



Car Orders on the Central Vermont in NorCal

Paper, paper, paper...

Jon Schmidt

PLACE SPECIAL SERVICE FACTORS HERE		240 Erie Railroad 240	
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOADS		WAYBILL NO. 27659	
CAR INITIAL SOO	CAR NUMBER 137776	AAR CAR TYPE XM	LENGTH/CAPACITY OF CAR ORDERED FURNISHED
STOP THIS CAR AT TO STATION STATE BOSTON, MASS.		CONSIGNEE AND ADDRESS AT STOP FROM STATION STATE COLUMBUS, OH	
ROUTE SHOW EACH JUNCTION AND CARRIER IN ROUTE ORDER TO DESTINATION ERIE-D&H-CV-WILLIMANTIC-NYNH&H		SHIPPER C&O AGENT	

PLACE SPECIAL SERVICE FACTORS HERE		CENTRAL VERMONT RAILWAY, INC.	
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOADS		WAYBILL NO. 54587	
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR ORDERED FURNISHED
STOP THIS CAR AT TO STATION STATE BOSTON, MASS.		CONSIGNEE AND ADDRESS AT STOP FROM STATION STATE COLUMBUS, OH	

PLACE SPECIAL SERVICE FACTORS HERE		103 Canadian National 103	
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOADS		WAYBILL NO. 54587	
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR ORDERED FURNISHED
STOP THIS CAR AT TO STATION STATE BOSTON, MASS.		CONSIGNEE AND ADDRESS AT STOP FROM STATION STATE COLUMBUS, OH	

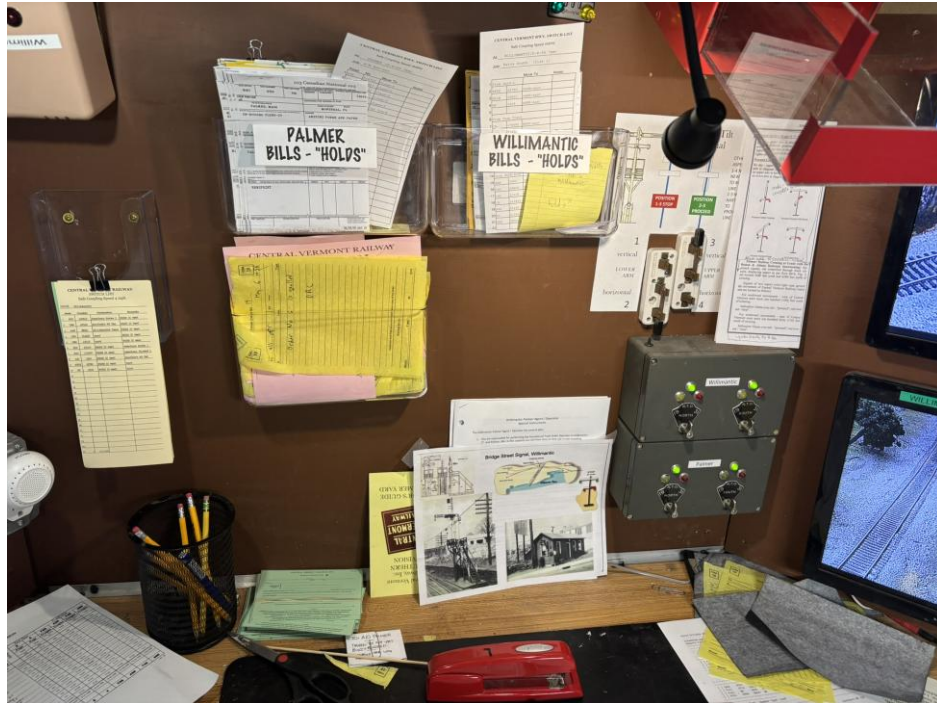
PLACE SPECIAL SERVICE FACTORS HERE		125 Chesapeake & Ohio 125	
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOADS		WAYBILL NO. 54587	
CAR INITIAL LSI	CAR NUMBER 22	AAR CAR TYPE XM	LENGTH/CAPACITY OF CAR ORDERED FURNISHED
STOP THIS CAR AT TO STATION STATE BOSTON, MASS.		CONSIGNEE AND ADDRESS AT STOP FROM STATION STATE COLUMBUS, OH	
ROUTE SHOW EACH JUNCTION AND CARRIER IN ROUTE ORDER TO DESTINATION CO-ST ALBANS-CV-B&M		SHIPPER C&O AGENT	

PLACE SPECIAL SERVICE FACTORS HERE		BILLED FROM	
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOADS		FOR LOADING	
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR ORDERED FURNISHED
STOP THIS CAR AT TO STATION STATE BOSTON, MASS.		CONSIGNEE AND ADDRESS AT STOP FROM STATION STATE COLUMBUS, OH	

PLACE SPECIAL SERVICE FACTORS HERE		NOWICH STATE HOSPITAL	
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOADS		WAYBILL NO. 54587	
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR ORDERED FURNISHED
STOP THIS CAR AT TO STATION STATE BOSTON, MASS.		CONSIGNEE AND ADDRESS AT STOP FROM STATION STATE COLUMBUS, OH	

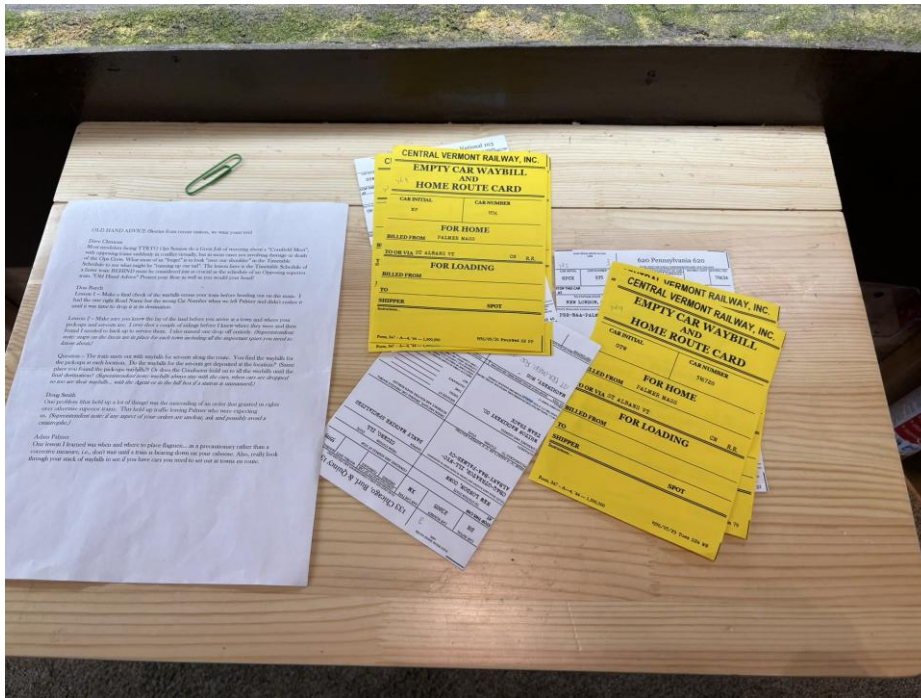
1956 - The World Runs On Paper

- No computers
- No email
- No cell phones
- Teletype or telex is state of the art
- Tabulating machines & punched cards
- Lots of copies, carbon paper, flimsies



Railroads Ran On Paper

- Armies of clerks and agents
 - Passenger tickets
 - Train orders
 - Waybills
 - Empty car orders
 - Car movement instructions
 - Bookkeeping
 - Etc...



How Much To Model?

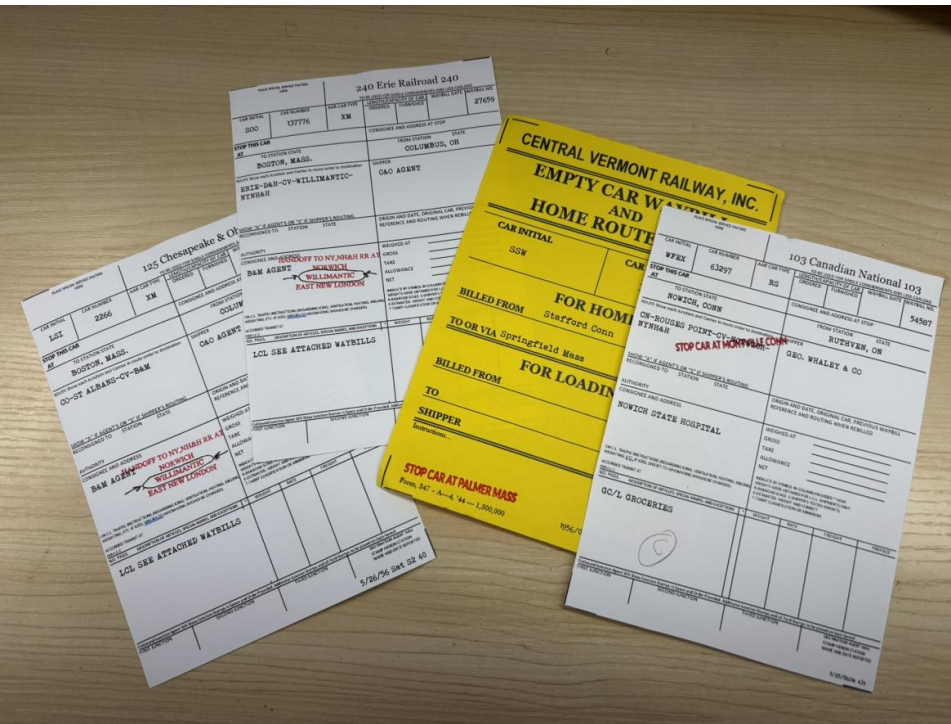
- I hate paper approach:
 - “*Mother May I*” train movement
 - Or CTC or TWC or some such
 - Or anarchy
 - Simple car moves
 - Drop 1 take 1
 - Car cards
- Or - Reproduce the prototype experience for the modeled period
 - The crew experience becomes more realistic & challenging

Central Vermont in NorCal

- Create as authentic an experience as possible
- Timetable & Train Order dispatching Offsite dispatcher
- Clerks, Agents & agent offices with signaling, arrival detection, and layout views
- Manually copied train orders



Central Vermont in NorCal

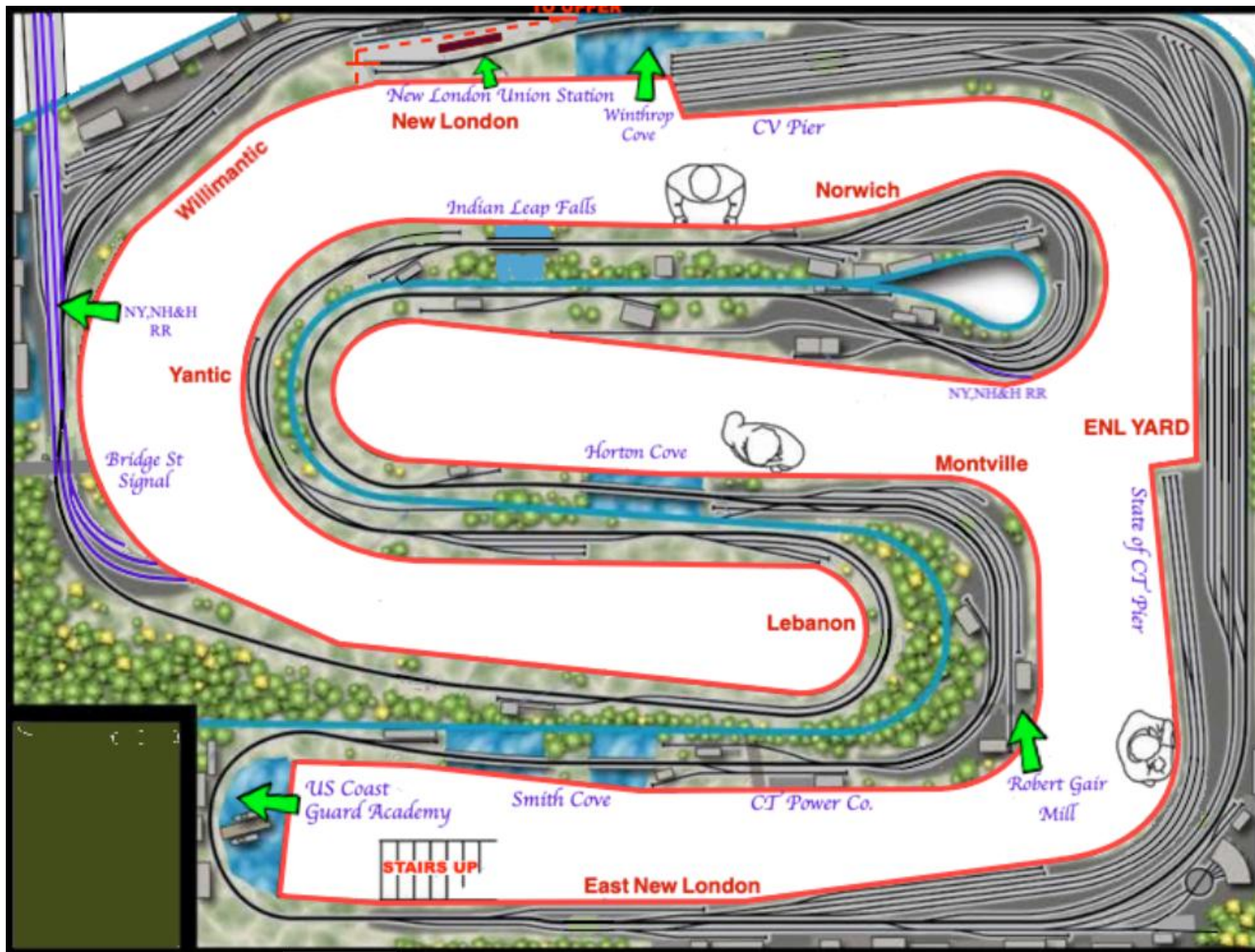


- Crews receive train orders, waybills, and empty car orders and must figure out the moves
- Typical car makes at least 2 “hops” to get to its destination
- Clerk/agent-created switch lists for yards and larger towns
- Station bill boxes for smaller towns

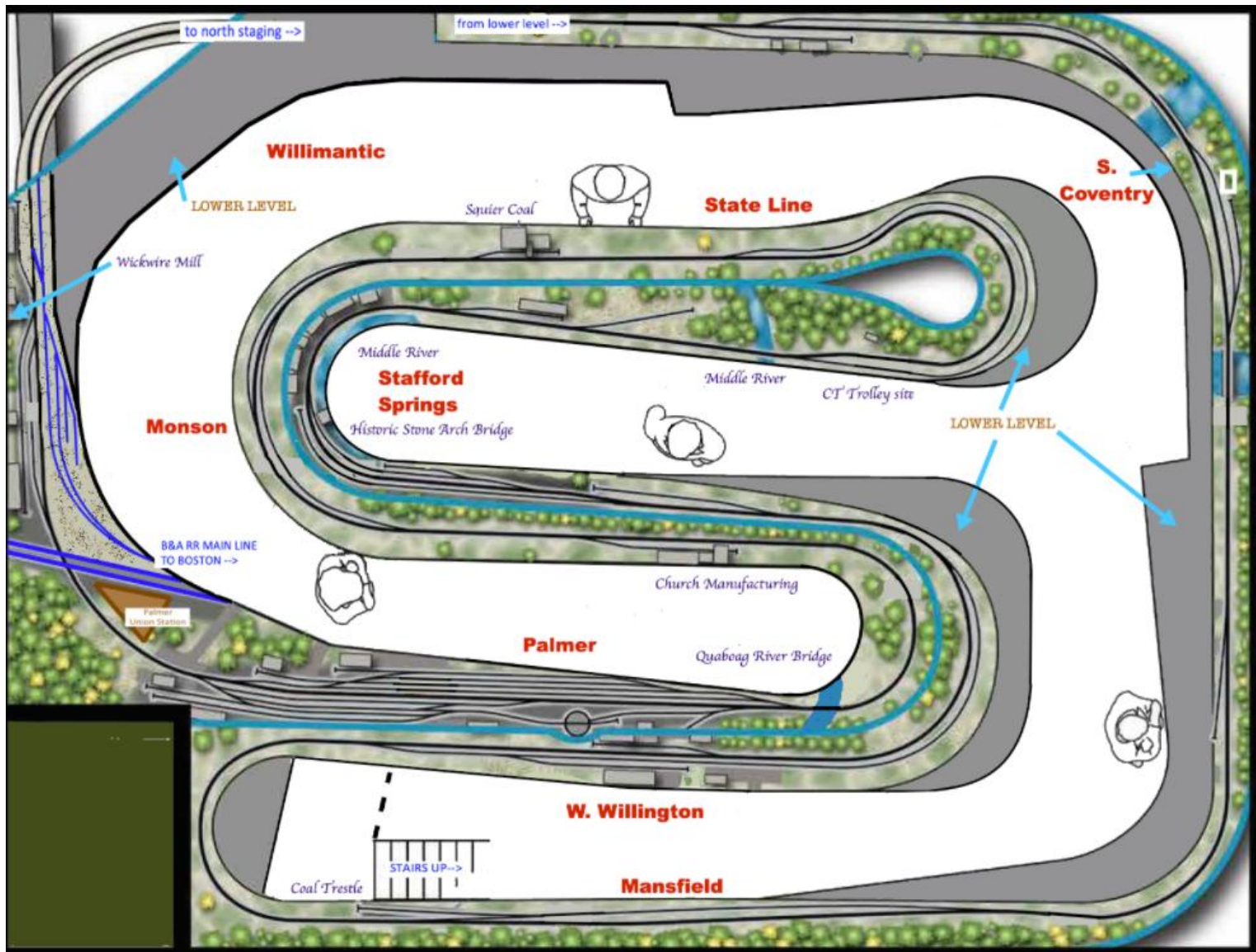
Paul Weiss' Central Vermont in NorCal

- HO scale
- Large – 30' x 40' building plus a 10' x 20' annex including Clerk's office
- Dispatcher's separate building/team workshop
- Two under-layout agents' offices
- 600 cars
- 100+ industries
- South staging in the annex: NHRR New London, Boston, Cedar Hill
- Main building: East New London to Palmer
- North staging interchanges:
 - Brattleboro, St Albans, Montreal, White River
- Three on-railroad interchanges: 2 NHRR, B&A (NYC)

Lower Level



Upper Level



Car Movement

- Originally JMRI Operations
- Movement based on extensive local industry research
 - Custom loads & JMRI Ops *schedules*
- Generated manifests per train
- Generated switch lists for key towns
- “*Not prototypical enough*”
- How to fix?
- Take one district?
- Create waybills for those industries?
- How to integrate with JMRI Ops?
- Prototypical waybills & empty car orders
 - See Tony Thompson’s blog
 - We found examples of CV waybills, none of empty orders

Why Car Orders?

- The philosophy on the CV is to have as prototypical experience as possible
 - Time Table & Train Order dispatching
 - Clerks manage car orders & switch lists
 - Agents responsible for train orders, switch lists, etc.



Our clerk team and the ENL PICL box
(Perpetual Inventory Car Location)

Car Movement - Loads

- Waybills – paperwork for a loaded car
 - Originating road
 - Car identification
 - From, to
 - Route
 - Contents
 - Special instructions

PLACE SPECIAL SERVICE PATTERS HERE		540 New York Central 540			
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOAD					
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR ORDERED	WAYBILL DATE	WAYBILL NO.
SP	61002	XM			11630
STOP THIS CAR AT			CONSIGNEE AND ADDRESS AT STOP		
TO STATION STATE YANTIC, CONN			FROM STATION STATE LOGAN, OHIO		
ROUTE: Show each Junction and Carrier in route order to destination NYC-SPRINGFIELD-CV			SHIPPER LARSON CLAY PIPE CO.		
SHOW "A" IF AGENT'S OR "S" IF SHIPPER'S ROUTING RECONSIGNEE TO STATION STATE			ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS WAYBILL REFERENCE AND ROUTING WHEN REBILLED		
AUTHORITY CONSIGNEE AND ADDRESS			WEIGHED AT _____ GROSS _____ TARE _____ ALLOWANCE _____ NET _____		
FINAL DESTINATION AND ADDITIONAL ROUTING MORGAN SUPPLY CO SPOT AT TEAM TRACK NOTIFY CONSIGNEE			INDICATE BY SYMBOL IN COLUMN PROVIDED * HOW WEIGHTS WERE OBTAINED FOR L.C.L. SHIPMENTS ONLY: B-BALANCE SCALE, S-SHIPPER'S TESTED WEIGHTS, E-ESTIMATED, W-WEIGHT AND CORRECT, T-TARIFF CLASSIFICATION OR MINIMUM.		
NO. PKGS.	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	WEIGHT	RATE	FREIGHT	PREPAID
	25 CRATES CLAY SEWER PIPE				
Outbound Junction Agent Will Show Junction Stamps in Space and Order Provided. Additional Junction Stamps and all Yard Stamps to be placed on back hereof.					
FIRST JUNCTION	SECOND JUNCTION	THIRD JUNCTION	DESTINATION AGENT WILL STAMP HEREIN STATION NAME AND DATE REPORTED		
			56/05/03 Tues S1		

Car Movement - Empties

Return an empty car to
its originating road
(*empty*)

Spot an empty car for
loading (*MTY*)

CENTRAL VERMONT RAILWAY, INC.	
EMPTY CAR WAYBILL AND HOME ROUTE CARD	
CAR INITIAL FGEX	CAR NUMBER 35204
FOR HOME	
BILLED FROM YANTIC CONN	
TO OR VIA MONTREAL QC CN R.R.	
FOR LOADING	
BILLED FROM	
TO	
SHIPPER	SPOT
Instructions...	
RS from J. Daren & Sons	

8/25/2025 Form, 347 - A-4, '44 — 1,500,000 1956/05/09 Wed 32

CENTRAL VERMONT RAILWAY, INC.	
EMPTY CAR WAYBILL AND HOME ROUTE CARD	
CAR INITIAL SFRD	CAR NUMBER 31900
FOR HOME	
BILLED FROM	
TO OR VIA R.R.	
FOR LOADING	
BILLED FROM ST ALBANS VT	
TO YANTIC CONN	
SHIPPER WOODLAND DAIRY	SPOT
Instructions...	
RS	

Form, 347 - A-4, '44 — 1,500,000 1956/05/09 Wed 32

Why Car Orders?

- 1956 had car orders: waybills and empty orders
- Manually-generated switch lists
- Can we get there from JOps?
 - Yes!
- JOps moves the cars
- We take the JOps files and massage them against a WaybillCarRouteIndustry (WCRI) database (home-generated, currently 860 entries)
- Produce prototypical-style waybills and car orders

Waybill

- **Highlighted** is directly from JOps
- Everything else is from the WCRI based on JOps *from/to/car type*
 - Originating road
 - From/To industries
 - Routing
 - Contents
 - Etc.

PLACE SPECIAL SERVICE PASTERS HERE		195 Delaware & Hudson 195				
		TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOAD				
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR	WAYBILL DATE	WAYBILL NO.	
			ORDERED	FURNISHED		
BO	265141	XM			95150	
STOP THIS CAR AT			CONSIGNEE AND ADDRESS AT STOP			
TO STATION STATE NEW LONDON, CONN			FROM STATION STATE GLEN FALLS, NY			
ROUTE Show each Junction and Carrier in route order to destination D&H-ROUSES POINT NY- CV			SHIPPER GLEN FALLS PORTLAND CEMENT CO			
SHOW "A" IF AGENT'S OR "S" IF SHIPPER'S ROUTING RECONSIGNE TO STATION STATE			ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS WAYBILL REFERENCE AND ROUTING WHEN REBILLED			
AUTHORITY						
CONSIGNEE AND ADDRESS			WEIGHED AT _____ GROSS _____ TARE _____ ALLOWANCE _____ NET _____			
FINAL DESTINATION AND ADDITIONAL ROUTING CHAPPELL FUEL & LUMBER CO SPOT AT TEAM TRACK, NOTIFY CONSIGNEE'			INDICATE BY SYMBOL IN COLUMN PROVIDED * HOW WEIGHTS WERE OBTAINED FOR L.C.L. SHIPMENTS ONLY. R-RAILROAD SCALE. S-SHIPPER'S TESTED WEIGHTS. E-ESTIMATED. WEIGHT AND CORRECT. T-TARIFF CLASSIFICATION OR MINIMUM.			
NO. PKGS.	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	*	WEIGHT	RATE	FREIGHT	PREPAID
	465 100# BAGS CEMENT					
Outbound Junction Agent Will Show Junction Stamps in Space and Order Provided. Additional Junction Stamps and all Yard Stamps to be placed on back hereof.						
FIRST JUNCTION	SECOND JUNCTION	THIRD JUNCTION	DESTINATION AGENT WILL STAMP HEREIN STATION NAME AND DATE REPORTED			

The Crews Receive Car Orders

- Conductors receive an order for each car in their train
- Must interpret the order to manage the car and train
- At each town there may be more orders for the train
 - Lifts, moves
- A definite challenge!

240 Erie Railroad 240

TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOAD

PLACE SPECIAL SERVICE PATTERS HERE

CAR INITIAL: SOO, CAR NUMBER: 137776, AAR CAR TYPE: XM

LENGTH/CAPACITY OF CAR: ORDERED, FURNISHED

WAYBILL DATE: 27659

STOP THIS CAR AT: TO STATION STATE: BOSTON, MASS.

FROM STATION: COLUMBUS, OH, STATE: OH

SHIPPER: C&O AGENT

ROUTE: Show each Junction and Carrier in route order to destination: ERIE-D&H-CV-WILLIMANTIC-NYNH&H

ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS REFERENCE AND ROUTING WHEN REBILLED

WEIGHED AT: GROSS, TARE, ALLOWANCE, NET

INDICATE BY SYMBOL IN COLUMN: WEIGHTS OBTAINED FOR L.C. IN HANDRAID SCALE, SHIPPER'S ESTIMATED WEIGHT AND COT, T-CAR CLASSIFICATION OR S

ON C.L. TRAFFIC INSTRUCTIONS (REGARDING ICING, VENTILATION, HEATING, MILLING, WEIGHTING, ETC. IF ICED, SEE [INSTRUCTIONS](#) TO WHICH ICING SHOULD BE CHARGED)

ACCORDED TRANSPORT AT: NO. PAGES, DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS

LCL SEE ATTACHED WAYBILLS

OUTSTANDING JUNCTION AGENT WILL SHOW JUNCTION STAMPS IN SPACE AND IN ORDER PROVIDED: ADDITIONAL JUNCTION STAMPS WILL BE PLACED ON THIS FORM

5/26/56 Sat S2 40

CENTRAL VERMONT RAILWAY, INC.

EMPTY CAR WAYBILL AND HOME ROUTE

CAR INITIAL: SSW, CAR NUMBER: 63297

STOP THIS CAR AT: TO STATION STATE: NORWICH, CONN

SHIPPER: CN-ROUSES POINT-CV-NORWICH

ROUTE: Show each Junction and Carrier in route order to destination: CN-ROUSES POINT-CV-NORWICH

ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS REFERENCE AND ROUTING WHEN REBILLED

WEIGHED AT: GROSS, TARE, ALLOWANCE, NET

INDICATE BY SYMBOL IN COLUMN: WEIGHTS OBTAINED FOR L.C. IN HANDRAID SCALE, SHIPPER'S ESTIMATED WEIGHT AND COT, T-CAR CLASSIFICATION OR S

ON C.L. TRAFFIC INSTRUCTIONS (REGARDING ICING, VENTILATION, HEATING, MILLING, WEIGHTING, ETC. IF ICED, SEE [INSTRUCTIONS](#) TO WHICH ICING SHOULD BE CHARGED)

ACCORDED TRANSPORT AT: NO. PAGES, DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS

LCL SEE ATTACHED WAYBILLS

OUTSTANDING JUNCTION AGENT WILL SHOW JUNCTION STAMPS IN SPACE AND IN ORDER PROVIDED: ADDITIONAL JUNCTION STAMPS WILL BE PLACED ON THIS FORM

1956/0

STOP CAR AT PALMER MASS

Form, 347 - A-4, '44 - 1,500,000

GC/L GROCERIES

OUTSTANDING JUNCTION AGENT WILL SHOW JUNCTION STAMPS IN SPACE AND IN ORDER PROVIDED: ADDITIONAL JUNCTION STAMPS WILL BE PLACED ON THIS FORM

The Crews Receive Car Orders

- Towns not covered by agents have bill boxes
- Crews receive keys for each box on their route



What Does It Mean?

- Your train is 1st Montville: East New London to Yantic turn
- This car is in your train – What do you do with it?
- Answer: Simple drop at Yantic
- (Note the routing for the bigger picture.)

PLACE SPECIAL SERVICE PASTERS HERE		133 Chicago, Burl. & Quincy 133				
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOAD						
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR	WAYBILL DATE	WAYBILL NO.	
CN	524027	XM	ORDERED FURNISHED		90133	
STOP THIS CAR AT			CONSIGNEE AND ADDRESS AT STOP			
TO STATION STATE YANTIC, CONN			FROM STATION STATE MT. PLEASANT, IOWA			
ROUTE Show each Junction and Carrier in route order to destination CB&Q-CLEARING-ERIE- MAYBROOK-NYNH&H RR-NEW LONDON-CV			SHIPPER FARMER'S COOP ELEVATOR			
SHOW "A" IF AGENT'S OR "S" IF SHIPPER'S ROUTING RECONSIGNE TO STATION STATE			ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS WAYBILL REFERENCE AND ROUTING WHEN REBILLED			
AUTHORITY CONSIGNEE AND ADDRESS			WEIGHED AT _____ GROSS _____ TARE _____ ALLOWANCE _____ NET _____			
FINAL DESTINATION AND ADDITIONAL ROUTING EASTERN STATES FARMERS EXCH			INDICATE BY SYMBOL IN COLUMN PROVIDED * HOW WEIGHTS WERE OBTAINED FOR L.C.L. SHIPMENTS ONLY. R-RAILROAD SCALE S-SHIPPER'S TESTED WEIGHTS E-ESTIMATED WEIGHT AND CORRECT T-TARIFF CLASSIFICATION OR MINIMUM			
NO. PKGS.	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	*	WEIGHT	RATE	FREIGHT	PREPAID
	C/L GRAIN, SACKED					
Outsourced Junction Agent Will Show Junction Stamps in Space and Order Provided. Additional Junction Stamps and all Yard Stamps to be placed on back hereof.						
FIRST JUNCTION	SECOND JUNCTION	THIRD JUNCTION	DESIGNATION AGENT WILL STAMP HEREIN STATION NAME AND DATE REPORTED			

56/05/08 Tues S1
18

What Does It Mean?

- Your train is No 430
Montreal – East New
London
- This car is in your train –
What do you do with it?
- Your train passes
through but does not
work Monson.
- Answer: Drop at Palmer
for a local to pick up.
- Clue: Clerk will stamp
the WB with the
intermediate drop.

PLACE SPECIAL SERVICE FASTERS HERE		103 Canadian National 103				
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOAD						
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR		WAYBILL DATE WAYBILL NO.	
Bo	270651	XM	ORDERED	FURNISHED	8/16/15	
STOP THIS CAR AT			CONSIGNEE AND ADDRESS AT STOP			
TO STATION STATE MONSON, MASS			FROM STATION STATE STONEY CREEK, ON			
ROUTE (Show each function and Carrier in route order to destination) CN-ROUSES POINT-CV			SHIPPER GENL STEEL WARES			
HOW "A" IF AGENT'S OR "S" IF SHIPPER'S ROUTING RECONSIGN TO STATION STATE			ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS WAYBILL REFERENCE AND ROUTING WHEN REBILLED			
AUTHORITY CONSIGNEE AND ADDRESS C F CHURCH MFG			WEIGHED AT _____ GROSS _____ TARE _____ ALLOWANCE _____ NET _____			
INDICATE BY SYMBOLS IN COLUMN PROVIDED * HOW WEIGHTS WERE OBTAINED FOR I.C.S. SHIPMENTS ONLY: R-RAILROAD SCALE S-SHIPPER'S TESTED WEIGHTS E-ESTIMATED WEIGHT AND CORRECT T-TARIFF CLASSIFICATION OR MINIMUM						
RECORDED TRANSIT AT EX L.C.C.						
ID. PKGS.	DESCRIPTION OF ARTICLE, SPECIAL MARKS AND EXCEPTIONS		WEIGHT	RATE	FREIGHT	PREPAID
	C/L FURNITURE, OFFICE					
Initialed Junction Agent Will Show Junction Stamp in Space and Order Provided. Additional Junction Stamp and all Yard Stamp to be placed on back hereof.						
FIRST JUNCTION	SECOND JUNCTION		THIRD JUNCTION		DESIGNATION AGENT WILL STAMP HEREIN STATION NAME AND DATE REPORTED	

56/05/31 Thurs S1 430

What Does It Mean?

- Your train is No 430
Montreal – East New
London
- How do I get this car to
Richmond, VA?
- Clue: Route box:
Arriving from the CN at
Rouses Point (north
staging) and going to
the NH at ENL

PLACE SPECIAL SERVICE FASTERS HERE		103 Canadian National 103			
		TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOAD			
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR ORDERED	FURNISHED	WAYBILL NO.
CV	40407	XM			47125
STOP THIS CAR AT			CONSIGNEE AND ADDRESS AT STOP		
TO STATION STATE RICHMOND, VA			FROM STATION STATE WALKERVILLE, ON		
ROUTE Show each location and Carrier in route order to destination CN-ROUSES POINT-CV-NEW LONDON-NYNH&H-SUNNYSIDE YARD-PRR-POT YD-RF&P			SHIPPER DUNLOP TIRE & RUBBER GOODS LTD		
SHOW "A" IF AGENT'S OR "S" IF SHIPPER'S ROUTING RECONSIGN TO STATION STATE			ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS WAYBILL REFERENCE AND ROUTING WHEN REBILLED		
AUTHORITY CONSIGNEE AND ADDRESS GOODYEAR TIRE & RUBBER CO			WEIGHED AT GROSS TARE ALLOWANCE NET		
INDICATE BY SYMBOL IN COLUMN PROVIDED * HOW WEIGHTS WERE OBTAINED FOR L.C. SHIPMENTS ONLY: S-RAILROAD SCALE, S-SHIPPER'S TESTED WEIGHTS, E-ESTIMATED WEIGHT AND CORRECT, T-TAULT CLASSIFICATION OR SENSITIVE					
RECORDED TRANSIT AT ENL C.C.					
NO. PRGS. DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS			WEIGHT	RATE	FREIGHT
400 CASES TIRE TUBES					
PREPAID					
Indicated Junction Agent Will Show Junction Stamps in Space and Order Provided. Additional Junction Stamps and all Yard Stamps to be placed on back hereof.					
FIRST JUNCTION	SECOND JUNCTION	THIRD JUNCTION	DESTINATION AGENT WILL STAMP HEREIN STATION NAME AND DATE REPORTED		

56/05/31 Thurs S1 430

What Does It Mean?

- Your train is the 1st Montville
- It picks up the car in Norwich
- How does it get to Columbia, TN?
- Answer:
 - Norwich to ENL Yard
 - Then it goes to Palmer on another train
 - Then it goes to the B&A (NYC) interchange to get to Springfield and onward

PLACE SPECIAL SERVICE FACTORS HERE		120 Central Vermont Railroad 120			
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOAD					
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR	WAYBILL DATE	WAYBILL NO.
ACY	750	XM	ORDERED	FURNISHED	76452
STOP THIS CAR AT			CONSIGNEE AND ADDRESS AT STOP		
TO STATION STATE COLUMBIA, TENN			FROM STATION STATE NORWICH, CONN		
ROUTE Show each Junction and Center in order to destination CV-PALMER-NYC(B)-LOUISVILLE, KY-LAN			SHIPPER YANTIC GRAIN & PRODUCTS CO TRACK 1, SHIPPING		
SHOW "A" IF AGENT'S OR "S" IF SHIPPER'S ROUTING RECONSIGN TO STATION STATE			ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS WAYBILL REFERENCE AND ROUTING WHEN REBILLED		
AUTHORITY CONSIGNEE AND ADDRESS W N BUTLER CO			WEIGHED AT GROSS TARE ALLOWANCE NET		
INDICATE BY SYMBOL IN COLUMN PROVIDED * HOW WEIGHTS WERE OBTAINED FOR L.C. SHIPMENTS ONLY. S. RAILROAD SCALE, S. SHIPPER'S TESTED WEIGHTS, E. ESTIMATED, WEIGHT AND CORRECT, T. TARET CLASSIFICATION OR ABBREVIATION.					
RECORDED TRANSIT AT HER L.C.					
NO. PKGS. DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS			WEIGHT	RATE	FREIGHT
300 100# SACKS ANIMAL FEED					
FIRST JUNCTION			SECOND JUNCTION	THIRD JUNCTION	DESTINATION AGENT WILL STAMP FERRY LOCATION NAME AND DATE REPORTED

56/05/31 Thurs S1 MV1

Help Is On The Way


- JOps feature provides the complete route:
- Routing:
 - Springfield Mass (Springfield Spurs)-> [Springfield Local 1st]-> Palmer Mass (B&A Interchange 3)-> [Palmer Moves 1st]-> Palmer Mass (Class CarSlt430)-> [No 430 Newsboy]-> East New London CT (Class ENL Sw)-> [ENL South Switcher 1st]-> ENL CV Pier (CV Pier)

PLACE SPECIAL SERVICE PASTERS HERE		540 New York Central 540			
		TO BE USED FOR SINGLE CONSIGNEMENTS AND LESS CARLOAD			
CAR INITIAL MEC	CAR NUMBER 35052	AAR CAR TYPE XM	LENGTH/CAPACITY OF CAR ORDERED	FURNISHED	WAYBILL DATE 18287
STOP THIS CAR AT			CONSIGNEE AND ADDRESS AT STOP		
TO STATION STATE NEW LONDON, CONN			FROM STATION STATE ALBANY, NY		
ROUTE Show each Junction and Carrier in route order to destination NYC (B)-PALMER-CV			SHIPPER NYC AGENT		
SHOW "A" IF AGENT'S OR "S" IF SHIPPER'S ROUTING RECONSIGNE TO STATION STATE			ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS WAYBILL REFERENCE AND ROUTING WHEN REBILLED		
AUTHORITY CONSIGNEE AND ADDRESS			WEIGHED AT GROSS TARE ALLOWANCE NET		
FINAL DESTINATION AND ADDITIONAL ROUTING CRR AGENT			INDICATE BY SYMBOL IN COLUMN PROVIDED * HOW WEIGHTS WERE OBTAINED FOR L.C.L. SHIPMENTS ONLY. R-RAILROAD SCALE S-SHIPPER'S TESTED WEIGHTS E-ESTIMATED WEIGHT AND CORRECT T-TARIFF CLASSIFICATION OR MINIMUM		
NO. PKGS.	DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	* WEIGHT	RATE	FREIGHT	PREPAID
	LCL SEE ATTACHED WAYBILLS				
Outbound Junction Agent Will Show Junction Stamps in Space and Order Provided. Additional Junction Stamps and all Yard Stamps to be placed on back hereof.					
FIRST JUNCTION	SECOND JUNCTION	THIRD JUNCTION	DESIGNATION AGENT'S TOLL STAMP HEREIN STATION NAME AND DATE REPORTED		
			56/05/07 Mon S2		

35052 MEC From: Springfield Mass Springfield Spurs To: New London CT CV Pier 4
 Routing: Springfield Mass (Springfield Spurs)-> [Springfield Local 1st]-> Palmer Mass (B&A Interchange 3)-> [Palmer Moves 1st]-> Palmer Mass (Class CarSlt430)-> [No 430 Newsboy]-> East New London CT (Class ENL Sw)-> [ENL South Switcher 1st]-> ENL CV Pier (CV Pier)
 8/1/2025 10:31 AM

Help Is On The Way

PLACE SPECIAL SERVICE PATRONS HERE		240 Erie Railroad 240			
		TO BE USED FOR SINGLE CONSIGNEES AND LESS CARGO			
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR ORDERED	WAYBILL DATE	WAYBILL NO.
SOO	137776	XM	FURNISHED		27659
STOP THIS CAR AT			CONSIGNEE AND ADDRESS AT STOP		
TO STATION STATE BOSTON, MASS.			FROM STATION STATE COLUMBUS, OH		
ROUTE Show each Junction and Carrier in route order to destination ERIE-D&H-CV-WILLIMANTIC-NYNH&H			SHIPPER C&O AGENT		
SHOW "A" IF AGENT'S OR "S" IF SHIPPER'S ROUTING RECONSIGN TO STATION STATE			ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS WAYBILL REFERENCE AND ROUTING WHEN REBILLED		
AUTHORITY CONSIGNEE AND ADDRESS B&M AGENT			WEIGHED AT GROSS TARE ALLOWANCE NET		
<p> </p>			<p> INDICATE BY SYMBOL IN COLUMN PROVIDED * HOW WEIGHTS WERE OBTAINED FOR I.C.C. SHIPMENTS ONLY. R RAILROAD SCALE, S SHIPPER'S TESTED WEIGHTS, E ESTIMATED, W WEIGHT AND CORRECT, T TARE CLASIFICATION OR UNKNOWN. </p>		
<p> OR I.C.C. TRAFFIC INSTRUCTIONS REGARDING ICING, VENTILATION, HEATING, SEALING, WEIGHTING, ETC. IF KEPT: http://www.fra.dot.gov (APPLICABLE SHOULD BE CHARGED) </p>					
<p> ACCORDED TRANSPORT AT STATION NO. PAIDS DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS </p>			WEIGHT	RATE	FREIGHT
<p> LCL SEE ATTACHED WAYBILLS </p>					PREPAID
<p> Additional General Agent 103 Show Junction Stamps in Space and Or the Provided. Additional Junction Stamps and all Yard Stamps to be placed on back hereof. </p>					
FIRST JUNCTION	SECOND JUNCTION	THIRD JUNCTION	<p> GENERAL AGENT WILL STAMP HEREIN STATION NAME AND DATE REPORTED </p>		

PLACE SPECIAL SERVICE FASTENERS HERE		103 Canadian National 103			
TO BE USED FOR SINGLE CONSIGNMENTS AND LESS CARLOAD					
CAR INITIAL	CAR NUMBER	AAR CAR TYPE	LENGTH/CAPACITY OF CAR	WAYBILL DATE	WAYBILL NO.
WFEX	63297	RS	ORDERED	FURNISHED	54587
STOP THIS CAR AT			CONSIGNEE AND ADDRESS AT STOP		
TO STATION STATE NOWICH, CONN			FROM STATION STATE RUTHERN, ON		
ROUTE Show each Junction and Carrier in route order to destination			SHIPPER		
CN-ROUSES POINT-CV-NOWICH- NYNH&H			GEO. WHALEY & CO		
SHOW "A" IF AGENT'S OR "S" IF SHIPPER'S ROUTING RECOGNIZED TO STATION STATE			ORIGIN AND DATE, ORIGINAL CAR, PREVIOUS WAYBILL REFERENCE AND ROUTING WHEN REBILLED		
AUTHORITY			WEIGHT AT		
CONSIGNEE AND ADDRESS			GROSS		
NOWICH STATE HOSPITAL			TARE		
			ALLOWANCE		
			NET		
			<small> INDICATE BY SYMBOL IN COLUMN PROVIDED * HOW WEIGHTS WERE OBTAINED FOR L.C.L. SHIPMENTS ONLY. R=RAILROAD SCALE S=SHIPPER'S TESTED WEIGHTS E=ESTIMATED V=VENDOR AND C=COMBET T=TAREY CLASSIFICATION OR MINIMUM </small>		
<small> ON C.L. TRAFFIC INSTRUCTIONS (REGARDING ICING, VENTILATION, HEATING, UNLADING, WEIGHTING, ETC.) IF KEED SPECIFY TO WHICH ICING SHOULD BE CHARGED) </small>					
<small> ACCORDING TRANSPORT AT PUBLIC </small>					
<small> NO. PAGES DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS </small>			<small> WEIGHT RATE FREIGHT PREPAID </small>		
GC/L GROCERIES 					
<small> Outbound Junction Agent Will Show Function Stamp in Space and Order Provided. Additional Junction Stamps and at Yard Stamps to be placed on back hereof. </small>					
FIRST JUNCTION	SECOND JUNCTION	THIRD JUNCTION	FOURTH JUNCTION	FIFTH JUNCTION	SIXTH JUNCTION

Help Is On The Way

- Clerk team is indispensable
- They use the JOps data to create switch lists for the ENL YM and crews:
 - Departing train makeup
 - Arriving train classification

FROM: CLERK'S OFFICE EAST NEW LONDON
TO: WILLIMANTIC AGENT

THURSDAY 05/31/12

CHECK CURRENT ETT AND AGENT

CENTRAL VERMONT RAILWAY SWITCH LIST

Safe Coupling Speed 4 mph Palmer

NOTE White River South spots 0

Marks	Number	Destination	Remarks
⑤ CN	536160	car	long dist
⑥ DH	18529	car	back
⑦ DCG	7086	car	load 4th
⑧ CN	524037	car	load w/
⑨ CN	522826	car	load w/
⑩ GTW	516106	yd-1	5. coupling
⑪ GTW	516617	yd-1	stall
PCV	43002	yd-1	stall
PCV	43028	yd-1	stall
PLNE	8306	yd-1	stall
POTS	14366	yd-1	stall
FGEY	37396	yd-1	w. will
GTW	595816	yd-1	w. will
SSW	33929	WIL	
MLX	1554	WIL (NH)	
DRL	34013	WIL	
AKT	18320	WIL	
FGEY	37396	N. WILLING	

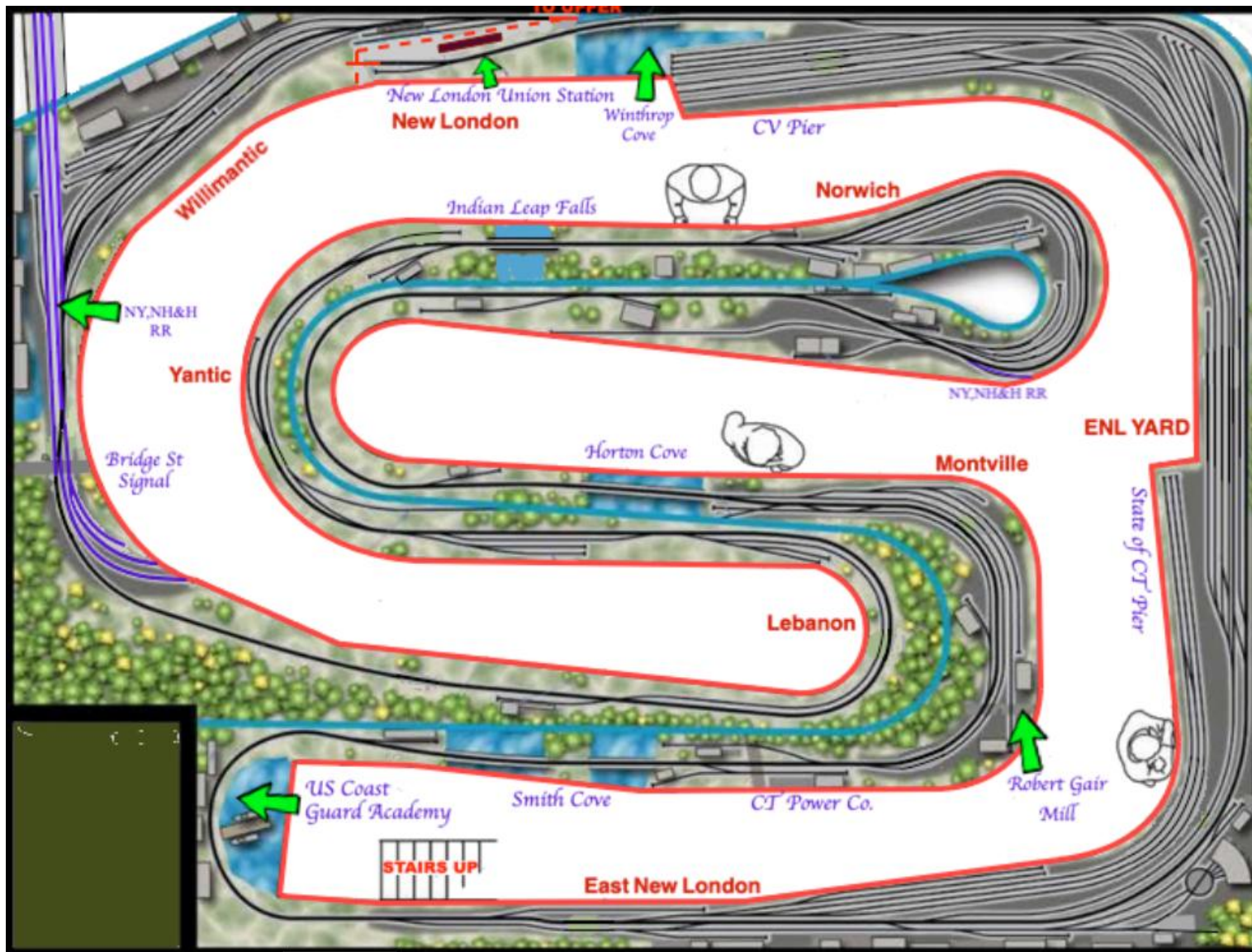
CENTRAL VERMONT RAILWAY SWITCH LIST

Safe Coupling Speed 4 mph

NOTE 1st TRUCK PALMER MOVES

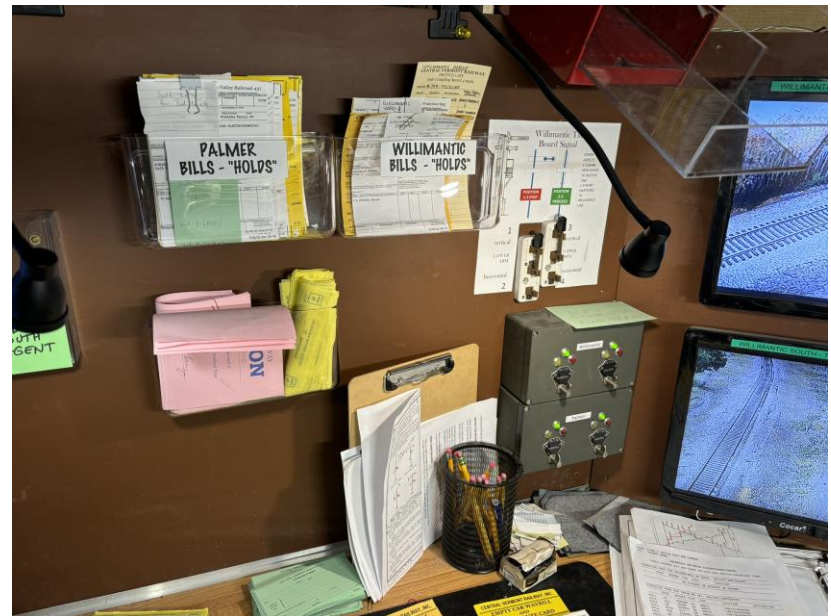
Marks	Number	FROM	TO	Remarks
SAFX	5626	BRATCS	YD-2	
PRR	498639		YD-3	
BO	581308		YD-4	
AA	1281		YD-1	
TNO	24622	BRATC4	YD-3	
CN	524003		YD-4	
CV	40197			
CV	40001			
HCS	20725	CARLAWSON	HOUSE TRK	
GW	516026	HOUSE TRK	YD-2	X
LN	1350	MARCH LUMBER	CARLAWSON	
GW	5106		YD-1	
CEI	65596			
GW	516648		YD-3	
CO	78214	HOUSE TRK	YD-2	
BUP	4529	WILLOW	YD-4	
AGY	307		YD-1	
CNW	66898	YD-1	BRATC1	
GW	516257		BRATC2	
SGW	59324		HOUSE TRK	
CNW	24859		BRATC2	
SAFX	20612	YD-2		
NHC	50027			
NHC	169016	YD-3		
IC	94488		WILLOW	
GW	24993	YD-4	BRATC1	

Lower Level



Help Is On The Way

- Station agents are indispensable
- They manage TT&TO train orders, signals, and car orders for certain towns during the session
- They use the JOps data to create local Lift/Move/Drop switch lists for each train at that town



Nuts and Bolts

- JMRI Operations for all car movement
- Each day is two shifts (tricks)
- Each trick must complete before starting the next
- 72 JOps *schedules* across 116 spurs
- JOps *automation* to build trains
 - Export car file *BOD
 - Build trains 1st trick
 - Export car file *S1
 - Terminate trains
 - Export car file *S1end
 - Build trains 2nd trick
 - Export car file *S2
 - Terminate trains
 - Export car file *EOD

Nuts and Bolts

- *S1 and *S2 files contain cars, the associated trains, and the CV route for each
- Run Excel program against *S1 and *S2 files
 - Creates WaybillCarsS*.xls and EmptyCarsS*.xls
- Run MS Word mail merge to create the car orders
- Print, cut, sort and distribute
 - 250 new orders out of 530 cars moved
- Car move history DB
- Car order history DB

WaybillCarRouteIndustry DB

- Updated each build if necessary
 - New *from/to/type* combination
- Excel phase identifies combination not yet in WCRI DB
 - I make first add industries etc. for the combo (OPSIG)
 - Jim fixes

RowId	2
FmJ	springfield
ToJ	W Willington Team
Car Type	XM
FromIndustry	A M BYERS CO
FromAddr	
FromStation	PITTSBURG, PENN
ToIndustry	MORRISON KNUDSEN
ToAddr	SPOT AT TEAM TRACK, NOTIFY CONSIGNEE'
ToStation	W WILLINGTON, CONN
Commodity / Article	30 CRATES SEWER PIPE
Routing	PRR-SHARON, PENN-NYC-ALBANY-B&A-PALMER-CV
OriginRR	PRR
Title	620 Pennsylvania 620
Instructions	
Notes	

Ref	FromJ	ToJ	Car Type	FromIndustry	FromAddress	FromStation	ToIndustry	ToAddress	ToStation	Commodity / Article	Routing	OriginRR	Title	Instructions	Notes
1	St Albans	xx Fort Yard	TM	A E STALEY MFG CO		DECATUR, ILL	VITA FOOD PROD. OF MD		CHESTERTOWN, MD	CORN SYRUP	WAB-CN-E. ALBURGH-CV-NEW LONDON-NYNH&H-L&NE-BELVIDERE-PRR	WAB	825 Wabash Railroad 825	VIA ENL to NHRR FT.	THRU S
2	springfield	W Willington Tea	XM	A M BYERS CO		PITTSBURG, PENN	MORRISON KNUDSEN	SPOT AT TEAM TRACK, NOTIFY CONSIGNEE'	W WILLINGTON, CONN	30 CRATES SEWER PIPE	PRR-SHARON, PENN-NYC-ALBANY-B&A-PALMER-CV	PRR	620 Pennsylvania 620		
3	newsmty	newssouth	XM	ABITIBI POWER AND PAPER		MONTREAL, PQ	SCRANTON LITHO CO		SCRANTON, PENNA	C/L NEWSPRINT	CN-ROUSES POINT-CV- NEW LONDON-NY,NH&H RR-MAYBROOK-ERIE-SCRANTON-D&H	CN	103 Canadian National 103	VIA ENL to NHRR FT.	Thru - Montreal - Ft Yard
4	Montreal	PALMER REGISTER	XM	ABITIBI POWER AND PAPER		MONTREAL, PQ	PALMER REGISTER		PALMER, MASS	C/L NEWSPRINT	CN-ROUSES POINT-CV	CN	103 Canadian National 103		
5	NH RR Fort Ya	CV PIER 4	XM	ACL AGENT		ATLANTA, GA	CVRR AGENT	CV PIER TRACK 4	NEW LONDON, CONN	LCL SEE ATTACHED WAYBILLS	ACL-RF&P-PRR-NYNH&H-CV	ACL	28 Atlantic Coast Line 28		THRU S
6	NH RR Fort Ya	CV PIER 4	XM	ACL AGENT		ATLANTA, GA	CVRR AGENT	CV PIER TRACK 4	NEW LONDON, CONN	LCL SEE ATTACHED WAYBILLS	ACL-RF&P-PRR-NYNH&H-CV	ACL	28 Atlantic Coast Line 28		
7	St Albans	JONES & LAUGHLIN	GB	AIR CONDITIONING PRODUCTS CO.		THOMPSONVILLE, MICH	JONES & LAUGHLIN		NO. WILLIMANTIC, CONN	DUCTWORK	C&O-SARNIA, ONT.-CN-E. ALBURGH-CV	C&O	125 Chesapeake & Ohio 125		
8	St Albans	van tassel	TM	ALBA MANUFACTURING CO		AURORA, IL	VAN TASSEL LEATHER		NORWICH, CONN	FORMALDEHYDE, 37%	CNW-CHICAGO-GTW-DETROIT-CN-E ALBURGH-CV	CNW	131 Chicago & North Western 131		

Summary: Car Orders on the CV

- 1 day, 2 tricks:
 - 250 *new* car orders
 - 525 cars moved out of 600 under JOps
 - 27 trains
 - 26 towns
 - 116 spurs
- JMRI Operations
 - JOps *schedule* per industry
 - 309 *schedule* rules across the industries
 - Rules for each staging track
 - Virtual yard tracks for classification
 - Virtual staging tracks

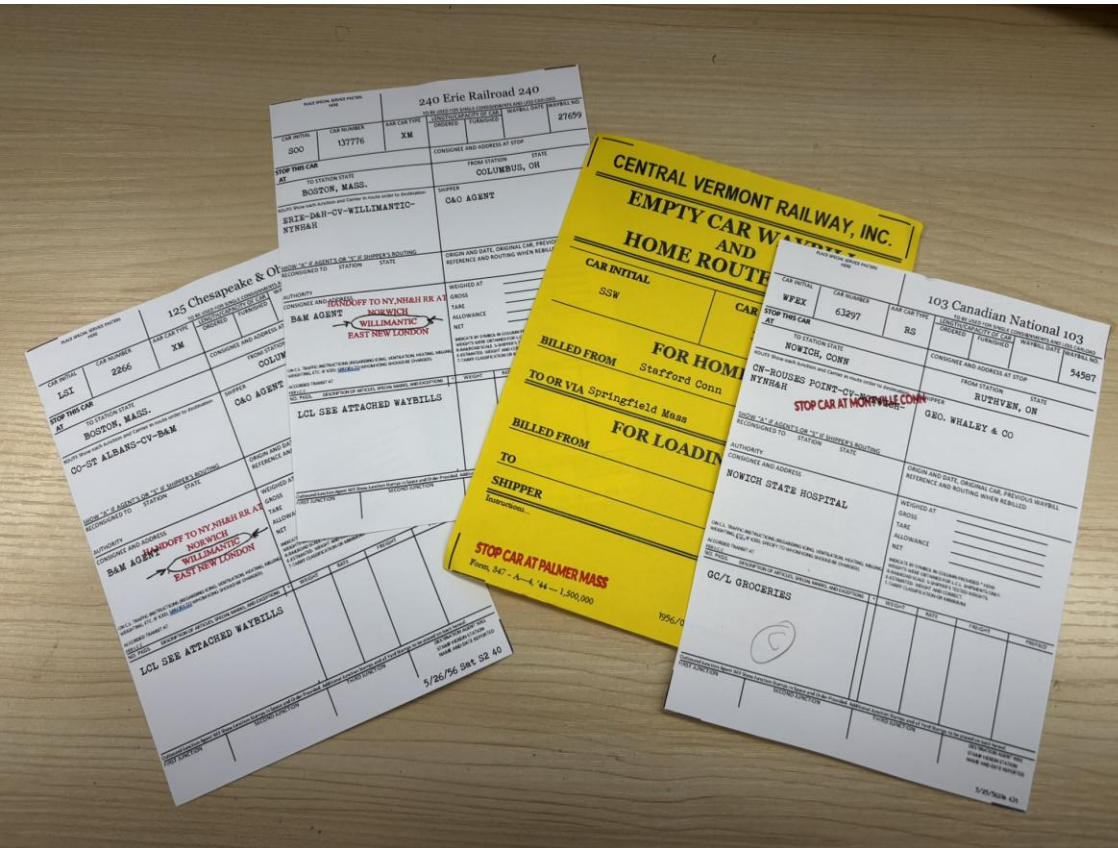
Summary: Car Orders on the CV

- We have 1 chief and 2 assistant clerks
 - Handle all the paper
 - Keep car orders with the cars
 - Switch lists
- 2 agent/operators
 - Train orders and signals
 - Local switch lists



Summary: Car Orders on the CV

- New car order generated each time:
 - Car leaving an industry with load or *empty-MTY*
 - Car leaving staging with load or *MTY*
- Printed on heavier paper 24#
- 5x7 format



Car Orders on the CV

Central Vermont in Norcal: <https://www.cvrailroad.com/>

Facebook: CVRR in Northern CA

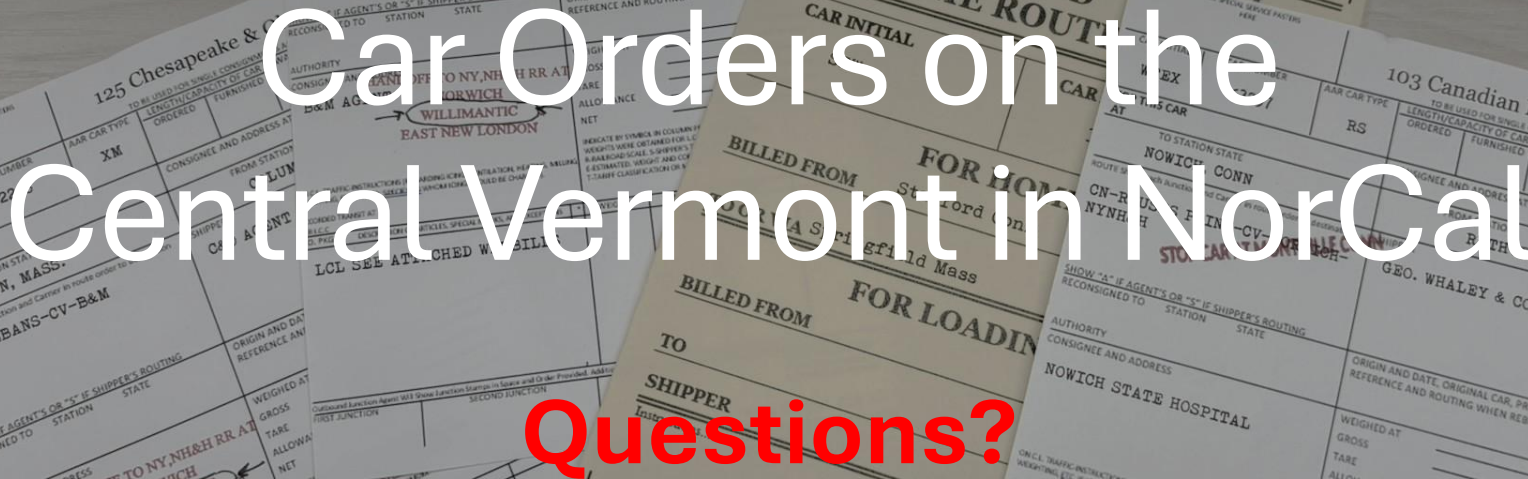
Central Vermont Railway Historical Society: <https://cvrhs.com/>

My Nicasio Northern Rwy: <https://nnrwy.trxndesign.com/>

Tony Thompson's blog: <https://modelingthesp.blogspot.com/>

JMRI Home: <https://www.jmri.org/>

Operations Special Interest Group: <https://opsig.org/>



Questions?

nrrwy.trxndesign.com

5/25/96 SLW 4Jt