FRASER GRAIN TERMINAL

FRASER GRAIN TERMINAL
RAIL OPERATIONS PLAN

ENGINEERING GROUP

CMC ENGINEERING AND MANAGEMENT LIMITED

2017 JUNE

CMC File: 1419-204

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Revision Control

REVISION	DATE	CHANGES	REMARKS
V8.0	2017 06 20	Edits as per results of VFPA completion review. Re-issue for PER.	MVN

GLOSSARY

The following abbreviations, acronyms and consecrated terms are used in this document:

Item	Meaning
CMC	CMC Engineering and Management Ltd.
FSD	Fraser Surrey Docks
FGT	Fraser Grain Terminal
Fraser Grain Terminal	Fraser Grain Terminal, the proponent for the Project
JV	Joint Venture
JV Facility	the existing joint venture facility operated by P&H and FSD
JVLO	Joint Venture Locomotive Crew
JVOP	Joint Venture Operation Unloading Crew
Manifest Car	standard strings of cars
P&H	Parrish & Heimbecker, Limited
PARY	Port Authority Rail Yard
t	tonne (1,000 kg)
Unit Train	a block of railcars all containing the same product

1. Introduction and Executive Summary

The rail service connection serving the unloading facility at the proposed Fraser Grain Terminal (FGT) consists of a u-shaped (semi-loop) track with both ends connected to the PARY. This FGT semi-loop is actually installed inside the existing semi-loop that services the currently operating JV. A new turnout some 250 m into the JV lead line (Track 45) will split the traffic; FGT to the left (Track FG1) and JV to the right (Track 45). The outputs from the two facilities will occur on two separate tracks heading into PARY; the JV track (on the outside) uses an extended track 90 and the FGT track (on the inside) via track 91. A new pair of turnouts between tracks 90 and 91 provides the option to direct track 90 towards the upper rungs of PARY.

Approximately 145 m prior to this FGT/JV split, a second turnout will provide access to Track FG2, a short spur line to FGT's loading facility. This spur line will handle 9 to 10 car strings on a once a day basis.

The FGT1 semi-loop track could, in the future, form part of and, be incorporated into, a complete rail loop track. The PARY tracks, in the initial phase, will be used to stage incoming Unit Trains of grain as well as Unit Trains and Manifest Cars of agriproducts.

Unit Trains will be unloaded at the Fraser Grain Terminal and the JV, while agriproducts Manifest Cars will be unloaded only at the existing JV Facility. Unit Trains will be composed of up to 112 railcars, Manifest Cars will arrive in strings of 50 railcars.

The logistics of moving railcars from PARY to the unloading facilities is described in the following sections of this report.

2. Description of PARY

PARY consists of several tracks, some of which are between 1.5 km and 1.8 km long. Refer to Annex A.

The schematic representation of the existing PARY tracks' connection to the new proposed semi-loop track serving the unloading facility is shown in Annex B.

The proposed use of and modifications to the PARY tracks are as follows:

.1 Tracks 90 and 91 which are dedicated to staging and transiting FSD trains.

.2 Tracks 92 and 93 will be dedicated for staging Unit Trains to be unloaded at the FGT as well as the existing JV Facility.

.3 Tracks 94, 95, and 96 will be extended eastward to accommodate Unit Trains and agri manifest traffic.

.4 Track 99 will be used for transit of Manifest Car strings and for other commodities from FSD.

3. PARY Tracks Capacity

3.1 General

For the purpose of this study, it has been assumed that railcars will be received in the following format:

.1 Unit Train of up to 112 railcars
.2 Manifest Cars in strings of 50 railcars.

3.2 Receiving 112-car Unit Trains

It will be possible to accommodate simultaneously one Unit Train of 112 railcars and a string of Manifest Cars at the PARY tracks and unload same as follows.

3.2.1 Receiving and Unloading Grain Unit Trains at the FGT

.1 FGT is responsible for advising the rail carrier on empty Unit Train readiness to depart on PARY Tracks 92 and 93.

.2 Rail carrier will pick up empty railcars before delivering full railcars.

.3 Rail carrier will give FGT 24 hour advance notice on arrival time of Unit Train.

.4 Rail carrier will deliver the 112-car Unit Train, break it into two equal strings, and stage them on Tracks 92 and 93.

.5 FGT is responsible to further break the two strings into several smaller strings, of maximum 19 railcars each, to clear turnouts to permit rail traffic crossing Tracks 92 and 93.

.6 FGT is responsible for moving strings of 19 railcars from PARY tracks to the FGT unloading facility. The maximum length of railcar strings allowed at the FGT unloading facility is 19 railcars. This is to avoid blocking Robson Road during unloading. The logistics of moving strings of railcars from PARY to the FGT unloading facility is shown on Annex C.

.7 FGT is responsible for the reassembly of Unit Trains into two strings on two of Tracks 92 to 96.

3.2.2 Receiving and Unloading Agriproducts Unit Trains at the JV Facility

.1 The process of receiving and unloading agriproducts Unit Trains at the JV Facility is identical to that of grains indicated in Section 3.2.1 above except that the maximum length of strings of railcars allowed at the JV Facility is 10 railcars. This is the distance between the JV Facility and the turnout on the lead track shared with the coal train track.

3.2.3 Receiving and Unloading Agriproducts Manifest Cars at the JV Facility

.1 There is sufficient trackage at PARY with Tracks 94, 95, and 96 extended eastward to accommodate a full string of 50 full railcars and 50 empty railcars.

.2 Manifest Cars can be unloaded at the JV Facility while a Unit Train is being unloaded at the FGT at the same time.

.3 The JV is responsible for advising the rail carrier on empty railcar readiness for pick up.

.4 The JV is responsible for moving strings of 10 railcars from Tracks 94 to 96 at PARY to the JV Facility and reassembly of the string of 50 railcars on one of the same tracks.

4. Receiving 112-car Unit Trains

4.1 Unloading Time of Unit Trains at Fraser Grain Terminal

The logistics of unloading and unloading time of a 112-car grain Unit Train at the Fraser Grain Terminal is shown on Table 4-1 below. This table indicates the following:

.1 A Unit Train of 112 grain railcars can be unloaded in 9.5 hours. This includes train preparation for unloading, moving the first string of 19 railcars and preparation of train for departure from one of the Tracks 92 to 96.

.2 The actual unloading time at the unloading facility is 7.0 hours.

.3 4.5 hours have been allowed for the rail carrier to pull empty railcars first and then place full railcars on the selected PARY tracks.

Table 4-1
Unloading Unit Trains at FGT

ACTIVITY	DESCRIPTION	ACTIVITY DURATION (hours)	TIME		CYCLE TIME (hours)	
			UNLOADING ACTIVITY	RAIL CARRIER SERVICE ACTIVITY	UNLOADING	RAIL SERVICE
First Unit Train	Rail carrier gives 24 hours advance notice to FGT on train arrival time. Rail carrier places 112 full railcars (Unit Train) in PARY during late afternoon of the previous day or during the night, staged on Tracks 92 and 93 in two strings of 56 railcars.					
1	JV and FGT crews start of shift.	-	8:00		Work Period 9.5	
2	JV and FGT crews get ready to start shift.	0.50	8:30			
3	JV crew breaks the two strings into seven strings leaving the turnouts free to facilitate coal train traffic and places first string of full railcars on Fraser Grain Terminal indexer.	1.00	9:30			
4	While FGT crew unloads one string, JV crew shunts other strings of full and empty railcars for a continuous unloading mode. At the end of the unload cycle, the seven strings of empty railcars are staged by JV crew on Tracks 92 and 93 leaving the turnouts free to facilitate coal train traffic.	7.00	16:30			
5	JV crew recombines the seven strings into two strings on Tracks 92 and 93 and prepares all railcars for departure.	1.00	17:30			

4.2 Unloading Time of Unit Trains at the JV Facility

The logistics of unloading and unloading time of 112-car agriproducts Unit Trains at the JV Facility is shown on Table 4-2 below.

This table indicates the following:

.1 A Unit Train of 112 agriproducts railcars can be unloaded in a work period of 19.5 hours. This includes train preparation for unloading, moving of the first string of 10 railcars and preparation of train for departure from Tracks 92 and 93.

.2 The actual unloading time at the JV Facility is 17.0 hours. This is due to a lower receiving conveyor capacity at the existing JV Facility compared to the proposed Fraser Grain Terminal of 800 t/h and 2,000 t/h respectively.

.3 4.5 hours have been allowed to pull empty railcars and stage full railcars on the selected PARY tracks.

Table 4-2
Unloading Unit Trains at the JVF

ACTIVITY	DESCRIPTION	ACTIVITY DURATION (hours)	TIME		CYCLE TIME (hours)	
			UNLOADING ACTIVITY	RAIL CARRIER SERVICE ACTIVITY	UNLOADING	RAIL SERVICE
First Unit Train	Rail carrier gives 24 hours advance notice to FGT on train arrival time. Rail carrier places 112 full cars (Unit Train) in PARY during the night, staged on Tracks 92 and 93 in two strings of 56 cars.					
1	JV crews' start of shift.	-	8:00			
2	JV crews get ready to start shift.	0.50	8:30			
3	JVLO crew breaks the two strings into seven strings leaving the turnouts free to facilitate coal train traffic and places first string of full cars on indexer at JV Facility.	1.00	9:30			
4	While the JVOP crew unloads one string, the JVLO crew shunts other strings of full and empty cars for a continuous unloading mode of operation. At the end of the unloading cycle, JVLO crew stages the 12 strings of empty cars (11 strings of 10 cars plus two cars) on Tracks 92 and 93 leaving the turnouts free to facilitate coal traffic.	17.00	02:30+1		Work Period 19.5	
5	JV crew recombines the 12 strings of cars into two strings of 56 cars each on Tracks 92 and 93 and prepares all cars for departure.	1.00	03:30+1			
6[(1)]	Rail carrier loco picks up Unit Train of empty cars.	1.50		05:00+1		Work Period 4.5
7[(2)]	Rail carrier crew arrives with another Unit Train of full cars in PARY.	2.00		07:00+1		
8[(2)]	The Unit Train is broken into two strings by Rail carrier crew and staged on Tracks 92 and 93.	1.00		08:00+1		
9	Rail carrier loco and crew off from 08:00+1.					
10	JV crew's start of new shift.	-	8:00+1			

Notes for Table 4-2:

1) Under this scenario, Activity 6 can be performed by rail carrier any time after 03:30.

2) Activities 7 and 8 can be performed by rail carrier anytime during the night providing they are completed by 08:00, start of the new shift on the following day.

4.3 Unloading Time of Manifest Cars at the JV Facility

4.3.1 Unloading Railcars

The unloading time of a string of 50 agriproducts Manifest Cars at the JV Facility has been extracted from a study done by CMC Engineering and Management Ltd. for FSD in 2014 entitled Agricultural Expansion Pre-feed Study. The study indicated, based on historical data, that about 50 railcars can be unloaded in one 8-hour shift.

4.4 Summary of Track Usage at PARY

Table 4-3 below is a summary of track usage at PARY for a throughput volume of ≈4.0 Mt/a:

- Using Tracks 92 to 96 for:
  - Unit Trains to be unloaded at the FGT
  - Unit Trains to be unloaded at the JV Facility
  - Manifest Cars to be unloaded at the JV Facility.

This table shows that it is possible to handle ≈4.0 Mt/a using Tracks 92 to 96 by unloading Unit Trains at the FGT working one 10-hour shift per day for 309 days at the Fraser Grain Terminal while the JV Facility would unload agriproducts Unit Trains and Manifest Cars for only 61 days.

Table 4-3
PARY Track Usage

- Using Tracks 92 to 96 for Unit Trains and Manifest Cars

Volume to be Unloaded (t/a)	Unloading Station	Capacity Unit (t)	Train Composition (%)	Using Tracks 92 to 96 Required	
				No. of Days	Work Hours per Day
3,460,800	Fraser Grain Terminal	11,200	100% Unit Train	309	10 hour shift
436,800	JV Facility	11,200	80% Unit Train	39	≈ all day (19.5 hours)
110,000	JV Facility	5,000	20% Manifest Cars	22	8 hour shift

4.5 Unloading Capacity

4.5.1 Nominal Unloading Capacity for the Combined FGT and JV Facility

The nominal unloading capacity for the combined FGT and JV Facility has been calculated with the following assumptions:

.1 All grain and agriproducts Unit Trains as well as Manifest Cars will be sharing Tracks 92 to 96.

.2 The rail carrier locomotive will escape via one of the empty tracks.

.3 The Fraser Grain Terminal will be unloading 309 Unit Trains per annum.

.4 The JV Facility will be unloading 39 Unit Trains and 22 strings of 50-car manifest traffic.

The capacity calculation is shown on Table 4-4.

Table 4-4
Unloading Capacity at the Combined Fraser Grain Terminal and JV Facility
(Using 112-car Unit Trains & 50-car String Manifest Cars)

Unloading Station	Given Throughput at JV Facility (t/a)	Train Capacity (t)	Number of Hours/Day	No. of Trains Unloaded per Year		Unloading Capacity (t/a)		
				Unit Trains	Manifest Cars	Unit Trains	Manifest Cars	Total
Fraser Grain Terminal (UT)		11,200	9.5	309		3,460,800		3,460,800
JV Facility (UT)	436,800 maximum	11,200	19.5	39		436,800		436,800
JV Facility (Manifest)	110,000 maximum	5,000	8		22		110,000	110,000
				348	**22**	**3,897,600**	**110,000**	**4,007,600**

5. Rail Work at Fraser Grain Terminal and PARY

5.1 General Description of the Work

The rail work envisaged to serve the proposed Fraser Grain Terminal includes the following:

.1 Construction of approximately 775 m of new track from part way up the JV access track to the existing track 91 on the side of Robson Road. A railcar indexer will be installed at the north entrance of the unloading building to pull strings of 19 railcars.

.2 Re-alignment of the existing JV track as it approaches Robson Road to allow it to connect to the existing track 90 extended by approximately 130 m.

.3 Installation of two new turnouts between tracks 90 and 91.

.4 An existing spur line of about 400 m formerly serving the abandoned Bekaert building will be realigned to serve the proposed railcar loading facility of the FGT. A railcar indexer will be installed at the south end of the railcar loading building to pull strings of 9 to 10 cars for loading. The realigned spur line will be connected to the semi-loop track with a new turnout as shown on Annex A.

.5 Extension of existing Tracks 94, 95, and 96 northward by about 850 to 900 m. Using three new turnouts, these tracks will connect to track 93 which will, in turn connects to the north lead track.

.6 Relocation of turnouts 94, 95, and 96 from location C to position D as shown on Annex B.

.7 Realignment of a track serving Chemetron Railway Products, Inc. to make space for Tracks 94, 95, and 96 extensions.

ANNEX A

Fraser Grain Terminal Rail Service
Layout of Rail Connection to FGT & JV Facility from PARY

TRUE NORTH

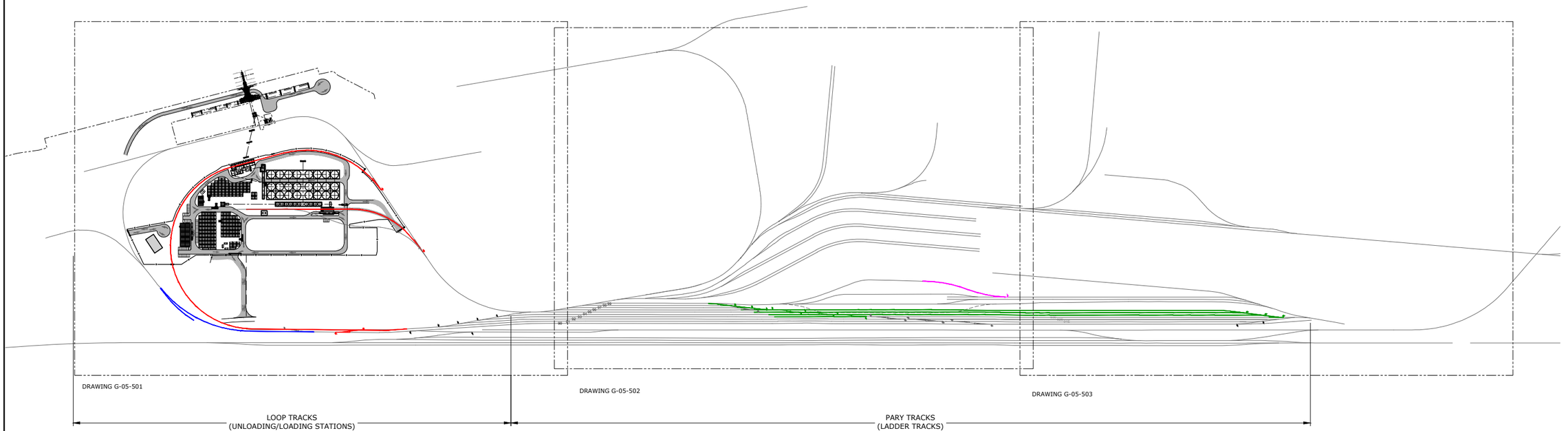
PROJECT NORTH

LEGEND:

- EXISTING TRACKS
- PROPOSED FGT TRACKS
- PROPOSED JV TRACK REALIGNMENT
- PROPOSED PARY TRACKS EXTENSION
- PROPOSED CHEMETRON TRACK EXTENSION

NOTE:

1. FOR TRACK REALIGNMENT AND EXTENSION LENGTHS REFER TO STANTEC REPORT "CONCEPTUAL REVIEW PACKAGE. RAIL CONCEPTUAL PLAN. FRASER GRAIN TERMINAL"



REFERENCE DRAWINGS	
G-05-501	G-05-502
G-05-503	

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REV.	DATE	DESCRIPTION
5	2017-MAY-01	REVISED PROPERTY LINE AND LEGEND
4	2017-MAR-14	JV TRACK COLOR
3	2017-MAR-08	AS BUILT RAIL LAYOUT UPDATED
2	2016-SEP-19	COR. TO TRACK LAYOUT
1	2016-JUL-08	ISSUED FOR PER

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FGT

FRASER GRAIN TERMINAL

SITE LAYOUT
RAIL SERVICE CONNECTION
PARY & LOOP TRACKS LAYOUT

PROJECT NO.	SCALE
1419	1:4000

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1419-G-05-500	5

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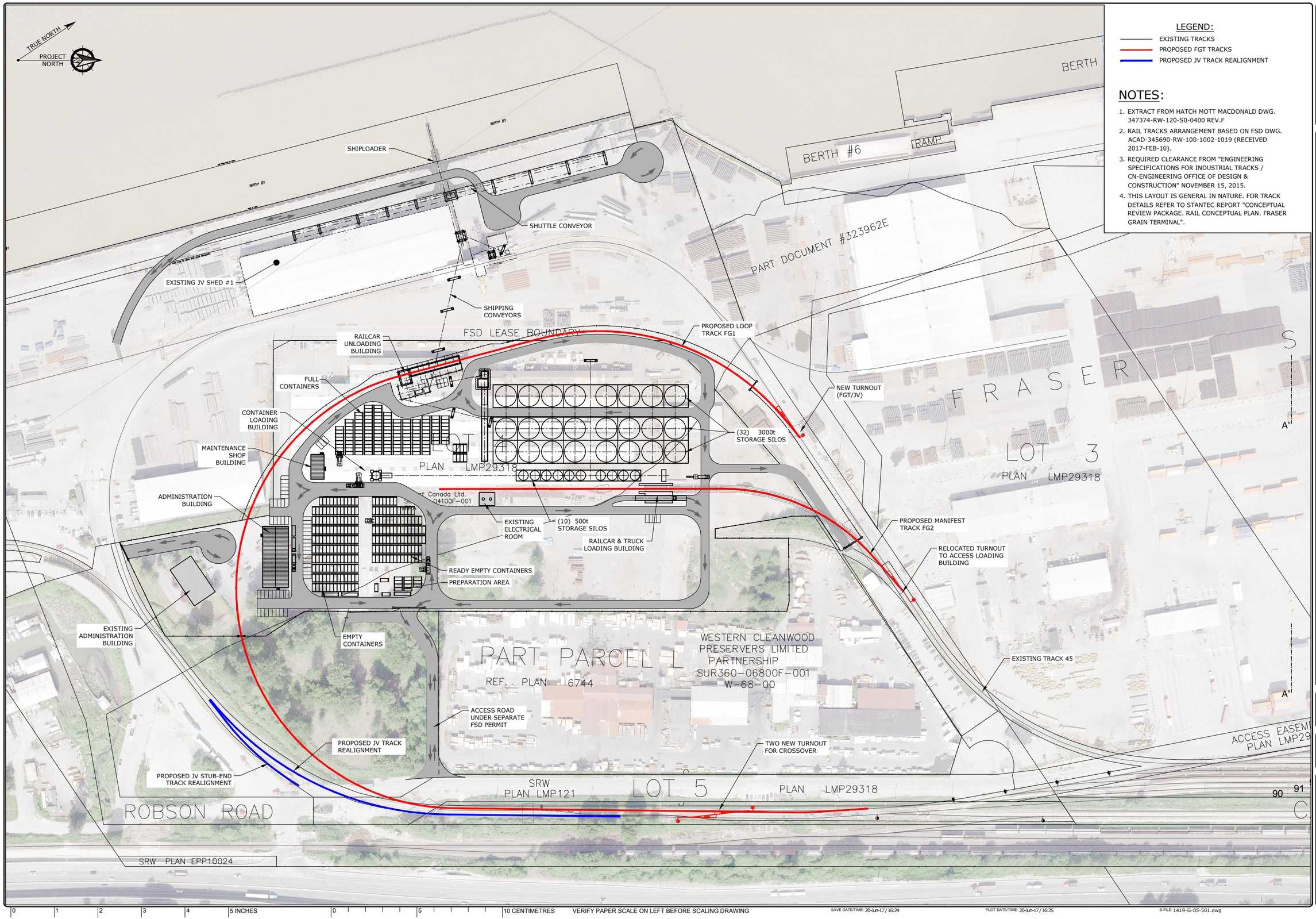

LEGEND:

- EXISTING TRACKS
- PROPOSED FGT TRACKS
- PROPOSED JV TRACK REALIGNMENT

NOTES:

1. EXTRACT FROM HATCH MOTT MACDONALD DWG. 347374-RW-120-S0-0400 REV.F
2. RAIL TRACKS ARRANGEMENT BASED ON FSD DWG. ACAD-345690-RW-100-1002-1019 (RECEIVED 2017-FEB-10).
3. REQUIRED CLEARANCE FROM "ENGINEERING SPECIFICATIONS FOR INDUSTRIAL TRACKS / CN-ENGINEERING OFFICE OF DESIGN & CONSTRUCTION" NOVEMBER 15, 2015.
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4	2017-MAR-14	JV TRACK COLOR
3	2017-FEB-23	RAIL LAYOUT REVISED
2	2016-SEP-19	COR. TO TRACK LAYOUT
1	2016-JUL-08	ISSUED FOR PER

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FGT
FRASER GRAIN TERMINAL

SITE LAYOUT
RAIL SERVICE CONNECTION
LOOP TRACKS LAYOUT

PROJECT NO.	1419	SCALE	1:1250
DRAWING NO.	1419-G-05-501	REV.	5

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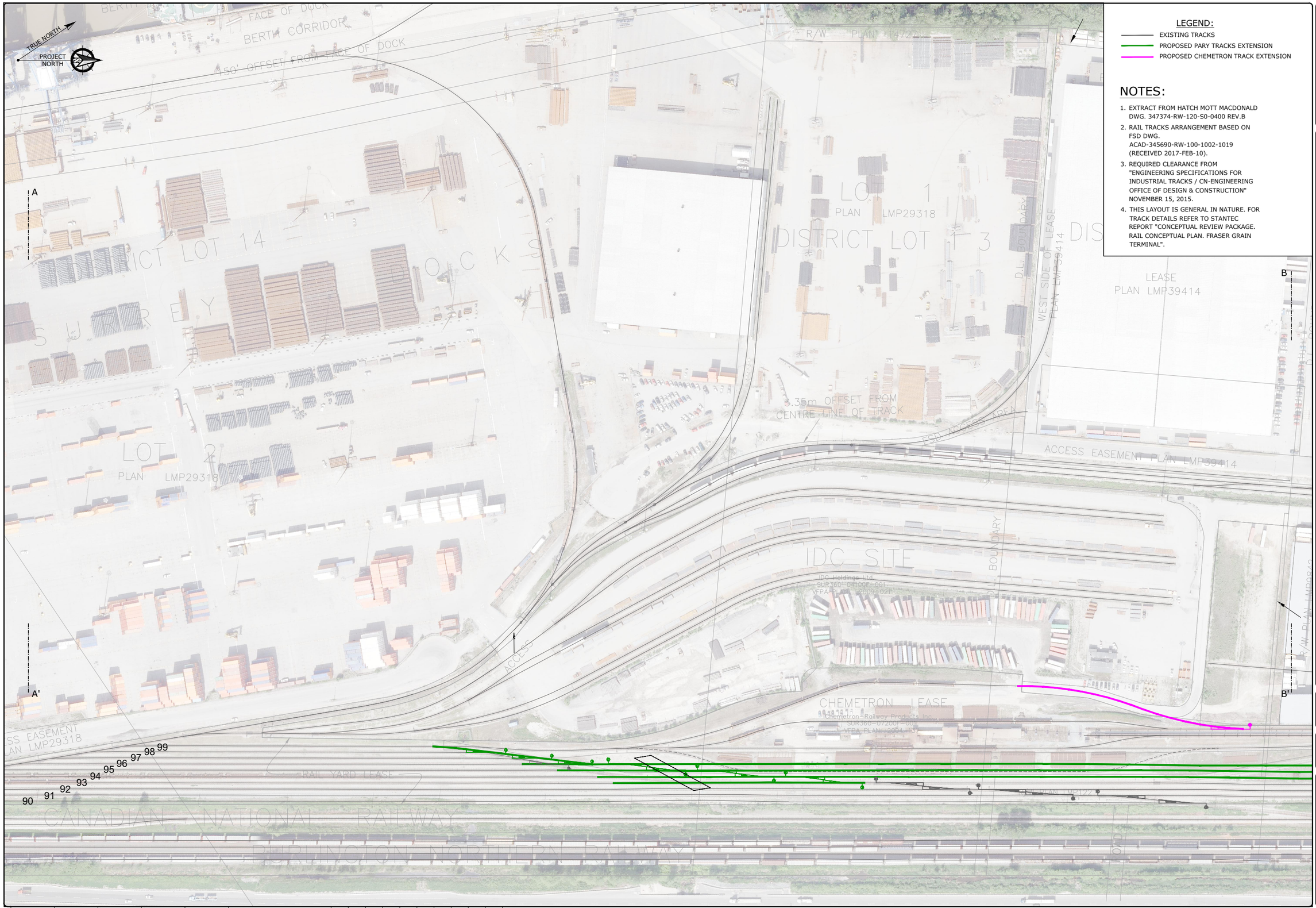

LEGEND:

- EXISTING TRACKS
- PROPOSED PARY TRACKS EXTENSION
- PROPOSED CHEMETRON TRACK EXTENSION

NOTES:

1. EXTRACT FROM HATCH MOTT MACDONALD DWG. 347374-RW-120-S0-0400 REV.B
2. RAIL TRACKS ARRANGEMENT BASED ON FSD DWG. ACAD-345690-RW-100-1002-1019 (RECEIVED 2017-FEB-10).
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REV.	DATE	DESCRIPTION
4	2017-MAY-18	REVISED LEGEND AND LAYOUT
3	2017-FEB-28	RAIL LAYOUT UPDATED
2	2016-SEP-19	COR. TO TRACK LAYOUT
1	2016-JUL-08	ISSUED FOR PER

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FGT
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SITE LAYOUT
RAIL SERVICE CONNECTION
PARY TRACKS LAYOUT

PROJECT NO. 1419 | SCALE 1:1250

DRAWING NO. 1419-G-05-502 | REV. 4

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LEGEND:

- EXISTING TRACKS
- PROPOSED PARY TRACKS EXTENSION

NOTES:

1. EXTRACT FROM HATCH MOTT MACDONALD DWG. 347374-RW-120-S0-0400 REV.B
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FGT
FRASER GRAIN TERMINAL

SITE LAYOUT
RAIL SERVICE CONNECTION
PARY TRACKS LAYOUT

PROJECT NO.	SCALE
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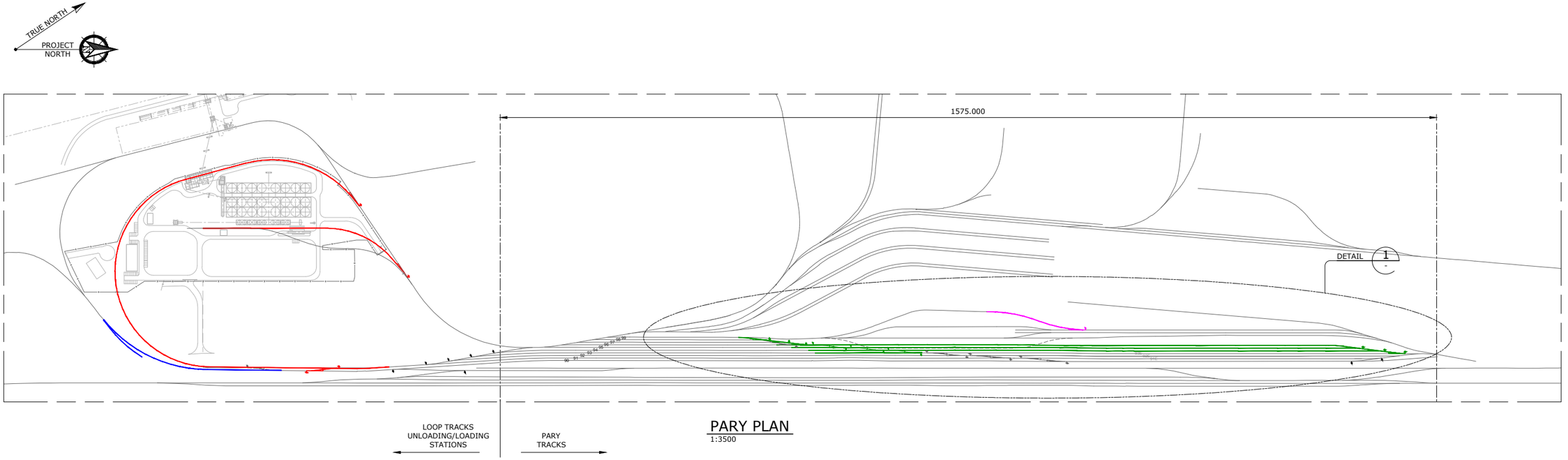
ANNEX B

Fraser Grain Terminal Rail Service
Schematics of Rail Connection to FGT & JV Facility from PARY



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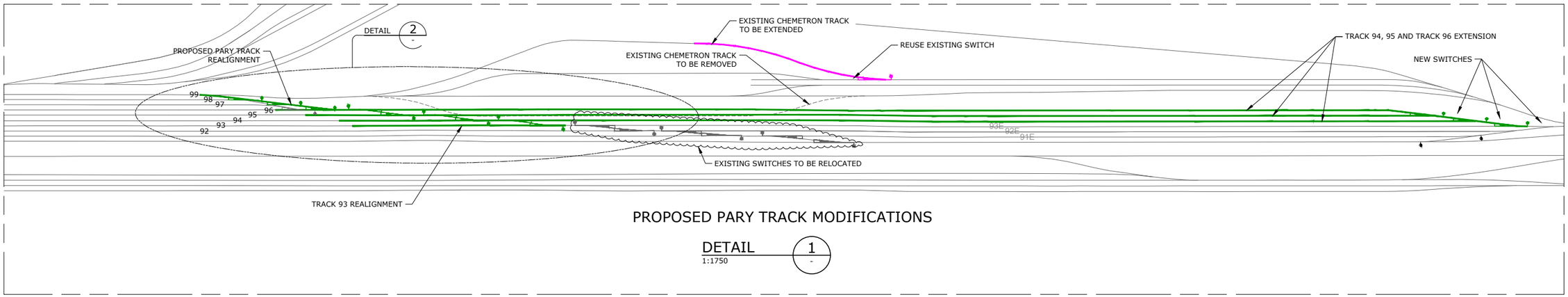

PROPOSED PARY TRACK MODIFICATIONS

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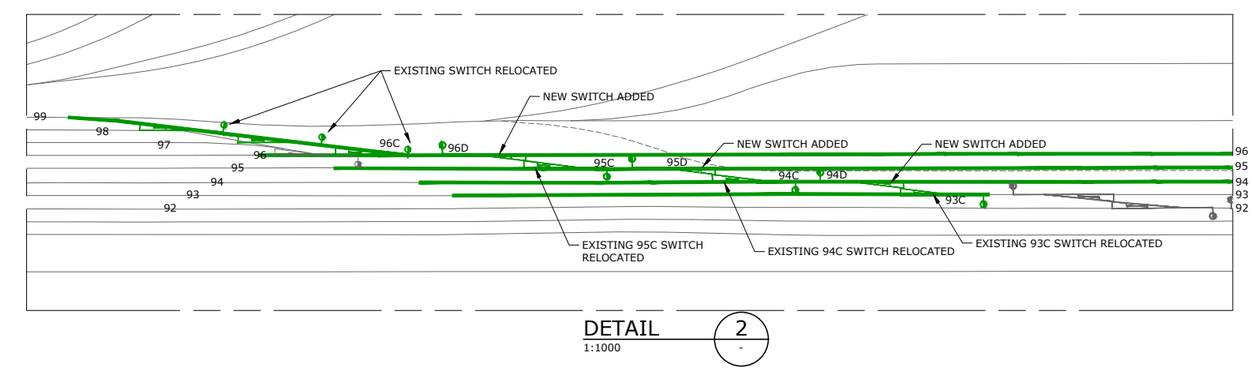

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1:1000

LEGEND:
- EXISTING TRACKS
- PROPOSED FGT TRACKS
- PROPOSED PARY TRACKS EXTENSION
- PROPOSED JV TRACK REALIGNMENT
- PROPOSED CHEMETRON TRACK EXTENSION

NOTES:
1. RAIL TRACKS ARRANGEMENT BASED ON FSD DWG. ACAD-345690-RW-100-1002-1019 (RECEIVED 2017-FEB-10).
2. FOR TRACK REALIGNMENT AND EXTENSION LENGTHS REFER TO STANTEC REPORT "CONCEPTUAL REVIEW PACKAGE. RAIL CONCEPTUAL PLAN. FRASER GRAIN TERMINAL".

REFERENCE DRAWINGS

DIMENSIONS IN mm U.N.O

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REV.	DATE	DESCRIPTION
6	2017-MAY-01	REVISED TRACK COLORS
5	2017-MAR-14	JV TRACK COLOR
4	2017-FEB-27	IDC TRACKS RE-ALIGNED
3	23-FEB-2017	RAIL LAYOUT REVISED
2	2016-SEP-19	COR. TO TRACK LAYOUT
1	2016-JUL-08	ISSUED FOR PER

REVISION HISTORY

ISSUED FOR
PER
DO NOT USE FOR CONSTRUCTION

SEAL (when required)

SIGNATURE

DD-MMM-YYYY

ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

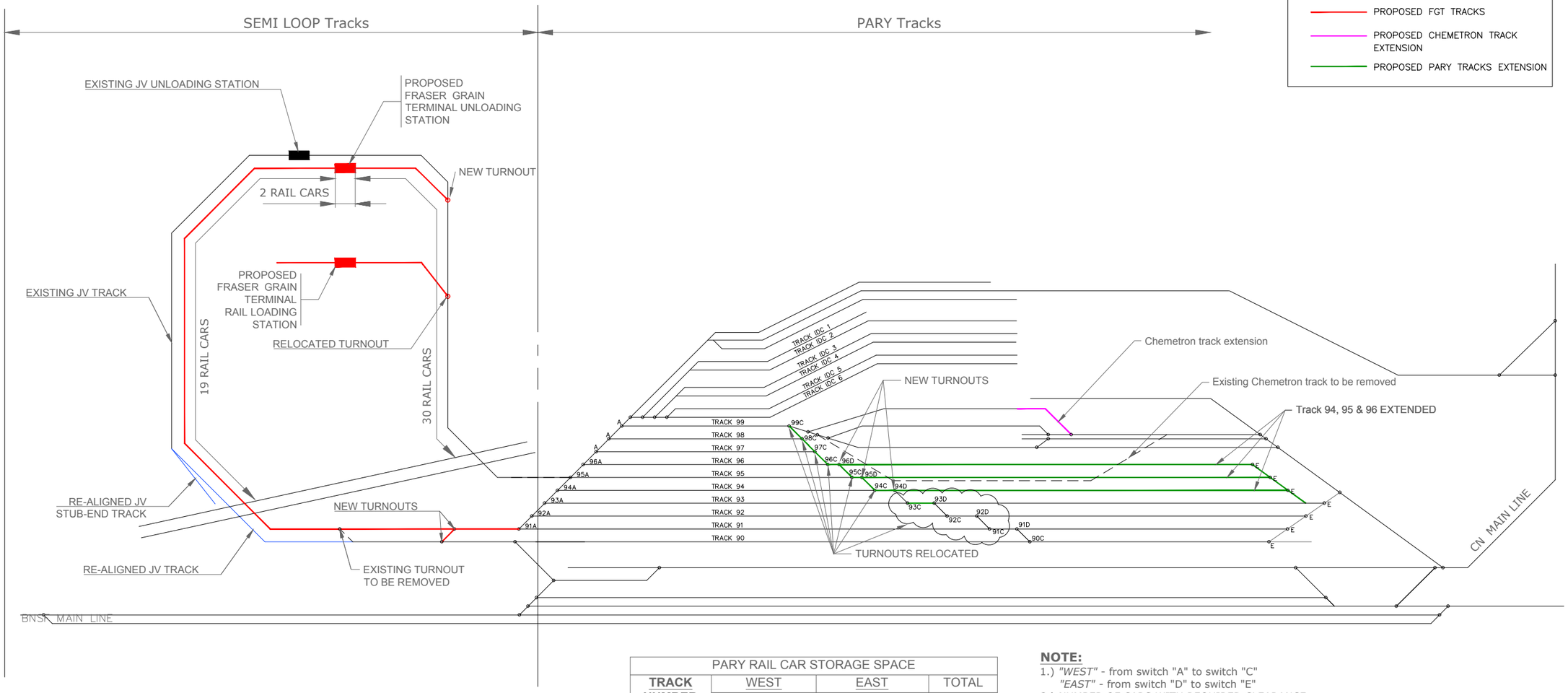
SITE LAYOUT
RAIL SERVICE CONNECTION
PARY TRACK MODIFICATIONS
-

PROJECT NO.	1419	SCALE	AS SHOWN
DRAWING NO.	1419-G-05-504	REV.	6

0 | 1 | 2 | 3 | 4 | 5 INCHES | 0 | 5 | 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 20-Jun-17 / 16:36 PLOT DATE/TIME: 20-Jun-17 / 16:37 S-FILE: 1419-G-05-504.dwg

FRASER GRAIN TERMINAL RAIL SERVICES
SCHEMATICS OF RAIL CONNECTION
BETWEEN FGT, JV FACILITY AND PARY



LEGEND:

TRACKS:

- EXISTING TRACKS
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

PARY RAIL CAR STORAGE SPACE			
TRACK NUMBER	WEST NUM. OF CARS	EAST NUM. OF CARS	TOTAL
99	5	-	5
98	10	-	10
97	13	-	13
96	16	46	62
95	21	42	63
94	30	40	70
93	36	39	75
92	42	34	76

NOTE:
1.) *"WEST"* - from switch "A" to switch "C"
"EAST" - from switch "D" to switch "E"
2.) NUMBER OF CARS WITH REQUIRED CLEARANCE

NOTE:
RAIL LAYOUT AS PER AS-BUILT RAIL TRACKS DRAWING RECEIVED ON (10-FEB-2017) FROM FSD DWG# ACAD-345690-RW-100-1002-1019.

REFERENCE DRAWINGS

-	

DIMENSIONS IN mm U.N.O

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REV.	DATE	DESCRIPTION
4	2017-MAY-18	REVISED LAYOUT
3	2017-MAR-13	RAIL LAYOUT UPDATED
2	2016-SEP-19	COR. TO TRACK LAYOUT
1	2016-JUL-08	ISSUED FOR PER

REVISION HISTORY

ISSUED FOR PER
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SEAL (when required)

SIGNATURE

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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS OF RAIL CONNECTION BETWEEN FGT, JV FACILITY AND PARY

PROJECT NO. 1419 | SCALE N.T.S.

DRAWING NO. 1419-G-05-520 | REV. 4

0 | 1 | 2 | 3 | 4 | 5 INCHES | 0 | 5 | 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

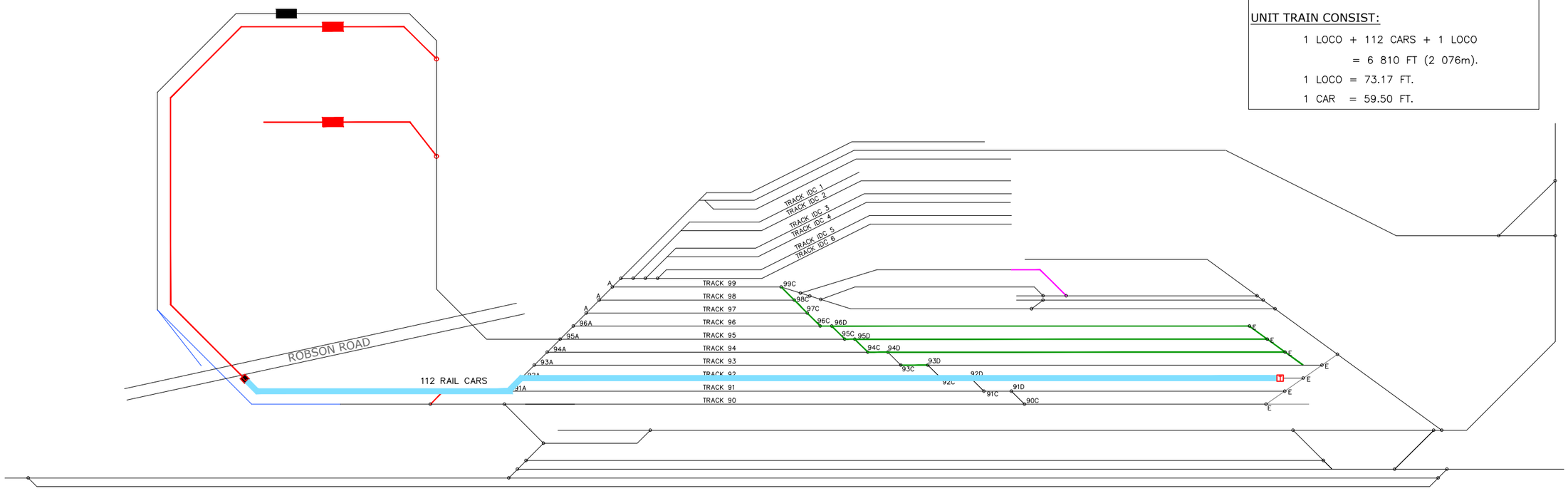
SAVE DATE/TIME: 2017-Jun-20 / 16:39 PLOT DATE/TIME: 2017-Jun-20 / 16:40 S-FILE: 1419-G-05-520.dwg

ANNEX C

Fraser Grain Terminal Rail Service
Schematics for Moving 112-car Grain Unit Trains from PARY for Unloading at FGT

Fraser Grain Terminal Rail Services
Schematics for Moving
112-car grain Unit Train unloading at FGT Facility

Unit Train is brought in by rail carrier on Track 92.



LEGEND:

TRACKS:

- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE

UNIT TRAIN CONSIST:

1 LOCO + 112 CARS + 1 LOCO
= 6 810 FT (2 076m).
1 LOCO = 73.17 FT.
1 CAR = 59.50 FT.

REFERENCE DRAWINGS

0000-00-000	

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SIGNATURE

YYYY-MMM-DD

ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 01 OF 23

PROJECT NO.	SCALE
1419	1:6 U.N.O.
DRAWING NO.	REV.
1419-G-05-521	4

0 | 1 | 2 | 3 | 4 | 5 INCHES | 0 | 5 | 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:47 S-FILE: 1419-G-05-521.dwg

Train is split into two sections by rail carrier
and staged on Tracks 92 and 93.
Rail carrier crew departs on Track 95.

LEGEND:

TRACKS:

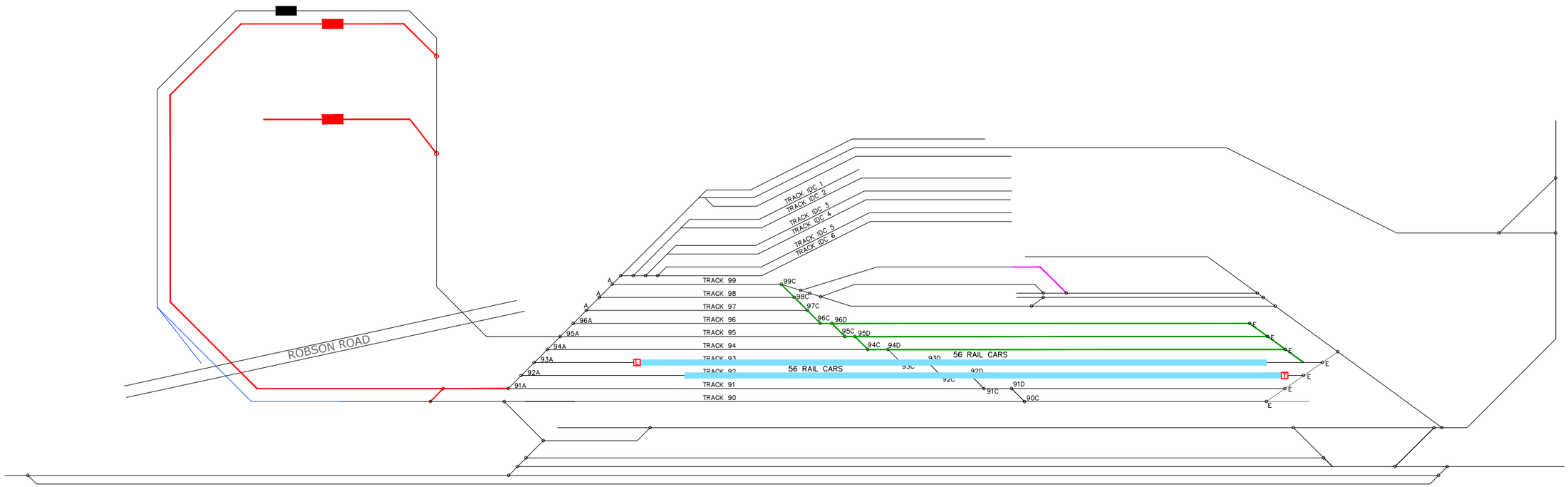
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



REFERENCE DRAWINGS

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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT

FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN
UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 02 OF 23

PROJECT NO.	SCALE	REV.
1419	1:6 U.N.O.	4

DRAWING NO. 1419-G-05-521

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:48 S-FILE: 1419-G-05-521.dwg

Yard loco split into two sections to make seven strings and keep turnouts clear for coal train traffic.

LEGEND:

TRACKS:

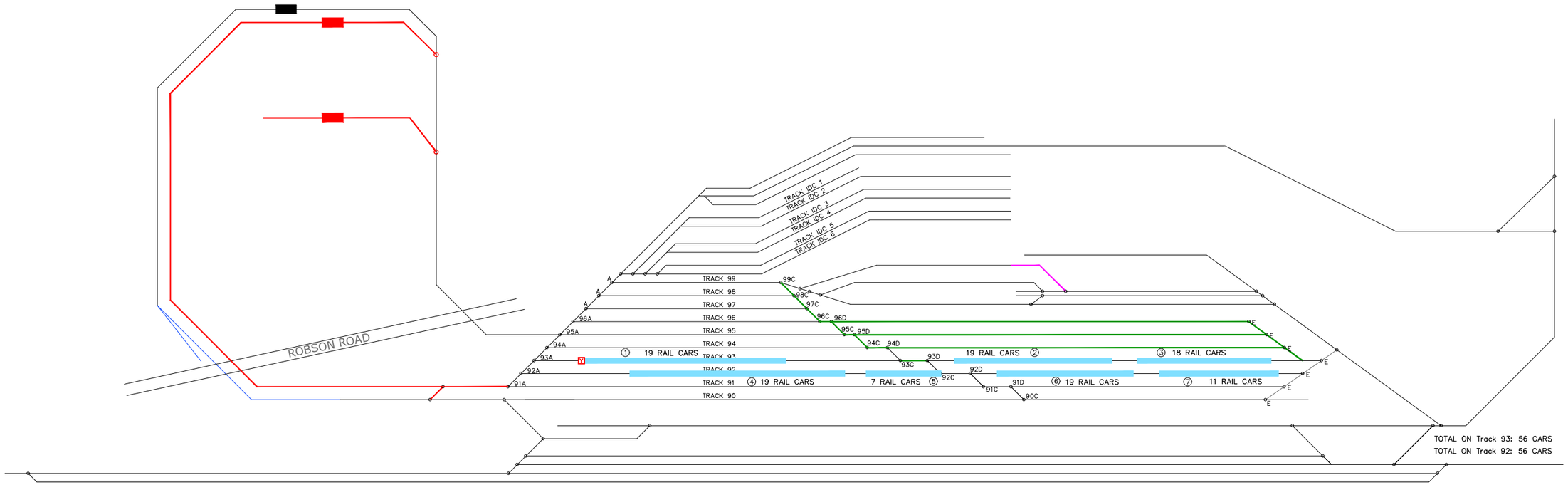
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 03 OF 23

PROJECT NO.	SCALE	REV.
1419	1:6 U.N.O.	
DRAWING NO.		4
1419-G-05-521		

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:48 S-FILE: 1419-G-05-521.dwg

String 1 pulled onto Lead Track via Track 99.

LEGEND:

TRACKS:

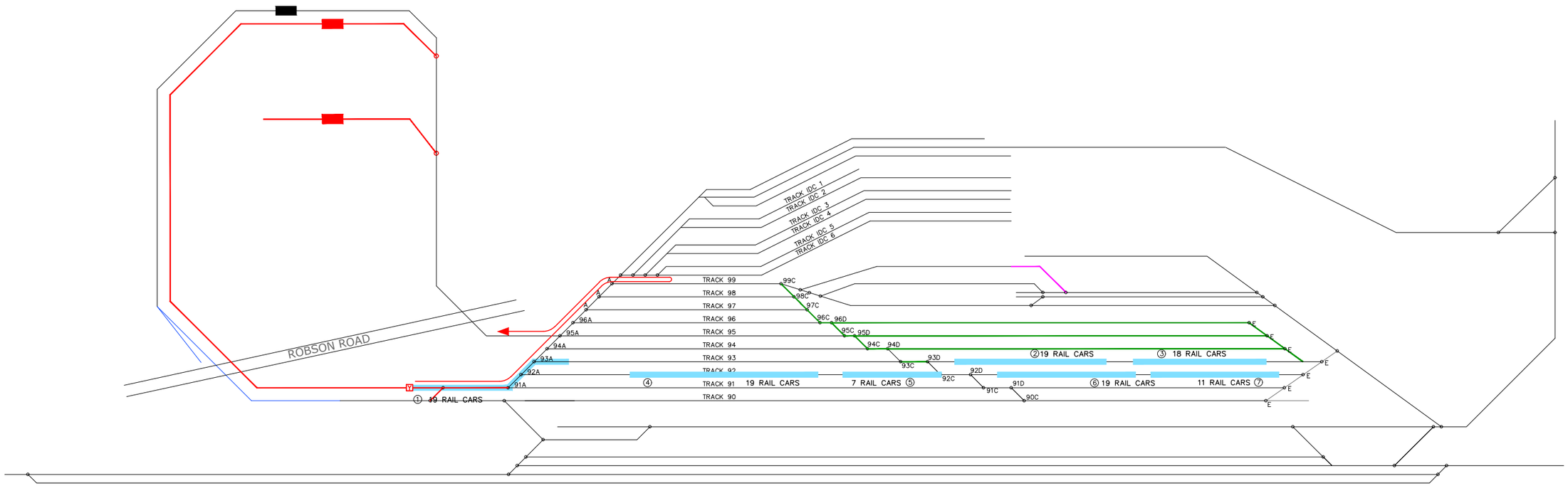
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 04 OF 23

PROJECT NO.	SCALE	REV.
1419	1:6 U.N.O.	4

DRAWING NO. 1419-G-05-521

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:48 S-FILE: 1419-G-05-521.dwg

String 1 pulled into Loop and spotted on car indexer.
Yard loco go back to grab string 2.

LEGEND:

TRACKS:

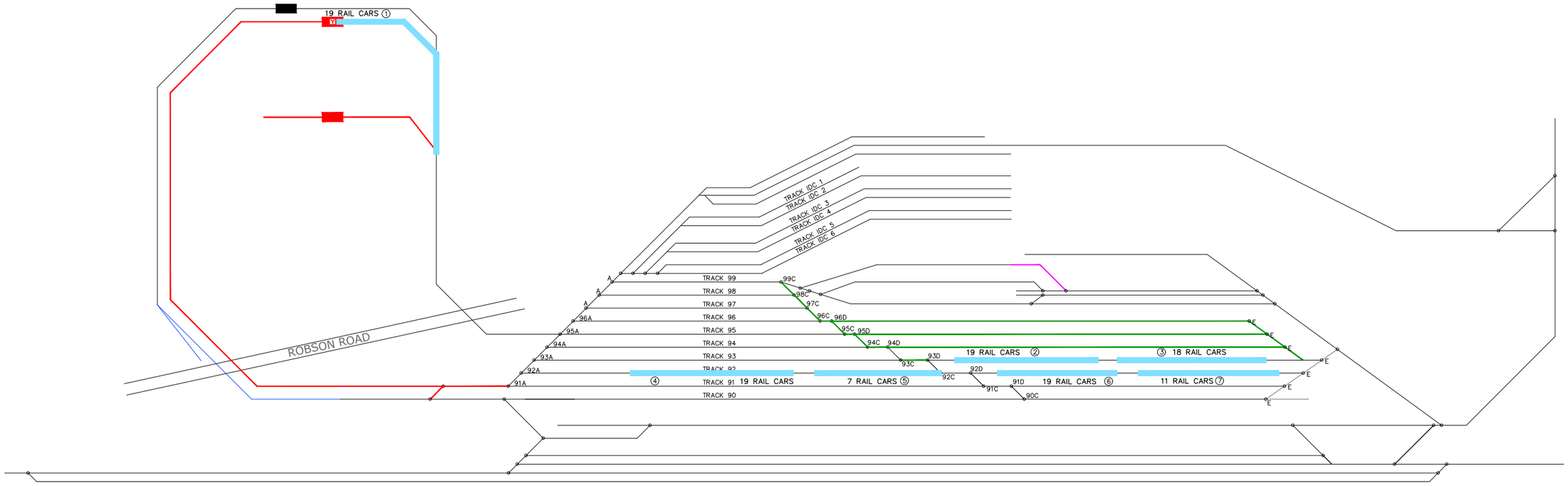
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 05 OF 23

PROJECT NO.	1419	SCALE	1:6 U.N.O.
DRAWING NO.	1419-G-05-521	REV.	4

0 | 1 | 2 | 3 | 4 | 5 INCHES | 0 | 5 | 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:48 S-FILE: 1419-G-05-521.dwg

String 1 being unloaded while Yard loco grabs string 2.

LEGEND:

TRACKS:

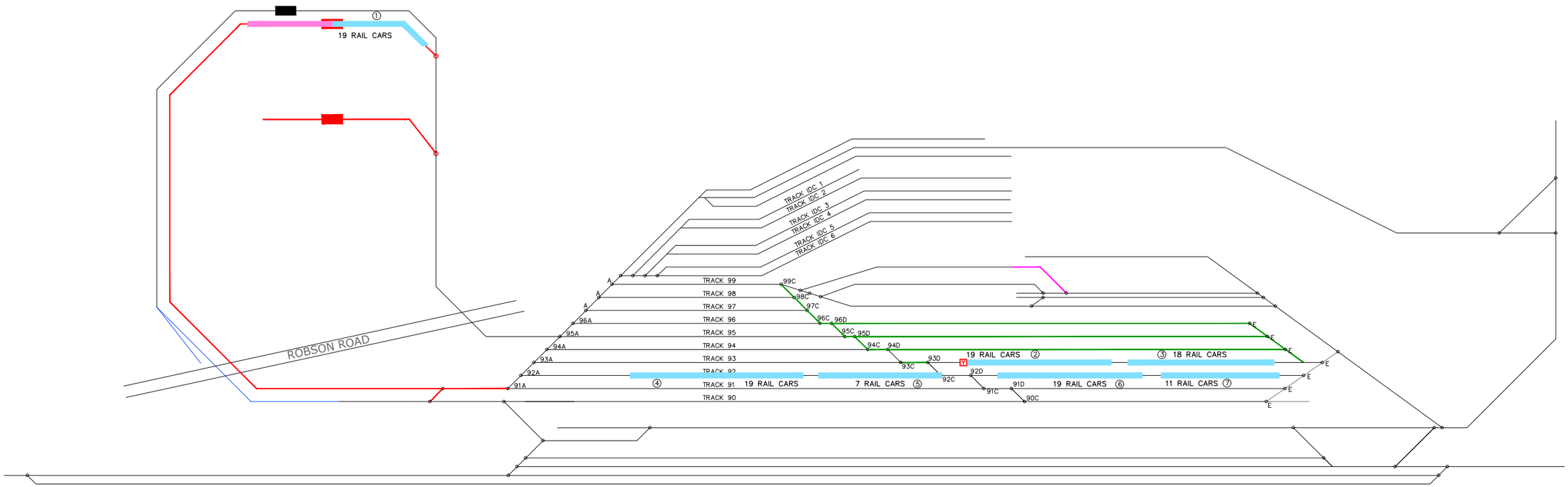
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



REFERENCE DRAWINGS

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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 06 OF 23

PROJECT NO.	1419	SCALE	1:6 U.N.O.
DRAWING NO.	1419-G-05-521	REV.	4

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:49 S-FILE: 1419-G-05-521.dwg

Yard loco pushes String 1 through unloading station while String 2 is placed on indexer via Track 95.

LEGEND:

TRACKS:

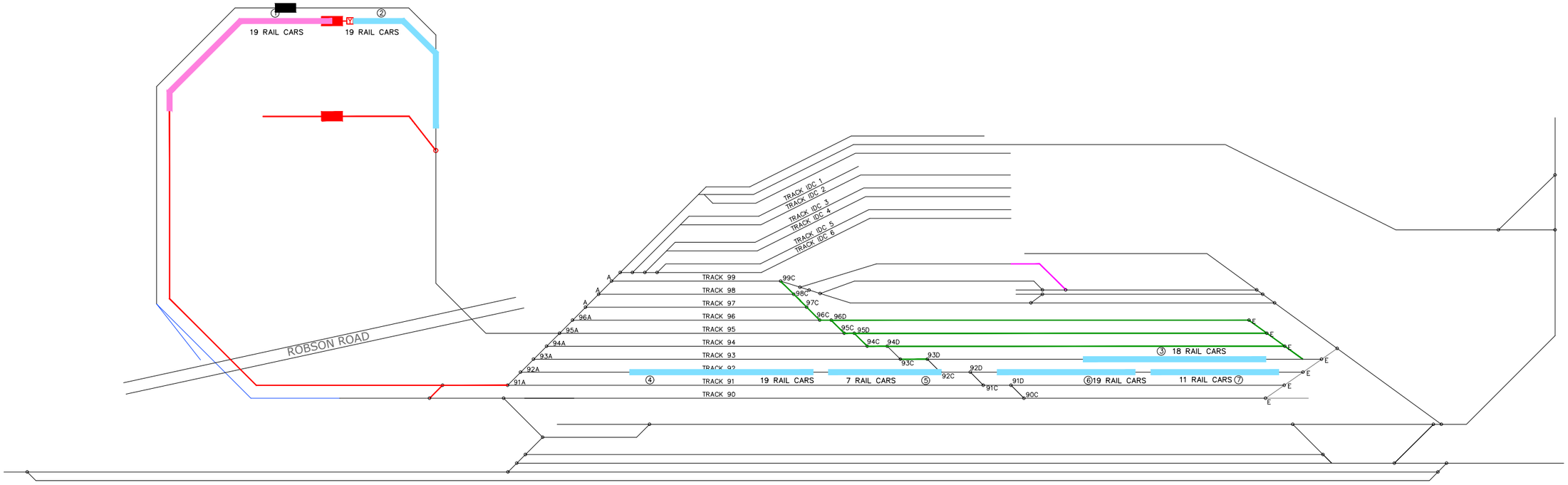
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



REFERENCE DRAWINGS

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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 07 OF 23

PROJECT NO.	SCALE	REV.
1419	1:6 U.N.O.	
DRAWING NO. 1419-G-05-521		4

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:50 S-FILE: 1419-G-05-521.dwg

Yard Loco rushes String 1 on Track 93W while String 2 is being unloaded.
Yard Loco travel from Track 93W via Track 95 to reach String 3.

LEGEND:

TRACKS:

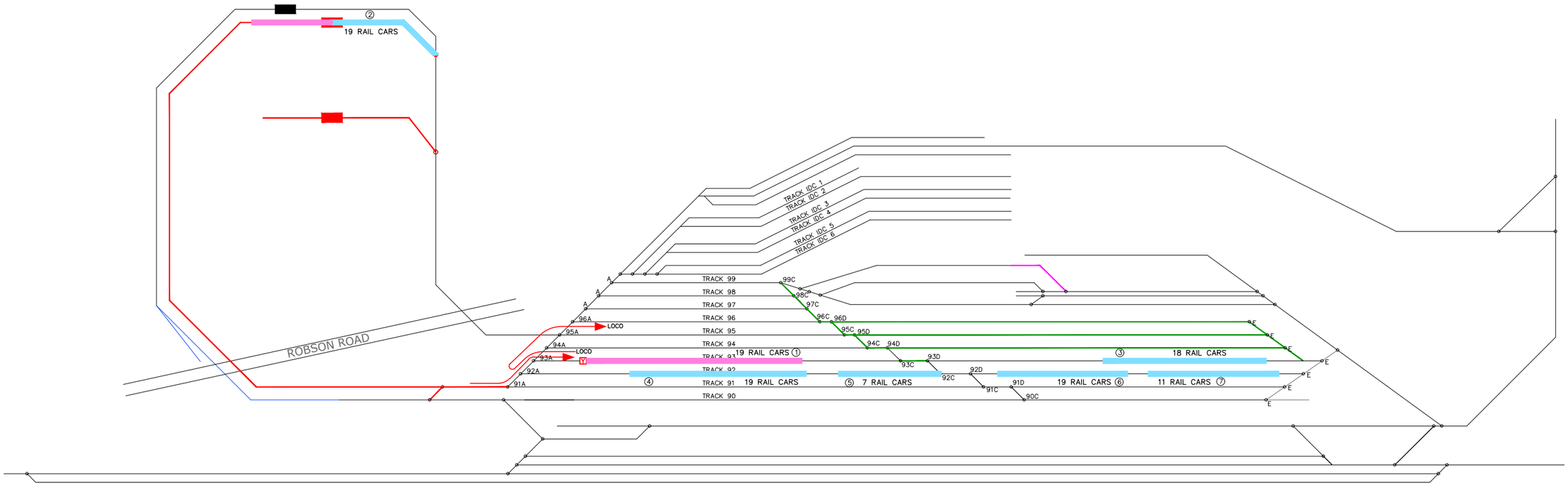
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L][T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



REFERENCE DRAWINGS

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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 08 OF 23

PROJECT NO.	1419	SCALE	1:6 U.N.O.
DRAWING NO.	1419-G-05-521	REV.	4

0 | 1 | 2 | 3 | 4 | 5 INCHES | 0 | 5 | 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:50 S-FILE: 1419-G-05-521.dwg

Yard Loco pulls String 3 to indexer via Track 95.
Yard Loco pushes empty String 2 through FGT unloading station.

LEGEND:

TRACKS:

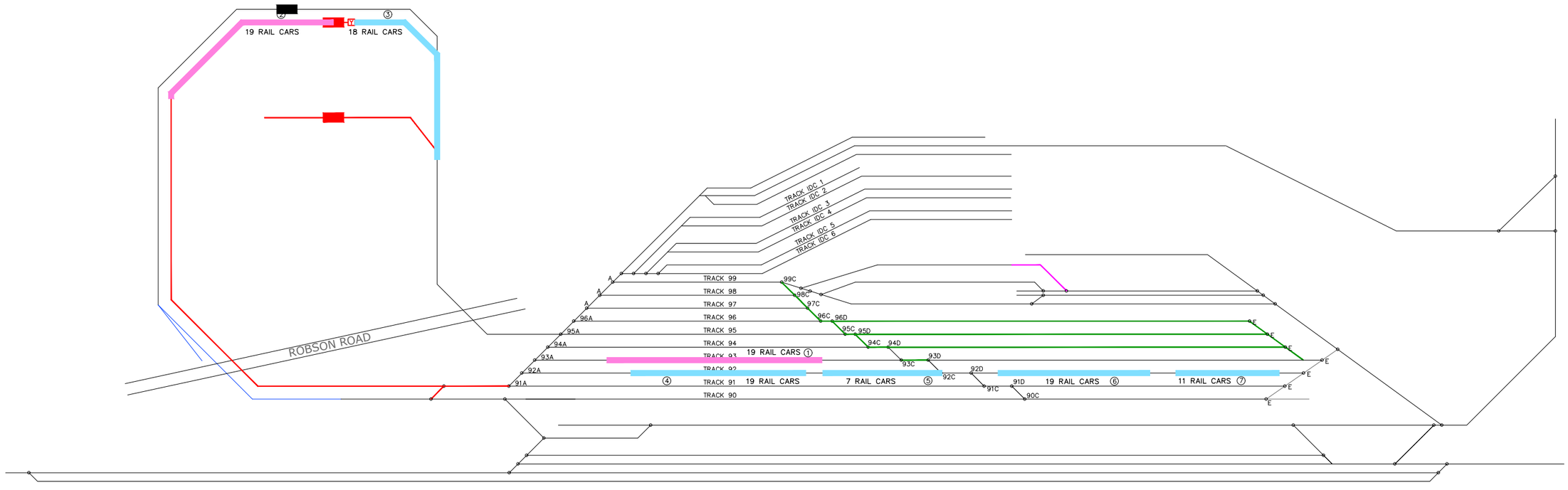
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- L T RAIL CARRIER LOCOMOTIVE
- Y YARD LOCOMOTIVE



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REV.	DATE	DESCRIPTION
4	2017-MAY-18	REVISED LAYOUT
3	2017-MAR-13	UPDATED RAIL LAYOUT
2	2016-SEP-19	COR. TO TRACK LAYOUT
1	2016-JUL-08	ISSUED FOR PER

REVISION HISTORY

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DO NOT USE FOR CONSTRUCTION

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YYYY-MMM-DD

ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 09 OF 23

PROJECT NO.	SCALE
1419	1:6 U.N.O.

DRAWING NO.	REV.
1419-G-05-521	4

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:50 S-FILE: 1419-G-05-521.dwg

String 3 being unloaded while Yard Loco pushes String 2 to Track 93E via Track 95.
Yard Loco travel from Track 93E to Track 92E via turnout C to grab String 6.

LEGEND:

TRACKS:

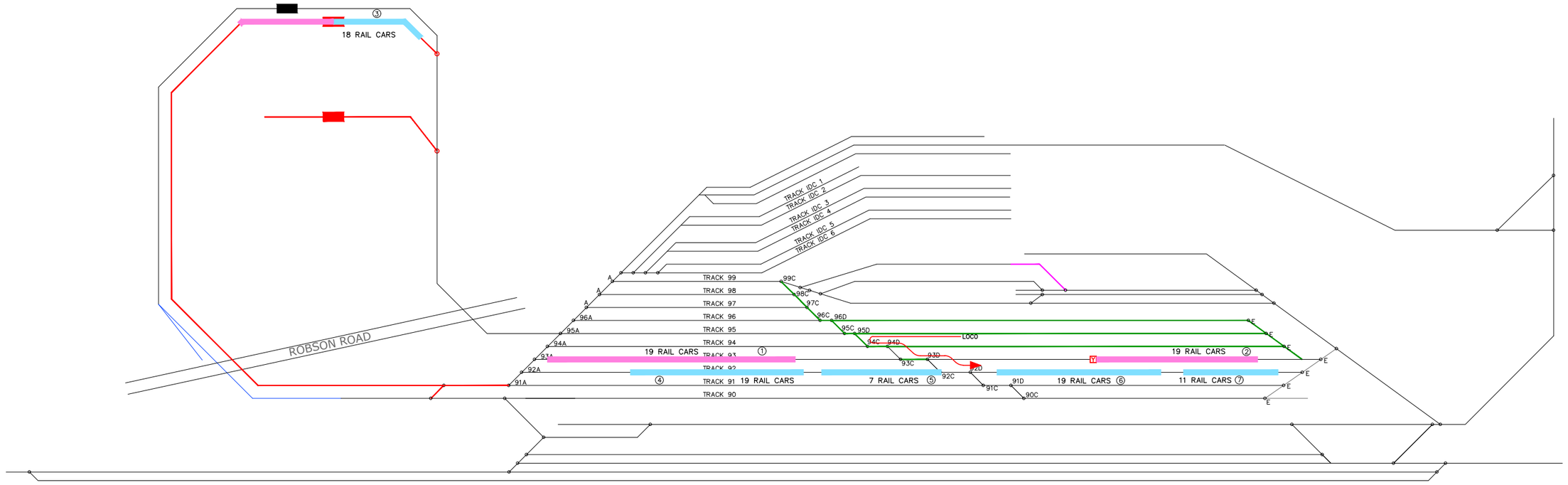
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 10 OF 23

PROJECT NO.	1419	SCALE	1:6 U.N.O.
DRAWING NO.	1419-G-05-521	REV.	4

0 | 1 | 2 | 3 | 4 | 5 INCHES | 0 | 5 | 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:50 S-FILE: 1419-G-05-521.dwg

String 3 being unloaded while Yard Loco grabs String 6.

LEGEND:

TRACKS:

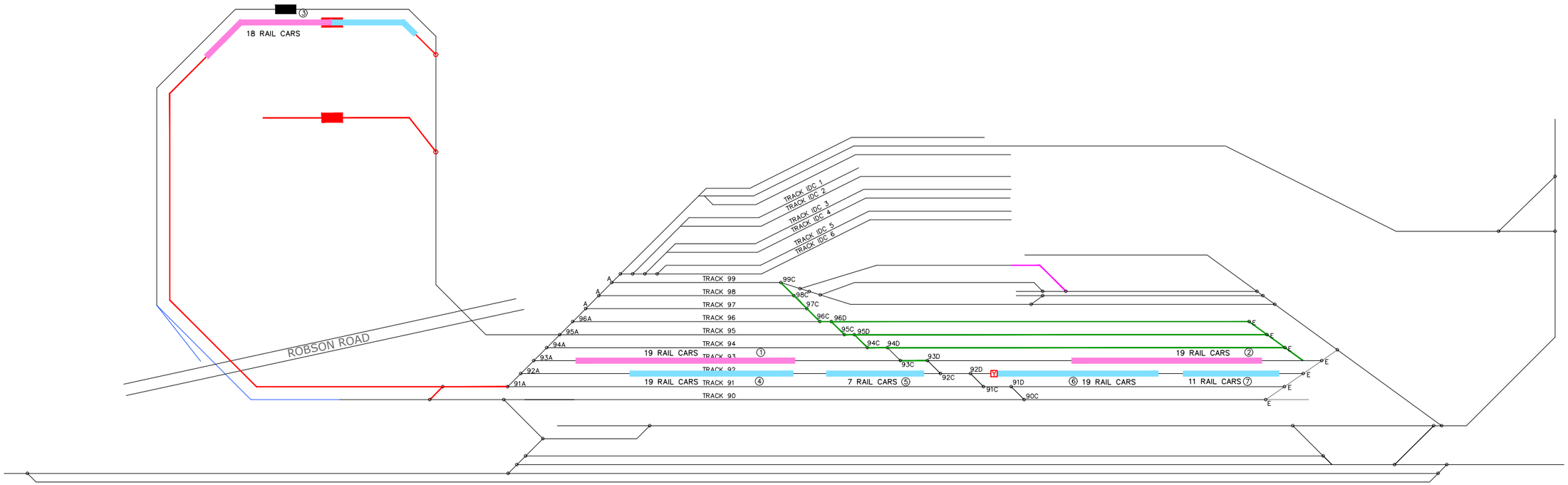
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L][T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 11 OF 23

PROJECT NO.	SCALE	REV.
1419	1:6 U.N.O.	4

DRAWING NO. 1419-G-05-521

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:51 S-FILE: 1419-G-05-521.dwg

Yard Loco places String 6 on indexer via Track 95 and pushes String 3 on Track 93E.

LEGEND:

TRACKS:

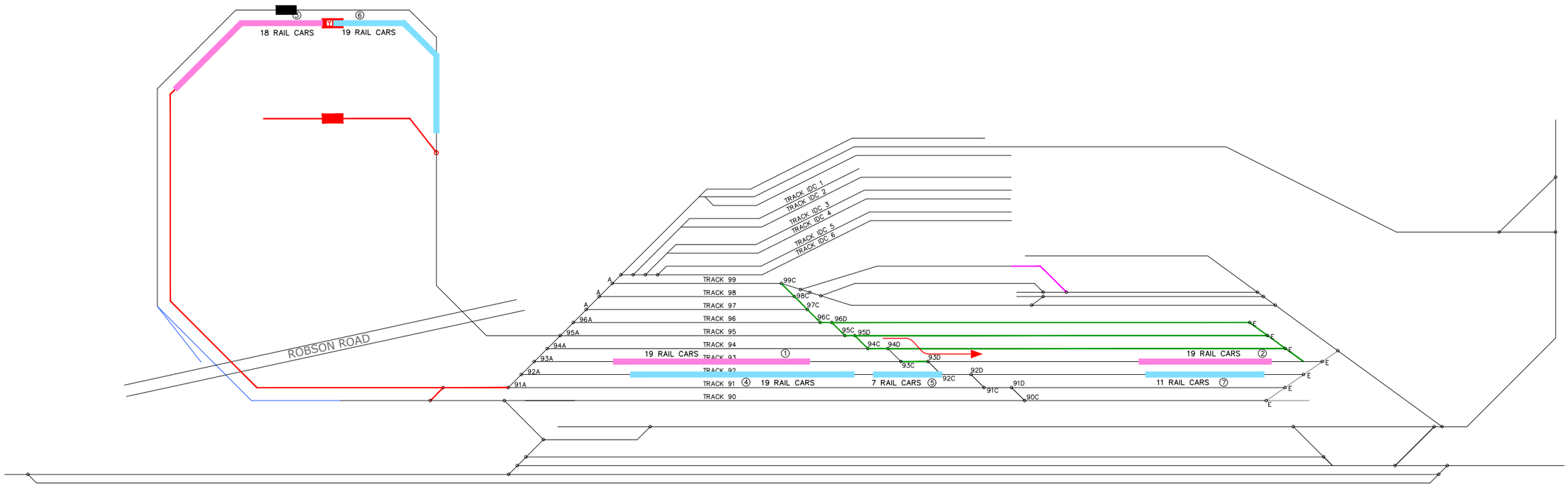
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 12 OF 23

PROJECT NO.	1419	SCALE	1:6 U.N.O.
DRAWING NO.	1419-G-05-521	REV.	4

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:51 S-FILE: 1419-G-05-521.dwg

Yard Loco pushes String 3 on Track 93E.
String 6 being unloaded while Yard Loco travels from Track 93E to Track 92E via turnout C to String 7.

LEGEND:

TRACKS:

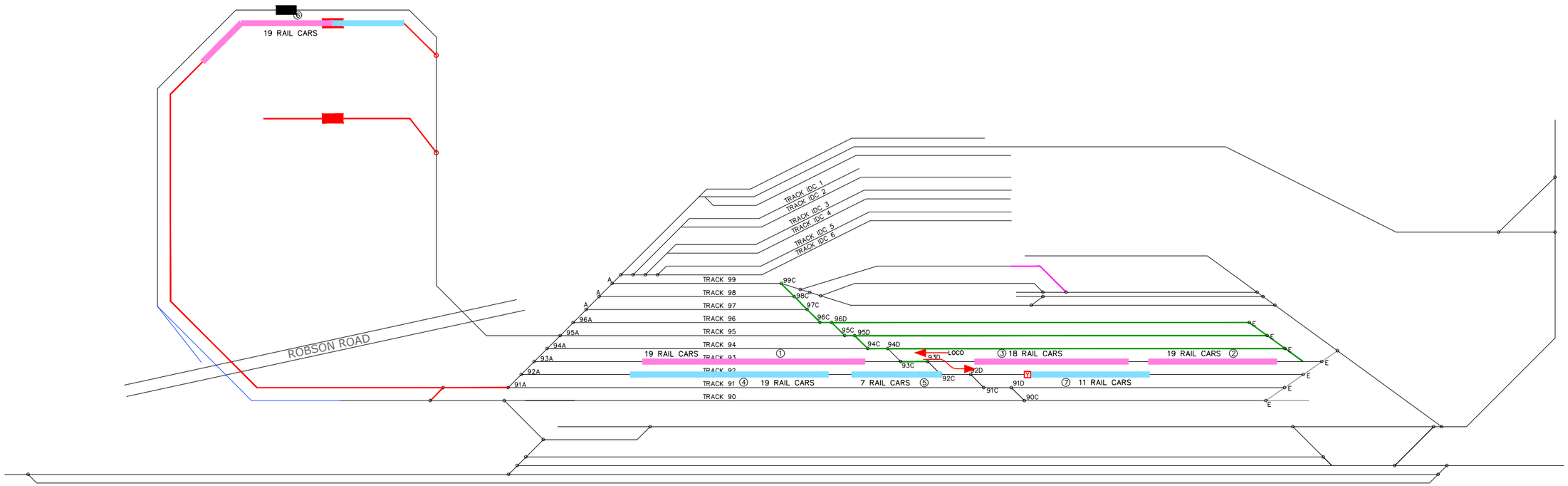
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L][T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 13 OF 23

PROJECT NO.	1419	SCALE	1:6 U.N.O.
DRAWING NO.	1419-G-05-521	REV.	4

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:51 S-FILE: 1419-G-05-521.dwg

Yard Loco pulls and places String 7 on indexer and pushes String 6 through FGT unloading station.

LEGEND:

TRACKS:

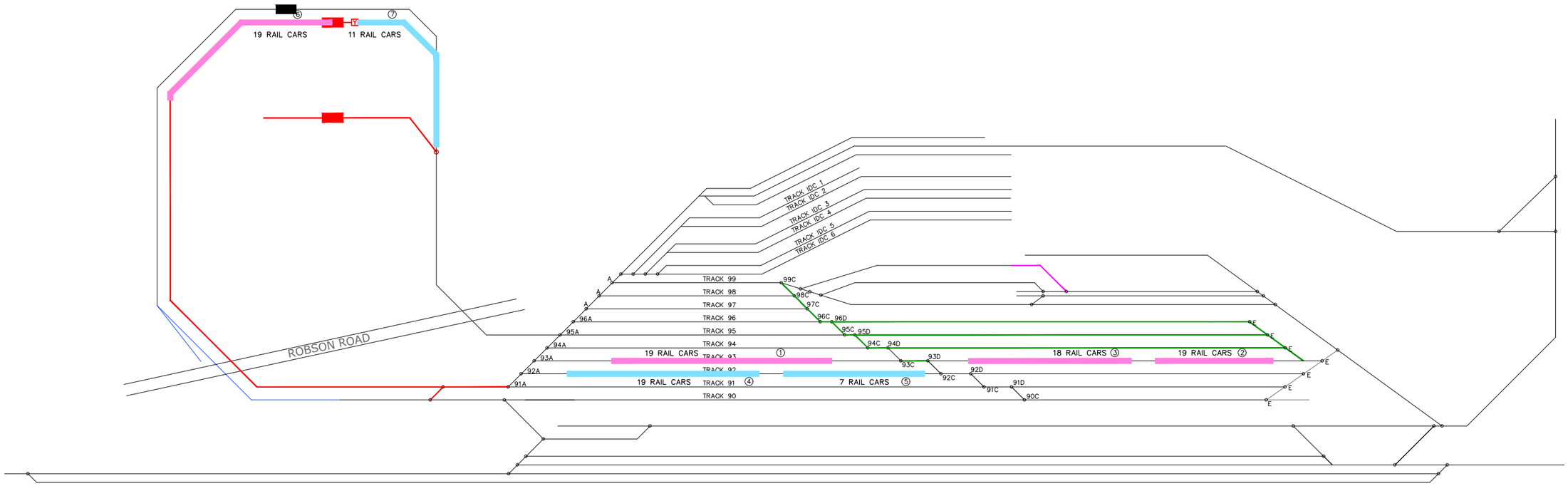
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 14 OF 23

PROJECT NO.	SCALE
1419	1:6 U.N.O.

DRAWING NO.	REV.
1419-G-05-521	4

0 | 1 | 2 | 3 | 4 | 5 INCHES | 0 | 5 | 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:51 S-FILE: 1419-G-05-521.dwg

String 7 being unloaded while yard Loco pushes String 6 to Track 92E via Track 95.

LEGEND:

TRACKS:

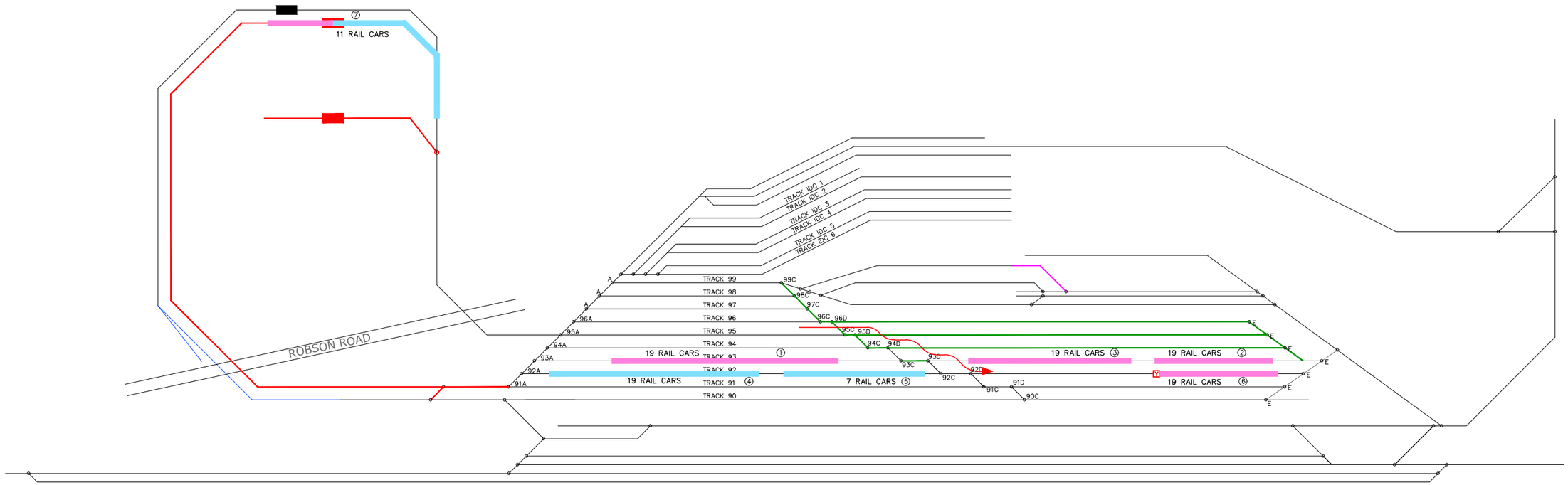
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- L T RAIL CARRIER LOCOMOTIVE
- Y YARD LOCOMOTIVE



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CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 15 OF 23

PROJECT NO.	1419	SCALE	1:6 U.N.O.
DRAWING NO.	1419-G-05-521	REV.	4

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:52 S-FILE: 1419-G-05-521.dwg

String 7 being unloaded while Yard Loco grab String 5 from the back, backs up to Track 92E and pushes String 5 to Track 95 through turnout C.
Yard Loco run around to grab String 5 from the front.

LEGEND:

TRACKS:

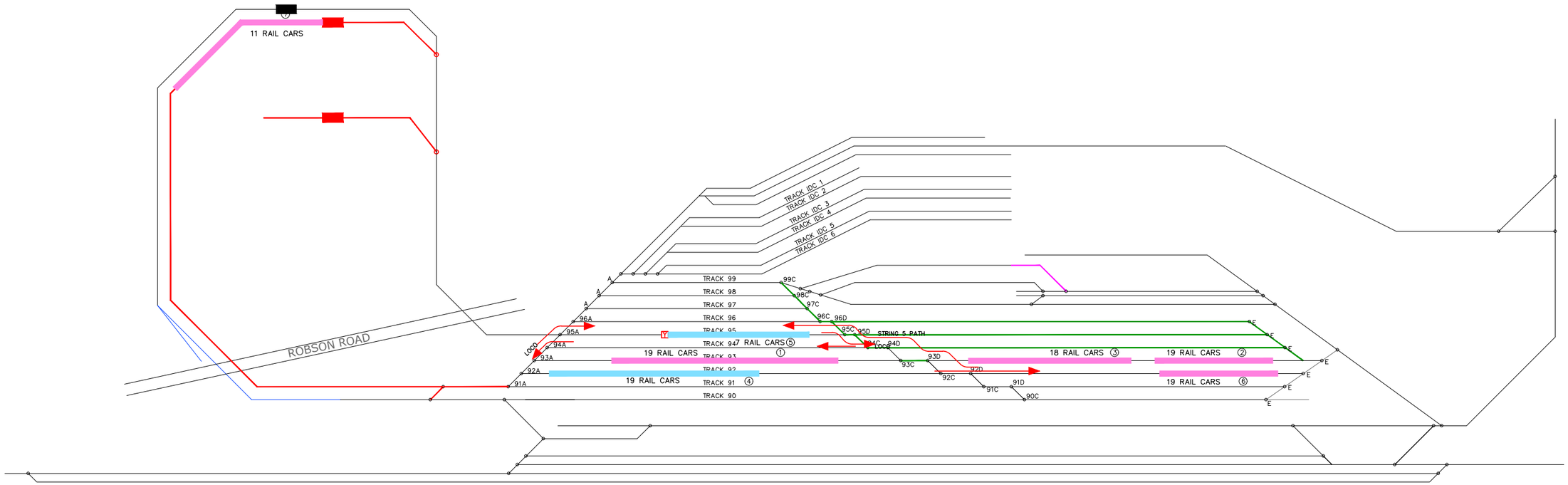
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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FGT

FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 16 OF 23

PROJECT NO.	1419	SCALE	1:6 U.N.O.
DRAWING NO.	1419-G-05-521	REV.	4

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:52 S-FILE: 1419-G-05-521.dwg

Yard Loco pulls String 5 and places it on indexer and pushes String 7 to Track 92E.

LEGEND:

TRACKS:

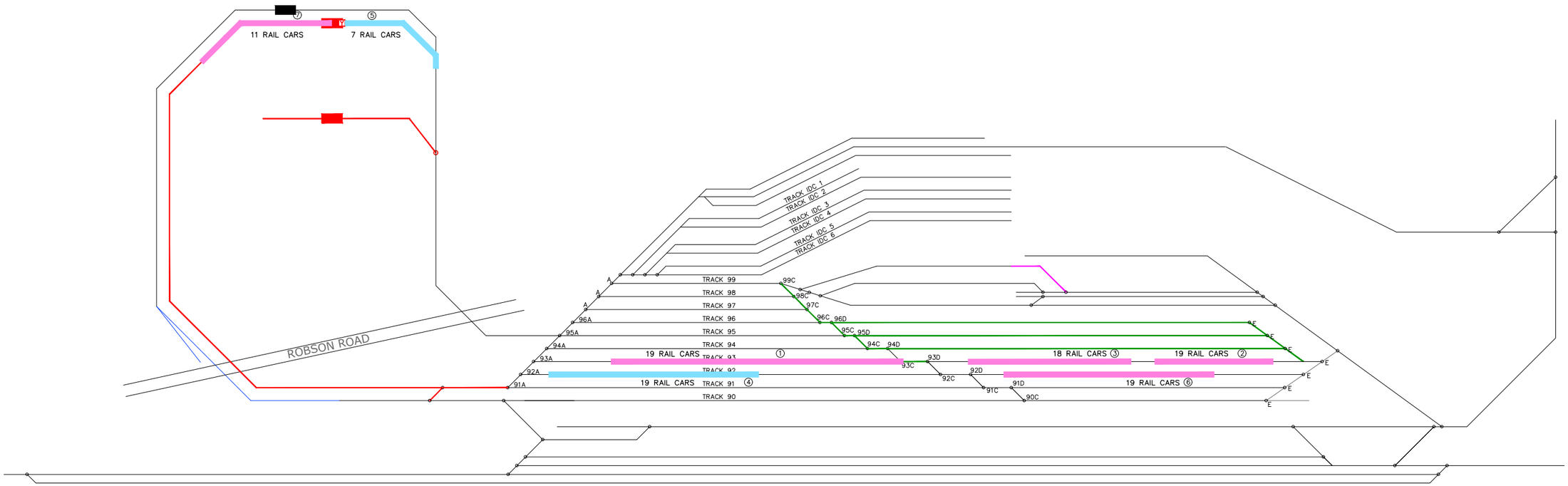
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 17 OF 23

PROJECT NO.	SCALE
1419	1:6 U.N.O.

DRAWING NO.	REV.
1419-G-05-521	4

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:52 S-FILE: 1419-G-05-521.dwg

String 5 being unloaded while Yard Loco place String 7 on Track 92E through turnouts and Track 95.
Yard Loco travel around to front of String 4 via Track 95.

LEGEND:

TRACKS:

- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L][T] RAIL CARRIER LOCOMOTIVE
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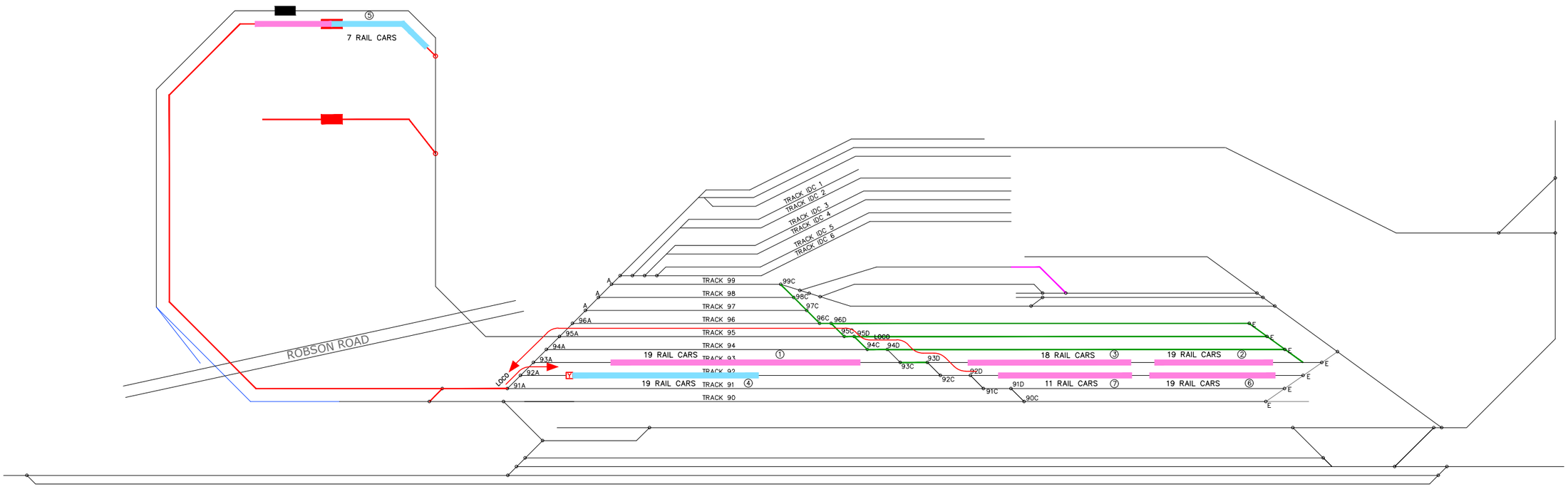

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FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 18 OF 23

PROJECT NO.	1419	SCALE	1:6 U.N.O.
DRAWING NO.	1419-G-05-521	REV.	4

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SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:52 S-FILE: 1419-G-05-521.dwg

Yard Loco pulls and places String 4 on indexer, maneuvering around Lead Track and pushes String 5 through FGT unloading station to Track 92W .

LEGEND:

TRACKS:

- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
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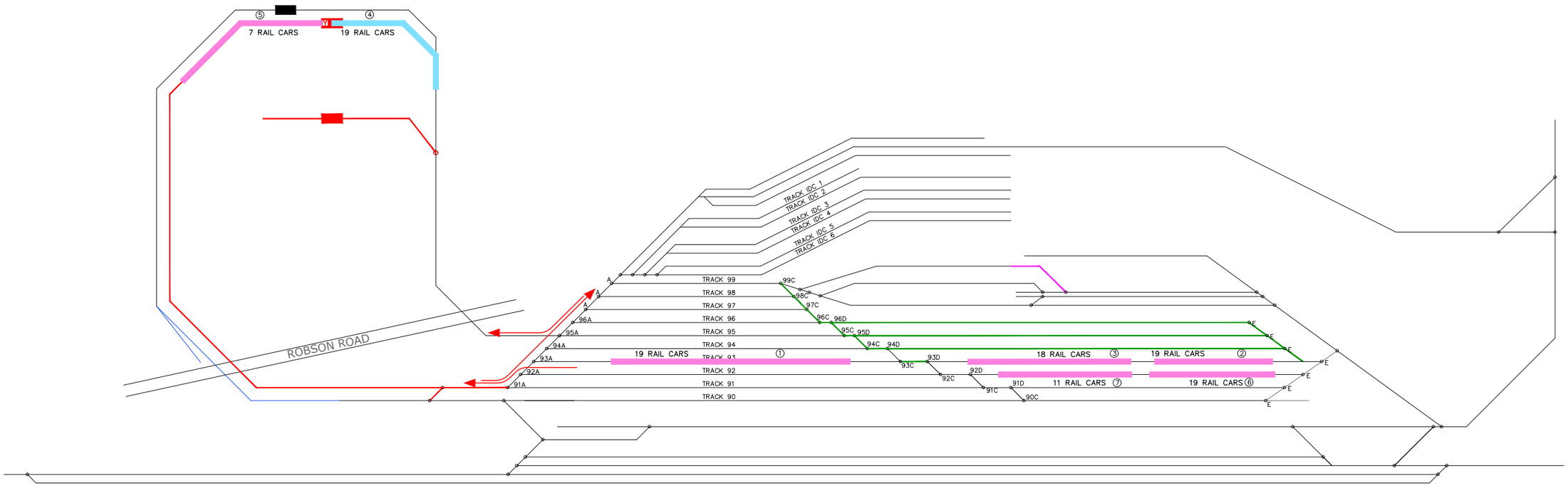

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REV.	DATE	DESCRIPTION
4	2017-MAY-18	REVISED LAYOUT
3	2017-MAR-13	UPDATED RAIL LAYOUT
2	2016-SEP-19	COR. TO TRACK LAYOUT
1	2016-JUL-08	ISSUED FOR PER

REVISION HISTORY

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ENGINEER OF RECORD

CMC ENGINEERING AND MANAGEMENT LIMITED

FGT
FRASER GRAIN TERMINAL

FGT RAIL SERVICES
SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 19 OF 23

PROJECT NO.	1419	SCALE	1:6 U.N.O.
DRAWING NO.	1419-G-05-521	REV.	4

0 1 2 3 4 5 INCHES 0 5 10 CENTIMETRES VERIFY PAPER SCALE ON LEFT BEFORE SCALING DRAWING

SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:52 S-FILE: 1419-G-05-521.dwg

Yard Loco travels to FGT unloading station to push String 4 through.

LEGEND:

TRACKS:

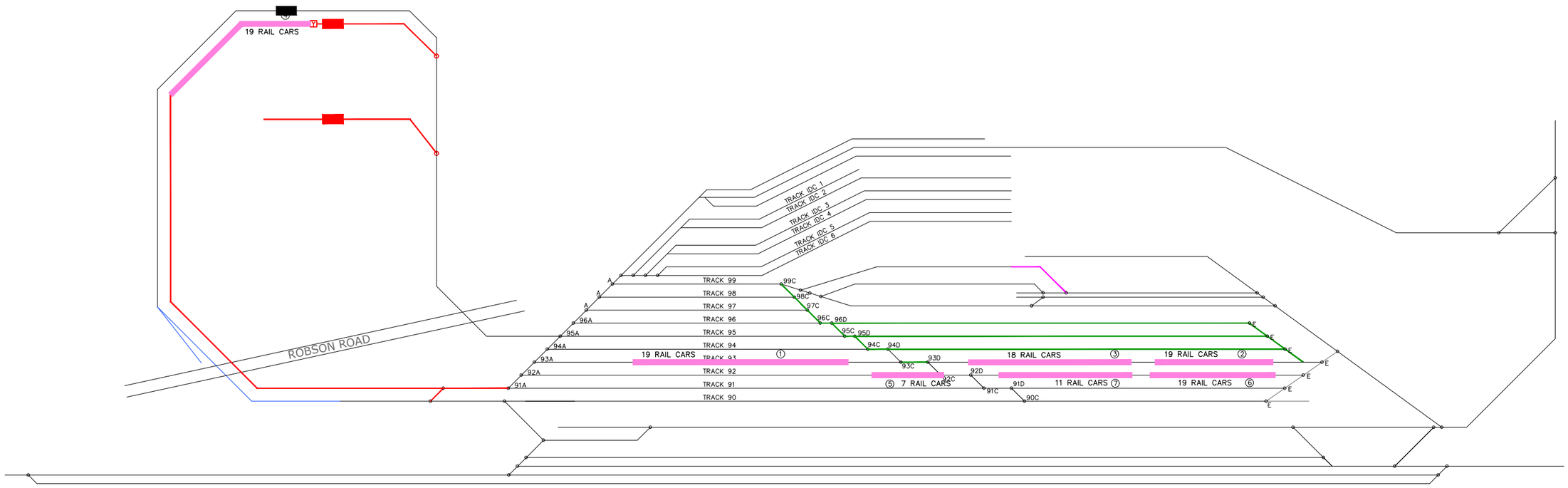
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- L T RAIL CARRIER LOCOMOTIVE
- Y YARD LOCOMOTIVE



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SHEET 20 OF 23

PROJECT NO.	SCALE	REV.
1419	1:6 U.N.O.	
DRAWING NO.		4
1419-G-05-521		

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SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:53 S-FILE: 1419-G-05-521.dwg

Yard Loco pushes String 4 to Track 92W.

LEGEND:

TRACKS:

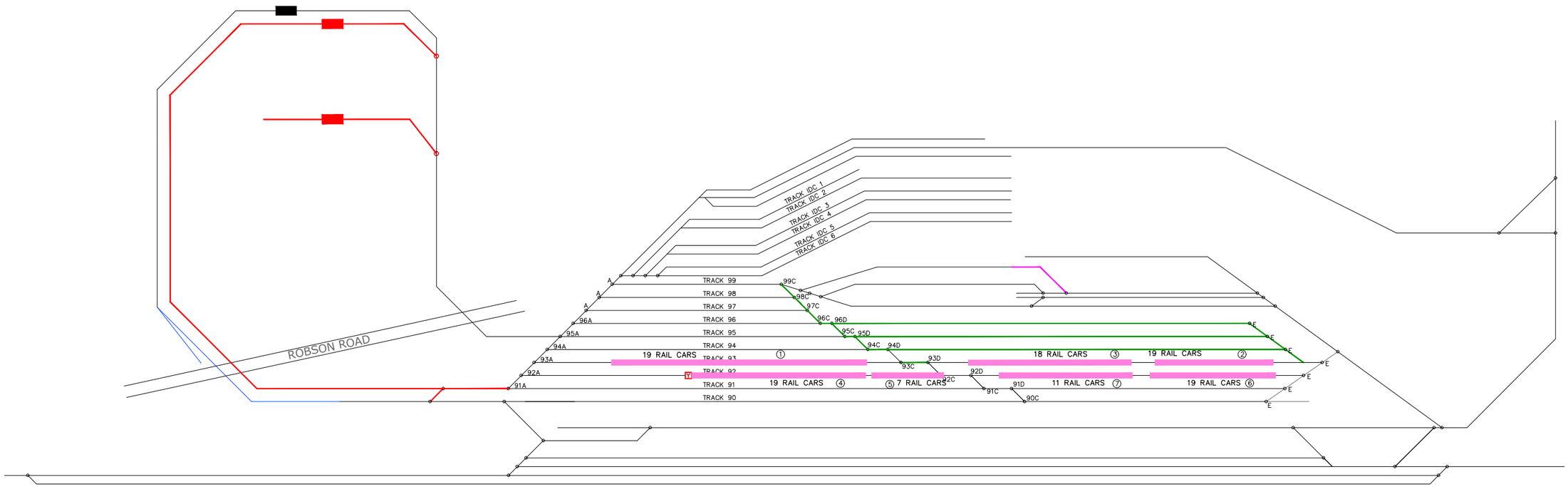
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L][T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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SCHEMATICS FOR MOVING 112-CAR GRAIN UNIT TRAIN UNLOADING AT FGT FACILITY
SHEET 21 OF 23

PROJECT NO.	SCALE	REV.
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1419-G-05-521		

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SAVE DATE/TIME: 2017-Jun-20 / 10:12 PLOT DATE/TIME: 2017-Jun-20 / 14:53 S-FILE: 1419-G-05-521.dwg

Yard Loco couples the seven strings into two sections.

LEGEND:

TRACKS:

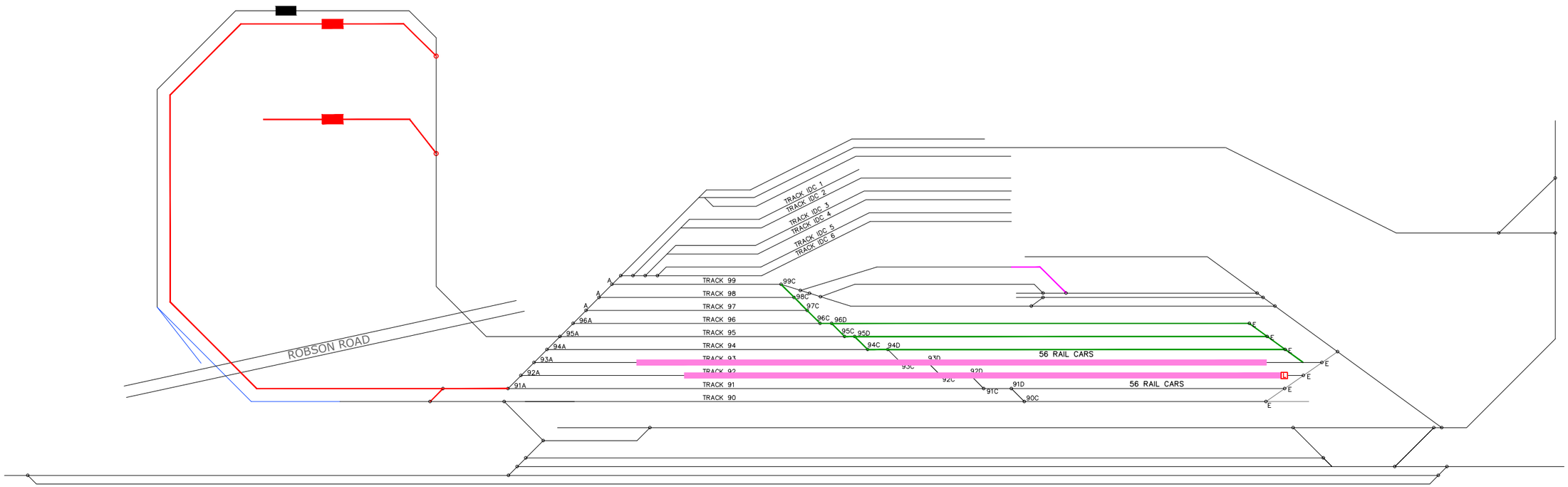
- EXISTING TRACK
- PROPOSED JV TRACKS REALIGNMENT
- PROPOSED FGT TRACKS
- PROPOSED CHEMETRON TRACK EXTENSION
- PROPOSED PARY TRACKS EXTENSION

RAIL CARS:

- RAIL CARS FULL
- RAIL CARS EMPTY

LOCOMOTIVE (LOCO):

- [L] [T] RAIL CARRIER LOCOMOTIVE
- [Y] YARD LOCOMOTIVE



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SHEET 22 OF 23

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Rail carrier Loco couples the two sections and Unit Train departs.

LEGEND:

TRACKS:

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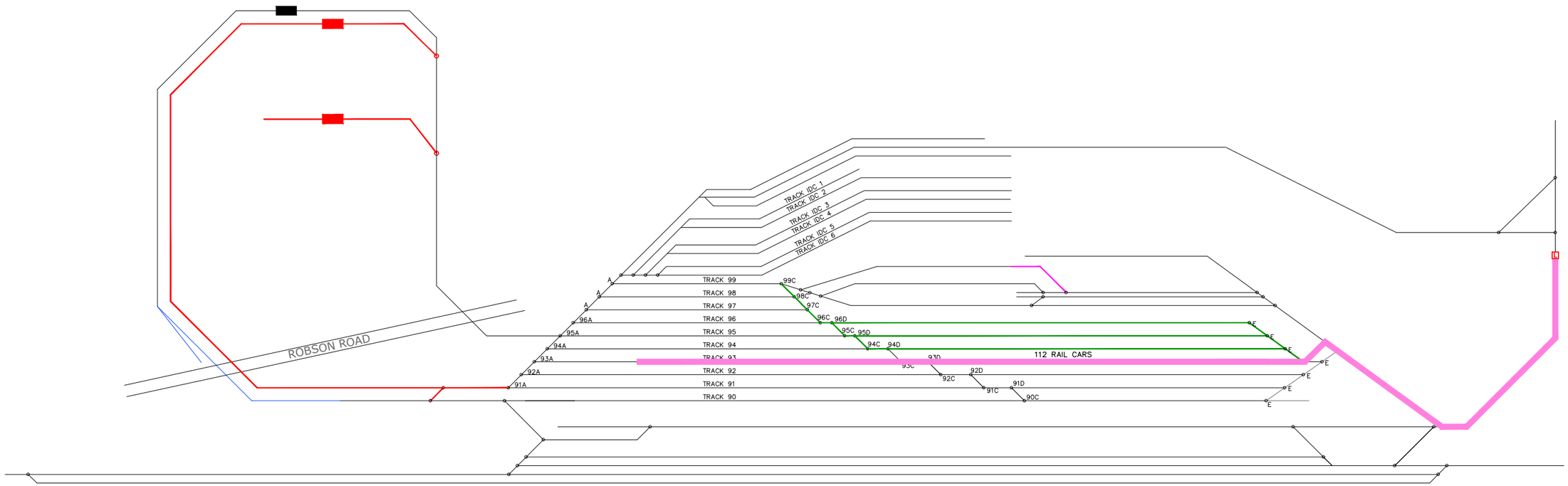
- [Y] YARD LOCOMOTIVE



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