

Public Works Department – Standard bridge drawings - Historical (Pre 1960)

Type of structure or subject	Description	Width of roadway	Live load capacity	Span lengths (feet)	P.W.D. Drawing no.	Approved or amended date	File
Timber truss road bridges	Standard 41ft span road bridge in NZ timbers	12'	2 nd class (heavy waggon)	41	27624	17.10.1910	H01-PWD27624-1.pdf
	Standard 41ft span road bridge in NZ timbers		1 st class (traction engine)		27912 (2 shts.)	29.11.1910	H02-PWD27912-1.pdf
	Standard 41ft span road bridge in mixed Australian hardwood					7.12.1910	H03-PWD27912-2.pdf
	Standard 41ft span road bridge in mixed Australian hardwood	10'6"	Heavy wagon traffic		30055 (was 39798)	31.12.1910	H04-PWD28223-1.pdf
	41ft span road bridge in M.A.H. and Kauri					11.1.1911	H05-PWD28223-2.pdf
	41ft span road bridge in NZ timbers		30055 (was 48834)		4.4.1916	H06-PWD30055-2.pdf	
	51ft road bridge in mixed Australian hardwood	20'	1 st class	51	27062	15.7.1910	H08-PWD27062-1.pdf
	Standard 51ft span road bridge – Camber and size of timbers	Not stated	1 st & 2 nd class		42138	4.5.1917	H09-PWD42138-1.pdf
	Road bridge 60ft span. Ironbark	12'	Not stated	60	22531	Unknown	H10-PWD22531-1.pdf
	61ft span light traffic bridge in NZ timbers	12'	Light vehicle traffic	61	25179 (2 shts.)	8.9.1909	H11-PWD25179-4.pdf
	Standard 61ft span road bridge in NZ timbers				Traction engine	29537	11.5.1911
	61ft span road bridge in mixed Australian hardwood		41032 (2 shts.)			31.10.1916	H13-PWD29537-1.pdf
	61ft span road bridge in mixed Australian hardwood				17.5.1918	H14-PWD41032-2.pdf	
	Road bridge 80ft span	12'	Not stated	80	21318	Unknown	H16-PWD21318-1.pdf
	Road bridge 80ft span. Ironbark				21388		H17-PWD21388-1.pdf
	Road bridge – 80ft span in mixed Australian hardwood				25532	20.11.1909	H18-PWD25532-1.pdf
	81ft span road bridge in NZ timbers				10'6"	Heavy wagon traffic	49080

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Timber truss road bridges (cont.)	110ft span road bridge	18'	Traction engine	110	42340 (2 shts.)	25.8.1917	H20-PWD42340-1.pdf H21-PWD42340-2.pdf
	Standard 141ft span road bridge in Ironbark etc	12'	Traction engine	141	38144	6.9.1915	H22-PWD38144-1.pdf
	144ft truss road bridge	16'	1 st class	144	22873 (2 shts.)	7.2.1913	H23-PWD22873-8.pdf H24-PWD22873-10.pdf H25-PWD22873-7.pdf H26-PWD22873-9.pdf
	147ft truss road bridge	12'	Not stated	147	22873 (2 shts.)	Unknown	H27-PWD22873-1.pdf H28-PWD22873-12.pdf H29-PWD22873-11.pdf
	150ft road bridge in mixed Australian hardwood	19'8"	1 st class	150	27061	21.7.1910	H30-PWD27061-1.pdf
	Details of 151ft span in mixed Australian hardwoods	12'	2 nd Class	151	29755	11.3.1910	H31-PWD29755-1.pdf H32-PWD29755-2.pdf
Combined road and railway timber truss bridge	61ft span combined road and railway bridge – Details of steel and ironwork	Not stated	Not stated	61	29010	16.3.1911	H33-PWD29010-1.pdf
	81ft span combined road and railway bridge in mixed Australian hardwoods, steel lower chord	12'	Not stated	81	29066	4.6.1911	H34-PWD29066-1.pdf
Steel truss road bridges	120ft span road bridge – Steel truss reinforced concrete deck	12'	1 st class	120	72455 (4 shts.)	25.9.1925	H35-PWD72455-1.pdf
						01.08.1930	H36-PWD72455-2.pdf
						12.11.1927	H37-PWD72455-3.pdf
						25.9.1925	H38-PWD72455-4.pdf
					75362	27.5.1929	H39-PWD75362-1.pdf
Standard timber overbridge (3 span)	Standard overbridge in mixed Australian hardwoods	12'	Not stated	18-18-18	34349	11.10.1913	H40-PWD34349-1.pdf
	Standard overbridge in Australian hardwoods			18¼-20-18¼	40424	16.11.1917	H41-PWD40424-1.pdf
	3 span overbridge	9'		19½-20-19½	56938	20.10.1920	H42-PWD56938-1.pdf

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Timber beam bridges	Standard road bridges for spans of 25ft and under	12'	1 st & 2 nd class	8 to 25	25439	29.10.1909	H43-PWD25439-1.pdf
					31242	16.2.1912	H44-PWD31242-1.pdf
					42139	14.10.1917	H45-PWD42139-2.pdf
		27348	7.9.1910		H46-PWD27348-1.pdf		
Rolled steel joist spans (timber deck)	Standard rolled joist girders	10'6"	Not stated	20, 25, 30, 35 & 40	30055	10.8.1911	H47-PWD30055-4.pdf
	Rolled steel joist spans		Traction engine	30, 35 & 40	60569	6.5.1925	H48-PWD60569-1.pdf
		12'		30, 35 & 40	74137	13.12.1928	H49-PWD74137-1.pdf
				30, 35 & 40	58277	6.5.1925	H50-PWD58277-1.pdf
	20.3.1946	H51-PWD58277-2.pdf					
Plate girder through span with timber deck	Details of steel work	18'-0"	Traction engine	60	67549 (3 shts)	4.2.1927	H52-PWD67549-1.pdf
	Details of timber deck					26.6.1929	H53-PWD67549-2.pdf
	Additions and alterations to suit Ahaura River Road Bridge					27.4.1929	H54-PWD67549-3.pdf
	Details of steel work					74720	H55-PWD74720-1.pdf
Rolled steel joist spans (concrete deck)	Rolled steel joist spans, reinforced concrete deck – Typical details	10'6"	Not stated	30, 35 & 40	75336	24.4.1929	H56-PWD75336-1.pdf
		12'			75732	2.7.1929	H57-PWD75732-1.pdf
		20'			74866	1.7.1929	H58-PWD74866-1.pdf
		24'			82299	14.3.1932	H59-PWD82299-1.pdf
	Steel girder spans for American joists	24'	H20-S16	20, 25, 30, 35 & 40	120993	7.8.1945	H60-PWD120993-1.pdf
Steel/concrete composite bridges	Pre-cast concrete deck slab for 2 girder single lane bridges	12'	H20-S16-41	10 (panel)	133709	22.3.1951	H61-PWD133709-1.pdf
	60ft span using castellated beams			60	135913	14.11.1952	H62-PWD135913-1.pdf
	50ft span using castellated beams	12'	H20-S16-44	50	138242	18.9.1952	H63-PWD138242-1.pdf
	Single lane bridge using castellated beams			45 & 50 (60 partial details)	141412	7.7.1954	H64-PWD141412-1.pdf

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Steel/concrete composite bridges (cont.)	Double lane bridge using castellated beams	24'	H20-S16-44	45 & 50	141413 (2 shts.)	30.8.1954	H65-PWD141413-1.pdf	
				60		18.8.1954	H66-PWD141413-2.pdf	
	Standard composite I beam bridges	12'		20, 25, 30, 35, 40	147337	31.8.1955	H67-PWD147337-1.pdf	
				35, 40, 45, 50	147766	23.9.1955	H68-PWD147766-1.pdf	
	Standard composite WF beam bridges	24'		20, 25, 30, 35, 40, 45	147338	1.4.1956	H69-PWD147338-1.pdf	
				35, 40, 45, 50	147339	31.8.1955	H70-PWD147339-1.pdf	
	Standard composite plate girder bridges	12'		45, 50, 60	147767	23.9.1955	H71-PWD147767-1.pdf	
				24'	40, 45, 50, 60	147340	31.8.1955	H72-PWD147340-1.pdf
					50, 60, 70, 80, 90, 100	147442		H73-PWD147442-1.pdf
				24'	147443	1.10.1955	H74-PWD147443-1.pdf	
Reinforced concrete bridges (simply supported)	Road bridge 30ft span – Reinforced concrete	10'6"	1 st class	30	34271	29.9.1915	H75-PWD34271-1.pdf	
	Typical reinforced concrete spans (simply supported)	20'		30, 35, 40, 45, 50	93638	1936	H76-PWD93638.pdf	
		24'			89718 (4 shts.)	11.3.1937	H77-PWD89718-1.pdf	
					1935	H78-PWD89718-2.pdf		
					1935	H79-PWD89718-3.pdf		
Reinforced concrete bridges (simply supported) (cont.)	Typical reinforced concrete girders for 4 girder, single span, two lane highway bridges	24'	H20-S16	30, 35, 40, 45, 50	118113	Oct 1943	H81-PWD118113-1.pdf	
						5.12.1944	H82-PWD118113-2.pdf	
	Slab bridges	12'		H20-S16-41	15, 17½, 20, 22½, 25	WDO13210	Feb 1944	H83-WDO13210-1.pdf
Standard slab bridges	127233		15.8.1950		H84-PWD127233-1.pdf			
Balanced three span concrete bridges	Typical slab frame bridge – Balanced three span	24'	H20-S16	20-25-20	118922	25.7.1947	H85-PWD118922-1.pdf	
					WDO13111	16.5.1947	H86-WDO13111-9.pdf	
				22½-30-22½	118921	28.7.1947	H87-PWD118921-1.pdf	
					WDO13111	1.6.1950	H88-WDO13111-8.pdf	
				25-35-25	119022	28.7.1947	H89-PWD119022-1.pdf	
					WDO13111		H90-WDO13111-11.pdf	
				30-40-30	119023	28.7.1947	H91-PWD119023-1.pdf	
					WDO13111		H92-WDO13111-10.pdf	

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Miscellaneous Details	Road bridges – Max live load reactions at abutments and at piers at junctions	10' & 12'	Single traction engine loading	10 to 120	76889 (3 shts.)	14.8.1929	H93-PWD76889-1.pdf
			Double traction engine loading			15.8.1929	H94-PWD76889-2.pdf
	Road bridges – Live load bending moments		Single & double traction engine loading	0 to 120		12.8.1929	H95-PWD76889-3.pdf
	Typical reinf. conc. deck slab kerb & handrailing	12'-0"	H20-S16	N/A	121151	23.3.1945	H96-PWD121151-1.pdf
			H20-S16-41			July 1948	H97-PWD121151-2.pdf
		24'-0"	H20-S16		121152	23.3.1945	H98-PWD121152-1.pdf
			H20-S16-41			23.7.1948	H99-PWD121152-2.pdf
	Std 16in octagonal reinforced concrete pile (for fresh water)	N/A	Not stated	N/A	127636	2.11.1956	H100-PWD127636-1.pdf
	Typical construction-joint details		N/A		137478 (2 shts.)	11.7.1952	H101-PWD137478-1.pdf
	Standard precast pre tensioned bridge beams		H20-S16-44		45		152931