPORT OF TH	Member	Bearing
	Deteriorati	on of corrosion proofi
	Picture No.	11
Provide the second s	Span	1
	Member	bearing
A Laboration 13	Spacing of	side block
Incluse		
The second secon		
	*Survey on	board, 31-oct
	Picture No.	12
	Span	1
	Member	Bearing
the second secon	Additional	bridge, no movement
the second secon		
MON		
a second and the first the to		
And a second		

Presei	nt state (5	6/6)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Patum Tani bridq	je			

	Picture No.	7
	Span	1
	Member	manhole
	About 5m.	
And A Distance of the second se		
the second s		
the second state of the se		
	Picture No.	8
	Span	1
	Member	Catch basin
	Blocking of	catch basin
AND SIDE		
A HAR AND A		
say in synthesis and		
t site		
	Picture No.	9
	Span	1
	Member	Walkway
	Obstacle of	bicycle
THE AND A DECEMBER OF A DECEMBER		

Preser	nt state (6	/6)						
Authority	DOH	Address	Bangkok	Data	28-0ct-09			
Bridge	Bridge Patum Tani bridge							

	Picture No.	10
	Span	1
	Member	Barrier
	Member	Darrier
and the second of the second second	Chipping of ba	arrier
	ompping of st	
A THE REAL PROPERTY AND A DESCRIPTION OF		
the second s		
the second s		
and the second		
	Picture No.	11
A DECEMBER OF THE REAL PROPERTY OF THE REAL PROPERT	Span	<u> </u>
	Member	Footing
AND AND THE REAL PROPERTY AND ADDRESS OF ADDRES		rooting
	Ship collision	n to protection
AUTO B1		
A REAL PROPERTY AND A REAL		
and the second sec		
	Picture No.	12
	Span	12
	Member	1

					0.15				DOL		Code of authorit	ty	-	
В	ridge name	Patom Thani 2 Bridge	RC	oute name	345		Auth	ority	DOH		No.		-	
I	Place .	hue Lat Lun Kaeo	Dist	from	km+	0					Survey date		2009/10/28	
	to Ampl	hoe Mueang Pathum Thani		to	km+	0			1	1	-			
	Bridge type(1)	main road • side road • ramp		Cambe	r deform	yes • no		ltem	Туре			State		
~	Bridge type(2)	bridge · viaduct · plank pass			ce in glade	·		Main girder	PC-Box	Free lin	me from construc	tion hole		
ties	Bridge type(3)	3-span continuous PC box girder			s of barrie			Cross beam	-	-				
oper-	Total length	778.10 (m)			us of curve			Stringer	-	-				
d	Span	(180) + 129.05 + 160 + 129.05 + (180) (m)			bise	yes · no		Cross frame	-	-				
a de	Nos. of span	3 span	result	Spa	ce change	yes · no		Lateral brace	-	-				
ō	Width	27.90 (m) / (m)	- I.	1 Š – – – – – – – – – – – – – – – – – –	rence grade		ы С	Slab		Free lin	me from construc	tion hole		
	Completion	2009			ing damage	·	dam	Abutment	Rectangular	-				
			Sul	Blocked	ldrainage	yes · no	· · ·	Pier	-	Girder	directry connect	to footing		
	Horizontal	Straight · incli(= °) · Curve(R m)	-	f pavement	· _		Bearing	Slide bearing	General	ly healthy			
mation	Gradient	One way (・) parabo (凸 ・ 凹)		Damage o	of lighting	yes · no	Outl	Barrier	Trapezoidal	General	ly healthy			
	Nearby tunnel	yes · no (m)		Damage	of sign	-		Railing	Steel	General	ly healthy			
D E	Nearby crossing	yes · no (m)		- U	of handrail	·		Curb	-	-				
Koad	Traffic	Much • Medium • Little		Possibili	ty of scoul	yes • no		Pavement	asphalt • concret					
8	Commercial traffic	Much • Medium • Little		Walkway	yes • no			Joint	drained undraine	edGeneral	ly healthy			
				Vehicle	yes • no			Drainage	yes∙ no	Without	catch basin			
r onr		2.Suburbs 3.Mountain 4.Seaside	2											
	5.Industrial 9.Salty	6.Harbor7.Residential8.Bussiness10.Cold and snow11.Heavy snow12.0thers	N WaV					• New br	idge and generally	/ healthy				
5	1.Shinkansen	2.Railway 3.Highway 4.Road	ect ion						ruge and generally	, near my				
5	5.River	6.Lake 7.Ravine 8.Valley	spec				s							
חותם	9.Waterway	10.Parking 11.Bike parkin 12.Park	<u> </u>				ess i ons							
5	13.Vacant	14.Harbor Name (Chao Phraya)												
	Superstructure	1. Inspection car 2.Falsework 3.0n ground 4.Ladder 5.Lift car 6.On boat 7.Special camera 8.Others()		Height of g	jirde	about7.8m	Impr							
IIIE LI IOU		1.Inspection car2.Falsework 3.On ground 4.Ladder 5.Lift car			oration of b									
Ď	Substructure	6.0n boat 7.Special camera 8.0thers()	<u>.</u> 0		t•fair•									
n n n		• All bridge section is on the water	sou	Notic	eable point			listory o	f repair;					
Ä	Reason	If inspection car is not available, false work will be required) i ao							, Mr.Kudo		Repair	nt; - y	/у -

Prese	nt state (1	/2)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Patum Tani 2 bri	dge			

	Picture No.	1
	Span	1
	Member	Side view
	Picture No.	2
the second s	Span	2
	Member	View on road
and the second se		
And the second s		
	Picture No.	3
	Span	1
	Member	View under bridge

Preser	nt state (2	/2)						
Authority	DOH	Address	Bangkok	Data	28-0ct-09			
Bridge	idge Patum Tani 2 bridge							

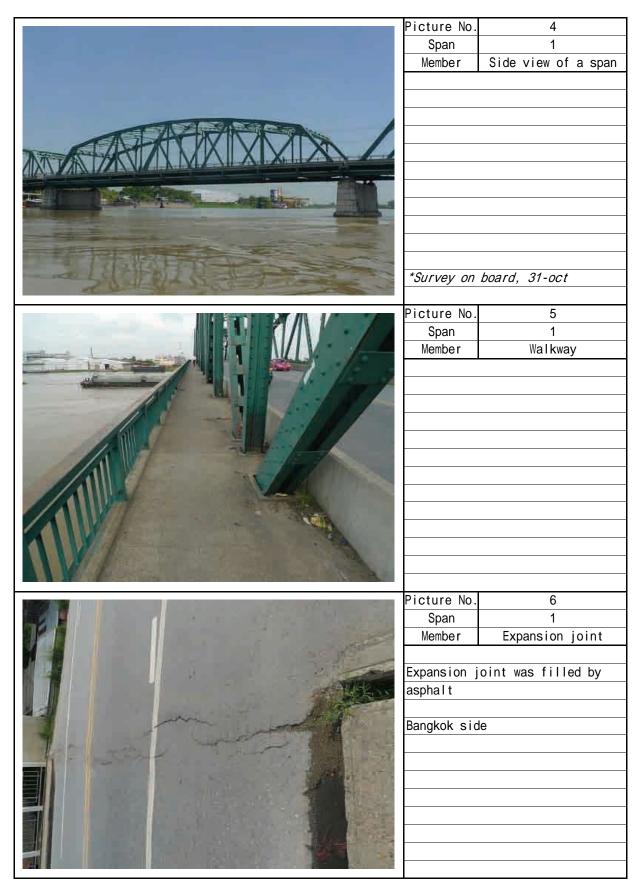
	Picture No.	4
the second s	Span	1
A DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER OF THE OWNER	Member	Bearing
and the second second second second second		
a set of the		
South State		
The second secon		
the design of the		
and the second se		
the second s		
	Picture No.	5
	Span	1
	Member	Longitudinal joint
	ling from a	anatruation halo
	LIME FROM C	construction hole
1 March 1990		
and the second second		
	Picture No.	6
	Span	1
	Member	Drainage
- A second s		
	Without cat	ch basin

											Code of authorit	x	-
В	ridge name	Nonthaburi Bridge	Ro	ute name	307		Auth	ority	DOH	4	No.		-
F	Place	nathum Thani	Dist		km+	0					Survey date	20	009/10/28
	to No Bridge type(1	onthaburi) main road • side road • ramp		to Cambo	km+ r deform	0 ves • no		ltem	Туре			State	
	Bridge type(1 Bridge type(2		-		ce in glade	, 		Main girder	Truss	Corros	ion, Deterioration		deformation
es	Bridge type(3		-		s of barrie	·		Cross beam	I section s			r or prooring, v	
operties	Total length	, , , , , , , , , , , , , , , , , , , ,	-		us of curve			Stringer	I section s	ÿ			
prope	Span	65+65+65 (m)	-		bise	yes · no		Cross frame	T section s	Ŭ			
	Nos. of spar	()	┨╧		ce change	ves · no		Lateral brace	-	-			
an Iuge	Width	about 13 (m) / (m)	result	i⊑ diffe	rence grade	,		Slab		breaki	ng, free lime, lea	akage	
	Completion	1959	- Š		ing damage	yes • no	damage	Abutment	Oval	-			
			- Ľ		drainage	yes • no		Pier	0val	-			
	Horizontal	Straight • incli(= °) • Curve(R m)	1″		f pavement	yes • no		Bearing	Pin beari	ing Genera	lly healthy		
Б	Gradient	One way (・・) parabol (凸・凹)			flighting	×	_	Barrier	Trapezoio	ů.	lly healthy		
liario	Nearby tunne			-	ofsign	-	- 3	Railing	Steel		illy healthy		
INTOFIL	Nearby crossi			-	f handrail	ves · no		Curb	-	-	, ,		
	Traffic	Much · Medium · Little		Possibili	ty of scour	yes • no		Pavement	asphalt • cor	ncrete Breaki	ng on cross beam		
Koad	Commercial traf	fi c Much · Medium · Little		Walkway				Joint	drained •und	Irained Joint	was filled by asph	nalt, leakage	
				Vehicle				Drainage	yes • no	o Under	barrier. Deteriora	ation of drain	function.
onn	1.Urban	2.Suburbs 3.Mountain 4.Seaside			· · · · · · · · · · · · · · · · · · ·								
EUVIC	5.Industrial	6.Harbor 7.Residential 8.Bussiness	way										
	9.Salty	10.Cold and snow 11.Heavy snow 12.Others	tion								s beam from broken hickness and openi		
DLI	1.Shinkansen 5.River	2.Railway 3.Highway 4.Road 6.Lake 7.Ravine 8.Valley	nspect								s deformed by coll		
under	9.Waterway	10.Parking 11.Bike parkin 12.Park	lns				ess ions						
5	13.Vacant	14.Harbor Name (Chao Phraya)					ess.						
n	Superstructur	e 1.Inspection car 2.Falsework 3.0n ground 4.Ladder 5.Lift car 6.0n boat 7.Special camera 8.0thers())		Height of g	ji rde	about 7m	Impi						
method	Substructure	1.Inspection car 2.Falsework 3.0n ground 4.Ladder 5.Lift car 6.0n boat 7.Special camera 8.0thers()	S		oration of b • _{fair} •	•							
ccess	Reason	All bridge section is on the water If inspection car is not available, false work	agnos i s		eable point	ical membe	ż	listory o	f repair; • Se	etting of bai	rier to protect ve	ehicle collisio Repaint;	n to vertical memb - yy - r
¥		will be required	Di	• Breaki	ng of slab			Surve	yor; Mr,0	Chujo, Mr.Kuo	ło		

Prese	nt state (1	/ 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridg	je			

	Picture No.	1
	Span	1
	Member	Side view
the second se		
the second se		
or wanted in the local division of the local		
	*Survey on	board, 31-oct
	Picture No.	2
	Span	2
	Member	View on road
Are and Control of the second se		
12- N		
A TABLE A DATA OF A D	Picture No.	3
A STATE AND A STAT	Span	
A DESCRIPTION OF THE OWNER.	Member	View under bridge

Prese	nt state (2	2 / 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridq	je			



Preser	nt state (3	/ 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridge				

	Picture No.	7
	Span	1
	Member	Expansion joint
	Leakage fro	m expansion joint
	D 1 1 1	
	Picture No.	8
	Span Member	1 Expansion joint
	Member	
	Thon Buri s	ide
and the second s		
	Picture No.	9
	Span	1
	Member	
	Lack of rub	ber at end
	Then Durit -	:
	Thon Buri s	lue

Prese	nt state (4	/ 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridge				

	Picture No.	10
- 1	Span	1
	Member	Water supply
MALE	Water supply	was removed
		cle height, 3.0m
	Picture No.	11
	Span	1
	Member	Newel
an alle all and a set of the set		
	Picture No.	12
	Span	1
	Member	Newel
	Opening of do	or
	sponing of ut	
	Erosion of at	outment
a tour a start		
A CONTRACTOR		

Prese	nt state (5	/ 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridg	je			

	Picture No.	7
	Span	<u> </u>
	Member	
	WEINDET	Approach road
MAC A	Approach ro	ad is 4 lane
	Main bridge	is 2 lane
		ad of Thon Buri side i
	under widen	ing.
	Picture No.	8
	Span	1
	Member	Bearing
		-
	Structure a	round bearing
and the second s		
	<u> </u>	
	Picture No.	9
	Span	1
	Member	Approach bridge
Prove Liber I and a second		
	Corrosion o	n bearing
	Deteriorati	on of corrosion proof
1	1	

Prese	nt state (6	/ 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridge				

	Picture No.	10
	Span	1
	Member	Bearing
	Expansion o	f steel by corrosion
	Deteriorati	on of corrosion proofi
	Picture No.	11
	Span	1
A state of the second s	Member	Bearing
	Inclination of Approach	of locker bearing bridge
	Picture No.	12
	Span Member	1 Vertical member
and the second s		
		steel and slab
· · · · · · · · · · · · · · · · · · ·	Mount up ar	ound steel member
		ountermeasure for
	corrosion p	roofing by water

Preser	nt state (7	/ 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridge				

	Picture No.	13
the second s	Span	1
	Member	Vertical member
	Remarkable	reducing of thickness
	of plate	
	Opening at	bottom end
	oponing at	
	Picture No.	14
	Span	1
	Member	Vertical member
	Member	
	Enlarged ph	ata
	Enlarged ph	1010
	Onening of	hattan and
4	Opening at	bottom end
A REAL PROPERTY AND A REAL		
Share and the share and the		
the second second second		
a for the second and the second and the		
- The Addition		
	ļ	
	Picture No.	
and the second second	Span	1
	Member	Vertical member
		reducing of thickness
	of plate	
	Hole positi	on is higher than
and the second s	contact sec	ction with concrete

Preser	nt state (8	/ 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridge				

Picture No. Span Member Remarkable of plate	16 1 Bearing reducing of thickness
Picture No. Span Member Proceeding between ead	17 1 Vertical member of corrosion is differ ch member
Picture No. Span	1
Member	Vertical member
Deformation	h by vehicle collision

Prese	nt state (9	/ 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridg	je			

	1	
	Picture No.	13
	Span	1
	Member	Vertical member
	Deformation	by vehicle collision
	Picture No.	14
	Span	1
	Member	Vertical member
	Weinber	
	Deformation	by vehicle collision
	Picture No.	15
A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O	Span	1
	Member	Vertical member
		by vehicle collision

Prese	nt state (10	0 / 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridq	ge			

	Picture No.	16
	Span	1
	Member	Vertical member
	Deformation	n by vehicle collision
A A A A A A A A A A A A A A A A A A A		
	Mark of rei	inforcement
	Picture No.	17
	Span	1
	Member	Chord member
	Deformation	n by vehicle collision
H H H		
and a second s		
	Picture No.	18
	Span	1
	Member	Vertical member
		•
	Deformation	n by vehicle collision
A A A A A A A A A A A A A A A A A A A		

Prese	nt state (1 [.]	1 / 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridg	je			

	Picture No.	19
	Span	1
	Member	Vertical member
	Deformation	n by vehicle collision
	Picture No.	20
	Span	1
	Member	Bracket
	Member	Bracket
and the state of t	Deformation	n by vehicle collision
		24
	Picture No. Span	21 1
	Member	Pavement
		pavement on cross bea

Presen	nt state (12	2/19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridg	je			

	Picture No.	22
	Span	1
	Member	Pavement
and the second	member	ravonorr
the month of the second	Breaking of	pavement on cross bea
and work - and a second	Severe leak	age is found on
and the second s	bottom slab	
a set of the	It is estim	ated that this breakir
and the second second second	go through	
a the second	0 0	
	Picture No.	23
	Span	1
	Member	Pavement
		. er enerre
	Breaking of	pavement on cross bea
The state of the second s		
TT for short where		
the second dealer that the second dealer that the second dealer that the second dealer that the second dealer the second		
and the second s		
A start was a start of the star		
	Diatura No.	04
	Picture No.	24
	Span	1
	Member	Drainage
	Catch basin	may exist under barri
	Detector	an af dus 's f f f
	Deteriorati	on of drain function
A CALL AND A CALL AND A CALL AND A CALL		

Preser	nt state (1	5 / 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi brido	ge			

	Picture No.	25
	Span	1
	Member	Drainage
		bramago
	Drainage und	der barrier
	Diatura Na	26
	Picture No.	<u>26</u> 1
	Span Member	slab
	Member	STAD
	Crack	
	Free lime	
	Picture No.	27
	Span	1
and the second	Member	Slab
and the second second second	Deterioratio	on of corrosion proofi
	Fracture of	concrete surface
	Free lime	

Prese	nt state (16	6 / 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridg	je			

	Picture No.	28
	Span	1
	Member	Slab
		UT CAS
	Leakage from s	lab on cross beam
	Picture No.	29
	Span	1
	Member	Slab
	Leakage from s	lab on cross beam
	Picture No.	30
	Span	1
	Member	slab
and the second s	I	
a hard the property of the second second	Crack	
The second s		
	Free lime	

Prese	nt state (1	7 / 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi brido	ge			
- 40	2		the second se	ure No. Span	31 1
all a			M	ember	Slab
			Leal	kage from	slab on cross beam
ALC: NO.		Ro. Haral	Crad	ck, free	lime

Crack, free Concrete sl	om slab on cross beam e lime ab was changed to dirt <i>board, 31-oct</i>
Picture No. Span Member Plant Possibility	32 1 slab
	33 1 Slab hickness by corrosion <i>board, 31-oct</i>

100

V.

Prese	nt state (18	8/19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Bridge Nonthaburi bridge				

	Picture No.	34
	Span	1
	Member	Approach bridge
	コンクリー	トの剥離と補修
Charles and the second		
and the second		
The second s		
	Picture No.	35
	Span	1
	Member	Chord member
		w/l/
	防蝕性能の	516
	Picture No.	36
	Span	1
	Member	Lighting pole
A R AND A CONTRACT OF A CONTRA		5 51
	破損	
The state of the s		

Prese	nt state (17	7 / 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridg	je			

	Picture No.	37
	Span	1
	Member	Substructure
	Member	Substructure
V. Contraction of the second s		
And the second		
	*Survey on	board, 31-oct
		,
	Picture No.	38
and the second se	Span	1
	Member	Transverse bean
and the second		
and the first of the second se	Corrosion a	nd fall of rivet
THE REAL PROPERTY AND ADDRESS OF THE REAL PROPERTY ADDRESS OF THE REAL		
A CONTRACTOR OF A CONTRACTOR O		
TANK ARATA		
	*Survey on I	board, 31-oct
	ļ	
	Picture No.	39
	Span	1
	Member	Cross frame
	Deformation	by ship collision
	2nd span fro	om Bangkok side
	*Survev on	board, 31-oct
	,	· ·
The second s		

Prese	nt state (18	8 / 19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridg	ge			

Picture No.	40
Span	1
Member	Bottom chord
Member	
Deformation	by ship collision
*Survey on b	poard, 31-oct
Picture No.	41
Span	1
Member	Bottom chord
 Deformation	by ship collision
*Survey on b	board, 31-oct
Picture No.	40
	42
Span	Bottom chord
Member	Bottom chord
Deformation	by ship collision
*Survey on b	ooard, 31-oct

Preser	nt state (19	9/19)			
Authority	DOH	Address	Bangkok	Data	28-0ct-09
Bridge	Nonthaburi bridg	je			

	Picture No.	43
A REAL PROPERTY OF A REAL PROPER	Span	1
	Member	Slab
		concrete surface
	Rock pocket	
	Crack	
and the second		
and the second		
	*Survey on	board, 31-oct
and the second division of the second divisio		
	Picture No.	44
	Span	1
	Member	
	*Survey on	board, 31-oct
	Picture No.	45
	Span	1
	Member	

Bridge No.

₽

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4 Photo No. (~~ Code of authorit DRR Route name RAMA IV Bridge Bridge name No. Authority from Anphoe Bang Bua Thong 0 from km+ Place Survey date 2009/10/20 Distanc Anphoe Pak Kret km+ 0 to to Bridge type(1) main road side road . ramp Camber deform ves · no ltem Type State Bridge type(2) bridge viaduct plank pass Difference in glade yes no Main girde PC-Box Free lime and rust from web 3-span continuous PC box girder Bridge type(3) ontinuous of barrie Cross bea yes • no -Dronert i Total length 278.00 (m) Continuous of curve Stringer ves • no 72 + 134 + 72 (m) Noise Span ves · no Cross fram result dop Nos. of span Space change no 3 span ves · Lateral brac oint Ľ. difference grade yes 13.65 x 2 (m) / Width (m) Slab no damage Survey Completion 2006 draining damage ves no Abutment -Blocked drainage Rectangular Generally healthy yes • no ę Pier Out line Straight) · Curve (R Crack of pavement no Horizontal • incli(= Bearing Slide bearing m) yes · <u>o</u>) parabol (凸 凹 Gradient Damage of lighting yes • Trapezoidal Generally healthy) no Barrier One way (informat Nearby tunnel Damage of sign Steel Generally healthy no m) Railing yes (Nearby crossing Damage of handrail ves · no ves no m) Curb Possibility of scour asphalt • concrete Generally healthy Traffic ves • no Much Medium • Little Pavement Road Commercial traffi Walkway yes · no (water supply drained •undrained Generally healthy Much Mediur • Little Joint Vehicle yes · no Partly blocked Drainage ves • no lon 2.Suburbs 3.Mountain 1.Urban 4.Seaside way 5. Industrial 6.Harbor 7.Residential 8.Bussiness Envir 9.Salty 10.Cold and snow 11.Heavy snow 12.0thers nspect ion i d 1.Shinkansen 2.Railway 3.Highway 4.Road þ 5.River 6.Lake 7.Ravine 8.Valley mpressions Unde r 9.Waterway 10.Parking 11.Bike parkin 12.Park 13.Vacant 14.Harbor Chao Phrava Name 1.Inspection car2.Falsework 3.On ground 4.Ladder 5.Lift car Superstructure 6.0n boat 7.Special camera 8.Others(about 5.6m Height of girde nethod I.Inspection car2.Falsework 3.On ground 4.Ladder 5.Lift car Deterioration of bridge Substructure 0.0n boat 7.Special camera 8.Others(deficient · fair · good agnos i s • All bridge section is on the water Noticeable point istory of repair · If inspection car is not available, false work Generaly healthy Repaint; Reason - yy - mm will be required ū Mr,Chujo, Mr.Kudo Surveyor ;

Append

Prese	nt state ('	1/5)			
Road		Address	Bangkok	Data	20-0ct-09
Bridge	RAMA IV				

	Picture No.	1
	Span	1
	Member	View under girder
		v
	*Survey on	board, 31-oct
COR. D. LINES		
	Picture No.	2
	Span	1
T TOP I	Member	View on ground
the second se		
1 4 4 1		
1		
///		
		-
	Picture No.	3
	Span	1
	Member	Side view
and the second s		
the second s		
and the second sec	*Survev on	board, 31-oct
Contraction of the local division of the loc		·····, ·· ···

Present state (2/5)					
Road		Address	Bangkok	Data	20-0ct-09
Bridge	RAMA IV				

	Picture No.	4
	Span	1
The second secon	Member	Name plate
Straw and states		
Marine Control		
	Picture No.	5
	Span	1
and the second sec	Member	Box-girder
the second second		
The second and the second	Insufficier	ncy of cover concrete
	Repairing w	ork was finished
The set and the set of the sector of		
A I I STATE AND A STATE AND A STATE AND A		
Man Harris Aver		
	Picture No.	6
	Span	1
	Member	Expansion joint
·VMA.		
MA		

Prese	nt state (3	3/5)			
Road		Address	Bangkok	Data	20-0ct-09
Bridge	RAMA IV				

Picture No. 7	
Span 1	-
Member 桁下全景	1 T
water supply	
No expanded metal plate.	
It's not suitable for ins	pection
	00011011
and the second sec	
The second se	
Picture No. 8	
Span 1	
Member slab (walkway,	roadway
Ooze out of rust	
and the second of the law is a second of the	
The second s	
and the second	
to be a subscreen and the second s	
and the second	
*Survey on board, 31-oct	
Picture No. 9	
Span 1	
Member Bearing	
Member Bearing	
Drainage function of join	tic
	115
good.	
and the second	
State and the state of the stat	

Prese	nt state (4	/5)			
Road		Address	Bangkok	Data	20-0ct-09
Bridge	RAMA IV				

	Picture No.	10
	Span	1
	Member	Lighting pole
	Mark of fil	ling concrete at
	bottom of I	ighting pole
a ar gar to an a set		of fracturing in
	future	
	Picture No.	11
A the second	Span	1
	Member	Catch basin
	Partly bloc	ked
	Picture No.	12
A Carl Transferrer and the second sec	Span	1
	Member	View of walkway
A. C.		

Present state (5/5)					
Road		Address	Bangkok	Data	20-0ct-09
Bridge	Rama IV				

	Picture No.	13
and the second se	Span	1
the second s	Member	Barrior
and the second and the second		
the second s	Crack.	
the topy and the		
HYVY, AND	Repartring	material with
	permeabilit	y?
and the second se		
and the second		
and the second s		
and the second		
a state of the second sec		
	Picture No.	14
	Span	1
The second second second second	Member	
and the second sec	01.1	
and the second	chipped con	crete around drainage
a first state in the second state of the second state of the		
and the property of the second s		
the state of the s		
the second state to set the second state is a second state of the	*Survey on	board, 31-oct
The second se		
	Picture No.	15
the last state of the second state of the seco	Span	1
	Member	Substructure
and the second se		
and the second sec		
	*Survev on	board, 31-oct
1	2209 011	

Br	ridg	ge No.	5	spe	ectio	on shee	et of	vi	sual	surve	эy			Photo No. (~)
	Bri	idge name	New Phra Nangklao Bridge	R	loute nar	ne -		Auth	ority	D	ЮН		Code of authority No.	-	-
	PI	lace	Anphoe Bang Bua Thong Anphoe mueang Nonthaburi	Dis	stance	om km· o km·							Survey date	2009/	/10/24
v - 00 - 0	rmation Bridge properties	Bridge type Bridge type Dridge type Total leng Span Nos. of sp Width Completic Horizonta Gradient Nearby tunn Nearby cross	e(2) bridge · viaduct · plank pass e(3) 5-span continuous PC box girder gth 329.10 (m) 50.55 + 72 + 84 + 72 + 50.55 (m) pan 5 span 10.9 x 2 (m) / (m) on 2008 al Straight · incli(= °) · Curve(R t One way (·) parabo (凸 · 凹 innel yes · no (m)		Differ continu Continu Continu Continu Continu Continu dif Bloc Crack Damag	nber deform rence in glad uous of barri nuous of curv Noise Space change iference grad aining damage ked drainage c of pavement e of lighting age of sign e of handrai	e ves · n yes · n	Out Line of damage	Item Main girder Cross beam Stringer Cross frame Lateral brace Slab Abutment Pier Bearing Barrier Railing Curb	Type PC-Be - - - - - - - - - - - - 2plate, Slide be Trapezo Stee	ox oval earing oidal	- - - General - - - General	ly healthy ly healthy ly healthy ly healthy	State	
	onn Koad	Traffic commercial tra 1.Urban 5.Industria	raffi c Much · Medium · Little 2.Suburbs 3.Mountain 4.Seaside		Walkw	ility of scou nay yes ∙ no le yes ∙ no		D 	Pavement Joint Drainage	asphalt drained ∙µ yes.•	ndrained	General – Partly b			
	Under bridg Env	9.Salty 1.Shinkanser 5.River 9.Waterway 13.Vacant Superstruct	10.Cold and snow 11.Heavy snow 12.Others an 2.Railway 3.Highway 4.Road 6.Lake 7.Ravine 8.Valley 10.Parking 11.Bike parkin 12.Park 14.Harbor Name (Chao Phraya			of girde	about 10	a i i i i i i i i i i i i i i i i i i i							
	Access method	Substructu Reason	1.Inspection car2.Falsework 3.0n ground 4.Ladder 5.Lift ca 6.0n boat 7.Special camera 8.0thers(• All bridge section is on the water		Det defi Not	erioration of cient fair fair fair ciecable poin ally healthy	bridge good			of repair; eyor; Mr	r,Chujo,	Mr.Kudo		Repaint;	- by - mm

Preser	nt state (1	/3)			
Authority	DOH	Address	Bangkok	Data	24-0ct-09
Bridge	New Phra Nangkla	ao Bridge			

	Picture No.	1
	Span	1
ATT A CONTRACT OF A CONTRACT O	Member	Side view
the second s		
The second state of the se		
	Picture No.	2
	Span	1
	Member	View on road
the second secon		
	Picture No.	3
	Span	1
	Member	View under girder

Prese	nt state (2	/3)			
Authority	uthority DOH Address		Bangkok	Data	24-0ct-09
Bridge	New Phra Nangkla	ao Bridge			

	Picture No.	4	
A CONTRACTOR OF A CONTRACTOR O	Span	1	
and the second second in the second second	Member	Pier	
	Pier height	is low	
The second se	The structu	ire may occure large	
	moment afte	er shirinkage, creep	
	and tempera	ature.	
		Continuous careful checking is	
	required.		
	Picture No.	5	
	Span	1	
	Member	Drainage	
PER Distance	Dorto for y	otor oprinkling	
HER PULL CONTRACTOR	Garbage	ater sprinkling	
	Garbaye		
	Picture No.	6	
	Span	1	
	Member	Drainage	

Preser	nt state (3	/3)			
Authority	DOH	Address	Bangkok	Data	24-0ct-09
Bridge	New Phra Nangklao Bridge				

	Picture No.	7
	Span	1
	Member	Drainage
	Partly bloc	ked
A CONTRACT OF		
The second the second		
	Picture No.	8
	Span	1
	Member	
	Picture No.	9
	Span	1
	Member	
	Thon Buri side	