

# WASS SIDING CONSTRUCTION – QUESTIONS & ANSWERS



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## QUESTIONS RELATED TO THE OVERALL PROJECT AND ITS LOCATION

**Q1. Why did VIA Rail Canada not include a public notification and/or consultation with affected area residents as a necessary step in its project plan to construct this rail siding?**

**A1.** On May 15, 2014, VIA Rail Canada President & CEO and other VIA Rail executives, along with experts from RailTerm, Hatch Mott MacDonald and Siemens, presented to Ottawa Mayor Jim Watson and other city officials the results of a comprehensive investigation and analysis into how to improve the reliability of Automatic Warning Device (AWD) systems at Barrhaven-area crossings. The result was VIA Rail Canada's announcement of a 132 point action plan to improve the functioning of the AWD systems. The construction of the new siding was presented as a complement to the action plan in order to overall operations by reducing the successive activations and deactivations of the AWD systems at high-congestion road crossings in the Barrhaven-area. It will also help to improve safety, on-time performance, and provide flexibility of train operations.

Although the construction work being conducted did not require public notice as per the Notice of Railway Works Regulations, VIA Rail Canada regrets that we did not provide sufficient advanced notice of our work in the community. Even though VIA Rail was not legally obliged to consult the community about this construction work, as good corporate citizens and neighbours, we recognize we should have alerted residents earlier of the upcoming work. That is why VIA Rail held a public meeting on May 21, 2015 where all questions from residents were noted and answers provided 5 working days later. We have also taken steps to ensure we improve our communications protocols going forward.

**Q2. When was this project first identified and a budget assigned to it?**

**A2.** The construction of the new siding at Wass was announced on May 15, 2014 to complement VIA Rail Canada's 132 point action plan to improve train operations in a complex environment involving high-congestion road crossings. The business case for the project was approved in August 2014. The Capital Appropriation Submission (CAS) was approved for \$3 million and was signed off on September 3, 2014 by VIA Rail Canada's management committee. The details of the budget, forecast and corporate planning can be found in VIA Rail Canada's 2014-2018 Corporate Plan (pages 12-13).

**Q3. When were the various phases of this specific siding project (planning, concept development, initial engineering, environmental assessment, impact analysis, permitting, final engineering and cost estimates, and contract award) completed and approved?**

**A3.** Planning for this project began in early May 2014. Detailed engineering schematics of the signal and track upgrades are attached (APPENDIX A). At VIA Rail Canada, all new projects undergo an internal assessment process to determine what – if any - remedial actions may be required as a result of the proposed construction. This assessment included review relevant sections of the Railway Safety Act and the Canadian Environmental Assessment Act (CEAA) – Regulations Designating Physical Activities. The initial assessment was completed on June 27, 2014 and determined that the construction work is not considered “major railway work” and therefore does not require a formal public consultation as it was the addition of a new siding to a pre-existing right-of-way. Furthermore, the assessment determined that the work being undertaken represents low risk or hazards under the CEAA.

The scope of work for engineering service was presented on June 10, 2014 and a work order was signed by Hatch Mott MacDonald and VIA Rail Canada on June 23, 2014. The project was approved

by VIA Rail Canada in August 2014 and the tender was put on the market on September 4, 2014. Bids closed on October 15<sup>th</sup>, 2014.

In accordance with municipal considerations around dust resulting from construction, VIA Rail Canada had an Environmental/Erosion Protection Plan (APPENDIX B) prepared for this project by RW Tomlinson Ltd. The plan sets out environmental and sediment controls which are monitored by the field supervisor and indicates all construction waste material will be disposed of in an approved and certified disposal site. A request was submitted in April 2015 for a noise by-law exemption for anticipated night construction work.

**Q4. What other parties participated in the approval of this specific siding project, if any?**

**A4.** Railway experts Hatch Mott MacDonald provided VIA Rail with an analysis of the optimal locations for the construction of the siding and advised that the location at Mile 4.7 to 5.2 (also known as Wass) was the best option from all criteria examined including safety, technical and operational. Please see the attached options analysis (APPENDIX C).

**Q5. What other parties were aware of this specific siding project?**

**A5.** This construction of a new siding was presented by VIA Rail executives in Ottawa on May 15, 2014 and announced via [press release](#). The plan outlined the construction of a new siding 4 miles (6.8 kilometres) east of Fallowfield Station. Furthermore, the Wass siding project was outlined in detail in VIA Rail Canada's [2014-2018 Corporate Plan](#).

**Q6. How is this project is a part of the Via Rail's AWD systems?**

**A6:** On May 15, 2014, VIA Rail Canada announced its 132 point action plan to address issues with train traffic congestion at railway crossings in the Barrhaven area. At this time VIA Rail Canada highlighted the construction of the new siding 4 miles (6.8 kilometres) east of Fallowfield Station to improve train operations at three complex crossings (Fallowfield Rd, Woodroffe Ave. and the OC Transpo Transitway).

The new siding location will enable train meets to occur in an area that does not involve a road crossing which will reduce the number of successive activation and deactivations of the AWD crossing signals at Fallowfield Rd and Woodroffe Rd, resulting in improved traffic flow in Barrhaven.

**Q7. Has VIA Rail conducted an analysis of alternatives to meet their objectives for the siding? What criteria were used to review the alternative locations?**

**A7.** The ideal method to reduce the successive activation and deactivation of the AWD systems is to have train meets occurs where the warning circuitry is less complex and there is no need to stop trains in close proximity to high-congestion road crossings. This new siding will improve the reliability of the AWD system and will provide significant operational benefits to VIA Rail Canada.

VIA Rail Canada employed railway experts Hatch Mott MacDonald to conduct an options analysis of possible locations for the siding which took into consideration the following factors:

- proximity to the mid-point between Ottawa and Fallowfield Stations – this provides optimal conditions for quick and efficient train meets;
- away from high-congestion road crossings;
- away from bridges; and
- along a straight section of track / good sightlines.



Based on this analysis, two options were put forward as possible locations of the siding: mile 4.7 to 5.2 (the current site selection) and mile 4.8 to 5.3 (slightly further west in an area referred, closer to the CN Walkley Yard).

The expert analysis from Hatch Mott MacDonald outlines the safety, technical, operational and financial reasons why the current site location is an optimal fit for the construction of the siding. The current site selection meets all the required criteria from a safety, operational, technical and financial perspective.

Constructing the siding closer to the CN Walkley yard will not provide the same benefits to VIA Rail Canada's operations.

Following the May 21<sup>st</sup>, 2015 public meeting, VIA Rail Canada has taken into consideration all of the questions and comments received from the community, as well as the overall objectives for the project, and conducted a thorough review of the initial assessment which has resulted in the site selection being confirmed as the only viable solution from a technical and financial perspective.

We commit to prioritize westbound trains whenever possible to alleviate any additional noise that may result of having the locomotive park in the siding by positioning at the far western end, further away from most residents. Furthermore, to mitigate complaints of noise and vibration from the existing bolted rail, VIA Rail Canada will be installing continuous welded rail (CWR) in the new siding and will accelerate its investment in CWR along the main track line in this area and the rest of the Beachburg subdivision for 2016.

As a Crown Corporation, VIA Rail Canada always endeavours to conduct its business in a fiscally prudent and responsible fashion. At the same time, VIA Rail has a responsibility to ensure the safety and reliability of its service across the country. The construction of the new siding at Wass meets both of these objectives.

**Q8. What is the environmental impact of this project?**

**A8.** VIA Rail Canada's assessments determined low environmental risks associated with this project. An Environmental / Erosion Protection Plan (APPENDIX b) is in place to address municipal considerations with respect to dust resulting from construction work. These measures are enforced and monitored by the field supervisor.

**Q9. What will be the impact on drainage from this project?**

**A9.** Since the existing culvert will not be relocated, there will be no impact on drainage as a result of this project.

**Q10. What will be the impact on the community in terms of noise, vibration, visual and air quality when the project is in operation?**

**A10.** Construction activities that could generate noise, vibration and dust include soil stripping, bulldozers, compacting, etc. all of which is scheduled to take place during daytime working hours at the beginning of project. VIA Rail Canada has offered outdoor window cleaning and tree planting to any residents that require this service as a result of construction dust accumulation on private property.

When the project is in operation, the installation of CWR in the siding, and eventually in the main line, will reduce the noise and vibration currently experienced when trains pass on the bolted rail.

**Q11. What will be the impact of this construction on the value of the houses adjacent to the siding project?**

**A11.** The addition of this siding does not negate the fact that the existing railroad infrastructure in this community predates the construction of residences in this area. VIA Rail Canada is not in a position to offer advice on property value estimations.

## **QUESTIONS RELATED TO THE SPECIFIC PROJECT BEING BUILT**

**Q12. Where will the switches, signals and huts/bungalows, drainage ditches and other physical features be located? Where is the expected location of the parked locomotive and the cars behind it?**

**A12.** Please see the attached composite which outlines the use of proposed siding (APPENDIX D) as well as the detailed engineering schematics of the track and signal upgrades (APPENDIX A).

**Q13. Explain why the siding is being built on the Fielding Crt (south) side as opposed to the Otterson Drive side (north).**

**A13.** On the north side of the track – about three feet underground - a fibre-optic communications line between Ottawa and Toronto is in place for the provision of high-speed internet services. As such, the construction must take place on the south side of the mainline. The railway corridor is 50 feet wide on both sides of the track, meaning the approximate distance from the centre line of the siding track to property lines should be around 35 feet on either side.

**Q14. Why can this project not be built in a curve?**

**A14.** Although sidings and switches have been built in curves, the safety, technical, operational and financial benefits are greatest in a straight line.

**Q15. How frequently will the siding be used and at what times of the day?**

**A15.** It is anticipated that there will be approximately three train meets per day at the new siding which will last around 5 minutes. They will normally take place between around 11:00am and 8:00pm, based on our current schedule. Our plan is to avoid early morning and late night train meetings as a matter of operational practice. The western bound trains will be given priority whenever possible to allow trains to pull over in the side track on the western end which is further away from most residences in the area.

**Q16. What noise and vibration will be associated with the train stopping, idling and then leaving the siding?**

**A16.** After construction is over, the continuous welded rail (CWR) will reduce overall noise and vibration levels of passing trains. Furthermore, following our discussions with the community on May 21, 2015 we are accelerating our plans to replace the current bolted rail on the main rail line with CWR in 2016 which will further minimize noise and vibration levels.

**Q17. What air quality issues and smell will be associated with the locomotive slowing down, idling and accelerating as it uses the siding?**

**A17.** VIA Rail Canada serves Canadians in an environmentally sustainable and responsible manner. Since 2009, VIA Rail Canada has had a 29.9% reduction in fuel consumption and a 26.6% reduction in greenhouse gas emissions per passenger KM. We use ultra-low sulphur diesel.

The construction of this new siding will further enhance our ability to minimize train idling time because the length of the siding (2,500 feet) will allow train meets to take place quickly and efficiently, avoiding the need to stop the train for an extended length of time. VIA Rail has recently equipped all its 73 locomotives with a telemetry system from Wi-tronix. Data can be gathered remotely and used to significantly increase fuel efficacy by reducing idling time and improving train handling practices. There will be minimal impact to air quality as a result of the short duration of train meets in an open air environment.

**Q18. Provide a report addressing the issue of speed restrictions along this section of track.**

**A18.** Please see the attached timetable for the Beachburg subdivision which prescribes speed restrictions in this area (APPENDIX E). The current maximum train speed in this area 45 mph / 72 km/h.

**Q19. Provide information on the future conversion of the track to continuous welded rail (CWR)?**

**A19.** Following discussions with the community on May 21, 2015 VIA Rail Canada is accelerating its plans to replace the current bolted rail on the main rail line with CWR in 2016 which will further minimize noise and vibration levels.

## **QUESTIONS RELATED TO CONSTRUCTION**

**Q20. Why did it take over a year for work to begin, when the original commitment from VIA Rail Canada was to "complete, as soon as possible" the construction of the new siding track?**

**A20.** The construction of the new siding at Wass was announced on May 15, 2014 and the business case for the project was approved in August 2014. The Capital Appropriation Submission (CAS) was approved for \$3 million and was signed off on September 3, 2014 by VIA Rail Canada's management committee. Due to the amount of time required to develop comprehensive plans, carry out the procurement process, and order equipment, the length of time remaining in the construction season in 2014 did not allow work to begin until spring 2015. Consequently, this work was begun as soon as possible in spring 2015 and is scheduled to be completed by the end of summer 2015.

**Q21. Provide a construction schedule showing all the principal activities, including excavation, placement of stone, placement of rail, and installation of switches and signals.**

**A21.** The construction will take place in three phases:

- Preparation of Grading (May and June)
  - Earth Cut/Fill
  - Supply and place Sub-Ballast
- Track work (June and July )

- Material unloading
- Track and turnout assembly
- Turnout installation
- Ballast (ground stone) distribution and surfacing
- Signal work (June, July and August)
  - Ground work
  - Hydro services upgrade
  - Installation of bungalow and signals
  - Site Acceptance Pre-Tests and Tests
  - Decommissioning

**Q22. Explain how noise, dust and vibration will be controlled and provide a copy of the instructions provided to the contractor to achieve this control.**

**A22.** See attached Environmental / Erosion Protection Plan prepared by RW Tomlinson Ltd. (APPENDIX B).

**Q23. Provide information on the hours of construction work and explain what is intended with respect to night work. Will VIA Rail comply with all by-laws appropriate to construction work in a residential neighbourhood?**

**A23.** Ottawa By-law 2004-253, section 7 stipulates construction work can only take place between the hours 7am and 10pm, Monday through Saturday and construction cannot commence before 9am on Sundays or statutory holidays.

VIA Rail Canada's contractors will make every effort to conduct their work with minimal disturbance to local residents, however, some of the work must take place during the night when there are no trains operating on the tracks. Specifically, work that is anticipated to take place outside the normal work day is currently scheduled to occur June 12-13 in the eastern section behind most residences and July 3-4 in the western section toward the industrial area, subject to the weather and progression of the project. Preparation for the night work is scheduled to start around 8pm. When the last train of the day passes by around 11pm, the rail cutting begins (30 - 60 mins to make the cuts to two rails). Other noise will include truck / motor sounds, generator, turnout installation, switch installation, resurfacing of the track.

Other night work being planned will include testing signals (wiring, testing signal sequences, circuitry tests, etc.) but this will not generate any significant noise and will be completed in one night, scheduled for mid-August.

For all of the night work that will take place, VIA Rail Canada has submitted a noise by-law exemption to the City of Ottawa.

**Q24. Provide information about who has the decision-making authority to halt construction of this project until all answers are received.**

**A24.** Authority to halt construction of this project rests with VIA Rail Canada.

**Q25. Provide assurance that train crews will not be 'whistling' as a matter of course in this area and will only use the bell to alert construction crews of the approaching train.**

**A25.** During the construction phase, safety protocols require that the trains passing through the construction area will activate their bell to alert construction workers that a train is approaching. This



is done to ensure the safety of both the workers and the neighbouring residents. That being said, if an emergency situation is witnessed by the train crew, operators are required to use the train whistle as they do at any other location on the rail network.

When construction of the siding is complete, Canadian Rail Operating Rule 13a (ii) stipulates that trains must use the bell “when passing a train or engine standing on an adjacent track”.

## **QUESTIONS RELATED TO THE MITIGATION OF IMPACTS ON THE COMMUNITY**

**Q26. What action will VIA Rail take to mitigate the impacts on the community with respect to noise, vibration, air quality and the reduced value of our residences?**

**A26.** There will be no blasting or other construction work taking place outside VIA Rail Canada’s right of way. As such, we do not anticipate any impact to private property. If there are formal claims they will be referred to VIA Rail Canada Inc. Legal Department.

In addition to instructing that trains park in the western end (furthest from most residences) of the siding to minimize impact to residents, VIA Rail Canada is prepared to:

- Provide outdoor cleaning services to residents impacted by dust / dirt due to construction; and
- Plant trees on the property of residents adjacent to the tracks to help create a visual barrier and noise filter.

VIA Rail Canada is not in a position to offer advice on private property value assessments.

**Q27. What can residents expect to see in their backyards as a result of this new siding?**

**A27.** There will be no major changes beyond that residents may see trains coming at a slower speed for planned meets, approximately three times per day. Furthermore, train crews will park the trains in the industrial end (west) of the siding, away from most residence to minimize the impact on our neighbours. See illustration on APPENDIX D which shows how the siding will be used. In this composite, the red line depicts the main track, the blue line depicts the siding track to be constructed, and the yellow line indicates where trains will be positioned if they are required to park in the siding.

**Q28. What recourse do residents have for damage to private property as a result of construction or operations once the siding is complete?**

**A28.** VIA Rail Canada does not anticipate any impact to private property as a result of construction or operation of the siding. If there are formal claims they will be referred to VIA Rail Canada Inc. Legal Department.

**Q29. Will VIA Rail install noise and sound barriers adjacent to residences?**

**A29.** VIA Rail Canada has extended an offer to all residents adjacent the track in the construction area to plant trees on their property to help mitigate the impact of the new siding construction.

**Q30. Will VIA Rail Canada be installing continuous welded rail (CWR) to reduce track noise on the siding and/or the main line?**

A30. CWR will be used in the siding track and VIA Rail is accelerating its plan to install CWR in the Beachburg subdivision to 2016 to help mitigate the noise and vibration currently experienced due to the existing bolted rail in the main track line.

**Q31. Can and will construction be stopped until further consultation with the community has taken place?**

A31. VIA Rail has reviewed all of the options and reconfirmed that the current site selected is the optimal location for the construction of the siding.

## **QUESTIONS RELATED TO SAFETY**

**Q32. Do train meets pose a greater risk or level of danger when placed within residential areas?**

A32. VIA Rail Canada's safety performance when using sidings on its own infrastructure indicates it is extremely safe. We have conducted a thorough analysis of the site selection for the siding and have put into place processes and procedures to ensure we mitigate any risks associated with the project, including central traffic control systems, speed restrictions, and operating directions to position trains as far away as possible from most residences in the area.

**Q33. Has there been a risk assessment to determine the impact of train meets in a residential neighbourhood?**

A33. See previous answer A32.

**Q34. Isn't the real solution to the issues at Fallowfield to eliminate grade crossings and construct an overpass? Why isn't this being done instead?**

A34. The safest solution at high traffic level crossings is always grade separations. Road overpass construction is a municipal responsibility. It is VIA Rail's policy to assist municipalities in the assessment of such undertakings.

**Q35. How has the completion and implementation of the 132 action plan improved the AWD system functioning? Is the problem solved and therefore the siding no longer needed?**

A35. The measures outlined in the 132 point action plan improved the technical reliability of the AWD systems; however the issue of multiple activations and deactivations of the AWD system in short succession is still being faced in daily train operations in the Barrhaven area. The construction of the siding will dramatically improve the reliability and efficiency of VIA Rail Canada's operations in the Ottawa area.

## **OTHER QUESTIONS**

**Q36. Is VIA Rail 100% committed to not increasing train frequencies through this area?**

A36. There are no immediate plans to increase train frequencies through this area, but VIA Rail Canada needs to reserve the right to review its operations as ridership demand fluctuates.

**Q37. Will there be vibrations that could cause damage to pools and foundations of adjacent residences?**

**A37.** There will be no blasting or other construction work taking place outside VIA Rail Canada's right of way. We do not anticipate any impact to private property resulting from the construction or operation of the siding. Furthermore, to mitigate complaints about noise and vibration from the existing bolted rail, VIA Rail Canada will be installing continuous welded rail (CWR) in the new siding and will accelerate its investment in CWR along the main track line in this area and the rest of the Beachburg subdivision for 2016. This will further alleviate the experience of noise and vibration associated with trains passing.

**Q38. Is it not possible for VIA Rail to use its current infrastructure and liaise more effectively with CN and other partners to ensure trains run on time?**

**A38.** Although VIA Rail Canada always endeavours to work effectively with CN/CP and other partners when operating on their infrastructure, freight rail traffic congestion has increased by 40 per cent in the last five years, making it nearly impossible for VIA Rail to guarantee 100 per cent on time performance of trains when operating on shared infrastructure. The construction of the siding will dramatically improve VIA Rail's ability to specifically address the issue of multiple activations and deactivations of AWD warning systems in Barrhaven and will provide greater flexibility in the operations in VIA Rail's trains.

**Q39. Is this just the cheapest fix to your problem?**

**A39.** As a Crown Corporation, VIA Rail Canada conduct its business in a fiscally prudent and responsible fashion. At the same time, VIA Rail has a responsibility to ensure the safety and reliability of its services across the country. The construction of the new siding at Wass meets both of these objectives.

**Q40. Why did no one provide the information that that the senior advisor assigned to the Barrhaven railway crossing action plan file reports directly to the President and CEO of VIA Rail?**

**A40.** The responsibility of the senior advisor announced last year was to closely monitor the progress of the 132 point action plan and address any issues that could arise during the execution of the plan. This position was no longer required once the action plan was fully approved and executed.





TRACK AND SIGNAL UPGRADES

BEACHBURG SUBDIVISION

MILE 4.78

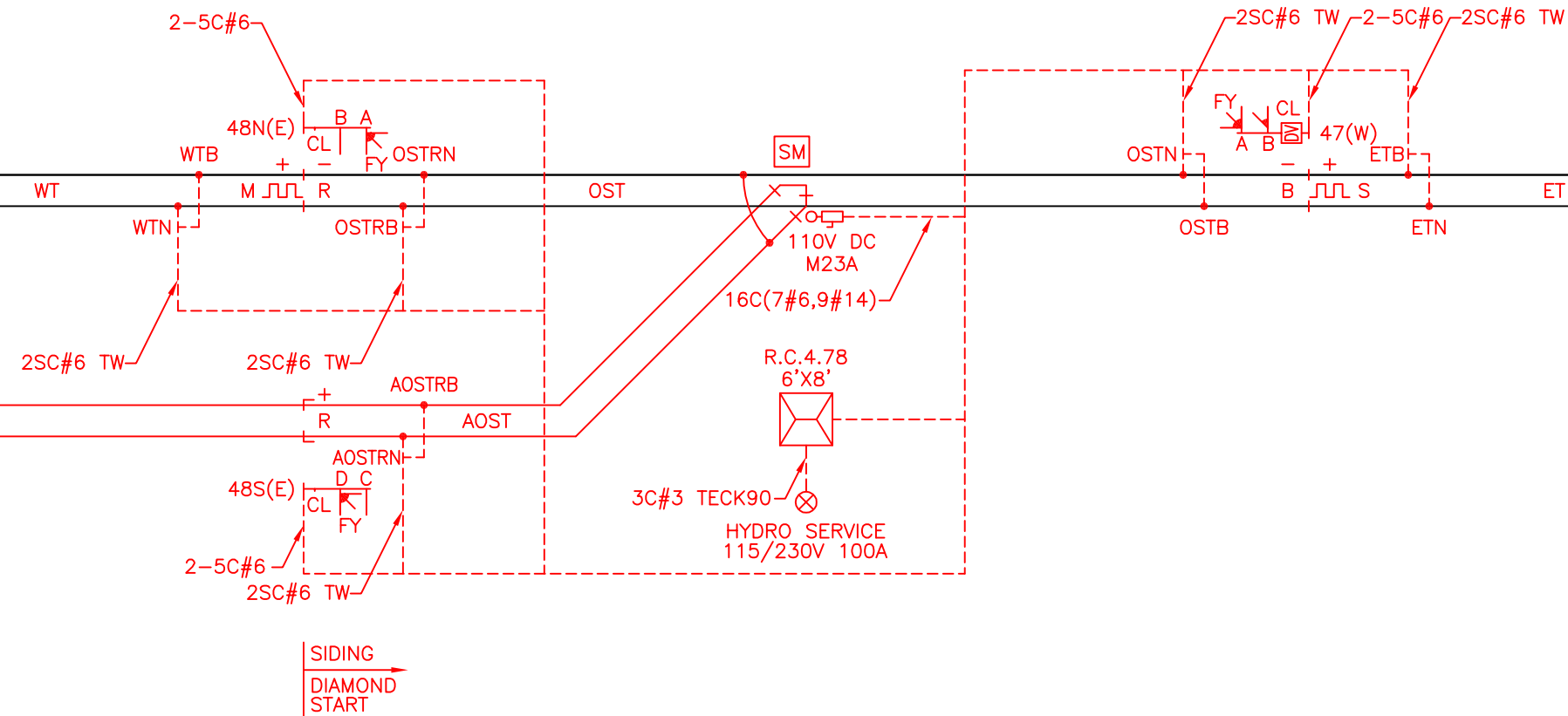
WASS EAST

PROJECT NUMBER: 201408016





**WASS EAST**



TO FEDERAL

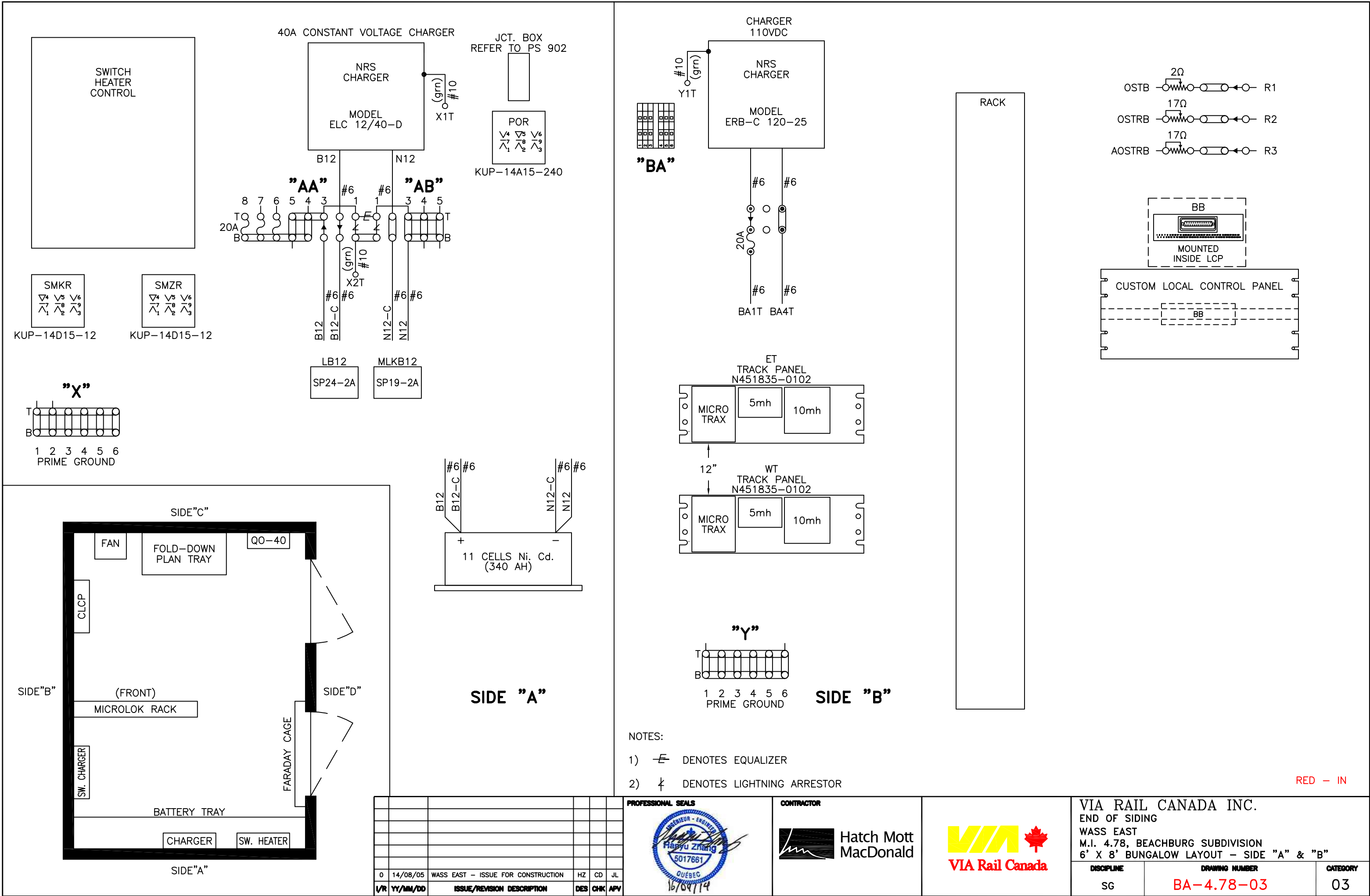
**TO OTTAWA**

LL - CODED TRACK

**SM** – HEATING ELEMENTS

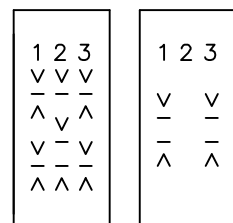
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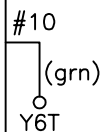








- = CONTACT HEEL  
 V = CONTACT FRONT  
 ^ = CONTACT BACK



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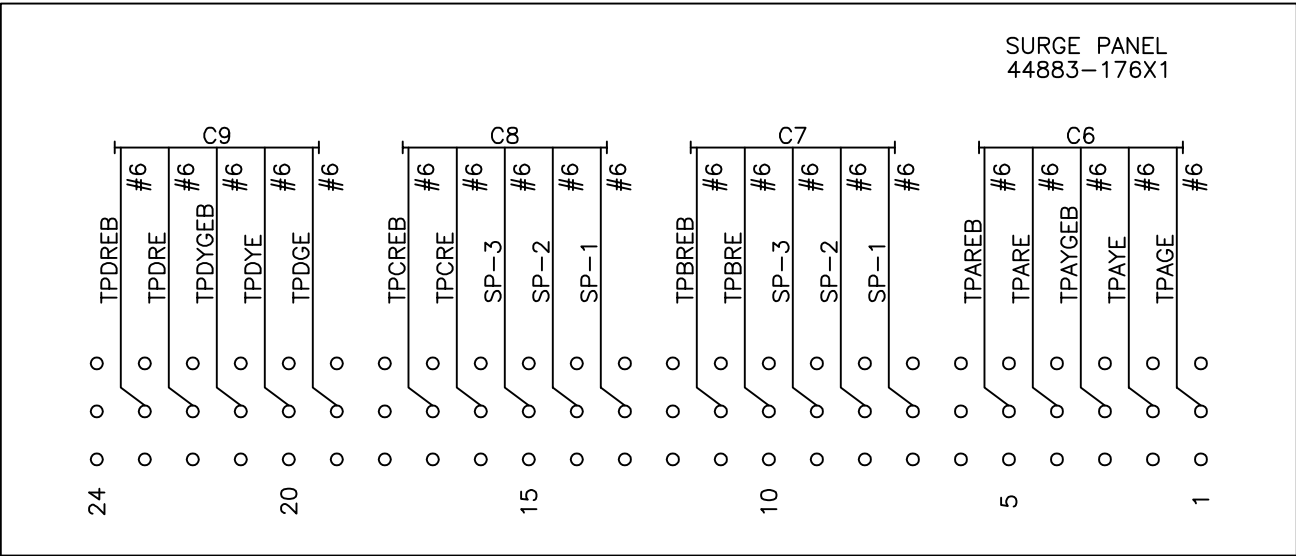


Hatch Mott  
MacDonald

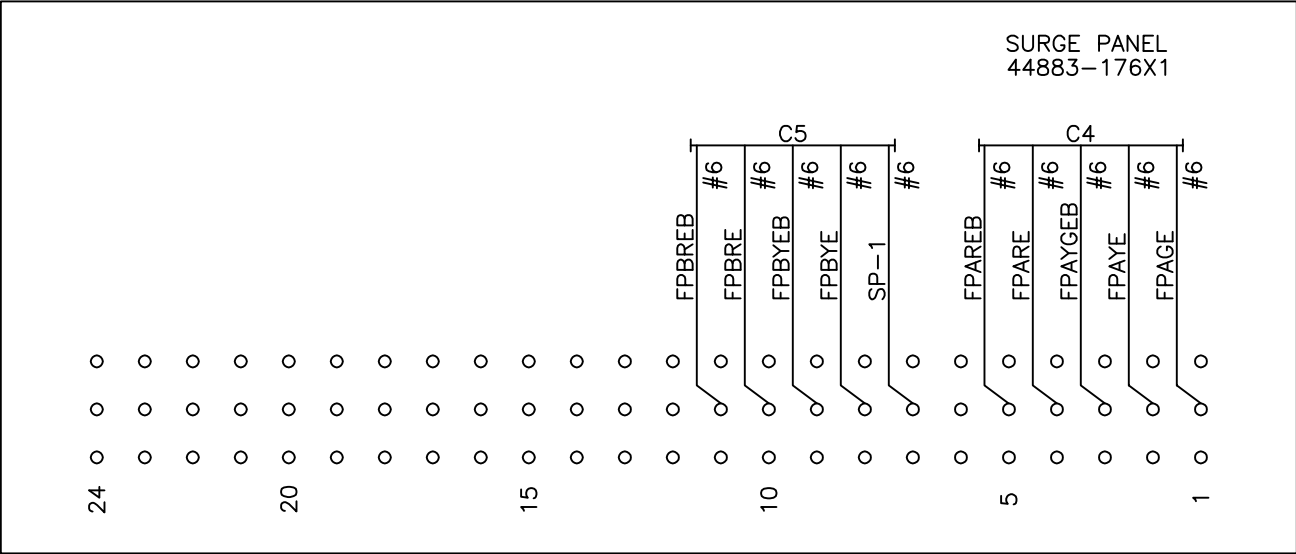


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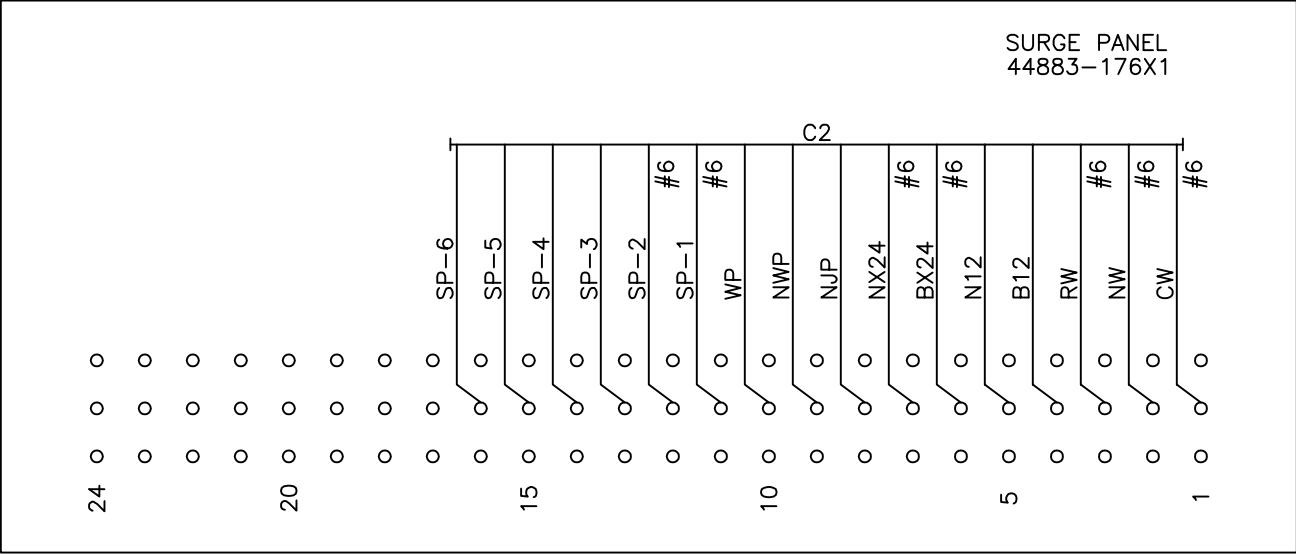
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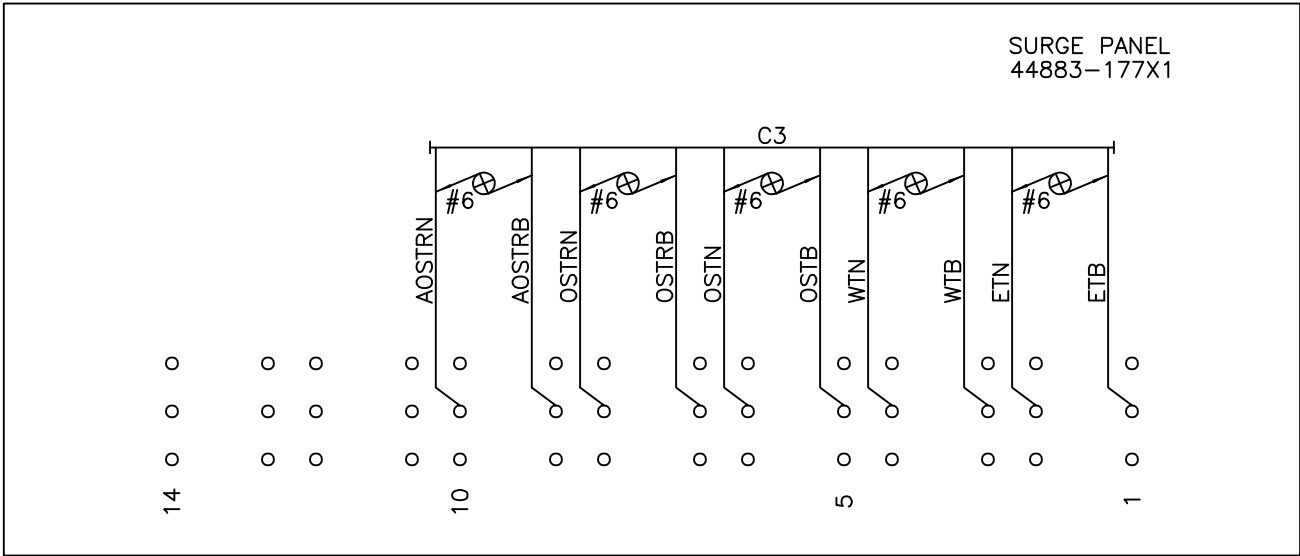
DA4



DA5



DA7



CABLE DESCRIPTION:

- C1 - 3C#6 TECK 90 U/G TO POWER SERVICE
- C2 - 16C(7#6,9#14) TO SWITCH
- C3 - (5) 2SC#6 TW. TO TRACK
- C4 - 5C(5#6) TO SIG. 47 "A"
- C5 - 5C(5#6) TO SIG. 47 "B"
- C6 - 5C(5#6) TO SIG. 48N "A"
- C7 - 5C(5#6) TO SIG. 48N "B"
- C8 - 5C(5#6) TO SIG. 48S "C"
- C9 - 5C(5#6) TO SIG. 48S "D"

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PROFESSIONAL SEALS

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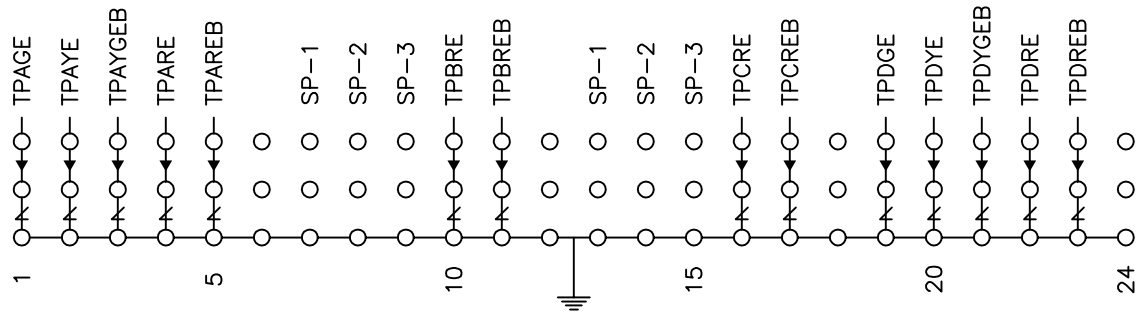
VIA RAIL CANADA INC.  
END OF SIDING  
WASS EAST  
M.I. 4.78, BEACHBURG SUBDIVISION  
FARADAY CAGE LAYOUT - EXTERIOR VIEW

DISCIPLINE	DRAWING NUMBER	CATEGORY
SG	BA-4.78-06	03

DA3

SURGE PANEL  
44883-176X1

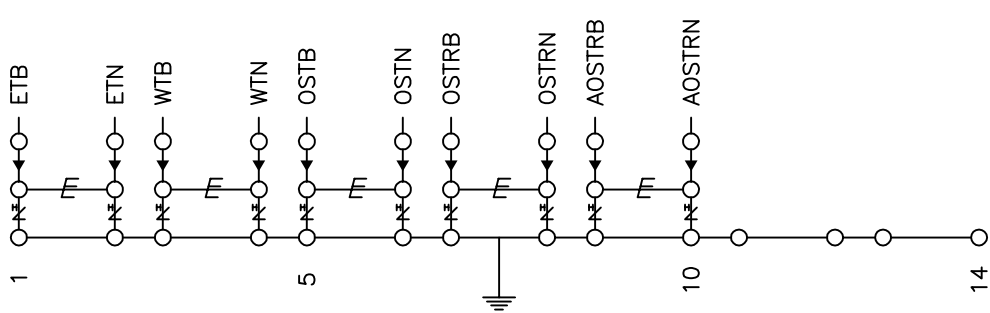
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systems  
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DA7

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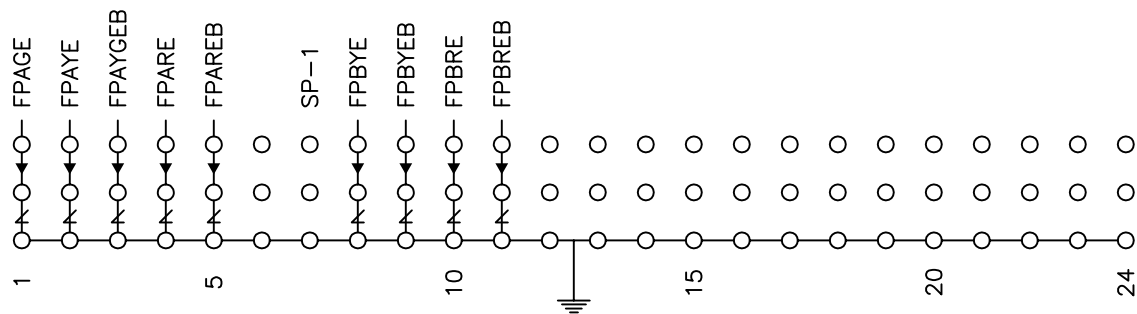
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systems  
Made in U.S.A.



DA4

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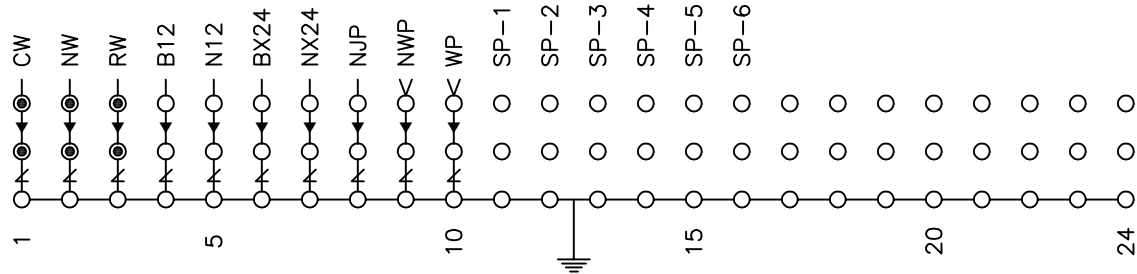
 SAFETRAN  
systems  
Made in U.S.A.



DA5

SURGE PANEL  
44883-176X1

 SAFETRAN  
systems  
Made in U.S.A.



NOTES:

⊙ - DENOTES INSULATED CAP AND SHIELD

RED - IN

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PROFESSIONAL SEALS



CONTRACTOR

 Hatch Mott  
MacDonald



VIA RAIL CANADA INC.  
END OF SIDING  
WASS EAST  
M.I. 4.78, BEACHBURG SUBDIVISION  
FARADAY CAGE LAYOUT - INTERIOR VIEW

DISCIPLINE  
SG

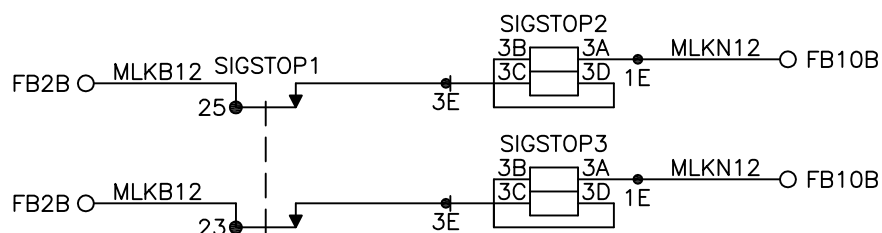
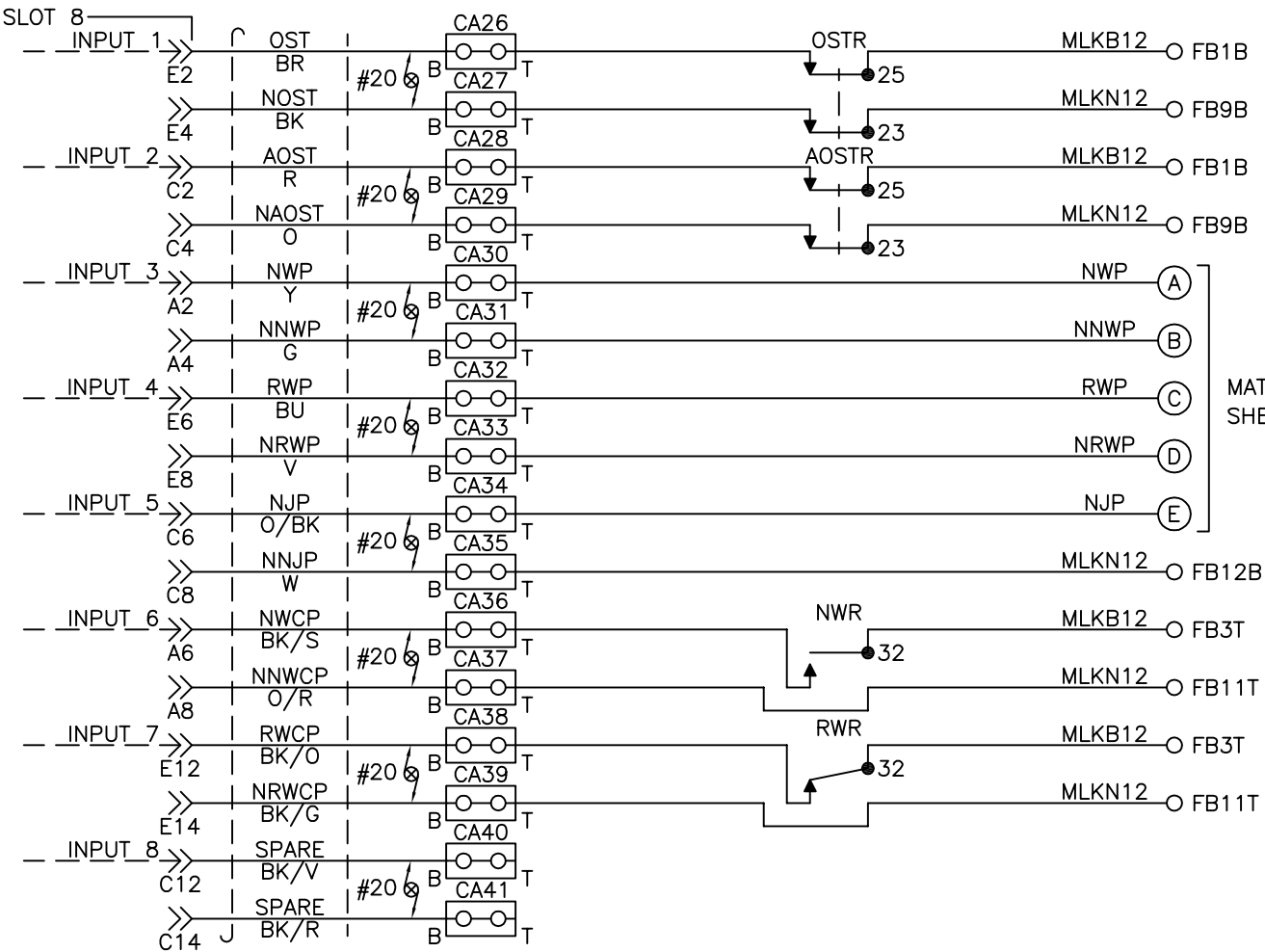
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CATEGORY  
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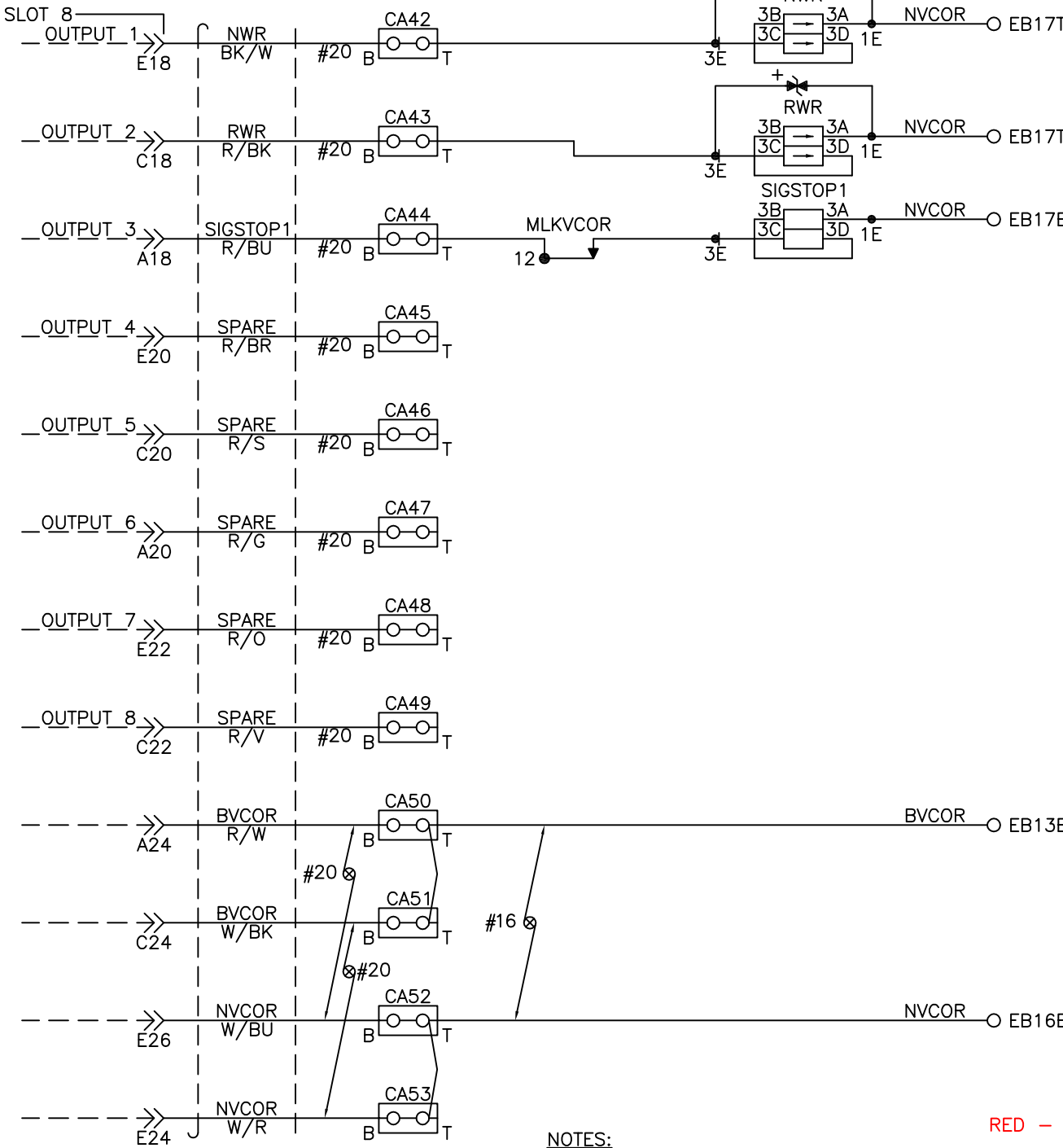




VITAL 8-IN/8-OUT



VITAL 8-IN/8-OUT



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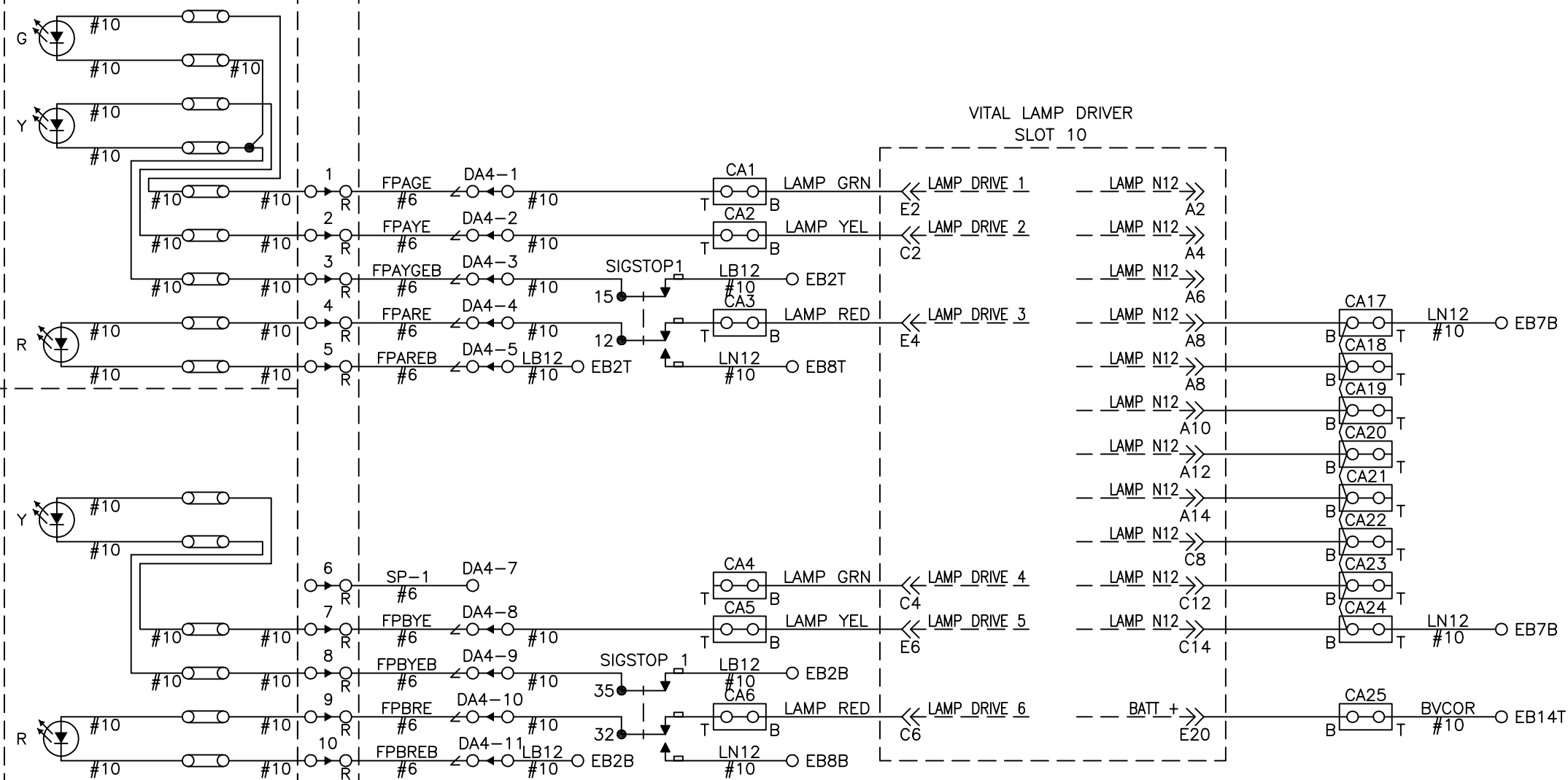


# SIG.47

SIG.A (W)

SIG.B (W)

VITAL LAMP DRIVER  
SLOT 10



NOTES:

RED - IN

- ALL WIRES #16AWG UNLESS OTHERWISE NOTED

I/R	YY/MM/DD	ISSUE/REVISION DESCRIPTION	DES	CHK	APV
0	14/08/05	WASS EAST - ISSUE FOR CONSTRUCTION	HZ	CD	JL

PROFESSIONAL SEALS



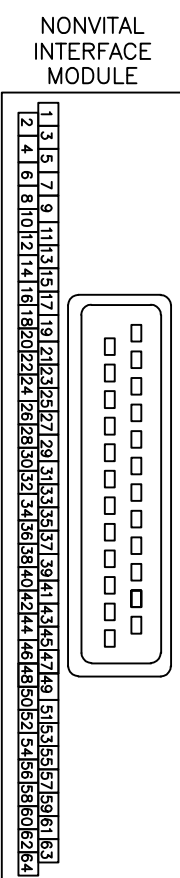
CONTRACTOR

Hatch Mott  
MacDonald

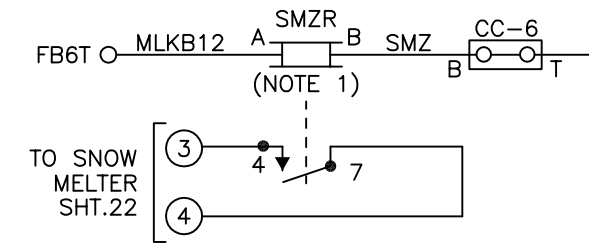
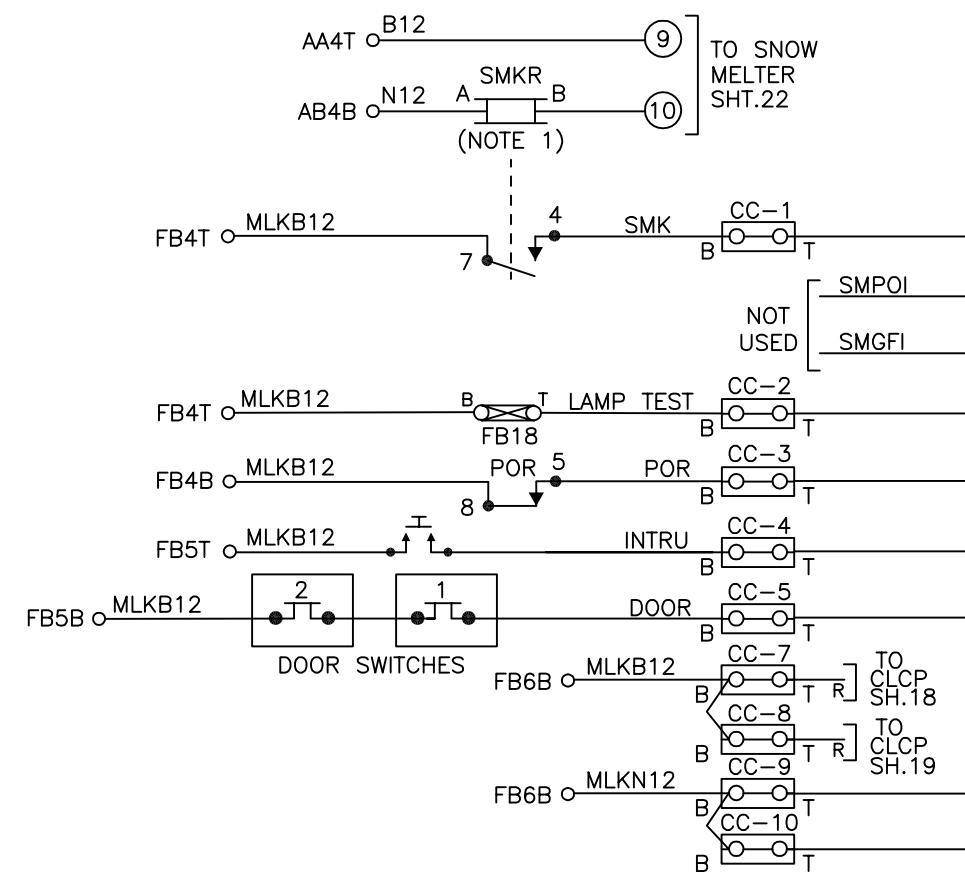
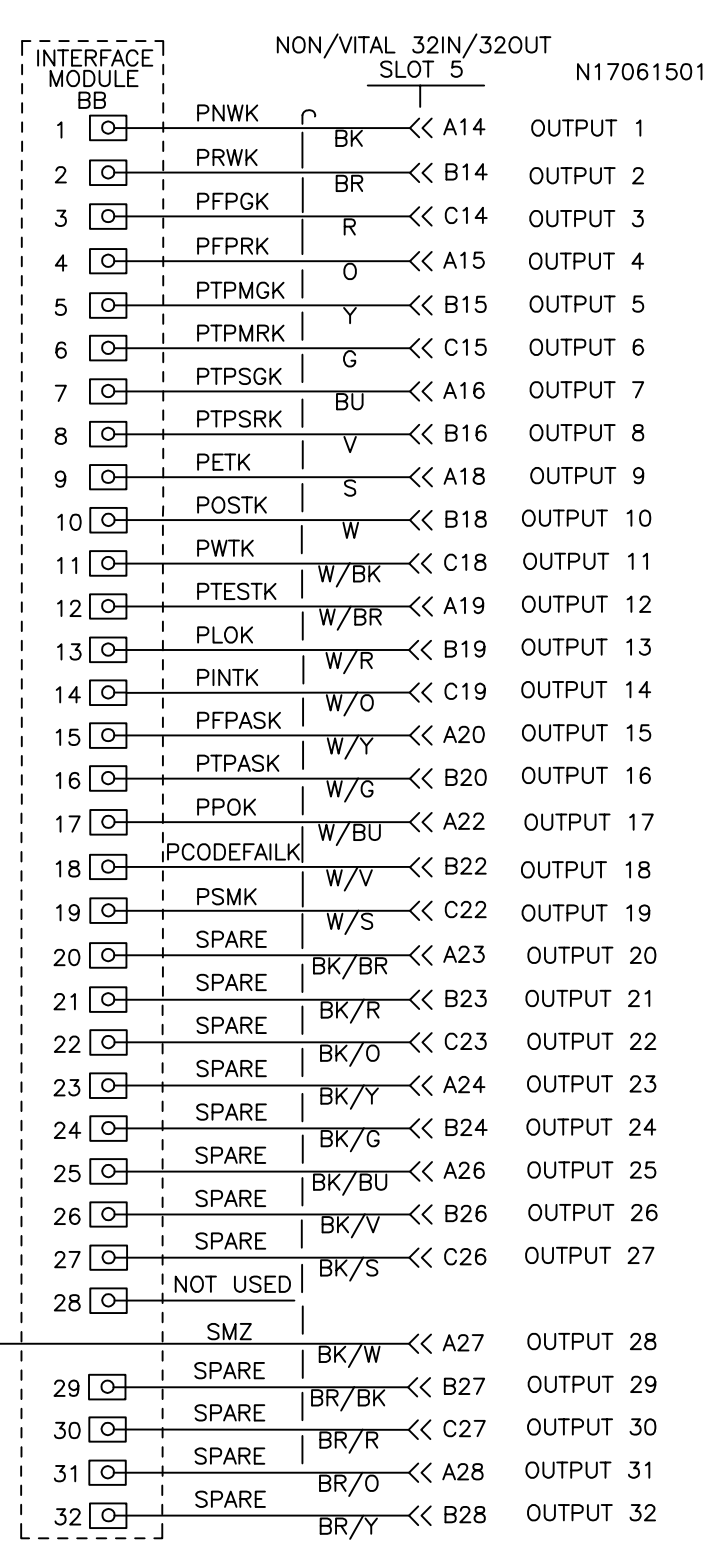
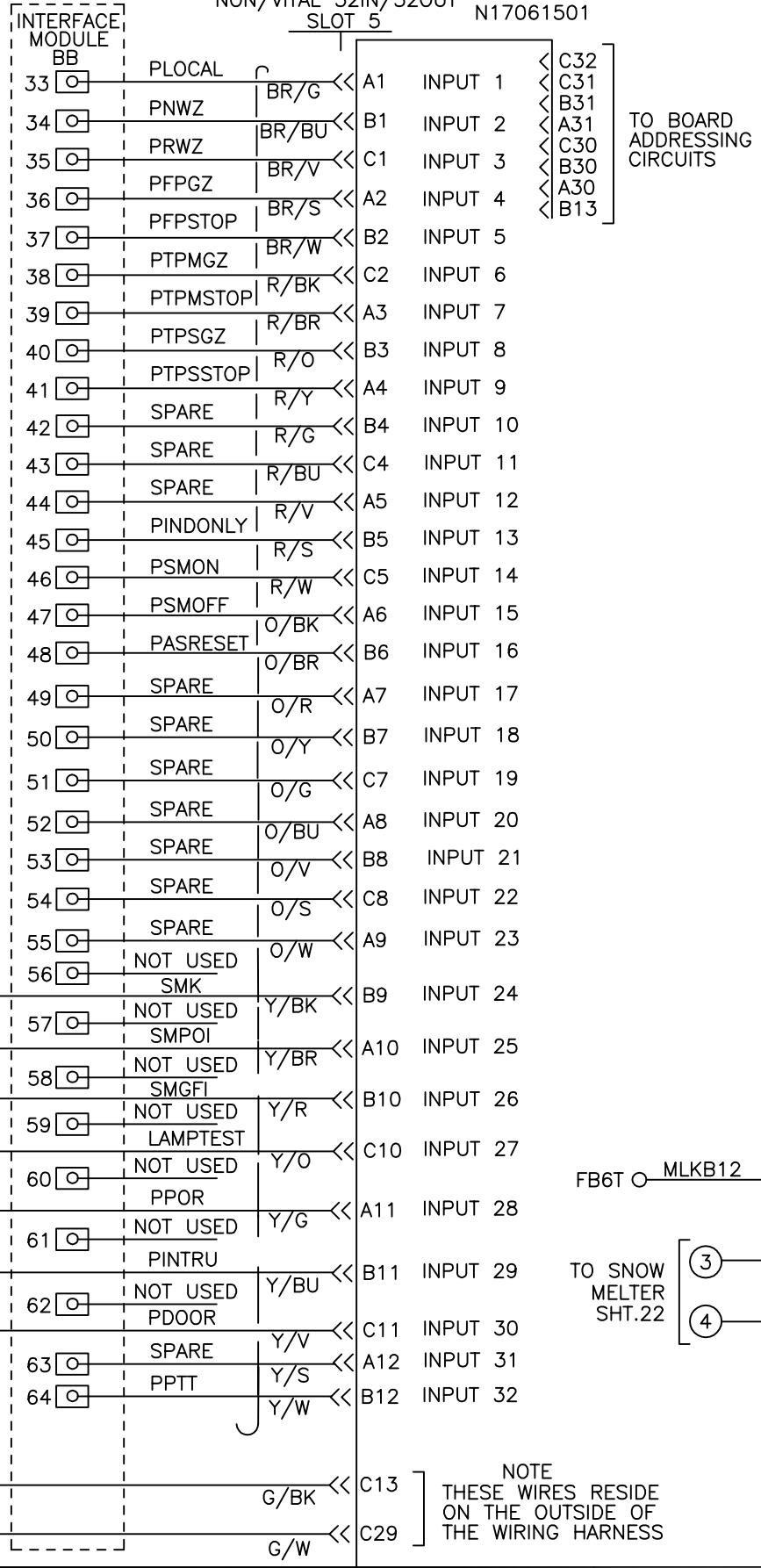


VIA RAIL CANADA INC.  
END OF SIDING  
WASS EAST  
M.I. 4.78, BEACHBURG SUBDIVISION  
SIGNAL LIGHTING CIRCUITS (W)

DISCIPLINE	DRAWING NUMBER	CATEGORY
SG	BA-4.78-11	03



NON/VITAL 32IN/32OUT  
SLOT 5 N17061501



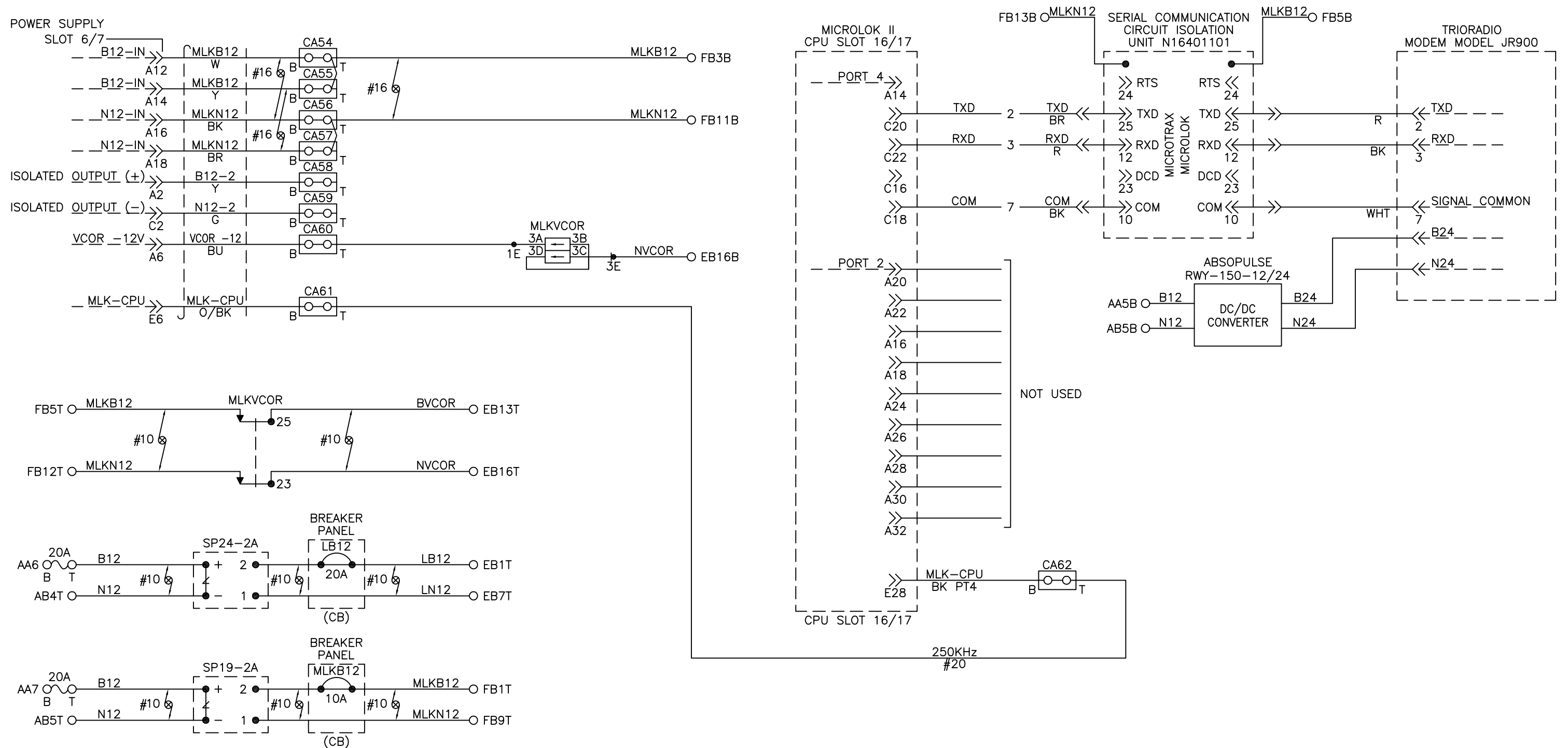
NOTES:

- 1 - POTTER & BRUMFIELD KUP-14D15-12 WITH SOCKET 27E121
- 2 - ALL WIRES #16AWG UNLESS OTHERWISE NOTED

NOTE  
THESE WIRES RESIDE  
ON THE OUTSIDE OF  
THE WIRING HARNESS

RED - IN

<table border="1"><thead><tr><th>REV</th><th>DATE</th><th>DESCRIPTION</th><th>BY</th><th>CHK</th><th>APP</th></tr></thead><tbody><tr><td>0</td><td>14/08/05</td><td>WASS EAST - ISSUE FOR CONSTRUCTION</td><td>HZ</td><td>CD</td><td>JL</td></tr></tbody></table>				REV	DATE	DESCRIPTION	BY	CHK	APP	0	14/08/05	WASS EAST - ISSUE FOR CONSTRUCTION	HZ	CD	JL	PROFESSIONAL SEALS 	CONTRACTOR 			VIA RAIL CANADA INC. END OF SIDING WASS EAST M.I. 4.78, BEACHBURG SUBDIVISION NON-VITAL INPUT/OUTPUT	
REV	DATE	DESCRIPTION	BY	CHK	APP																
0	14/08/05	WASS EAST - ISSUE FOR CONSTRUCTION	HZ	CD	JL																
						DISCIPLINE SG		DRAWING NUMBER BA-4.78-12		CATEGORY 03											



NOTES: RED - IN

- ALL WIRES #16AWG UNLESS OTHERWISE NOTED

0	14/08/05	WASS EAST - ISSUE FOR CONSTRUCTION	HZ	CD	JL
I/R	YY/MM/DD	ISSUE/REVISION DESCRIPTION	DES	CHK	APV

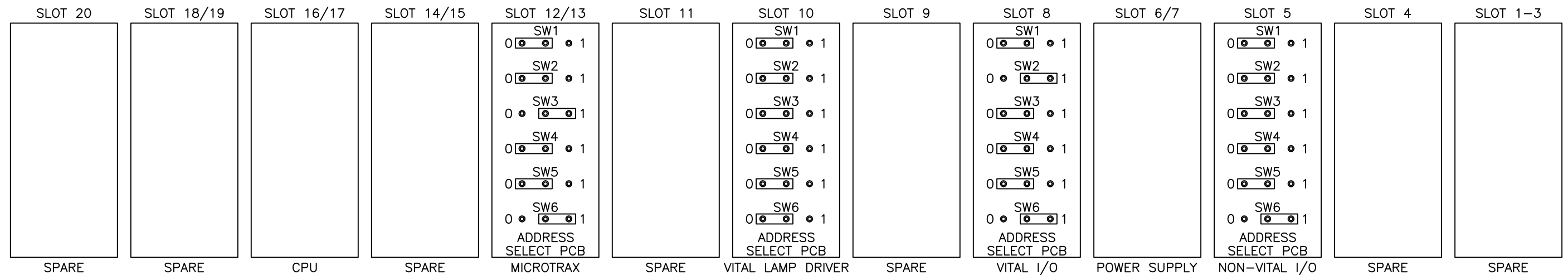


VIA RAIL CANADA INC.		
END OF SIDING		
WASS EAST		
M.I. 4.78, BEACHBURG SUBDIVISION		
MICROLOK COMMUNICATION CIRCUITS		
DISCIPLINE	DRAWING NUMBER	CATEGORY
SG	BA-4.78-13	03





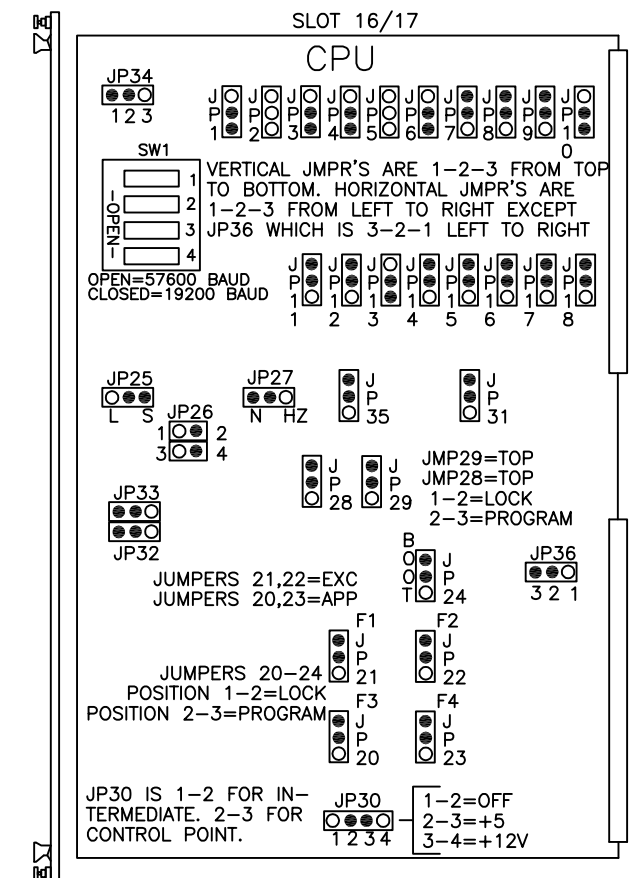
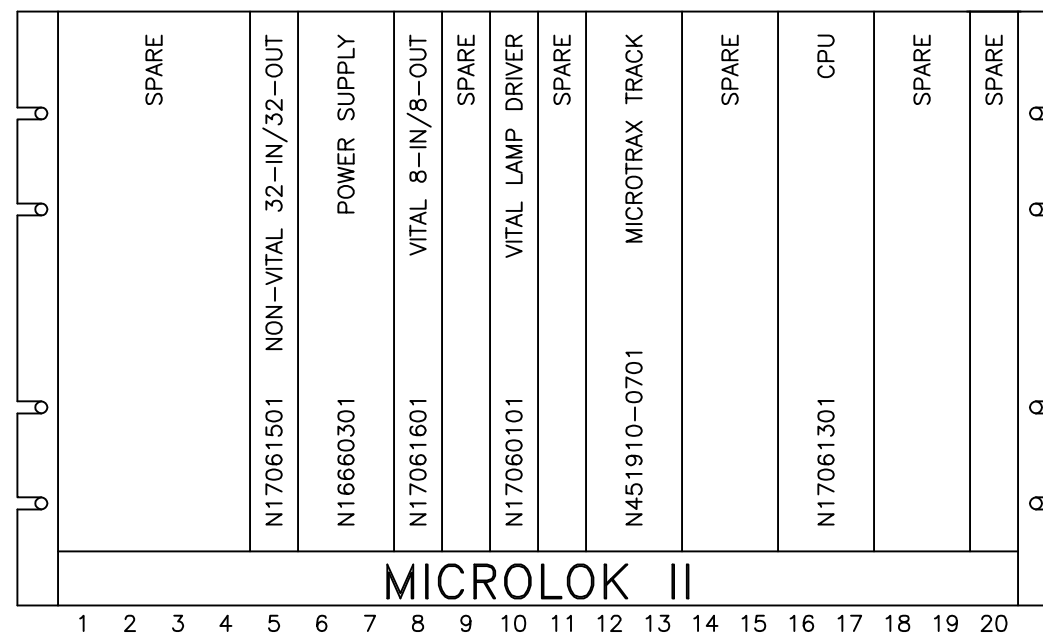
## REAR VIEW



## VITAL CONFIGURATION PROGRAM SETTINGS

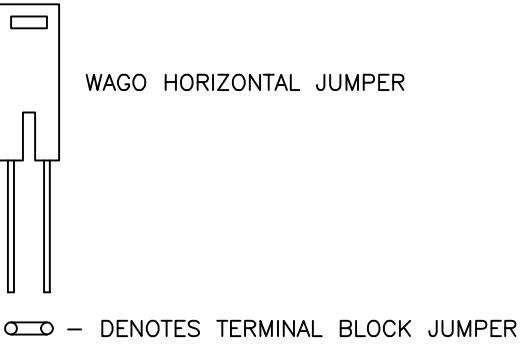
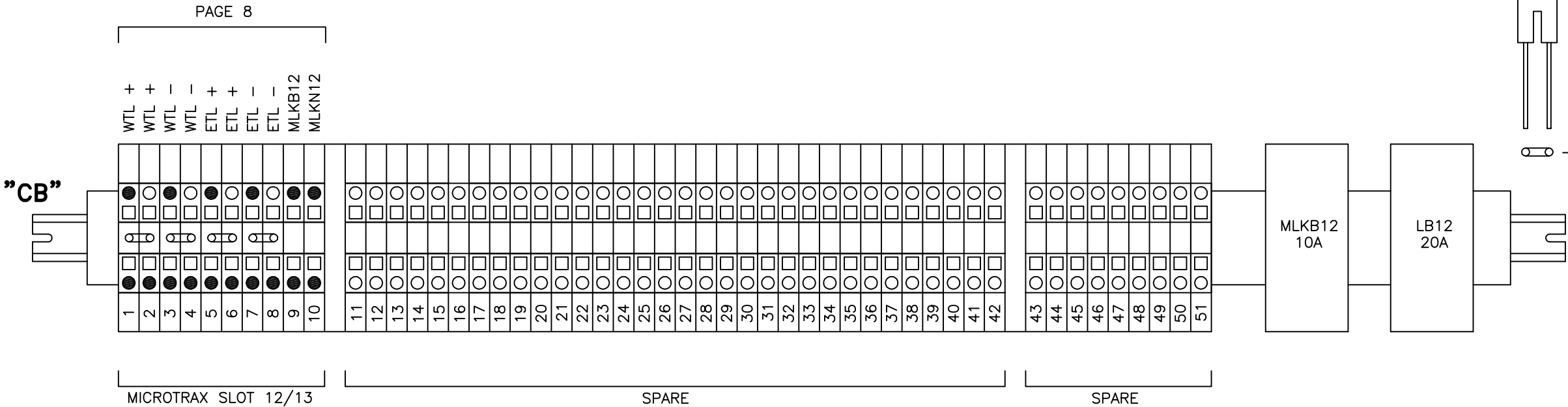
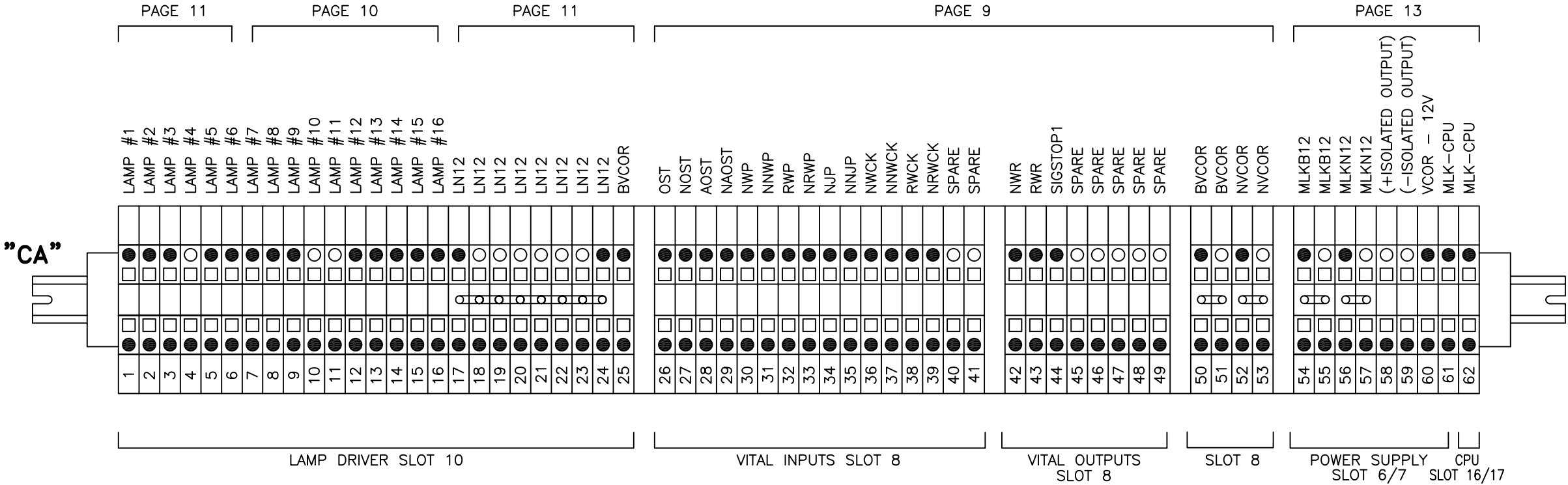
OVERLOAD TIMEOUT	10 SEC
AS TIME	4 MINS

**FRONT VIEW**



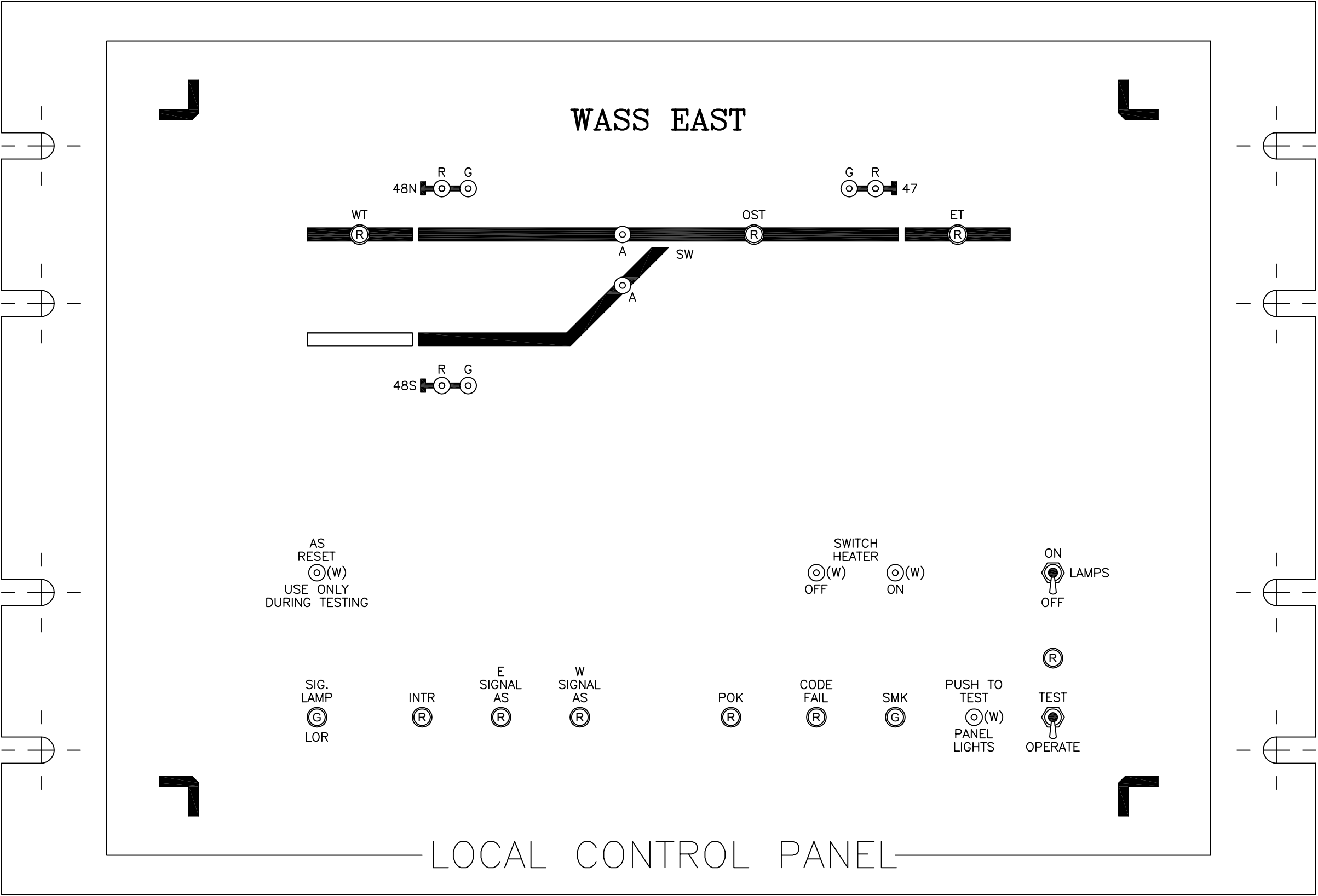
RED - IN

[illegible]



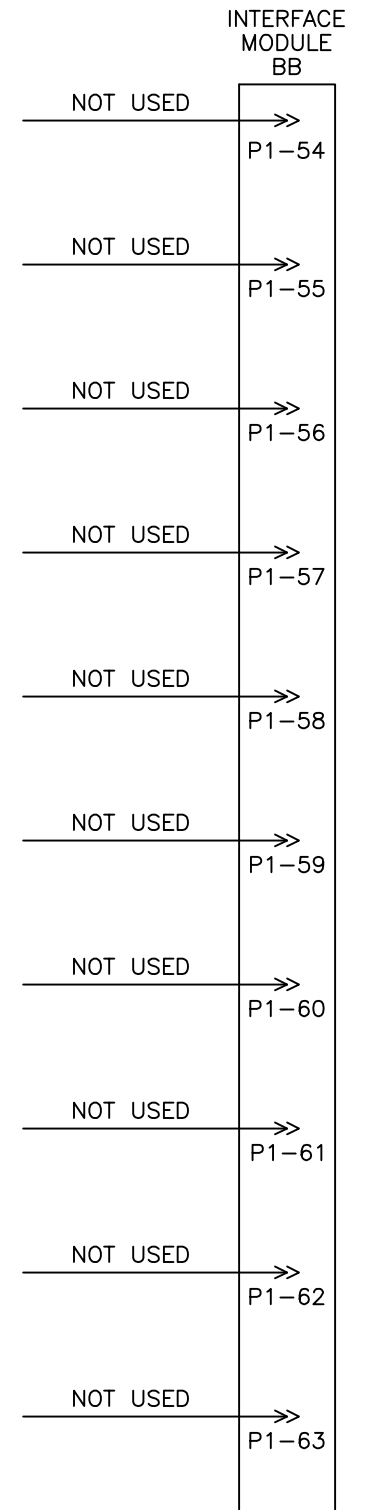
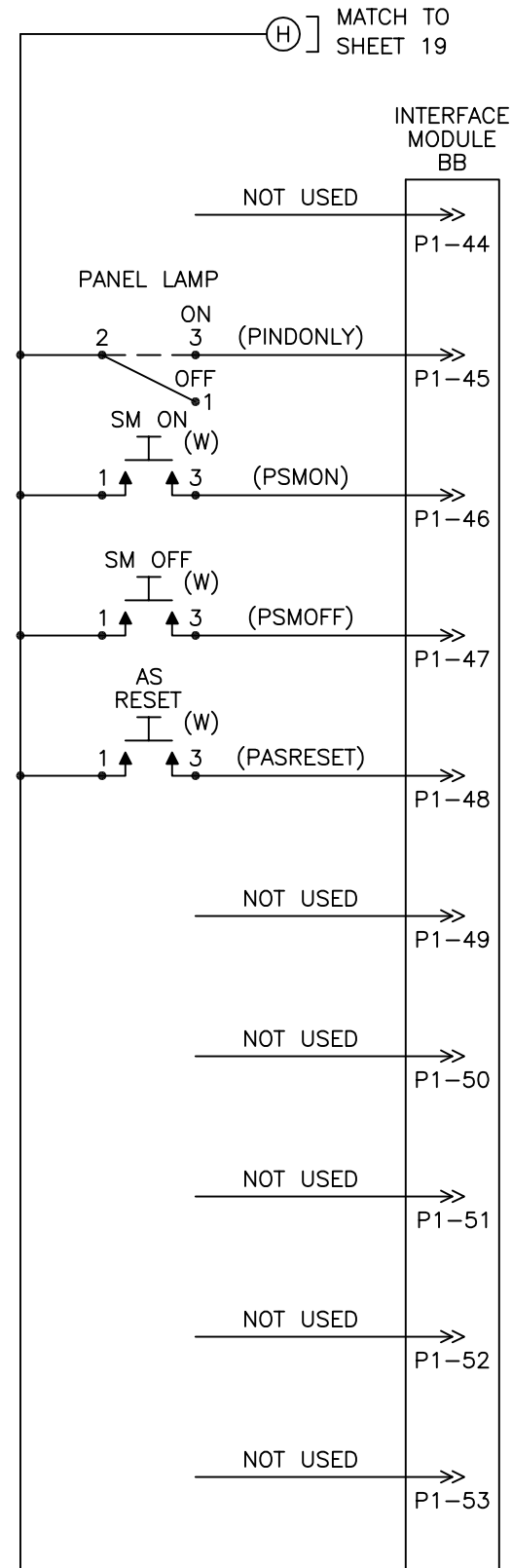
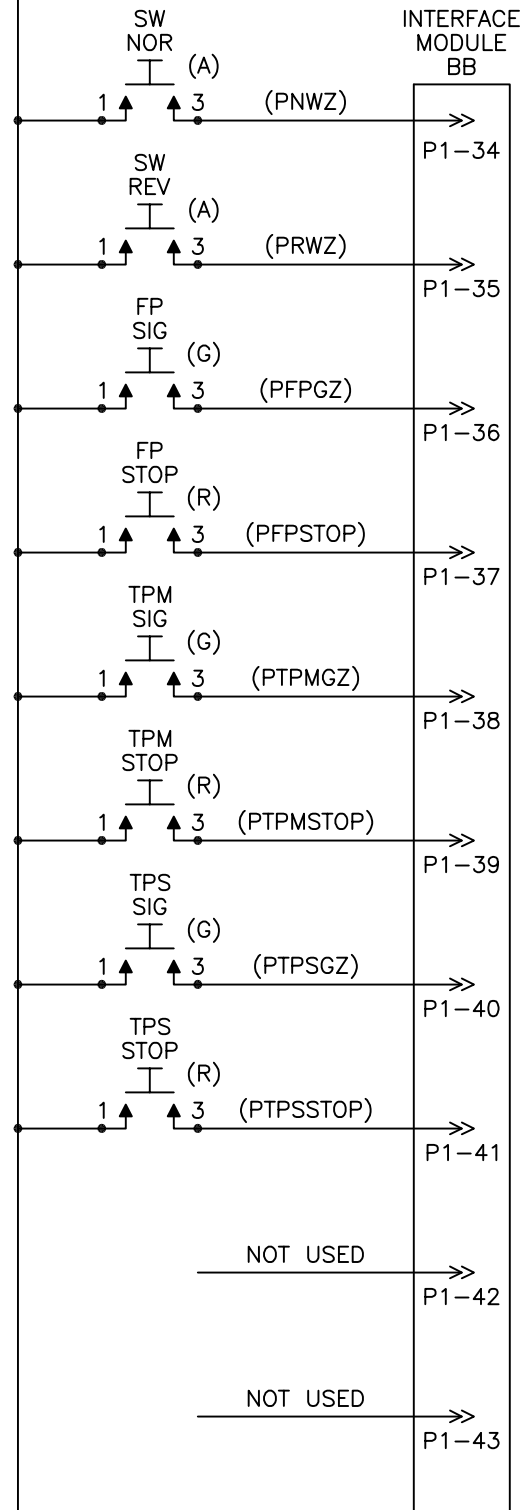
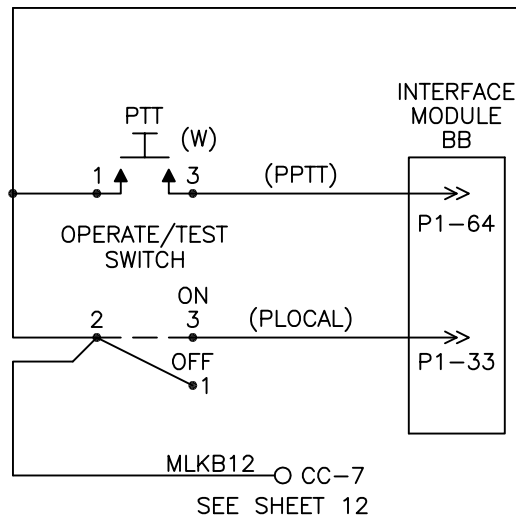
RED - IN

- NOTES:
- 1 - SIGNAL LAMP LIGHT-OUT PANEL LED WILL BE ON IF ALL WAYSIDE SIGNALS ARE WORKING PROPERLY (NO LIGHT-OUT).
  - 2 - "AS" PANEL LEDS WILL BE:  
ON IF THE "AS" TIMER IS NOT RUNNING.  
OFF IF THE SIGNAL IS CLEAR.  
FLASHING IF THE "AS" TIMER IS RUNNING.
  - 3 - PUSH TO TEST PUSH-BUTTON, INSTALL WHITE CAP WITH NO LED.
  - 4 - "AS" RESET PUSH-BUTTON, INSTALL WHITE CAP WITH NO LED.
  - 5 - SWITCH HEATER PUSH-BUTTON, INSTALL WHITE CAP WITH NO LED.
- Ⓡ - DENOTES LED.
- Ⓞ - DENOTES PUSH-BUTTON WITH INTERNAL LED.



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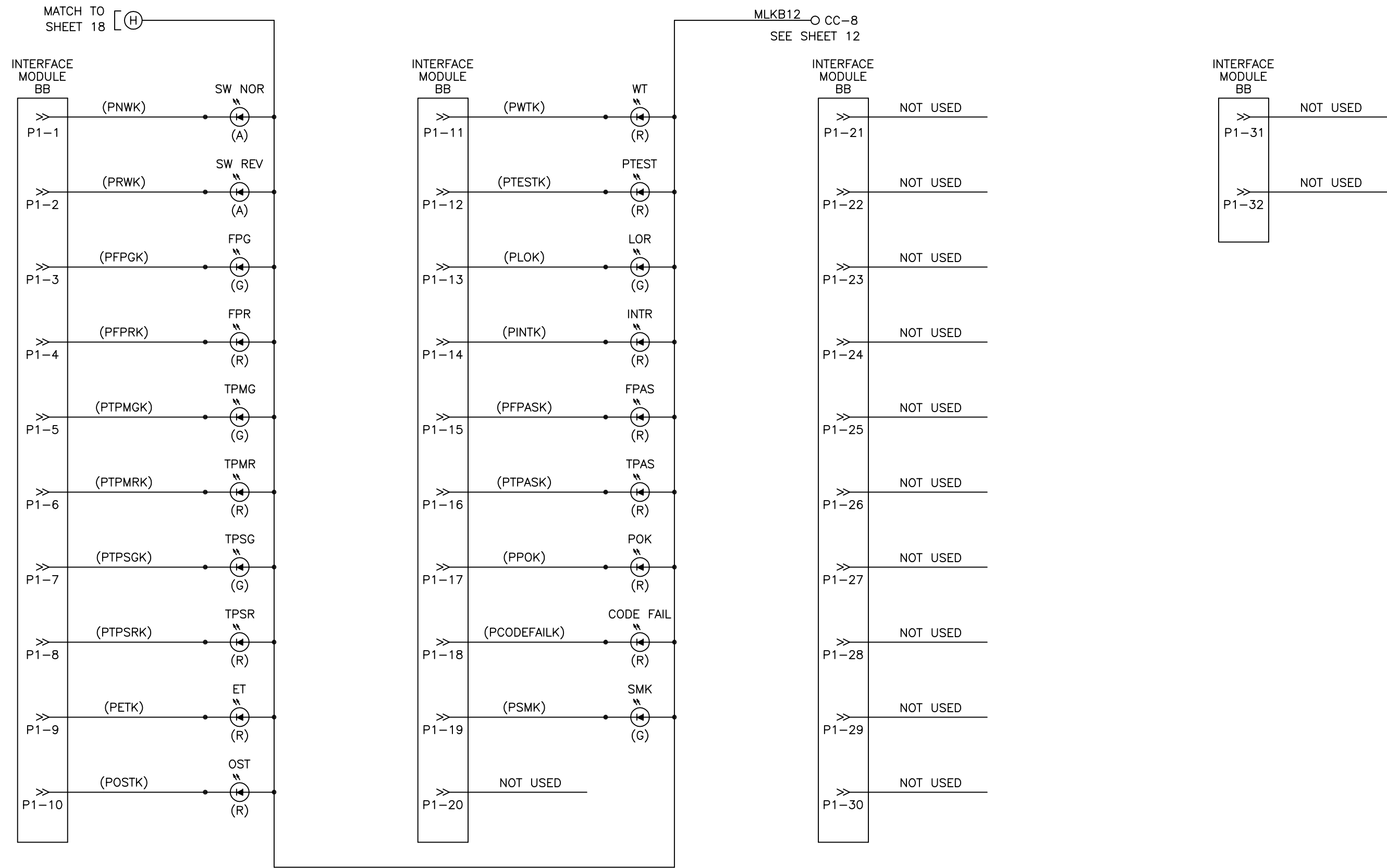
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PROFESSIONAL SEALS

CONTRACTOR

VIA RAIL CANADA INC.  
END OF SIDING  
WASS EAST  
M.I. 4.78, BEACHBURG SUBDIVISION  
LOCAL CONTROL PANEL CIRCUITS

DISCIPLINE	DRAWING NUMBER	CATEGORY
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LOCATION	WASS EAST							
ADDRESS	4							
BIT	0	1	2	3	4	5	6	7
ADDRESS WORD	X	X	X	X	X	X		
CONTROL WORD 1	NWZ	RWZ	SP	SP	STOP	FPGZ	TPGZ	SP
CONTROL WORD 2	SMZ (ON)	SMZ (OFF)	SP	SP	SP	SP	SP	SP
CONTROL WORD 3	SP	SP	X	X	X	X	X	X

LOCATION	WASS EAST							
ADDRESS	4							
BIT	0	1	2	3	4	5	6	7
ADDRESS WORD	X	X	X	X	X	X	<div></div>	
INDICATION WORD 1	NWK	RWK	SP	LK	FPGK	TPGK	LOK	POK
INDICATION WORD 2	ETK	OSTK	WTK	SP	EBPK	X	EINTK	X
INDICATION WORD 3	SMK	ALARMK	SMGFK	INTK	FPASK	TPASK	LOCALK	CODE FAIL
INDICATION WORD 4	SP	SP	X	X	X	X	X	X

MICROLOK VITAL LOGIC CONTROLLER INPUT/OUTPUT CHART

SLOT	BOARD	1 (17)	2 (18)	3 (19)	4 (20)	5 (21)	6 (22)	7 (23)	8 (24)	9 (25)	10 (26)	11 (27)	12 (28)	13 (29)	14 (30)	15 (31)	16 (32)
5	NON-VITAL 32-IN	PLOCAL SPARE	PNWZ SPARE	PRWZ SPARE	PFPGZ SPARE	PFPSTOP SPARE	PTPMGZ SPARE	PTPMSTOP SPARE	PTPSGZ SMK	PTPSSTOP SMPOI	SPARE SMGFI	SPARE LAMPTST	SPARE PPOK	PINDONLY PINTRU	PSMON PDOOR	PSMOFF SPARE	PASRESET PPTT
	NON-VITAL 32-OUT	PNWK PPOK	PRWK PCODEFAILK	PFP GK PSMK	PFP RK SPARE	PTPM GK SPARE	PTPM RK SPARE	PTPS GK SPARE	PTPS RK SPARE	PETK SPARE	POSTK SPARE	PWTK SPARE	PTESTK SMZ	PLOK SPARE	PINTK SPARE	PFPASK SPARE	PTPASK SPARE
6/7	POWER SUPPLY																
8	VITAL 8-IN	OST	AOST	NWP	RWP	NJP	NWCP	RWCP	SPARE								
	VITAL 8-OUT	NWR	RWR	SIGSTOP1	SPARE	SPARE	SPARE	SPARE	SPARE								
9	SPARE																
10	VITAL LAMP DRIVER	FPAGE	FPAYE	FPARE	SPARE	FPBYE	FPBRE	TPAGE	TPAYE	TPARE	SPARE	SPARE	TPBRE	TPCRE	TPDGE	TPDYE	TPDRE
11	SPARE																
12/13	MICROTRAX																
14/15	SPARE																
16/17	CPU																
18/19	SPARE																
20	SPARE																

RED - IN

0	14/08/05	WASS EAST - ISSUE FOR CONSTRUCTION	HZ	CD	JL												
I/R	YY/MM/DD	ISSUE/REVISION DESCRIPTION	DES	CHK	APV												

PROFESSIONAL SEALS



CONTRACTOR

 Hatch Mott MacDonald



VIA RAIL CANADA INC.

END OF SIDING

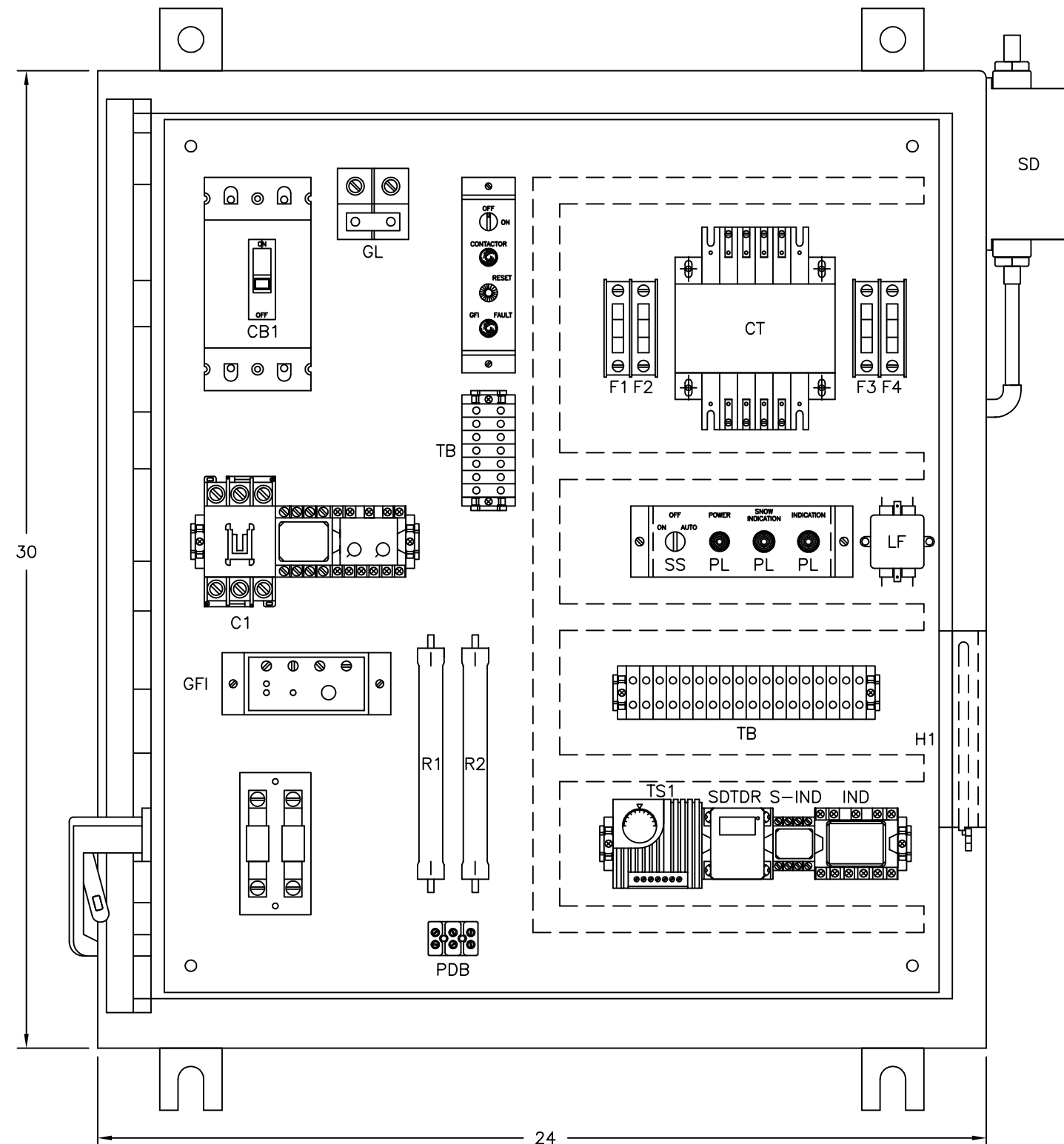
WASS EAST

M.I. 4.78, BEACHBURG SUBDIVISION

MICROLOCK INPUT/OUTPUT ASSIGNMENTS

DISCIPLINE	DRAWING NUMBER	CATEGORY
SG	BA-4.78-20	03





## BILL OF MATERIALS (MAIN PANEL)

LEGEND	RAILS P/N	DESCRIPTION	QTY
	THR-10831-18	ENCLOSURE, 30" x 24" x 8"	1
	THR-10106-125BP	BACK PANEL, 27" x 21"	1
CT	HAB-8305	TRANSFORMER, 480/120, 300 VA	1
CB	THR-10639-44	BREAKER, CIRCUIT, 80 AMP, 240V	1
C1	HAB-10366-1	CONTACTOR, 125 AMP RATING, 3 POLE	1
	HAB-10366-1	CONTACT, AUXILIARY, 4 POLE, 2NO, 2NC	1
LF	HD-10123-3	FILTER, LINE, POWER, 3 AMP	1
SS	HD-9849-1	SWITCH, SELECTOR, 3 POSITION	1
	HD-9849-001	BLOCK, CONTACT, N.O.	2
	HD-9849-002	BLOCK, CONTACT, N.C.	1
	HD-9849-003	BLOCK, CONTACT	1
	THR-11528-1	BRACKET, TH CONTROL, SWITCH	1
	THR-11526-1	PLATE, LEGEND, MAIN PANEL	1
	THR-10106-005	BRACKET, TH CONTROL, 4 HOLE	1
	THR-10106-006	PLATE, LEGEND, TH, CONTROL	1
	HD-9234	RAIL, MOUNTING	A/R
	HD-9234-01	CLIP, END DIN RAIL	8
	HD-9236-2	HOLDER, FUSE, 2 POLE	2
F1,F2	HD-8504-19	FUSE, 3 AMP, TIME DELAY, 250 VAC	2
F3	HD-8504-22	FUSE, 4 AMP, TIME DELAY, 250 VAC	2
TB	HD-10107-1	TERMINAL BLOCK, HIGH VIBRATION	25
PL1	HAB-9718-1	LIGHT, PILOT, 7/8" GREEN	1
PL2	HAB-9718-2	LIGHT, PILOT, 7/8" RED	2
PL3	HAB-9718-3	LIGHT, PILOT, 7/8" AMBER	2
	HAB-8670	SOCKET, RELAY, 8 PIN	2
	HD-9233	SOCKET, RELAY, 11 PIN	3
SDTDR	SD-9232	RELAY, SOLID STATE	1
IND	HAB-1253	RELAY, 120VAC, 4PDT	1
	HD-9849-3	SWITCH, SELECTOR	1
	HD-9640	PUSHBUTTON, SWITCH	1
TS1	THR-10606-2	THERMOSTAT, 120VAC	1
H1	HAB-10895-2	HEATER, 125V, 100WATTS	1
	HD-10107-2	END, SECTION TERMINAL	2
	CPT-1007	RELAY, 120VAC, DPDT	1
	THR-10035-7	RELAY, CURRENT CONTROL, 11PIN	2
	THR-9851-1	SENSOR, GROUND FAULT	1
	HD-10284-1M	HOLDER, FUSE, 100AMP RATING, 300 VAC	2
PF1,PF2	HD-10334-15	FUSE, 80 AMP, 300 VAC	2
SD	SD-10728-1A	SNOW DETECTOR	1
R1,R2	HD-10042-100	RESISTOR, 100 OHM	2
	HD-10042-MB	BRACKET, RESISTOR	4
	HAB-9394-3	TERMINAL, STRIP OF 3	1
	HD-10240-7	DUCT, WIRE, 1" x 2-1/4	A/R
GL	HD-9414	TERMINAL, UNIVERSAL (GL)	2

RED - IN

0	14/08/05	WASS EAST - ISSUE FOR CONSTRUCTION	HZ	CD	JL
I/R	YY/MM/DD	ISSUE/REVISION DESCRIPTION	DES	CHK	APV

### PROFESSIONAL SEALS

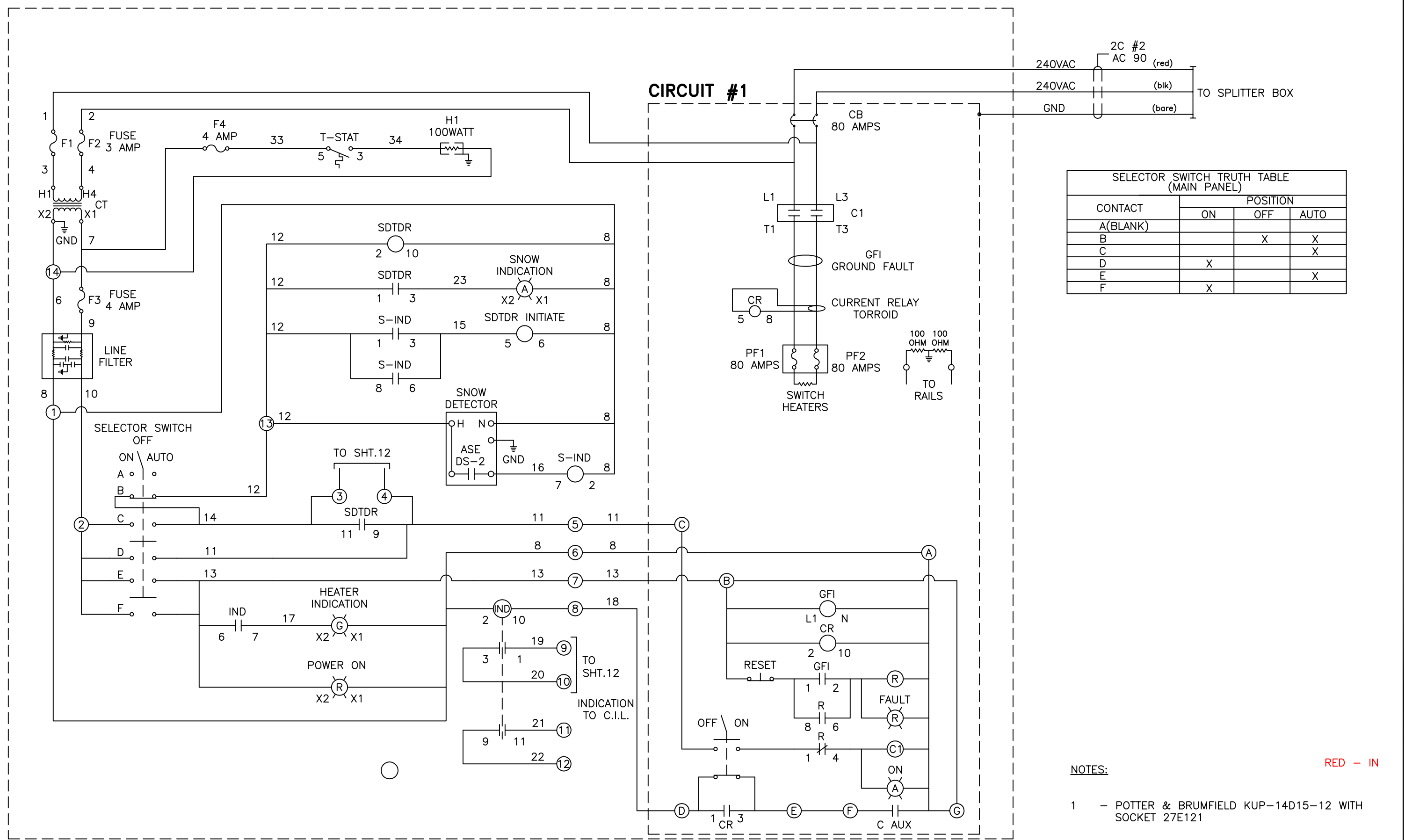


### CONTRACTOR



VIA RAIL CANADA INC.  
END OF SIDING  
WASS EAST  
M.I. 4.78, BEACHBURG SUBDIVISION  
SNOW MELTER CONTROL LAYOUT

DISCIPLINE	DRAWING NUMBER	CATEGORY
SG	BA-4.78-21	03



SELECTOR SWITCH TRUTH TABLE (MAIN PANEL)			
CONTACT	POSITION		
	ON	OFF	AUTO
A(BLANK)			
B		X	X
C			X
D	X		
E			X
F	X		

NOTES:

1 - POTTER & BRUMFIELD KUP-14D15-12 WITH SOCKET 27E121

RED - IN

0	14/08/05	WASS EAST - ISSUE FOR CONSTRUCTION	HZ	CD	JL
I/R	YY/MM/DD	ISSUE/REVISION DESCRIPTION	DES	CHK	APV

PROFESSIONAL SEALS

INGENIEUR - ENGINEER

Hanyu Zhang

5017661

QUEBEC

16/09/14

CONTRACTOR

Hatch Mott MacDonald



VIA RAIL CANADA INC.

END OF SIDING

WASS EAST

M.I. 4.78, BEACHBURG SUBDIVISION

SNOW MELTER CONTROL CIRCUITS

DISCIPLINE	DRAWING NUMBER	CATEGORY
SG	BA-4.78-22	03

- 1 - CIRCUIT BREAKER NOT TO EXCEED 100 AMPERES.  
RETAINING KIT PK4MB2LA MUST BE USED WITH 100 BREAKER.
- 2 - FEEDER CIRCUIT BREAKER, AT STUB POLE SERVICE  
PANEL, NOT TO EXCEED 200 AMPERES.
- 3 - HAMMOND TRANSFORMER 24V/250W 266S24
- 4 - GROUND LUG LOCATED INSIDE CHARGER HOUSING.
- 5 ⊙ - DENOTES INSULATED TERMINAL.

[illegible]



## **Environmental/Erosion Protection Plan**

**2014 WASS**

**Siding construction**

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2.0 Erosion and Sedimentation Control Plan -----	4
3.0 Local Regulatory Authorities -----	5
4.0 Site Specific Erosion and Sediment Control Measures -----	6
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## 1.0 OVERALL OBJECTIVES

During construction of the WASS siding where soil erosion may occur and find its way to a watercourse or be airborne due to our construction activities, sediment control measures will be implemented prior to work starting, monitored during the construction operations and controlled before reaching a watercourse or an active area used by the owner.

## 2.0 Erosion and Sedimentation Control Plan

- R.W. Tomlinson Ltd. shall be solely responsible for controlling erosion and sediment as a result of **our** operations including, but not limited to, the implementation, inspection, maintenance and removal of erosion and sediment control measures in accordance with Ontario Provincial Standard Specification 518 dated November 2011, Standard Specification 805 dated November 2010 and provisions outlined in this contract.
- The time interval between commencement and completion of any work that disturbs earth surfaces will be kept to a minimum. Commencement of such work shall be considered to have occurred when the original stabilizing ground cover has been removed, including grubbing, or has been covered with fill material.
- Emergency Spill Kits will be available in all R.W Tomlinson Foremen's pickup trucks. *Each spill kit contains: 1 set of rubber gloves, 1 small bag of universal granular absorbent, 3 containment socks, 1 pair of high impact safety goggles, 3' x 3' rubber pad, 1 plastic tarp, and 10 absorbent pads.*
- Materials utilized to control the erosion may include, but are not limited to, the application of water, silt fence barriers, heavy duty silt fence barriers, straw bale barriers, flow checks and others as identified in OPSS 518 and 805. Standards that will apply and may be used are :

OPSD 219.130	Heavy Duty Silt Fence Barrier.
OPSD 219.190	Silt Fence Flow Check Dam

- Construction materials such as excavation, granular etc. will be placed using acceptable construction methods where indicated in the contract documents and on the contract drawings. Work will be planned to avoid unnecessary movement of materials.
- RW Tomlinson Ltd. and their sub-contractors shall ensure that all existing drainage facilities remain operational and free of construction debris during construction.



- A visual inspection will be done daily on the sediment control barriers and any damage to the protection barriers will be repaired immediately.
- Local weather forecasts will be an important part of scheduling our work in order to minimize the impact of runoff and possible airborne particles.
- After major rain falls the site will be immediately inspected and repairs, if necessary, will be conducted at once.
- The Contract Administrator in agreement with the Project Manager/Supervisor will determine when and how sediment control measures can be removed.

### **3.0 Local Regulatory Authorities**

**MOE: Spills Action Centre (SAC)**  
1-800-268-6060

For notification of a spill or issue relating to a Waste Management Approval or Certificate of Approval under the Environmental Protection Act, R.S.O 1990, Chapter E.19, and/or the Ontario Water Resources Act, R.S.O 1990, Chapter O.40, All undertakings to be carried out in accordance with those Acts, the applicable regulations and the guidelines.

**Municipality: City of Ottawa**  
110 Laurier Avenue West  
Ottawa, ON K1P 1J1  
General Inquiry: (613) 580-2400  
Toll Free: (668) 261-9799

For notification of a spill to the environment under the Environmental Protection Act

**MOE: Ottawa District Office**  
2430 Don Reid Dr  
Ottawa, ON K1H 1H1  
(613) 521-3450  
General Inquiry: Lance Larkin  
and Jena Leavoy

For Waste Management Approval under the Environmental Protection Act

**Rideau Valley Conservation Authority**

3889 Rideau Valley Dr,  
Manotick, ON K4M 1A5  
(613) 692-3571  
Shelley Macpherson at 613-227-0837 or  
613-692-3571 x 1102  
Hal Stimson at 613-692-3571 x 1127

**MNR: District Office**

Concession Road  
Kemptonville, ON K0G 1J0  
Tel. (613) 258-8204  
Fax. (613) 258-3920  
1-877-TIPS MNR (847-7667)

**Crime Stoppers**

1-800-222 TIPS (8477)

## **4.0 Site Specific Erosion and Sediment Control Measures**

Due to the underlying soils, dust particles may become airborne. Water application to the excavated sections will be the main method of dust suppression. Please see attached Dust Control Plan.

When fueling equipment on site, it will be done in a safe and responsible manner to avoid any potential water pollution.

Attached supplemental documents:

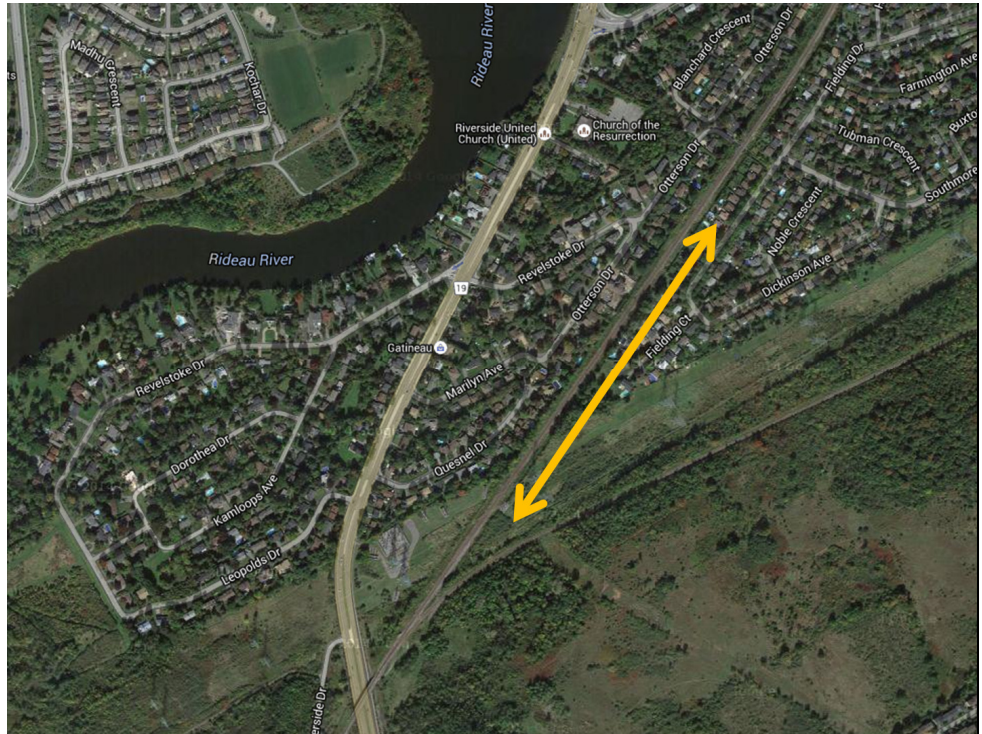
- R.W. Tomlinson “Emergency Response Plan”
- OPSS 805 Construction Specification for Temporary Erosion and Sediment Control Measures. (not attached for reference only)
- OPSD 219.130 Heavy Duty Silt Fence Barrier.
- OPSD 219.190 Silt Fence Flow Check Dam

## **5.0 Dust Control Plan**

RWT will utilize the appropriate measures to control the generation of dust and to increase safety, environment, and health impact related to excessive amounts of dust. Decisions on when and where to implement dust control measures will depend on the nature of the activity generating the dust, current and expected weather conditions, distances to receptors, traffic volumes, and road conditions. Appropriate dust control measures to address vehicular generated dust shall be implemented along the right of way, access roads, and on staging areas in order to minimize the potential for negative environmental and health related impacts of air borne dust particles-this will be conducted on an as-needed basis.

- A limited amount of water will be the only dust suppressant used during periods when visible dust is generated.
- If standard dust suppressant techniques are not effective (e.g., during periods of high winds), construction activities may be modified to protect the health and safety of workers and the public in areas adjacent to the work area
- Watering for dust control on land will not result in the excessive formation of puddles, rutting by equipment or vehicles, tracking of mud onto roads, or siltation of watercourses.

- Promptly clean paved streets/roads where tracking of soil, mud, or dust has occurred. (Regular street sweeping will be required during wet conditions to remove mud and dirt that is deposited onto City streets).
- Cover fine grained materials when transporting them to prevent or mitigate loss of material through wind exposure. All loads leaving construction site must be covered.
- Runoff due to water used in dust control applications will be monitored on a daily basis, if the water generates significant runoff a silt fence will be erected around the area affected.



VIA Rail Canada

# WASS SIDING OPTIMAL LOCATION ANALYSIS II

**REPORT**

November 5, 2014



Hatch Mott  
MacDonald

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### **Executive Summary**

This report presents the results of the analysis undertaken by Hatch Mott MacDonald (HMM) in collaboration with VIA Rail Canada. HMM undertook a site evaluation followed by initial analysis in discussion with VIA Rail. This report presents 2 options.

HMM recommends VIA Rail proceed with Option 1 Siding location between MI 4.7 to 5.2



John M. Greene | Senior Rail Specialist  
Hatch Mott MacDonald | Signals

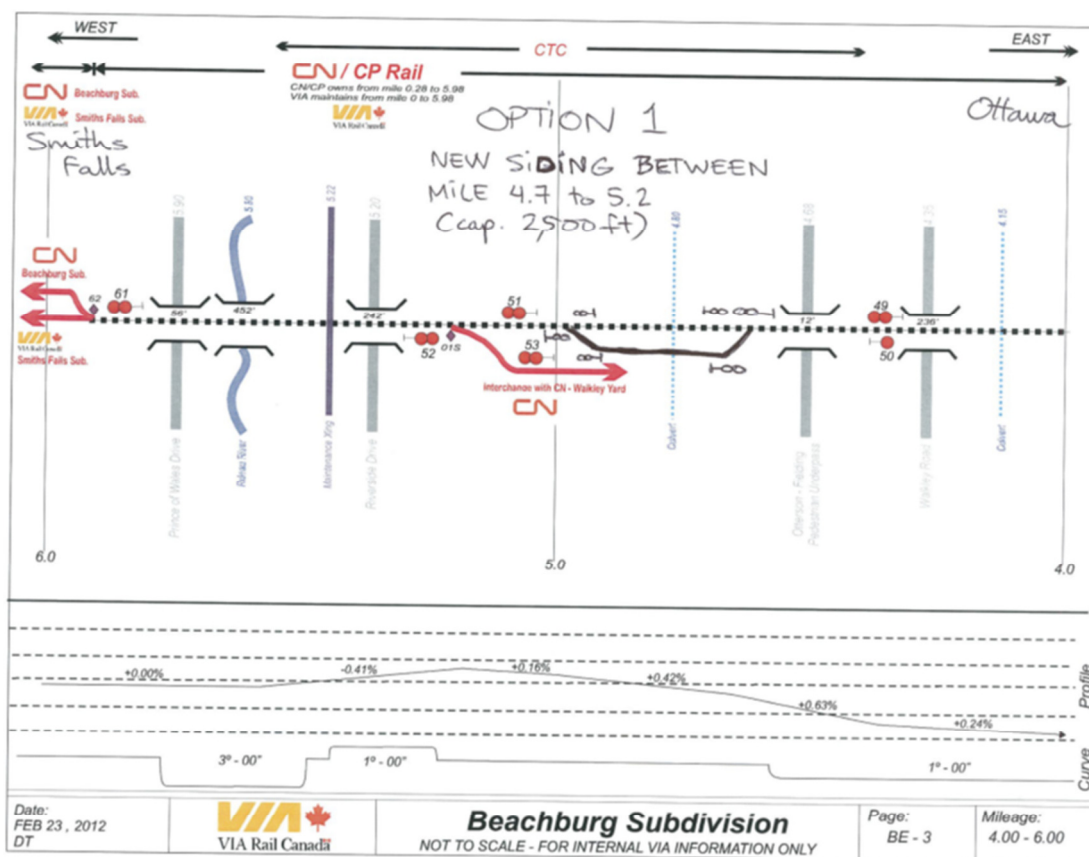
5 Place Ville Marie, bureau 200  
Montréal, Québec, Canada H3B 2G2  
T 514 861-0583 F 514 397-1651  
[www.hatchmott.com](http://www.hatchmott.com)

HMM Project no 342343



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OPTION 1 SIDING LOCATION BETWEEN MI 4.7 to 5.2

## OPTION 1 New Siding Between Mile 4.7 and 5.2

- Location is perfect fit between WASS East & Pedestrian crossing 2,500'
- Power available, fiber optic cables on one side to be verified
- Access at west end and by track (Vehicle) east end
- Culvert to be extended at MP 4.80
- Siding can be built on either side of track
- Wass signal location can be built in order to control both switches; siding & CN entrance
- Wass Siding would eliminate the Wass 2014 (Wakley) section in order amalgamate the two locations, New bungalow could be built next to old (existing) bungalow, also eliminates two high signals and all will be LED type.
- New layout would include two OST tracks, one per switch
- Putting both locations in one, would reduce tests to be performed
- Signals would control both the CN switch and the siding switch
- Braking distances to be evaluated within blocks both directions
- Track infrastructure easy access and no major impedance



Wass Looking West





Future West End of Wass



Future Location West End Wass 400 feet from Existing Bungalow





Looking East Towards Ottawa



Fiber Optic Cables in Path





Wass Looking East



Wass Pole Line South Side





Wass Looking East



[illegible]

## Beachburg

- Power available
- Convert power switch to hand throw will require of installation of Electric Lock due to connection with other railway
- Siding can only be installed on south side, has roadways going through it
- Anticipate problems with CN due to elimination of power switch
- Siding to be curved and going through bridge
- Color lights to be installed could have sightline issues due to two different curves
- Roadway no longer available through bridge, must high rail
- High costs to modify turnout on C side and install turnout in the siding
- Track configuration to be analyzed
- Sightlines good



VIA BEACHBURG SUB WASS - Existing Bungalow



Wass Power Switch Connection with CN - Looking East

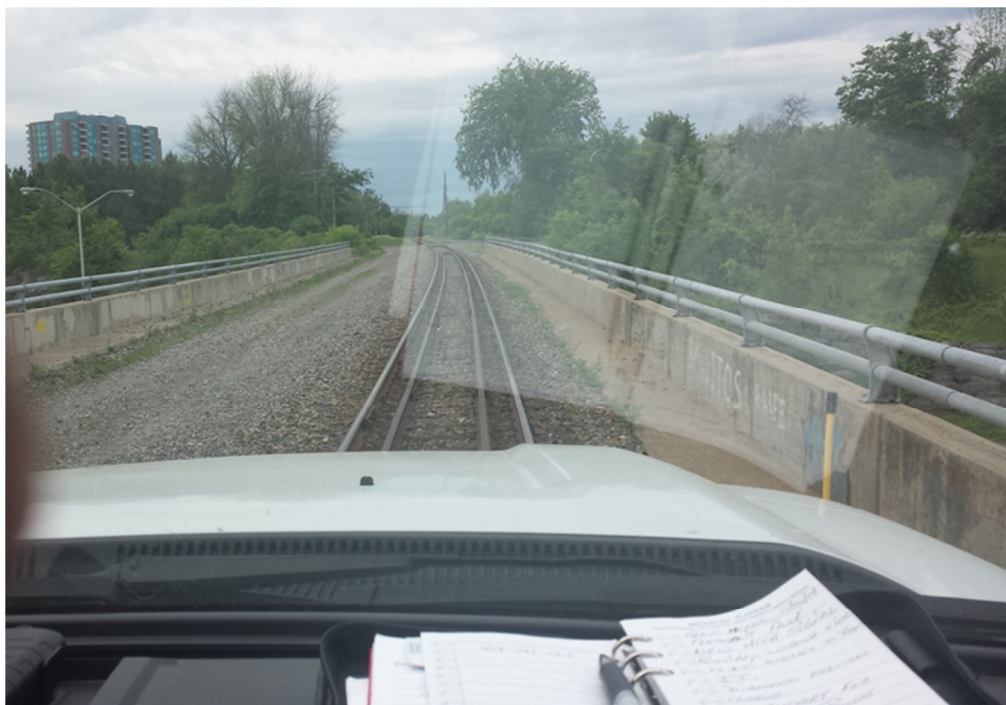




Looking East toward Wakley Yard



Wass



Wass Viaduct





Looking West (Towards Smith Falls ) Other Side of Viaduct



Looking East (Towards Ottawa ) Other Side of Viaduct

Prepared by

John M. Greene| Senior Rail Specialist

Hatch Mott MacDonald | Signals  
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Montreal, Quebec, H3B 2G2  
O +1 438-266-0787 4567  
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Appendix C: Composite of siding project



METHOD OF CONTROL	NUMBER OF TRACK (S)	W ↓  ↑ E	BEACHBURG SUBDIVISION	MILE	TGBO LIMITS
105			OTTAWA	0.0	
0.3 ↑ + CTC ↓ 6.0	2				0.3
	1		3.4 ELLWOOD JCT	3.4	
			1.9 WASS ENTRANCE/EXIT WALKLEY LINE	5.3	
			0.7 FEDERAL (JCT WITH SMITH FALLS SUB)	6.0	6.0
SUBDIVISION CONTROL FEATURES					
CTC Between mile 0.3 (Ottawa) and mile 6.0 (Federal) controlled by Rail-Control RTC. CROR 105 applicable on all tracks at Ottawa between mile 76.3 Alexandria Subdivision and mile 0.3 Beachburg Subdivision.					

VIA RAIL CANADA RADIO DIRECTORY (Corridor Services)						
		CHANNEL	EMERGENCY	RTC	VIA's OCC	TO DISCONNECT
BEACHBURG SUBDIVISION						
OTTAWA TOWER	MAIN TRACK	57-05	*20	*21	*23	#2
	RTC	85-85	*20	*21	*23	#2
	M. OF WAY	05-05				

## BEACHBURG SUBDIVISION FOOTNOTES

## 1. CANADIAN OPERATING RULES

## CTC SPECIAL FEATURES

- 1.1 Two main tracks between mile 0.3 and mile 0.7.

## SPECIAL APPLICATIONS

- 1.2 Rule 14 (L) (iv) - Except to prevent an accident or in case of emergency, the sounding of whistle is prohibited at the following crossings at grade:
- mile 2.02
  - mile 2.11
  - mile 3.57 – Pedestrian walkway
- 1.3 Rule 157 TGBO - A member of the crew must contact the RTC to cancel their TGBO when no longer requiring their use at the following location:
- Ottawa

## 2. INTERLOCKINGS

## 2.1 Railway crossing at grade

**Mile 3.4** Capital Railway (Ellwood Subdivision)

Remotely-Controlled ..... Rail-Control RTC

In the application of CROR 809 (b), the foreman may receive verbal authority from the signalman to pass through the railway crossing at grade.

## 3. GENERAL FOOTNOTES

- 3.1 All main track switches and derails between mile 0.0 (Ottawa) and mile 6.0 (Federal) are equipped with VIA Rail High Security Locks (Sargent Greenleaf).

All Operating and Maintenance of Way personnel must be in possession of a VIA Rail (Sargent Greenleaf) key.

- 3.2 All non-VIA movements operating on the Beachburg Subdivision between mile 0.0 (Ottawa) and mile 6 (Federal), must communicate with the Rail-Control RTC prior to entering these locations and provide the following information:
- Names of Conductor and Locomotive Engineer(s);
  - Train Number;
  - Locomotive Number;
  - Number of loads and empties;
  - Tonnage, Length of train and work to be performed.

**4. EQUIPMENT RESTRICTIONS**

4.1 Heaviest car permitted: **268,000 lbs.**

4.2 **Six axle locomotives prohibited.**

**5. SPEEDS**

5.1 **P1** = Applicable to VIA trains with P42 locomotives and Renaissance cars only.

**P2** = Applicable to VIA trains with P42 locomotives and LRC cars. Also applicable to Renaissance cars when mixed with them.

**P3** = Applicable to VIA trains with F40 locomotives and LRC, HEP1, HEP2 or Glen Fraser cars. Also applicable to P42 locomotives or Renaissance cars when mixed with them.

**P4** = Applicable to all other passenger trains.

5.2

MILE		MPH				
		PASSENGER				FREIGHT
		P1	*P2	*P3	P4	
<b>0.0 to 1.8</b>	<b>Zone</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>30</b>	<b>30</b>
0.0 to 0.3	PSO	10	10	10	10	10
* 0.3 to 0.6	PSO	25	25	25	20	20
<b>1.8 to 6.0</b>	<b>Zone</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>40</b>	<b>40</b>
3.3 to 3.9	PSO	40	40	40		
*3.4 Railway crossing at grade		35	35	35	35	35
5.1 to 5.9	PSO	40	40	40		25
**5.78 Bridge	Heavy Axle load					10

\* Not Marked by Speed Signs

\*\*Speed applies until the last Heavy Axle Load clears the bridge

**6. SPURS AND OTHER TRACKS**

6.1 **Rule 105(c)** applicable on all non-main tracks, except on the Ottawa station tracks 1 to 4.

**6.2 Mile 0.0 - Ottawa**

- **Rules 40.1/840.1** are not applicable on station tracks (Between Mile 76.3 Alexandria Sub. And mile 0.3 Beachburg Sub.). **A TOP is required.**
- **A TOP is also required** for a track unit to occupy the station tracks.
- **Maximum permissible speed on station tracks .....10 mph**
- **RESTRICTED CLEARANCES NOT MARKED OR INDICATED BY RESTRICTED CLEARANCE SIGNS:**  
Between track 1 and 2 by Shore Power  
Between track 3 and 4 by Shore Power
- **Unless in possession of a valid TGBO, before any movement in 105 territory permitted, the train crew MUST contact the RTC.**
- **Station tracks are defined as follows:**  
Track 1 - between signals 27 and 36  
Track 2 - between signals 29 and 34  
Track 3 - between signals 31 and 32  
Track 4 - between signals 33 and 38A
- Note: Rules 105 (c) and 40.1/840.1 **are applicable** on the stub end tracks

6.3 **Mile 5.3 – Walkley Line** – Governed by CN Rail timetable.

**7. SPECIAL DANGEROUS COMMODITIES**

7.1 Mile 0.0 to mile 6.0 ..... **35 mph**