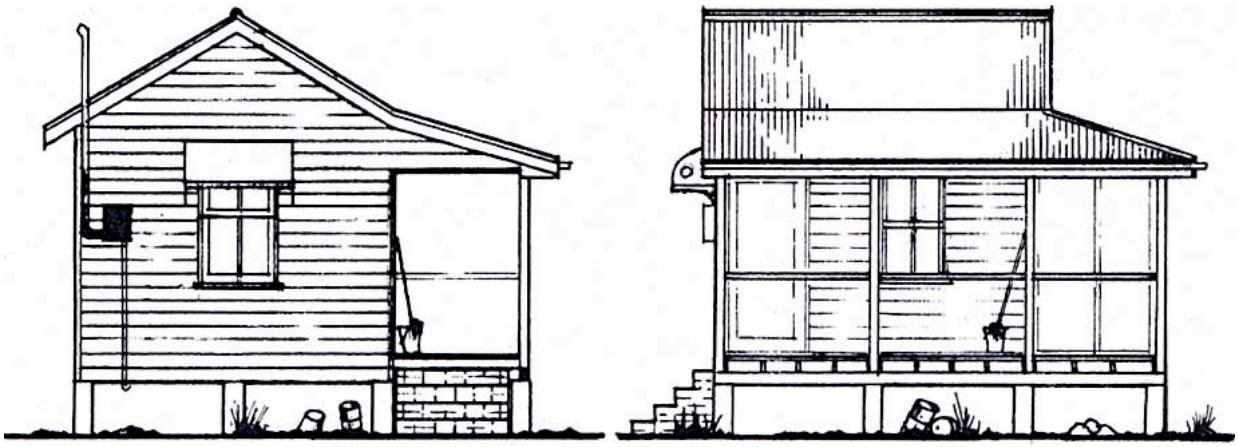
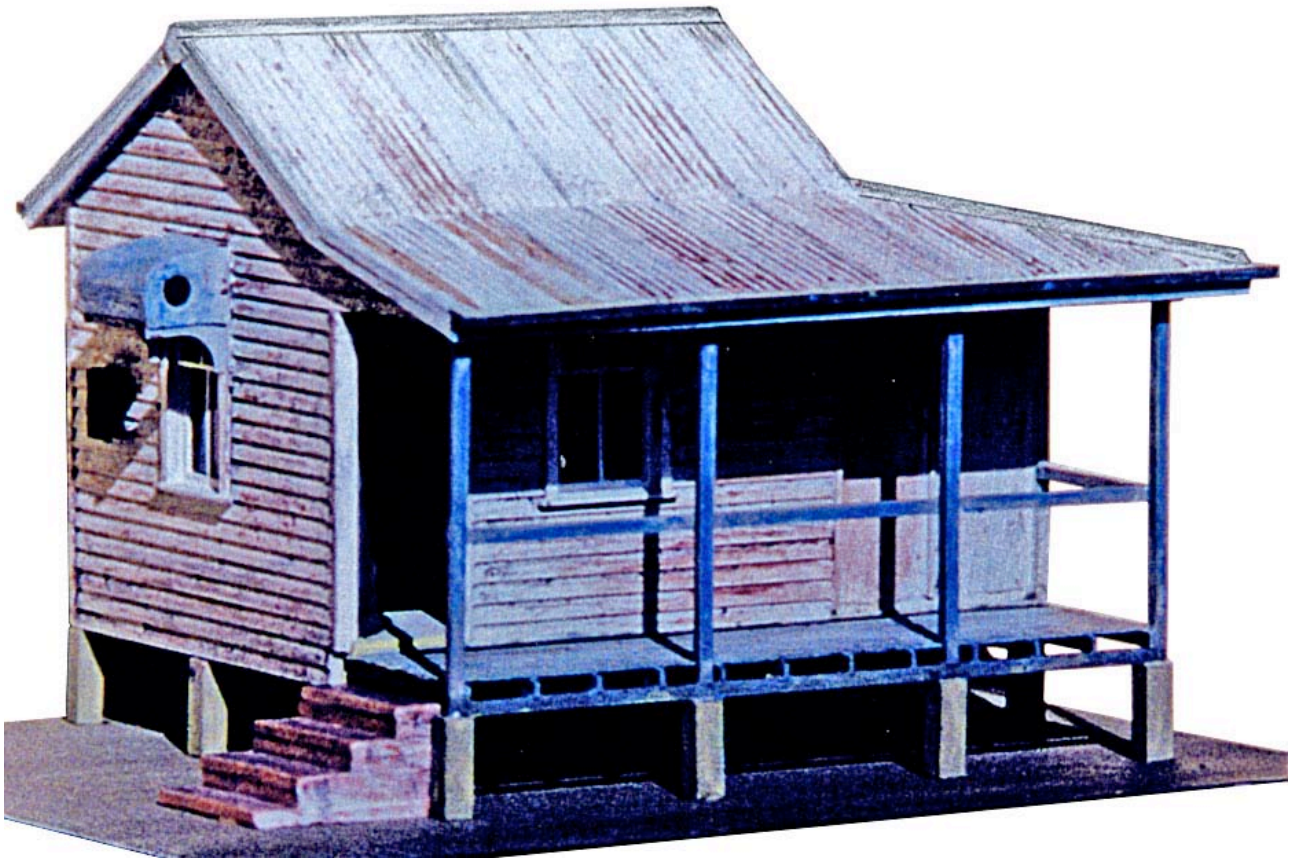


South Johnstone Traffic Office

Tramway movements have to be planned and controlled, and the little traffic office (now demolished) at South Johnstone mill was an ideal subject to complement the freelance diorama in these notes. The basic model, except for the matchstick stumps, was fabricated from styrene.



Cane Railway (Tramway) Operations

Sugar mills have two seasons: the crushing season (typically June to December) and the slack season (January to May). During the crushing season mills employ extra workers, known as seasonals, to operate mill equipment and crew their cane trains. Since many mills operate 24 hours per day during the crushing season heavy overhauls of plant and tramways is left for the slack season.

Isis Mill #4 with a rake of fulls at Childers, 2002; a brake van brings up the rear of the train

Harvested cane needs to be crushed within 18 hours to ensure that the highest amount of sugar is extracted from each billet of cane. While this isn't always possible due to mill or loco breakdowns or derailments, the aim of all sugar mill tramways is to transport harvested cane from the fields to the mill as quickly and efficiently as possible.

CRUSHING PRIORITY SHEET

DRIVERS ARE TO RECORD NUMBER OF BINS AND NAME OF LOOP OR SIDING WHERE FULLS ARE STORED.

- Fold along line. Place consignment notes inside.
- Either hand consignment notes to next driver, or send to weighbridge.
- Cane is to be shunted to full yard and crushed by order of lowest priority number.

FOLD FOLD

LOCO RUN

STORED AT

NO. OF BINS

PRIORITY NO.

ALWAYS PULL THE RAKE WITH LOWEST PRIORITY

UNLESS TRAFFIC OFFICER ADVISES DIFFERENTLY

Mills control the harvesting to ensure an even flow of cane throughout the season and equitable treatment of every cane farmer. Cane bins are the primary storage system for cut cane to ensure a smooth and continuous flow of cane into the mill, but mills don't have an infinite supply of empty bins and transport is a major cost for the mill. As a result, computer programs are now often used to help schedule train movements and bin supply.

Moreton Mill loco running light in traffic between Howard Street yard and mill, Nambour

Each mill has a Cane Inspector who determines which farmer's fields will be cut on a particular day and how many empty bins to allocate to a farm on the day cutting occurs. This information is given to the traffic officer who issues a running or delivery sheet to the loco crews showing them how many empties are to be taken and when/where they are to be delivered. The Cane Inspector also advises the farmers and/or their contract harvesting crews.

More than one delivery (and related collection) will likely be required to every siding to make up the allocated number of bins for the day's cutting.

The Cane Inspector and Traffic Office are also responsible for scheduling truck and other vehicle movements when they deliver cane to the mill or the tramway system. Here empties are being collected near Fairymead Mill to deliver cane using the nearby mill-owned and operated river ferry.

Loco crews collect their allocated bins from the empty yard or another storage siding and head for their designated branch line, dropping off bins as shown on their running sheet. As the running sheet as likely prepared in advance of the day's operations, some shuffling of bins may take place between sidings, generally when wet weather has made a field too wet for harvesting equipment to operate. If the weather is too wet for harvesting crews to operate the loco crews will be given jobs assisting navvies (track repair), loco shed staff or within the mill itself.

Full bins are collected on the way back to the mill. Mills will often have load limits for each loco type depending upon grades, length of passing loops and the capacity of the mill's full yard. A crew will pick up all the fulls they can, transfer them to another siding or outer yard where the rake (string of bins) can then be split into a suitable number to enter the mill.

Moreton Mill, for example, was located near the centre of Nambour, with full and empty yards located roughly a kilometre away along Howard Street. In the crushing season trains shuttled back and forth on Howard Street bringing full bins to the mill, returning empties and disrupting traffic. Drivers of these trains had a remote device that enabled them to set the traffic lights to cross the main road.

Many branch lines will have only one loco operating during a shift, making controlling or tracking locos easy. If two locos use the same branch during the shift one loco will often work all the way out to the end, with the other working part way, speeding up the delivery and collection of bins.

Traffic Officers control the movement of trains over each mill's tramway; mainline (Queensland Rail) Traffic Officers control trains crossing the mainline railway when required as well as sugar or molasses trains operating between a mill and delivery points (wharf, etc.).

Communication between locos and the Traffic Office was by telephone and messages passed by word-of-mouth in earlier days. Today two-way radios are used with GPS (global positioning satellite) tracking adding additional security for some mills.

Loco crews assemble early morning at Nambour Mill, 2003

Most mills operate four working shifts, with three shifts working all the time, on a seven-day roster if the mill is on a continuous crush. A five-day crush is also common, providing a weekly break for maintenance. Each shift works eight hours, normally starting at 0800, 1600 and 0000 hrs. Some mills have loco crews start and finish earlier in order to deliver bins to farmers at the end of a very long line. For

example, the terminus for Invicta Mill's Dalberg line is 100 km from the mill and a one-way trip takes approximately four hours.

The same company often owns more than one mill and linked tramway systems in an area. This allows locos to be transferred from one mill area to another in case of a breakdown of either loco or mill. Crews simply switch radio channels at network boundaries, consulting maps carried in the loco when they don't know the other mill's network.

Acknowledgments

These notes have been edited and extended, with permission, by CaneSIG Coordinator Lynn Zelmer from Jim Hutchinson's *Modelling the Railways of Queensland Convention 2000* notes and Carl Millington's *Modelling the Railways of Queensland Convention 2004* notes.

Jim provided the Traffic Office model/images; Carl the delivery forms. Other images from Lynn Zelmer and the CaneSIG collection.

North Isis Kowbi Local

Locomotive D11 Loco Crew McGibbon T. I Millington C. E. ~~Kimber Ernie~~ ~~Foley James~~

Date 18/07/2002 Time 12:30:00

CAP	Siding	Del	Col	Act	First	Last	Comments
53	Rowles Right L2 Hoffman (GP10)						
17	B/School R/Full L2 hawndalr. Voss(GP18)	11		30	678	297	
67	End Tofts Left L2 Adies (GP35	16					
61	Kowbi Old L3						
73	Kowbi Farmers L1 Unifact (GP30)	11		3	28	103	* Loco Ticket.
70	Weirs Loop						
80	New Loop						
47	F.Kellys Full L2 Famsfield (GP11)						
51	Hill Cne Sde Full L1						
51	Hill Cne Sde Full L1 Famsfield (GP11)	23					
68	Hill Empty L3						
68	Hill Empty L3 Unifact (GP30)			20	172	599	Doing first
24	Mill Siding Full Madsen (GP43)						
	Totals:						
		61		53	172	297	Stored Line 2.

Drivers Please Note AT F/KELLYS PUT MTYS AT FRONT RIGHT LINE AND AT BACK LEFT LINE PAST ROADWAY.;

* 5 spares @ New loop *
* Points set into Kowbi old *

1 Printed 18/07/2002

Isis Mill, August 2002. Loaded bins enter the weigh station and mill to left, passing in front of the traffic office.