ミャンマー国
運輸通信省
ミャンマー国鉄

ミャンマー国
ヤンゴン・マンダレー鉄道整備事業
フェーズⅡ準備調査

ファイナルレポート
(公開版)

付　属

平成 30 年 2 月
(2018 年)

独立行政法人
国際協力機構 (JICA)

株式会社 オリエンタルコンサルタンツグローバル
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  (2) Results of Water Quality Analysis
  (3) Photographs of Bird, Butterfly and Dragonfly Species in the Project Area
  (4) Project Notification
  (5) Record of the Stakeholder Meetings (scoping stage)
  (6) Material used at the Stakeholder Meeting (scoping stage)
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APPENDIX 5.1

Train Operation

Legend in this Appendix

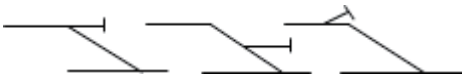
Platform

Station building

Main Line

Other Line

Safety siding or Trap point

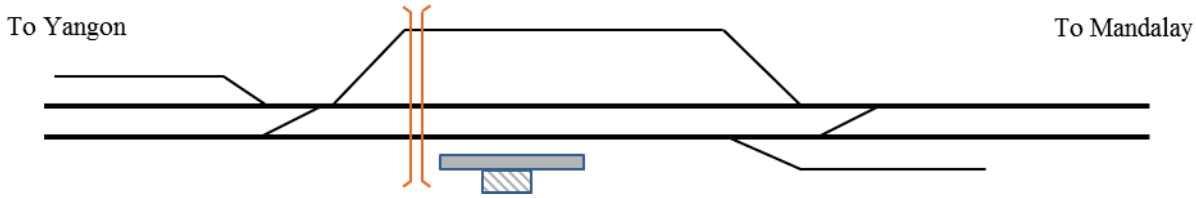


Level Crossing

Bridge

Station: Kyedaw

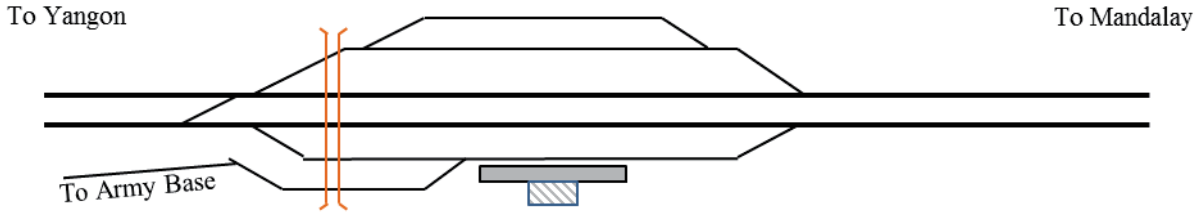
Current Layout



Proposal

Station: Kyungon

Current Layout



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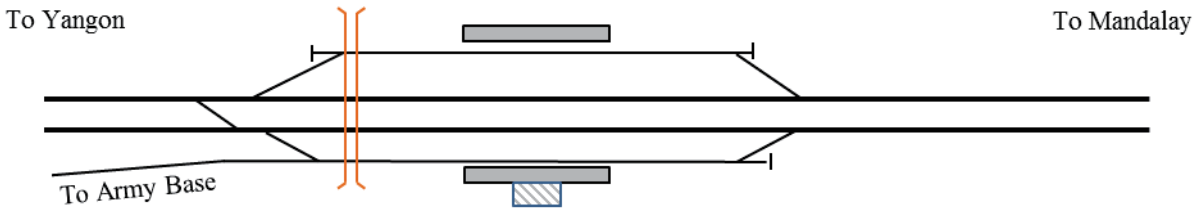


Station: Kaytumadi

Current Layout

To Yangon

To Mandalay

Non Block Station

Proposal

To Yangon

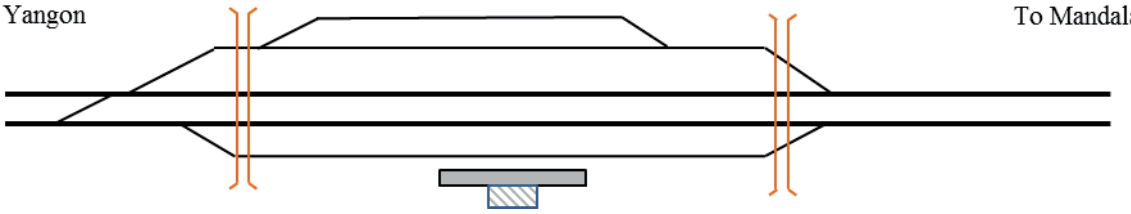
To Mandalay

Abolishment of station

Station: Yedashe

Current Layout

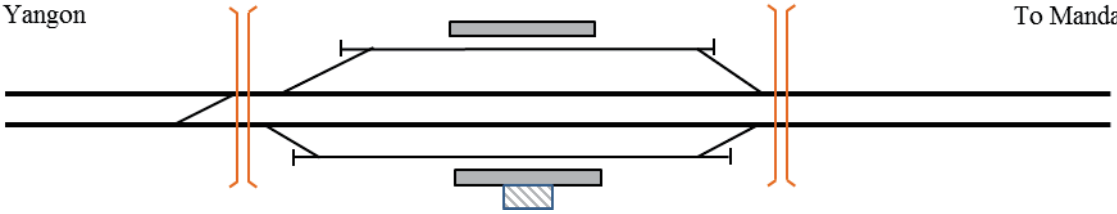
To Yangon



To Mandalay

Proposal

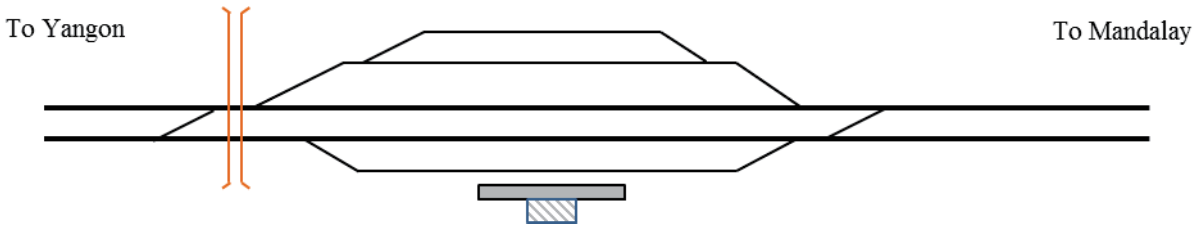
To Yangon



To Mandalay

Station: Kongyi

Current Layout



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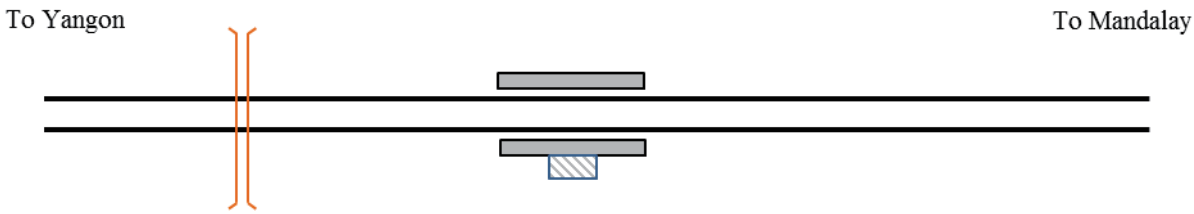
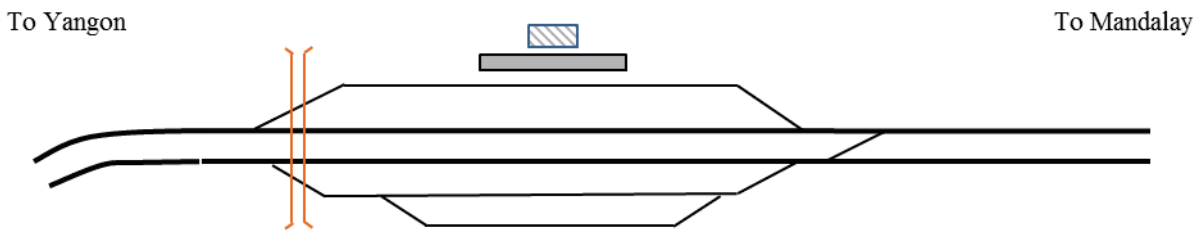


Station: Swa

Current Layout



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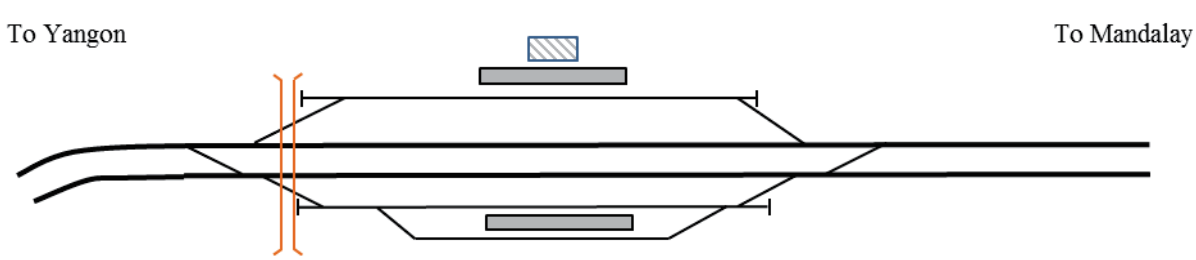
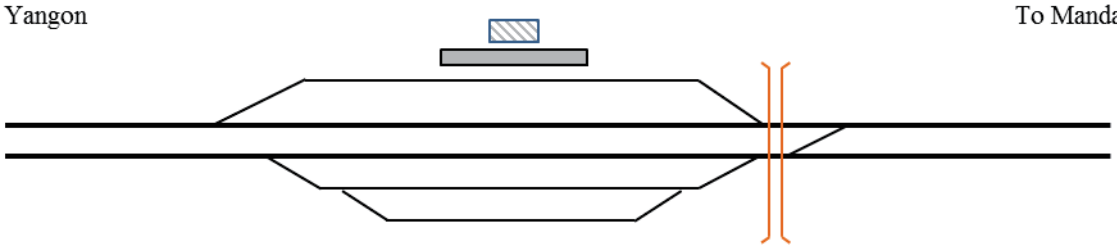


Station: Thargaya

Current Layout

To Yangon

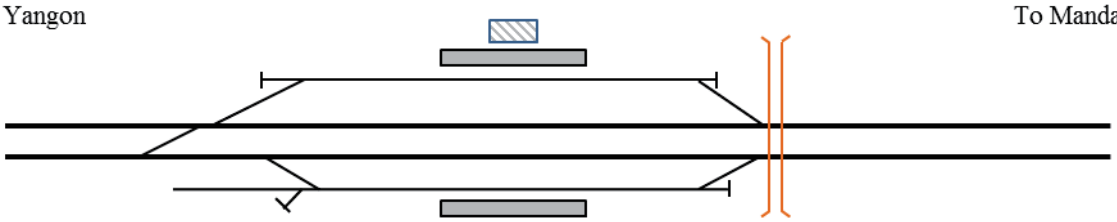
To Mandalay



Proposal

To Yangon

To Mandalay



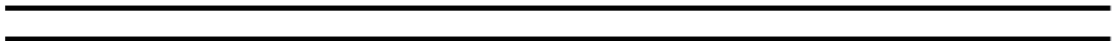
Station: Tharyargon

Current Layout

To Yangon

To Mandalay

Non Block Station

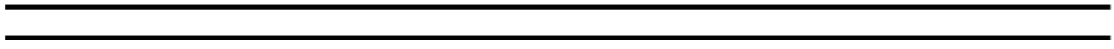


Proposal

To Yangon

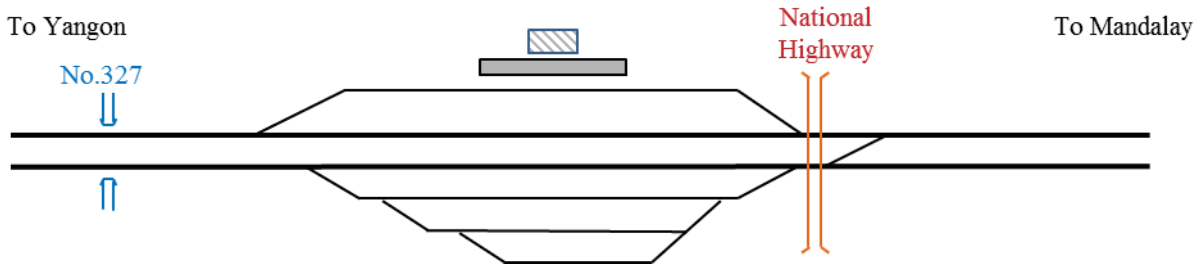
To Mandalay

Abolishment of station



Station: Myohla

Current Layout



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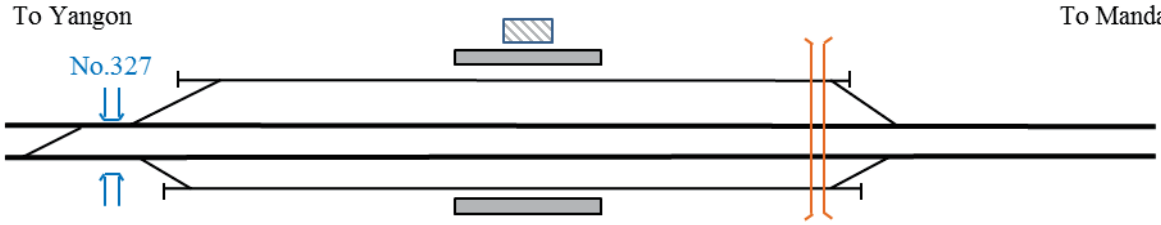
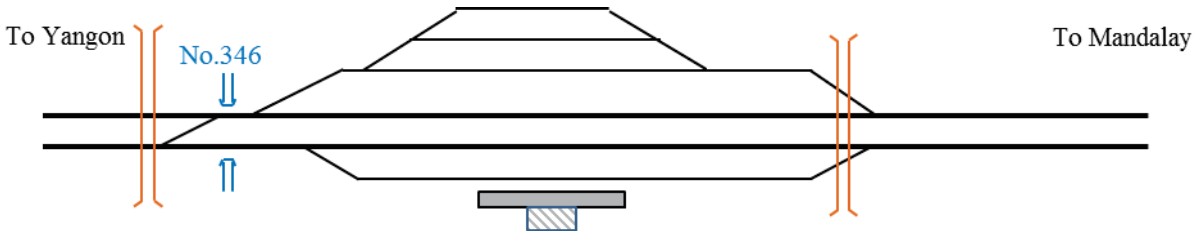


Station: Yeni

Current Layout



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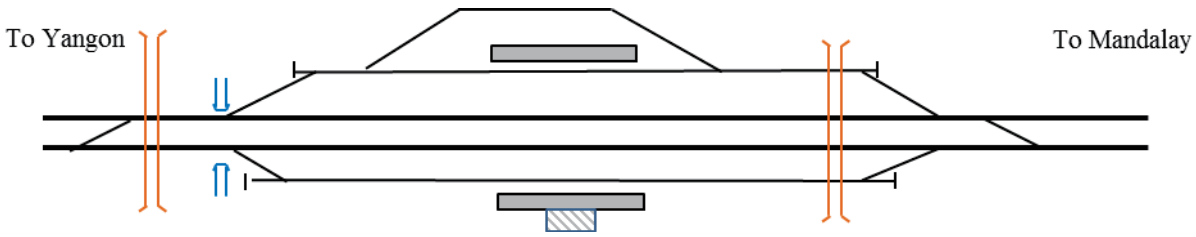
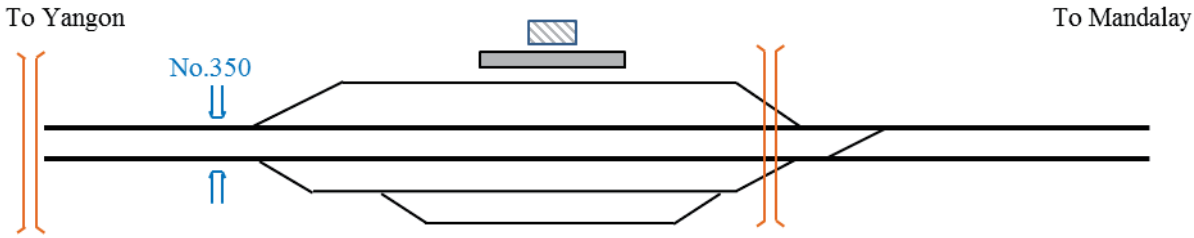


Station: Tawuti

Current Layout



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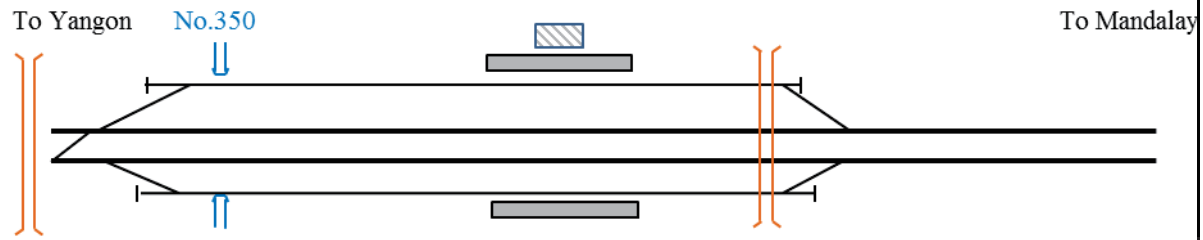
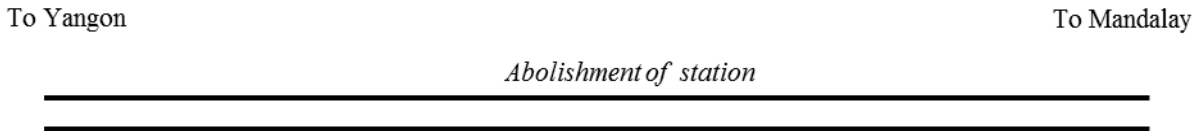


Station: Hteininn

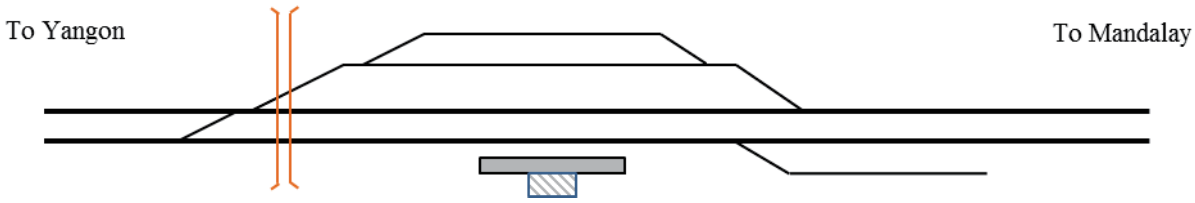
Current Layout

Proposal



Station: Ela

Current Layout



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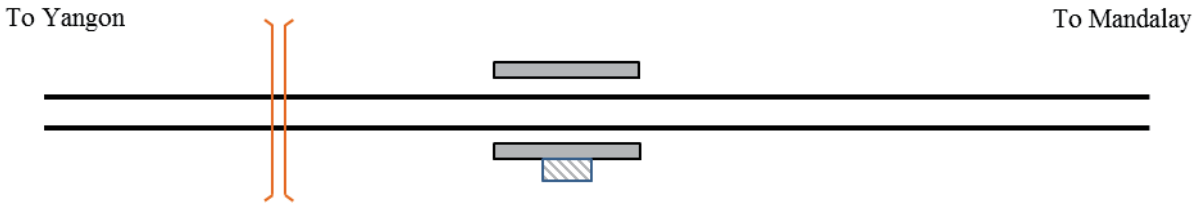
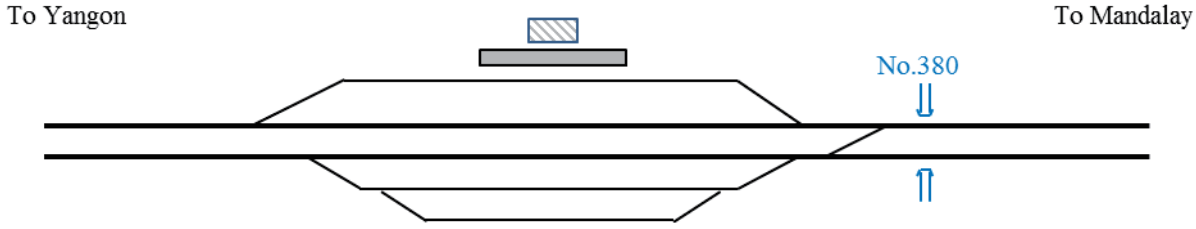


Station: Pyaywun

Current Layout



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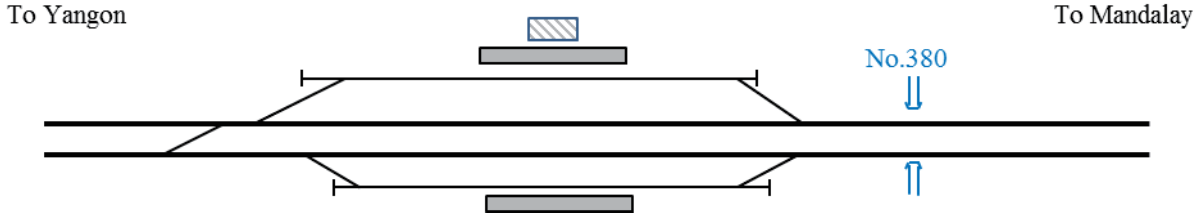
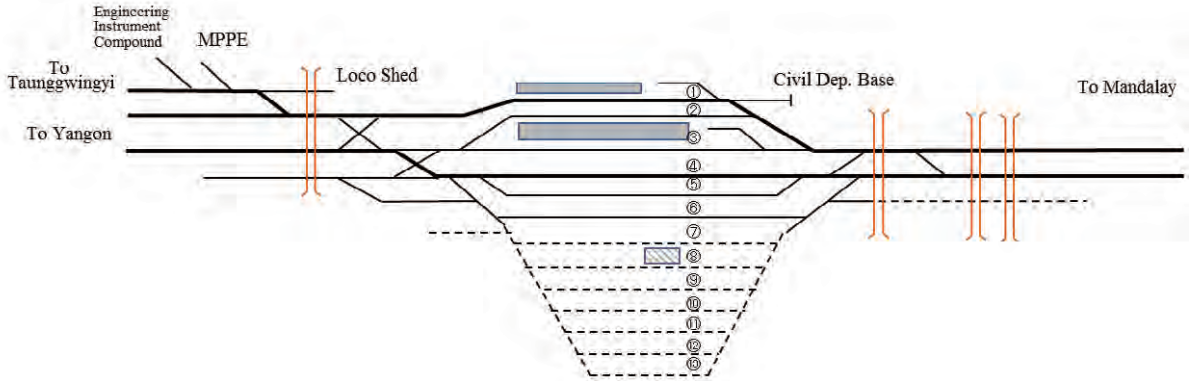


Station: Pyinmana

Current Layout



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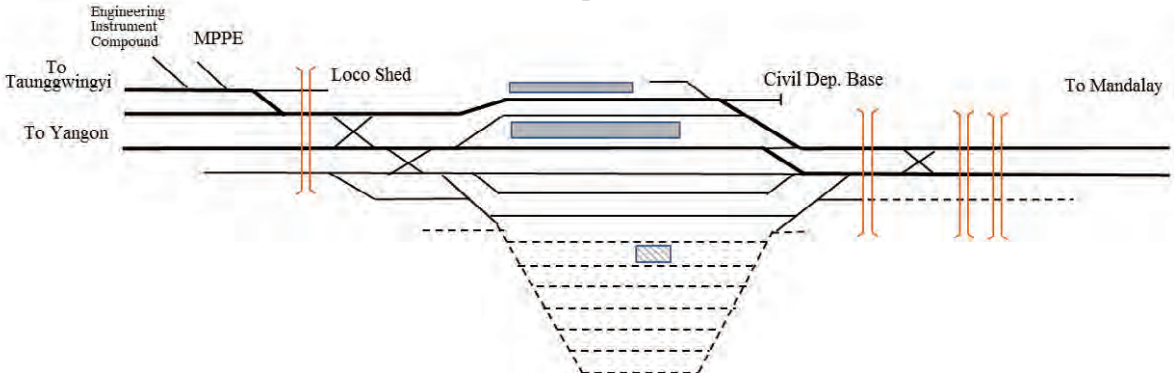
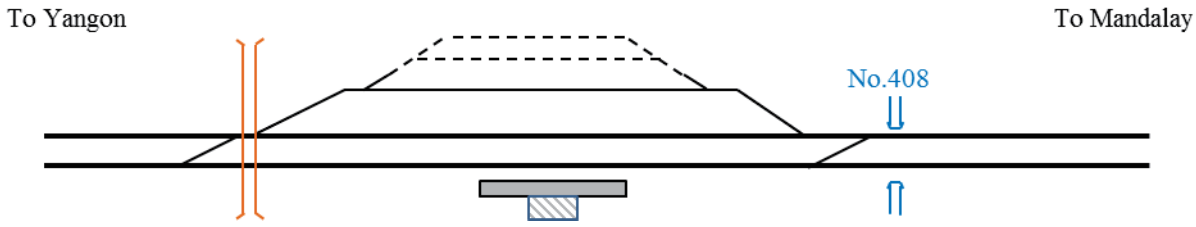


Station: Ywadaw

Current Layout



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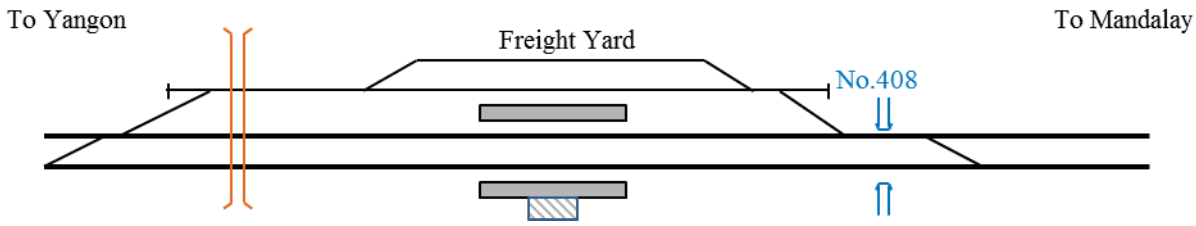
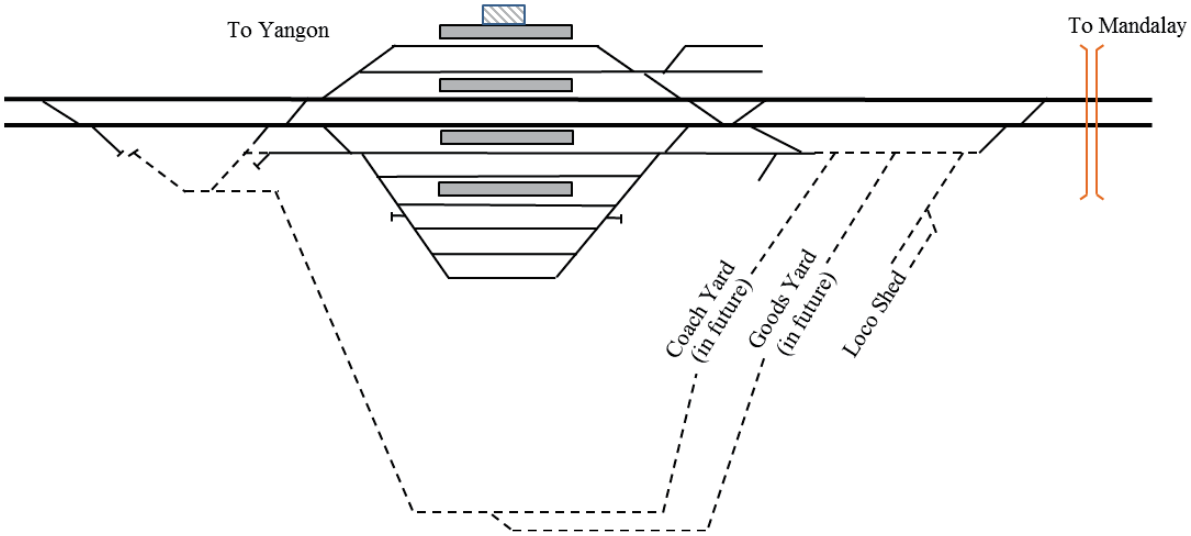


Station: Naypyitaw

Current Layout



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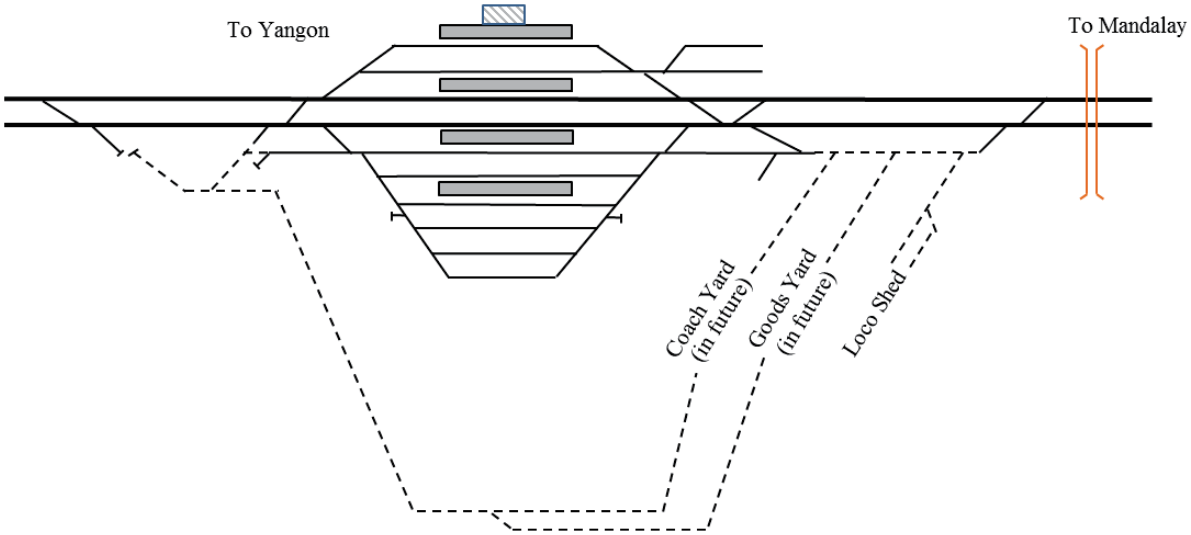
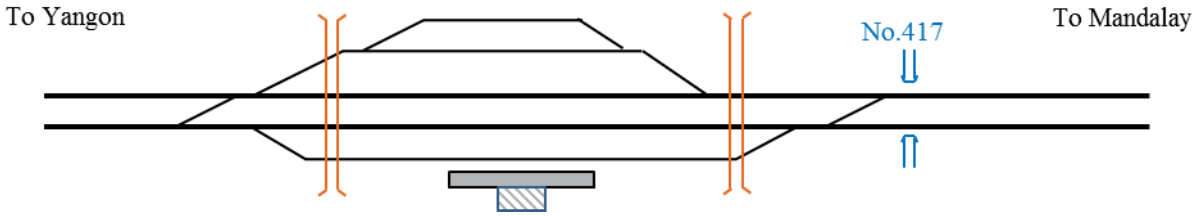


Station: Kyidaungkan

Current Layout



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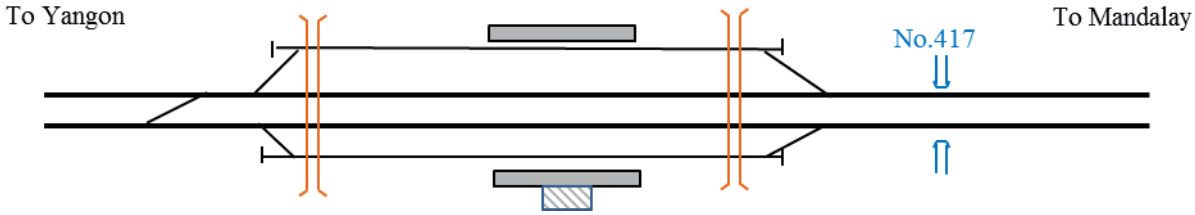
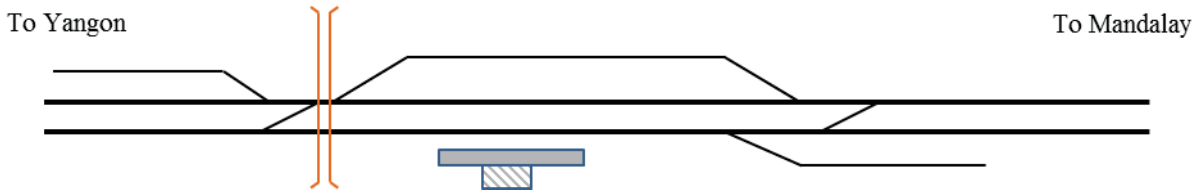


Station: Pyokkwe

Current Layout



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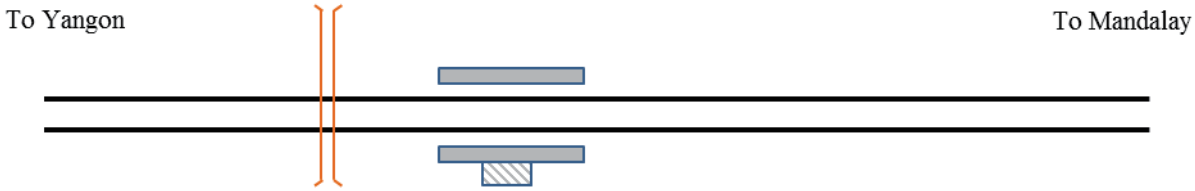
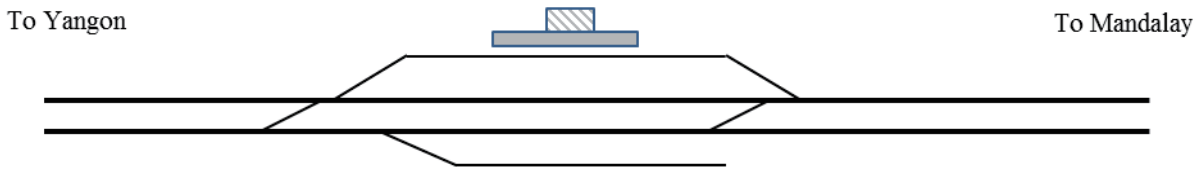


Station: Sinbyugyun

Current Layout



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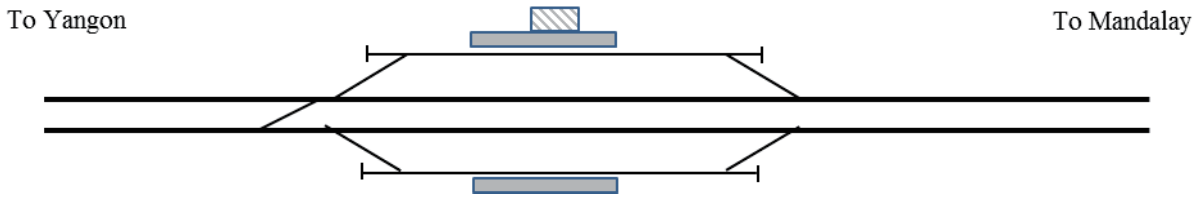
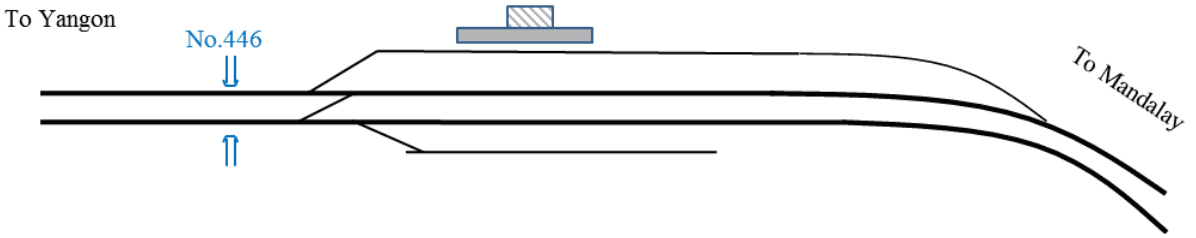


Station: Shwemyo

Current Layout



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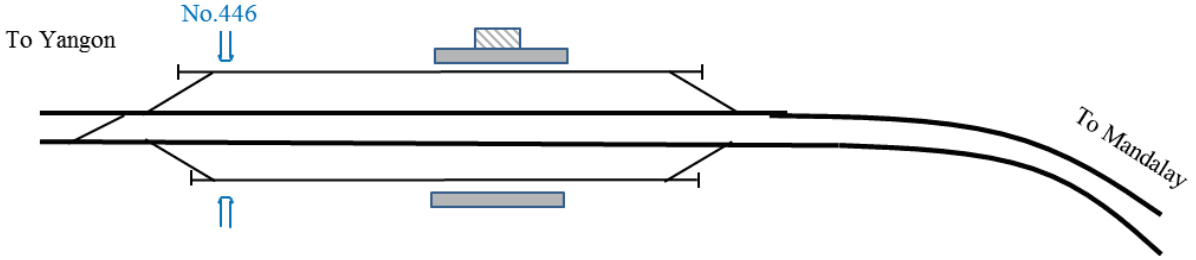

Station: Sinthe

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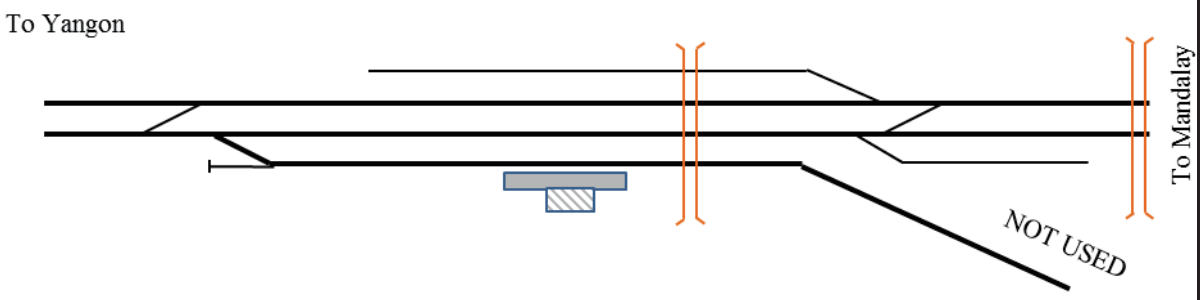

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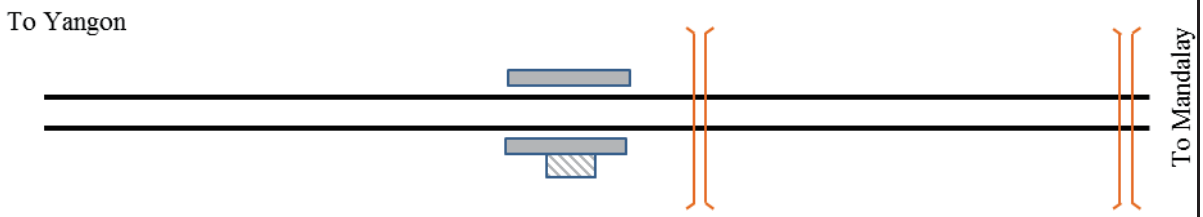
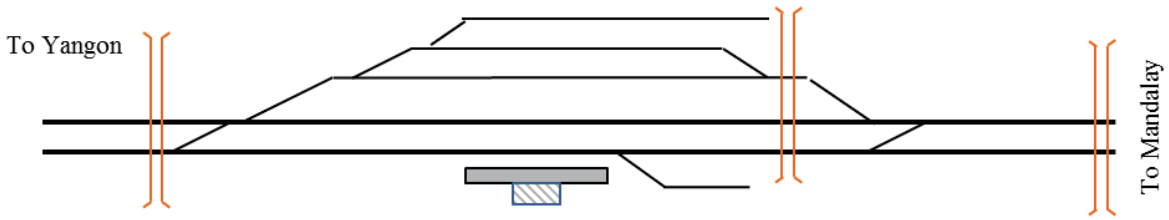


Station: Tatkon

Current Layout



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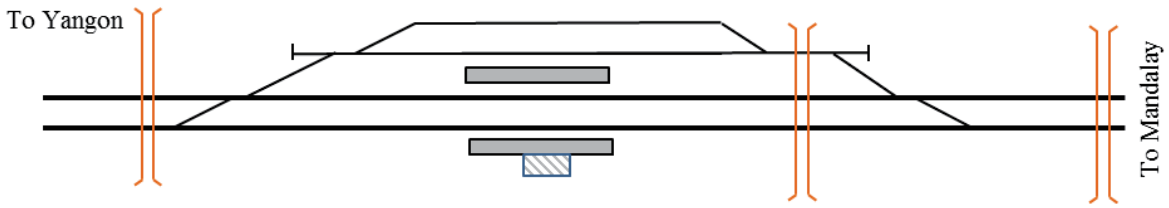
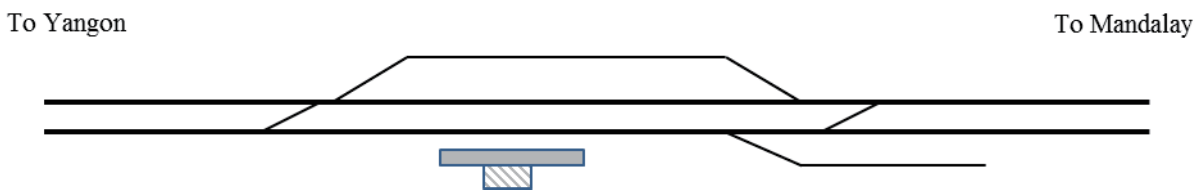


Station: Magyibin

Current Layout



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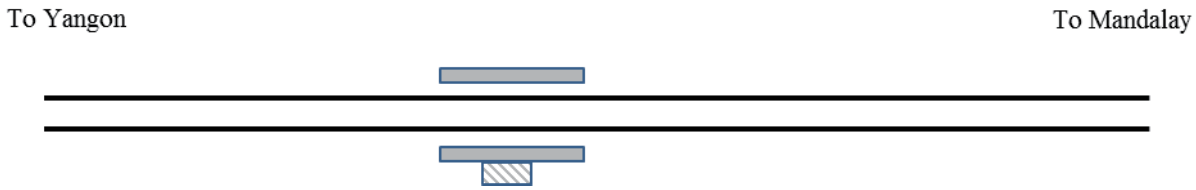
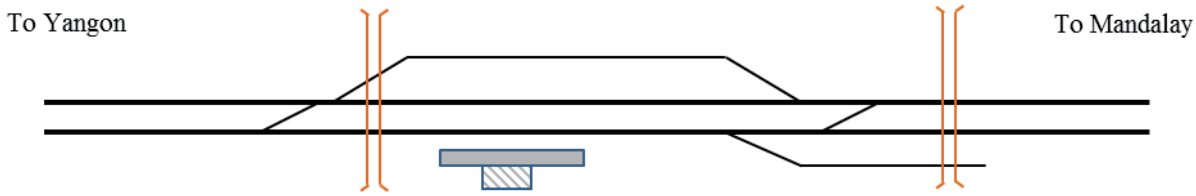


Station: Nyaunglun

Current Layout



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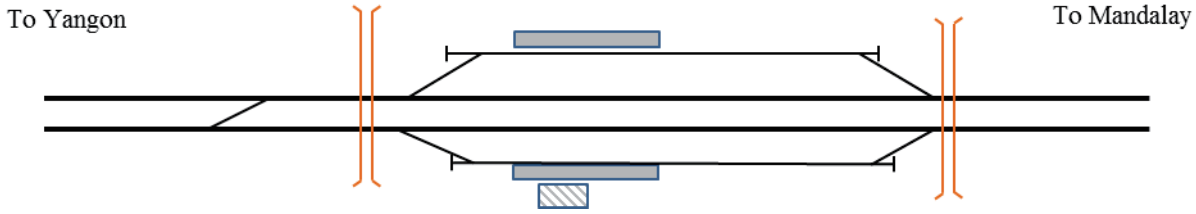
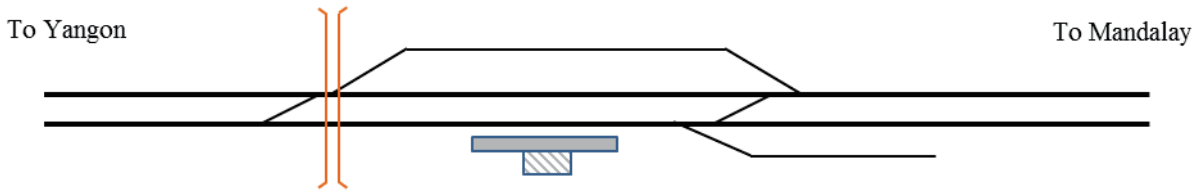
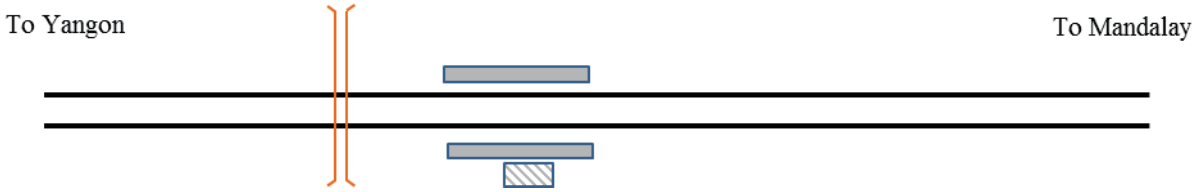


Station: Hngetthaik

Current Layout

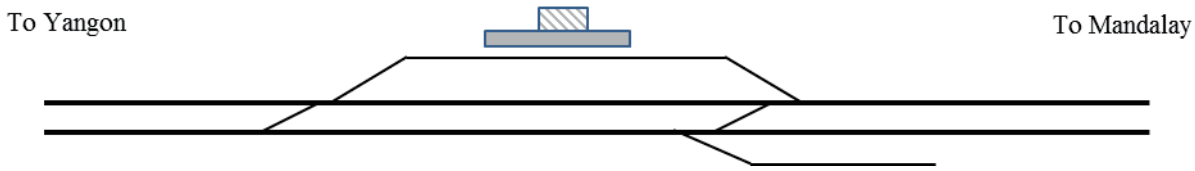


Proposal



Station: Ingon

Current Layout



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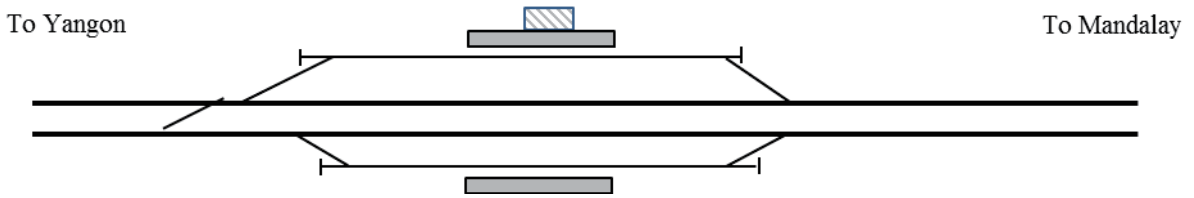
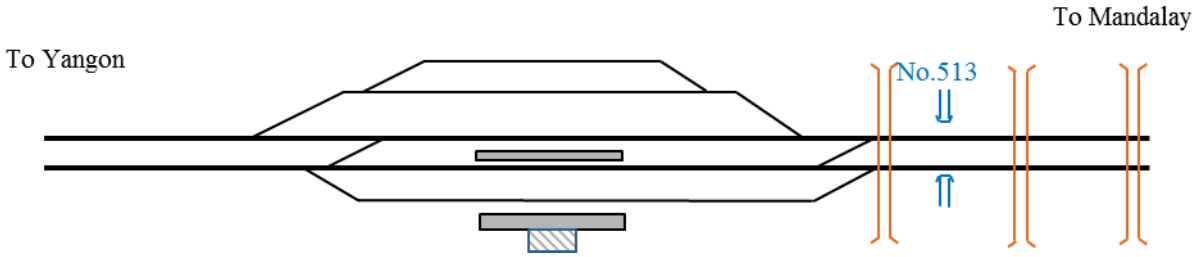
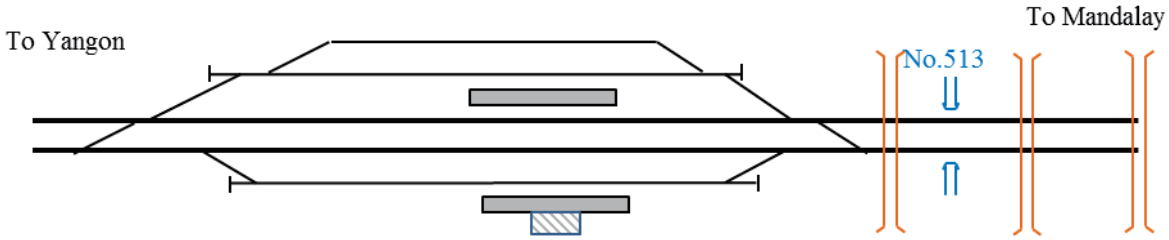


Station: Yamethin

Current Layout

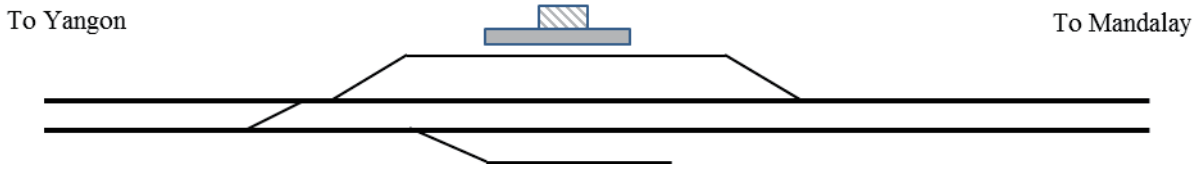


Proposal

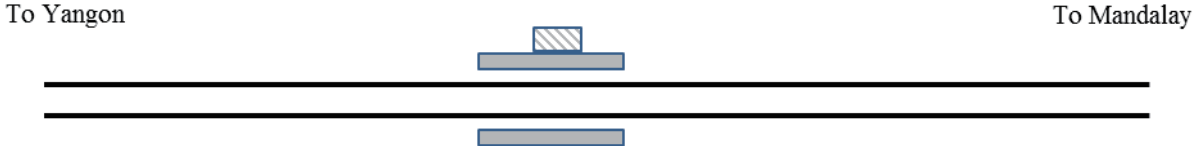


Station: Ingyinkan

Current Layout

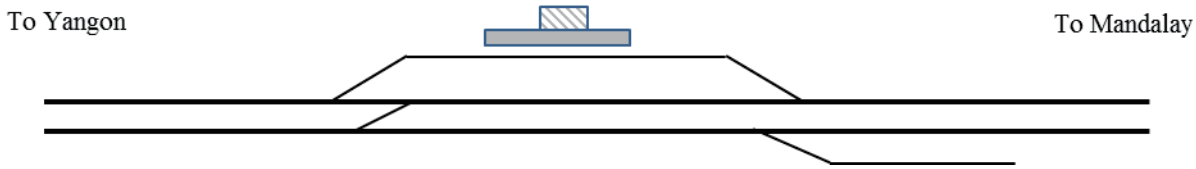


Proposal



Station: Shweda

Current Layout



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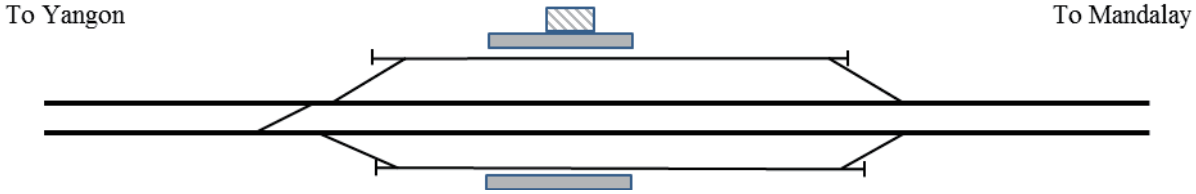
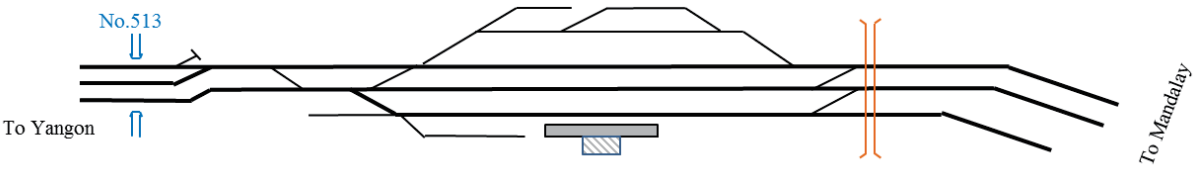


Station: Pyawbwe

Current Layout



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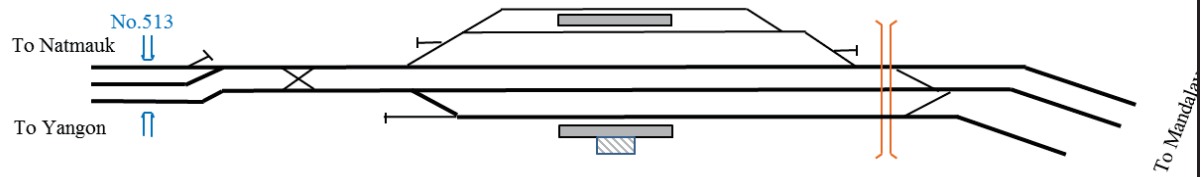
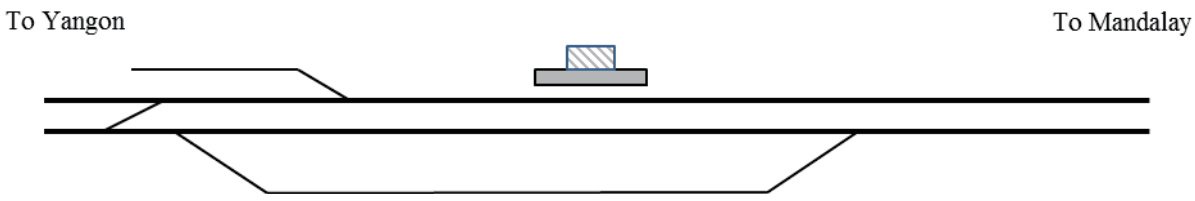


Station: Shanywa

Current Layout



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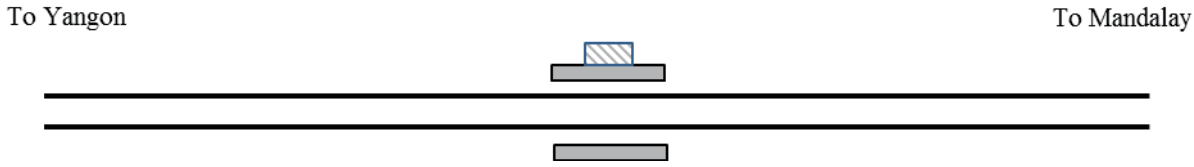
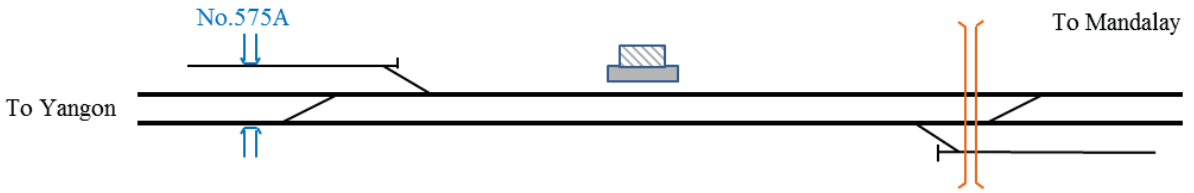


Station: Nyaugyan

Current Layout



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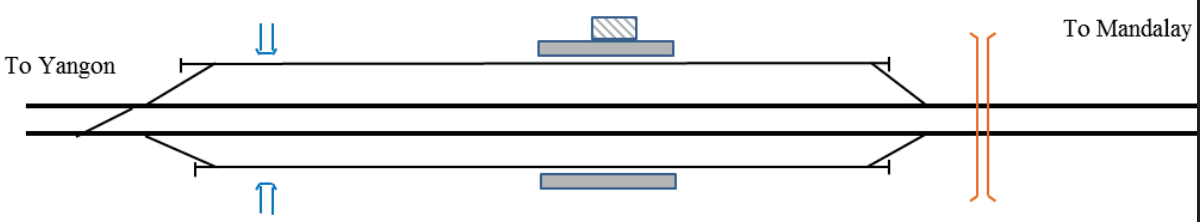
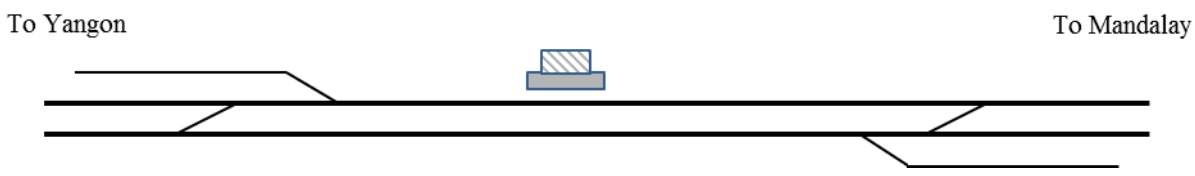


Station: Nwato

Current Layout



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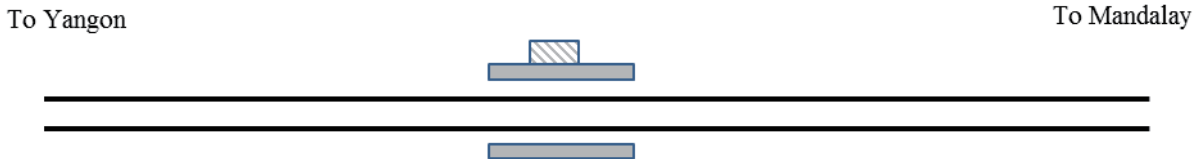
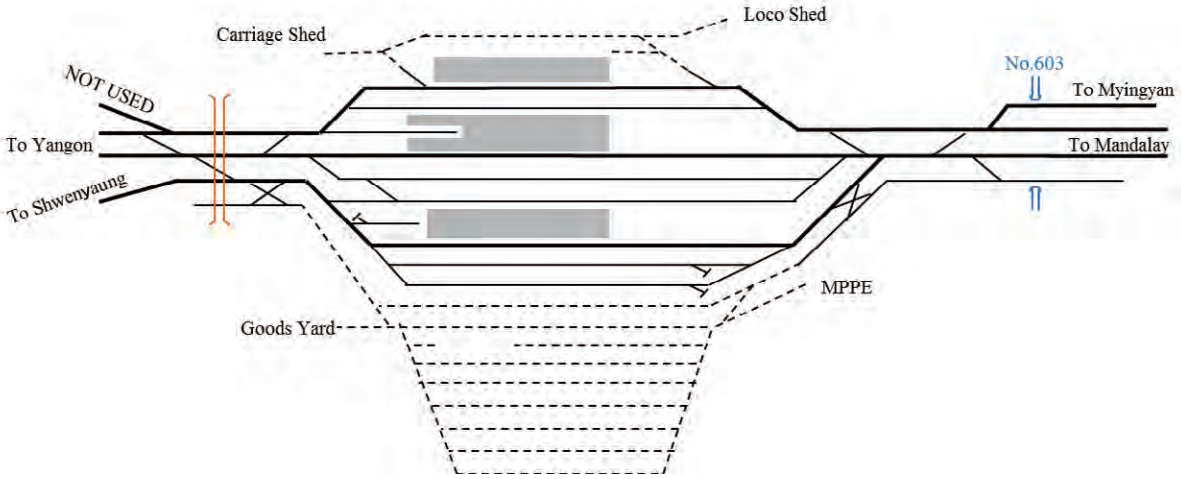
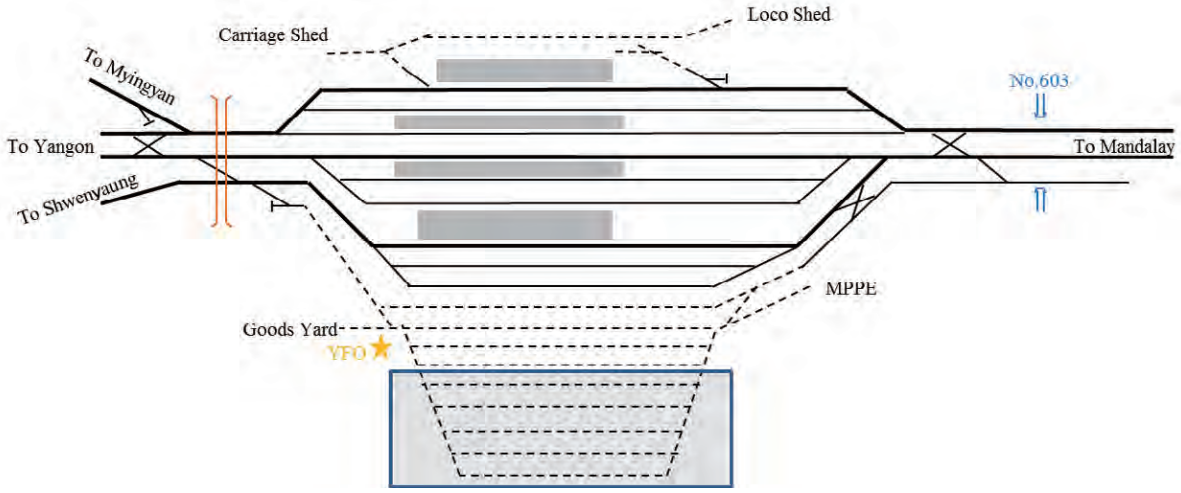


Station: Thazi

Current Layout



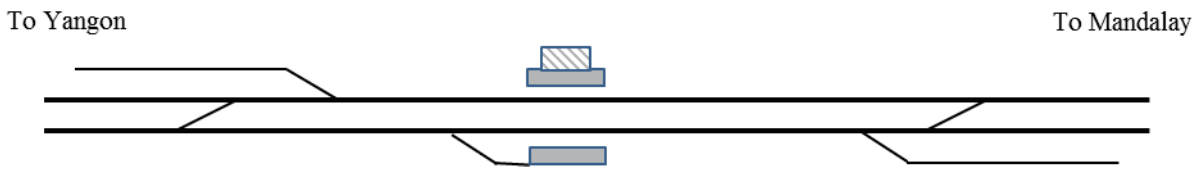
Proposal



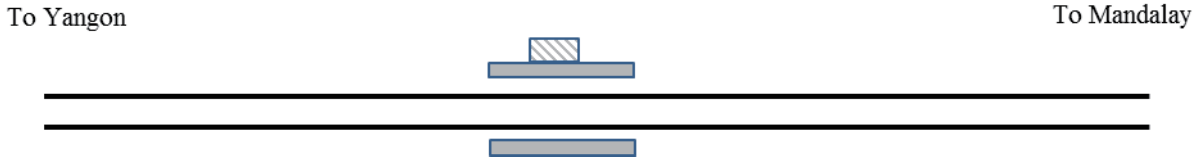
Freight Facilities

Station: Ywapale

Current Layout

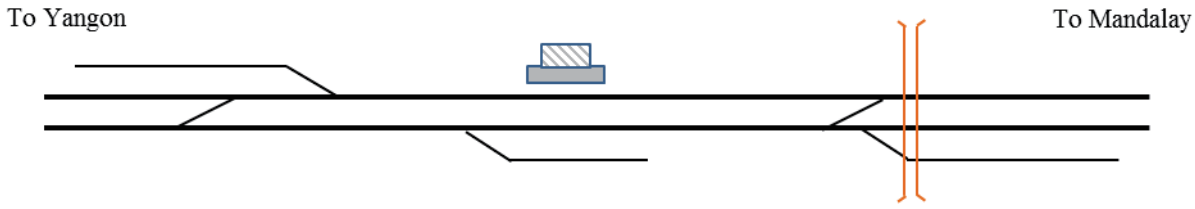


Proposal

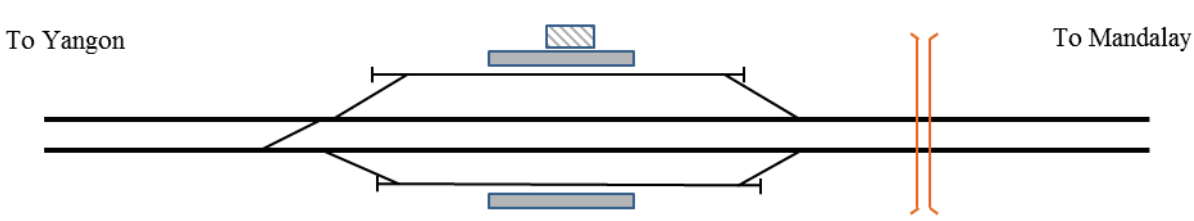


Station: Hanza

Current Layout



Proposal



Station: Dahattaw

Current Layout

To Yangon

To Mandalay

Non Block Station

Proposal

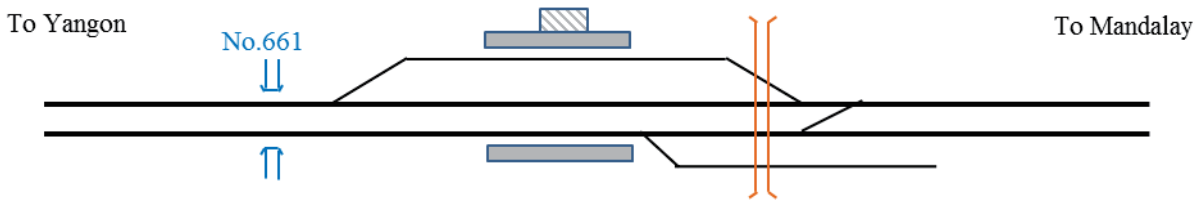
To Yangon

To Mandalay

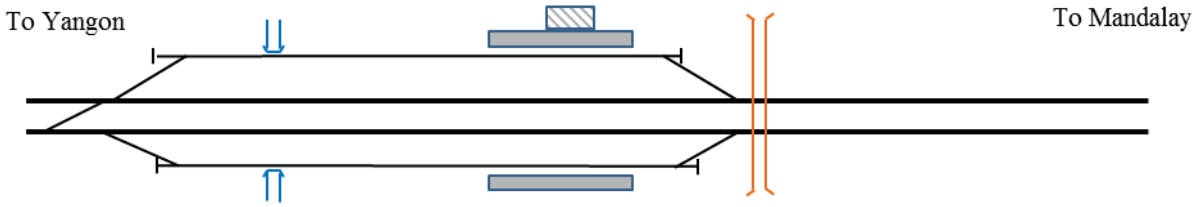
Abolishment of station

Station: Thedaw

Current Layout

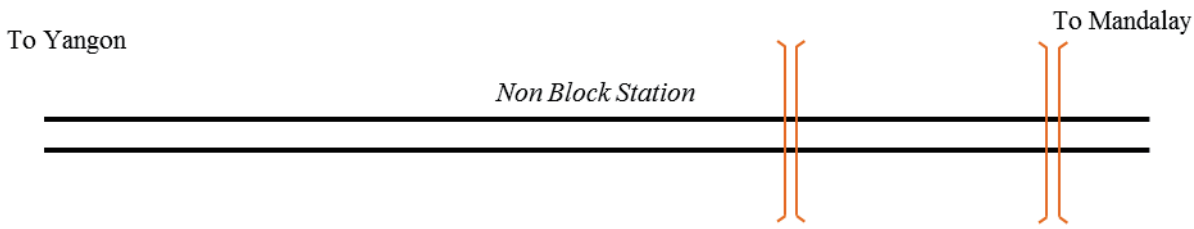


Proposal

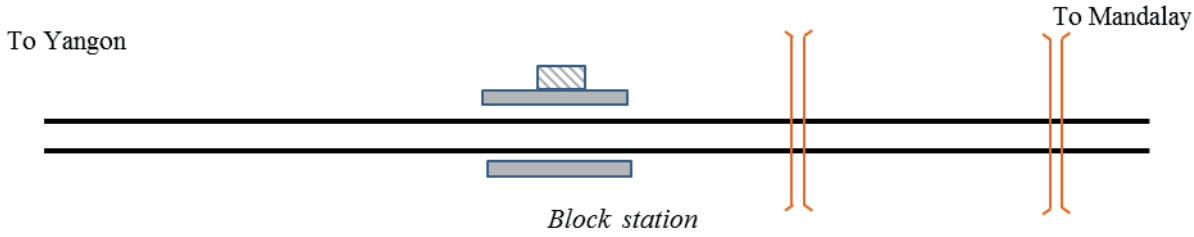


Station: Khinban

Current Layout

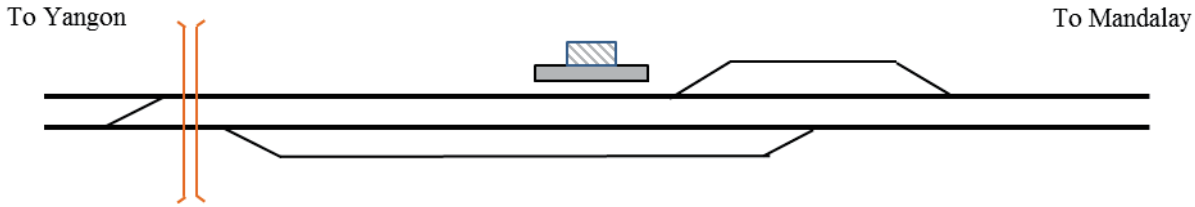


Proposal

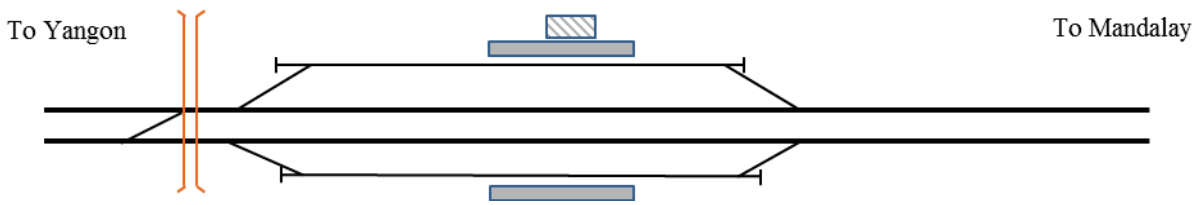


Station: Samon

Current Layout



Proposal



Station: Odokkon

Current Layout

To Yangon

To Mandalay

Non Block Station

Proposal

To Yangon

To Mandalay

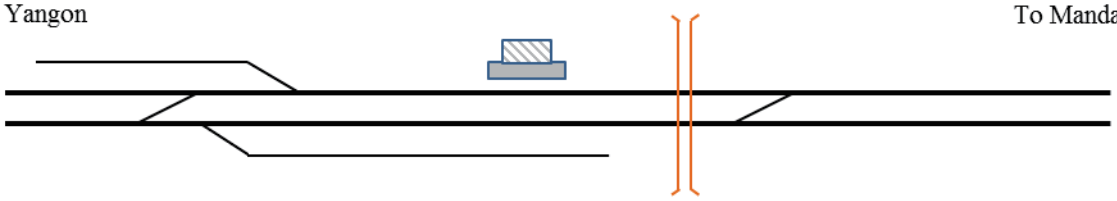
Abolishment of station

Station: Thabyetaung

Current Layout

To Yangon

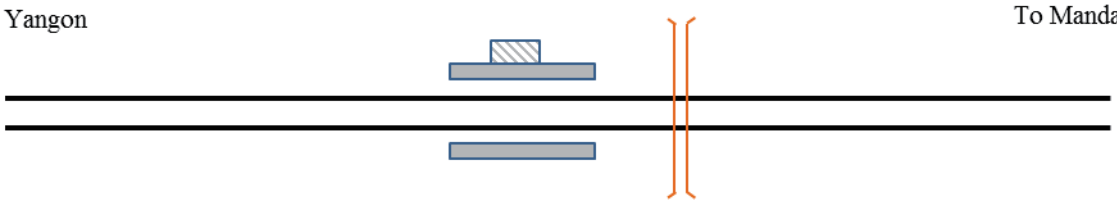
To Mandalay



Proposal

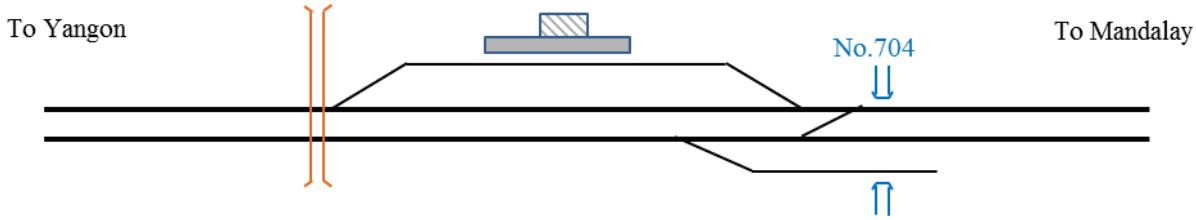
To Yangon

To Mandalay



Station: Kume Lan

Current Layout



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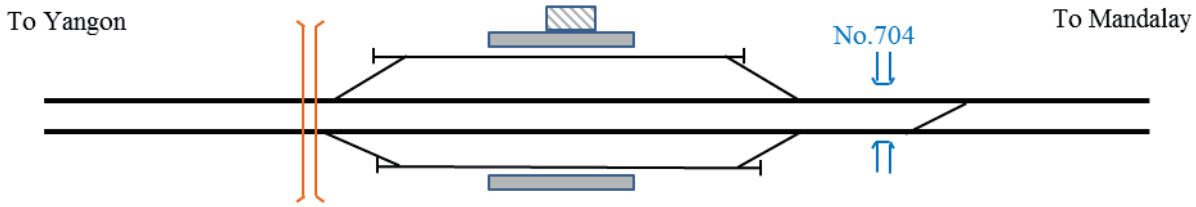
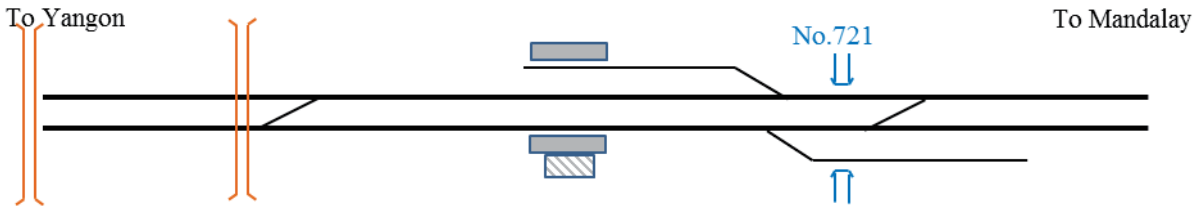


Station: Myitthar

Current Layout



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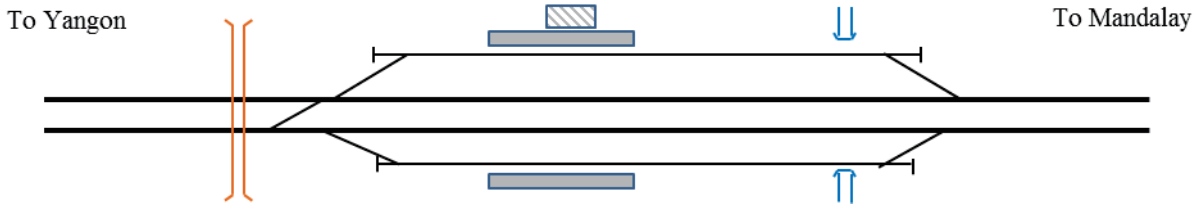
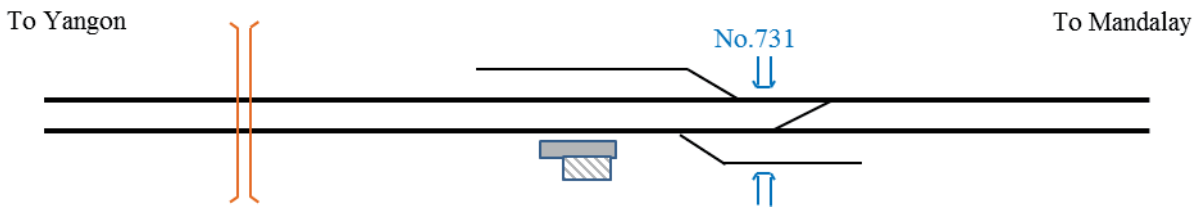
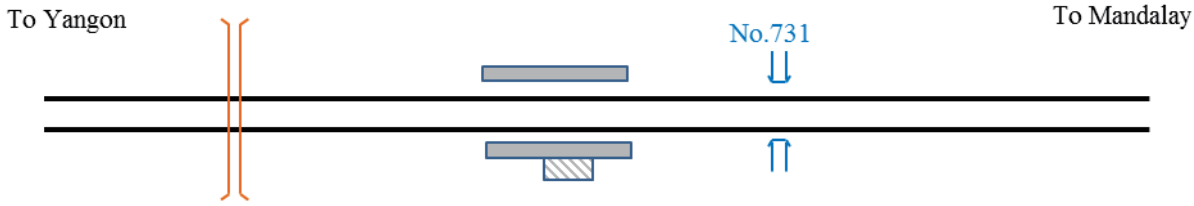


Station: Minzu

Current Layout

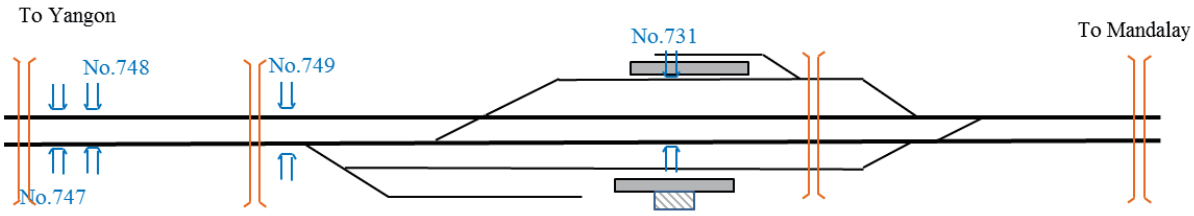


Proposal

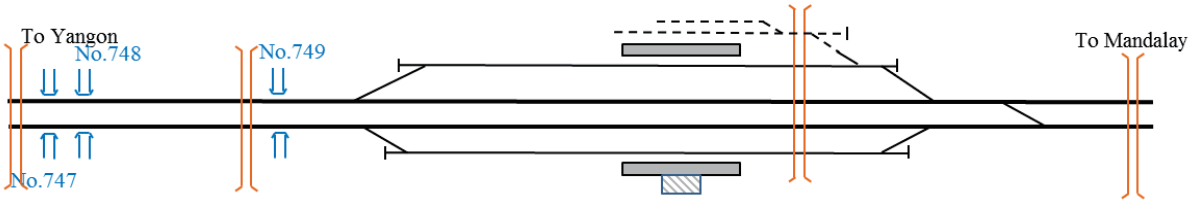


Station: Kyaukse

Current Layout

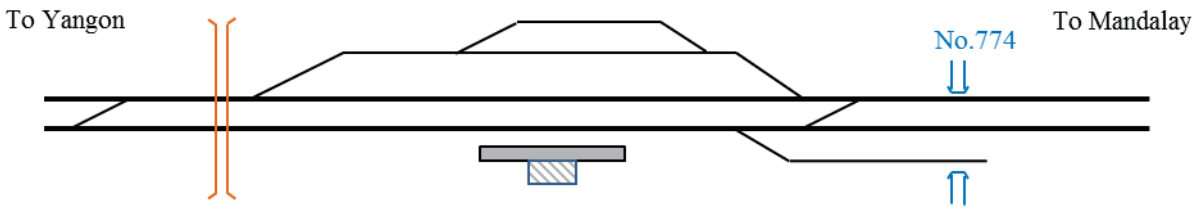


Proposal

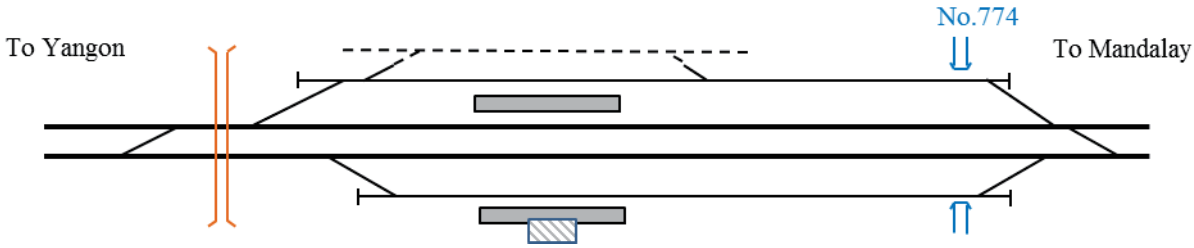


Station: Belin

Current Layout

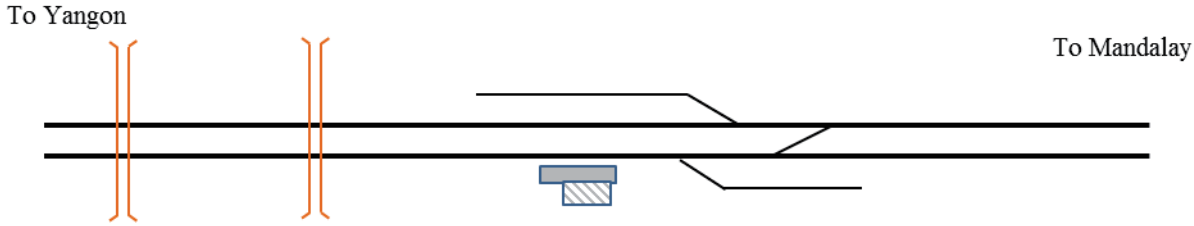


Proposal

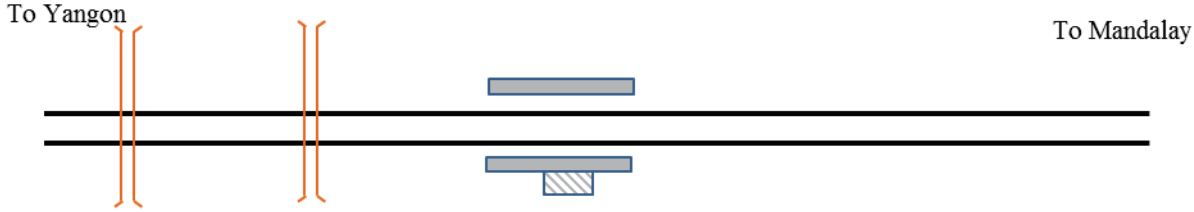


Station: Singaing

Current Layout

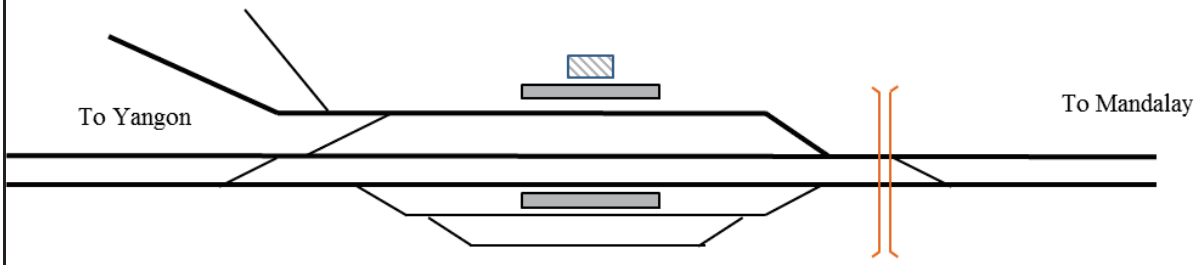


Proposal

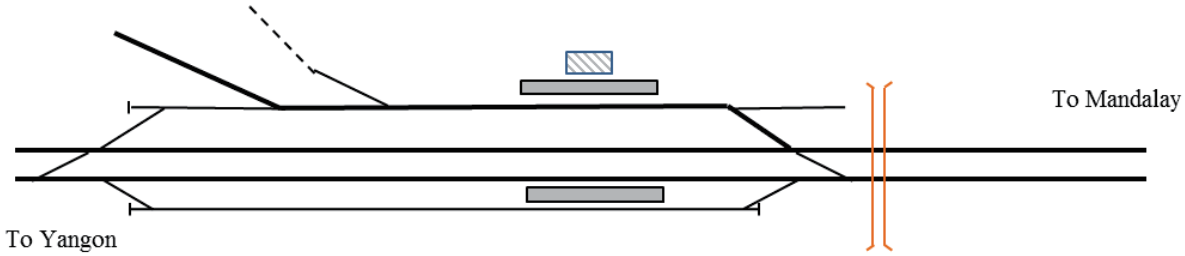


Station: Paleik

Current Layout

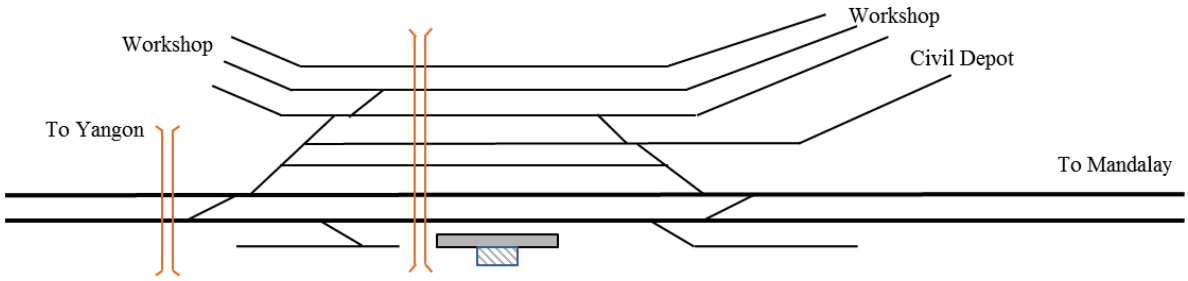


Proposal

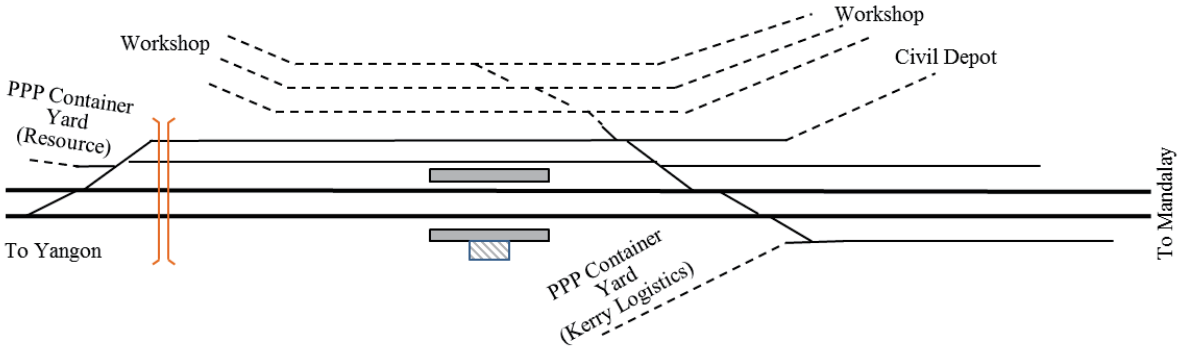


Station: Myitnge

Current Layout

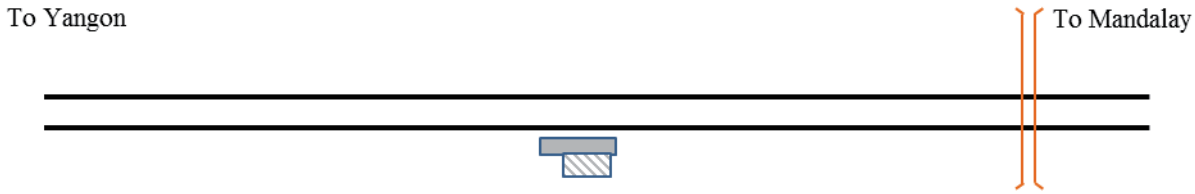


Proposal



Station: Tagundaing

Current Layout



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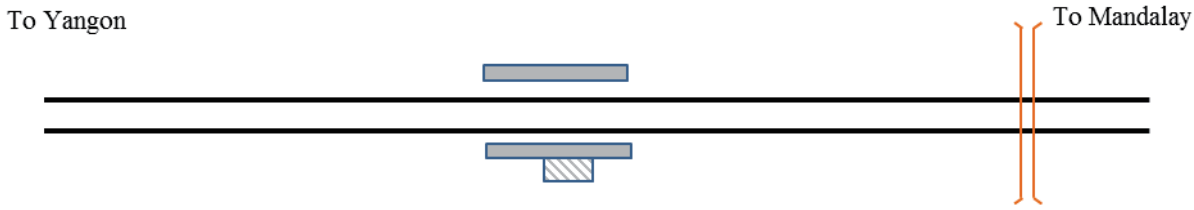
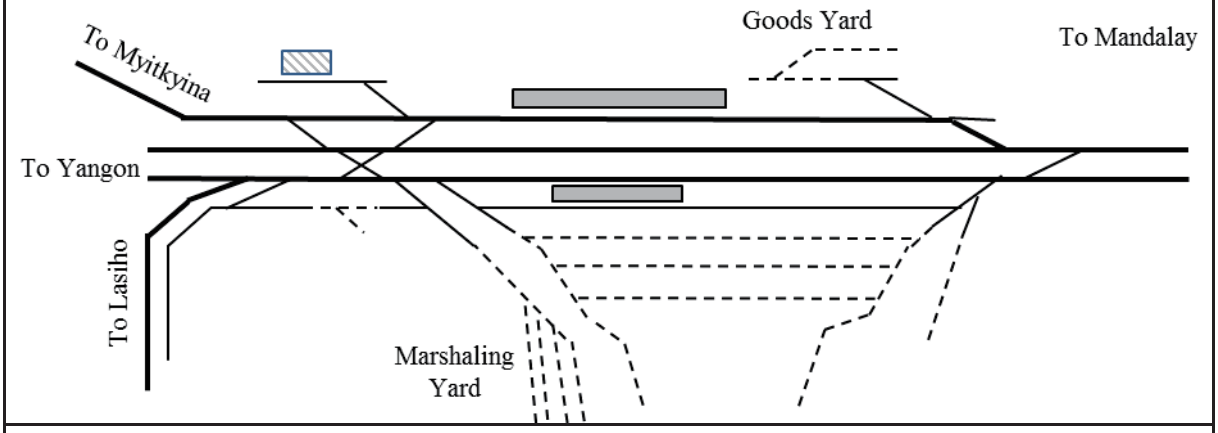
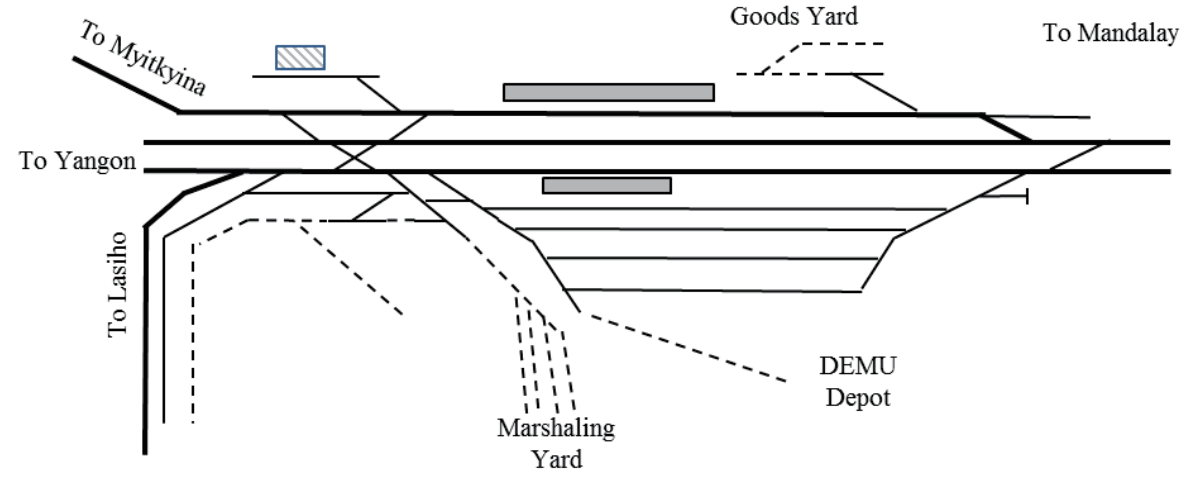


Station: Myohaung

Current Layout

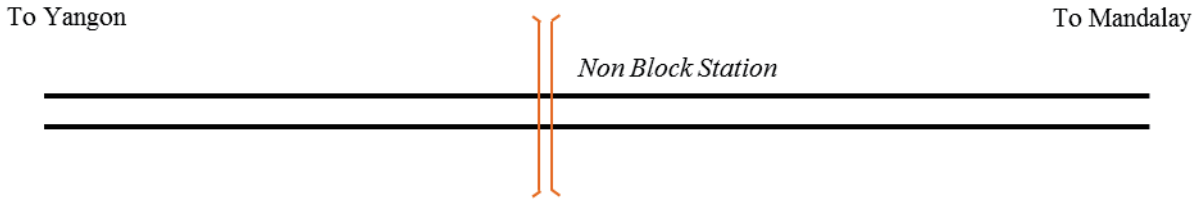


Proposal

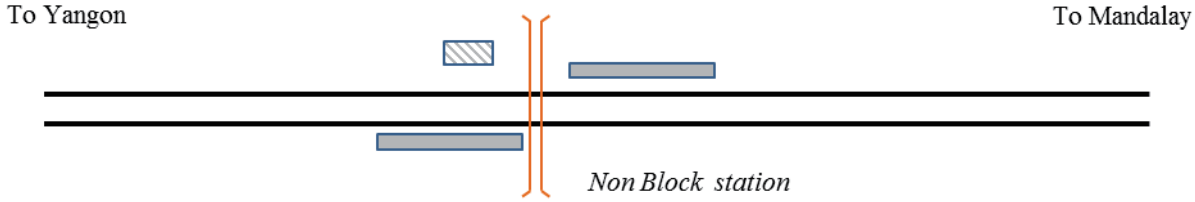


Station: Shanzu

Current Layout

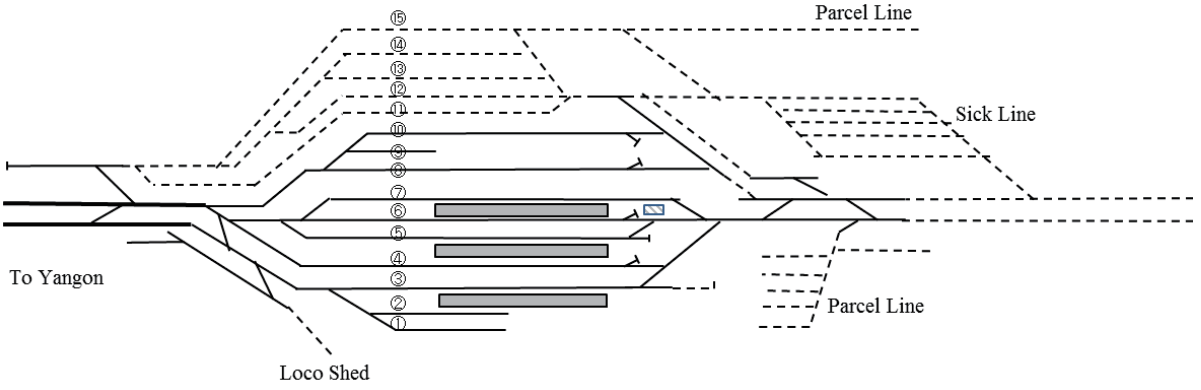


Proposal

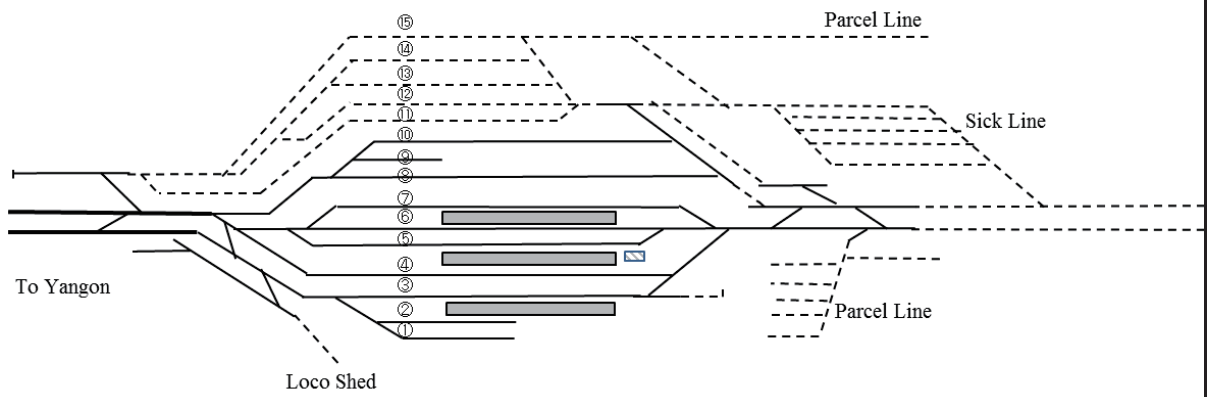


Station: Mandalay

Current Layout



Proposal



APPENDIX 5.4.1

Existing Embankment Conditions

Appenndix 5.4.1 - Exsiting Embankment Conditions

Phase	Section	Station	Mile (km)	Distance (mile(km))	Embankment Age	Geotechnical Survey	Flooding Area hearing from MR during Site Inspection	Settlement hearing from MR during Site Inspection on Sep 2nd to 6th September 2013	
							Description	Unstable Embankment	Soft Ground
Phase 1	1-1	Yangon	0 (0)	46.5 (75)	OLD (more than 40 years old)	<GS at FS stage> Standard Penetration Test: 3 nos Hand Auger Test: 7nos <GS Package 1at DD stage> Bored Hole(BH): 172 nos BH Total Length: 6,890m Standard Penetration Test:4,487 nos Hand Auger Test : 154 nos Dynamic Corn Penetration Test:215 nos	No flooding after river improvement (Mile 40/00-42/06) No flooding after river improvement (Mile 43/17-23)	No settlement problem	
	1-2	Bago Pyuntaza	46.5 (75) 87.75(141)	41.25 (66)			Flooding (Mile 46/12- 49/12, 50/08-51/08) -Photo.2 No flooding after river improvement (Mile 83/13-14)-Photo.1 Flooding due to discharge from Pa Kaing Da Dam (83/14-84/14)	No settlement problem due to Embankment	Settlement occuring on up&down line (Mile 82/12-24, 81/22-24) -Photo.3
	1-3		87.75 (141) 166 (267)	79.25(126)	OLD	<GS at FS stage> Standard Penetration Test: 3 nos Hand Auger Test: 3nos <GS Package 2> Bored Hole(BH): 149 nos BH Total Length: 4,410m Standard Penetration Test:2,940 nos Hand Auger Test : 136 nos Dynamic Corn Penetration Test:150 nos	Flooding(2006) (Mile 143/02-04, 145/15-22)	No settlement problem due to Embankment	Sliding occuring on the down line (Mile 141/02-06) Sliding occur on the up line (Mile 146/06-12) -Photo.4
Phase 2	2-1	Taungoo Yawadaw	166 (267) 232 (370)	67 (102)	OLD (Mile 166-230) NEW (Mile 230-233)	SPT: 0nos, HA: 2nos HA:Mile231(up) pa=Min.150.34kPa at top HA:Mile231 (down) pa=Min.158.96kPa pa: Allowable Bearing Capacity	Flooding (Mile 170/20-171/09) Flooding (Mile 181/15-182/01)	No settlement problem due to Embankment	Settlement occuring on up&down line (Mile 184/15-185/05) Sliding occuring on the down line (Mile 199/14-18) Sliding occur on the up line (Mile 216/23-24), Sliding occuring on the down line (Mile 220/16-17, 218/21-22, 218/14-16)
	2-2	Ingyinkan	232 (370) 280(448)	49 (78)	OLD & NEW	SPT: 0nos, HA: 5nos HA:Mile 238 pa=Min.135.98kPa HA:Mile 245 pa=Min.135.97kPa HA:Mile 255 pa=Min.135.30kPa HA:Mile 238 pa=Min.135.98kPa HA:Mile 245 pa=Min.135.97kPa	Flooding (263, 265/15-16) Flooding due to discharge from Thitson Dam (276/05-08)	Settlement occuring on the down line (Mile 238/01-04) Settlement occuring on the down line (Mile 243/12) -Photo.5 Settlement occuring on the down line (Mile 255/00-07&11-18,256/00-06,257/03) Settlement occuring on the down line (Mile 260/20) Settlement occuring on the down line (Mile 262-265) Settlement occuring on the down line (Mile 268/01-24) Settlement occuring on the down line (Mile 276/09-13)	No settlement problem due to soft ground
	2-3		280(448) 343(549.5)	63(101.5)	OLD & NEW	SPT: 1nos, HA: 3nos HA:Mile 309 pa=Min.128.31kPa HA:Mile 320 pa=Min.135.30kPa SPT:Mile 333:Min N=5 at -2.5m Silt HA:Mile 338 pa=Min.128.31kPa	Flooding (Mile 319- 321) Flooding (Mile 326) Flooding due to discharge from Kingter Dam (Mile 338)	Settlement occuring on the down line (Mile 280/10-281/22) Settlement occuring on the down line (Mile 285/04-12) Settlement occuring on the up line (Mile 293/05-06) Settlement occuring on the up line (Mile305) Settlement occuring on the up line (Mile 336) -Photo.6	No settlement problem due to soft ground
	2-4	Kume Lan Mandalay	343(549.5) 385.5 (620.5)	42.5(71)	OLD & NEW (-382.75) OLD (382.75-385.5)	SPT: 0nos, HA: 4nos HA:Mile 350 pa=Min.128.31kPa HA:Mile 358 pa=Min.147.47kPa HA:Mile 366 pa=Min.143.64kPa HA:Mile 379 pa=Min.132.14kPa	Flooding due to discharge from Kingter Dam (Mile 346) Flooding from Kingter Dam (Mile 348/19,351/01) Flooding due to discharge from Zaugyi Dam (Mile 357) Flooding (Mile 383)	Settlement occuring on the down line (Mile 348/18-20, 355/07) Stabilized up line slope by stone pitching (Mile 357) -Photo.7	No settlement problem due to soft ground

Photo.1 Water Condition under bridge (Mile 83)

Photo.2 River Improvement (Mile 50)

Photo.3 Settlement due to soft ground (Mile 82)

Photo.4 Settlement due to soft ground (Mile 146)

Photo.5 Settlement due to erosion by stream (Mile 243)

Photo.6 Settlement due to unstable embankment (Mile 336)

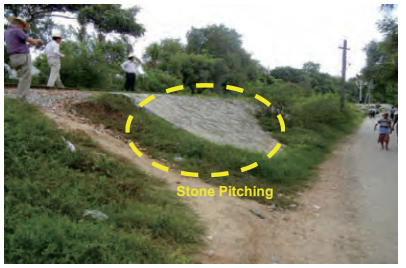


Photo.7 Stone Pitching to prevent erosion (Mile 357)

APPENDIX 5.4.2

Outline Design for Earth Work

Appendix 5.4.2 Outline Design for Earth Work

Design Item	Same as YM-D/D(1)	Structures and Methods for YM PhaseII	Remark
EW1.Design Standard	Yes	Railway Technical Research Institute (RTRI) and etc	
EW2.Embankment			
2.1 Basis of Design	Yes	Performance Level of rank II based on Deemed-to-Satisfy specifications (RTRI)	
2.2 Verification Method	Yes	Circular Slip Method/ Residual settlement 250mm or less /Conpaction:Thickness of each layer not exceed 200mm,a dry density of at least 90% of the maximum dry density, etc	
2.3 Embankment Drainage Works	Yes	Basically not required but earth drains provided at some	To ensure actual locations at D/D stage.
2.4 Embankment Slope Protection	Yes	Sodding/ Stone Pitching / Preventive Piles	
2.5 Soft ground countermeasures	Yes	Stone Pitching / Preventive Piles / Surcharging	
2.6 Flooding countermeasures	Yes	Stone Pitching / Preventive Piles	
2.7 Embankment of approaching part due to bridge raise up and replacement	Yes	Surcharging / Raised up embankment	
EW3.Deesign of Cut	Yes	NA	No cutting area
EW4. Design of Roadbed (sub-ballast)			
4.1 Basis of design	Yes	Performance-based Design Method	
4.2 Types of roadbeds	Yes	Crushed Stone / Existing Ballast to be used for the Sub-ballast	
4.3 Verification method of performance of Roadbed (Sub-ballast)	Yes	Sub- ballast :300mm thick	
4.4 Design based on deemed-to-satisfy specifications	Yes	K_{30} value required by the roadbed (sub-ballast) are 110 MN/m3or more.	
4.5 Construction	Yes	Compaction not exceed 150 mm thick	
4.6 Confirmation of the Requirements	Yes	FWD equipment (portable type)	
EW5. Design of Subgrade			
5.1 Basis of design	Yes	Performance-based Design Method	
5.2 Design based on deemed-to-satisfy specifications	Yes	K_{30} value required by the roadbed (sub-ballast) are 70 MN/m3or more.	
5.3 Confirmation of the Requirements	Yes	FWD equipment (portable type)	
EW6. Design of Retaining Structures			
6.1 Basis of Design	Yes	Performance-based Design Method	
6.2 Verification Methods for Retaining Structures	Yes	Check of Point of intersection of resultant force and base, Resistance against sliding and Settlement and tilting	
6.3 Design of Backfill	Yes	Compaction not exceed 300 mm thick, a dry density of at least 95% of maximum dry density	
6.4 Locations of Retaining Walls	Yes	Some locations are limited for construction of permanent embankment due to residences, passageways and/or waterways. To keep away from those restrictions, gravity walls have been provided.	To ensure actual locations at D/D stage.

APPENDIX 5.5.1

Bridge List

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

■ Non-Bridge ■ Plan for Precast Hume Pipe ■ Plan for Box Culvert (or something) ■ Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	Taungoo	**165**	**21**	**266.950**													
	266 E	165	21	266.950	0.000	1 1	60 100	160	48.77		CLOSED (F.O.B)						
	266 F	166	2	267.285	0.335	1	1.5	1.5	0.46		YARD DRAIN (RO)				●		
	266 G										CLOSED						
	266 H										CLOSED						
	266 I	166	9	267.755	0.805	1	1.5	1.5	0.46		RAIL OPENING				●		RAIL OPENING
	266 J	166	10	267.822	0.067	1	1.5	1.5	0.46		RAIL OPENING				●		RAIL OPENING
	267	166	13	268.023	0.201	1	4	4	1.22		ARCH CULVERT				●		ARCH CULVERT
	268	166	18	268.358	0.335	1	1.5	1.5	0.46		ARCH CULVERT				●		ARCH CULVERT
	269	166	23	268.693	0.335	1	6	6	1.83		ARCH CULVERT				●		ARCH CULVERT
★	270	167	7	269.230	0.536	2	40	80	24.38						●	HM	
	271	167	12	269.565	0.335	1	20	20	6.10						●	HM	
	272	167	17	269.900	0.335	1	10	10	3.05		909				●	HM	
	273	168	7	270.839	0.939	1	10	10	3.05	HM					●	HM	
	274	168	17	271.510	0.671	1	20	20	6.10						●	HM	
	275	169	20	273.320	1.811	1	10	10	3.05	ML					●	HM	
	276	170	2	273.723	0.402	2	6	12	3.66		FLAT TOP				●		FLAT TOP
	277	170	8	274.125	0.402	1	40	40	12.19						●	HM	
	278	170	18	274.795	0.671	1	20	20	6.10						●	HM	
	279	171	1	275.265	0.469	1	20	20	6.10						●	HM	
★	279 A	171	16	276.271	1.006	1	47.5	47.5	14.48	-	CLOSED (F.O.B)						
	Kyedaw	**171**	**18**	**276.405**	**0.134**												
	280	172	4	277.075	0.671	1	20	20	6.10						●	HM	
	281	174	16	281.099	4.023	1	3	3	0.91		CULVERT ARCH				●		CULVERT ARCH
★	281 A	175	10	282.306	1.207						CLOSED (F.O.B)						
	Kyungon	**175**	**12**	**282.440**	**0.134**												
	282	176	5	283.580	1.140	1	20	20	6.10						●	ML	
	283	176	15	284.250	0.671	1	3	3	0.91								PIPE CULVERT CLOSED DOWN
	284	177	5	285.189	0.939	1	40	40	12.19						●		
	285	177	10	285.524	0.335	1	3	3	0.91		ARCH CULVERT				●		ARCH CULVERT
	286	178	14	287.402	1.878	1	20	20	6.10						●	ML	
	287	179	7	288.542	1.140	1	40	40	12.19	HM					●	ML	
	288	179	20	289.414	0.872	1	20	20	6.10	ML					●	ML	
	Kaytumadi	**180**	**12**	**290.487**	**1.073**												

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP) Bridge Length Span	Length (feet)	Total (feet)	Total Length (m)	Axle Load Type	Remarks	Down Line (DN) Bridge Length Span	Length (feet)	Total (feet)	Total Length (m)	Axle Load Type	Remarks
	289	180	19	290.956	0.469	1	40	40	12.19						●	HM	
	290	181	1	291.358	0.402	1	40	40	12.19						●	HM	
★	291	181	14	292.230	0.872	3	10+10+10	30	9.14						●	ML	
	292	182	19	294.175	1.945	1	2	2	0.61		RAIL OPENING				●		RAIL OPENING
	293	182	22	294.376	0.201	1	2	2	0.61		RAIL OPENING				●		RAIL OPENING
	Yedashe	**183**	**6**	**294.912**	**0.536**												
	294	183	12	295.315	0.402	1	3	3	0.91		ARCH CULVERT				●		ARCH CULVERT
	294 A	183	13	295.382	0.067	1 1	20 10	30	9.14						●	HM HM	
	295	183	20	295.851	0.469						CLOSED						CLOSED
	296	183	23	296.052	0.201	1	20	20	6.10						●	ML	
	297	184	11	296.857	0.805	1	20	20	6.10						●	ML	
★	298	184	14	297.058	0.201	3	20	60	18.29						●	ML	
★	299	185	1	297.796	0.738	3	10	30	9.14						●	ML	
	300	186	6	299.740	1.945	1	20	20	6.10						●	ML	
	Kongyi	**187**	**6**	**301.350**	**1.609**												
★	301	187	10	301.618	0.268	1	40	40	12.19		PRESTRESSED CONC:GIRDER				●	HM	SITTING SPAN
	302	188	14	303.495	1.878	1	3	3	0.91		ARCH CULVERT				●		ARCH CULVERT
	303	188	20	303.898	0.402	1	20	20	6.10						●	ML	
	304	189	10	304.837	0.939	1	6	6	1.83		ARCH CULVERT				●		ARCH CULVERT
	305	189	20	305.507	0.671	2	20	40	12.19	ML					●		
★	306	190	12	306.580	1.073	1 1 1 1	100 58 150 40	348	106.07	ML	Truss Girder	1 1 1 1	58 100 150 40	348	106.07		Truss Girder
	307	190	22	307.251	0.671	1	10	10	3.05						●		
	307 A	191	2	307.519	0.268	1	20	20	6.10						●		
	Swa	**191**	**12**	**308.189**	**0.671**												
	308	191	15	308.391	0.201	1	20	20	6.10	ML					●		
	309	192	0	308.994	0.604	1	10	10	3.05	ML					●		
	310	192	10	309.665	0.671	1	20	20	6.10	ML					●		
	311	192	16	310.067	0.402	1	20	20	6.10	ML					●		
	312	192	21	310.402	0.335	1	20	20	6.10	HM					●		
	313	193	6	311.006	0.604	1	10	10	3.05		FLAT TOP				●		
	314	193	13	311.475	0.469	2	20	40	12.19	ML					●		
	315	194	4	312.481	1.006	1	20	20	6.10	ML					●		
	316	194	8	312.749	0.268	1	3	3	0.91		ARCH CULVERT				●		

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	316 A	194	11	312.950	0.201	1	2	2	0.61		OPEN DRAIN				●		
	317	194	16	313.286	0.335	1	10	10	3.05	ML					●		
	318	194	20	313.554	0.268	1	3	3	0.91		ARCH CULVERT				●		ARCH CULVERT
	Thargaya	**195**	**6**	**314.224**	**0.671**												
	319	195	15	314.828	0.604	1	20	20	6.10	ML					●		
	320	196	14	316.370	1.542	1	40	40	12.19	ML					●		
	Tharyargon	**197**	**0**	**317.041**	**0.671**												
★	320 A	197	3	317.242	0.201	3	20	60	18.29	ML					●		
	321	197	9	317.644	0.402	1	20	20	6.10	ML					●		
	322	198	3	318.851	1.207	1	10	10	3.05	ML					●		
	323	198	9	319.254	0.402	2	10	20	6.10	ML					●		
	324	198	14	319.589	0.335	1	20	20	6.10	ML					●		
	324 A	199	0	320.259	0.671	1	20	20	6.10	HM					●		
★	325	199	17	321.399	1.140	2	20	60	18.29	ML					●		
	326	200	19	323.143	1.743	1	2	2	0.61		RAIL OPENING				●		
	327	200	20	323.210	0.067	1	40	40	12.19	HM					●		
	Myohla	**201**	**6**	**323.880**	**0.671**												
	328	201	8	324.015	0.134						SYPHON CLOSED						
★	329	201	21	324.886	0.872	1	60	60	18.29	ML	Through PL Girder				●		Through PL Girder
	330	202	13	325.959	1.073	1	40	40	12.19						●		
	331	202	22	326.563	0.604	1	3	3	0.91						●		
	332	203	1	326.764	0.201						CLOSED DOWN						
	333	203	9	327.300	0.536	1	3	3	0.91		ARCH CULVERT				●		
	334	203	13	327.569	0.268	1	10	10	3.05						●	ML	
	335	203	17	327.837	0.268	1	20	20	6.10						●	ML	
	336	204	1	328.373	0.536	1	20	20	6.10						●	ML	
	337	204	10	328.977	0.604	1	10	10	3.05						●		
	338	205	0	329.916	0.939	1	40	40	12.19						●	HM	
	339	206	4	331.793	1.878	1	20	20	6.10		CONCRETE GIRDER				●	ML	CONCRETE GIRDER
	340	206	4	331.793	0.000	1	10	10	3.05		CONCRETE GIRDER				●	ML	CONCRETE GIRDER
	Yeni	**206**	**12**	**332.330**	**0.536**												
	341	206	15	332.531	0.201	1	3	3	0.91		ARCH CULVERT				●		
	342	206	22	333.000	0.469	1	3	3	0.91		ARCH CULVERT				●		
	343	207	3	333.335	0.335	1	20	20	6.10	ML					●		
	344																
	345																
	346	207	16	334.207	0.872	1	40	40	12.19	HM					●		

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

■ Non-Bridge ■ Plan for Precast Hume Pipe ■ Plan for Box Culvert (or something) ■ Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP) Bridge Length Span	Length (feet)	Total (feet)	Total Length (m)	Axle Load Type	Remarks	Down Line (DN) Bridge Length Span	Length (feet)	Total (feet)	Total Length (m)	Axle Load Type	Remarks
	347	208	3	334.945	0.738	1	10	10	3.05	ML					●		
	348	208	21	336.152	1.207	1	10	10	3.05	ML					●		
	349	209	10	337.023	0.872	1	20	20	6.10	ML					●	HM	
★	350	209	16	337.426	0.402	2	40	80	24.38	HM					●		
	Tawuti	**210**	**0**	**337.962**	**0.536**												
★	351	210	9	338.566	0.604	1 1 1	40 100 40	180	54.86	HM HM	Through PL Girder				●		Through PL Girder
	352	210	17	339.102	0.536	2	1.5	3	0.91		PIPE CULVERT	1	4	4	1		
	353	211	0	339.572	0.469	1	3	3	0.91		ARCH CULVERT				●		
	354	211	5	339.907	0.335	1	3	3	0.91		ARCH CULVERT				●		
	355	211	12	340.376	0.469	1	1.5	1.5	0.46		ARCH CULVERT				●		
	356	211	18	340.779	0.402	1	20	20	6.10	ML					●		
	357	211	23	341.114	0.335	1	6	6	1.83		CULVERT				●		
	358	212	6	341.583	0.469	2	20	40	12.19	ML					●		
	359	212	10	341.851	0.268	1	20	20	6.10	ML					●		
	360	212	13	342.053	0.201	1	1.5	1.5	0.46		PIPE CULVERT				●		
	361	212	20	342.522	0.469	1	3	3	0.91		ARCH CULVERT				●		
	362	212	22	342.656	0.134	1	1.5	1.5	0.46		CULVERT				●		
	363	213	14	343.729	1.073	1	40	40	12.19	HM					●		
	364	213	23	344.333	0.604	1	2	2	0.61		PIPE CULVERT				●		
	Hteininn	**214**	**0**	**344.400**	**0.067**												
	365	214	2	344.534	0.134	1	20	20	6.10						●	ML	
	366	214	11	345.137	0.604	1	20	20	6.10	HM					●		
	367	214	24	346.009	0.872	1	12.67	12.67	3.86			1	12.00	12.00	3.66		
	368	215	5	346.344	0.335	1	1.5	1.5	0.46						●		
	369	215	10	346.680	0.335	1	12	10	3.05						●		
	370	215	22	347.484	0.805	1	2	2	0.61						●		
	371	216	4	347.887	0.402	1	23	20	6.10						●		
	Ela	**216**	**18**	**348.825**	**0.939**												
	372	216	20	348.959	0.134	2	20	40	12.19	ML					●		
★	373	217	3	349.429	0.469	1 1 1	40 150 60	250	76.20	HM 	Truss Girder				●		Truss Girder
	374	217	10	349.898	0.469	1	20	20	6.10	ML					●		
	375	217	18	350.435	0.536	1	20	20	6.10	ML					●		
	376	218	2	350.971	0.536	1	20	20	6.10	ML					●		

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP) Bridge Length Span	Length (feet)	Total (feet)	Total Length (m)	Axle Load Type	Remarks	Down Line (DN) Bridge Length Span	Length (feet)	Total (feet)	Total Length (m)	Axle Load Type	Remarks
	377	218	6	351.239	0.268	1	20	20	6.10	ML					●		
	378	218	14	351.776	0.536	1	10	10	3.05	ML					●		
★	379	218	19	352.111	0.335	3	20	60	18.29	HM					●		
	Pyaywun	**219**	**4**	**352.715**	**0.604**												
	380	219	10	353.117	0.402	1	10	10	3.05	ML					●		
	381	219	14	353.385	0.268	2	20	40	12.19	ML					●		
	382	220	2	354.190	0.805	2	20	40	12.19	ML					●		
	383	220	7	354.525	0.335	1	20	20	6.10	ML					●		
★	384	220	16	355.129	0.604	1 1	20 20	40	12.19	ML HM					●		
	385	221	6	356.067	0.939	1	10	10	3.05	ML					●		
	386	221	15	356.671	0.604	1	10	10	3.05	ML					●		
	387										CLOSED						
	388										CLOSED						
	389	223	3	359.085	2.414	1	10	10	3.05	ML					●		
	390	223	12	359.688	0.604	2	10	20	6.10	ML					●		
	391	224	18	361.700	2.012	1	10	10	3.05		FLAT TOP CULVERT				●		
	391 A	224	19	361.767	0.067	1	4	4	1.22		CULVERT				●		
	391 B	224	19	361.767	0.000	1	10	10	3.05		CULVERT				●		
	391 C	224	19	361.767	0.000	1	4	4	1.22		CULVERT				●		
★	392	225	0	362.102	0.335		1				CLOSED (F.O.B)						
	Pyinmana	**225**	**0**	**362.102**	**0.000**												
★	393	225	15	363.108	1.006	1 3 1	40 100 40	380	115.82	HM HM	Truss Girder	1 4 1	45.75 85 28.25	414	126.19		PC Girder
	394	226	6	364.114	1.006	1	3	3	0.91		ARCH CULVERT				●		
	395	226	15	364.718	0.604	1	10	10	3.05	ML					●		
	396	226	23	365.254	0.536	1	6	6	1.83		ARCH CULVERT				●		
	397	227	4	365.589	0.335	2	3	6	1.83		ARCH CULVERT				●		
	398	227	10	365.992	0.402	1	3	3	0.91		ARCH CULVERT				●		
	399	227	16	366.394	0.402	1	3	3	0.91		ARCH CULVERT				●		
	399 A	227	19	366.595	0.201	1	10	10	3.05	ML					●		
	400	227	19	366.595	0.000	1	3	3	0.91		ARCH CULVERT				●		
	401	227	24	366.930	0.335	1	3	3	0.91						●		
	402	228	7	367.400	0.469	1	10	10	3.05	HM					●		

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●: Same span as Up Line (UP)

Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
						1	10	10	3.05	ML					●		
	403	228	21	368.339	0.939	1	6	6	1.83		ARCH CULVERT				●		
	404	229	2	368.674	0.335	1	10	10	3.05	ML					●		
	405	229	6	368.942	0.268	1	10	10	3.05	ML					●		
★	406	229	11	369.277	0.335	1	6	6	1.83		ARCH CULVERT				●		Plate Girder
	407	229	17	369.680	0.402	1	6	6	1.83		ARCH CULVERT				●		
	Ywadaw	**230**	**0**	**370.149**	**0.469**												
	408	230	5	370.484	0.335	1	10	10	3.05	ML					●		
	409	230	11	370.887	0.402	1	20	20	6.10	ML					●		
	410	231	11	372.496	1.609	1	6	6	1.83		FLAT TOP				●		CLOSED
	411	231	15	372.764	0.268	1	20	20	6.10	ML					●		
	412	232	5	373.703	0.939	1	20	20	6.10	HM					●		
	413	232	17	374.508	0.805	1	20	20	6.10	ML					●		
	Naypyitaw	**233**	**0**	**374.977**	**0.469**												
	413 A	233	4	375.245	0.268	1	2	2	0.61	ML	RAIL OPENING				●		
	414	233	6	375.379	0.134	1	20	20	6.10	ML					●		
	415	233	22	376.452	1.073	2	2.5	5	1.52		ARCH CULVERT				●		
	416	234	9	377.190	0.738	1	40	40	12.19	HM					●		
	Kyidaungkan	**235**	**6**	**378.598**	**1.408**												
★	417	235	12	379.001	0.402	2	40	80	24.38		PC Girder				●	HM	
	418	236	11	380.543	1.542	1	20	20	6.10	ML					●		
★	419	236	18	381.012	0.469	1 1	40 20	60	18.29	HM HM		1	?				PC Girder
	420	236	24	381.415	0.402	1	20	20	6.10	ML					●		
	421	237	18	382.622	1.207	1	40	40	12.19	HM					●		
	422	238	4	383.292	0.671	1	20	20	6.10	ML					●		
	423	238	10	383.694	0.402	1	20	20	6.10	ML					●		
	424	238	18	384.231	0.536	1	40	40	12.19	HM					●		
	425	238	22	384.499	0.268	2	2	4	1.22		RAIL OPENING WITH DECK PLATE				●		
	425 A	239	4	384.901	0.402	1	1.5	1.5	0.46		EARTH WARE PIPE				●		
	426	239	6	385.036	0.134	1	3	3	0.91		ARCH CULVERT				●		
	427	239	9	385.237	0.201	1	20	20	6.10	ML					●		
	428	239	18	385.840	0.604	1	6	6	1.83		ARCH CULVERT				●		
	429	240	5	386.578	0.738	1	6	6	1.83		ARCH CULVERT				●		

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■ Non-Bridge ■ Plan for Precast Hume Pipe ■ Plan for Box Culvert (or something) ■ Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP) Bridge Length Span	Bridge Length Length (feet)	Bridge Length Total (feet)	Total Length (m)	Axle Load Type	Remarks	Down Line (DN) Bridge Length Span	Bridge Length Length (feet)	Bridge Length Total (feet)	Total Length (m)	Axle Load Type	Remarks
	430	240	9	386.846	0.268	1 2	2 1.5	5	1.52		RAIL OPENING WITH DECK PLATE PIPE CULVERT UNDER NO1 LINE				●		
	Pyokkwe	**240**	**12**	**387.047**	**0.201**												
	431	240	14	387.181	0.134	1	6	6	1.83		ARCH CULVERT				●		
	432	240	19	387.517	0.335	1	6	6	1.83		ARCH CULVERT				●		
★	433	240	24	387.852	0.335	2	40	80	24.38	HM					●		PC Girder
	434	241	12	388.657	0.805	1	40	40	12.19	HM					●		
	435	242	6	389.864	1.207	1	10	10	3.05	ML					●		
★	436	242	22	390.936	1.073	3	20	60	18.29	ML					●		RC Girder
	437	243	6	391.473	0.536	1	10	10	3.05	ML					●		
	Sinbyugyun	**243**	**12**	**391.875**	**0.402**												
	438	243	22	392.546	0.671	1	2	2	0.61		ARCH CULVERT				●		
	439	244	6	393.082	0.536	1	3	3	0.91		FLAP TOP				●		
	440	244	10	393.350	0.268	1	3	3	0.91		ARCH CULVERT				●		
	441	244	21	394.088	0.738	1	20	20	6.10	ML					●		
	442	245	8	394.826	0.738	1	20	20	6.10	ML					●		
	443	245	16	395.362	0.536	1	40	40	12.19	HM					●		
	443 A	245	22	395.765	0.402	1	20	20	6.10	ML					●		
	444	246	2	396.033	0.268	2	2	4	1.22		RAIL OPENING WITH DECK PLATE				●		
	445	246	5	396.234	0.201	1	3	3	0.91		ARCH CULVERT				●		
	446	246	14	396.837	0.604	1	40	40	12.19	HM					●		
	Shwemyo	**246**	**18**	**397.106**	**0.268**												
	447	246	20	397.240	0.134	1	1.5	1.5	0.46		E.W.PIPE				●		
	448	247	1	397.575	0.335	1	10	10	3.05	ML					●		
	449	247	11	398.246	0.671	1	1.5	1.5	0.46		EW-PIPE				●		
	450	247	14	398.447	0.201	1	4.5	4.5	1.37		R.CC PIPE				●		
	450 A	248	6	399.520	1.073	1	10	10	3.05						●		
	451	249	1	400.794	1.274	1	10	10	3.05						●		
	452	249	18	401.934	1.140	1	6	6	1.83		SERVICE CLOSED ON 27.6.66				●		
★	453	250	10	403.007	1.073	4	100	400	121.92		Truss Girder	6	57.5	345	105.16		PC Girder
	Sinthe	**251**	**0**	**403.945**	**0.939**												
	454	251	11	404.683	0.738	1	10	10	3.05	ML					●		
	455	252	9	406.158	1.475	1	20	20	6.10	ML					●		
	455 A	252	20	406.896	0.738	1	1.5	1.5	0.46		EW PIPE				●		

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■ Non-Bridge ■ Plan for Precast Hume Pipe ■ Plan for Box Culvert (or something) ■ Plan for Girder

Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
					Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
					Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
Tatkon	**253**	**12**	**407.969**	**1.073**												
456	253	19	408.438	0.469	1	20	20	6.10	ML					●		
457	254	2	408.907	0.469	2	2	4	1.22		ARMCO PIPE				●		
458	254	5	409.109	0.201	2	20	40	12.19	ML/HM					●		
459	254	6	409.176	0.067	1	3	3	0.91		ARCH CULVERT				●		
460	254	18	409.980	0.805	1	20	40	12.19						●		
					1	20			ML							
461	255	2	410.517	0.536	1	10	20	6.10	ML					●		
					1	10			HM							
462	255	10	411.053	0.536	1	20	20	6.10	ML					●		
463	255	23	411.925	0.872	1	1.5	1.5	0.46		BRICK PIPE				●		
464	256	2	412.126	0.201	1	10	10	3.05	ML					●		
465	256	5	412.327	0.201	1	10	10	3.05	ML					●		
466	256	18	413.199	0.872	1	10	10	3.05	ML					●		
467	256	22	413.467	0.268	1	3	3	0.91		ARCH CULVERT				●		
Magyibin	**257**	**12**	**414.406**	**0.939**												
468	257	13	414.473	0.067	1	3	3	0.91		ARCH CULVERT				●		
469	257	17	414.741	0.268	1	10	10	3.05	ML					●		
470	258	1	415.278	0.536	2	10	20	6.10	ML					●		
471	258	6	415.613	0.335	1	10	10	3.05	ML					●		
472	258	16	416.284	0.671	3	10	30	9.14	HM					●		
473	258	24	416.820	0.536	1	20	20	6.10	ML	RAIL GIRDER				●		
474	259	5	417.155	0.335	1	10	10	3.05	HM					●		
475	259	11	417.558	0.402	1	10	10	3.05	HM					●		
476	260	7	418.899	1.341	1	2	2	0.61		ARCH CULVERT				●		
★ 477	260	10	419.100	0.201	2	40	80	24.38	HM					●		RC Girder
478	260	16	419.502	0.402	1	2	2	0.61		ARCH CULVERT				●		
479	260	20	419.771	0.268	1	10	10	3.05	HM					●		
479 A	261	3	420.240	0.469	1	0.5	0.5	0.15		CI PIPE				●		
Nyaunglun	**261**	**12**	**420.843**	**0.604**												
480	261	12	420.843	0.000	2	3	6	1.83						●		
481	261	18	421.246	0.402	1	6	6	1.83		FLAT TOP				●		
482	262	3	421.849	0.604	1	20	20	6.10	ML					●		
483	262	21	423.056	1.207	1	6	6	1.83		ARCH CULVERT				●		

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Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	484	263	8	423.794	0.738	1	6	6	1.83		ARCH CULVERT				●		
	484 A	263	10	423.928	0.134	1	3	3	0.91		R.C.C.PIPE				●		
★	485	263	21	424.666	0.738	1	40	40	12.19						●		PC Girder
	486	264	1	424.934	0.268	1	10	10	3.05	HM					●		
	487	264	2	425.001	0.067	1	2	2	0.61		ARCH CULVERT				●		
	488	264	6	425.269	0.268	1	2	2	0.61		ARCH CULVERT				●		
	489	264	7	425.336	0.067	1	10	10	3.05	HM					●		
	490	264	19	426.141	0.805	1	3	3	0.91		ARCH CULVERT				●		
	491	265	3	426.677	0.536	1	20	20	6.10	ML					●		
	492	265	7	426.946	0.268	1	3	3	0.91		ARCH CULVERT				●		
	493	265	16	427.549	0.604	1	1.5	1.5	0.46		ARCH CULVERT				●		
	494	266	4	428.354	0.805	1	20	20	6.10						●		
	495	266	9	428.689	0.335	1	2	2	0.61		ARCH CULVERT				●		
	496	266	12	428.890	0.201	1	3	3	0.91		ARCH CULVERT				●		
★	497	267	1	429.762	0.872	2	40	80	24.38	HM					●		PC Girder
	498	267	13	430.567	0.805	1	3	3	0.91		ARCH CULVERT				●		
	Hngetthaik	**268**	**0**	**431.304**	**0.738**												
	499	268	2	431.438	0.134	3	2	6	1.83		ARCH CULVERT				●		
	500	268	14	432.243	0.805	1	2	2	0.61		RAIL OPENING				●		
★	501	268	17	432.444	0.201	3	2	6	1.83		ARCH CULVERT						RC Girder
	502	269	1	432.981	0.536	1	1.5	1.5	0.46		ARCH CULVERT				●		
	503	269	3	433.115	0.134	3	2	6	1.83		ARCH CULVERT				●		
	504	269	8	433.450	0.335	1	2	2	0.61		ARCH CULVERT				●		
	505	269	12	433.718	0.268	1	10	10	3.05	HM					●		
	506	269	18	434.121	0.402	1	10	10	3.05	HM					●		
	507	270	2	434.657	0.536	1	20	20	6.10	HM					●		
	508	270	8	435.059	0.402	1	1.5	1.5	0.46		ARCH CULVERT				●		
	Ingon	**270**	**18**	**435.730**	**0.671**												
	509	270	23	436.065	0.335	2	10	20	6.10	HM					●		
	510	271	16	437.205	1.140	3	2	6	1.83		ARCH CULVERT				●		
	511	271	23	437.675	0.469	1	10	10	3.05	HM					●		

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	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP) Bridge Length Span	Length (feet)	Total (feet)	Total Length (m)	Axle Load Type	Remarks	Down Line (DN) Bridge Length Span	Length (feet)	Total (feet)	Total Length (m)	Axle Load Type	Remarks
	512	272	10	438.412	0.738	1	10	10	3.05	HM					●		
	513	273	7	439.820	1.408	1	10	10	3.05	HM					●		
	513 A	273	19	440.625	0.805	1	40	40	12.19	HM					●		
	513 B	273	22	440.826	0.201	2	1.5	3	0.91		PIE E/APE				●		
	Yamethin	**274**	**12**	**441.765**	**0.939**												
	513 C	274	15	441.966	0.201	1	20	20	6.10						●		
	513 D	275	2	442.704	0.738	1	2	2	0.61		RAIL OPENING				●		
	513 E	275	10	443.240	0.536	1	10	10	3.05	HM					●		
	513 F	275	21	443.978	0.738	1	10	10	3.05	HM					●		
	513 G	276	5	444.514	0.536	1	2	2	0.61		ARCH CULVERT				●		
	514	276	13	445.051	0.536	1	20	20	6.10	ML					●		
	514 A	276	23	445.721	0.671	1	2	2	0.61		RAIL OPENING				●		
	515	277	8	446.325	0.604	2	10	20	6.10	HM					●		
	515 A	277	14	446.727	0.402	1	2	2	0.61		RAIL OPENING				●		
	516	278	2	447.532	0.805	2	2	4	1.22		ARCH CULVERT				●		
	Ingyinkan	**278**	**12**	**448.202**	**0.671**												
	517	279	4	449.275	1.073	2	2	4	1.22		ARCH CULVERT				●		
	518	280	10	451.287	2.012	2	2	4	1.22		ARCH CULVERT				●		
★	519	281	8	452.762	1.475	1 1 1	34 44 34	112	34.14		PL Girder				●		PC Girder
	Shweda	**282**	**12**	**454.640**	**1.878**												
	520	282	15	454.841	0.201	1	2	2	0.61		ARCH CULVERT				●		
	521	282	17	454.975	0.134	1	4	4	1.22		ARCH CULVERT				●		
	522	282	18	455.042	0.067	1	20	20	6.10						●		
★	523	282	21	455.243	0.201	4	20	80	24.38	ML					●		RC Girder
★	524	283	1	455.511	0.268	3	20	60	18.29	BL					●		RC Girder
	525	283	22	456.920	1.408	3	20	60	18.29	ML					●		
	526	284	2	457.188	0.268						CLOSED WITH EARTH FILLING						
★	527	284	4	457.322	0.134	4	40	160	48.77		PC Girder	8	20	160	48.77	ML	PL Girder
	528	285	21	460.071	2.749	2	20	40	12.19	HM					●		
★	529	286	7	460.742	0.671	1	100	100	30.48		Truss Girder	2	40	80	24.38		PC Girder
	530	286	5	460.608	(0.134)	1	2	2	0.61		ARCH CULVERT				●		

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	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	531	286	21	461.681	1.073	2	40	80	24.38	HM					●		
	Pyawbwe	**287**	**12**	**462.686**	**1.006**												
	532	287	18	463.089	0.402	1	6	6	1.83		FLAT TOP				●		
	533	288	14	464.430	1.341	1	6	6	1.83		ARCH CULVERT				●		
	534	288	18	464.698	0.268	1	6	6	1.83		ARCH CULVERT				●		
	535	288	22	464.966	0.268	1	2	2	0.61		RAIL OPENING				●		
★	536	289	5	465.436	0.469	1	6	6	1.83		RAIL OPENING				●		
	537	289	8	465.637	0.201	1	6	6	1.83		RAIL OPENING				●		
	538	289	15	466.106	0.469	1	2	2	0.61		ARCH CULVERT				●		
	539	290	3	466.911	0.805	1	2	2	0.61		ARCH CULVERT				●		
	540	290	4	466.978	0.067	1	2	2	0.61		ARCH CULVERT				●		
	541	290	5	467.045	0.067	2	6	12	3.66		ARCH CULVERT				●		
	542	290	10	467.380	0.335	1	2	2	0.61		ARCH CULVERT				●		
	543	290	15	467.716	0.335	1	2	2	0.61		RAIL OPENING				●		
	544	291	20	469.660	1.945	1	2	2	0.61		ARCH CULVERT				●		
	545	291	21	469.727	0.067	1	6	6	1.83		FLAT TOP				●		
	546	291	1	468.386	(1.341)	1	6	6	1.83		ARCH CULVERT				●		
	547	291	4	468.587	0.201	1	2	2	0.61		ARCH CULVERT				●		
	548	291	15	469.325	0.738	1	2	2	0.61		RAIL OPENING				●		
	549	291	19	469.593	0.268	1	2	2	0.61		ARCH CULVERT				●		
	550	291	21	469.727	0.134	1	2	2	0.61		RAIL OPENING				●		
	551	292	3	470.130	0.402	1	2	2	0.61		FLAT TOP				●		
	552	292	7	470.398	0.268	1	2	2	0.61		RAIL OPENING				●		
	553	292	8	470.465	0.067	1	10	10	3.05	HM					●		
	553 A	292	9	470.532	0.067	1	2	2	0.61		RAIL OPENING				●		
	553 B	292	13	470.800	0.268	2	2	4	1.22		FLAT TOP				●		
	Shanywa	**292**	**18**	**471.135**	**0.335**												
	554	292	23	471.471	0.335	1	10	10	3.05	HM					●		
	555	293	8	472.074	0.604	1	2	2	0.61		ARCH CULVERT				●		
	556	293	15	472.544	0.469	1	20	20	6.10						●		
	557	293	21	472.946	0.402	1	2	2	0.61		ARCH CULVERT				●		
	558	294	6	473.549	0.604	1	2	2	0.61		ARCH CULVERT				●		
	559	294	9	473.751	0.201	1	6	6	1.83		ARCH CULVERT				●		
	560	294	15	474.153	0.402	1	4	4	1.22		ARCH CULVERT				●		

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	561	294	18	474.354	0.201	1	20	20	6.10	HM					●		
	562	294	23	474.689	0.335	1	2	2	0.61		ARCH CULVERT				●		
	563	295	6	475.159	0.469	1	2	2	0.61		ARCH CULVERT				●		
	564	295	9	475.360	0.201	1	2	2	0.61		ARCH CULVERT				●		
	565	295	14	475.695	0.335	1	2	2	0.61		ARCH CULVERT				●		
	566	295	18	475.963	0.268	1	6	6	1.83		FLAT TOP				●		
	567	295	21	476.165	0.201	1	2	2	0.61		ARCH CULVERT				●		
	567 A	296	3	476.567	0.402	1	2	2	0.61		ARCH CULVERT				●		
	568	296	5	476.701	0.134	1	6	6	1.83	HM					●		
	569	296	8	476.902	0.201	1	2	2	0.61		ARCH CULVERT				●		
	570	296	19	477.640	0.738	1	1.5	1.5	0.46		PIPE E/WARE				●		
	571	297	6	478.378	0.738	1	6	6	1.83	HM					●		
	572	297	16	479.048	0.671						CLOSED						
	572 A	297	17	479.115	0.067						CLOSED NO GIRDER						
★	573	297	24	479.585	0.469	3	20	60	18.29		RC Girder				●		
★	574	298	9	480.188	0.604	1 4 1	20 40 20	200	60.96		RC Girder PC Girder RC Girder	2 4	20 40	200	60.96	ML HM	PL Girder
	575	298	13	480.456	0.268	1	2	2	0.61		ARCH CULVERT				●		
	575 A	298	19	480.859	0.402	1	10	10	3.05	ML					●		
	576	299	3	481.395	0.536	1	4	4	1.22		ARCH CULVERT				●		
	Nyaungyan	299	6	481.596	0.201												
★	577	299	8	481.730	0.134	3	20	60	18.29		RC Girder				●	HM	
	578	299	15	482.200	0.469	1	40	40	12.19	HM					●		
	579	299	22	482.669	0.469	1	2	2	0.61		ARCH CULVERT				●		
★	580	300	1	482.870	0.201	4	20	80	24.38		RC Girder				●	ML	
★	581	300	3	483.004	0.134	2	57.25	114.5	34.90		PC Girder	3	40	120	36.58	HM	PL Girder
	582	300	12	483.608	0.604	1	10	10	3.05	ML					●		
	583	300	14	483.742	0.134	1	20	20	6.10	ML					●		
	584	301	3	484.614	0.872	2	20	40	12.19	HM					●		
★	585	301	9	485.016	0.402	2	50	100	30.48		PC Girder	5	20	100	30.48	HM/ML	
★	586	301	14	485.351	0.335	6	20	120	36.58		RC Girder				●	ML	PL Girder
	587	301	20	485.754	0.402	1	6	6	1.83		FLAT TOP				●		
	Nwato	302	6	486.424	0.671												

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

■ Non-Bridge ■ Plan for Precast Hume Pipe ■ Plan for Box Culvert (or something) ■ Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
★	588	302	16	487.095	0.671	3	40	120	36.58		PC Girder	4	40	160	48.77	HM	PL Girder
	589	303	3	487.832	0.738	1	10	10	3.05	HM					●		
	590	303	6	488.034	0.201	1	6	6	1.83	HM					●		
	591	303	8	488.168	0.134	1	6	6	1.83		FLAT TOP				●		
	591 A	303	10	488.302	0.134	1	1.5	1.5	0.46		C.I.PIPE				●		
	592	303	16	488.704	0.402	1	2	2	0.61		ARCH CULVERT				●		
	593	303	19	488.905	0.201	1	2	2	0.61		ARCH CULVERT				●		
	593 A	304	6	489.643	0.738	1	1.5	1.5	0.46		C.I.PIPE				●		
	594	304	10	489.911	0.268	1	6	6	1.83		ARCH CULVERT				●		
	594 A	304	14	490.179	0.268	2	20	40	12.19	HM					●		
	595	304	18	490.448	0.268	1	6	6	1.83		ARCH CULVERT				●		
	596	304	20	490.582	0.134	1	6	6	1.83		FLAT TOP				●		
	597	305	2	490.984	0.402	1	10	10	3.05	HM					●		
	598	305	4	491.118	0.134	1	6	6	1.83		ARCH CULVERT				●		
★	599	305	8	491.386	0.268	1	20	80	24.38		RC Girder				●	ML	
						1	40				PC Girder					HM	
						1	20				RC Girder					ML	
	600	305	8	491.386	0.000	1	6	6	1.83						●		
	600 A	305	9	491.453	0.067	1	6	6	1.83		RAIL GIRDER UNDER.S.SS BRANCH				●		
	601	305	14	491.789	0.335	1	6	6	1.83		ARCH				●		
★	601 A	305	24	492.459	0.671	1	143	143	43.59		CLOSED (F.O.B)						
	Thazi	**306**	**0**	**492.459**	**0.000**												
	588 A					1	2	2	0.61		ARCH CULVERT				●		
	602	LOCO YD ENT				1	10	10	3.05	ML					●		
	603	306	9	493.063	0.604	1	20	20	6.10	HM					●		
	604	306	17	493.599	0.536	1	10	10	3.05	HM					●		
	605	307	1	494.136	0.536	1	2	2	0.61		ARCH CULVERT				●		
	606	307	8	494.605	0.469	1	6	6	1.83		ARCH CULVERT				●		
	607	307	9	494.672	0.067	1	2	2	0.61		ARCH CULVERT				●		
	607 A	307	22	495.544	0.872	2	10	20	6.10	ML					●		
	608	307	24	495.678	0.134	1	6	6	1.83	ML					●		
	609	308	10	496.349	0.671	1	2	2	0.61		ARCH CULVERT				●		
	610	308	14	496.617	0.268	1	2	2	0.61		ARCH CULVERT				●		
	611	308	20	497.019	0.402	1	2	2	0.61		ARCH CULVERT				●		
	612	309	4	497.556	0.536	1	3	3	0.91		ARCH CULVERT				●		

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	613	309	13	498.159	0.604	1	3	3	0.91		ARCH CULVERT				●		
	613 A	309	14	498.226	0.067	1	10	10	3.05	ML					●		
	614	309	20	498.628	0.402	1	2	2	0.61		ARCH CULVERT				●		
	614 A	309	23	498.830	0.201	2	10	20	6.10	ML					●		
	615	310	3	499.098	0.268	1	6	6	1.83		ARCH CULVERT				●		
	Ywapale	**310**	**12**	**499.701**	**0.604**												
	616	310	14	499.835	0.134	1	2	2	0.61		ARCH CULVERT				●		
	617	310	23	500.439	0.604	1	2	2	0.61		ARCH CULVERT				●		
	618	311	3	500.707	0.268	1	10	10	3.05	HM					●		
	619	311	7	500.975	0.268	1	10	10	3.05	HM	CONCRETE GIRDER				●		CONCRETE GIRDER
	620	311	12	501.311	0.335	1	10	10	3.05	HM					●		
	621	311	15	501.512	0.201	1	2	2	0.61		ARCH CULVERT				●		
★	622	311	18	501.713	0.201	2	40	80	24.38		PC Girder				●	ML	
	623	311	21	501.914	0.201	1	20	20	6.10	HM					●		
	624	312	3	502.316	0.402	2	2	6	1.83		ARCH CULVERT				●		
	624 A	312	8	502.652	0.335	1	10	10	3.05	ML					●		
	625	312	10	502.786	0.134	1	3	3	0.91		ARCH CULVERT				●		
	626	312	21	503.524	0.738	1	2	2	0.61		ARCH CULVERT				●		
	627	313	1	503.792	0.268	1	3	3	0.91		ARCH CULVERT				●		
	628	313	10	504.395	0.604	1	2	2	0.61		ARCH CULVERT				●		
	629	313	14	504.663	0.268	1	20	20	6.10	HM					●		
	630	313	17	504.865	0.201	1	2	2	0.61		ARCH CULVERT				●		
	631	313	22	505.200	0.335	1	6	6	1.83	ML					●		
	632	313	24	505.334	0.134	1	2	2	0.61		ARCH CULVERT				●		
	633	314	5	505.669	0.335	1	40	40	12.19	HM					●		
	634	314	9	505.938	0.268	1	6	6	1.83		ARCH CULVERT				●		
	635	314	12	506.139	0.201	1	2	2	0.61		ARCH CULVERT				●		
	636	314	18	506.541	0.402	1	6	6	1.83		ARCH CULVERT				●		
	637	314	23	506.876	0.335	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	638	315	3	507.145	0.268	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	Hanza	**315**	**12**	**507.748**	**0.604**												
	639	315	16	508.016	0.268	1	40	40	12.19	ML					●		
	640	316	7	509.022	1.006	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	641	316	16	509.626	0.604	1	10	10	3.05	HM					●		

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	642	316	23	510.095	0.469	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	643	317	5	510.497	0.402	1	2	2	0.61		ARCH CULVERT				●		
	644	317	10	510.833	0.335	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	645	317	13	511.034	0.201	1	2	2	0.61		ARCH CULVERT				●		
	646	317	15	511.168	0.134	1	2	2	0.61		ARCH CULVERT				●		
	647	317	22	511.637	0.469	1	2	2	0.61		ARCH CULVERT				●		
	648	318	4	512.040	0.402	1	2	2	0.61		ARCH CULVERT				●		
	649	318	14	512.710	0.671	1	1.5	1.5	0.46		E.W.PIPE				●		
	Dahattaw	**318**	**18**	**512.978**	**0.268**												
	650	318	18	512.978	0.000	1	2	2	0.61		ARCH CULVERT				●		
	651	318	22	513.247	0.268	1	2	2	0.61		ARCH CULVERT				●		
	652	319	9	513.984	0.738	1	2	2	0.61		ARCH CULVERT				●		
	653										CLOSED						
	654	320	11	515.728	1.743	1	20	20	6.10	ML					●		
	655	321	2	516.734	1.006	2	1.5	3	0.91		EARTHEN WARE PIPE				●		
	656	321	3	516.801	0.067	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	657	321	5	516.935	0.134	2	1.5	3	0.91		EARTHEN WARE PIPE				●		
	658	321	9	517.203	0.268	1	6	6	1.83		ARCH CULVERT				●		
	659	321	14	517.538	0.335	1	2	2	0.61		ARCH CULVERT				●		
	660	321	16	517.672	0.134	1	2	2	0.61		ARCH CULVERT				●		
	661	321	20	517.941	0.268	1 1	20 10	30	9.14	HM					●		
	Thedaw	**322**	**6**	**518.611**	**0.671**												
	662	322	7	518.678	0.067	1	2	2	0.61		ARCH CULVERT				●		
★	663	322	10	518.879	0.201	2 1	20 40	80	24.38	HM					●		PC Girder
	664	322	17	519.349	0.469	1	20	20	6.10	HM					●		
	665	322	21	519.617	0.268	1	6	6	1.83		ARCH CULVERT				●		
	666	322	23	519.751	0.134	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	667	323	5	520.153	0.402	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	668	323	12	520.623	0.469	1	2	2	0.61		ARCH CULVERT				●		
	669	323	20	521.159	0.536	2	1.5	3	0.91		EARTHEN WARE PIPE				●		
	669 A	324	3	521.629	0.469	2	40	80	24.38	ML					●		
	670	324	17	522.567	0.939	2	2.5	5	1.52		R.C.PIPE				●		

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP) Bridge Length Span	Length (feet)	Total (feet)	Total Length (m)	Axle Load Type	Remarks	Down Line (DN) Bridge Length Span	Length (feet)	Total (feet)	Total Length (m)	Axle Load Type	Remarks
	671										CLOSED						
	672										CLOSED						
	673										CLOSED						
	674										CLOSED						
	Khinban	**325**	**18**	**524.244**	**1.676**												
	675	326	3	524.847	0.604	2	3+3	6	1.83		ARCH CULVERT				●		
	676										CLOSED						
★	677	326	18	525.853	1.006	2	40	80	24.38	HM	PL Girder				●		PC Girder
	678	327	6	526.658	0.805	1	6	6	1.83		ARCH CULVERT				●		
	679	327	15	527.261	0.604	1	6	6	1.83	ML					●		
	680	327	22	527.731	0.469	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	681	328	10	528.535	0.805	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	Samon	**329**	**0**	**529.474**	**0.939**												
	682	329	17	530.614	1.140	1	6	6	1.83		ARCH CULVERT				●		
★	683	329	21	530.882	0.268	4	57.5	230	70.10		PC Girder	2 1	40 150	230	70.10	HM	Truss Girder
★	684	330	11	531.821	0.939	4	40	160	48.77		PC Girder				●	HM	PL Girder
	685	330	17	532.223	0.402	1	20	20	6.10		CONCRETE GIRDER				●		
	686	330	23	532.626	0.402	1	10	10	3.05	ML					●		
	687	331	11	533.430	0.805	1	40	40	12.19	HM					●		
★	688	331	20	534.034	0.604	2	40	80	24.38		PC Girder				●	HM	
	689	332	2	534.436	0.402	1	40	40	12.19	HM					●		
	690	332	6	534.705	0.268	2	1.5+1.5	3	0.91		EARTHEN WARE PIPE				●		
	Odokkon	**332**	**12**	**535.107**	**0.402**												
★	691	332	23	535.844	0.738	6	57.5	345	105.16		PC Girder	7	40	280	85.34	HM	PL Girder
	691 A	333	7	536.381	0.536	2	3+3	6	1.83		FLAT TOP				●		
	691 B	333	16	536.984	0.604	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
★	692	334	23	539.063	2.079	5	20	100	30.48		RC Girder	5	20	100	30.48	ML HM	
	693	335	4	539.398	0.335	3	20	60	18.29	HM					●		
★	694	335	8	539.667	0.268	3	20	60	18.29		PC Girder				●	ML	
	695	335	12	539.935	0.268	1	20	20	6.10	ML					●		
	Thabyetaung	**336**	**6**	**541.142**	**1.207**												
	696	336	14	541.678	0.536	1	20	20	6.10	HM					●		

★ Bridges targeted for the site survey in this project

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Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	697	337	20	543.690	2.012	1	3	3	0.91		ARCH CULVERT				●		
	697 A	338	16	545.031	1.341	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	698	338	19	545.232	0.201	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	698 A	339	3	545.769	0.536	1	2	2	0.61		ARMCO PIPE				●		
★	699	340	1	547.244	1.475	3	57.5	172.5	52.58		PC Girder	5	40	200	60.96	HM	PL Girder
	700	340	10	547.848	0.604	1	10	10	3.05	HM					●		
	701	340	23	548.719	0.872	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	702	341	2	548.920	0.201	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	703	341	6	549.189	0.268	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	Kumelan	341	12	549.591	0.402												
	704	341	18	549.993	0.402	1	10	10	3.05	HM					●		
	704 A	341	21	550.194	0.201	1	10	10	3.05	ML					●		
	705	342	4	550.664	0.469	1	1	1	0.30		EARTHEN WARE PIPE				●		
	706	342	9	550.999	0.335	1	40	40	12.19	HM					●		
★	707	342	12	551.200	0.201	2	40	80	24.38	HM					●		PC Girder
	708	342	14	551.334	0.134	1	2	2	0.61		R.C.C.PIPE				●		
	709	342	19	551.670	0.335	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	710	343	1	552.072	0.402	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	711	343	6	552.407	0.335	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	712	343	11	552.743	0.335	1	2	2	0.61		ARCH CULVERT				●		
	713	344	2	553.748	1.006	2	20	40	12.19	HM					●		
	714	344	8	554.151	0.402	1	2	2	0.61		ARCH CULVERT				●		
	715	344	12	554.419	0.268	1	10	10	3.05	HM					●		
	716	345	2	555.358	0.939	1	10	10	3.05	HM					●		
	717	345	6	555.626	0.268	1	20	20	6.10	HM					●		
★	718	345	11	555.961	0.335	1	100	100	30.48	HM	Truss Girder	1	20	100	30.48		RC Girder
												1	60				PC Girder
												1	20				RC Girder
★	719	346	2	556.967	1.006	2	150	300	91.44		Truss Girder	1	57	312	95.10		PC Girder
												3	85				
	719 A	346	8	557.369	0.402	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
	719 B	346	11	557.571	0.201	1	1.5	1.5	0.46		EARTHEN WARE PIPE				●		
★	720	346	13	557.705	0.134	3	10	30	9.14	HM					●		RC Girder
	720 A	346	15	557.839	0.134	1	2	2	0.61		OPEN TOP				●		
	Myitthar	347	0	558.442	0.604												
	721	347	4	558.711	0.268	1	10	10	3.05	HM					●		
	721 A	347	10	559.113	0.402	1	1.5	1.5	0.46		E.W.PIPE				●		

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

■ Non-Bridge ■ Plan for Precast Hume Pipe ■ Plan for Box Culvert (or something) ■ Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	722	347	16	559.515	0.402	1	4	4	1.22		RAIL GIRDER				●		
	722 A	347	21	559.851	0.335	1	2	2	0.61		RAIL OPENING				●		
	723	347	23	559.985	0.134	1	1.5	1.5	0.46		E.W.PIPE				●		
	724	348	4	560.320	0.335	1	2	2	0.61		RAIL OPENING				●		
	725	348	10	560.722	0.402	1	1.5	1.5	0.46		E.W.PIPE				●		
	726	348	19	561.326	0.604	1	20	20	6.10	HM					●		
	726 A	349	1	561.728	0.402	1	6	6	1.83	HM					●		
	726 B	349	2	561.795	0.067	1	1.5	1.5	0.46		E.W.PIPE				●		
★	727	349	20	563.002	1.207	2	40	80	24.38	HM	I.R.S				●		PC Girder
	728	350	2	563.405	0.402	1	10	10	3.05	HM					●		
	729	350	10	563.941	0.536	1	2	2	0.61		ARCH CULVERT				●		
	729 A	351	3	565.081	1.140	1	1.5	1.5	0.46		E.W.PIPE				●		
★	730	351	10	565.550	0.469	1	100	100	30.48	HM	Truss Girder	1 1 1	20 40 20	80	24.38		RC Girder PC Girder RC Girder
	730 A	351	12	565.684	0.134	1	2	2	0.61		ARCH				●		
	730 B	351	22	566.355	0.671	2	20	40	12.19	HM					●		
	731	351	24	566.489	0.134	1	20	20	6.10	HM					●		
	Minzu	**352**	**12**	**567.294**	**0.805**												
	731 A	352	12	567.294	0.000	1	6	6	1.83		RAIL GIRDER				●		
	732	352	14	567.428	0.134	1	20	20	6.10	HM					●		
	733	352	16	567.562	0.134	1	2	2	0.61		OPEN TOP				●		
	734	352	22	567.964	0.402	1	1.5	1.5	0.46		E.W.PIPE				●		
	735	353	3	568.300	0.335	1	1.5	1.5	0.46		E.W.PIPE				●		
	735 A	353	3	568.300	0.000	1	1.5	1.5	0.46		E.W.PIPE				●		
	736	353	5	568.434	0.134	1	20	20	6.10	HM					●		
	737	353	8	568.635	0.201	1	1.5	1.5	0.46		E.W.PIPE				●		
	738	354	2	569.842	1.207	1	20	20	6.10	ML					●		
	738 A	354	6	570.110	0.268	2	1.5	3	0.91		E.W.PIPE				●		
	738 B	354	8	570.244	0.134	1	1.5	1.5	0.46		E.W.PIPE				●		
	738 C	354	13	570.580	0.335	1	1.5	1.5	0.46		E.W.PIPE				●		
	738 D	354	22	571.183	0.604	2	1.5	3	0.91		E.W.PIPE				●		
★	739	355	13	572.189	1.006	5	20	100	30.48	HM	2 NOS 1924 1NO 1927 & 2NOS 1928				●		RC Girder
	739 A	355	18	572.524	0.335	1	1.5	1.5	0.46		E.W.PIPE				●		
	740	355	22	572.792	0.268	1	10	10	3.05	HM					●		
	741	356	2	573.061	0.268	3	1.5	4.5	1.37		E.W.PIPE				●		
	742	356	9	573.530	0.469	1	1.5	1.5	0.46		E.W.PIPE				●		

★ Bridges targeted for the site survey in this project

□ Exisiting Truss Bridges □ Bridges built after 2000

●: Same span as Up Line (UP)

Non-Bridge Plan for Precast Hume Pipe Plan for Box Culvert (or something) Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	743	356	14	573.865	0.335	1	20	20	6.10	HM					●		
	743 A	357	5	574.871	1.006	2	10	20	6.10	HM					●		
	743 B	357	12	575.340	0.469	3	20	60	18.29	HM					●		
	744										CLOSED						
	745	357	17	575.676	0.335	1	10	10	3.05	HM					●		
	745 A										CLOSED						
	746	358	2	576.279	0.604	2	20	40	12.19	HM					●		
	746 A	358	4	576.413	0.134	1	1.5	1.5	0.46		E.W.PIPE				●		
	747	358	9	576.749	0.335	1	40	40	12.19	HM					●		
★	748	358	11	576.883	0.134	4	57.5	230	70.10		PC Girder	2 1	40 150	230	70.10	ML	Truss Girder
	749	359	1	577.822	0.939	2	1.5	3	0.91		E.W.PIPE				●		
	Kyaukse	359	6	578.157	0.335												
	750	359	8	578.291	0.134	2	2.5	5	1.52		R.C.C.PIPE				●		
	750 A										CLOSED						
	751	359	12	578.559	0.268	1	1.5	1.5	0.46		E.W.PIPE				●		
	751 A	359	12	578.559	0.000	1	1.5	1.5	0.46		E.W.PIPE				●		
	752	359	18	578.962	0.402	1	1.5	1.5	0.46		E.W.PIPE				●		
	752 A	359	20	579.096	0.134	1	1.5	1.5	0.46		E.W.PIPE				●		
	753	359	23	579.297	0.201	1	10	10	3.05	HM					●		
	754	360	6	579.766	0.469	1	1.5	1.5	0.46		E.W.PIPE				●		
	755	360	11	580.101	0.335	1	1.5	1.5	0.46		E.W.PIPE				●		
	756	360	15	580.370	0.268	1	20	20	6.10	HM					●		
	757	360	20	580.705	0.335	1	1.5	1.5	0.46		E.W.PIPE				●		
	758	361	1	581.040	0.335	1	1.5	1.5	0.46		E.W.PIPE				●		
	759	361	4	581.241	0.201	1	10	10	3.05	HM					●		
	760	361	11	581.711	0.469	1	1.5	1.5	0.46		E.W.PIPE				●		
	761	361	15	581.979	0.268	1	1.5	1.5	0.46		E.W.PIPE				●		
	762	361	17	582.113	0.134	1	1.5	1.5	0.46		E.W.PIPE				●		
	763	361	19	582.247	0.134	1	1.5	1.5	0.46		E.W.PIPE				●		
	764	361	22	582.448	0.201	1	2	2	0.61		RAIL OPENING				●		
	765	362	1	582.650	0.201	1	1.5	1.5	0.46		E.W.PIPE				●		
	766	362	2	582.717	0.067	1	1.5	1.5	0.46		E.W.PIPE				●		
	767	362	5	582.918	0.201	1	1.5	1.5	0.46		E.W.PIPE				●		
	768	362	6	582.985	0.067	1	10	10	3.05	HM	CONT:No.395				●		
	769	362	14	583.521	0.536	3	2	6	1.83		R.C.C.PIPE				●		
	770	362	19	583.857	0.335	1	1.5	1.5	0.46		E.W.PIPE				●		

★ Bridges targeted for the site survey in this project

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●: Same span as Up Line (UP)

■ Non-Bridge ■ Plan for Precast Hume Pipe ■ Plan for Box Culvert (or something) ■ Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	771	362	22	584.058	0.201	2	20	40	12.19	HM	GIRDERS DAMAGEDS WAY BEAMS RAIL GIRDERS RUTIN				●		
	772	363	1	584.259	0.201	1	1.5	1.5	0.46		R.C.C.PIPE				●		
	Belin	**363**	**12**	**584.997**	**0.738**												
	773										CLOSED						
	774	363	13	585.064	0.067	1	10	10	3.05	HM					●		
	775	363	15	585.198	0.134	1	1.5	1.5	0.46		PIPE CULVERT				●		
	776	363	18	585.399	0.201	1	1.5	1.5	0.46		PIPE CULVERT				●		
	777	363	20	585.533	0.134	1	1.5	1.5	0.46		PIPE CULVERT				●		
	778	363	22	585.667	0.134	2	1.25	2.5	0.76		PIPE CULVERT				●		
	779	364	3	586.002	0.335	1	2	2	0.61		RAIL OPENING				●		
	780	364	8	586.338	0.335	1	2	2	0.61		RAIL OPENING				●		
	781	364	9	586.405	0.067	1	1.25	1.25	0.38		PIPE CULVERT				●		
	782										CLOSED				●		
	783	364	17	586.941	0.536	1	1.25	1.25	0.38		PIPE CULVERT				●		
	784	364	20	587.142	0.201	1	2	2	0.61		PIPE CULVERT				●		
	785	364	23	587.344	0.201	1	2	2	0.61		RAIL OPENING				●		
	785 A										CLOSED						
	786	365	5	587.746	0.402	1	20	20	6.10	HM					●		
	787	365	6	587.813	0.067	1	1.25	1.25	0.38		PIPE CULVERT				●		
	787 A	365	16	588.483	0.671	1	4	4	1.22		ARCH				●		
★	788	365	22	588.886	0.402	2	40	80	24.38	HM	PL Girder				●		PL Girder
	789	366	5	589.355	0.469	1	1.5	1.5	0.46		E.W.PIPE				●		
	790	366	7	589.489	0.134	1	1.5	1.5	0.46		R.C.C.PIPE				●		
	791	366	9	589.623	0.134	1	1.25	1.25	0.38		E.W.PIPE				●		
	792	366	13	589.892	0.268	1	10	10	3.05	ML					●		
	793	366	16	590.093	0.201	1	10	10	3.05	HM					●		
	794	366	20	590.361	0.268	1	1.25	1.25	0.38		E.W.PIPE				●		
	795										CLOSED						
★	796	366	23	590.562	0.201	1	60	60	18.29	ML	Through PL Girder				●		Through PL Girder
	797	367	6	591.032	0.469	1	1.5	1.5	0.46		E.W.PIPE				●		
	798	367	9	591.233	0.201	1	1.5	1.5	0.46		E.W.PIPE				●		
	799	367	11	591.367	0.134	1	1.5	1.5	0.46		E.W.PIPE				●		
	800	367	13	591.501	0.134	1	1.5	1.5	0.46		E.W.PIPE				●		
	801	367	18	591.836	0.335	1	10	10	3.05	HM					●		
	802	367	21	592.037	0.201	1	1.5	1.5	0.46		E.W.PIPE				●		
	803	367	24	592.239	0.201	1	10	10	3.05	ML					●		
	804	368	1	592.306	0.067	1	1.25	1.25	0.38		E.W.PIPE				●		

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	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP) Bridge Length Span	Bridge Length Length (feet)	Bridge Length Total (feet)	Total Length (m)	Axle Load Type	Remarks	Down Line (DN) Bridge Length Span	Bridge Length Length (feet)	Bridge Length Total (feet)	Total Length (m)	Axle Load Type	Remarks
	805	368	5	592.574	0.268	1	2	2	0.61		R.C.C.FLAT TOP				●		
	806	368	12	593.043	0.469	1	10	10	3.05	HM					●		
	Singaing	**369**	**0**	**593.848**	**0.805**												
	807	369	12	594.653	0.805	1	10	10	3.05	ML					●		
	808	370	2	595.591	0.939	1	10	10	3.05	HM					●		
	809	370	10	596.128	0.536	1	2	2	0.61		R.C.C.PIPE				●		
	810	370	11	596.195	0.067	1	4	4	1.22		RAIL OPENING				●		
	811	370	22	596.933	0.738	1	20	20	6.10	HM					●		
	811 A	371	6	597.469	0.536	1	1.5	1.5	0.46		R.C.C.PIPE				●		
	812	371	8	597.603	0.134	1	1.25	1.25	0.38		E.W.PIPE				●		
	813	371	15	598.072	0.469	1	1.5	1.5	0.46		E.W.PIPE				●		
	814	371	16	598.140	0.067	2	1.5	3	0.91		E.W.PIPE				●		
	815	371	20	598.408	0.268	2	1.25	2.5	0.76		E.W.PIPE				●		
	816	371	23	598.609	0.201	1	40	40	12.19	HM					●		
	817	372	4	598.944	0.335	1	1.25	1.25	0.38		E.W.PIPE				●		
	818	372	11	599.414	0.469	2	1.5	3	0.91		E.W.PIPE				●		
	819	372	15	599.682	0.268	1	1.5	1.5	0.46		E.W.PIPE				●		
	820	372	24	600.285	0.604	1	20	20	6.10	HM					●		
	821	373	12	601.090	0.805	1	14	14	4.27	HM	NOT IN TYPE PLAN				●		
★	822	374	1	601.962	0.872	1	45.5	45.5	13.87		CLOSED (F.O.B)						
	Paleik	**374**	**6**	**602.297**	**0.335**												
	823	374	10	602.565	0.268	1	1.5	1.5	0.46		E.W.PIPE				●		
	824	374	15	602.900	0.335	1	20	20	6.10	HM					●		
	825	375	1	603.571	0.671	1	1.5	1.5	0.46		E.W.PIPE				●		
★	826	376	2	605.247	1.676	4 2	150 40	680	207.26	 HM	Truss Girder				●		Composite Steel Box Girder (JFE)
★	827	377	2	606.857	1.609	1	45.5	45.5	13.87		CLOSED (F.O.B)						
	Myitnge	**377**	**18**	**607.930**	**1.073**												
	827 A	377	20	608.064	0.134	1	10	10	3.05	ML					●		
	828	378	12	609.137	1.073	1	1.5	1.5	0.46		E.W.PIPE				●		
	829	378	24	609.941	0.805	1	1.5	1.5	0.46		E.W.PIPE				●		
	R.O.B																
★	830	380	0	611.551	1.609	5 3	40 40	320	97.54	HM ML	CONT NO.3962 & 1924 CONT NOE 334 / 2891 OF 1945	8	40	320	97.54		PC Girder
	831	380	7	612.020	0.469	1	1.5	15	4.57		C.I.PIPE				●		
	Tagundaing	380	12	612.355	0.335												
	832	380	21	612.959	0.604	1	1.5	1.5	0.46		PIPE CULVERT				●		

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■ Non-Bridge ■ Plan for Precast Hume Pipe ■ Plan for Box Culvert (or something) ■ Plan for Girder

	Station Name & Bridge	Location Mileage (mile)		Location Kilometer (km)	Interval (km)	Up Line (UP)					Remarks	Down Line (DN)					Remarks
						Bridge Length			Total Length (m)	Axle Load Type		Bridge Length			Total Length (m)	Axle Load Type	
						Span	Length (feet)	Total (feet)				Span	Length (feet)	Total (feet)			
	833	381	14	614.099	1.140	1	1.5	1.5	0.46		EARTH WARE PIPE				●		
	834	381	17	614.300	0.201	1	20	20	6.10	HM					●		
	835										CLOSED						
	836										CLOSED						
	Myohaung	**382**	**18**	**615.976**	**1.676**												
	837	383	2	616.513	0.536	1	1.5	1.5	0.46		E.W.PIPE				●		
	R.O.B																
	838	383	9	616.982	0.469	1	6	6	1.83		ARCH CULVERT				●		
★	838 A	383	19	617.653	0.671	1	45.5	45.5	13.87		CLOSED (F.O.B)						
	839	383	21	617.787	0.134	1	1.5	1.5	0.46		E.W.PIPE				●		
	Shanzu	**384**	**0**	**617.988**	**0.201**												
	840	384	5	618.323	0.335	1	1.5	1.5	0.46		PIPE CULVERT				●		
	R.O.B																
	841	384	7	618.457	0.134	1	40	40	12.19	ML					●		
	842										CLOSED						
	R.O.B																
★	843	385	3	619.799	1.341	1	45.5	45.5	13.87		CLOSED (F.O.B)						
	R.O.B																
	Mandalay	**385**	**12**	**620.402**	**0.604**												

APPENDIX 5.5.2

Bridge Plan

Construction Plans of New Girder Bridges

Bridge No.	UP or DN	Present Total Bridge Length (m)	Approx. Existing Track Spacing (m)	New Girder Bridges							
				Loaction Type of New Abutments	**Adoptable PC Girder Length (m)**	**Number of Spans**	Future Total Bridge Length (m)	**Double or Single (Bridge Type)**	Construction Sequence	Train Operation during Construction	Land Equisition for New
306	---	106.07	25	Type-2	**30**	**4**	120	**Double**	**[Option-1]** 1) Construct a new double track bridge between existing bridges. 2) Leave the existing **UP** & **DN** bridges.	Double	No
351	---	54.86	25	Type-2	**30**	**2**	60	**Double**	**[Option-1]** 1) Construct a new double track bridge between existing bridges. 2) Leave the existing **UP** & **DN** bridges.	Double	No
373	---	76.20	20	Type-2	**25**	**3**	75	**Single + Single**	**[Option-1]** 1) Construct a new single track bridge between existing bridges. 2) Remove the existing **UP** bridge. 3) Construct another new single track bridge. 4) Leave the existing **DN** bridge.	Double	No
393	UP	115.82	17.5	Type-2	**30**	**4**	120	**Single + Single or Single**	**[Option-1]** 1) Construct a new single track bridge between existing bridges. 2) Remove the existing **UP** bridge. 3) Construct another new single track bridge. 4) Leave the existing **DN** bridge. **[Option-2]** 1) Construct a new single track bridge between existing bridges. 2) Reuse the existing **DN** bridge (Reiforcement). 3) Leave the existing **UP** bridge.	Double or Single	No
	DN	126.19									
453	UP	121.92	25	Type-2	**30**	**4**	120	**Double or Single**	**[Option-1]** 1) Construct a new double track bridge between existing bridges. 2) Leave the existing **UP** & **DN** bridges. **[Option-2]** 1) Construct a new single track bridge between existing bridges. 2) Reuse the existing **DN** bridge (Reiforcement). 3) Leave the existing **UP** bridge.	Double or Single	No
	DN	105.16									
519	---	34.14	---	Type-1	**25**	**2**	50	**Single + Single or Single**	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation. **[Option-2]** 1) Remove the existing **UP** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **DN** bridge (Reiforcement).	Single	No
527	---	48.77	---	Type-1	**30**	**2**	60	**Single + Single or Single**	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation. **[Option-2]** 1) Remove the existing **DN** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **UP** bridge (Reiforcement).	Single	No

Construction Plans of New Girder Bridges

Bridge No.	UP or DN	Present Total Bridge Length (m)	Approx. Existing Track Spacing (m)	New Girder Bridges							
				Loaction Type of New Abutments	**Adoptable PC Girder Length (m)**	**Number of Spans**	Future Total Bridge Length (m)	**Double or Single (Bridge Type)**	Construction Sequence	Train Operation during Construction	Land Equisition for New
529	UP	30.48	12	Type-2	**30**	**1**	30	**Single + Single or Single**	**[Option-1]** 1) Remove the existing **UP** bridge. 2) Construct a new single track bridge at the loccation. (or a new double) 3) Construct another new single track bridge. 4) Leave the existing **DN** bridge. **[Option-2]** 1) Remove the existing **UP** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **DN** bridge (Reiforcement).	Single	No
	DN	24.38									
574	---	60.96	12	Type-2	**30**	**2**	60	**Single + Single or Single**	**[Option-1]** 1) Remove the existing **DN** bridge. 2) Construct a new single track bridge at the loccation. (or a new double) 3) Construct another new single track bridge. 4) Leave the existing **UP** bridge. **[Option-2]** 1) Remove the existing **DN** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **UP** bridge (Reiforcement).	Single	No
581	UP	34.90	18	Type-2	**20**	**2**	40	**Single + Single or Nothing**	**[Option-1]** 1) Construct a new single track bridge between existing bridges. 2) Remove the existing **DN** bridge. 3) Construct another new single track bridge. 4) Leave the existing **UP** bridge. **[Option-2]** 1) Reuse the existing **UP** & **DN** bridges (Reiforcement).	Double or Single	No
	DN	36.58									
585	---	30.48	---	Type-1	**20**	**2**	40	**Single + Single or Single**	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation. **[Option-2]** 1) Remove the existing **DN** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **UP** bridge (Reiforcement).	Single	No
586	---	36.58	---	Type-1	**25**	**2**	50	**Single + Single or Single**	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation. **[Option-2]** 1) Remove the existing **DN** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **UP** bridge (Reiforcement).	Single	No

Construction Plans of New Girder Bridges

Bridge No.	UP or DN	Present Total Bridge Length (m)	Approx. Existing Track Spacing (m)	New Girder Bridges: Loaction Type of New Abutments	Adoptable PC Girder Length (m)	Number of Spans	Future Total Bridge Length (m)	Double or Single (Bridge Type)	Construction Sequence	Train Operation during Construction	Land Equisition for New
588	UP	36.58	12.5	Type-2	25	2	50	Single + Single or Nothing	**[Option-1]** 1) Remove the existing **DN** bridge. 2) Construct a new single track bridge between existing bridges. (or a new double) 3) Construct another new single track bridge. 4) Leave the existing **UP** bridge. **[Option-2]** 1) Reuse the existing **UP** & **DN** bridges (Reiforcement).	Single	No
	DN	48.77									
683	---	70.10	12	Type-2	25	3	75	Single + Single or Single	**[Option-1]** 1) Remove the existing **DN** bridge. 2) Construct a new single track bridge at the loccation. (or a new double) 3) Construct another new single track bridge. 4) Leave the existing **UP** bridge. **[Option-2]** 1) Remove the existing **DN** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **UP** bridge (Reiforcement).	Single	No
684	---	48.77	12	Type-2	25	2	50	Single + Single or Nothing	**[Option-1]** 1) Remove the existing **DN** bridge. 2) Construct a new single track bridge between existing bridges. (or a new double) 3) Construct another new single track bridge. 4) Leave the existing **UP** bridge. **[Option-2]** 1) Reuse the existing **UP** & **DN** bridges (Reiforcement).	Single	No
691	UP	105.16	28	Type-2	25	4	100	Double or Single	**[Option-1]** 1) Construct a new double track bridge between existing bridges. 2) Leave the existing **UP** & **DN** bridges. **[Option-2]** 1) Construct a new single track bridge between existing bridges. 2) Reuse the existing **UP** bridge (Reiforcement). 3) Leave the existing **DN** bridge.	Double or Single	No
	DN	85.34									
692	---	30.48	---	Type-1	20	2	40	Single + Single or Nothing	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation. **[Option-2]** 1) Reuse the existing **UP** & **DN** bridges (Reiforcement).	Single	No
699	UP	52.58	45	Type-2	30	2	60	Double or Nothing	**[Option-1]** 1) Construct a new double track bridge between existing bridges. 2) Leave the existing **UP** & **DN** bridges. **[Option-2]** 1) Reuse the existing **UP** & **DN** bridges (Reiforcement).	Double or Single	No
	DN	60.96									

Construction Plans of New Girder Bridges

Bridge No.	UP or DN	Present Total Bridge Length (m)	Approx. Existing Track Spacing (m)	New Girder Bridges							
				Loaction Type of New Abutments	**Adoptable PC Girder Length (m)**	**Number of Spans**	Future Total Bridge Length (m)	**Double or Single (Bridge Type)**	Construction Sequence	Train Operation during Construction	Land Equisition for New
718	---	30.48	---	Type-1	**20**	**2**	40	**Single + Single or Single**	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation. **[Option-2]** 1) Remove the existing **UP** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **DN** bridge (Reiforcement).	Single	No
719	UP	91.44	21	Type-2	**30**	**3**	90	**Single + Single or Single**	**[Option-1]** 1) Construct a new single track bridge between existing bridges. 2) Remove the existing **UP** bridge. 3) Construct another new single track bridge at the loccation. 4) Leave the existing **DN** bridge. **[Option-2]** 1) Construct a new single track bridge between existing bridges. 2) Reuse the existing **DN** bridge (Reiforcement). 3) Leave the existing **UP** bridge.	Double or Single	No
	DN	95.10									
730	UP	30.48	---	Type-1	**20**	**2**	40	**Single + Single or Single**	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation. **[Option-2]** 1) Remove the existing **UP** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **DN** bridge (Reiforcement).	Single	No
	DN	24.38									
739	---	30.48	---	Type-1	**20**	**2**	40	**Single + Single**	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation.	Single	No
748	---	70.10	---	Type-1	**30**	**3**	90	**Single + Single or Single**	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation. **[Option-2]** 1) Remove the existing **DN** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **UP** bridge (Reiforcement).	Single	No

Construction Plans of New Girder Bridges

Bridge No.	UP or DN	Present Total Bridge Length (m)	Approx. Existing Track Spacing (m)	New Girder Bridges							
				Loaction Type of New Abutments	**Adoptable PC Girder Length (m)**	**Number of Spans**	Future Total Bridge Length (m)	**Double or Single (Bridge Type)**	Construction Sequence	Train Operation during Construction	Land Equisition for New
788	---	24.38	---	Type-1	**20**	**2**	40	**Single + Single or Single**	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation. **[Option-2]** 1) Remove the existing **UP** bridge. 2) Construct a new single track bridge at the loccation. 3) Reuse the existing **DN** bridge (Reiforcement).	Single	No
796	---	18.29	---	Type-1	**30**	**1**	30	**Single + Single**	**[Option-1]** 1) Remove a existing single track bridge. 2) Construct a new single track bridge at the loccation. 3) Remove another existing single track bridge. 4) Construct another new single track bridge at the loccation.	Single	No
826	UP	207.26	15	Type-2	**30**	**7**	210	**Single**	**[Option-2]** 1) Remove the existing **UP** bridge. 2) Construct a new single track bridge between existing bridges. 3) Reuse the existing **DN** bridge (New Bridge).	Single	No
	DN	?									
830	---	97.54	8	Type-1	**20**	**6**	120	**Single + Single or Single**	**[Option-1]** 1) Construct a new single track bridge at the outside of the existing **UP** bridge. 2) Remove the existing **UP** bridge. 3) Construct another new single track bridge at the loccation. 4) Leave the exisiting **DN** bridge. **[Option-2]** 1) Construct a new single track bridge at the outside of the existing **UP** bridge. 2) Reuse the existing **DN** bridge (Reinforcement). 3) Leave the existing **UP** bridge.	Double	No

APPENDIX 5.5.3

Investigation Record for Bridge on Yangon-Mandalay Trunk Line

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	270 [--- (UP & DN)]	Mileage	167 / 7 -






Comment
- Steel Deck Plate Girder (UP & DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of up & down lines. It is considered to be a countermeasure against settlement of substructure.
- Wooden sleepers are stacked around the P1 pier (up line) to support a girder of the bridge. It is considered to be a countermeasure against damage or settlement of the P1 pier.
- Dirt and corrosion are observed over a main girder.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	291 [--- (UP & DN)]	Mileage	181 / 14 -






Comment
- Steel Deck Plate Girder (UP & DN)
- 10(ft) × 3(span) = 30(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 13 t (DN)
- Railway ties are inserted in bearing point of abutments and piers of up & down line. It is considered to be a countermeasure against settlement of substructure.
- Outflow of back soil and ballasts is observed at an abutment.
- The bodies of abutments and piers are unable to be visually observed due to settlement or sediment.
- Dirt and corrosion are observed over a main girder. Also, traces of submergence is observed from bottom flange to middle of a web.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	298 [--- (UP & DN)]	Mileage	184 / 14 -






Comment
- Steel Deck Plate Girder (UP & DN)
- 20(ft) × 3(span) = 60(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 13 t (DN)
- Railway ties are inserted in bearing point of abutments and piers of up & down line. It is considered to be a countermeasure against settlement of substructure.
- Outflow of back soil and ballasts is observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main girder.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	299 [--- (UP & DN)]	Mileage	185 / 1 -






Appendix5.5.3-4

Comment

- Steel Deck Plate Girder (UP & DN)
- 10(ft) × 3(span) = 30(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 13 t (DN)
- Railway ties are inserted in bearing point of abutments and piers of up line (concrete blocks are inserted in those of down line). It is considered to be a countermeasure against settlement of substructure.
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main girder. Also, trace of submergence is observed from bottom flange to lower part of a web.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	301 [--- (UP & DN)]	Mileage	187 / 10 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 40(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Outflow of back soil is observed at an abutment. Also, the bearing part is unable to be visually observed due to outflow of soil.
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a steel main girder. Also, trace of submergence is observed from bottom flange to lower part of a web.
- At concrete main girder, dirt on surface due to aging, and concrete honeycomb due to construction failure, are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	306 [--- (UP & DN)]	Mileage	190 / 12 -






Comment
- Steel Through Truss Girder + Steel Deck Plate Girder (UP & DN)
- 100(ft) + 58(ft) + 150(ft) + 40(ft) = 348(ft) (UP), 60(ft) + 100(ft) + 150(ft) + 40(ft) = 350(ft) (DN)
- Design Live Load: axle load 13 t (UP), unknown (DN)
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers.
- Dirt and corrosion are observed over a main girder.
- A part of portal bracing has been cut off, and a temporary material has been applied there.
- Corrosion is observed at web of crossbeam under tracks. The part is repaired by a cover plate.
- Distance between tracks of up line and down line is expanded in down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	320 A [--- (UP & DN)]	Mileage	197 / 3 -






Comment
- Steel Deck Plate Girder (UP & DN)
- 20(ft) × 3(span) = 60(ft) (UP & DN)
- Design Live Load: axle load 13 t (UP), unknown (DN)
- Wooden lumber is inserted in bearing point of abutments and piers of up & down lines. It is considered to be a countermeasure against settlement of substructure.
- Outflow of ballasts at the back is observed at an abutment.
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main girder.
- Wooden lumber is inserted at joint gap of main girders whose purpose might be to prevent girders from hitting each other due to its lateral movement.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	325 [--- (UP & DN)]	Mileage	199 / 17 -






Comment
- Steel Deck Plate Girder (UP & DN)
- 20(ft) × 3(span) = 60(ft) (UP & DN)
- Design Live Load: axle load 13 t, 17 t (UP), unknown (DN)
- Wooden sleepers are inserted in bearing points of abutments and piers of up and down lines. It is considered to be countermeasures against settlement of substructure.
- Outflow of back soil and ballasts is observed at an abutment.
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers.
- Cracks are observed at the boundary section between piers of up line and down line.
- Dirt and corrosion are observed over a main girder.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	329 [--- (UP & DN)]	Mileage	201 / 21 -






Comment
- Steel Through Plate Girder (UP & DN)
- 60(ft) (UP & DN)
- Design Live Load: axle load 13 t (UP & DN)
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main girder.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	350 [--- (UP & DN)]	Mileage	209 / 16 -






Comment
- Steel Deck Plate Girder (UP & DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers.
- A part of parapet of an abutment is repaired by concrete. However, its aggregate is exposed due to material segregation.
- There is difference in position between the center of joint gap of main girders and the center of substructure.
- Dirt and corrosion are observed over a main girder.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	351 [--- (UP & DN)]	Mileage	210 / 9 -






Comment
- Steel Deck Plate Girder + Steel Through Plate Girder (UP & DN)
- 40(ft) + 100(ft) + 40(ft) = 180(ft) (UP & DN)
- Design Live Load: unknown (UP & DN)
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main girder.
- Corrosion is observed at web of through girder's crossbeam under tracks. Also, defective cross sections are observed at sway bracing.
- Distance between tracks of up line and down line is expanded in down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	373 [--- (UP & DN)]	Mileage	217 / 3 -






Comment
- Steel Through Truss Girder + Steel Deck Plate Girder (UP & DN)
- 40(ft) + 150(ft) + 60(ft) = 250(ft)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers.
- Progression of scouring is observed at piers.
- Dirt and corrosion are observed over a main girder.
- Corrosion is observed at web of crossbeam under tracks. Also, partial deformation is observed at upper flange, which might have been caused by derailment.
- Distance between tracks of up line and down line is expanded in down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	379 [--- (UP & DN)]	Mileage	218 / 19 -






Comment
- Steel Deck Plate Girder (UP & DN)
- 20(ft) × 3(span) = 60(ft)
- Design Live Load: axle load 17 t (UP & DN)
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main girder.
- Residential houses are close to the starting side of down line. Also, there is a drop structure around piers of down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	384 [--- (UP & DN)]	Mileage	220 / 16 -






Comment
- Steel Deck Plate Girder (UP & DN)
- 20(ft) × 2(span) = 40(ft) (UP & DN)
- Design Live Load: axle load 13 t, 17 t (UP & DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of up & down lines. It is considered to be a countermeasure against settlement of substructure.
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main girder.
- Partial deformation is observed at upper flange of crossbeam under tracks.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	393 [--- (UP & DN)]	Mileage	225 / 15 -






Comment
- Steel Deck Plate Girder + Steel Through Truss Girder (UP), Prestressed Concrrete Girder (DN)
- 40(ft) + 100(ft) × 3(span) + 40(ft) = 380(ft) (UP), 45/9(ft) + 85(ft) × 4(span) + 28/3(ft) = 414(ft) (DN)
- Design Live Load: axle load 17 t, unknown for truss girder (UP), unknown (DN)
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- As for the piers of down line, width of bridge axial direction is narrow. Therefore girder seating length might be potentially not enough. Also, there is no prevention works for
- Dirt and corrosion are observed over a main steel girder. Also, corrosion is observed at web of crossbeam under tracks.
- Residential houses are close to bridges.
- A part of portal bracing had been cut off, and a temporary material is applied there.
- Distance between tracks of up line and down line is expanded in down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (26.Apr.)

Bridge No. [Name (UP or DN)]	406 [--- (UP & DN)]	Mileage	225 / 0 -

Comment
- Arch Culvert (UP), Steel Deck Plate Girder (DN)
- 6(ft) (UP & DN)
- Design Live Load: unknown (UP & DN)

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	417 [--- (UP & DN)]	Mileage	235 / 12 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of down line. It is considered to be a countermeasure against settlement of substructure.
- Outflow of back soil and ballasts are observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	419 [--- (UP & DN)]	Mileage	236 / 18 -






Comment
- Steel Deck Plate Girder (UP), Prestressed Concrete Girder (DN)
- 40(ft) + 20(ft) = 60(ft) (UP), unknown (DN) ＊The bridge on downline had been rebuilt as a single-span bridge.
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Outflow of back soil and ballasts is observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments. However, a great damage is not obseved.
- The bodies of piers and abutments at terminus side is unable to be visually observed due to settlement or sediment.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	433 [--- (UP & DN)]	Mileage	240 / 24 -






Comment
- Steel Deck Plate Girder (UP), Prestressed Concrete Girder (DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Outflow of back soil and ballasts are observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- At an concrete-girder pier, there is defference in position between the center of joint gap of girders and the center of a pier.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	436 [--- (UP & DN)]	Mileage	242 / 22 -






Comment
- Steel Deck Plate Girder (UP), Reinforced Concrete Girder (DN)
- 20(ft) × 3(span) = 60(ft) (UP & DN)
- Design Live Load: axle load 13 t (UP), unknown (DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of up line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Outflow of back soil and ballasts are observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- At a concrete-girder pier, there is defference in position between the center of joint gap of girders and the center of a pier.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	453 [--- (UP & DN)]	Mileage	250 / 10 -






Comment
- Steel Through Truss Girder (UP), Prestressed Concrete Girder (DN)
- 100(ft) × 4(span) = 400(ft) (UP), 57.5(ft) × 6(span) = 345(ft)
- Design Live Load: unknown (UP), unknown (DN)
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- As for the piers of down line, width of bridge axial direction is narrow. Therefore girder seating length might be potentially not enough. Also, there is no prevention works for
- Dirt and corrosion are observed over a main steel girder. Partial deformtion is also observed.
- Corrosion is observed at web of crossbeam under track. The corrosion part is being repaired by a cover plate.
- A part of portal bracing had been cut off, and a temporary material is applied there.
- Distance between tracks of up line and down line is expanded in down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (from 26.Apr - 28.Apr)

Bridge No. [Name (UP or DN)]	477 [--- (UP & DN)]	Mileage	260 / 10 -






Comment
- Steel Deck Plate Girder (UP), Reinforced Concrete Girder (DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of up line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Outflow of back soil and ballasts is observed at an abutment.
- At abutments at terminus side of up line, stacked wooden sleepers are supporting a girder. It is considered to be a countermeasure against damage or settlement of the abutment at terminus side.
- As for the other abutments and piers, aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	485 [--- (UP & DN)]	Mileage	263 / 21 -






Comment
- Steel Deck Plate Girder (UP), Prestressed Concrete Girder (DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: unknown (UP & DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of up line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Outflow of back soil and ballasts is observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	497 [--- (UP & DN)]	Mileage	267 / 1 -






Comment
- Steel Deck Plate Girder (UP), Prestressed Concrete Girder (DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Outflow of back soil and ballasts is observed at an abutment.
- Number of cracks are observed at abutments. Also, the body of abutments of down line inclines forward.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	501 [--- (UP & DN)]	Mileage	268 / 17 -






Comment
- Arch Culvert (UP), Reinforced Concrete Girder (DN)
- 2(ft) × 3(span) = 6(ft) (UP), 6(ft) (DN)
- Design Live Load: unknown (UP & DN)
- Top edge of the culvert is partially broken, and outflow of ballast is observed.
- Number of cracks are observed at cuvert and wing section.
- At a concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	519 [--- (UP & DN)]	Mileage	281 / 8 -






Comment
- Steel Deck Plate Girder (UP), Prestressed Concrete Girder (DN)
- 34(ft) + 44(ft) + 34(ft) = 112(ft) (UP & DN)
- Design Live Load: unknown (UP & DN)
- Outflow of back soil and ballasts is observed at an abutment. Also, damage of parapet caused by collision of girders is observed at abutments of up line (steel girder).
- Aged deterioration, such as cracks at joints of bricks, chipped bricks, and dirt, is observed over abutments and piers.
- Cracks are observed at the middle pier's boundary section between up line and down line, and at wing.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	523 [--- (UP & DN)]	Mileage	282 / 21 -






Comment
- Steel Deck Plate Girder (UP), Reinforced Concrete Girder (DN)
- 20(ft) × 4(span) = 80(ft)
- Design Live Load: axle load 13 t (UP), unknown (DN)
- Outflow of back soil and ballasts is observed at abutments.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	524 [--- (UP & DN)]	Mileage	283 / 1 -






Comment
- Steel Deck Plate Girder (UP), Reinforced Concrete Girder (DN)
- 20(ft) × 3(span) = 60(ft) (UP & DN)
- Design Live Load: axle load 10.5 t (UP), unknown (DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of up line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Outflow of back soil and ballasts is observed at an abutment.
- Soil is piled up at center span of the bridge due to flooding.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	527 [--- (UP & DN)]	Mileage	284 / 4 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 40(ft) × 4(span) = 160(ft) (UP), 20(ft) × 8(span) = 160(ft) (DN)
- Design Live Load: unknown (UP), axle load 13 t (DN)
- Outflow of ballasts is observed at an abutment.
- At down line (steel girder), a wooden sleeper is inserted in joint gap of girders whose purpose is preventing girders to hit each other due to its lateral movement. Also, There is difference in position between the center of joint gap of main girders and the center of substructure.
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.
- Distance between tracks of up line and down line is expanded in up line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	529 [--- (UP & DN)]	Mileage	286 / 7 -






Comment
- Steel Through Truss Girder (UP), Prestressed Concrete Girder (DN)
- 100(ft) (UP), 40(ft) × 2(span) = 80(ft) (DN)
- Design Live Load: unknown (UP & DN)
- Aged deterioration, such as cracks of joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- As for the piers of down line, width of bridge axial direction is narrow. Therefore girder seating length might be potentially not enough. Also, there is no prevention works for
- Dirt and corrosion are observed over a main steel girder. Also, corrosion is observed at web of crossbeam under track.
- Deterioration and damage on infilled concrete at each point of truss is observed. Also, a part of portal bracing had been cut off, and a temporary material is applied there.
- Distance between tracks of up line and down line is expanded in down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	536 [--- (UP & DN)]	Mileage	289 / 5 -






Comment
- Rail Opening (UP & DN)
- 6(ft) (UP & DN)
- Design Live Load: unknown (UP & DN)
- Outflow of back soil and ballasts is observed at abutments. Also, there is no retaining-wall function at the abutment part, so some crossing water channels are completely under water.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	573 [--- (UP & DN)]	Mileage	297 / 24 -






Comment
- Reinforced Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 20(ft) × 3(span) = 60(ft) (UP & DN)
- Design Live Load: unknown (UP & DN)
- Outflow of back soil and ballasts is observed at an abutment.
- Wooden sleepers are inserted in bearing point of abutments and piers of down line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Cracks are observed at side wall of parapet at an abutment of up line (concrete girder).
- Damage on parapet section, which might be caused by collision with girder, is observed.
- Dirt and corrosion are observed over a main steel girder.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	574 [--- (UP & DN)]	Mileage	298 / 9 -






Comment
- Prestressed Concrete Girder + Reinforced Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 20(ft) + 40(ft) × 4(span) + 20(ft) = 200(ft) (UP), 20(ft) × 6(span) = 200(ft) (DN)
- Design Live Load: unknown (UP), axle load 13 t, 17 t (DN)
- Outflow of back soil and ballasts is observed at an abutment.
- As for the piers of down line, width of bridge axial direction is narrow. Therefoer girder seating length might be potentially not enough.
- A crack is observed between abutment and wing.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging is observed.
- Distance between tracks of up line and down line is expanded in up line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	577 [--- (UP & DN)]	Mileage	299 / 8 -






Comment
- Reinforced Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 20(ft) × 3(span) = 60(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Concrete blocks are inserted in bearing point beneath girder on abutments or piers of up line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Outflow of back soil and ballasts is observed at abutments.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	580 [--- (UP & DN)]	Mileage	300 / 1 -





Comment
- Reinforced Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 20(ft) × 4(span) = 80(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 13 t, 17 t (DN)
- Wooden sleepers are inserted in bearing point beneath girder on abutments and piers of down line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.
- Distance between tracks of up line and down line is expanded in up line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	581 [--- (UP & DN)]	Mileage	300 / 3 -





Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 57/3(ft) × 2(span) = 114.5(ft) (UP), 40(ft) × 3(span) = 120(ft) (DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Outflow of ballasts is observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments. However, a great damage is not obseved.
- At a steel-girder pier, there is defference in position between the center of joint gap of girders and the center of a pier.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.
- Distance between tracks of up line and down line is expanded in up line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	585 [--- (UP & DN)]	Mileage	301 / 9 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- Althogh bridge span is unknown, we judge the span is 50(ft) × 2(span) = 100(ft) since there is one middle pier. (UP), 20(ft) × 5(span) = 100(ft) (DN)
- Design Live Load: unknown (UP), axle load 13 t, 17 t (DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of down line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, damage on wheel guard, and concrete honeycomb and surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	586 [--- (UP & DN)]	Mileage	301 / 14 -






Comment
- Reinforced Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 20(ft) × 6(span) = 120(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 13 t (DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of down line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Cracks are observed at side wall of parapet at an abutment of up line (concrete girder).
- Outflow of back soil and ballasts is observed at an abutment.
- Dirt and corrosion are observed over a main steel girder.
- At concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	588 [--- (UP & DN)]	Mileage	302 / 16 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 40(ft) × 3(span) = 120(ft) (UP), 40(ft) × 4(span) = 160(ft) (DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Damage on scour-prevention work, which had been prepared around pier base of down line (steel girder), is observed. This damage was not observed in investigation in 2013.
- Cracks are observed at the body of an abutment of up line (concrete girder).
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder. Also, deformation of sway bracing is observed.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.
- Distance between tracks of up line and down line is expanded in up line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (27.Apr.)

Bridge No. [Name (UP or DN)]	599 [--- (UP & DN)]	Mileage	305 / 8 -





Comment

- Reinforced Concrete Girder + Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 20(ft) + 40(ft) + 20(ft) = 80(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 13 t, 17 t (DN)
- Concrete blocks are inserted in bearing point beneath a girder on abutments and piers of down line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Outflow of back soil and ballasts is observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At concrete main girder, dirt on surface due to aging is observed. Deterioration condition of RC girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	622 [--- (UP & DN)]	Mileage	311 / 18 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 13 t (DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of down line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- A crack is observed at wheel guard of a concrete girder.
- Dirt and corrosion are observed over a main steel girder.
- At concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	663 [--- (UP & DN)]	Mileage	322 / 10 -






Comment
- Steel Deck Plate Girder (UP), Prestressed Concrete Girder (DN)
- 20(ft) × 2(span) + 40(ft) = 80(ft) (UP & DN)　*Although information of bridge span is shown in MR list, its actual bridge span is different from it.
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Outflow of ballasts is observed at abutment.
- Dirt and corrosion are observed over a main steel girder.
- A crack is observed at wheel guard of a concrete girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	677 [--- (UP & DN)]	Mileage	326 / 18 -






Comment
- Steel Deck Plate Gider (UP), Prestressed Concrete Girder (DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Outflow of back soil is observed at an abutment.
- Settlement of a middle pier of down line (concrete girder) and scouring around the basemnet are observed. A crack is also observed at abutment body.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.
- Corresponding to settlement of substructure, the hight of wheel guard of a concrete girder has been raised up by bricks and surface coating.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	683 [--- (UP & DN)]	Mileage	329 / 21 -






Comment
- Prestressed Concrete Girder (UP), Steel Through Truss Girder (DN)
- 57.5(ft) × 4(span) = 230(ft) (UP), 40(ft) × 2(span) + 150(ft) = 230(ft) (DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder. Also, partial damage, which are considered to be bullet holes, are observed over the structure.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.
- Distance between tracks of up line and down line is expanded in up line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	684 [--- (UP & DN)]	Mileage	330 / 11 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 40(ft) × 4(span) = 160(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.
- Distance between tracks of up line and down line is expanded in up line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	688 [--- (UP & DN)]	Mileage	331 / 20 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Outflow of back soil and ballasts are observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- A crack is observed at boundary section between an abutments and wings.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.
- Distance between tracks of up line and down line is expanded in down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	691 [--- (UP & DN)]	Mileage	332 / 23 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 57.5(ft) × 6(span) = 345(ft) (UP), 40(ft) × 7(span) = 280(ft) (DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Aged deterioration (dirt and etc.) is observed over abutments and piers. However, a great damage is not obseved.
- Pier basemnet of up & down lines is exposed due to scouring.
- Dirt and corrosion are observed over a main steel girder.
- Distance between tracks of up line and down line is expanded in up line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	692 [--- (UP & DN)]	Mileage	334 / 23 -




Comment
- Reinforced Concrete Gider (UP), Steel Deck Plate Girder (DN)
- 20(ft) × 5(span) + 20(ft) × 7(span) = 240(ft) *Although information of bridge span is shown in MR list, its actual bridge span is different from it.
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Outflow of ballasts is observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At an concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	694 [--- (UP & DN)]	Mileage	335 / 8 -






Comment
- Reinforced Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 20(ft) × 3(span) = 60(ft) (UP & DN)
- Design Live Load: unknown (UP), axle load 13 t (DN)
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Because of lateral movement of girder, bearing points are out of bridge seating.
- Dirt and corrosion are observed over a main steel girder. Partial deformation is observed at a crossbeam.
- At a concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	699 [--- (UP & DN)]	Mileage	340 / 1 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder (DN)
- 57/6(ft) × 3(span) = 172.5(ft) (UP), 40(ft) × 5(span) = 200(ft) (DN)
- Design Live Load: unknown (UP), axle load 17 t (DN)
- Outflow of back soil is observed at an abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Scour-prevention work is placed around the basement of down line (steel girder).
- Dirt and corrosion are observed over a main steel girder.
- Distance between tracks of up line and down line is expanded in down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	707 [--- (UP & DN)]	Mileage	342 / 12 -




Comment
- Steel Deck Plate Girder (UP), Prestressed Concrete Gider (DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Wooden sleepers are inserted in bearing point of abutments and piers of up line (steel girder). It is considered to be a countermeasure against settlement of substructure.
- Outflow of ballasts is observed at abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At an concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	718 [--- (UP & DN)]	Mileage	345 / 11 -






Comment
- Steel Through Truss Girder (UP), Reinforced Concrete Gider + Prestressed Concrete Girder (DN)
- 100(ft) (up), 20(ft) + 60(ft) + 20(ft) = 100(ft) (DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- At an abutment of up line (truss girder), truss girders are supported by stacked wooden sleepers.
- A crack which is extending from parapet to structure body is observed at abutment.
- Dirt and corrosion are observed over a main steel girder, and corrosion is observed at web of crossbeam under tracks.
- A part of portal bracing had been cut off, and a temporary material is applied there.
- At an concrete main girder, dirt on surface due to aging is observed. Deterioration condition of RC girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	719 [--- (UP & DN)]	Mileage	346 / 2 -






Comment
- Steel Through Truss Girder (UP), Prestressed Concrete Girder (DN)
- 150(ft) × 2(span) = 300(ft) (UP), 57(ft) + 85(ft) × 3(span) = 312(ft) (DN)
- Design Live Load: unknown (UP & DN)
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Pier basement is exposed due to scouring. Among them are the piers under down line, which are damaged on pile foundation itself.
- Dirt and corrosion are observed over a main steel girder.
- Distance between tracks of up line and down line is expanded in down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	720 [--- (UP & DN)]	Mileage	346 / 13 -





Comment
- Steel Deck Plate Girder (UP), Reinforced Concrete Girder (DN)
- 10(ft) × 3(span) = 30(ft) (UP & DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At an concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	727 [--- (UP & DN)]	Mileage	349 / 20 -






Comment
- Steel Deck Plate Girder (UP), Prestressed Concrete Girder (DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Outflow of ballasts is observed at abutment.
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Damage on foot protection work is observed around the basement of down line (concrete girder).
- Dirt and corrosion are observed over a main steel girder and steel-pile piers.
- At an concrete main girder, dirt on surface due to aging, and concrete honeycomb or surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	730 [--- (UP & DN)]	Mileage	351 / 10 -






Comment
- Steel Through Truss Girder (UP), Reinforced Concrete Girder + Prestressed Concrete Girder (DN)
- 100(ft) (UP), 20(ft) + 40(ft) + 20(ft) = 80(ft) (DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed over abutments and piers. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder. Also, patial damages which might be bullet holes are observed over the structure.
- Part of entrance of truss bridge has been cut off, and a temporary material is fixed up there.
- Corrosion is observed at web of crossbeam under track. Also, defective cross sections are observed at sway bracing.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	739 [--- (UP & DN)]	Mileage	355 / 13 -






Comment
- Steel Deck Plate Girder (UP), Reinforced Concrete Girder (DN)
- 20(ft) × 5(span) = 100(ft) (UP & DN)
- Design Live Load: axle load 17 t (UP), unknown (DN)
- Piers of up line (steel girder) is significantly damaged that temporary supports are applied.
- At the other abutments and piers, aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At concrete main girder, dirt on surface due to aging is observed. Deterioration condition of girder body is unable to be visually observed because it is covered by mortar.
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Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	748 [--- (UP & DN)]	Mileage	358 / 11 -






Comment
- Prestressed Concrete Girder (UP), Steel Deck Plate Girder + Steel Through Truss Girder (DN)
- 57.5(ft) × 4(span) = 230(ft) (UP), 40(ft) + 150(ft) + 40(ft) = 230(ft) (DN)
- Design Live Load: unknown (UP), axle load 13 t (DN)
- The basement of pier of down line (truss girder) is exposed due to scouring.
- Any great damage is not observed at abutments and piers of up line (PC girder).
- Dirt and corrosion are observed over a main steel girder, and corrosion is observed at web of crossbeam under tracks.
- Residential houses are close to the down line.
- Distance between tracks of up line and down line is expanded in up line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	788 [--- (UP & DN)]	Mileage	365 / 22 -






Comment
- Steel Deck Plate Girder (UP & DN)
- 40(ft) × 2(span) = 80(ft) (UP & DN)
- Design Live Load: axle load 17 t (UP & DN)
- At abutments and piers, aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	796 [--- (UP & DN)]	Mileage	366 / 23 -






Comment
- Steel Through Plate Girder (UP & DN)
- 60(ft) (UP & DN)
- Design Live Load: axle load 13 t (UP & DN)
- At abutments and piers, aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
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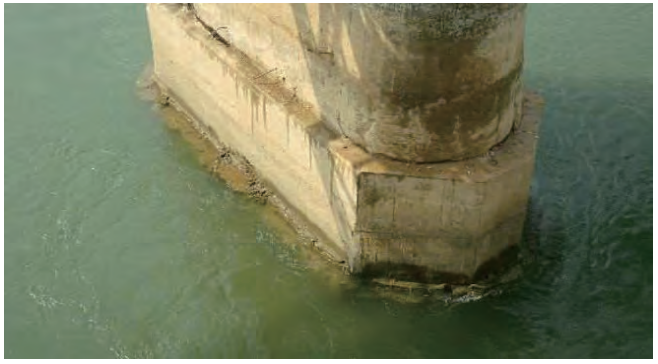
Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	826 [--- (UP & DN)]	Mileage	376 / 2 -








Comment
- Steel Deck Plate Girder + Steel Through Truss Girder (UP), Steel Deck Plate Girder + Steel Box Girder (DN)
- 40(ft) + 150(ft) × 4(span) + 40(ft) = 680(ft) (UP), 632(ft) (DN)
- Design Live Load: axle load 17 t, unknown for truss girder (UP), unknown (DN)
- At abutments and piers, aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- Distance between tracks of up line and down line is expanded in down line.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	830 [--- (UP & DN)]	Mileage	380 / 0 -






Comment
- Steel Deck Plate Girder (UP), Prestressed Concrete Girder (DN)
- 40(ft) × 8(span) = 320(ft) (UP & DN)
- Design Live Load: axle load 13 t, 17 t (UP), unknown (DN)
- At abutments and piers, aged deterioration, such as cracks at joint of bricks, chipped bricks, and dirt, is observed. However, a great damage is not obseved.
- Dirt and corrosion are observed over a main steel girder.
- At a concrete main girder, dirt on surface due to aging, concrete honeycomb and surface air voids due to construction failure are observed.

Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	ROB1 [--- (UP & DN)]	Mileage	??? / 0 -

Comment
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Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	ROB2 [--- (UP & DN)]	Mileage	??? / 0 -

Comment
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Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	ROB3 [--- (UP & DN)]	Mileage	??? / 0 -

Comment
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Investigation Record for Bridge on Yangon - Mandalay Trunk Line (28.Apr.)

Bridge No. [Name (UP or DN)]	ROB4 [--- (UP & DN)]	Mileage	??? / 0 -

Comment
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