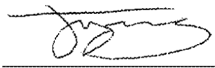
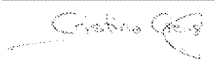

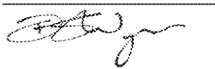




OTTAWA LIGHT RAIL TRANSIT

PROJECT

TECHNICAL COMPLIANCE REPORT

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Document No.	OLR-05-0-0000-REP-0054	Rev: 3
OLRT CONSTRUCTORS This document may contain confidential and commercially sensitive information.		2019-06-27

OLR-05-0-0000-REP-0054	Technical Compliance Report	
Revision: 3	Date: 27 June 2019	Owner: J. Young

EXECUTIVE SUMMARY

This document, the Technical Compliance Report (TCR), summarises compliance of the OLRT Project to the technical schedules of the Project Agreement [1]. The PA Technical Compliance Matrix [2] provides full clause-by-clause listing of compliance statements.

This issue of the report is intended to provide an assessment of the current compliance position to support the project in achieving Substantial Completion and project close out.

Due to the lead time in processing data required to generate the compliance matrix, evidence received after 21 June 2019 is not reflected in the Technical Compliance Report and Technical Compliance Matrix.

The Technical Compliance Report and Technical Compliance Matrix will be updated after the Substantial Completion submission to reflect data that has been received since 21 June. Evidence outstanding includes SIT Reports, and clarifications on the Alstom and Thales compliance matrices.

Design Compliance


Design compliance is assessed using evidence from design documents and drawings. Where possible, this is assured by the relevant Engineer of Record (EoR) in the form of a Design Confirmation Letter (DCL) with an attached clause-by-clause compliance matrix giving the compliance statement and supporting evidence for each applicable PA requirement.

As at 21 June 2019, a design compliance statement (compliant, compliant with explanation, partial or non-compliant) has been declared for **98.9%** of applicable requirements (see section 1.3.3). Where a compliance statement has been declared, **98.5%** have been declared as compliant.

Product Compliance


Product compliance is assessed using a number of different acceptance methods including Site Acceptance Test (SAT), System Integration Test (SIT), inspection, supplier compliance matrix (e.g. from Alstom and Thales) or Construction Certification Letter (CCL). One or more acceptance methods have been identified for each requirement. For the OLRT Project, the majority of product compliance is based on CCLs, followed by supplier compliance matrices and SIT/SAT testing.

As at 21 June 2019, a final product compliance statement has been declared for **89.1%** of applicable requirements. Where a compliance statement has been declared, **97.1%** have been declared as compliant. A further **9.7%** of applicable requirements have a product compliance statement of "Compliant Pending". These requirements are pending an item of evidence to be received or an open NCR or deficiency to be closed.

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REVISION HISTORY

Rev	Date	Description	Prepared by	Reviewed by	Approved by	Authorised by
0	30 Nov 2018	Initial release	T Chuter	C Creus	S Gilbey	D Wynne
1	25 Feb 2019	Updated compliance assessment	T Chuter	C Creus	S Gilbey	D Wynne
2	17 Apr 2019	Updated compliance assessment	T Chuter	C Creus	S Gilbey	D Wynne
3	27 June 2019	Updated compliance assessment	J Young	C Creus	S Gilbey	D Wynne

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1. INTRODUCTION

1.1 PURPOSE

This document provides an overview of compliance of the Ottawa Light Rail Transit (OLRT) System to the Project Agreement [1] technical schedules, NFPA 130 and applicable Variations as of the data baseline detailed in section 1.3.1. It should be read in conjunction with the following documents:

- PA Technical Compliance Matrix [2]
- NFPA 130 Compliance Matrix [11]
- Variations Compliance Matrix [12]
- Test Traceability Matrix [13].


This document satisfies the “V&V Report” deliverable defined in section 3.4.3 of the OLRT-C V&V Management Plan [5].

This document is intended to support the following milestone:

- OLRT-Constructors/Constructeurs’ (OLRT-C) notice of Substantial Completion.

Due to the lead time in processing data to generate the compliance matrix, evidence received after 21 June 2019 is not reflected in the Technical Compliance Report and Technical Compliance Matrix.

The intended audience for this document is the Project Agreement Compliance Working Group (PACWG). OLRT-C are represented at the PACWG by the OLRT Project Close Out Director. The group includes Rideau Transit Group (RTG), City of Ottawa representatives and the Independent Certifier (IC). Meetings are held weekly or fortnightly, as required, and fulfil the role of the Joint Requirements and Acceptance Group (JRAG) described in the OLRT-C Requirements Management Plan [4] and OLRT-C V&V Management Plan [5].

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1.2 STRUCTURE OF DOCUMENT

The structure of this document is as follows:

1. Introductory material.
2. Requirements baseline: identifies the sources and versions of requirements referred to in this document.
3. A summary of compliance to all technical schedules of the PA.
4. Schedule analysis: describes the general sources of evidence used for each schedule and any notable issues. Schedule 15-2 Part 4 (Vehicles and Systems) is broken down further by Article so that Primary Systems can be discussed.
5. Variations.
6. NFPA 130.
7. Process Requirements.

Appendix A - provides the list of DCLs linked to each PA Schedule.

Appendix B - provides the list of CCLs linked to each PA Schedule.

Appendix C - provides a Project Agreement Design Integration (PADI) log table to allow PADI items [19] to be cross-referenced to DOORS NG requirement IDs.

Appendix D - provides a list of OLRT SIT and SAT procedures used as compliance evidence.

Appendix E – provides a list of 'RFI-CM' configuration management changes cross-referenced to the PA.

Appendix F – provides a list of Certificates, Permits and Licences linked to each PA Schedule

1.3 SCOPE

This report covers design compliance and product compliance of the Technical Schedules in the PA, Variations and NFPA 130:

- Design compliance is the compliance of the OLRT Project design packages to the requirements
- Product compliance is the compliance of the built and delivered OLRT System to the requirements.

Non-technical schedules are excluded from this report and are instead covered by the Non-Technical Compliance Matrix [10].

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This Technical Compliance Report and its findings form part of a suite of evidence and deliverables as governed by the OLRT-C Systems Engineering Management Plan [14] and OLRT-C Systems Assurance Management Plan [15] and as such should not be used in isolation or out of context of those documents. The output of this report must be used in conjunction with all of the activities defined within Systems Engineering and Systems Assurance plans to form a collective view of project integrity, compliance and suitability for purpose. The collective view as an output from the OLRT-C Systems Engineering Management Plan [14] and OLRT-C Systems Assurance Management Plan [15] is captured within the Confederation Line Phase 1 Case for Safety [17] and Confederation Line Phase 1 Engineering Safety and Assurance Case [3].

1.3.1 Evidence Baseline

Key evidence inputs for the compliance position recorded in this document were:

- Design Conformance and Construction Certification Letters issued up to 21 June 2019 [9]
- Test Reports issued up to 21 June 2019, as per Appendix D
- Master Deficiencies List [7] as at 21 June 2019; It is assumed that this MDL includes all open NCRs from the Non Conformances Log [6]. The Master Deficiencies List is described in more detail in section 3.4 below.
- Non Conformances Log [6]. This is used for visibility of NCRs closed with disposition 'Use As-Is'
- Alstom Compliance Matrix, ADD0000938687, Revision H, 12 June 2019 (informal version)
- Thales Compliance Matrix, 3CU 05018 0054 EUZZA, Rev 3, 1 February 2019
- Configuration Changes (RFI-CMs) up to 21 June 2019, as per Appendix E

The requirements baseline is specified in Section 2.

Data and charts in this document were produced using data collected by the Rational Data Warehouse (part of the DOORS NG tool suite) at close-of-play 26 June 2019.

1.3.2 Schedule Coverage

The PA Schedules have been categorised as either technical or non-technical by the PACWG. Non-technical schedules are covered by the Non-Technical Compliance Matrix [10] and are out of scope of this document. This document covers the Technical Schedules, as listed in Table 1: PA Technical Schedules.

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Table 1: PA Technical Schedules

PA Schedule and Part	Title
13	Project Co Proposal Extracts
15-1	Definitions and Reference Documents
15-2 P1	General Requirements
15-2 P2	Guideway
15-2 P3	Tunnel
15-2 P4	Vehicles and Systems
15-2 P5	Stations
15-2 P6	Maintenance and Storage Facility (MSF)
15-2 P7	Traffic Management and Construction Access

1.3.3 Requirement Coverage

As described in the OLRT-C Requirements Management Plan [4], each clause of the Project Agreement [1] has been analysed and categorised according to defined criteria. The categorisation determines which requirements V&V evidence will be provided against. Compliance has only been assessed for clauses where:

- Clause Type = PA Requirement, and
- Organisation = OLRT-C, and
- Assurance Argument = 'Product' or 'Deliverable Documentation' or 'Process' (Note that Process requirement metrics are presented separately in section 7).

The following clauses have not been subject to V&V:

- Information statements, headings, definitions and other clauses not containing a requirement
- Requirements on the City, RTM and other third parties
- Construction Period Only requirements (as defined in PA Schedule 01, 1.115)
- High level summary or 'lead-in' requirements that are fully covered elsewhere in the PA by more detailed requirements – these have been assigned an Acceptance Method of 'None'.

The scope of this report is limited to technical compliance of the product.

Derived Safety Requirements are covered by the Safety Requirements Matrix [18] and are not within the scope of this report.

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1.4 LIMITATIONS

The following limitations have been noted in the preparation of this report and the Technical Compliance Matrix.

- Due to the lead time in processing data to generate the compliance matrix, evidence received after 21 June 2019 has been included in the Notice of Substantial Completion but is not reflected in the Technical Compliance Report and Technical Compliance Matrix
- Where a design compliance matrix has not been received from the EoR, the V&V team have made a limited assessment of design compliance based primarily on Final Design Reports and Design Conformance Letters. The evidence in the areas assessed by the V&V team should be considered as providing a lower level of assurance than data provided by an EoR
- Where a design compliance matrix has not been received from the EoR, the mapping of DCLs and CCLs to requirements has been implemented by the V&V Team
- The agreed strategy for declaring product compliance relies on the EoRs to assess lower level V&V evidence, such as Factory Acceptance Tests, certificates of conformance and inspections, in the process of issuing Construction Certification letters. The completeness of the lower level evidence has not been checked by the V&V team
- The V&V team has checked the compliance matrix received from Alstom and returned a letter identifying gaps and inconsistencies. Correspondence between OLRT-C and Alstom is ongoing
- The V&V team has checked the compliance matrix received from Thales and returned a letter identifying gaps and inconsistencies. Correspondence between OLRT-C and Thales is ongoing
- Any requirement changes which have been agreed informally outside of the variation and PADI processes have not been considered
- Any open variations or PADI items which do not have an approved status have not been considered
- Any deficiencies which were added to the Minor Deficiencies List or existing deficiencies which have changed status after 21 June 2019 have not been reviewed for their impact on compliance.

1.5 REFERENCES

Table 2 lists the documents referenced within this document. The most recent version of the document at the time of document issue should be referred to unless otherwise stated.

In the body of this document, references to a document below will be made by enclosing its ID in square brackets e.g. [1].

Table 2: References

OLR-05-0-0000-REP-0054	Technical Compliance Report	
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Title		Document No.
[1]	Project Agreement	TORO1; 4868348: v55
[2]	PA Technical Compliance Matrix	OLR-90-0-0000-CMP-0002
[3]	Confederation Line Phase 1 Engineering Safety and Assurance Case	OLR-05-0-0000-REP-0051
[4]	OLRT-C Requirements Management Plan	OLR-50-0-0000-MPL-0007
[5]	OLRT-C V&V Management Plan	OLR-50-0-0000-MPL-0006
[6]	Non Conformances Log	OLR-04-0-0000-REG-0004
[7]	Master Deficiencies List	OLR-90-0-0000-CMP-0004
[8]	System Breakdown Structure	OLR-09-0-0000-DIA-0001
[9]	DCL-CCL Log	OLR-00-0-0000-REG-0014
[10]	Non-Technical Compliance Matrix	OLR-90-0-0000-CMP-0001
[11]	NFPA 130 Compliance Matrix	OLR-05-0-0000-CMP-0002
[12]	Variations Compliance Matrix	OLR-05-0-0000-CMP-0003
[13]	Test Traceability Matrix	OLR-03-0-0000-REP-0352
[14]	OLRT-C Systems Engineering Management Plan	OLR-50-0-0000-MPL-0005
[15]	OLRT-C Systems Assurance Management Plan	OLR-50-0-0000-MPL-0020
[16]	Vehicles Commissioning Manual	OLR-16-0-0000-MAN-0005
[17]	Confederation Line Phase 1 Case for Safety	OLR-05-0-0000-REP-0017
[18]	Safety Requirements Matrix	OLR-05-0-0000-REP-0053
[19]	PADI Log	OLR-03-0-0000-REG-0005
[20]	ESAC Outstanding Items	OLR-05-0-0000-REG-0025

1.6 DEFINITIONS

Throughout this document, the following terms are used; where others are used, they will be defined at time of first introduction.


Table 3: General Definitions

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Term	Definition
Acceptance Criteria	<p>The Acceptance Criteria (AC) for each requirement is a concise description capturing agreement between requirements engineers, stakeholders and evidence providers and answering the following questions:</p> <p>What items of evidence are required to sufficiently prove that the requirement has been met by the built / integrated system?</p> <p>What V&V methods will be used?</p> <p>Is the requirement location-specific or generic and, if it is location-specific, what are the locations? If evidence is to be obtained from one location and then read-across to others then it shall be stated in the AC.</p>
Design Compliance	<p>Design Compliance is the compliance of the design against the requirements. It is typically assessed at the end of the design phase of a project, before construction commences, to ensure that the design meets the contractual requirements. In cases where the design doesn't meet a requirement then negotiation with the customer may result in a relaxation of the requirements or formal acceptance of the non-compliance.</p>
Product Compliance	<p>Product Compliance is the compliance of the built and delivered product against the requirements. Alternatively, the product may be verified against the design if the design has been demonstrated to be compliant with the requirements.</p> <p>Product Compliance is typically assessed progressively, towards the end of the construction phase of a project and includes a combination of type testing, installation testing and integration testing at various levels. In cases where the delivered product does not meet a requirement then negotiation with the customer may result in agreement to use the product as-is, repair it or rework it.</p>
Primary System	<p>A Primary System is defined by the OLRT System Breakdown Structure [8] as a significant and coherent part of the Railway System. A Primary System typically consists of a number of integrated subsystems. Together, the collection of Primary Systems makes up the whole Railway System. Examples of Primary Systems are the Train Signalling and Control System, the Communications System and the Tunnel Ventilation System.</p>

1.7 STATEMENT OF COMPLIANCE DEFINITIONS

The following definitions are used when stating compliance against requirements. These definitions are particularly important where multiple sources of evidence contribute towards the compliance of one requirement, which occurs when a requirement applies to multiple locations or has multiple acceptance criteria.

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The definitions below supersede those given as an example in the OLRT-C V&V Management Plan [5] and previous versions of this report.


The objectives of these definitions are to:

- Give a balanced overall statement of compliance that is neither pessimistic nor optimistic in the way that evidence inputs are combined
- Differentiate between complete and incomplete sets of evidence.

Table 4 provides the Compliance Statement definitions and associated colour coding used throughout this report.

Table 4: Compliance Matrix

Compliance Statement	Meaning
Compliant	Fully compliant, fully demonstrated, final position.
Compliant with Explanation	Fully compliant, fully demonstrated, final position. Explanation is provided to clarify how the requirement is met.
Compliant Pending	The OLRT Project intends to be fully compliant to the requirement but the final statement of compliance cannot currently be declared because of one or more of the following reasons: <ul style="list-style-type: none"> • One or more items of evidence are not currently available; • One or more NCRs / deficiencies which affect compliance to the requirement currently have a status of Open; • One or more test reports demonstrating the successful outcome of a test have not yet been received.
Partial	Partially compliant, final position. Typically used for one of the following reasons: <ul style="list-style-type: none"> • Project is compliant to the requirement at some locations but non-compliant at others; • Project is compliant to some parts of the requirement but non-compliant to others.

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Compliance Statement	Meaning
Non-Compliant	<p>Non-compliant, final position. Typically used for one of the following reasons:</p> <ul style="list-style-type: none"> • A Non-Compliance Report (NCR) is linked to the requirement with disposition 'Use as is'; • A deficiency is linked to the requirement that is not planned to be fixed; • The requirement is no longer relevant but has not been deleted via an agreed PADI.
Pending	Awaiting evidence.
No Declaration	This is only used for Variations that are not relevant to the main railway system and where no evidence has been found by the V&V team. These requirements will not be assessed further except by specific request.
N/A	No evidence required. Not applicable is typically used where the clause is a lead in to a list or for high-level introductory 'requirements' that are fully covered elsewhere by more detailed requirements. As well as a compliance statement of "N/A", these requirements can be identified by use of the Acceptance Method 'None' in the PA Technical Compliance Matrix [2]. Compliance statements and evidence are not provided for these clauses.

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1.8 ABBREVIATIONS


Throughout this document, the following abbreviations are used. Note that abbreviations used in Non-Compliance Reports and deficiencies, which are copied into this document for ease of reference, might not be captured in this list.

Table 5: Abbreviations

Abbreviation	Definition
4P	The OLRT View Point for Projects Database (https://n3g.4projects.com/)
AC	Acceptance Criteria
AKA	Also Known As
BCS	Building Control Services
CBTC	Communications Based Train Control
CCL	Construction Certification Letter
CHB	Car History Book
CM	Compliance Matrix
DC	Direct Current
DCL	Design Confirmation Letter
DCM	Design Compliance Matrix
DOORS NG	Dynamic Object Oriented Requirements System – Next Generation
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
EoR	Engineer of Record
ESAC	Engineering Safety and Assurance Case
FF	Fixed Facilities
FIDS	Fence Intrusion Detection System
HOL	Hydro Ottawa Limited
IAC	Intrusion Access Control
IC	Independent Certifier
ID	Identifier
IP-04	Innovation Proposal 04

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Abbreviation	Definition
JRAG	Joint Requirements and Acceptance Group
LRT	Light Rail Transit
LRV	Light Rail Vehicle
MDL	Master Deficiencies List
MSF	Maintenance and Storage Facility
N/A	Not Applicable
NCR	Non-Conformance Report
NFPA	National Fire Protection Association
OCC	Operations Control Centre (aka TSCC)
OFS	Ottawa Fire Service
OLRT	Ottawa Light Rail Transit
OLRT-C	OLRT-Constructors/Constructeurs'
OLRT-C	Ottawa Light Rail Transit Constructors / Constructors
PA	Project Agreement
PACWG	Project Agreement Compliance Working Group
PADI	Project Agreement Design Integration
PS&D	Power Supply and Distribution
RFI	Request For Information
RFI-CM	Request for Information – Configuration Management
RMP	Requirements Management Plan
RTG	Rideau Transit Group
RTGEJV	RTG Engineering Joint Venture
RTM	Rideau Transit Maintenance
RV&V	Requirements, Verification and Validation
SAMP	Systems Assurance Management Plan
SAT	Site / System Acceptance Test
SBS	System Breakdown Structure
SCADA	Supervisory Control and Data Acquisition

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Abbreviation	Definition
SIT	System Integration Tests
SEMP	Systems Engineering Management Plan
Sys	Systems
TAF	Technical Appraisal Form
TBM	Tunnel Boring Machine
TCM	Technical Compliance Matrix
TCR	Technical Compliance Report (this document)
TPSS	Traction Power Substation
TSCC	Transportation Services Control Centre (aka OCC)
TVA	Threat and Vulnerability Assessment
TVS	Tunnel Ventilation System
VIA	Via Rail Canada (not an acronym)
V&V	Verification and Validation
VCM	Variations Compliance Matrix
VVMP	Verification and Validation Management Plan

1.9 DOCUMENT MAINTENANCE

This document is a summary of data held in the Ottawa LRT Project Requirements and V&V database.

The document, along with the PA Technical Compliance Matrix [2], will be updated after the Substantial Completion submission to reflect data that has been received since 21 June 2019. Any updated report should reflect an improved compliance position as deficiencies are resolved.

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2. REQUIREMENTS BASELINE

The requirements baseline consists of the following documents and agreed changes.

2.1 PROJECT AGREEMENT (PA)

The PA was downloaded from the following location in the 4P database on 9 January 2018 as Microsoft Word (*.doc files):

- OLRT > OLRT > OLRT > Central Files > Agreements > Project Agreement > PA Limited Access Documents > Un-redacted version by Schedule.

The Word files in the 4P folder are all dated 1 September 2015.

The Word files were imported into the OLRT DOORS NG database and have been maintained in it since. Baselines are created regularly when the PA Technical Compliance Matrix [2] is exported (generally weekly or fortnightly).

2.2 PADI LOG

Changes to the technical requirements in the PA have been formally captured as Project Agreement Design Integration (PADI) items [19] and agreed between OLRT-C and the City. The latest version in 4P is dated 13 June 2019 (last updated in 4P). All agreed changes have been applied to the Project Agreement held in DOORS NG and are included in the baseline used for production of this document.

PADI items with a status of 'DEVI' do not change the requirement text but record an agreed deviation to the requirement. These items have been assessed for impact to linked requirement compliance and the compliance position has been adjusted where appropriate.

PADI items with a status of 'Rejected/Cancelled', or 'PADI Candidate' have not been incorporated into the requirements baseline.

2.3 REQUESTS FOR INFORMATION


Requests for Information (RFIs) have been analysed to confirm that all agreed RFIs affecting the PA were implemented as PADI items.

RFIs that have not been agreed have not been incorporated into the requirements baseline.

2.4 APPLICABLE VARIATIONS

Variations have been collated and imported to DOORS NG. Only those Variations that are fully instructed and associated with a VC or VD number, as per Schedule 22 of the Project Agreement, have been subject to V&V.

The resulting baseline set of VC/VD Variations has been used for Design and Product verification. See Section 5 for further details.

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2.5 NFPA 130

NFPA 130, Standard for Fixed Guideway Transit and Passenger Rail Systems, has been imported into DOORS NG. A subset of requirements as identified by the Authority Having Jurisdiction (Ottawa Fire Service) via RFI-O-269 have been assessed for compliance.

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3. OVERALL COMPLIANCE TO THE PROJECT AGREEMENT

This section summarises compliance across all technical schedules, as listed in Table 1: PA Technical Schedules. Subsequent sections provide details of compliance against each schedule.

3.1 DESIGN COMPLIANCE

For the EJV design responsibilities, compliance matrices were requested from the Engineers of Record (EoR) at the start of the V&V process and were provided in some cases. Where provided, the matrices were imported into the DOORS database and are included in the PA Technical Compliance Matrix [2].

Where no EoR return was provided, the V&V team have made a limited assessment of compliance based primarily on Final Design Reports and Design Conformance Letters. However, it is noted that the V&V team have only been involved in the latter stages of the OLRT Project and do not have the years of first-hand experience of the OLRT design that would be expected of the relevant EoRs. Therefore, evidence in the areas assessed by the V&V team is less comprehensive than would be expected from an EoR provided compliance matrix.

For the Alstom and Thales design responsibilities (Vehicles, Signalling and Train Control) the Alstom and Thales compliance matrices were used as evidence to populate PA design compliance.

Table 6 provides the current status of the EOR returns, with no further returns expected.

Table 6: Design Compliance EoR Returns

	EOR Return		EOR Return
Guideway		Tunney's Pasture	
Trackwork	Yes	Bayview	
Tunnel	Partial	Pimisi	
Structures		uOttawa	Partial
MSF		Lees	Partial
TPS	Yes	Hurdman	
OCS	Yes	Tremblay	
Communications	Yes	St Laurent	
TVS	Yes	Cyrville	Partial
TSCC		Blair	Partial
Signalling and Train Control	Yes	Lyon	

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	EOR Return		EOR Return
Vehicles	Yes	Parliament	
Traffic Management	Yes	Rideau	

3.1.1 PA Compliance Working Group Design Review Meetings

The PA Compliance Working Group (PACWG) meets weekly or fortnightly to assess progress and to review the Technical Compliance Matrix.

Table 7 lists the dates that each relevant article of the technical schedules of the PA was reviewed. A status of 'Reviewed with no Objection' indicates that the schedule will not be reviewed again.

Table 7: Design Compliance Review Status

#	Date	Schedule	Status	Comments
5	15/08/2018	15-2 Part 4 Vehicles - Round 1	Reviewed with Comment	
7	23/08/2018	15-2 Part 4 Vehicles - Round 2	Reviewed with Comment	
9	19/09/2018	15-2 Part 2 Trackwork	Reviewed with Comment	
10	03/10/2018	15-2 Part 7 Traffic Management	Reviewed with Comment	
11	04/10/2018	15-1 Definitions and Reference Documents	Reviewed with no Objection	no evidence required
		13 Project Co Proposal Extracts	Reviewed with Comment	Approach discussed. Review not required.
15	01/11/2018	15-2 Part 6 MSF	Partial Reviewed with Comment	
17	06/11/2018	15-2 Part 3 TVS (article 8)	Reviewed with Comment	
18	08/11/2018	15-2 Part 4 Communications	Reviewed with Comment	
19	08/11/2018	15-2 Part 4 Traction Power	Reviewed with Comment	
20	14/11/2018	15-2 Part 3 Tunnel	Reviewed with Comment	
26	31/01/2019	15-2 Part 5 Stations - AGS	Reviewed with Comment	
	31/01/2019	15-2, Part 4 Fare Collection	Reviewed with Comment	
	31/01/2019	15-2 Part 5 Stations - UGS	Reviewed with Comment	
27	07/02/2019	15-2 Part 4 EMI/EMC	Reviewed with Comment	
	07/02/2019	15-2 Part 4 OCS	Reviewed with Comment	

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3.1.2 Design Compliance Charts

Figure 1 provides the percentage design compliance across the technical PA schedules. Compliance is assessed and stated using the definitions in section 1.7 above.

Figure 2 shows design compliance broken down by Schedule.

Design Compliance - All Technical Schedules

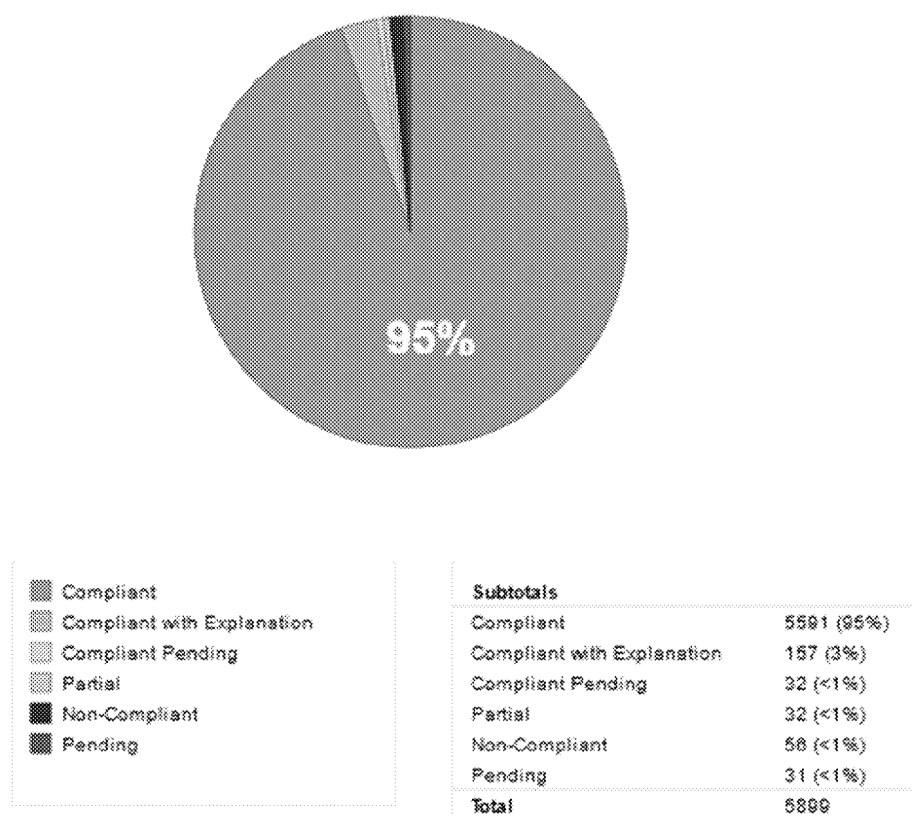


Figure 1: All Technical Schedules Design Compliance Pie Chart

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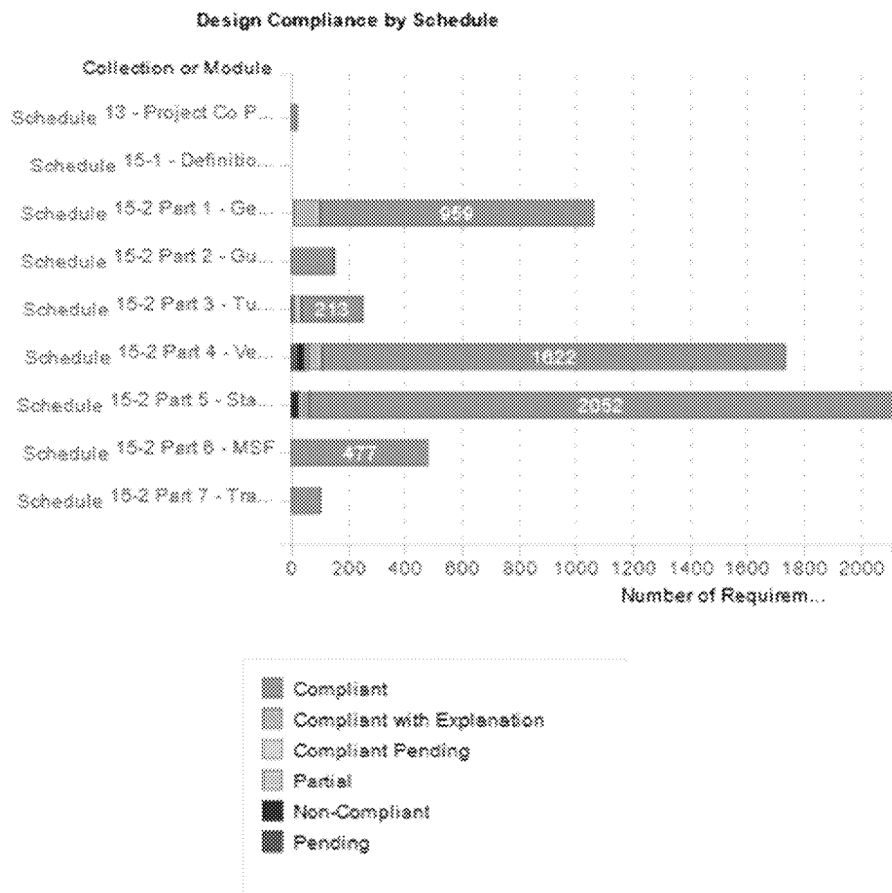



Figure 2: All Technical Schedules Design Compliance by Schedule

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3.2 PRODUCT COMPLIANCE

Figure 3 provides the percentage product compliance across the technical PA schedules. Compliance is assessed and stated using the definitions in section 1.7.

Product Compliance - All Technical Schedules

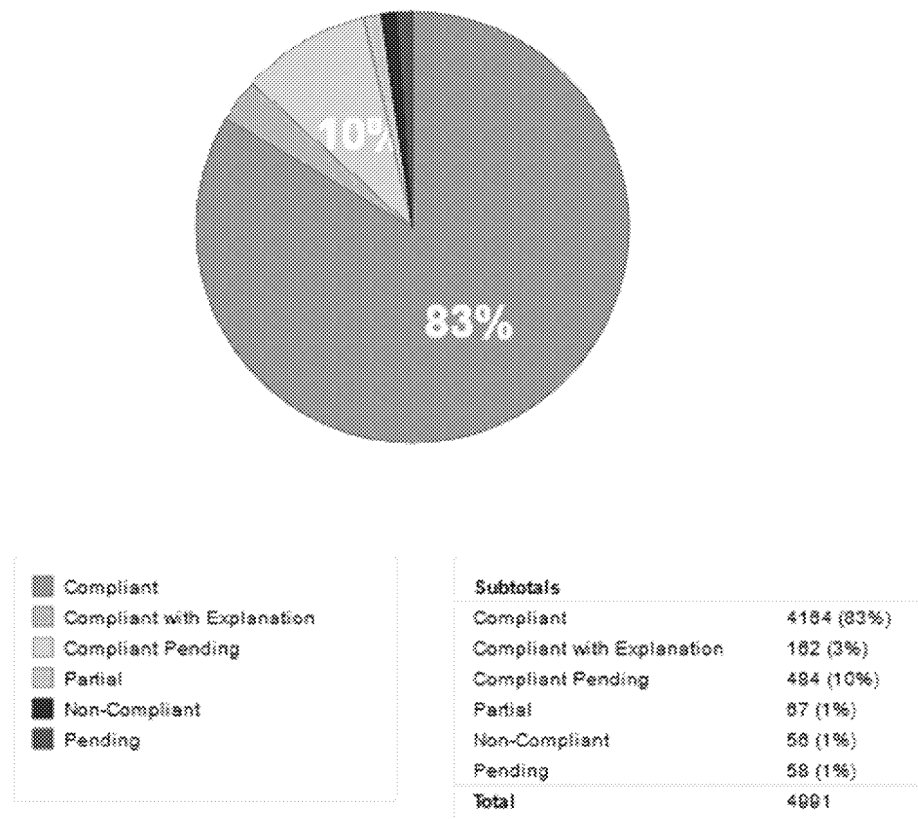


Figure 3: All Technical Schedules Product Compliance Pie Chart


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Figure 4 shows product compliance broken down by Schedule.

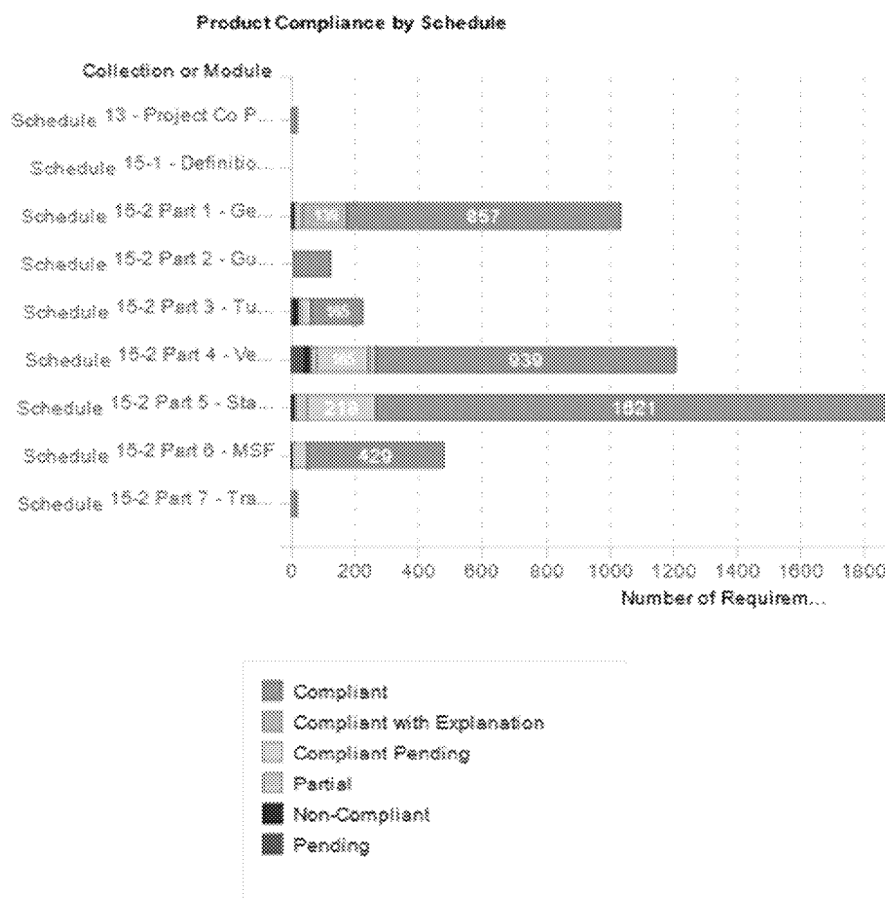



Figure 4: Product Compliance by Schedule

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3.3 PRODUCT COMPLIANCE BY ACCEPTANCE METHOD

This chart shows the product compliance for all technical schedules, broken down by Acceptance Method.

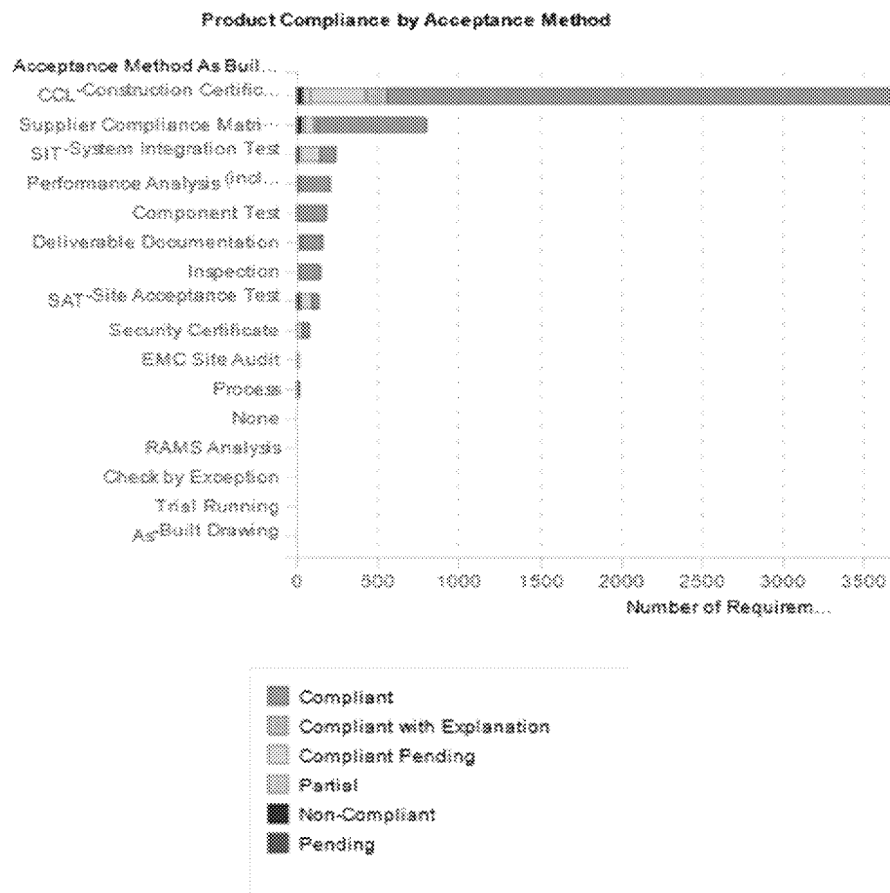


Figure 5: All Technical Schedules Product Compliance by Acceptance Method

Product compliance has been assessed against Acceptance Methods and Acceptance Criteria specified in the project requirements database. These Acceptance Methods and Acceptance Criteria are included in the PA Technical Compliance Matrix [2].

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3.4 NON-CONFORMANCES AND MASTER DEFICIENCIES LIST

A Master Deficiencies List (MDL) is used to track and manage deficiencies raised against the railway. The MDL brings together deficiency lists from many sources, including:

- Non Conformance Reports (NCRs)
- Punch List (PL)
- City Fixed Facilities (FF)
- City Systems (Sys)
- Incomplete work
- Building Control Services (BCS)
- Ottawa Fire Service (OFS)
- CCL deficiencies
- Threat and Vulnerability Analysis (TVA)
- Comms
- Non-Technical Compliance Matrix
- Light Rail Vehicle (LRV).


Non-Conformance Reports (NCRs) are centrally managed in Unifier™. A Non Conformances Log [6] is exported weekly from Unifier™. The Master Deficiencies List only includes open NCRs. The weekly NCR log is used to check the disposition of closed NCRs.

The MDL and closed NCRs from the NCR log are imported into the Requirements Management database and linked to applicable requirements. The V&V team assess each linked requirement to determine if the deficiency or NCR impacts the compliance statement.

If the deficiency or NCR indicates that the railway will be permanently non-compliant to the requirement or partially compliant to the requirement then the compliance state is set accordingly.

If it is planned to fix the deficiency such that the railway becomes compliant to the requirement then the compliance state is set to Compliant Pending. When deficiencies are closed by the project, having implemented a fix, the compliance state will move from Compliant Pending to Compliant.

The target fix dates are based on project milestones including Substantial Completion (SC) and Revenue Service Availability (RSA). Deficiencies may therefore be categorised as 'Pre-SC' or 'Pre-RSA'. The Project Agreement also includes provision for minor deficiencies to be fixed within a number of days of Substantial Completion and these are categorised as 'Minor'.

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3.5 DESIGN CONFORMANCE LETTERS AND CONSTRUCTION CERTIFICATION LETTERS

Appendix A provides the list of DCLs linked to each PA Schedule.

Appendix B provides the list of CCLs linked to each PA Schedule.

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4. SCHEDULE ANALYSIS

This section provides details of the evidence used and compliance notes for Schedule 13 and all parts of Schedule 15-2.

Schedule 15-2 Part 4, Vehicles and Systems is broken down further into Articles to align with Primary Systems in the SBS.

Schedule 15-2 Part 5, Stations is broken down further to show compliance of individual stations.

4.1 SCHEDULE 13 – PROJECT CO PROPOSAL EXTRACTS

Schedule 13 comprises extracts from the original OLRT-C bid, which the City extracted and copied into this schedule for contractual purposes. It therefore contains a varied mix of requirements. Where requirements are covered in more detail elsewhere in the PA then reference is made to the other requirements and the Schedule 13 requirement is marked as Not Applicable for compliance demonstration purposes. For this reason, Schedule 13 has a higher-than-average proportion of 'N/A' requirements.

4.1.1 Design Compliance

An Engineer of Record design compliance matrix was not provided for Schedule 13.

Station and MSF Design Conformance Letters, Final Design reports and Passenger Flow Analysis documents have been used as design evidence.

Deficiencies have been raised on the MSF fence and Fence Intrusion Detection System (FIDS) – see deficiencies Incomplete INC-29 and NCR 429 on the Master Deficiencies List. The FIDS is being re-designed under the Belfast MSF Expansion Variation.

4.1.2 Product Compliance

The majority of product requirements in Schedule 13 are evidenced by station architectural CCLs supplemented by a small number of SITs for the FIDS. In some cases, reference is made to more detailed requirements elsewhere in the PA for evidence. For deliverable documentation requirements, references are given to the appropriate documents.

4.2 SCHEDULE 15-1 – DEFINITIONS AND REFERENCE DOCUMENTS

There is only one requirement in Schedule 15-1:

ID 61214: "Under no circumstances shall passenger circulation cross the train at grade."

The Final Design Reports for Above Ground Stations, East and West, and Underground Stations provide design compliance evidence. Station architectural CCLs are referenced as evidence that stations have been built in accordance with design.

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There are two Punch List entries linked to the Schedule 15-1 requirement; City Sys PL-43 and City Sys PL-44. The deficiencies both have the description, “These gabions create stepping stones from the roadway to the guideway” and have been raised for Cyrville and Pimisi stations. Although the deficiencies have been linked to this requirement (since it is the most relevant requirement in the PA), there is clearly no intention that the gabions are used for passenger circulation, therefore the requirement has been assessed as compliant despite these deficiencies.

Based on the Final Design Reports, the design is compliant to Schedule 15-1.

Based on station architectural CCLs, the delivered railway is compliant to Schedule 15-1.

4.3 SCHEDULE 15-2 PART 1 – GENERAL REQUIREMENTS

4.3.1 Background

The first section of Part 1 contains high level requirements which are later elaborated within this and other schedules. In the case of requirements which present an overview and do not include unique content, verification of the elaborated requirements within the later parts of 15-2 is deemed sufficient. In the case of generic requirements which are applicable across large areas of the railway, which would lead to an excessive quantity of evidence links to each requirement, example evidence is presented, tracing through design to product. In such cases the compliance is stated as ‘Compliant with Explanation’ and described as evidenced by example.

4.3.2 Design Compliance

RTGEJV have assisted in providing design compliance to Part 1 requirements. In addition, RTGEJV Communications Systems Design Compliance Matrix RES-53-0-0000-REG-0008 Rev. A was received 19 November 2018. This document provided design compliance statements and evidence for Communications requirements in Articles 4 and 29.

For requirements where RTGEJV have not provided evidence, DCLs and design reports have been used as evidence of compliance.

4.3.3 Product Compliance

Due to the general nature of the content, use of specific tests is of limited relevance to this Schedule. The End to End Travel Time SITs will be used to validate the performance analysis work carried out by Thales for the operational performance requirements. For the majority of other requirements and particularly for compliance to standards, CCLs are used as evidence.

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4.4 SCHEDULE 15-2 PART 2 – GUIDEWAY

4.4.1 Design Compliance

Design Compliance Statements and Evidence for Schedule 15-2 Part 2 have been provided by the Engineer of Record for Trackwork. This design compliance evidence has been analysed to ensure that:

- The evidence is available in the 4P database
- The document numbering is correct
- The evidence provided demonstrates compliance to requirements (sample check only).

Seven DCLs have been issued and linked to the requirements in Schedule 15-2 Part 2:

- REJ-OLR-20-0-DCL-0001
- REJ-OLR-20-3-DCL-0021
- REJ-OLR-20-5-DCL-0023
- REJ-OLR-20-5-DCL-0024
- REJ-OLR-21-0-DCL-0025
- REJ-OLR-22-0-DCL-0026
- REJ-OLR-27-3-DCL-0028.

4.4.2 Product Compliance

The majority of product compliance evidence for guideway and trackwork is based on CCLs and Track Assurance Reports. The track reports are:

- OLR-22-0-0000-REP-0001, Track Assurance Report 1 Tunney's Pasture to Tunnel Portal West
- OLR-22-0-0000-REP-0002, Track Assurance Report 2 - Tunnel Portal West to uOttawa Limit of Slab
- OLR-22-0-0000-REP-0003, Track Assurance Report 3 - Limit of Slab uOttawa to Blair.

There is one requirement that is compliant pending due to a deficiency that remains open.

4.5 SCHEDULE 15-2 PART 3 – TUNNEL

4.5.1 Background

Three tunnels are to be incorporated into the OLRT Project, the downtown 'running tunnel', the St. Laurent station tunnel and the MSF access tunnel.

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The former is built in the downtown area of Ottawa and runs for approximately 2.5Km and includes three underground stations, Lyon, Parliament and Rideau. This tunnel was constructed using a 'mining' technique together with open cuttings at either end, the East and West portals.

St. Laurent was modified such that the lower level bus terminal was converted to a lower level train terminus. Because of the length of this underground section, under the NFPA 130 regulations, this is classified as a tunnel.

The MSF access tunnel enables access from the LRT line to the MSF facility and runs under the VIA Rail mainline. The MSF tunnel was constructed using the 'cut-and-cover' method with a Petrucco box section under the VIA Rail mainline.

In the cases of the running tunnel and St. Laurent station tunnel a mechanical emergency ventilation system, 'Tunnel Ventilation System' (TVS), is required under NFPA 130. This system comprises axial flow and jet fans, ventilation dampers and associated local and remote control panels at the portals together with SCADA interfaces to the TSCC. When not used for emergency situations, i.e. train, tunnel or station fires, the systems are used to ventilate the station platforms to ensure passenger comfort and also to dissipate the pressure waves originating from trains passing through the tunnels.

In the case of the MSF access tunnel, the analysis under NFPA 130 concluded that natural ventilation would suffice, provided by two passive roof vents and thus there is no active TVS.

4.5.2 Compliance Overview

The following sections describe the evidence used to derive the compliance status for each article in Schedule 15-2 Part 3, Tunnels.

Following two design reviews by the City (PACWG 6/11/18 Tunnel Ventilation System schedule section 8 and PACWG 14/11/8 schedule sections 1-7) the design status has been updated to reflect the feedback from the tunnel engineers.

Actions arising from these meetings have been incorporated into the DOORS NG version of the schedule for future issues of the compliance matrix and for reference.

Additional EoR sourced data was also provided post meetings and based on this the compliance status also updated accordingly.

Article 1, Introduction

This section only contains a small number of 'product' design requirements. These have been satisfied by linking to DCLs and CCLs where an appropriate match was identified.

Article 2, General Structural Design Criteria

Temporary Support and Initial Support – these have been classified as 'construction period only' and no evidence has been provided.

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Permanent Support and Lining - DCLs and CCLs were used for those requirements associated with the running tunnel, underground stations and the MSF access tunnel with supporting evidence from 4P.

The St. Laurent station 'tunnel' is excluded from this section according to clause 93791: "The scope comprises the downtown OLRT Tunnels and associated underground Structures, and the Tunnel and approaches between the Guideway and the MSF".

Article 3, Cut-And-Cover Structures

This applies to the East and West portals of the running tunnel and portions of the MSF access tunnel, again St. Laurent station tunnel was excluded. Links are made to the appropriate design and construction certificates (DCL and CCL).

Article 4, Bored Tunnels

It is understood that no tunnels were constructed using a Tunnel Boring Machine (TBM). Requirements marked as Not Applicable.

Article 5, Mined Structures

This applies to the main section of the running tunnel that incorporates Lyon, Parliament and Rideau underground stations. Links are made to the appropriate tunnel and station design and construction certificates (DCL and CCL).

Article 6, Mechanical Design Criteria

This section specifies the requirements for water and sewage systems, drainage facilities (except at-grade sections), and fire protection systems both within tunnels and, where appropriate, stations.


Use was made of Technical Appraisal Forms (TAFs) associated with the underground stations, tunnel and station design and construction certificates (DCL and CCL) and supporting 4P evidence. Codes and standards are based on evidence found within the final design documents and those referenced in the DCLs and responses from the Engineer Of Record (EoR).

St. Laurent station tunnel was included here as the criteria are applicable to the TVS and other installed equipment during the conversion of this station tunnel.

Article 7, Electrical Design Criteria

This section contains criteria relating to Hydro Ottawa Limited (HOL) power feeds, emergency power, equipment grounding and lighting and applies to applicable stations (scope restricted to underground and St. Laurent stations).

The St. Laurent station tunnel was included here as the criteria are applicable to the TVS and other installed equipment during the conversion of this station tunnel.

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Design and construction certificates (DCL and CCL) links were used for the running tunnel and underground stations with supporting 4P evidence. Additionally, design and construction certificates (DCL and CCL) links for SCADA were used where appropriate for communication type requirements.

Where appropriate, links have been made to SATs or SITs, conducted either by suppliers or the Test and Commissioning team respectively, and the test results used as additional compliance evidence.

Article 8, Tunnel and Station Ventilation Design Criteria

Applicable to the running tunnel and St. Laurent station tunnel only. An EoR return was used here for the running tunnel TVS. Additional supporting links to design and construction certificates (DCL and CCL) and 4P evidence are made.

The EoR response did not cover the St. Laurent tunnel TVS and so DCL and CCL links together with supporting documented evidence have been used.

Where appropriate, links have been made to SATs or SITs, conducted either by suppliers or the Test and Commissioning team respectively, and the test results used as additional compliance evidence.


4.6 SCHEDULE 15-2 PART 4 – VEHICLES AND SYSTEMS - ALL ARTICLES

For Schedule 15-2 Part 4, this report is structured to align with the System Breakdown Structure (SBS). Article 1 is the introduction, Articles 2 to 8 contain requirements for Primary Systems and Article 9 is EMI/EMC. This report has separate sections for articles 2 to 9 inclusive. Table 8 lists the Articles in Schedule 15-2 Part 4 and the corresponding section of this document.

This initial section covers ALL articles of Part 4 together, in order to provide a summary of Vehicles and Systems compliance.

Table 8: PA Schedule 15-2 Part 4 Articles

Article #	Title	Report Section
1	Introduction / All Articles	4.6
2	Traction Power Supply	4.7
3	Revenue Vehicles	4.8
4	Non-Revenue Vehicles	4.9
5	Train Control	4.10
6	Communications	4.11
7	Fare Collection System	4.12

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Article #	Title	Report Section
8	Overhead Catenary System	4.13
9	EMI/EMC	4.14

4.6.1 Design Compliance by Article

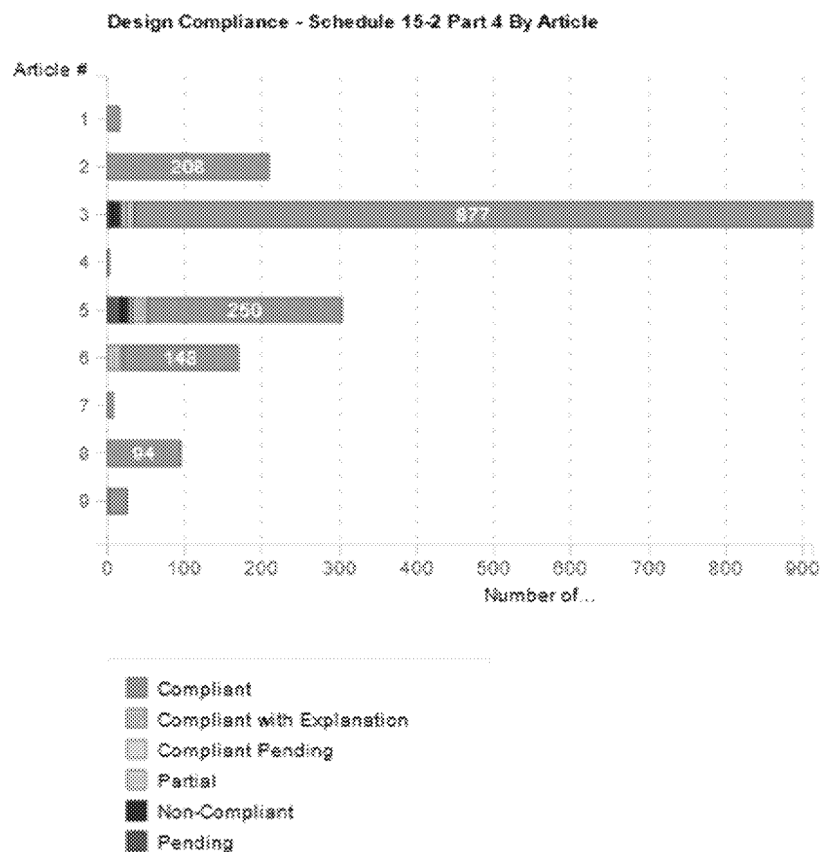



Figure 6: Schedule 15-2 Part 4 Design Compliance by Article

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4.6.2 Product Compliance by Article

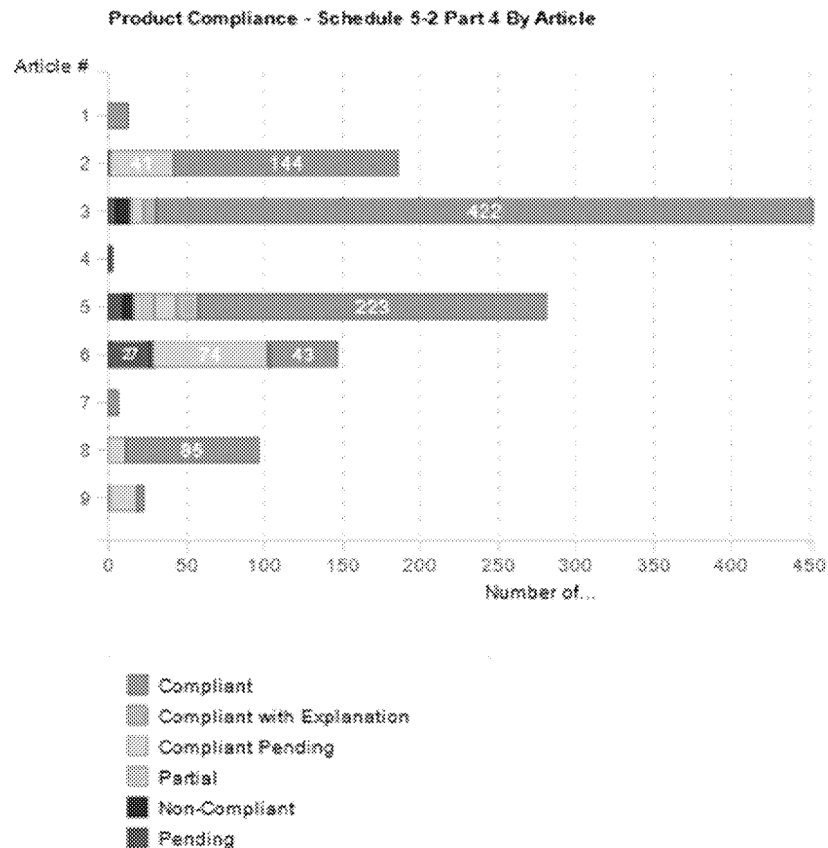


Figure 7: Schedule 15-2 Part 4 (All) Product Compliance by Article

4.7 SCHEDULE 15-2 PART 4 – VEHICLES AND SYSTEMS - ARTICLE 2 - TRACTION POWER SUPPLY

4.7.1 Design Compliance

A compliance matrix, in the form of an Excel spreadsheet titled, 'OLRT Sch15-2 P1-P7 20180410-PSnD.xlsx', was received via email from David Ellis on 25 September 2018. It is understood that the received matrix contained an assessment of compliance by the EoR, Kai Zhang.

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EJV Communications Systems Design Compliance Matrix RES-53-0-0000-REG-0008 Rev. A was received 19 November 2018. This document provided design compliance statements and evidence for Communications requirements in Article 2. A sample of evidence has been reviewed and found to be satisfactory.

Design evidence referred to in the compliance matrix includes:

- Power Distribution Systems - System Wide Final Design Review Report
- Siemens DC Switchgear Shop Drawing for each TPSS
- Fixed Facilities SCADA Final Design Report.

Design compliance is largely Compliant for this section. See the PA Technical Compliance Matrix [2] for full details and document references.

4.7.2 Product Compliance

Product compliance evidence includes:

- CCL for Site Grading and Drainage, which is part of the Civil Works for the TPSSs
- CCL for the Electrical Design of Crawl Spaces and Duct bank for the TPSSs
- CCL for the Structure Design of the foundation of the TPSSs

OLRT-C Site Acceptance Tests and System Integration Tests, and supplier Site Acceptance Tests are also used to determine compliance against PA requirements. In cases where a functional test is preferable but is not covered by an existing SIT or SAT then secondary evidence has been sought in the form of either Factory Acceptance Tests and/or a supplier's Certificate of Conformance. Any off-the-shelf item may refer to the products data sheet as supporting evidence.

There are a number of test reports outstanding in this section and linked requirements therefore have a product compliance state of Compliant Pending. See ESAC Outstanding Items [20] for a full list of outstanding evidence.

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4.8 SCHEDULE 15-2 PART 4 – VEHICLES AND SYSTEMS - ARTICLE 3 - REVENUE VEHICLES

4.8.1 Background

Design and Product Compliance Evidence is provided by Alstom through Alstom Compliance Matrix, ADD0000938687, Revision H, received informally on 12 June 2019 and accompanying review comments OLR-ALS-2034. The Alstom Compliance Matrix provides combined design and product compliance, which has been replicated into both design and, where applicable, product compliance attributes in the PA compliance matrix.

Revision H of the compliance matrix was checked in detail and the findings have been discussed with Alstom and the City, "Compliance Matrix Review Meeting Minutes ", OLR-ALS-2017.

In summary, the meetings covered:

- Compliance statements with no evidence provided
- Non - compliance statements with no explanation
- Partial compliance statements with no explanation
- Outstanding SCRs

For more detail, please refer to the meeting minutes.


Correspondence between OLRT-C and Alstom has been ongoing and deficiency INC-49 (ID 196693) has been raised to capture the queries on the Alstom compliance matrix. OLRT-C have not altered the compliance statements provided by Alstom in their compliance matrix, but the requirements where V&V evidence has been queried can be identified by their links to INC-49.

4.8.2 Revenue Vehicle Certification

Revenue Vehicles are signed off via Car History Books (CHB). Each of the 34 LRVs has a CHB containing all documentation for that vehicle.

Each vehicle goes through a number of stages and is formally signed off at each handover.

- Firstly, the vehicle is manufactured and undergoes a serial test by Alstom before handover to Thales
- Thales then integrate the CBTC system onto the vehicle and perform integration testing to ensure that the integrated system functions and performs as designed
- The integrated vehicle with CBTC is then handed over to OLRT-C.

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Car History Books for each vehicle are collated within the Vehicles Commissioning Manual [16] and are also available for inspection from the OLRT-C Integration Manager. Serial tests and CHBs are not considered as inputs to the statements of compliance in this article.

Table 9 provides the certification status of the 34 vehicles as of 16 April 2019. All vehicles have now achieved certification.

A Preliminary Fleet Safety Certificate, ALS-OLRT-02909, Rev 5, 18th April 2019, is current for all Ottawa Spirit trains. This states that all Citadis Spirit Trains for the Ottawa LRT project are limited for test and commissioning use and training operations under a number of restrictions, including no passenger to be carried. A full certificate is required for RSA.

Table 9: Vehicle Certification Status

Measure	Completed
Vehicle Safety Certificate / Canadian Content Certificate; Major MODs; Substantially Complete	34
Vehicles with CBTC Safety Certificate	34


4.8.3 Design Compliance

Based on the Alstom Compliance Matrix and applicable deficiencies, the vehicle design is assessed to be generally Compliant or Compliant with Explanation with the following exceptions:

- Seven requirements are assessed as Compliant Pending due to deficiencies
- One requirement is stated as Partial by Alstom but their Compliance Matrix does not provide any explanation
- One requirement has been assessed as Partial by V&V since part of the requirement has been considered Non-compliant by Alstom.

Requirement ID 94759 - The exterior bellows is described in Alstom's "Ottawa Spirit ICB Presentation_20171108" which was submitted to the City (SUB-ALS-4100) and comments tracked and closed under CRE-255 Rev D. A mock-up of the exterior bellows was presented to the City and the design was agreed upon with some minor modifications. This is a planned retrofit to be carried out during the warranty period

- Six requirements are assessed as Pending due to absence of evidence in the Alstom Compliance Matrix
- Twelve requirements are assessed as Non-compliant – see section 4.8.5 below for details.

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4.8.4 Product Compliance

Based on the Alstom Compliance Matrix and applicable deficiencies, the vehicle product is assessed to be generally Compliant or Compliant with Explanation with the following exceptions:

- Eight requirements are assessed as Compliant Pending due to the following reasons:
 - SCADA/HSDR/Vehicle Comms SIT-MSF and SCADA/HSDR/Vehicle Comms SIT-BLA test reports has not been issued
 - NCR-832 - Event recorder - Brake cylinder pressure
- Five requirements are assessed as Pending due to absence of evidence in the Alstom Compliance Matrix
- Nine requirements are assessed as Non-compliant, – see section 4.8.5 for details.

4.8.5 Non-Compliances and Deficiencies

Twelve requirements have been declared by Alstom as non-compliant and are the subject of SCRs and RFIs as follows:

- Requirement 94668 and 94675 have been declared as Non-compliant by Alstom and a waiver has been requested (WR-001).
- Requirement ID 161487 and ID 161488 were modified by SCR-012 Rev B, which was approved under RFI-P-PADI-725
- Requirement ID 94938 was modified by SCR-049 Rev A - HVAC Exhaust Temperature, which was submitted to the city under RFI-P-563
- Requirement ID 94948 was modified by SCR-057 - Thermal Gradient, which was submitted to the city under RFI-P-PADI-573
- Requirement ID 94955 has declared as Non-compliant by Alstom and is still under discussion with the City related to the changes requested by Alstom through SCR-087.
- Requirement IDs 95360 and 95362 were modified by SCR-020 NVR System Capacity, which was submitted to the City under RFI-P – 678. RFI-P-678 refers to RFI-O-143, but it is noted that the correct number is RFI-O-134.
- Requirement IDs 95546 and 95548 were modified by SCR-060 Rev B – PTE Connection, which was approved by the City under RFI-P-PADI-679
- Requirement IDs 95691 was modified by SCR-069, SCR-077, SCR-078, SCR-079, SCR-077, SCR-080, SCR-082, SCR-083, SCR-084 and SCR-085, which were approved as deviations under RFI-P-DEVI-992.

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4.9 SCHEDULE 15-2 PART 4 – VEHICLES AND SYSTEMS - ARTICLE 4 - NON-REVENUE VEHICLES

4.9.1 Background

This article, comprising of two product requirements and one deliverable documentation requirement, lists Project Co's responsibilities related to the Non-Revenue vehicles.

OLRT-C and their subcontractors are not responsible for provision of maintenance vehicles themselves but are responsible for ensuring that maintenance vehicles can be located by the CBTC system using the Innovation Proposal 04 (IP-04) system.

4.9.2 Design compliance

The Innovation Proposal 04 Final Design Report describes the non-revenue vehicles detection system design. However, introduction of IP-04 has been deferred beyond Substantial Completion. In the meantime, operating procedures will be put in place to ensure that maintenance vehicles do not conflict with revenue vehicles on the track.

4.9.3 Product Compliance

Product compliance will be demonstrated by a SIT. The High Rail Vehicle / Train Control System SIT procedure, RES-16-8-0000-SIT-OP7176, tests the integration of the high-rail vehicle, IP-04, SCADA and CBTC systems.

Until the IP-04 system is integrated and tested, the applicable requirements will have a Product Compliance state of Pending with reference to 'incomplete work' deficiency INC-34 (ID 196678), 'Non-Revenue Vehicle detection and associated works'.

4.10 SCHEDULE 15-2 PART 4 – VEHICLES AND SYSTEMS - ARTICLE 5 - TRAIN CONTROL

4.10.1 Background


The latest update to the Thales Compliance Matrix (CM) was received 1 February 2019.

Thales CM provides a compliance statement which states that they are compliant when they have the functionality implemented and there is a test procedure that will demonstrate the compliance.

This information together with the Thales System Verification Report (3CU 050108 0211 QZZA) and the System Acceptance and Commissioning Report (3CU 050108 0213 QZZA, revision 2) provide evidences of compliance to the requirements.

The compliance matrix has been checked and a number of letters have been sent to Thales:

1. Thales Compliance Matrix Review, ref OLR-THA-00744;

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2. List of Requirements with Issues on Compliance from Thales CM, ref OLR-THA-00746. A response has been received from Thales and is in review.
3. OLR-THA-764

In summary, OLR-THA-00744 identifies that:

- Only 37 out of 56 test reports have been provided. 19 of the 37 were run using an old test procedure revision number and 18 of the 19 are Safety Related
- The Thales compliance matrix lists 23 test procedures that are not listed in the Thales OLRT-specific SAT procedure document, including both generic and OLRT-specific tests
- At least 5 test reports indicate a test has failed where the compliance matrix states that the system is Compliant to the requirement
- Table 12 in Thales SAT Report (3CU 05018 0241 QZZA, Revision 1) indicates that there are 15 tests failed (Outstanding) and 8 tests Incomplete
- NCR-825, related to a disturbed switch, has been raised by the City. Thales consider it closed by an operational procedure.

Thales responded to this letter by sending new test reports to OLRT and, subsequently, a new letter was sent to Thales (OLR-THA-764) with review comments on the whole set of test reports.

In summary, OLR-THA-00746 identifies:

- 32 requirements that Thales has identified as Information. This issue has been clarified in the Thales response and is now closed
- 8 requirements included in the OLRT-C version of the PA (held in DOORS NG) that are missing from the Thales compliance matrix. This issue has been discussed with Thales in a meeting held on Tuesday May 28th. Thales have confirmed that the requirements related to Driver Alertness have been incorporated in the software as agreed in letter OLR-THA-0211. Their System Requirement Specification has incorporated these requirements and Thales will send OLRT-C the information related to the test reports that demonstrate compliance to these requirements.
- 5 PA requirements that were modified by an RFI but have not been modified in the Thales compliance matrix. This issue was discussed with Thales in a meeting held on Tuesday May 28th.

In summary, OLR-THA-764 identifies the list of items pending to respond from Thales, such as:

- Test report SC06-01 removed from document SAT procedure revision 2 and it's required the test report number that replaces this test report.
- Requirements not in Thales Compliance matrix.

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- Test procedures/reports review sent through letter OLR-THA-00744 .
- Thales Implementation of Self Tests OLR-THA-00760

Thales responded to this letter, and the issue has been discussed with Thales in a meeting held on Tuesday May 28th and Thales committed to provide a summary of the test reports and the impact on requirements for those tests that have either failed or have not yet been tested.

Deficiency INC-48 (ID 196692) has been raised to capture the queries on the Thales compliance matrix.

4.10.2 Design Compliance

Based on the Thales Compliance Matrix (CM) and applicable deficiencies, the train control system design is assessed to be generally Compliant or Compliant with Explanation with the following exceptions:

Compliance Pending/Pending requirements are due to outstanding evidence:

- Requirement not in Thales compliance matrix
- Non-compliance to the broken rail detection requirements (mitigated by alternative methods as listed in the Integrated Hazard Log – see IHL0098)
- Awaiting confirmation that OLRT has coordinated frequency selection and antenna placement for non-CBTC radios.
- SOP definition for CBTC Bypass
- Thales consider requirements out of scope and no evidence has been identified.

4.10.3 Product Compliance

Based on the Thales Compliance Matrix and applicable deficiencies, the train control system product is assessed to be generally Compliant or Compliant with Explanation with the following exceptions:

Compliant Pending and Pending requirements are due to:

- Requirements not in Thales compliance matrix
- Test reports not issued or needing to be rerun
- Deficiencies linked to the requirements
- Awaiting confirmation that OLRT has coordinated frequency selection and antenna placement for non-CBTC radios
- Thales consider requirements out of scope and no evidence has been identified.

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4.11 SCHEDULE 15-2 PART 4 – VEHICLES AND SYSTEMS - ARTICLE 6 - COMMUNICATIONS

4.11.1 Design Compliance

Communication System design compliance has been established using Final Design Reports, which explicitly state the level of compliance, or a Design Confirmation Letter. Where necessary, supporting evidence has been provided in the form of technical drawings, product procurement specifications and data sheets. The Design Compliance for this article have been confirmed against the EJVB Communications Systems Design Compliance Matrix RES-53-0-0000-REG-0008 Rev. A, which was received from the EoR.

4.11.2 Product Compliance

Communication System product compliance has been established using a combination of Construction Certification Letters, Site Acceptance Tests (both OLRT-C and supplier), and System Integration Tests. In cases where a functional test is preferable but is not covered by an existing SIT or SAT then secondary evidence has been sought in the form of Factory Acceptance Tests, a supplier's Certificate of Conformance or Compliance Matrix. An off-the-shelf item may refer to the products data sheet as supporting evidence.

Communication System CCLs have been issued certifying that the Communications equipment has been delivered and installed as specified in the design. The Communication System CCLs do not include the provision of power to the equipment, therefore requirements relating to power refer to the available building Electrical CCLs as evidence.

Note that TPSS #3 is treated as part of Rideau Station for CCL purposes. There is no separate CCL for TPSS #3.

As of 24 June, some SIT and SAT test reports have yet to be issued to provide evidence of functional compliance.

Several NCRs and minor deficiencies have been raised against the Communications system.

4.12 SCHEDULE 15-2 PART 4 – VEHICLES AND SYSTEMS - ARTICLE 7 - FARE COLLECTION

4.12.1 Design Compliance

There are only a few requirements in this section as the fare collection equipment is outside OLRT-C scope. Design compliance has been determined using a combination of Final Design Reports, Interface Control Documents, and Design Conformance Letter. No EoR return was received for this article.

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4.12.2 Product Compliance

Product compliance has been determined using Construction Certification Letters (CCLs). The requirements are divided between two types, the first being the provision of cabling to connect the Fare Collection equipment to the CTS network and compliance has been demonstrated with the Communication CCLs. The second requirement type is for the provision of power where compliance has been demonstrated through the building Electrical CCLs.

4.13 SCHEDULE 15-2 PART 4 – VEHICLES AND SYSTEMS - ARTICLE 8 - OVERHEAD CATENARY SYSTEM

4.13.1 Design Compliance

A compliance matrix, in the form of an Excel spreadsheet titled, 'OLRT Sch15-2 P1-P7 20180410-PSnD.xlsx', was received on 25 September 2018 containing an assessment of compliance by the EoR, Kai Zhang.

A sample of evidence has been reviewed and found to be satisfactory. A check has also been performed against the NCR register with any non-compliances or partial compliances reflected in the compliance statements for impacted requirements.

Design evidence referred to in the compliance matrix includes:

- Vehicle System - Overhead Catenary System Mainline Final Design Review Report
- Power Distribution Systems - System Wide Final Design Review Report.

4.13.2 Product Compliance

Product compliance evidence includes:

- CCL for OCS works carried out across the line of route
- CCL for OCS works carried out within the MSF
- CCL for the Structure (pole foundations) work carried out for the OCS.

OLRT Site Acceptance Tests and System Integration Tests, and supplier Site Acceptance Tests are also used to determine compliance against PA requirements. In cases where a functional test is preferable but is not covered by an existing SIT or SAT then secondary evidence has been sought in the form of either Factory Acceptance Tests and/or a supplier's Certificate of Conformance. Any off-the-shelf item may refer to the products data sheet as supporting evidence.

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4.14 SCHEDULE 15-2 PART 4 – VEHICLES AND SYSTEMS - ARTICLE 9 - EMI/EMC

4.14.1 Background

Any systems that are required to be compliant with EMC standards have been identified in the EMC Management Plan, along with the related procurement specifications, which identify the requirements that each system has to comply with.

The EMC Management Plan also describes a process for the OLRT project to demonstrate EMC compliance.

4.14.2 EMC/EMI Design and Product Certification

As required by the PA, requirements 96533 and 96534,

- All wayside electronic Equipment shall meet the immunity requirements of EN 50121 -4
- All on-board Equipment shall meet the immunity requirements of EN 50121-3.2.

Supplier compliance matrices provide evidence for Vehicles (Alstom), Signalling and Train Control (Thales), CCTV, CTS, PA/PIS, HSDR and some areas of TVS PLC.

In addition, the EMC Management Plan, OLR-74-0-0000-MPL-0002, Revision 4, Section 1.0 states that railway system EMC measurements and surveys will be made in three phases:

- Phase 1 – Initial EMC Survey
- Phase 2 – EMC Simulation
- Phase 3 – Final EMC Survey.

All three phases have now been completed, culminating in the final EMC Survey Report, VIC-74-9009-REP-0003, which has an executive summary stating, “The measurements results included in this Final EMC Field Site Survey Report are similar as in the Initial EMC Field Site Survey Measurement before OLRT construction started. There are no significant anomalies observed.”

Vican, the project’s subcontracted EMC specialists, have been asked to confirm that the above body of evidence is sufficient to claim full compliance to the requirements in the PA. If it is not, then an EMC close-out plan will be put in place to finalise OLRT-C EMC activities and confirm compliance.

4.15 SCHEDULE 15-2 PART 5 – STATIONS

4.15.1 Background

Part 5 – Stations contains a large number of requirements, some of which apply to all stations and some of which only apply to specified stations.

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4.15.2 Design Compliance

The overall design compliance position has been captured in the PA Technical Compliance Matrix [2]. Sources of design compliance identified for inclusion in the Technical Compliance matrix for stations are the design reports, Technical Appraisal Forms, Design Compliance Matrices and the Design Conformance Letters. Technical Appraisal Forms are not prepared for Architectural or Signage and Wayfinding design packages. Design Confirmation Letters are available for the following aspects of the stations design:

- Architectural
- Structural
- Mechanical
- Electrical
- Signage and Wayfinding.

Signed and stamped Design Confirmation letters endorsed by the architects are not available for the architectural design packages. A single letter of design confirmation for all architectural design packages endorsed by the design manager has been provided.


Project Agreement Schedule 15 Part 5 Stations has been analysed and requirements identified, then the NCR entries have been associated with the requirements.

The indication from the NCR log is that the design is highly compliant to the Project Agreement with only 16 NCR entries raised for station design and 7 observations raised in the at grade stations final functionality report, which are associated with 42 requirements of a total of 2474 Project Agreement requirements.

Table 10 identifies the sources of design compliance information used for Schedule 15-2 Part 5 – Stations.

Table 10: Design Compliance Sources for Schedule 15-2 Part 5 – Stations


Article	Summary	Design Compliance Source				
Article 1 Introduction	Most requirements covered by design reports	X	All			X
Article 2 ARCHITECTURAL DESIGN CRITERIA	A small number of requirements can be covered by design reports and design packages with valid	<5%	Tunney's Pasture			X
			Bayview			
			Pimisi			
			Lyon			

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Article	Summary	Design Compliance Source				
	<p>drawing indexes exist. Technical Appraisal Forms (TAF) are not required by the PA for Architectural Design.</p> <p>A single letter has been provided by the design manager to assure all of the architectural design packages.</p>		Parliament			
			Rideau			
			uOttawa			
			Lees			
			Hurdman			
			Tremblay			
			St. Laurent			
			Cyrville			
			Blair			
Article 3 STRUCTURAL DESIGN CRITERIA	<p>Professional of Record Design Compliance Matrix (DCM) return was provided for uOttawa, Lees, Cyrville & Blair.</p> <p>The DCM identified TAFs as a suitable Design Assurance record.</p> <p>TAF's have been used as evidence of design assurance for remaining structural design packages</p> <p>DCL's provided for every structural design package.</p>	X	Tunney's Pasture	X		X
			Bayview	X		X
			Pimisi	X		X
			Lyon	X		X
			Parliament	X		X
			Rideau	X		X
			uOttawa	X	X	X
			Lees	X	X	X
			Hurdman	X		X
			Tremblay	X		X
			St. Laurent	X		X
			Cyrville	X	X	X
			Blair	X	X	X
Article 4 MECHANICAL DESIGN CRITERIA	TAF's used as evidence of design assurance of mechanical design packages but TAF for Lees station not found in 4P.		Tunney's Pasture	X		X
			Bayview	X		X
			Pimisi	X		X
			Lyon	X		X
			Parliament	X		X

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Article	Summary	Design Compliance Source			
	DCL'S provided for mechanical design package.		Rideau	X	X
			uOttawa	X	X
			Lees		X
			Hurdman	X	X
			Tremblay	X	X
			St. Laurent	X	X
			Cyrville	X	X
			Blair	X	X
Article 5 ELECTRICAL DESIGN CRITERIA	TAF's used as evidence of design assurance of electrical design packages. DCL's provided for every Electrical design package.		Tunney's Pasture	X	X
			Bayview	X	X
			Pimisi	X	X
			Lyon	X	X
			Parliament	X	X
			Rideau	X	X
			uOttawa	X	X
			Lees	X	X
			Hurdman	X	X
			Tremblay	X	X
			St. Laurent	X	X
			Cyrville	X	X
			Blair	X	X
Article 6 SIGNAGE AND WAYFINDING	Design packages with valid drawing indexes exist but no design assurance evidence identified. TAF's are not required by the PA for Signage and Wayfinding.		Tunney's Pasture		X
			Bayview		X
			Pimisi		X
			Lyon		X
			Parliament		X
			Rideau		X

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Article	Summary	Design Compliance Source				
	DCL's have been provided for every Signage and Wayfinding design package.		uOttawa			X
			Lees			X
			Hurdman			X
			Tremblay			X
			St. Laurent			X
			Cyrville			X
			Blair			X

Design Compliance Schedule 15-2 Part 5 Non-Station-Specific Requirements

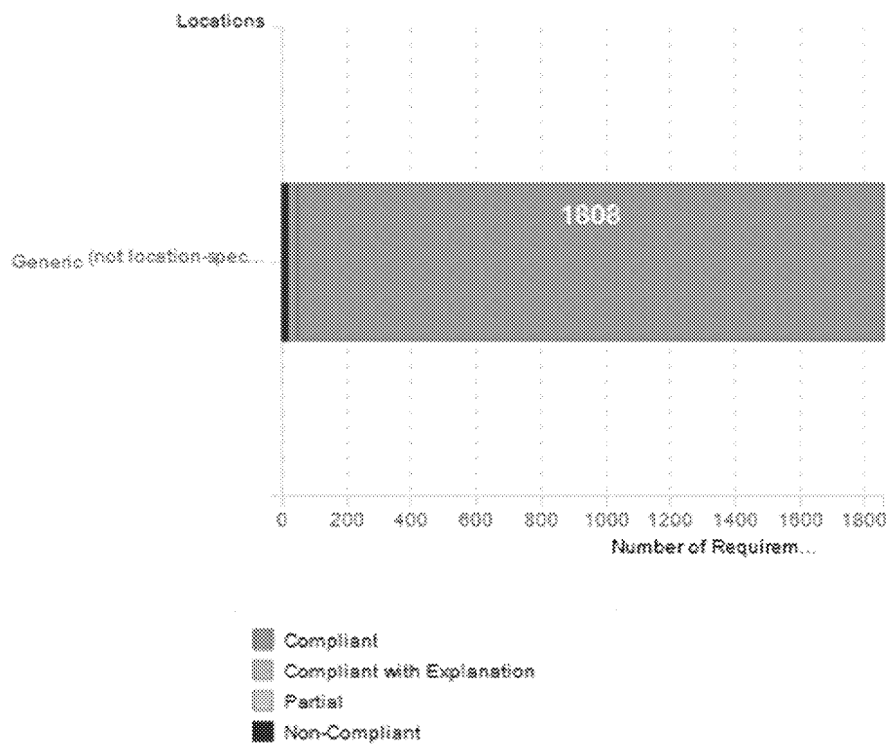



Figure 8: Schedule 15-2 Part 5 – Stations Design Compliance for Non-Station-Specific Requirements

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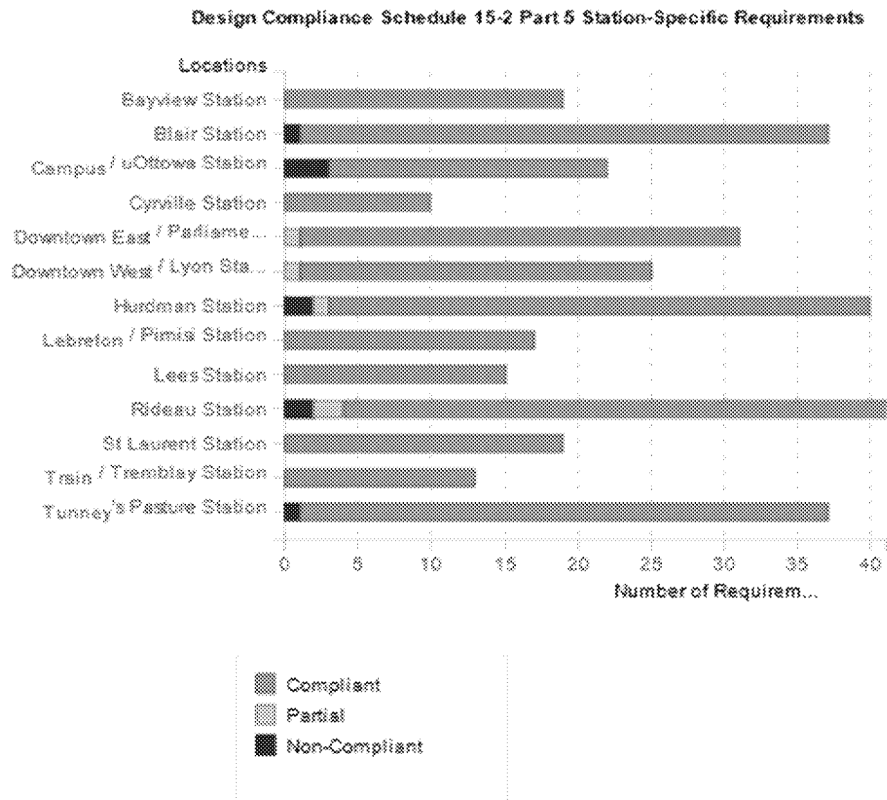


Figure 9: Schedule 15-2 Part 5 – Stations Design Compliance for Station-Specific Requirements

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4.15.3 Product Compliance

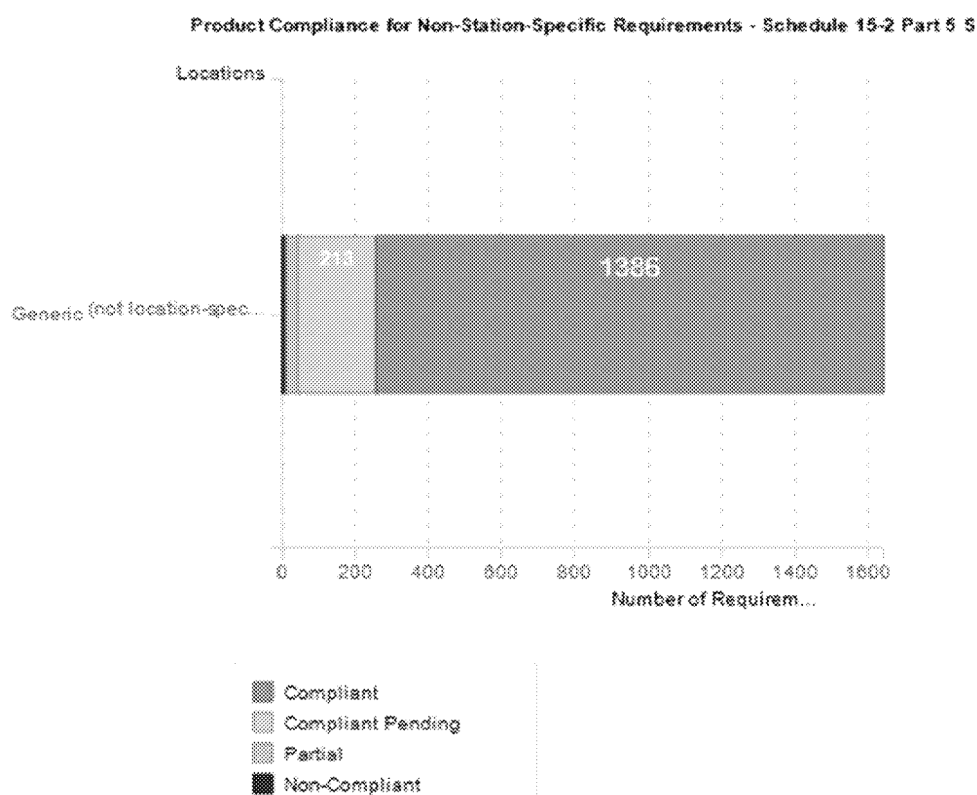



Figure 10: Schedule 15-2 Part 5 – Stations Product Compliance for Non-Station-Specific Requirements

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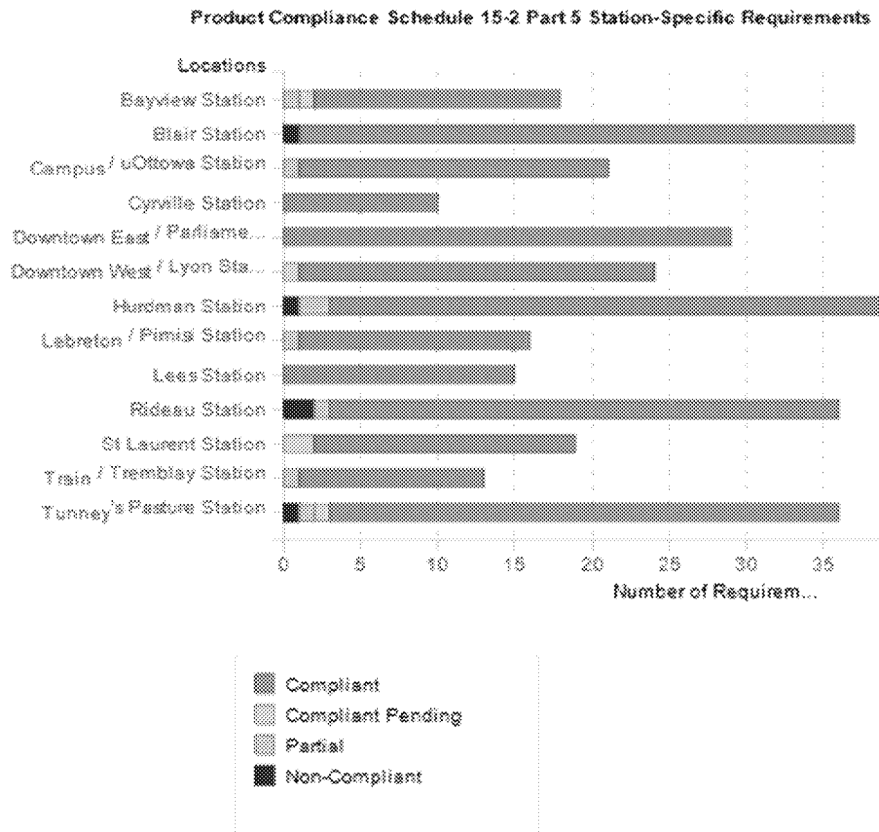


Figure 11: Schedule 15-2 Part 5 – Stations Product Compliance for Station-Specific Requirements

The stations product compliance position is summarised in the following sections for the acceptance methods assigned to Project Agreement requirements.

4.15.3.1 SIT/SAT Testing Compliance


Project Agreement requirements assigned an acceptance method of SIT-Systems Integration Test or SAT Site Acceptance test were assessed against the available test reports.

Appendix D provides a complete list of OLRT-C SIT and SAT test procedures and available test reports.

4.15.3.2 Inspection

The acceptance method for the requirement below is inspection.

- 97301 (o) Project Co shall provide clocks displaying time of day, with a minimum of one (1) clock per Platform, including bus platforms at Terminal/Transfer Stations.

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4.15.3.3 Construction Conformance Letters

Table 11 summarises the compliance position for Project Agreement requirements with an acceptance method of CCL-Construction Confirmation Letter.

The below tables detail the open deficiencies identified by the CCL only. Master Deficiency List items have been associated with the project agreement requirements, these also affect the Product Compliance position, as detailed by the Technical Compliance Matrix [2].

The CCLs provided for Article 2, architectural design criteria were not provided with DCLs, a single letter was provided for all design packages. To supplement the assurance of requirements within Article 2, requirements have been associated with BCS occupancy permits, TSSA licences and OFS certificates. References to these documents appear in the PA Technical Compliance Matrix [2] in the CCL evidence column. Where a certificate is not available this is identified in Appendix F.

Table 11: CCL Allocations to Station Requirements

Article	Summary	Station/Location	CCL	# Open Deficiencies
Article 1 Introduction	Requirements assigned to an acceptance method of CCL have been associated with architectural CCL's.	Tunney's Pasture	X	0
		Bayview	X	0
		Pimisi	X	0
	The deficiencies listed on the architectural CCL's have been associated with PA requirements.	Lyon	X	2
		Parliament	X	1
		Rideau	X	0
	The 4 CCL deficiencies are associated with 0 requirements in Article 1.	uOttawa	X	0
		Lees	X	0
		Hurdman	X	0
		Tremblay	X	0
		St. Laurent	X	0
		Cyrville	X	0
		Blair	X	0
Article 2 ARCHITECTURAL DESIGN CRITERIA	The 4 Open deficiencies identified on the Architectural CCL's have been associated with 5 requirements in Article 2 of the station schedule, the 5 requirements are marked	Tunney's Pasture	X	0
		Bayview	X	0
		Pimisi	X	0
		Lyon	X	2

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Article	Summary	Station/Location	CCL	# Open Deficiencies
	Compliant Pending as it is expected that they will be addressed.	Parliament	X	1
		Rideau	X	0
		uOttawa	X	0
		Lees	X	0
		Hurdman	X	0
		Tremblay	X	0
		St. Laurent	X	0
		Cyrville	X	0
		Blair	X	0
Article 3 STRUCTURAL DESIGN CRITERIA	CCL's with zero defects have been provided for indicated stations but the CCL's are limited to cover only the requirements applicable occupancy.	Tunney's Pasture	X	0
		Bayview	X	0
		Pimisi	X	0
		Lyon	X	0
		Parliament	X	0
		Rideau	X	0
		uOttawa	X	0
		Lees	X	0
		Hurdman	X	0
		Tremblay	X	0
		St. Laurent	X	0
		Cyrville	X	0
		Blair	X	0
Article 4 MECHANICAL DESIGN CRITERIA	CCL's with zero defects have been provided for indicated stations as a result all requirements assigned to an acceptance method of 'CCL' have been marked Compliant Pending.	Tunney's Pasture	X	0
		Bayview	X	0
		Pimisi	X	0
		Lyon	P	0
		Parliament	P	0

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Article	Summary	Station/Location	CCL	# Open Deficiencies
		Rideau	X	0
		uOttawa	X	0
		Lees	X	0
		Hurdman	X	0
		Tremblay	X	1
		St. Laurent	X	0
		Cyrville	X	0
		Blair	X	0
Article 5 ELECTRICAL DESIGN CRITERIA	CCL's with zero defects have been provided for the electrical work packages for all stations, all requirements assigned to an acceptance method of 'CCL' have been marked Compliant.	Tunney's Pasture	X	0
		Bayview	X	0
		Pimisi	X	0
		Lyon	X	0
		Parliament	X	0
		Rideau	X	0
		uOttawa	X	0
		Lees	X	0
		Hurdman	X	0
		Tremblay	X	0
		St. Laurent	X	0
		Cyrville	X	0
		Blair	X	0
Article 6 SIGNAGE AND WAYFINDING	CCL's with zero defects have been provided for signage and wayfinding for all stations, all requirements assigned to an acceptance method of 'CCL' have been marked Compliant.	Tunney's Pasture	X	0
		Bayview	X	0
		Pimisi	X	0
		Lyon	X	0
		Parliament	X	0
		Rideau	X	0

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Article	Summary	Station/Location	CCL	# Open Deficiencies
		uOttawa	X	0
		Lees	X	0
		Hurdman	X	0
		Tremblay	X	0
		St. Laurent	X	0
		Cyrville	X	0
		Blair	X	0

4.16 SCHEDULE 15-2 PART 6 – MSF

4.16.1 Design Compliance

A compliance matrix, in the form of an Excel spreadsheet titled, 'OLRT Sch15-2 P1-P7 20180116-MSF.xlsx', was received via email from David Ellis on 25 September 2018. It is understood that the matrix contained an assessment of compliance by an SNC Lavalin team based in Montreal.

A check has been performed against the NCR register with any design non-compliances or partial compliances reflected in the compliance statements for impacted requirements.


Design evidence referred to in the compliance matrix includes the MSF Final Design Development Report. The report also refers to the MSF Program Confirmation Document reconfirming the design decisions and assumptions, so that the facility is fully functional and operationally appropriate for its intended use.

The design of the MSF, Shed, and Yard involves inputs from a multitude of disciplines including those focused on the design of track alignment, signalling, overhead contact systems, controls, site security, as well as facilities.

The requirements related to the Building Code Analysis (Section 2.3) of PA schedule 15-2 Part 6 were separately addressed by the MSF Building Code Compliance Report - Final to provide an overview of the fire protection systems that will be included for the MSF buildings.

The MSF is the subject of a Variation, 'Belfast MSF Expansion', also known as Stage 2 or Phase 2 MSF. The variation consists of:

- MSF Deferred Completion Elements
- MSF Reconfiguration Elements
- MSF Excluded Elements.

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The Variation Confirmation has been assessed for impact to the PA. Many of the changes are at the detailed design level but the main changes that impact the PA are the Fence Intrusion Detection System (FIDS), MSF signage, MSF access gates and UPS spare capacity. Related requirements have been identified and re-assessed against the variation. Design and product compliance notes have been included in the PA Technical Compliance Matrix [2] for relevant requirements.

4.16.2 Product Compliance

Product compliance evidence includes assessment of the Architectural, Civil, Structural, Electrical and Mechanical portions of the work to claim general conformance with the requirements. Additional CCLs were received in the following areas:

- MSF HOL Room – fire separations
- MSF Yard (signal locations and electrical)
- MSF Landscape design
- MSF Signage and Wayfinding.

Project Agreement requirements assigned an acceptance method of SIT-Systems Integration Test or SAT Site Acceptance test were assessed against the available test reports – see Appendix D.

There are a number of test reports outstanding in this section and linked requirements therefore have a product compliance state of Compliant Pending.

Note that the Belfast MSF Expansion Variation, described in section 4.16.1 above, impacts product as well as design compliance.

4.17 SCHEDULE 15-2 PART 7 – TRAFFIC MANAGEMENT

An EoR has provided a design compliance response to schedule 15-2 Pt7 which has been incorporated into DOORS NG.

The compliance matrix has since been subject to satisfactory review by the City on 03 October 2018. Minor updates proposed by the City have been incorporated.

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5. VARIATIONS

5.1 BACKGROUND


As per Schedule 22 of the Project Agreement, Variations presented with a VC or VD ID / status, thus instructed, have been subject to the V&V process.

Variations directly related to PA requirements; depending on their nature, are reported on and accommodated through provision of Design and Product Compliance within the PA Technical Compliance Matrix (TCM) [2]

Variations that are not directly related to PA requirements are verified and reported on through the Variations Compliance Matrix [12].

Figure 12 and Figure 13 show design compliance and product compliance respectively for the variations.

A number of the variations have a compliance statement of “No Declaration”. Some variations are not directly related to the railway system itself. For example, they might encapsulate an agreement between OLRT-C and The City for a separate construction or development. In these cases, the V&V team made reasonable efforts to obtain design and/or product evidence but were not successful. Since these variations have no direct impact on the OLRT system, they are categorised as ‘No Declaration’ and will not be analysed further. See the VCM [12] for details.

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5.2 DESIGN COMPLIANCE

Figure 12 shows the percentage design compliance for variations verified within the Variations Compliance Matrix (VCM) [12].

The one Compliant Pending requirement is related to Tri-Pole Stanchions. An email from Joseph Marconi (OLRT-C Director Systems & Integration) on 16 April 2019 states, "Yes the tri-poles are approved and installed all 34 vehicles."

Variations Design Compliance

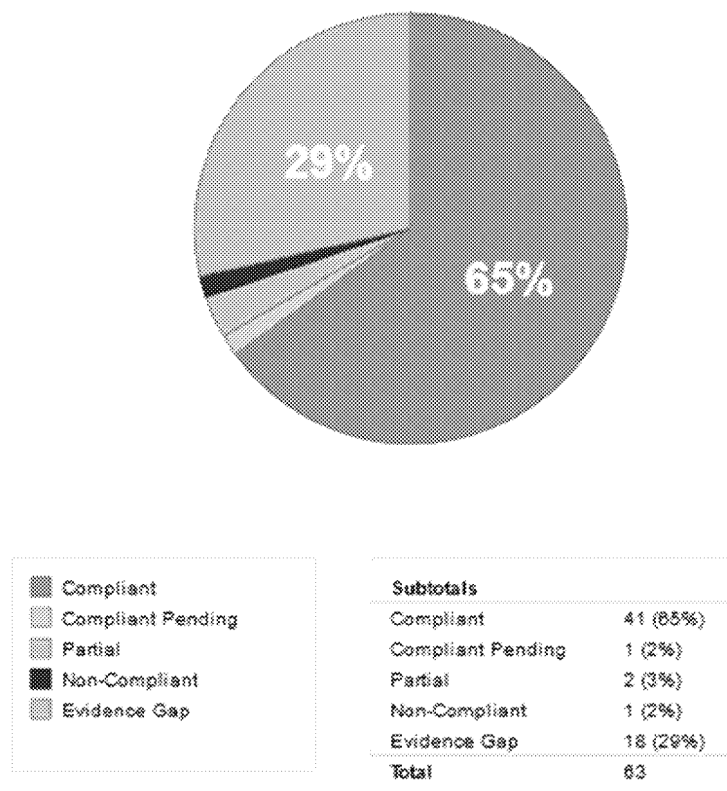



Figure 12: Variations Design Compliance

5.3 PRODUCT COMPLIANCE

Figure 13 shows the percentage product compliance for variations verified within the Variations Compliance Matrix (VCM) [12].

The remaining Pending and Compliant Pending requirements are awaiting TSSA certificates or for testing to be completed or retested. See the VCM [12] for details.

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Variations Product Compliance

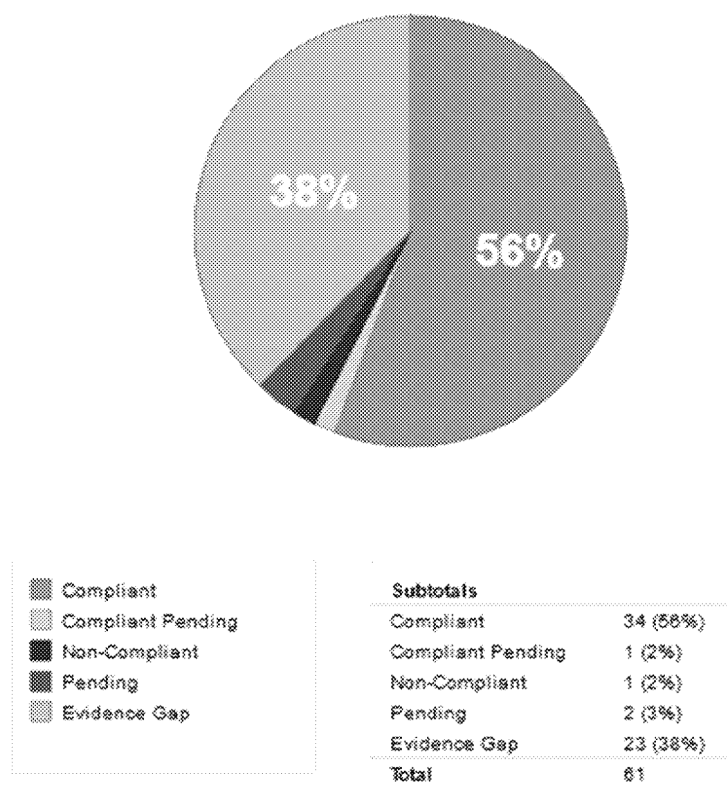


Figure 13: Variations Product Compliance

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6. NFPA 130

6.1 BACKGROUND


Compliance against NFPA 130 has been assessed by the same methods used to assess compliance against the Project Agreement with emphasis on standards compliance for design and inspection and testing for built and installed products.

A subset of NFPA 130 requirements was provided by OFS to OLRT-C via RFI-O-269 and relayed to the RV&V team for collation 19 July 2018.

The NFPA 130 extract is comprised of the following sections, against which compliance has been collected as described.

Table 12: NFPA 130 Design and Product Compliance


NFPA 130 Section	Design & Product Compliance
NFPA Checklist	Compliance not required. Checklist designed for adherence by inspector.
Section 5 - Stations	Design compliance provided by EOR / EJV, supplemented by DCLs where relevant. Product compliance evidence comprises CCLs and test evidence as identified in the Acceptance Method attribute.
Section 6 - Trainways	Design compliance provided by EOR / EJV, supplemented by DCLs where relevant. Product compliance evidence comprises CCLs and test evidence as identified in the Acceptance Method attribute.
Section 7 – Emergency Ventilation Systems	Design compliance provided by EOR / EJV, supplemented by DCLs where relevant. Product compliance evidence comprises CCLs and test evidence as identified in the Acceptance Method attribute.
Section 8 – Vehicles (Safety)	Technical Design Compliance response provided by Alstom through ALS-OLRT-02589 06 th November 2018. Response imported to DOORS NG and quality checked with Alstom as necessary. Response matrix provided by Alstom deviated from original format and terminology, therefore required modification pre and post import. Processing modifications, although not included here, have been recorded and can be provided upon request.

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NFPA 130 Section	Design & Product Compliance
Section 9 - Emergency Procedures (Ops)	Design compliance provided by EOR / EJV, supplemented by DCLs where relevant. Product compliance evidence comprises CCLs and test evidence as identified in the Acceptance Method attribute.
Section 10 – Communications (Ops)	Design compliance provided by EOR / EJV, supplemented by DCLs where relevant. Product compliance evidence comprises CCLs and test evidence as identified in the Acceptance Method attribute.
Section 11 – Control Communication Systems	Design compliance provided by EOR / EJV, supplemented by DCLs where relevant. Product compliance evidence comprises CCLs and test evidence as identified in the Acceptance Method attribute.

6.2 DESIGN COMPLIANCE

Figure 14 shows percentage compliance for NFPA 130 design. There are three requirements with a status of Compliant Pending due to deficiencies related to LRV and application of fire-retardant paint.

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NFPA 130 Design Compliance

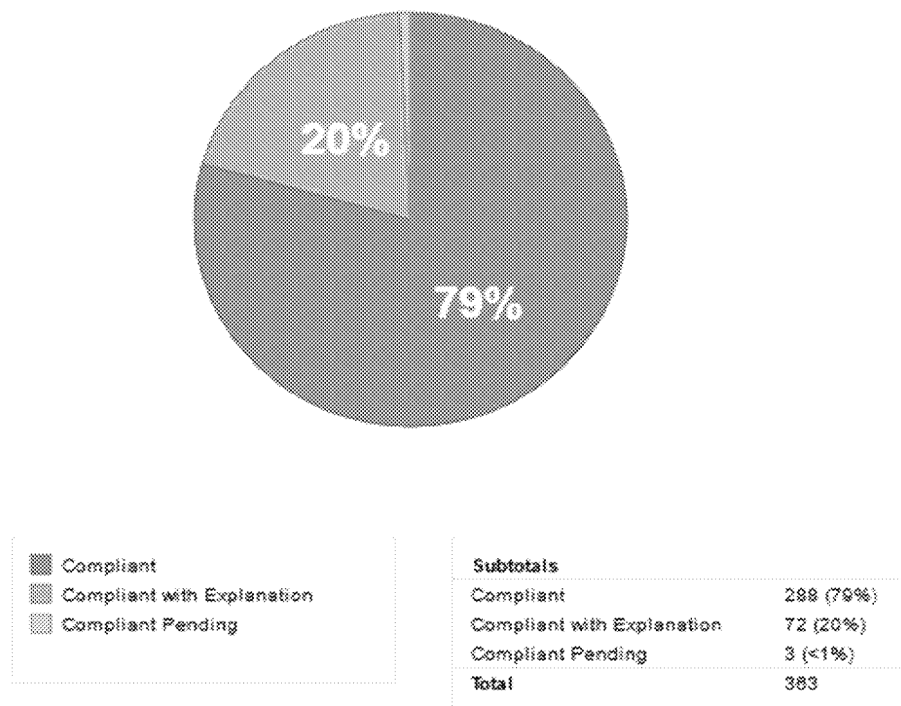



Figure 14: NFPA 130 Design Compliance Pie Chart

6.3 PRODUCT COMPLIANCE

Pending and Compliant Pending requirements await test reports and confirmation of the functionality tested during Building Control Services (BCS) tests. In particular, details of BCS testing are required to verify that correct operational behaviour (manual and remote) of escalators and elevators in response to a fire alarm was tested.

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NFPA 130 Product Compliance

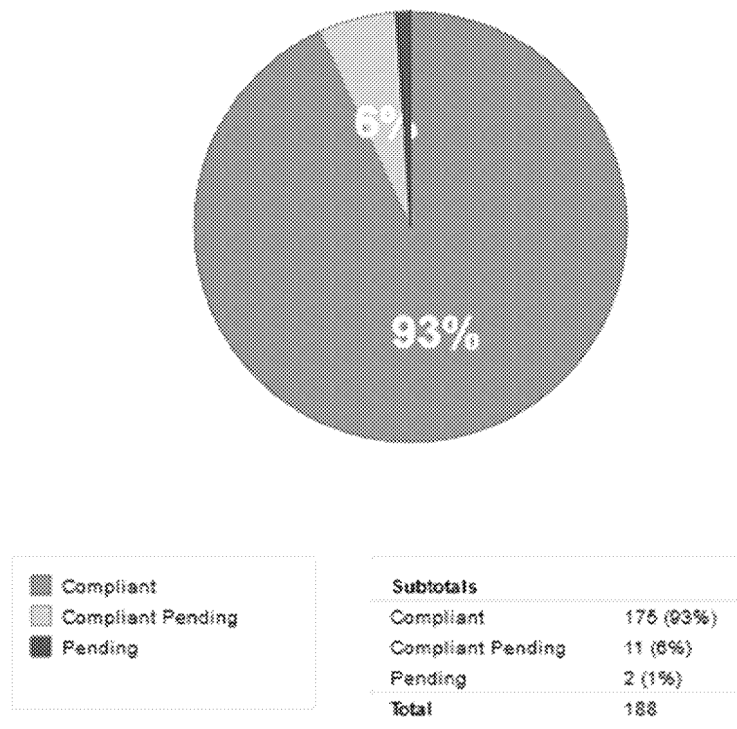



Figure 15: NFPA 130 Product Compliance Pie Chart

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7. PROCESS REQUIREMENTS

7.1 BACKGROUND


PA clauses with an assurance argument of “Process” have undergone a risk-based assessment based on the following prioritisation:

- Safety related process requirements have been fully assessed with compliance evidence provided and compliance statements made where possible. In many cases these requirements are verified by reference to project safety documentation e.g. plans and reports.
- Security related process requirements have been fully assessed with compliance evidence provided and compliance statements made where possible. In many cases these requirements are verified by references to project security documentation e.g. plans and reports.
- Requirements for processes that are not safety or security related, but which potentially influence the quality of the delivered OLRT System have been assessed on a case by case basis. These requirements may be verified by references to project management plans or discipline-specific process documentation.
- All remaining process requirements are considered lower risk. Requirements in this category may have an Acceptance Method of ‘Check by Exception’ with a Compliance State of ‘Compliant with Explanation’ and notes stating, ‘Process requirement has been assumed to be followed through normal project procedures. Any related non-compliances are managed through the Non Compliances Register and Minor Deficiencies List.’ If there are specific requirements where further evidence is required then a request for further assessment should be made to the project RV&V lead.

Unlike product requirements, which have separate design and product compliance attributes, process requirements only have one set of compliance attributes. For convenience, the product compliance attributes are used for process requirements with the design compliance attributes being set to Not Applicable or left blank as appropriate.

7.2 COMPLIANCE

Figure 16 shows the compliance status of the PA process requirements. As described above, process requirements only have one compliance statement instead of separate statements for design and product compliance.

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Process Requirement Compliance

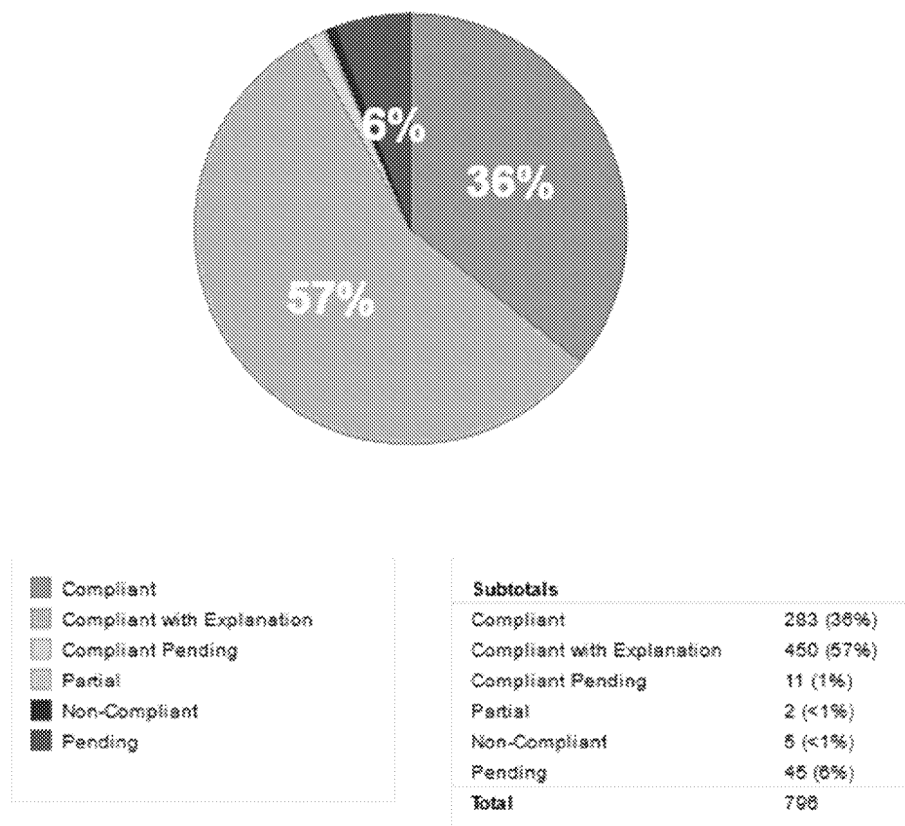


Figure 16 - Process Requirement Compliance


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APPENDIX A – DCL TO PA SCHEDULE MAPPING

Table 13 identifies the applicable schedules for each DCL.

Table 13: PA Schedule to DCL Links

DCL	NFPAL30	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
Architectural Design Conformance REJ-OLR-40-8-LET-0336	X			X			X	X	
DCL - At-Grade OCS Foundation and Miscellaneous Items IFC REJ-OLR-27-0-DCL-0232				X			X		
DCL - At-Grade and Stub-Ups Foundation IFC REJ-OLR-27-0-DCL-0002				X			X		
DCL - At-Grade Ductbank - Segments 1, 3, 4 & 5 REJ-OLR-20-0-DCL-0001				X	X		X		
DCL - Bayview Multi-Use Pathway Underpass REJ-OLR-20-1-DCL-0012				X					
DCL - Bayview Station - IFC Civil Design REJ-OLR-20-1-DCL-0058				X					
DCL - Bayview Station - IFC Mechanical REJ-OLR-42-1-DCL-0056	X			X				X	
DCL - Bayview Station - IFC Structural Design REJ-OLR-47-1-DCL-0055	X			X				X	
DCL - Bayview Station - IFC Urban Design and Landscape Architecture REJ-OLR-48-1-DCL-0059				X					
DCL - Bayview Station Building Electrical REJ-OLR-45-1-DCL-0057	X						X	X	
DCL - Blair Station - IFC Civil Design REJ-OLR-20-5-DCL-0121				X					
DCL - Blair Station - IFC Mechanical REJ-OLR-42-5-DCL-0118	X			X				X	
DCL - Blair Station - IFC Structural Design REJ-OLR-47-5-DCL-0117	X			X				X	
DCL - Blair Station - IFC Urban Design and Landscape Architecture REJ-OLR-48-5-DCL-0120				X					
DCL - Blair Station Building Electrical and Bus Operator Building Electrical REJ-OLR-45-5-DCL-0119	X						X	X	
DCL - Booth Street - Design Confirmation Letter REJ-OLR-03-1-LET-0178				X					
DCL - Booth Street Bridge - Design Confirmation Letter REJ-OLR-03-1-LET-0176				X					
DCL - Communication Systems Bayview Station REJ-OLR-53-1-DCL-0244	X						X		
DCL - Communication Systems Blair Station REJ-OLR-53-5-DCL-0252	X						X		
DCL - Communication Systems Cyrville Station REJ-OLR-53-5-DCL-0251	X						X		
DCL - Communication Systems General System Wide REJ-OLR-53-0-DCL-0258	X						X		X
DCL - Communication Systems Hurdman Station REJ-OLR-53-3-DCL-0249	X						X		
DCL - Communication Systems Lees Station REJ-OLR-53-3-DCL-0247	X						X		
DCL - Communication Systems Lyon Station REJ-OLR-53-2-DCL-0253	X					X	X		
DCL - Communication Systems MSF REJ-OLR-53-4-DCL-0256	X	X					X		X
DCL - Communication Systems Parliament Station REJ-OLR-53-2-DCL-0254	X					X	X		
DCL - Communication Systems Pimisi Station REJ-OLR-53-1-DCL-0245	X						X		

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DCL	NFP130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
DCL - Communication Systems Rideau Station REJ-OLR-53-2-DCL-0255	X					X	X		
DCL - Communication Systems St. Laurent Station REJ-OLR-53-5-DCL-0250	X					X	X		
DCL - Communication Systems TPSS # 1 REJ-OLR-53-1-DCL-0235	X						X		
DCL - Communication Systems TPSS # 2 REJ-OLR-53-1-DCL-0236	X						X		
DCL - Communication Systems TPSS # 4 REJ-OLR-53-3-DCL-0237	X						X		
DCL - Communication Systems TPSS # 5 REJ-OLR-53-3-DCL-0238	X						X		
DCL - Communication Systems TPSS # 6 REJ-OLR-53-4-DCL-0240	X						X		
DCL - Communication Systems TPSS # 7 REJ-OLR-53-5-DCL-0241	X						X		
DCL - Communication Systems TPSS # 8 REJ-OLR-53-5-DCL-0242	X						X		
DCL - Communication Systems TPSS # 9 REJ-OLR-53-4-DCL-0239	X						X		
DCL - Communication Systems TSCC REJ-OLR-53-4-DCL-0269	X						X		X
DCL - Communication Systems Tremblay Station REJ-OLR-53-4-DCL-0248	X						X		
DCL - Communication Systems Tunney's Pasture Station REJ-OLR-53-1-DCL-0243	X						X		
DCL - Communication Systems uOttawa Station REJ-OLR-53-3-DCL-0246	X						X		
DCL - Cyrville Station - IFC Building Electrical REJ-OLR-45-5-DCL-0112	X						X	X	
DCL - Cyrville Station - IFC Civil Design REJ-OLR-20-5-DCL-0114				X					
DCL - Cyrville Station - IFC Mechanical REJ-OLR-42-5-DCL-0111	X			X				X	
DCL - Cyrville Station - IFC Structural Design REJ-OLR-47-5-DCL-0110	X			X				X	
DCL - Cyrville Station - IFC Urban Design and Landscape Architecture REJ-OLR-48-5-DCL-0113				X					
DCL - East Portal Design - IFC Urban Design and Landscape Architecture REJ-OLR-78-2-DCL-0045				X		X			
DCL - East VIA D-Ring Bridge - Design Confirmation Letter REJ-OLR-03-0-LET-0186				X					
DCL - Guideway - Segment 1 - Civil Design (Brickhill Street 400 mm Watermain) REJ-OLR-30-1-DCL-0016				X					
DCL - Guideway - Segment 1 - Roadway (Scott Street) REJ-OLR-20-1-DCL-0006	X			X					
DCL - Guideway - Segment 3 - Roadway (Hurdman Bus Loop) REJ-OLR-20-3-DCL-0021				X	X			X	
DCL - Guideway - Segment 5 - Roadway (Blair Bus Loop) REJ-OLR-20-5-DCL-0024				X	X				
DCL - Guideway Design - Segment 3 - Civil REJ-OLR-20-3-DCL-0019	X			X	X				
DCL - Guideway Design - Segment 5 - Civil REJ-OLR-20-5-DCL-0023	X			X	X				
DCL - Guideway Grounding and Bonding REJ-OLR-55-0-DCL-0223	X						X		X
DCL - Guideway Operational Signage REJ-OLR-25-0-DCL-0003	X			X			X		
DCL - Guideway Segment 4 - Civil REJ-OLR-20-4-DCL-0022	X			X	X				

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DCL	NFP130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
DCL - Guideway Signal Integration Design REJ-OLR-53-0-DCL-0010				X			X		
DCL - Guideway - Segment 1 - Civil Design REJ-OLR-20-1-DCL-0015	X			X	X				
DCL - Guideway - Segment 1 - Roadway (Booth Street) REJ-OLR-20-1-DCL-0017	X			X					
DCL - Hurdman Station - IFC Civil Design REJ-OLR-20-3-DCL-0090				X					
DCL - Hurdman Station - IFC Mechanical REJ-OLR-42-3-DCL-0087	X			X				X	
DCL - Hurdman Station - IFC Structural Design REJ-OLR-47-3-DCL-0086	X			X				X	
DCL - Hurdman Station - IFC Urban Design and Landscape Architecture REJ-OLR-48-3-DCL-0089				X					
DCL - Hurdman Station B.O.B. - Design Confirmation Letter REJ-OLR-03-0-LET-0212				X				X	
DCL - Hurdman Station Building Electrical and Bus Operator Building Electrical REJ-OLR-45-3-DCL-0088	X						X	X	
DCL - Hurdman Station Utility Relocations REJ-OLR-20-3-DCL-0274				X					
DCL - Lees Station - IFC Civil Design REJ-OLR-20-3-DCL-0082				X					
DCL - Lees Station - IFC Mechanical REJ-OLR-42-3-DCL-0079	X			X				X	
DCL - Lees Station - IFC Structural Design REJ-OLR-47-3-DCL-0078	X			X				X	
DCL - Lees Station - IFC Urban Design and Landscape Architecture REJ-OLR-48-3-DCL-0081				X					
DCL - Lees Station Building Electrical REJ-OLR-45-3-DCL-0080	X						X	X	
DCL - Lyon Medium Voltage Electrical Design REJ-OLR-56-2-DCL-0133						X		X	
DCL - Lyon Station - IFC Civil Design REJ-OLR-20-2-DCL-0124				X		X			
DCL - Lyon Station - IFC Mechanical (Plumbing) REJ-OLR-42-2-DCL-0005						X		X	
DCL - Lyon Station - IFC Mechanical -Design (HVAC) REJ-OLR-42-2-DCL-0126	X					X		X	
DCL - Lyon Station - IFC Mechanical Design (Fire Protection) REJ-OLR-42-2-DCL-0004	X					X		X	
DCL - Lyon Station - IFC Mechanical- PDV REJ-OLR-42-2-DCL-0129	X			X			X	X	
DCL - Lyon Station - IFC Structural Design PdV REJ-OLR-47-2-DCL-0128	X			X				X	
DCL - Lyon Station Electrical Preparatory Works REJ-OLR-45-2-DCL-0270								X	
DCL - Lyon Station IFC Electrical PdV REJ-OLR-45-2-DCL-0130	X							X	
DCL - Lyon Station IFC Electrical REJ-OLR-45-2-DCL-0127	X					X	X	X	
DCL - Lyon Station Signage REJ-OLR-40-2-DCL-0135	X			X			X	X	
DCL - MSF - IFC - Structural Design REJ-OLR-47-4-DCL-0191				X					X
DCL - MSF - IFC Mechanical REJ-OLR-42-4-DCL-0187				X					X
DCL - MSF Access Track - Structure #12 - MSF Access Track Structure REJ-OLR-27-4-DCL-0177				X		X			X
DCL - MSF Access Track Design - IFC Urban Design and Landscape Architecture REJ-OLR-78-4-DCL-0184				X		X			

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DCL	NFP130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
DCL - MSF Building Embedded Conduits IFC REJ-OLR-45-4-DCL-0190				X					
DCL - MSF Connector Design - Civil - Belfast and Tremblay Road Reconstruction - IFC REJ-OLR-20-4-DCL-0182	X			X		X			
DCL - MSF Connector Design - Civil - IFC REJ-OLR-20-4-DCL-0181	X			X		X			
DCL - MSF Connector Design - Specialized Utilities - IFC REJ-OLR-30-4-DCL-0183				X		X			
DCL - MSF Design - Civil - IFC REJ-OLR-20-4-DCL-0185				X					X
DCL - MSF Design - IFC Urban Design and Landscape Architecture REJ-OLR-48-4-DCL-0194		X		X					X
DCL - MSF Electrical Design IFC Package REJ-OLR-45-4-DCL-0188				X		X	X		X
DCL - MSF Signal Pole Foundation IFC REJ-OLR-27-4-DCL-0193				X			X		
DCL - MSF Tunnel Embedded Requirements REJ-OLR-56-4-DCL-0231				X		X			X
DCL - MSF Yard IFC Electrical REJ-OLR-45-4-DCL-0189				X			X		X
DCL - MSF Yard Signal Coordinates REJ-OLR-50-4-DCL-0195				X					X
DCL - Nicholas Street REJ-OLR-20-3-DCL-0272				X					
DCL - OCS MSF Design REJ-OLR-54-4-DCL-0234	X			X			X		
DCL - OCS Mainline Design REJ-OLR-54-0-DCL-0233				X			X		
DCL - PS&D for T&C ZONE 5 REJ-OLR-56-5-LET-0257							X		
DCL - Parliament Medium Voltage Electrical Design REJ-OLR-56-2-DCL-0152						X		X	
DCL - Parliament Station (Morguard Entrance) - IFC Civil Design REJ-OLR-20-2-DCL-0146				X					
DCL - Parliament Station (Sunlife) - IFC Structural Design REJ-OLR-47-2-DCL-0142	X			X		X		X	
DCL - Parliament Station - IFC Civil Design REJ-OLR-20-2-DCL-0140				X		X			
DCL - Parliament Station - IFC Mechanical Design (Fire Protection) REJ-OLR-42-2-DCL-0138	X					X		X	
DCL - Parliament Station - IFC Mechanical Design (HVAC) REJ-OLR-42-2-DCL-0156	X					X		X	
DCL - Parliament Station - IFC Structural Design (Morguard Entrance) REJ-OLR-47-2-DCL-0150	X			X				X	
DCL - Parliament Station - Parliament Sun Life Mechanical REJ-OLR-42-2-DCL-0147								X	
DCL - Parliament Station Electrical Preparatory Works REJ-OLR-45-2-DCL-0157								X	
DCL - Parliament Station IFC Electrical Morguard Entrance REJ-OLR-45-2-DCL-0148	X						X	X	
DCL - Parliament Station IFC Electrical REJ-OLR-45-2-DCL-0139	X					X	X	X	
DCL - Parliament Station IFC Electrical Sunlife REJ-OLR-45-2-DCL-0143	X							X	
DCL - Pickering Place/ VIA Rail D-Ring Alternative - Civil REJ-OLR-20-4-DCL-0273				X					

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DCL	NFP130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
DCL - Pimisi Station - IFC Civil Design REJ-OLR-20-1-DCL-0066				X					
DCL - Pimisi Station - IFC Mechanical REJ-OLR-42-1-DCL-0064	X			X				X	
DCL - Pimisi Station - IFC Structural Design REJ-OLR-47-1-DCL-0063	X			X				X	
DCL - Pimisi Station - IFC Urban Design and Landscape Architecture REJ-OLR-48-1-DCL-0067				X					
DCL - Pimisi Station Building Electrical REJ-OLR-45-1-DCL-0065	X						X	X	
DCL - Rideau Medium Voltage Electrical Design REJ-OLR-56-2-DCL-0205						X		X	
DCL - Rideau Station - IFC Civil Design REJ-OLR-20-2-DCL-0164				X		X			
DCL - Rideau Station - IFC Mechanical Design (Fire Protection) REJ-OLR-42-2-DCL-0011	X					X		X	
DCL - Rideau Station - IFC Mechanical Design (HVAC) REJ-OLR-42-2-DCL-0160	X			X		X		X	
DCL - Rideau Station - IFC Mechanical Design (Plumbing) REJ-OLR-42-2-DCL-0009						X		X	
DCL - Rideau Station - IFC Structural Design (Rideau Centre Entrance) REJ-OLR-47-2-DCL-0162	X			X				X	
DCL - Rideau Station - Signage REJ-OLR-40-2-DCL-0165	X			X			X	X	
DCL - Rideau Station IFC Electrical REJ-OLR-45-2-DCL-0159	X					X	X	X	
DCL - Segment #1 - Structure #6 - Bayview Light Rail Conversion REJ-OLR-27-1-DCL-0171				X					
DCL - Segment #3 - Structure #3 - Hurdman East Overpass REJ-OLR-27-3-DCL-0168				X					
DCL - Segment 2 - Lyon Station Structural and Drainage REJ-OLR-47-2-DCL-0125	X			X		X		X	
DCL - Segment 2 - Parliament Station Structural and Drainage REJ-OLR-47-2-DCL-0137	X			X		X		X	
DCL - Segment 2 - Rideau Station Structural REJ-OLR-47-2-DCL-0161	X			X		X		X	
DCL - Segment 2 - Tunnel/Portals Structural/Mechanical/Electrical REJ-OLR-32-2-DCL-0031	X			X		X			
DCL - Segment 2 Tunnel Embedded Requirements REJ-OLR-56-2-DCL-0224						X			
DCL - Segment 3 - Structure #4 - Mann Ave Overpass Bridge Replacement REJ-OLR-27-3-DCL-0169				X					
DCL - Signage REJ-OLR-40-1-DCL-0053	X			X			X	X	
DCL - Signage REJ-OLR-40-1-DCL-0061	X			X			X	X	
DCL - Signage REJ-OLR-40-1-DCL-0068	X			X			X	X	
DCL - Signage REJ-OLR-40-2-DCL-0134	X			X			X		
DCL - Signage REJ-OLR-40-2-DCL-0153	X			X			X	X	
DCL - Signage REJ-OLR-40-2-DCL-0154	X			X			X	X	
DCL - Signage REJ-OLR-40-3-DCL-0076	X			X			X	X	

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DCL	NFP130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
DCL - Signage REJ-OLR-40-3-DCL-0084	X			X			X	X	
DCL - Signage REJ-OLR-40-3-DCL-0093	X			X			X	X	
DCL - Signage REJ-OLR-40-4-DCL-0100	X			X			X	X	
DCL - Signage REJ-OLR-40-4-DCL-0196	X			X			X		X
DCL - Signage REJ-OLR-40-5-DCL-0107	X			X			X	X	
DCL - Signage REJ-OLR-40-5-DCL-0115	X			X			X	X	
DCL - Signage REJ-OLR-40-5-DCL-0122	X			X			X	X	
DCL - Signage REJ-OLR-40-8-DCL-0052	X			X			X		
DCL - Signage REJ-OLR-40-8-DCL-0092	X			X			X		
DCL - St Laurent Station - IFC Civil Design REJ-OLR-20-5-DCL-0106				X		X			
DCL - St. Laurent Embedded Requirements REJ-OLR-56-5-DCL-0226						X			
DCL - St. Laurent Medium Voltage Electrical Design REJ-OLR-56-5-DCL-0108						X		X	
DCL - St. Laurent Station - IFC Mechanical Design (Fire Protection) REJ-OLR-42-5-DCL-0007	X					X		X	
DCL - St. Laurent Station - IFC Mechanical Design (HVAC) REJ-OLR-42-5-DCL-103	X					X		X	
DCL - St. Laurent Station - IFC Mechanical Design (Plumbing) REJ-OLR-42-5-DCL-0008				X		X		X	
DCL - St. Laurent Station - IFC Structural Design REJ-OLR-47-5-DCL-0102	X			X		X		X	
DCL - St. Laurent Station - IFC Urban Design and Landscape Architecture REJ-OLR-48-5-DCL-0105				X					
DCL - St. Laurent Station IFC Electrical REJ-OLR-45-5-DCL-0104	X					X	X	X	
DCL - Structural - Bayview Road Overpass Plinth Design REJ-OLR-27-1-DCL-0027				X				X	
DCL - Structural- Rideau River Bridge Plinth Design REJ-OLR-27-3-DCL-0028				X	X			X	
DCL - Structural- Tunney's Pasture Trench Plinth Design REJ-OLR-27-1-DCL-0029				X					
DCL - Structure #10 - Rideau River Light Rail (Conversion) REJ-OLR-27-3-DCL-0174				X					
DCL - Structure #11 - Cyrville Drain (Culvert) REJ-OLR-27-5-DCL-0176				X					
DCL - Structure #12 - MSF Connector CN Underpass - Guideway Standpipe System - IFC Mechanical Design REJ-OLR-51-4-DCL-0178				X		X			X
DCL - Structure #13 - CPR/O-Train Light Rail (Bayview) REJ-OLR-22-1-CCL-0180				X					
DCL - Structure #2 - Hurdman Elevated Guideway REJ-OLR-27-3-DCL-0167				X					
DCL - Structure #7 - West Transit Twin Box Culvert (Rehab) - IFC REJ-OLR-27-1-DCL-0172				X					
DCL - Structure #9 - Riverside Bridge REJ-OLR-27-4-DCL-0173				X					
DCL - TPSS #1 - Civil REJ-OLR-20-1-DCL-0198				X			X		

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DCL - TPSS #1 Structural Foundation IFC REJ-OLR-27-1-DCL-0199				X			X		
DCL - TPSS #2 Civil REJ-OLR-20-1-DCL-0202				X			X		
DCL - TPSS #2 Structural Foundation IFC REJ-OLR-27-1-DCL-0203				X			X		
DCL - TPSS #4 - Civil REJ-OLR-20-3-DCL-0207				X			X		
DCL - TPSS #4 Structural Foundation IFC REJ-OLR-27-3-DCL-0208				X			X		
DCL - TPSS #5 - Civil REJ-OLR-20-3-DCL-0210				X			X		
DCL - TPSS #5 Structural Foundation IFC REJ-OLR-27-3-DCL-0211				X			X		
DCL - TPSS #6 - Civil REJ-OLR-20-4-DCL-0213				X			X		
DCL - TPSS #6 Structural Foundation IFC REJ-OLR-27-4-DCL-0214				X			X		
DCL - TPSS #7 - Civil REJ-OLR-20-5-DCL-0216				X			X		
DCL - TPSS #7 Structural Foundation IFC REJ-OLR-27-5-DCL-0217				X			X		
DCL - TPSS #8 - Civil REJ-OLR-20-5-DCL-0220				X			X		
DCL - TPSS #8 Structural Foundation IFC REJ-OLR-27-5-DCL-0221				X			X		
DCL - TPSS 07 Retaining Wall IFC REJ-OLR-28-5-DCL-0218				X			X		
DCL - TPSS 08 Retaining Wall IFC REJ-OLR-28-5-DCL-0222				X			X		
DCL - TPSS 1 Electrical Design REJ-OLR-56-1-DCL-0197				X			X		
DCL - TPSS 10 Electrical Design REJ-OLR-56-4-DCL-0228				X			X		
DCL - TPSS 2 Electrical Design REJ-OLR-56-1-DCL-0201				X			X		
DCL - TPSS 3 Electrical Design REJ-OLR-56-2-DCL-0204				X			X		
DCL - TPSS 4 Electrical Design REJ-OLR-56-3-DCL-0206				X			X		
DCL - TPSS 5 Electrical Design REJ-OLR-56-3-DCL-0209				X			X		
DCL - TPSS 6 Electrical Design REJ-OLR-56-4-DCL-0212				X			X		
DCL - TPSS 7 Electrical Design REJ-OLR-56-5-DCL-0215				X			X		
DCL - TPSS 8 Electrical Design REJ-OLR-56-5-DCL-0219				X			X		
DCL - TPSS 9 Electrical Design REJ-OLR-56-4-DCL-0230							X		
DCL - TVS Mechanical - MSF Connector Track REJ-OLR-52-4-DCL-0266	X					X			
DCL - TVS Mechanical - Segment 2 REJ-OLR-52-4-DCL-0259	X					X			
DCL - TVS Mechanical - St Laurent Station REJ-OLR-52-2-DCL-0265	X					X			
DCL - TVS Segment 2 Electrical Design REJ-OLR-52-2-DCL-0267	X			X		X			
DCL - TVS St. Laurent Electrical Design REJ-OLR-52-5-DCL-0268	X			X		X			
DCL - Track Switch Heaters Electrical REJ-OLR-56-0-DCL-0030							X		
DCL - Trackwork Alignment - Systemwide REJ-OLR-21-0-DCL-0025				X	X				X
DCL - Trackwork Installation - Systemwide REJ-OLR-22-0-DCL-0026	X			X	X				X

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DCL - Traction Power Substation TPSS - 09 - IFC Mechanical REJ-OLR-42-4-DCL-0227							X		
DCL - Tremblay Station - IFC Civil Design REJ-OLR-20-4-DCL-0099				X					
DCL - Tremblay Station - IFC Mechanical REJ-OLR-42-4-DCL-0096	X			X				X	
DCL - Tremblay Station - IFC Structural Design REJ-OLR-47-4-DCL-0095	X			X				X	
DCL - Tremblay Station - IFC Urban Design and Landscape Architecture REJ-OLR-48-4-DCL-0098				X					
DCL - Tremblay Station Building Electrical REJ-OLR-45-4-DCL-0097	X						X	X	
DCL - Tunney's Pasture Station - IFC Civil Design REJ-OLR-20-1-DCL-0050				X					
DCL - Tunney's Pasture Station - IFC Mechanical REJ-OLR-42-1-DCL-0048	X							X	
DCL - Tunney's Pasture Station - IFC Structural Design REJ-OLR-47-1-DCL-0047	X			X				X	
DCL - Tunney's Pasture Station - IFC Urban Design and Landscape Architecture REJ-OLR-48-1-DCL-0051				X					
DCL - Tunney's Pasture Station Building Electrical, Bus Maintenance Building Electrical and Bus Supervisor Building Electrical REJ-OLR-45-1-DCL-0049	X						X	X	
DCL - Way Side Radio Locations REJ-OLR-56-0-DCL-0257							X		X
DCL - West Portal Design - IFC Urban Design and Landscape Architecture REJ-OLR-78-2-DCL-0040				X		X			
DCL - uOttawa Station - IFC Civil Design REJ-OLR-20-3-DCL-0074				X					
DCL - uOttawa Station - IFC Mechanical REJ-OLR-42-3-DCL-0071	X			X				X	
DCL - uOttawa Station - IFC Structural Design REJ-OLR-47-3-DCL-0070	X			X				X	
DCL - uOttawa Station - IFC Urban Design and Landscape Architecture REJ-OLR-48-3-DCL-0073				X					
DCL - uOttawa Station Building Electrical REJ-OLR-45-3-DCL-0072	X						X	X	
DCL - uOttawa Station Sanitary Sewer Relocation - IFC Civil Design REJ-OLR-20-3-DCL-0075				X					
DCL - General Conformance - Fire Alarm System REJ-03-5-SLSU-LET-0135								X	
DCL Parliament Station - IFC Mechanical Design (Plumbing) REJ-OLR-42-2-DCL-0144						X		X	
DCL - Guideway Design Segment 3- Civil, Utilidor Relocation Electrical, mechanical, civil, structural (REJ-OLR-30-3-DCL-0020)				X					
REJ-OLR-20-2-DCL-0044	X			X					

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APPENDIX B – CCL TO PA SCHEDULE MAPPING

Table 14 identifies the CCLs which support compliance for each PA schedule.

Table 14: PA Schedule to CCL Links


CCL	NFPA130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
CCL - (TEMPORARY for TEST) Trackwork Installation - System-Wide REJ-OLR-22-0-CCL-0132							X		X
CCL - Architectural Construction Certification OLR-RTG-40-0-LET-1366								X	
CCL - At Grade Duct Bank - Civil - (Segments 1,3,4,5 MSF Connector) - REJ-OLR-20-0-CCL-0130				X	X		X		
CCL - Bayview - Signage and Wayfinding REJ-OLR-40-1-CCL-0095	X			X			X	X	
CCL - Bayview Road Overpass Rail Plinth - REJ-OLR-27-1-CCL-0146				X					
CCL - Bayview Station - Architectural - REJ-OLR-40-1-CCL-0043	X	X	X	X				X	
CCL - Bayview Station - Civils - REJ-OLR-20-1-CCL-0085				X					
CCL - Bayview Station - Comms Systems - REJ-OLR-53-1-CCL-0230	X						X		
CCL - Bayview Station - Electrical - REJ-OLR-45-1-CCL-0042	X						X	X	
CCL - Bayview Station - Mechanical - REJ-OLR-42-1-CCL-0041	X			X				X	
CCL - Bayview Station - Structural REJ-OLR-47-1-CCL-0107	X			X				X	
CCL - Bayview Station - Urban Design and Landscaping - REJ-OLR-48-1-CCL-0200				X					
CCL - Blair Station - Civil REJ-OLR-20-5-LET-0267				X					
CCL - Blair Station - Comms Systems - REJ-OLR-53-5-CCL-0238	X						X		
CCL - Blair Station - Electrical REJ-OLR-45-5-CCL-0012	X						X	X	
CCL - Blair Station - General Review Conformance Letter - Building Architectural ONLY REJ-OLR-40-5-CCL-0013	X	X	X					X	
CCL - Blair Station - Mechanical REJ-OLR-42-5-CCL-0011	X			X				X	
CCL - Blair Station - Signage and Wayfinding REJ-OLR-40-5-CCL-0106	X			X			X	X	
CCL - Blair Station - Structural REJ-OLR-47-5-LET-0269	X			X				X	
CCL - Blair Station - Urban Design and Landscaping - REJ-OLR-48-5-CCL-0209				X					
CCL - Blair Station B.O.B. - Electrical REJ-OLR-03-0-LET-0216				X	X				
CCL - Blair Station B.O.B. - Structural - REJ-OLR-03-0-LET-0185				X	X				
CCL - Booth Street (Roadway) REJ-OLR-03-1-LET-0179	X			X					
CCL - Comms - General System Wide - REJ-OLR-53-0-CCL-0243	X						X		X
CCL - Comms Systems - TSOC - REJ-OLR-53-4-CCL-0244	X						X		X
CCL - Communications Systems TPSS 01 - REJ-OLR-53-1-CCL-0221	X						X		
CCL - Communications Systems TPSS 02 - REJ-OLR-53-1-CCL-0222	X						X		

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CCL	NFPA130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
CCL - Communications Systems TPSS 04 - REJ-OLR-53-3-CCL-0223	X						X		
CCL - Communications Systems TPSS 05 - REJ-OLR-53-3-CCL-0224	X						X		
CCL - Communications Systems TPSS 06 - REJ-OLR-53-4-CCL-0226	X						X		
CCL - Communications Systems TPSS 07 - REJ-OLR-53-5-CCL-0227	X						X		
CCL - Communications Systems TPSS 08 - REJ-OLR-53-5-CCL-0228	X						X		
CCL - Communications Systems TPSS 09 - REJ-OLR-53-4-CCL-0225	X						X		
CCL - Construction Conformance Letter: Lyon Station – Plumbing & Drainage REJ-OLR-42-2-CCL-0189				X		X		X	
CCL - Cyrville Station - Civil REJ-OLR-20-5-LET-0266				X					
CCL - Cyrville Station - Comms - REJ-OLR-53-5-CCL-0237	X						X		
CCL - Cyrville Station - Electrical REJ-OLR-45-5-CCL-0031	X						X	X	
CCL - Cyrville Station - General Review Conformance Letter - Building Architectural ONLY REJ-OLR-40-5-CCL-0032	X	X	X					X	
CCL - Cyrville Station - Signage and Wayfinding REJ-OLR-40-5-CCL-0105	X			X			X	X	
CCL - Cyrville Station - Structural REJ-OLR-47-5-LET-0268	X			X				X	
CCL - East Portal - Mechanical and Electrical - REJ-OLR-87-2-CCL-0079	X			X		X			
CCL - East Portal - Structural REJ-OLR-47-2-CCL-0139	X			X		X			
CCL - East Portal Design - Landscape - REJ-OLR-78-2-CCL-0198				X		X			
CCL - Guideway Operational Signage - REJ-OLR-25-0-CCL-0219	X						X		
CCL - Guideway Segment 1 - Brickhill Street 400mm Watermain - Civil - REJ-OLR-20-1-CCL-0124				X					
CCL - Guideway Segment 1 - Civils - REJ-OLR-20-1-CCL-0123	X			X	X				
CCL - Guideway Segment 3 - Roadway (Hurdman Bus Loop) REJ-OLR-20-3-CCL-0188				X	X				
CCL - Guideway Segment 4 - Civil REJ-OLR-20-4-CCL-0127	X			X	X				
CCL - Guideway Segment 5 - Civil REJ-OLR-20-5-CCL-0128	X			X	X				
CCL - Guideway Segment 5 - Roadway (Blair Bus Loop) REJ-OLR-20-5-CCL-0187				X	X				
CCL - Guideway Signal Integration System Wide (Segments 1-5) - REJ-OLR-53-0-CCL-0220				X			X		
CCL - Guideway in Segment 3 - Civil REJ-OLR-20-3-CCL-0126	X			X	X				
CCL - Hurdman Station - Civils REJ-OLR-20-3-LET-0265				X					
CCL - Hurdman Station - Comms Systems - REJ-OLR-53-3-CCL-0235	X						X		
CCL - Hurdman Station - Electrical REJ-OLR-45-3-CCL-0027	X						X	X	
CCL - Hurdman Station - General Review Conformance Letter - BOB Building Architectural ONLY REJ-OLR-40-3-CCL-0141		X	X	X				X	
CCL - Hurdman Station - General Review Conformance Letter - Building Architectural ONLY REJ-OLR-40-4-CCL-0028	X	X	X					X	

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CCL	NFPA130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
CCL - Hurdman Station - Mechanical REJ-OLR-42-3-CCL-0026	X			X				X	
CCL - Hurdman Station - Signage and Wayfinding REJ-OLR-40-3-CCL-0102	X			X			X	X	
CCL - Hurdman Station - Structural REJ-OLR-03-0-CCL-0009	X			X				X	
CCL - Kontinuum Event Space in Lyon Station - Structural, Electrical, Architectural & Mechanical REJ-OLR-06-2-DWSU-CCL-0001		X	X	X				X	
CCL - Lees Station - Civil				X					
CCL - Lees Station - Comms Systems - REJ-OLR-53-3-CCL-0233	X						X		
CCL - Lees Station - Electrical REJ-OLR-45-3-CCL-0021	X						X	X	
CCL - Lees Station - General Review Conformance Letter - Building Architectural ONLY REJ-OLR-40-3-CCL-0022	X	X	X					X	
CCL - Lees Station - Structural REJ-OLR-47-3-CCL-0019	X			X				X	
CCL - Lees Station - Urban Design and Landscaping - REJ-OLR-48-3-CCL-0203	X			X			X		
CCL - Lees Station Environmental - REJ-OLR-70-3-CCL-0156				X					
CCL - Lees Stations - Signage and Wayfinding REJ-OLR-40-3-CCL-0101	X			X			X	X	
CCL - Lyon - Architecture (PdV Retail Space) REJ-OLR-40-2-CCL-0076		X	X					X	
CCL - Lyon - Structural - (PdV Parking Garage) REJ-OLR-47-2-CCL-0073				X				X	
CCL - Lyon Station - Architectural (Inc East Entrance) - REJ-OLR-40-2-CCL-0176	X	X	X	X				X	
CCL - Lyon Station - Buildings Electrical (Main Station) - REJ-OLR-45-2-CCL-0003	X					X	X	X	
CCL - Lyon Station - Civil (Main Station) REJ-OLR-20-2-CCL-0090				X		X			
CCL - Lyon Station - Comms Systems - REJ-OLR-53-2-CCL-0239	X					X	X		
CCL - Lyon Station - Electrical (PdV - in Parking Garage) REJ-OLR-45-2-CCL-0071								X	
CCL - Lyon Station Full Occupancy (Urban Design and Landscaping) - REJ-OLR-48-2-CCL-0171				X					
CCL - Lyon Station - Mechanical (External Drainage) REJ-OLR-47-2-CCL-0088				X		X		X	
CCL - Lyon Station - Medium Voltage Electrical REJ-OLR-56-2-CCL-0165						X			
CCL - Lyon Station - Signage and Wayfinding REJ-OLR-40-2-CCL-0097	X			X			X	X	
CCL - Lyon Station - Structural (PWA) (L-Walls) REJ-OLR-47-2-CCL-0006	X			X		X		X	
CCL - Lyon Station - Structural (PWA) REJ-OLR-47-2-CCL-0133	X			X		X		X	
CCL - Lyon Station East Entrance - Architectural (Alterations of 4 Parking levels P1-P4) of Place De Ville Building) REJ-OLR-40-2-CCL-0014		X	X					X	
CCL - Lyon Station - Mechanical (Fire Protection) REJ-OLR-42-2-CCL-0190	X					X		X	
CCL - Lyon Station - Mechanical (HVAC) REJ-OLR-42-2-CCL-0191	X					X		X	
CCL - MSF (Shed) - Electrical (Fire Alarm System) REM-OLR-45-4-LET-0146				X					X
CCL - MSF (Shed) - Electrical RES-OLR-45-4-LET-0152				X			X		X
CCL - MSF - Civil REJ-03-4-MEAB-LET-0105				X					X

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CCL - MSF - Comms - REJ-OLR-53-4-CCL-0242		X					X		X
CCL - MSF - Electrical REJ-03-4-MEAB-LET-0103				X			X		X
CCL - MSF - Electrical REM-OLR-45-4-LET-0143				X			X		X
CCL - MSF - General Review Conformance Letter - Building Architectural ONLY REJ-03-4-MEAB-LET-0106		X		X			X		X
CCL - MSF - General Review Conformance Letter - Building Architectural ONLY REJ-OLR-03-4-LET-0144		X		X			X		X
CCL - MSF - HOL Room - Electrical REJ-OLR-03-4-MEAB-LET-0085				X		X			
CCL - MSF - HOL Room - Fire Separation REJ-OLR-03-4-MEAB-LET-0084				X					X
CCL - MSF - HOL Room - Mechanical REJ-OLR-03-4-MEAB-LET-0086				X					
CCL - MSF - Mechanical REJ-03-4-MEAB-LET-0102				X					X
CCL - MSF - Mechanical REM-OLR-42-4-LET-0142				X				X	X
CCL - MSF - Mechanical REM-OLR-42-4-LET-0145				X					X
CCL - MSF - Structural - REJ-OLR-47-4-CCL-0207				X					
CCL - MSF - Structural REJ-03-4-MEAB-LET-0104				X					X
CCL - MSF - Structural REM-OLR-47-4-LET-0148				X					X
CCL - MSF - Tunnel Embedded Works - REJ-OLR-56-0-CCL-0216				X		X			
CCL - MSF Access Track Structure #5 and #7 Steel Roof				X					X
CCL - MSF Access Track Structure #5 and #7 Steel Roof - REJ-OLR-27-4-CCL-0247				X		X			X
CCL - MSF Access Track - Landscape REJ-OLR-78-4-CCL-0163				X		X			X
CCL - MSF Connector - Civil (Belfast and Tremblay Road Reconstruction) REJ-OLR-20-4-CCL-0161	X			X		X			
CCL - MSF Connector - Civil REJ-OLR-20-4-CCL-0160	X			X		X			
CCL - MSF Connector Design - Specialized Utilities - REJ-OLR-20-4-CCL-0162						X			
CCL - MSF Design - MSF Building Embedded Conduits - REJ-OLR-45-4-CCL-0182									X
CCL - MSF Design - Signage & Wayfinding - REJ-OLR-40-4-CCL-0210							X		X
CCL - MSF Design - Yard Electrical - REJ-OLR-45-4-CCL-0181							X		
CCL - MSF Landscape Design - REJ-OLR-48-4-CCL-0206		X		X					
CCL - MSF Signal Pole Foundations - Structural - REJ-OLR-56-0-CCL-0214				X					
CCL - MSF Yard - Signal Locations - REJ-OLR-50-4-CCL-0213				X					
CCL - OCS Pole Foundations - REJ-OLR-56-0-CCL-0215				X			X		
CCL - OCS REJ-OLR-54-0-CCL-0131	X			X			X		
CCL - PS&D Wayside Radio Unit Locations (Seg 1,3 ,4 &5) - REJ-OLR-56-8-CCL-0142							X		
CCL - Parliament - Civils - REJ-OLR-20-2-CCL-0091				X		X			

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CCL - Parliament Station (West Entrance) - Structural – (Alterations on the ground floor and four(4) parking levels of the Sunlife Building) REJ-OLR-47-2-CCL-0010				X				X	
CCL - Parliament Station - Architectural (Morguard Entrance) - REJ-OLR-47-2-CCL-0158		X	X	X				X	
CCL - Parliament Station - Architectural - REJ-OLR-40-2-CCL-0155	X	X	X	X				X	
CCL - Parliament Station - Civils (Morguard Entrance) - REJ-OLR-20-2-CCL-0092				X					
CCL - Parliament Station - Comms Systems - REJ-OLR-53-2-CCL-0240	X					X	X		
CCL - Parliament Station - Electrical - REJ-OLR-45-2-CCL-0157	X					X	X	X	
CCL - Parliament Station - HVAC - REJ-OLR-42-2-CCL-0194	X					X		X	
CCL - Parliament Station - IFCMedium Voltage Design - REJ-OLR-45-2-CCL-0211						X			
CCL - Parliament Station - Mechanical (External Drainage) REJ-OLR-47-2-CCL-0135				X		X		X	
CCL - Parliament Station - Mechanical (Fire Protection) - REJ-OLR-42-2-CCL-0193	X					X		X	
CCL - Parliament Station - Plumbing and Drainage - REJ-OLR-42-2-CCL-0192				X		X		X	
CCL - Parliament Station - Signage and Wayfinding - (Morguard Entrance) REJ-OLR-40-2-CCL-0159	X			X			X	X	
CCL - Parliament Station - Signage and Wayfinding REJ-OLR-40-2-CCL-0098	X			X			X	X	
CCL - Parliament Station - Structural REJ-OLR-47-2-CCL-0134	X			X		X		X	
CCL - Parliament Station West Entrance - Architectural - (Alterations to ground floor and four (4) parking levels of Sunlife Building) REJ-OLR-40-2-LET-0270		X	X					X	
CCL - Parliament Station West Entrance - Mechanical - (Parking Garage only on P1 to P4) REJ-OLR-42-2-CCL-0074				X				X	
CCL - Parliament Station - Urban Design Landscaping - REJ-OLR-48-2-CCL-0170				X					
CCL - Pimisi Station - Architectural - REJ-OLR-40-1-CCL-0036	X	X	X	X				X	
CCL - Pimisi Station - Civil - REJ-OLR-20-1-CCL-0084				X					
CCL - Pimisi Station - Comms Systems - REJ-OLR-53-1-CCL-0231	X						X		
CCL - Pimisi Station - Electrical - REJ-OLR-45-1-CCL-0035	X						X	X	
CCL - Pimisi Station - Mechanical - REJ-OLR-42-1-CCL-0034	X			X				X	
CCL - Pimisi Station - Signage and Wayfinding REJ-OLR-40-1-CCL-0096	X			X			X	X	
CCL - Pimisi Station - Structural REJ-OLR-47-1-CCL-0033	X			X				X	
CCL - Pimisi Station - Urban Design Landscaping - REJ-OLR-48-1-CCL-0201				X					
CCL - Rideau River Street Bridge Plinth - REJ-OLR-27-3-CCL-0147				X	X				
CCL - Rideau Station - Architectural - REJ-OLR-40-2-CCL-0029	X	X	X	X				X	
CCL - Rideau Station - Civil - REJ-OLR-20-2-CCL-0093				X		X			
CCL - Rideau Station - Comms Systems - REJ-OLR-53-2-CCL-0241	X					X	X		

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CCL	NFPA130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
CCL - Rideau Station - HVAC - REJ-OLR-42-2-CCL-0197	X					X		X	
CCL - Rideau Station - IFC Medium Voltage Design - REJ-OLR-45-2-CCL-0212						X			
CCL - Rideau Station - Mechanical (Fire Protection & Alarm) - REJ-OLR-42-2-CCL-0196	X					X		X	
CCL - Rideau Station - Plumbing & Drainage - REJ-OLR-42-2-CCL-0195				X		X		X	
CCL - Rideau Station - Signage and Wayfinding REJ-OLR-40-2-CCL-0099	X			X			X	X	
CCL - Rideau Station - Structural Middle Entrance - REJ-OLR-47-2-CCL-0217	X			X				X	
CCL - Rideau Station - Structural REJ-OLR-47-2-CCL-0136	X			X		X		X	
CCL - Running Tunnel - Mechanical and Electrical - REJ-OLR-87-2-CCL-0151	X			X		X			
CCL - Segment 1 - Structure #6 - Bayview Light Rail Conversion - REJ-OLR-27-1-CCL-0110				X					
CCL - Segment 2 - Bonding & Grounding Tunnel Embedded Requirements REJ-OLR-56-2-CCL-0164	X					X			X
CCL - Segment 2 - Guideway - Tunnel Embedded Requirements REJ-OLR-56-2-CCL-0164						X	X		X
CCL - St Laurent - TVS Electrical REJ-OLR-56-5-CCL-0175	X			X		X			
CCL - St Laurent Station - Civil REJ-OLR-20-1-CCL-0082				X		X			
CCL - St Laurent Station - Comms - REJ-OLR-53-5-CCL-0236	X					X	X		
CCL - St Laurent Station - Electrical - REJ-OLR-45-5-CCL-0120	X					X	X	X	
CCL - St Laurent Station - Medium Voltage Electrical REJ-OLR-56-5-CCL-0153						X			
CCL - St Laurent Station - Plumbing and Drainage - REJ-OLR-42-5-CCL-0121				X		X			
CCL - St Laurent Station Fire Protection - REJ-OLR-42-5-CCL-0137	X					X		X	
CCL - St Laurent Station West Vestibule - Electrical Partial Occupancy Letter REJ-OLR-03-5-LET-0255	X							X	
CCL - St Laurent Tunnel - Bonding, Grounding & Embedded Requirements REJ-OLR-56-5-CCL-0166						X			
CCL - St Laurent West Vestibule - General Review Conformance Letter - Building Architectural ONLY REJ-OLR-40-5-CCL-0007		X	X					X	
CCL - St. Laurent - Architectural - REJ-OLR-40-5-CCL-0118	X	X	X					X	
CCL - St. Laurent - TVS Mechanical - REJ-OLR-52-2-CCL-0168	X					X			
CCL - St. Laurent Station - Signage and Wayfinding REJ-OLR-40-5-CCL-0104	X			X			X	X	
CCL - St. Laurent Station - Structural REJ-OLR-47-5-CCL-0119	X			X		X		X	
CCL - St. Laurent Station West Vestibule - Mechanical REJ-OLR-42-5-CCL-0008	X							X	
CCL - St. Laurent Urban Design and Landscaping - REJ-OLR-48-5-CCL-0205				X					
CCL - Structure #1 - Booth Street Bridge REJ-OLR-03-1-LET-0177				X					
CCL - Structure #10 - Rideau River Light Rail (Conversion) - REJ-OLR-27-3-CCL-0113				X					

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CCL	NFPA130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
CCL - Structure #11 - Cyrville Drain (Culvert) - REJ-OLR-27-5-CCL-0114				X					
CCL - Structure #12 - MSF Access Track - REJ-OLR-27-4-CCL-0115				X		X			
CCL - Structure #13 - CPR/O-Train Light Rail (Bayview) - REJ-OLR-27-1-CCL-0117				X					
CCL - Structure #2 - Hurdman Elevated Guideway - REJ-OLR-27-3-CCL-0108				X					
CCL - Structure #3 - Hurdman East Overpass - REJ-OLR-27-3-CCL-0109				X					
CCL - Structure #4 - Mann Avenue Overpass Bridge Replacement REJ-OLR-27-3-CCL-0089				X					
CCL - Structure #5 - East Via Rail D-Ring Road / Bridge REJ-OLR-03-0-LET-0187				X					
CCL - Structure #7 - West Transit Twin Box Culvert (Rehab) - REJ-OLR-27-1-CCL-0111				X					
CCL - Structure #9 - Riverside Bridge - REJ-OLR-27-4-CCL-0112				X					
CCL - Structure#12 - MSF Connector CN Underpass - Guideway Standpipe System - REJ-OLR-51-4-CCL-0116						X			
CCL - T&C Zone 5 (MSF) REJ-OLR-56-5-LET-0256				X			X		
CCL - TPSS #1 (Crawl Space & Duct Bank) - Electrical REJ-OLR-56-0-CCL-0044				X			X		
CCL - TPSS#09 (Crawl Space) - Mechanical - REJ-OLR-42-4-CCL-0143							X		
CCL - TPSS#1 (Site Grading & Drainage) - Civils REJ-OLR-20-1-CCL-0045				X					
CCL - TPSS#1 - Structural REJ-OLR-56-0-CCL-0046				X			X		
CCL - TPSS#10 - Electrical REJ-OLR-56-0-CCL-0070				X			X		
CCL - TPSS#2 (Crawl space & duct bank) - Electrical REJ-OLR-56-0-CCL-0048				X			X		
CCL - TPSS#2 (Site Grading and Drainage) - Civils - REJ-OLR-20-1-CCL-0049				X			X		
CCL - TPSS#2 - Structural REJ-OLR-56-0-CCL-0050				X			X		
CCL - TPSS#4 (Crawl space & duct bank) - Electrical REJ-OLR-56-0-CCL-0052				X			X		
CCL - TPSS#4 (Site Grading & Drainage) - Civils REJ-OLR-20-3-CCL-0053				X					
CCL - TPSS#4 - Structural REJ-OLR-56-0-CCL-0054				X			X		
CCL - TPSS#5 (Crawl space & duct bank) - Electrical REJ-OLR-56-0-CCL-0055				X			X		
CCL - TPSS#5 (Site Grading & Drainage) - Civils REJ-OLR-20-3-CCL-0056				X					
CCL - TPSS#5 - Structural REJ-OLR-56-0-CCL-0057				X			X		
CCL - TPSS#6 (Crawl space & duct bank) - Electrical				X			X		
CCL - TPSS#6 (Site Grading & Drainage) - Civils REJ-OLR-20-4-CCL-0059				X					
CCL - TPSS#6 - Structural REJ-OLR-56-0-CCL-0060				X			X		
CCL - TPSS#6 - Structural REJ-OLR-56-0-CCL-0063				X			X		
CCL - TPSS#7 (Crawl space & duct bank) - Electrical REJ-OLR-56-0-CCL-0061				X			X		
CCL - TPSS#7 (Site Grading & Drainage) - Civils REJ-OLR-20-5-CCL-0062				X					
CCL - TPSS#8 (Crawl space & duct bank) - Electrical REJ-OLR-56-0-CCL-0065				X			X		

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CCL	NFPA130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
CCL - TPSS#8 (Site Grading & Drainage) - Civils REJ-OLR-20-5-CCL-0066				X					
CCL - TPSS#8 - Structural REJ-OLR-56-0-CCL-0067				X			X		
CCL - TPSS#9 (Crawl space & duct bank) - Electrical REJ-OLR-56-0-CCL-0069							X		
CCL - TPSS3 - Electrical REJ-OLR-56-2-CCL-0051				X			X		
CCL - TVS - Mechanical MSF Connector - REJ-OLR-52-2-CCL-0169	X					X			
CCL - TVS Mechanical - Segment 2 - REJ-OLR-52-2-CCL-0167	X					X			
CCL - Track Switch Heaters - System Wide REJ-OLR-56-0-CCL-0149							X		
CCL - Trackwork installation - Segments 1-3 - REJ-OLR-22-0-CCL-0177	X			X	X		X		X
CCL - Tremblay Station - Civil REJ-OLR-20-4-CCL-0081				X					
CCL - Tremblay Station - Comms Systems - REJ-OLR-53-4-CCL-0234	X						X		
CCL - Tremblay Station - Electrical REJ-OLR-45-4-CCL-0024	X						X	X	
CCL - Tremblay Station - General Review Conformance Letter - Building Architectural ONLY REJ-OLR-40-4-CCL-0025	X	X	X					X	
CCL - Tremblay Station - Mechanical REJ-OLR-42-4-CCL-0023	X			X				X	
CCL - Tremblay Station - Signage and Wayfinding REJ-OLR-40-4-CCL-0103	X			X			X	X	
CCL - Tremblay Station - Structural REJ-OLR-47-4-LET-0272	X			X				X	
CCL - Tremblay Station - Urban Design and Landscaping - REJ-OLR-48-4-CCL-0208				X					
CCL - Tunnel Equipping - Mechanical and Electrical - REJ-OLR-87-2-CCL-0078	X			X		X			
CCL - Tunney's Pasture Station - Civils - REJ-OLR-20-1-CCL-0086				X					
CCL - Tunney's Pasture Station - Electrical - REJ-OLR-45-1-CCL-0039	X						X	X	
CCL - Tunney's Pasture Station - Urban Design Landscape - REJ-OLR-48-1-CCL-0199				X					
CCL - Tunney's Pasture Station- Signage and Wayfinding REJ-OLR-40-1-CCL-0094	X			X			X	X	
CCL - Tunney's Pasture Station - Architectural - REJ-OLR-40-1-CCL-0040	X	X	X	X				X	
CCL - Tunney's Pasture Station - Comms Systems - REJ-OLR-53-1-CCL-0229	X						X		
CCL - Tunney's Pasture Station - Mechanical - REJ-OLR-42-1-CCL-0038	X							X	
CCL - Tunney's Pasture Trench Rail Plinth - REJ-OLR-27-1-CCL-0148				X					
CCL - Tunney's Pasture Station - Structural REJ-OLR-47-1-CCL-0037	X			X				X	
CCL - West Portal - Mechanical and Electrical - REJ-OLR-87-2-CCL-0185	X			X		X			
CCL - West Portal - Structural REJ-OLR-47-2-CCL-0140	X			X		X			
CCL - West Portal External Drainage REJ-OLR-47-2-CCL-0184				X		X			
CCL - uOttawa Station - Civil REJ-OLR-20-3-CCL-0083				X					
CCL - uOttawa Station - Comms Systems - REJ-OLR-53-3-CCL-0232	X						X		

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CCL	NFPA130	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6
CCL - uOttawa Station - General Review Conformance Letter - Building Architectural ONLY REJ-OLR-40-3-CCL-0018	X	X	X					X	
CCL - uOttawa Station - Structural REJ-OLR-47-3-CCL-0015	X			X				X	
CCL - uOttawa Station - Urban Design Landscaping - REJ-OLR-48-3-CCL-0202				X					
CCL - uOttawa Station- Signage and Wayfinding REJ-OLR-40-3-CCL-0100	X			X			X	X	
CCL - uOttawa Utilidor Relocation - Civil REJ-OLR-03-0-LET-0182				X					
CCL - uOttawa Utilidor Relocation - Electrical REM-OLR-30-3-LET-0180				X					
CCL - uOttawa Utilidor Relocation - Structural REJ-OLR-27-3-CCL-0183				X					
CCL - uOttawa Utilidor Relocation - Mechanical REM-30-3-0000-LET-0181				X					
CCL Hurdman Station - Urban Design and Landscaping - REJ-OLR-48-3-CCL-0204				X					
CCL St. Laurent Station - HVAC - REJ-OLR-42-5-CCL-0138	X					X		X	
CCL - Bayview Station Multi Use Path (MUP) REJ-OLR-03-1-CCL-0087				X					
CCL - Cyrville Station - Mechanical REJ-OLR-42-5-CCL-0030	X			X				X	
CCL - Cyrville Station - Landscape REJ-OLR-48-5-CCL-0154				X					
CCL - Lees station - Mechanical - REJ-OLR-42-3-CCL-0020	X			X				X	
CCL - Parliament Station - Electrical (Sun Life West Entrance) REJ-OLR-45-2-CCL-0072	X							X	
CCL - Running Tunnel - Structural and Drainage REJ-OLR-87-2-CCL-0122	X			X		X			
CCL - Tunnel Equipping Drainage REJ-OLR-87-2-CCL-0150				X		X			
CCL - Tunnel Equipping Structural REJ-OLR-87-2-CCL-0152	X			X		X			
CCL - Tunney's Pasture Station - Bus Maintenance Building and Platform Storm Drainage - Civil REJ-OLR-20-1-CCL-0086				X				X	
CCL - West Portal - IFC Landscape REJ-OLR-78-2-CCL-0186	X			X		X			
CCL - uOttawa Station Building - Electrical REJ-OLR-45-3-CCL-0017	X						X	X	
CCL - uOttawa's station - Mechanical - REJ-OLR-42-3-CCL-0016	X			X				X	
CCL - TVS Electrical - Segment 2 UGS - REJ-OLR-56-0-CCL-0251	X			X		X			
CCL-At-Grade Ductbank Package - System-wide (Structural) - REJ-OLR-27-0-CCL-0246				X			X		
CCL-Guideway- Segment 1- Roadway Detour (Scott St. Widening)- REJ-OLR-20-1-CCL-0145	X			X					

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APPENDIX C – PADI LOG


Table 15 contains the PADI Cross Reference Table Exported from DOORS NG at the baseline listed in section 1.3.1.

Table 15: PADI Cross Reference Table Exported from DOORS NG

RFI	PADI	Description	Rqmt ID	Schedule
ALS-OLR-58-0-RFI-0002	RFI-P-PADI-455	Truck Motion Control	95169	Schedule 15-2 Part 4 - Vehicles and Systems
ALS-OLR-58-0-RFI-0003	RFI-P-PADI-456	Noise, Shock and Vibration Requirements - Carbody Mounted Equipment	136133	
			94677	
ALS-OLR-58-0-RFI-0004	RFI-P-PADI-474	Truck Rotation	95147	
ALS-OLR-58-0-RFI-0005	RFI-P-PADI-475	Anticlimber Width	94763	
ALS-OLR-58-0-RFI-0006	RFI-P-PADI-476	Slide Control Efficiency Calculation	95267	
ALS-OLR-58-0-RFI-0008	RFI-P-PADI-479	Fasteners	95626	
ALS-OLR-58-0-RFI-0010	RFI-P-PADI-496	PEI Locations	95414	
ALS-OLR-58-0-RFI-0011	RFI-P-PADI-503	Axle Design	95154	
ALS-OLR-58-0-RFI-0012	RFI-P-PADI-658 (RFI-P-541)	Roof Water Drainage	94746	
			94747	
ALS-OLR-58-0-RFI-0013	RFI-P-PADI-557	PEI Session Hold	95305	
			95307	
ALS-OLR-58-0-RFI-0014	RFI-P-PADI-547	Primary Power Protection	95051	
ALS-OLR-58-0-RFI-0015	RFI-P-PADI-559	Regeneration Into a Dead Section	95123	
ALS-OLR-58-0-RFI-0016	RFI-P-PADI-548	Auxiliary Fuse Location	95056	
			95057	
ALS-OLR-58-0-RFI-0017	RFI-P-PADI-549	Brake System Architecture	95232	
ALS-OLR-58-0-RFI-0018	RFI-P-PADI-550	Brake Availability After Manual Release	95208	
ALS-OLR-58-0-RFI-0020	RFI-P-PADI-552	Rollback on Grade	95241	
ALS-OLR-58-0-RFI-0021	RFI-P-PADI-553	Diagnostics Over Ethernet	95385	
ALS-OLR-58-0-RFI-0022	RFI-P-PADI-554	CBTC	95537	
ALS-OLR-58-0-RFI-0023	RFI-P-PADI-555	WTB Sequencing Data	95582	
ALS-OLR-58-0-RFI-0025	RFI-P-PADI-560	Drivers Cab Lighting	94881	
ALS-OLR-58-0-RFI-0026	RFI-P-PADI-561	Shock & Vibration Criteria for Axle components	95160	
			95161	
			95162	
ALS-OLR-58-0-RFI-0027	RFI-P-PADI-562	Shock and Vibration Criteria for Truck Components	136134	
ALS-OLR-58-0-RFI-0029	RFI-P-PADI-564	HVAC Humidity Control	94945	
ALS-OLR-58-0-RFI-0031	RFI-P-566	Vehicle Grounding		
	RFI-P-PADI-691		95062	
ALS-OLR-58-0-RFI-0032	RFI-P-PADI-567	Low Voltage Circuit Breakers	95093	
ALS-OLR-58-0-RFI-0033	RFI-P-PADI-568	Regenerative Brake Efficiency	95139	
ALS-OLR-58-0-RFI-0034	RFI-P-PADI-571	Messaging Priority	95294	
			95319	
			95320	
ALS-OLR-58-0-RFI-0037	RFI-P-PADI-574	External Speakers and Station Announcements	95299	
ALS-OLR-58-0-RFI-0038	RFI-P-PADI-575	Accessibility Requirements	95393	
ALS-OLR-58-0-RFI-0039	RFI-P-576	PTE Connection	95546	
	RFI-P-PADI-679		95548	
ALS-OLR-58-0-RFI-0040	RFI-P-PADI-577	Snow Plough	94633	
ALS-OLR-58-0-RFI-0043	RFI-P-PADI-580	Battery Circuit Breaker	95084	
ALS-OLR-58-0-RFI-0044	RFI-P-PADI-581	Low Accumulator Pressure	95244	
ALS-OLR-58-0-RFI-0045	RFI-P-PADI-582	Truck Interchangeability	95443	

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RFI	PADI	Description	Rqmt ID	Schedule
			95444	
ALS-OLR-58-0-RFI-0046	RFI-P-PADI-583	Welding	95682	
ALS-OLR-58-0-RFI-0047	RFI-P-PADI-586	Axle Beam Material	95150	
ALS-OLR-58-0-RFI-0050	RFI-P-PADI-717	Use of Cadmium Oxide	95613	
ALS-OLR-58-0-RFI-0052	RFI-P-PADI-851	Brake Cylinder Pressure Limit	95222	
ALS-OLR-58-0-RFI-0053	RFI-P-PADI-846	Splash Guards	95157	
ALS-OLR-58-0-RFI-0054	RFI-P-PADI-850	Wiper Blade Parking Position	94887	
ALS-OLR-58-0-RFI-0055	RFI-P-PADI-941	Circuit Breaker Locations	95021	
	RFI-P-849		95092	
OLR-OTT-20-1-RFI-0565		Request to Relocate Manholes	96229	
OLR-OTT-24-0-RFI-0505	RFI-P-PADI-844	Traffic and Transit Management Sub-plans - Traffic Control Plans	100356	Schedule 15-2 Part 7 - Traffic Management and Construction Access
			100357	
			100358	
			100368	
			136272	
			136273	
			136274	
			136275	
			136276	
			136277	
OLR-OTT-24-2-RFI-0504	RFI-P-PADI-842	Simultaneous Lane Reductions on Lyon Street and O'Connor Street	100052	
			100053	
OLR-OTT-32-8-RFI-0499	RFI-P-PADI-833	Pinecrest Creek Stormwater Management Criteria	92790	Schedule 15-2 Part 1 - General Requirements
			92792	Schedule 15-2 Part 1 - General Requirements
			92853	
			92856	
OLR-OTT-40-0-RFI-0503	RFI-P-PADI-841	Deletion of Integrated Artwork for UOttawa Station	92153	Schedule 15-2 Part 1 - General Requirements
			92233	
			92237	
			92276	
OLR-OTT-40-8-RFI-0558	RFI-P-PADI-981	Floor Grille PA change from Stainless Steel to Aluminium	97927	Schedule 15-2 Part 5 - Stations
			97928	
			97930	
			97935	
			97937	
			97938	
OLR-OTT-48-0-RFI-0477	RFI-P-PADI-808	Landscape - Shrubs	92688	Schedule 15-2 Part 1 - General Requirements
OLR-OTT-50-0-RFI-0291	RFI-P-PADI-477	Signal Equivalence	95821	Schedule 15-2 Part 4 - Vehicles and Systems
OLR-OTT-50-0-RFI-0548	RFI-P-PADI-960	OHL request for Automatic Transfer Switch (ATS)	98849	Schedule 15-2 Part 5 - Stations
OLR-OTT-50-0-RFI-0561	RFI-P-PADI-988	Propulsion system - Operation in VOBC cut-out mode	96028	Schedule 15-2 Part 4 - Vehicles and Systems
OLR-OTT-57-0-RFI-0607	RFI-P - PADI - 1053	ATP Speed Monitoring		
		Req. Schedule 15-2 Part 4 Article 5 Section 5.9 (b) iii) -- NCR-810	96134	
OLR-OTT-58-0-RFI-0232	RFI-P-PADI-387	Electrical Equipment Environmental Conditions	94681	
			95078	
			95283	
			95601	
OLR-OTT-58-0-RFI-0233	RFI-P-PADI-388	Acceleration Requirements	161483	
			161484	

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RFI	PADI	Description	Rqmt ID	Schedule
OLR-OTT-58-0-RFI-0234	RFI-P-PADI-389	Clearance Requirements	161470	
OLR-OTT-58-0-RFI-0235	RFI-P-PADI-390	Vehicle Weight and Balance	94663	
			94664	
OLR-OTT-58-0-RFI-0236	RFI-P-PADI-391	Noise, Shock and Vibration Requirements	94669	
			94670	
			94673	
OLR-OTT-58-0-RFI-0237	RFI-P-PADI-725 RFI-P-584	Electric Braking	161487	
			161488	
			96049	
OLR-OTT-58-0-RFI-0238	RFI-P-PADI-393	Friction Brakes	161493	
OLR-OTT-58-0-RFI-0239	RFI-P-PADI-394	IP Protocol	136135	
			95304	
OLR-OTT-58-0-RFI-0240	RFI-P-PADI-395	Announcement Signs	95330	
OLR-OTT-58-0-RFI-0242	RFI-P-PADI-397	Court Admissible Images	95350	
OLR-OTT-58-0-RFI-0243	RFI-P-PADI-398	CCTV Cameras	95353	
OLR-OTT-58-0-RFI-0244	RFI-P-PADI-399	Video Feed to Driver & NVR Networking	95359	
OLR-OTT-58-0-RFI-0247	RFI-P-402 RFI-P-PADI-680	Passenger Counting Accuracy	95375	
OLR-OTT-58-0-RFI-0249	RFI-P-PADI-406	Switch Machine - PA Modification Request	95908	
OLR-OTT-58-0-RFI-0276	RFI-P-PADI-440	HVAC Welding	95682	
OLR-OTT-58-0-RFI-0404	RFI-P-PADI-684	Brake System Weight Load Distribution and PBEB Rate	161498	
OLR-OTT-58-0-RFI-0420	RFI-P-PADI-722	Rail Car Accessibility	136136	
OLR-OTT-58-0-RFI-0457	RFI-P-PADI-777	End-of-track devices	99701	Schedule 15-2 Part 6 - MSF
OTT-OLR-03-0-RFI-0075	RFI-O-PADI-75	Reduction in Design Submittals Required	108166	Project Agreement
OTT-OLR-48-7-RFI-0074	RFI-O-PADI-74	Queen Street Streetscaping	92665	Schedule 15-2 Part 1 - General Requirements
OTT-OLR-50-0-RFI-0229	RFI-O-PADI-229	RTOM breakout locations	96229	Schedule 15-2 Part 4 - Vehicles and Systems
OTT-OLR-56-0-RFI-0158	RFI-P-PADI-158	TPRU Specification Amendment	94438	
OTT-OLR-56-0-RFI-0281	RFI-O-PADI-281	Correction to IEEE reference number	94442	
OTT-OLR-58-0-RFI-0230	RFI-O-PADI-230	Alert PA Description	136511	
			136512	
			136513	
			136514	
			136515	
			136516	
			136517	
			136518	
			94840	
			95494	
			96065	
OTT-OLR-58-0-RFI-0249	RFI-O-PADI-249	NVR Project agreement clarifications	136137	
			136519	
			95355	
			95360	
			95362	
			95511	
OTT-OLR-58-0-RFI-0276	RFI-O-PADI-276	Network Video Recorder (NVR) - Project Agreement Changes	136137	
			136519	
			95355	
			95360	
			95362	
			95511	

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RFI	PADI	Description	Rqmt ID	Schedule
OTT-OLR-70-0-RFI-0096	RFI-O-PADI-96	Waste Receptacles	97307	Schedule 15-2 Part 5 - Stations
OTT-OLR-78-0-RFI-0094	RFI-O-PADI-94	Planting Lists for Federally Mandated Stations	91061 92722	Schedule 15-2 Part 1 - General Requirements
REJ-OLR-03-0-RFI-0487	RFI-P-PADI-984	Lighting PADI - Exterior Site Lighting	98829	Schedule 15-2 Part 5 - Stations
REJ-OLR-22-0-RFI-0227	RFI-P-PADI-465	Flash Butt Welds	93757	Schedule 15-2 Part 2 - Guideway
REJ-OLR-22-0-RFI-0531	RFI-P - PADI - 1033	Rail Break Gap	93727	
REJ-OLR-40-0-RFI-0185	RFI-P-367 RFI-P-PADI-743	Lighting PA Changes	136521	Schedule 15-2 Part 1 - General Requirements
			136522	
			137256	Schedule 15-2 Part 5 - Stations
			137257	
			137258	
			137259	
			137260	
			193112	
			98829	
			98896	
			98898	
			98899	
			98900	
			98901	
			98915	
REJ-OLR-40-0-RFI-0274	RFI-P-PADI-616	Signband and PID Lowering	97164	
REJ-OLR-40-2-RFI-0475	RFI-P-PADI-985 RFI-P-970	Underground Station Ceiling Wind Pressure Design	97994	
REJ-OLR-40-4-RFI-0287	RFI-P-PADI-781	MSF OCS Spring Tension System	96486	Schedule 15-2 Part 4 - Vehicles and Systems
REJ-OLR-42-0-RFI-0358	RFI-P-PADI-793	Air Handling Unit Fans	98317	Schedule 15-2 Part 5 - Stations
REJ-OLR-42-2-RFI-0518		Request for Variation to the Project Agreement - Water Service Entrance Pipe Material	98531	Schedule 15-2 Part 5 - Stations
REJ-OLR-47-2-RFI-0293	RFI-P-PADI-626	Rebar and concrete issue	92395	Schedule 15-2 Part 1 - General Requirements
			92396	
			92397	
			92398	
REJ-OLR-50-0-RFI-0169	RFI-P-PADI-418	Change to PA Schedule 15-2, Part 3	136271	Schedule 15-2 Part 3 - Tunnel
			93899	
			93947	
REJ-OLR-50-0-RFI-0186	RFI-P-PADI-372	Emergency Telephone Requirements	96245	Schedule 15-2 Part 4 - Vehicles and Systems
REJ-OLR-50-0-RFI-0187	RFI-P-PADI-373	Intrusion Access Control Requirements	96241	
			96243	
			96244	
REJ-OLR-50-0-RFI-0189	RFI-P-PADI-375	PBX Requirements	99823	Schedule 15-2 Part 6 - MSF
			99824	
REJ-OLR-50-0-RFI-0189	RFI-P-PADI-375	PBX Requirements	96245	Schedule 15-2 Part 4 - Vehicles and Systems
			99790	Schedule 15-2 Part 6 - MSF
REJ-OLR-50-0-RFI-0190	RFI-P-PADI-464	SCADA and Driver interface Requirements	94242	Schedule 15-2 Part 3 - Tunnel
REJ-OLR-50-0-RFI-0193	RFI-P-PADI-385	PIDS Sign Requirements	96298	Schedule 15-2 Part 4 - Vehicles and Systems
REJ-OLR-50-0-RFI-0203	RFI-P-PADI-378	LED Line Frequency requirements	99161	Schedule 15-2 Part 5 - Stations
REJ-OLR-50-0-RFI-0210	RFI-P-PADI-413	Power Supply and Distribution Code Requirements	136262	Schedule 15-2 Part 4 - Vehicles and Systems
			136263	
			136264	
			136265	

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RFI	PADI	Description	Rqmt ID	Schedule
			136266	
			136267	
			136268	
			136269	
			136270	
			96481	
			96483	
REJ-OLR-50-0-RFI-0301	RFI-P-PADI-664	Lightning arrestor requirements	96521	Schedule 15-2 Part 5 - Stations
REJ-OLR-50-0-RFI-0342	RFI-P-PADI-761	OCS Pole Deflection	96503	
REJ-OLR-50-0-RFI-0525		PA Wording Update - Station grounding grid & TPSS grounding grid	98873	Schedule 15-2 Part 4 - Vehicles and Systems
REJ-OLR-50-3-RFI-0191	RFI-P-PADI-376	Existing PA/PIDs console	96219	
REJ-OLR-53-0-RFI-0359	RFI-P-PADI-795		96265	
REJ-OLR-54-0-RFI-0226	RFI-P-PADI-459		96459	
REJ-OLR-54-0-RFI-0340	RFI-P-PADI-732		96488	
			96491	
REJ-OLR-56-6-RFI-0444	RFI-P-PADI-898		96521	
REJ-OLR-80-0-RFI-0443	RFI-P-PADI-897		93309	Schedule 15-2 Part 1 - General Requirements


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APPENDIX D – OLRT TESTS USED AS EVIDENCE OF COMPLIANCE

Table 16 lists the OLRT SIT and OLRT SAT tests used for evidence of compliance. Supplier SATs have also been used as evidence but, for brevity, these are not listed. The Test Traceability Matrix [13] shows traceability between tests and PA requirements.

Table 16: OLRT Tests Used As Evidence of Compliance

ID	Document Title	Procedure Document #	Rev (4P)	Report Document #	Rev (4P)
1	(eTel & elevator Tel) / SCADA / CCTV SIT - BAY	RES-16-1-BAST-SIT-1P2051	3.00	RES-16-1-BAST-SIT-1R2051	0.10
2	(eTel & elevator Tel) / SCADA / CCTV SIT - BLA	RES-16-5-BLST-SIT-4P2040	4.00	RES-16-5-BLST-SIT-4R2040	0.10
3	(eTel & elevator Tel) / SCADA / CCTV SIT - CYR	RES-16-5-CYST-SIT-4P2041	4.00	RES-16-5-CYST-SIT-4R2041	0.10
4	(eTel & elevator Tel) / SCADA / CCTV SIT - HUR	RES-16-3-HUST-SIT-3P2044	4.00	RES-16-3-HUST-SIT-3R2044	0.10
5	(eTel & elevator Tel) / SCADA / CCTV SIT - LEE	RES-16-3-LEST-SIT-2P2045	4.00	RES-16-3-LEST-SIT-2R2045	0.10
6	(eTel & elevator Tel) / SCADA / CCTV SIT - LYO	RES-16-2-DWSU-SIT-2P2049	3.00	RES-16-2-DWSU-SIT-2R2049	0.10
7	(eTel & elevator Tel) / SCADA / CCTV SIT - PAR	RES-16-2-DESU-SIT-2P2048	3.00	RES-16-2-DESU-SIT-2R2048	0.10
8	(eTel & elevator Tel) / SCADA / CCTV SIT - PIM	RES-16-1-LBST-SIT-1P2050	3.00	RES-16-1-LBST-SIT-1R2050	0.10
9	(eTel & elevator Tel) / SCADA / CCTV SIT - RID	RES-16-2-RISU-SIT-2P2047	3.00	RES-16-2-RISU-SIT-2R2047	0.10
10	(eTel & elevator Tel) / SCADA / CCTV SIT - STL	RES-16-5-SLSU-SIT-3P2042	4.00	RES-16-5-SLSU-SIT-3R2042	0.10
11	(eTel & elevator Tel) / SCADA / CCTV SIT - TRE	RES-16-4-TRST-SIT-3P2043	3.00	RES-16-4-TRST-SIT-3R2043	0.10
12	(eTel & elevator Tel) / SCADA / CCTV SIT - TUN	RES-16-1-TUST-SIT-1P2052	3.00	RES-16-1-TUST-SIT-1R2052	0.10
13	(eTel & elevator Tel) / SCADA / CCTV SIT - UOT	RES-16-3-CMST-SIT-2P2046	3.00	RES-16-3-CMST-SIT-2R2046	0.10
14	CTS / SCADA at BAY	RES-16-1-BAST-SIT-1P30207	2.00	RES-16-1-BAST-SIT-1R30207	0.10
15	CTS / SCADA at BLA	RES-16-5-BLST-SIT-4P30196	3.00	RES-16-5-BLST-SIT-4R30196	0.10
16	CTS / SCADA at CYR	RES-16-5-CYST-SIT-4P30197	3.00	RES-16-5-CYST-SIT-4R30197	0.10
17	CTS / SCADA at HUR	RES-16-3-HUST-SIT-3P30200	3.00	RES-16-3-HUST-SIT-3R30200	0.10
18	CTS / SCADA at LEE	RES-16-3-LEST-SIT-2P30201	2.00	RES-16-3-LEST-SIT-2R30201	0.10
19	CTS / SCADA at LYO	RES-16-2-DWSU-SIT-2P30205	2.00	RES-16-2-DWSU-SIT-1R30205	0.10
20	CTS / SCADA at PAR	RES-16-2-DESU-SIT-1P30204	2.00	RES-16-2-DESU-SIT-1R30204	0.10
21	CTS / SCADA at PIM	RES-16-1-LBST-SIT-1P30206	2.00	RES-16-1-LBST-SIT-1R30206	0.10
22	CTS / SCADA at RID	RES-16-2-RISU-SIT-2P30203	2.00	RES-16-2-RISU-SIT-2R30203	0.10
23	CTS / SCADA at STL	RES-16-5-SLSU-SIT-3P30198	3.00	RES-16-5-SLSU-SIT-3R30198	0.10
24	CTS / SCADA at TRE	RES-16-4-TRST-SIT-3P30199	2.00	RES-16-4-TRST-SIT-3R30199	0.10
25	CTS / SCADA at TUN	RES-16-1-TUST-SIT-1P30208	3.00	RES-16-1-TUST-SIT-1R30208	0.10
26	CTS / SCADA at UOT	RES-16-3-CMST-SIT-2P30202	3.00	RES-16-3-CMST-SIT-2R30202	0.10
27	CTS / SCADA at Zone 5 (MSF)	RES-16-4-MEAB-SIT-5P30195	3.00	RES-16-4-MEAB-SIT-5R30195	0.10
28	CTS / System Wide	RES-16-4-MEAB-SIT-5P30194	1.00		
29	FDAS / PIS SIT - BAY	RES-16-1-BAST-SIT-1P2093	4.00	RES-16-1-BAST-SIT-1R2093	0.10
30	FDAS / PIS SIT - BLA	RES-16-5-BLST-SIT-4P2082	6.00	RES-16-5-BLST-SIT-4R2082	0.10
31	FDAS / PIS SIT - CYR	RES-16-5-CYST-SIT-4P2083	6.00	RES-16-5-CYST-SIT-4R2083	0.10
32	FDAS / PIS SIT - HUR	RES-16-3-HUST-SIT-3P2086	6.00	RES-16-3-HUST-SIT-3R2086	0.10
33	FDAS / PIS SIT - LEE	RES-16-3-LEST-SIT-2P2087	4.00	RES-16-3-LEST-SIT-2R2087	0.10
34	FDAS / PIS SIT - LYO	RES-16-2-DWSU-SIT-2P2091	5.00	RES-16-2-DWSU-SIT-2R2091	0.10
35	FDAS / PIS SIT - PAR	RES-16-2-DESU-SIT-2P2090	5.00	RES-16-2-DESU-SIT-2R2090	0.10
36	FDAS / PIS SIT - PIM	RES-16-1-LBST-SIT-1P2092	4.00	RES-16-1-LBST-SIT-1R2092	0.10
37	FDAS / PIS SIT - RID	RES-16-2-RISU-SIT-2P2089	4.00	RES-16-2-RISU-SIT-2R2089	0.10
38	FDAS / PIS SIT - STL	RES-16-5-SLSU-SIT-3P2084	4.00	RES-16-5-SLSU-SIT-3R2084	0.10
39	FDAS / PIS SIT - TRE	RES-16-4-TRST-SIT-3P2085	3.00	RES-16-4-TRST-SIT-3R2085	0.10
40	FDAS / PIS SIT - TUN	RES-16-1-TUST-SIT-1P2094	3.00	RES-16-1-TUST-SIT-1R2094	0.10
41	FDAS / PIS SIT - UOT	RES-16-3-CMST-SIT-2P2088	3.00	RES-16-3-CMST-SIT-2R2088	0.10
42	GIDS / SCADA / CCTV - Portals SIT	RES-16-0-0000-SIT-0P2068	3.00	RES-16-0-0000-SIT-0R2068	1.10
43	GIDS/SCADA/CCTV SIT Stations	RES-16-0-0000-SIT-0P2221	3.00	RES-16-0-0000-SIT-0R2221	1.10
44	IAC / SCADA / CCTV SIT - BAY	RES-16-1-BAST-SIT-1P2065	4.00	RES-16-1-BAST-SIT-1R2065	0.00

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ID	Document Title	Procedure Document #	Rev (4P)	Report Document #	Rev (4P)
45	IAC / SCADA / CCTV SIT - BLA	RES-16-5-BLST-SIT-4P2054	4.00	RES-16-5-BLST-SIT-4R2054	0.10
46	IAC / SCADA / CCTV SIT - CYR	RES-16-5-CYST-SIT-4P2055	3.00	RES-16-5-CYST-SIT-4R2055	0.10
47	IAC / SCADA / CCTV SIT - HUR	RES-16-3-HUST-SIT-3P2058	4.00	RES-16-3-HUST-SIT-3R2058	0.10
48	IAC / SCADA / CCTV SIT - LEE	RES-16-3-LEST-SIT-2P2059	4.00	RES-16-3-LEST-SIT-2R2059	0.10
49	IAC / SCADA / CCTV SIT - LYO	RES-16-2-DWSU-SIT-2P2063	4.00	RES-16-2-DWSU-SIT-2R2063	0.10
50	IAC / SCADA / CCTV SIT - MSF	RES-16-4-MEAB-SIT-5P2053	4.00		
51	IAC / SCADA / CCTV SIT - PAR	RES-16-2-DESU-SIT-2P2062	4.00	RES-16-2-DESU-SIT-2R2062	0.10
52	IAC / SCADA / CCTV SIT - PIM	RES-16-1-LBST-SIT-1P2064	4.00	RES-16-1-LBST-SIT-1R2064	0.10
53	IAC / SCADA / CCTV SIT - RID	RES-16-2-RISU-SIT-2P2061	4.00	RES-16-2-RISU-SIT-2R2061	0.10
54	IAC / SCADA / CCTV SIT - STL	RES-16-5-SLSU-SIT-3P2056	4.00	RES-16-5-SLSU-SIT-3R2056	0.10
55	IAC / SCADA / CCTV SIT - TRE	RES-16-4-TRST-SIT-3P2057	4.00	RES-16-4-TRST-SIT-3R2057	0.10
56	IAC / SCADA / CCTV SIT - TUN	RES-16-1-TUST-SIT-1P2066	4.00	RES-16-1-TUST-SIT-1R2066	0.10
57	IAC / SCADA / CCTV SIT - UOT	RES-16-3-CMST-SIT-2P2060	4.00	RES-16-3-CMST-SIT-2R2060	0.10
58	Master Clock / Comms SIT	RES-16-0-0000-SIT-0P2069	0.00	RES-16-0-0000-SIT-0R2069	0.00
59	PIS / SCADA / CBTC SIT - MSF	RES-16-0-0000-SIT-0P2033	1.00		
60	SCADA / Station & Systems, Local SIT - BAY	RES-16-1-BAST-SIT-1P2164	2.00	RES-16-1-BAST-SIT-1R2164	0.00
61	SCADA / Station & Systems, Local SIT - BLA	RES-16-5-BLST-SIT-4P2153	3.00	RES-16-5-BLST-SIT-4R2153	0.10
62	SCADA / Station & Systems, Local SIT - CYR	RES-16-5-CYST-SIT-4P2154	2.00	RES-16-5-CYST-SIT-4R2154	0.10
63	SCADA / Station & Systems, Local SIT - HUR	RES-16-3-HUST-SIT-3P2157	2.00	RES-16-3-HUST-SIT-3R2157	0.10
64	SCADA / Station & Systems, Local SIT - LEE	RES-16-3-LEST-SIT-2P2158	2.00	RES-16-3-LEST-SIT-2R2158	0.10
65	SCADA / Station & Systems, Local SIT - LYO	RES-16-2-DWSU-SIT-2P2162	2.00	RES-16-2-DWSU-SIT-2R2162	0.10
66	SCADA / Station & Systems, Local SIT - MSF	RES-16-4-MEAB-SIT-5P2152	2.00		
67	SCADA / Station & Systems, Local SIT - PAR	RES-16-2-DESU-SIT-2P2161	2.00	RES-16-2-DESU-SIT-2R2161	0.10
68	SCADA / Station & Systems, Local SIT - PIM	RES-16-1-LBST-SIT-1P2163	2.00	RES-16-1-LBST-SIT-1R2163	0.00
69	SCADA / Station & Systems, Local SIT - RID	RES-16-2-RISU-SIT-2P2160	2.00	RES-16-2-RISU-SIT-2R2160	0.10
70	SCADA / Station & Systems, Local SIT - STL	RES-16-5-SLSU-SIT-3P2155	2.00	RES-16-5-SLSU-SIT-3R2155	0.10
71	SCADA / Station & Systems, Local SIT - TRE	RES-16-4-TRST-SIT-3P2156	2.00	RES-16-4-TRST-SIT-3R2156	0.10
72	SCADA / Station & Systems, Local SIT - TUN	RES-16-1-TUST-SIT-1P2165	2.00	RES-16-1-TUST-SIT-1R2165	0.10
73	SCADA / Station & Systems, Local SIT - UOT	RES-16-3-CMST-SIT-2P2159	2.00	RES-16-3-CMST-SIT-2R2159	0.10
74	SCADA / Station & Systems, Remote SIT - BAY	RES-16-1-BAST-SIT-1P2150	0.00	RES-16-1-BAST-SIT-1R2150	0.10
75	SCADA / Station & Systems, Remote SIT - BLA	RES-16-5-BLST-SIT-4P2139	2.00	RES-16-5-BLST-SIT-4R2139	0.10
76	SCADA / Station & Systems, Remote SIT - CYR	RES-16-5-CYST-SIT-4P2140	0.00	RES-16-5-CYST-SIT-4R2140	0.10
77	SCADA / Station & Systems, Remote SIT - HUR	RES-16-3-HUST-SIT-3P2143	0.00	RES-16-3-HUST-SIT-3R2143	0.10
78	SCADA / Station & Systems, Remote SIT - LEE	RES-16-3-LEST-SIT-2P2144	0.00	RES-16-3-LEST-SIT-2R2144	0.10
79	SCADA / Station & Systems, Remote SIT - LYO	RES-16-2-DWSU-SIT-2P2148	0.00	RES-16-2-DWSU-SIT-2R2148	0.10
80	SCADA / Station & Systems, Remote SIT - MSF	RES-16-4-MEAB-SIT-5P2038	0.00		
81	SCADA / Station & Systems, Remote SIT - PAR	RES-16-2-DESU-SIT-2P2147	0.00	RES-16-2-DESU-SIT-2R2147	0.10
82	SCADA / Station & Systems, Remote SIT - PIM	RES-16-1-LBST-SIT-1P2149	0.00	RES-16-1-LBST-SIT-1R2149	0.10
83	SCADA / Station & Systems, Remote SIT - RID	RES-16-2-RISU-SIT-2P2146	0.00	RES-16-2-RISU-SIT-2R2146	0.10
84	SCADA / Station & Systems, Remote SIT - STL	RES-16-5-SLSU-SIT-3P2141	0.00	RES-16-5-SLSU-SIT-3R2141	0.10
85	SCADA / Station & Systems, Remote SIT - TRE	RES-16-4-TRST-SIT-3P2142	0.00	RES-16-4-TRST-SIT-3R2142	0.10
86	SCADA / Station & Systems, Remote SIT - TUN	RES-16-1-TUST-SIT-1P2151	0.00	RES-16-1-TUST-SIT-1R2151	0.10
87	SCADA / Station & Systems, Remote SIT - UOT	RES-16-3-CMST-SIT-2P2145	0.00	RES-16-3-CMST-SIT-2R2145	0.10
88	SCADA / TPSS, Local SIT - TPSS 1	RES-16-1-TP01-SIT-1P2103	2.00	RES-16-1-TP01-SIT-1R2103	0.10
89	SCADA / TPSS, Local SIT - TPSS 2	RES-16-1-TP02-SIT-1P2102	2.00	RES-16-1-TP02-SIT-1R2102	1.10
90	SCADA / TPSS, Local SIT - TPSS 3	RES-16-2-TP03-SIT-2P2101	2.00	RES-16-2-TP03-SIT-2R2101	0.10
91	SCADA / TPSS, Local SIT - TPSS 4	RES-16-3-TP04-SIT-2P2100	2.00	RES-16-3-TP04-SIT-2R2100	1.10
92	SCADA / TPSS, Local SIT - TPSS 5	RES-16-3-TP05-SIT-3P2099	2.00	RES-16-3-TP05-SIT-3R2099	1.10
93	SCADA / TPSS, Local SIT - TPSS 6	RES-16-4-TP06-SIT-3P2098	2.00	RES-16-4-TP06-SIT-3R2098	2.10
94	SCADA / TPSS, Local SIT - TPSS 7	RES-16-3-TP07-SIT-4P2097	2.00	RES-16-3-TP07-SIT-4R2097	1.10
95	SCADA / TPSS, Local SIT - TPSS 8	RES-16-3-TP08-SIT-4P2096	2.00	RES-16-3-TP08-SIT-4R2096	1.10
96	SCADA / TPSS, Local SIT - TPSS-SHOP (10)	RES-16-4-TP10-SIT-5P2031	2.00	RES-16-4-TP10-SIT-5R2031	0.10
97	SCADA / TPSS, Local SIT - TPSS-YARD	RES-16-4-TP09-SIT-5P2095	2.00	RES-16-4-TP09-SIT-5R2095	0.10
98	SCADA / TPSS, Remote SIT - TPSS 1	RES-16-1-TP01-SIT-1P2112	2.00	RES-16-1-TP01-SIT-1R2112	0.10

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99	SCADA / TPSS, Remote SIT - TPSS 2	RES-16-1-TP02-SIT-1P2111	2.00	RES-16-1-TP02-SIT-1R2111	0.10
100	SCADA / TPSS, Remote SIT - TPSS 3	RES-16-2-TP03-SIT-2P2110	2.00	RES-16-2-TP03-SIT-2R2110	0.10
101	SCADA / TPSS, Remote SIT - TPSS 4	RES-16-3-TP04-SIT-2P2109	2.00	RES-16-3-TP04-SIT-2R2109	0.10
102	SCADA / TPSS, Remote SIT - TPSS 5	RES-16-3-TP05-SIT-3P2108	2.00	RES-16-3-TP05-SIT-3R2108	0.10
103	SCADA / TPSS, Remote SIT - TPSS 6	RES-16-4-TP06-SIT-3P2107	2.00	RES-16-4-TP06-SIT-3R2107	0.10
104	SCADA / TPSS, Remote SIT - TPSS 7	RES-16-3-TP07-SIT-4P2106	2.00	RES-16-3-TP07-SIT-4R2106	0.10
105	SCADA / TPSS, Remote SIT - TPSS 8	RES-16-3-TP08-SIT-4P2105	2.00	RES-16-3-TP08-SIT-4R2105	A
106	SCADA / TPSS, Remote SIT - TPSS-SHOP (10)	RES-16-4-TP10-SIT-5P2104	2.00	RES-16-4-TP10-SIT-5R2104	0.10
107	SCADA / TPSS, Remote SIT - TPSS-YARD	RES-16-4-TP09-SIT-5P2032	2.00	RES-16-4-TP09-SIT-5R2032	0.00
108	Maintenance Vehicle Clearance Test-signed	RES-16-8-0000-SIT-0P7175	1.00	RES-16-8-0000-SIT-0R7175	1.00
109	CBTC Vehicle Spin Slide	OLR-16-0-0000-SIT-0P8185	0.00	OLR-16-8-0000-SIT-0R8185	0.00
110	Winter Operations and Snow & Water Fording of Vehicles	OLR-16-0-0000-SIT-0P3215	1.00	OLR-16-0-0000-SIT-0R3215	0.00
111	Demonstrated End to End Travel Time	RES-16-8-0000-SIT-0P3216	2.00	RES-16-8-0000-SIT-0R3216	0.00
112	MSF Yard Level Crossings	OLR-16-8-0000-SAT-5P4034	1.00		
113	Vehicle Envelope Clearance Zone 1	OLR-16-8-0000-SAT-1P4039	1.00	RES-16-8-0000-SAT-1R4039	1.00
114	Vehicle Envelope Clearance Zone 2	RES-16-8-0000-SAT-2P4038	2.00	RES-16-8-0000-SAT-2R4038	0.00
115	Vehicle Envelope Clearance Zone 3	OLR-16-8-0000-SAT-3P4037	1.00	RES-16-8-0000-SAT-3R4037	1.10
116	Vehicle Envelope Clearance Zone 4	OLR-16-8-0000-SAT-4P4036	1.00	RES-16-8-0000-SAT-4R4036	0.10
117	Vehicle Envelope Clearance Zone 5	OLR-16-8-0000-SAT-5P4035	1.00	RES-16-8-0000-SAT-5R4035	1.00
118	Yard CBTC Emergency Stop Buttons	OLR-16-4-MEAB-SIT-5P8220	0.00	RES-16-4-MEAB-SIT-5R8220	0.10
119	Automatic Transfer Switch - HOL Blocking - St Laurent Station	RES-16-8-0000-SIT-3P1026	3.00	RES-16-8-0000-SIT-3R1026	0.10
120	Automatic Transfer Switch - HOL Blocking - Underground Stations (Lyon, Parliament, and Rideau)	RES-16-8-0000-SIT-2P1027	3.00	RES-16-8-0000-SIT-2R1027	0.10
121	Electrical Switch Heater, Zone 1	RES-16-0-0000-SAT-0P1007	0.00	RES-16-0-0000-SAT-1R1007	0.10
122	Electrical Switch Heater, Zone 2	RES-16-0-0000-SAT-0P1007	0.00	RES-16-0-0000-SAT-2R1007	0.10
123	Electrical Switch Heater, Zone 3	RES-16-0-0000-SAT-0P1007	0.00	RES-16-0-0000-SAT-3R1007	0.10
124	Electrical Switch Heater, Zone 4	RES-16-0-0000-SAT-0P1007	0.00	RES-16-0-0000-SAT-4R1007	0.10
125	HOL Neutral Bond Testing, TPSS1	RES-16-0-0000-SIT-0P1029	3.00		
126	HOL Neutral Bond Testing, TPSS2	RES-16-0-0000-SIT-0P1029	3.00		
127	HOL Neutral Bond Testing, TPSS3	RES-16-0-0000-SIT-0P1029	3.00		
128	HOL Neutral Bond Testing, TPSS4	RES-16-0-0000-SIT-0P1029	3.00		
129	HOL Neutral Bond Testing, TPSS5	RES-16-0-0000-SIT-0P1029	3.00		
130	HOL Neutral Bond Testing, TPSS6	RES-16-0-0000-SIT-0P1029	3.00		
131	HOL Neutral Bond Testing, TPSS7	RES-16-0-0000-SIT-0P1029	3.00		
132	HOL Neutral Bond Testing, TPSS8	RES-16-0-0000-SIT-0P1029	3.00		
133	HOL Neutral Bond Testing, TPSS9	RES-16-0-0000-SIT-0P1029	3.00		
134	HOL Neutral Bond Testing (Baseline), TPSS1	RES-16-0-0000-SIT-0P1029	3.00	RES-16-1-TP01-SIT-1R1029	0.20
135	HOL Neutral Bond Testing (Baseline), TPSS2	RES-16-0-0000-SIT-0P1029	3.00	RES-16-1-TP02-SIT-1R1029	0.20
136	HOL Neutral Bond Testing (Baseline), TPSS3	RES-16-0-0000-SIT-0P1029	3.00		
137	HOL Neutral Bond Testing (Baseline), TPSS4	RES-16-0-0000-SIT-0P1029	3.00	RES-16-3-TP04-SIT-2R1029	1.20
138	HOL Neutral Bond Testing (Baseline), TPSS5	RES-16-0-0000-SIT-0P1029	3.00	RES-16-3-TP05-SIT-3R1029	1.20
139	HOL Neutral Bond Testing (Baseline), TPSS6	RES-16-0-0000-SIT-0P1029	3.00	RES-16-4-TP06-SIT-3R1029	0.10
140	HOL Neutral Bond Testing (Baseline), TPSS7	RES-16-0-0000-SIT-0P1029	3.00	RES-16-5-TP07-SIT-4R1029	1.10
141	HOL Neutral Bond Testing (Baseline), TPSS8	RES-16-0-0000-SIT-0P1029	3.00	RES-16-5-TP08-SIT-4R1029	1.10
142	HOL Neutral Bond Testing (Baseline), TPSS9	RES-16-0-0000-SIT-0P1029	3.00	RES-16-4-TP09-SIT-5R1029	1.10
143	OCS / Pantograph Interaction (Normal) - Zone 1	RES-16-8-0000-SIT-1P1020	0.00	RES-16-8-0000-SIT-1R1020	0.10
144	OCS / Pantograph Interaction (Normal) - Zone 2	RES-16-8-0000-SIT-2P1021	0.00	RES-16-8-0000-SIT-2R1021	0.20

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145	OCS / Pantograph Interaction (Normal) - Zone 3	RES-16-8-0000-SIT-3P1022	1.00	RES-16-8-0000-SIT-3R1022	0.10
146	OCS / Pantograph Interaction (Normal) - Zone 4	RES-16-8-0000-SIT-4P1023	1.00	RES-16-8-0000-SIT-4R1023	1.10
147	OCS / Pantograph Interaction (Normal) - Zone 5	RES-16-8-0000-SIT-5P1019	2.00	RES-16-8-0000-SIT-5R1019	0.10
148	OCS / Pantograph Interaction (Slow) - Zone 1	RES-16-8-0000-SIT-1P1015	0.00	RES-16-8-0000-SIT-1R1015	1.10
149	OCS / Pantograph Interaction (Slow) - Zone 2	RES-16-8-0000-SIT-2P1016	0.00	RES-16-8-0000-SIT-2R1016	0.10
150	OCS / Pantograph Interaction (Slow) - Zone 3	RES-16-8-0000-SIT-3P1017	1.00	RES-16-8-0000-SIT-3R1017	0.10
151	OCS / Pantograph Interaction (Slow) - Zone 4	RES-16-8-0000-SIT-4P1018	1.00	RES-16-8-0000-SIT-4R1018	0.20
152	OCS / Pantograph Interaction (Slow) - Zone 5	RES-16-8-0000-SIT-5P1014	2.00	RES-16-8-0000-SIT-5R1014	1.10
153	OCS Electrification - Zone 1	RES-16-8-0000-SIT-1P1010	2.00	RES-16-8-0000-SIT-1R1010	2.10
154	OCS Electrification - Zone 2	RES-16-8-0000-SIT-2P1011	2.00	RES-16-8-0000-SIT-2R1011	0.10
155	OCS Electrification - Zone 3	RES-16-8-0000-SIT-3P1012	2.00	RES-16-8-0000-SIT-3R1012	1.10
156	OCS Electrification - Zone 4	RES-16-8-0000-SIT-4P1013	4.30	RES-16-8-0000-SIT-4R1013	1.20
157	OCS Electrification - Zone 5 (MSF)	RES-16-8-0000-SIT-5P1009	4.00	RES-16-8-0000-SIT-5R1009	0.10
158	OCS Electrical Connection Verification - Zone 1	RES-16-8-0000-SAT-1P1030	1.00	RES-16-8-0000-SAT-1R1030	1.00
159	OCS Electrical Connection Verification - Zone 2	RES-16-8-0000-SAT-2P1031	1.00	RES-16-8-0000-SAT-2R1031	0.10
160	OCS Electrical Connection Verification - Zone 3	RES-16-8-0000-SAT-3P1032	1.00	RES-16-8-0000-SAT-3R1032	0.10
161	OCS Electrical Connection Verification - Zone 4	RES-16-8-0000-SAT-4P1033	1.00	RES-16-8-0000-SAT-4R1033	1.00
162	OCS Electrical Connection Verification - Zone 5 (MSF)	RES-16-8-0000-SAT-5P1029	1.00	RES-16-8-0000-SAT-5R1029	1.10
163	SAT Rail Sectioning Procedure (MSF)	RES-16-8-0000-SAT-5P1001	2.00	RES-16-8-0000-SAT-5R1001	0.20
164	SIT DC Short Circuit Test Procedure	RES-16-0-0000-SIT-0P1025	3.00	RES-16-0-0000-SIT-0R1025	0.00
165	SIT PSD / Shop DC Distribution and Stinger	RES-16-4-MEAB-SIT-5P1166	2.00	RES-16-4-MEAB-SIT-5R1166	1.10
166	TPSS Failure	RES-16-0-0000-SIT-0P1024	2.00	RES-16-0-0000-SIT-0R1024	0.10
167	Track Switch Heater System (Gas)	OLR-16-4-0000-SAT-5P1011	0.00	RES-16-4-0000-SAT-5R1011	0.00
168	Transfer Trip TPSS 1	RES-16-1-TP01-SIT-1P1001	3.00	RES-16-1-TP01-SIT-1R1001	0.10
169	Transfer Trip Zone 1 (TPSS 2)	RES-16-1-TP02-SIT-1P1002	3.00	RES-16-1-TP02-SIT-1R1002	1.10
170	Transfer Trip Zone 2 (TPSS 3)	RES-16-2-TP03-SIT-2P1003	3.00	RES-16-2-TP03-SIT-2R1003	1.10
171	Transfer Trip Zone 2 (TPSS 4)	RES-16-3-TP04-SIT-2P1004	3.00	RES-16-3-TP04-SIT-2R1004	1.10
172	Transfer Trip Zone 3 (TPSS 5)	RES-16-3-TP05-SIT-3P1005	3.00	RES-16-3-TP05-SIT-3R1005	1.10
173	Transfer Trip Zone 3 (TPSS 6)	RES-16-4-TP06-SIT-3P1006	3.00	RES-16-4-TP06-SIT-3R1006	1.10
174	Transfer Trip Zone 4 (TPSS 7)	RES-16-5-TP07-SIT-4P1007	3.00	RES-16-5-TP07-SIT-4R1007	1.10
175	Transfer Trip Zone 4 (TPSS 8)	RES-16-5-TP08-SIT-4P1008	3.00	RES-16-5-TP08-SIT-4R1008	0.10
176	Wayside Disconnect Switches SAT - Zone 1	RES-16-8-0000-SAT-1P1003	0.00	RES-16-8-0000-SAT-1R1003	0.10
177	Wayside Disconnect Switches SAT - Zone 2	RES-16-8-0000-SAT-2P1004	0.00	RES-16-8-0000-SAT-2R1004	0.10
178	Wayside Disconnect Switches SAT - Zone 3	RES-16-8-0000-SAT-3P1005	0.00	RES-16-8-0000-SAT-3R1005	0.10
179	Wayside Disconnect Switches SAT - Zone 4	RES-16-8-0000-SAT-4P1006	0.00	RES-16-8-0000-SAT-4R1006	0.10
180	Wayside Disconnect Switches SAT - Zone 5 (MSF)	RES-16-8-0000-SAT-5P1002	0.00	RES-16-8-0000-SAT-5R1002	0.10
181	Wayside Disconnect Switch, Zone 1 to 4 (Mainline) OCS	RES-16-8-0000-SIT-0P1002	0.00	RES-16-8-0000-SIT-0R1002	0.10
182	Wayside Disconnect Switch, Zone 5 (MSF)	RES-16-8-0000-SIT-5P1170	0.00	RES-16-8-0000-SIT-5R1170	0.10
183	TVS Lyon-Electrical	RES-16-2-DWSU-SAT-2P3026	2.00	RES-16-2-DWSU-SAT-2R3026	1.10
184	TVS Parliament-Electrical	RES-16-2-DESU-SAT-2P3027	2.00	RES-16-2-DESU-SAT-2R3027	0.10
185	TVS Rideau-Electrical	RES-16-2-RISU-SAT-2P3028	2.00	RES-16-2-RISU-SAT-2R3028	1.10
186	TVS St. Laurent-Electrical	RES-16-5-SLSU-SAT-3P3025	2.00	RES-16-5-SLSU-SAT-3R3025	0.10
187	TVS ICP and Control Panels SAT - East Portal	RES-16-2-EPTU-SAT-2P3040	1.00	RES-16-2-EPTU-SAT-2R3040	0.10
188	TVS Lyon-TICP	RES-16-2-DWSU-SAT-2P3018	2.00	RES-16-2-DWSU-SAT-2R3018	0.10
189	TVS Parliament-TICP	RES-16-2-DESU-SAT-2P3019	2.00	RES-16-2-DESU-SAT-2R3019	0.10

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190	TVS Rideau-TICP	RES-16-2-RISU-SAT-2P3020	2.00	RES-16-2-RISU-SAT-2R3020	0.10
191	TVS St. Laurent-TICP	RES-16-5-SLSU-SAT-3P3017	2.00	RES-16-5-SLSU-SAT-3R3017	0.10
192	TVS West Portal Lyon-TICP	RES-16-2-WPTU-SAT-2P3041	1.00	RES-16-2-WPTU-SAT-2R3041	0.10
193	TVS Lyon-Mechanical	RES-16-2-DWSU-SAT-2P3022	1.00	RES-16-2-DWSU-SAT-2R3022	1.10
194	TVS Parliament-Mechanical	RES-16-2-DESU-SAT-2P3023	1.00	RES-16-2-DESU-SAT-2R3023	1.10
195	TVS Rideau-Mechanical	RES-16-2-RISU-SAT-2P3024	1.00	RES-16-2-RISU-SAT-2R3024	1.10
196	TVS St. Laurent-Mechanical	RES-16-5-SLSU-SAT-3P3021	0.00	RES-16-5-SLSU-SAT-3R3021	0.10
197	TVS PLC SAT - Lyon	RES-16-2-DWSU-SAT-2P3014	3.00	RES-16-2-DWSU-SAT-2R3014	1.10
198	TVS PLC SAT - Parliament	RES-16-2-DESU-SAT-2P3015	3.00	RES-16-2-DESU-SAT-2R3015	1.10
199	TVS PLC SAT - Rideau	RES-16-2-RISU-SAT-2P3016	3.00	RES-16-2-RISU-SAT-2R3016	1.10
200	TVS PLC SAT - St Laurent	RES-16-5-SLSU-SAT-3P3013	3.00	RES-16-5-SLSU-SAT-3R3013	1.00
201	TVS SIT - St Laurent	RES-16-5-SLSU-SIT-3P3078	2.00	RES-16-5-SLSU-SIT-3R3078	1.20
202	TVS SIT - Zone 2	RES-16-8-0000-SIT-2P3079	0.00	RES-16-8-0000-SIT-2R3079	1.00
203	TVS/Station SIT - Lyon	RES-16-2-DWSU-SIT-2P3073	3.00	RES-16-2-DWSU-SIT-2R3073	1.20
204	TVS/Station SIT - Parliament	RES-16-2-DESU-SIT-2P3074	1.00	RES-16-2-DESU-SIT-2R3074	1.20
205	TVS/Station SIT - Rideau	RES-16-2-RISU-SIT-2P3075	1.00	RES-16-2-RISU-SIT-2R3075	1.20
206	Guideway Operational Signage - Zone 5 (MSF)	OLR-16-8-0000-SAT-5P4167	1.00	RES-16-8-0000-SIT-5R4167	0.00
207	Guideway Operational Signage - Zone 4	OLR-16-8-0000-SAT-4P4168	1.00	RES-16-8-0000-SIT-4R4168	1.00
208	Guideway Operational Signage - Zone 3	OLR-16-8-0000-SAT-3P4169	1.00	RES-16-8-0000-SIT-3R4169	1.00
209	Guideway Operational Signage - Zone 2	OLR-16-8-0000-SAT-2P4170	1.00	RES-16-8-0000-SIT-2R4170	1.00
210	Guideway Operational Signage - Zone 1	OLR-16-8-0000-SAT-1P4171	1.00	RES-16-8-0000-SIT-1R4171	1.00
211	SCADA / HSDR / Vehicle Comms SIT - BLA	RES-16-5-BLST-SIT-4P3188	0.00		
212	SCADA / HSDR / Vehicle Comms SIT - MSF	RES-16-4-MEAB-SIT-5P3189	0.00		
213	CBTC / FDAS End-to-end Functionality - St Laurent	RES-16-5-SLSU-SIT-3P8178	1.00	RES-16-5-SLSU-SIT-3R8178	0.10
214	CBTC / FDAS End-to-end Functionality - Zone 2	RES-16-8-0000-SIT-2P8179	1.00	RES-16-8-0000-SIT-2R8179	0.10
215	Light Rail Vehicle / High Rail Vehicle	RES-16-0-0000-SIT-5P7173	0.00	RES-16-0-0000-SIT-5R7173	0.10
216	High Rail Vehicle / Train Control System	RES-16-8-0000-SIT-0P7176	1.00		
217	Light Rail Vehicle / CCTV (wayside)	RES-16-8-0000-SIT-0P7222	1.00	RES-16-8-0000-SIT-0R7222	0.10
218	TUNNEL VENTILATION SYSTEM END-TO-END	RES-16-0-0000-SIT-0P3224	1.00	RES-16-0-0000-SIT-0R3224	1.00
219	Platform Inter-Car Barrier / coupled Train Integration (non-CCN)	RES-16-0-0000-SIT-0P3223	1.00	RES-16-0-0000-SIT-0R3223	1.10
220	MSF Access Track Smoke Testing Test Procedure	RES-16-4-0000-SIT-3P3225	0.00	RES-16-4-0000-SIT-3R30225	0.20
222	UPS Emergency Load Capacity SIT	RES-16-0-0000-SIT-0P30237	2.00	RES-16-0-0000-SIT-0R30237	1.10
223	Video Wall - TSCC/BCC/YCC SIT	RES-16-0-0000-SIT-0P30238	0.00	RES-16-0-0000-SIT-0R30238	0.10
224	SYSTEM INTEGRATION TEST PROCEDURE - GIDS/CBTC - SYSTEM WIDE	RES-16-0-0000-SIT-0P30234	0.00	RES-16-0-0000-SIT-0R30234	0.10
225	SYSTEM INTEGRATION TEST PROCEDURE TELEPHONY - SYSTEM WIDE	RES-16-0-0000-SIT-0P30235	1.00		
226	SYSTEM INTEGRATION TEST PROCEDURE - NETWORK MANAGEMENT SYSTEM - SYSTEMWIDE	RES-16-0-0000-SIT-0P30329	0.00		
227	Advanced Traveller Information System SIT	RES-16-0-0000-SIT-0P30240	0.00		
228	TVS to SCADA Local SIT - Lyon	RES-16-2-DWSU-SIT-2P30230	0.00	RES-16-2-DWSU-SIT-2R30230	0.10
229	TVS to SCADA Local SIT - Parliament	RES-16-2-DESU-SIT-2P30231	0.00	RES-16-2-DESU-SIT-2R30231	0.10
230	TVS to SCADA Local SIT - Rideau	RES-16-2-RISU-SIT-2P30232	0.00	RES-16-2-RISU-SIT-2R30232	0.10
231	TVS to SCADA Local SIT - St Laurent	RES-16-5-SLSU-SIT-3P30233	0.00	RES-16-5-SLSU-SIT-3R30233	0.10
232	TVS / SCADA Remote SIT - Lyon	RES-16-2-DWSU-SIT-2P30227	0.00	RES-16-2-DWSU-SIT-2R30227	0.10
233	TVS / SCADA Remote SIT - Parliament	RES-16-2-DESU-SIT-2P30229	0.00	RES-16-2-DESU-SIT-2R30229	0.10
234	TVS / SCADA Remote SIT - Rideau	RES-16-2-RISU-SIT-2P30228	0.00	RES-16-2-RISU-SIT-2R30228	0.10
235	TVS / SCADA Remote SIT - St. Laurent	RES-16-5-SLSU-SIT-3P30226	0.00	RES-16-5-SLSU-SIT-3R30226	0.10
236	Control Center / CBTC SIT	RES-16-4-MEAB-SIT-5P5191	0.00	RES-16-4-MEAB-SIT-5R5191	0.20

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ID	Document Title	Procedure Document #	Rev (4P)	Report Document #	Rev (4P)
237	Control Center / Comms Systems SIT	RES-16-4-MEAB-SIT-5P5192	0.00	RES-16-4-MEAB-SIT-5R5192	0.20
238	System Operating Procedures Demonstration	RES-16-0-0000-SIT-0P30242	2.00	RES-16-0-0000-SIT-0R30242	0.00
239	BAS/SCADA interface	RES-16-0-0000-SIT-0P30243 - tbc			

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APPENDIX E – CONFIGURATION CHANGES


Table 17 lists the configuration changes (RFI-CMs) at this revision of the Technical Compliance Report (this document) and the corresponding revision of the Technical Compliance Matrix [2].

Table 17: Configuration Changes

RFI-CM ID	RFI-CM Title	Design Area	Schedule	Req ID
215271	TVS Compatibility with CTS OLR-REJ-53-0-RFI-CM-0009 (R1)	Segment 2&5, TVS Equipment Interface @ MSF	Schedule 15-2 Part 3 - Tunnel	94241
				94242
			Schedule 15-2 Part 4 - Vehicles and Systems	94361
				96220
				96222
				96268
215272	Supply of Fare Collection Network Switch – Asset Addition OLR-REJ-53-0-RFI-CM-0007		Schedule 15-2 Part 4 - Vehicles and Systems	96347
				96222
				96384
215274	Addition of Thermal Image CCTV Camera – Asset Addition - OLR-REJ-53-0-RFI-CM-0004		Schedule 15-2 Part 4 - Vehicles and Systems	96388
				96234
				96301
			Schedule 15-2 Part 5 - Stations	96303
				97014
215275	New ETEL Requirements for Bayview.pdf OLR-REJ-53-0-RFI-CM-0005	Bayview Concourse and Trillium Platform	Schedule 15-2 Part 4 - Vehicles and Systems	97164
				96245
				96337
				96338
			Schedule 15-2 Part 5 - Stations	96342
				96343
215276	CCTV Camera Type 2-Asset Change OLR-REJ-53-0-RFI-CM-0002	System wide	Schedule 15-2 Part 4 - Vehicles and Systems	97246
				97292
				96198
				96232
				96233
				96238
				96301
				96302
				96303
215277	CCTV Camera Type 1 Asset Change OLR-REJ-53-0-RFI-CM-0001	System Wide	Schedule 15-2 Part 4 - Vehicles and Systems	96313
				96315
				96531
				96198
				96232
				96233
				96238
				96301
215277				96302
				96303
				96313
				96315
				96531
				96531

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RFI-CM ID	RFI-CM Title	Design Area	Schedule	Req ID
215278	CCTV Camera Type 3 – Asset Change OLR-REJ-53-0-RFI-CM-0003	System Wide	Schedule 15-2 Part 4 - Vehicles and Systems	96198
				96232
				96233
				96238
				96301
				96302
				96303
				96313
				96315
				96531
215279	TVS Segment 5 Fans Potential Reconfiguration, TVS Mode SVZ4-2 and SVZ4-2a OLR-REJ-53-0-RFI-CM-0008	Segment 5, St Laurent Tunnel	Schedule 15-2 Part 3 - Tunnel	93960
				94239
				94275
				94276
				94277
				94286
215280	Palo / Alto firewalls to CTS Network: OLR-REJ-53-0-RFI-CM-0014	CTS System	Schedule 15-2 Part 4 - Vehicles and Systems	96195
				96222
				96223
				96224
				96225
215281	Addition of ETEs at St Laurent Public Corridor OLR-REJ-53-0-RFI-CM-0013		Schedule 15-2 Part 4 - Vehicles and Systems	96245
			Schedule 15-2 Part 5 - Stations	97246
				97286
				97287
				97288
215282	Dell Network Servers OLR-REJ-53-0-RFI-CM-0010	MSF	Schedule 15-2 Part 4 - Vehicles and Systems	94544
				95842
				96222
				96357
215283	Replacement of Pimisi and Tunney's Entry Cameras OLR-REJ-53-0-RFI-CM-0012	Pimisi and Tunney's Stations	Schedule 15-2 Part 4 - Vehicles and Systems	96304
			Schedule 15-2 Part 5 - Stations	96313
				97014
				97164
				97190
215284	Rideau Station relocation of ETEL/ ITEL 01.	Rideau Station	Schedule 15-2 Part 4 - Vehicles and Systems	96245
			Schedule 15-2 Part 5 - Stations	97246
				97286
				97287
215605	FTEL Replacement	Main Guideway and Stations	Schedule 15-2 Part 4 - Vehicles and Systems	96245
215606	Camera Replacement in Parliament Elevators	Parliament Elevators	Schedule 15-2 Part 5 - Stations	96922


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APPENDIX F – CERTIFICATES, PERMITS AND LICENCES

Table 18 identifies the certificates and licences which support compliance for each PA schedule.

Table 18: PA Schedule to Certificate and Licence Links


Certificates and Licences	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6	Schedule 15-2 Part 7	NFPA130	TVA Requirements	Variation Confirmation Log
Security Cert OLR-05-0-0000-CER-Se3300			X			X					X	
Security Cert OLR-05-0-0000-CER-Se3700						X	X					
Security Cert OLR-05-0-0000-CER-Se3800						X						
Security Cert OLR-05-0-0000-CER-Se3900						X					X	
Security Cert OLR-05-1-BAST-CER-Se3200			X			X	X				X	
Security Cert OLR-05-1-LBST-CER-Se3200			X			X	X				X	
Security Cert OLR-05-1-TUST-CER-Se3200			X			X	X				X	
Security Cert OLR-05-2-0000-CER-Se3400					X	X					X	
Security Cert OLR-05-2-DESU-CER-Se3200			X		X	X	X				X	
Security Cert OLR-05-2-DWSU-CER-Se3200			X			X	X				X	
Security Cert OLR-05-2-RISU-CER-Se3200			X			X	X				X	
Security Cert OLR-05-3-CMST-CER-Se3200			X			X	X				X	
Security Cert OLR-05-3-HUST-CER-Se3200			X			X	X				X	
Security Cert OLR-05-3-LEST-CER-Se3200			X			X	X				X	
Security Cert OLR-05-4-0000-CER-Se3100			X			X		X			X	
Security Cert OLR-05-4-TRST-CER-Se3200			X			X	X				X	
Security Cert OLR-05-5-BLST-CER-Se3200			X			X	X				X	
Security Cert OLR-05-5-CYST-CER-Se3200			X			X	X				X	
Security Cert OLR-05-5-SLSU-CER-Se3200			X			X	X				X	
Station Occupancy Cert Bayview BP1605683 Occ 20190312							X					
Station Occupancy Cert Blair BP1505800 Occ 20190319							X					
Station Occupancy Cert Cyrville BP1505239 Occ 20190319							X					
Station Occupancy Cert Hurdman BP1507443 Occ 20190320							X					
Station Occupancy Cert Lees BP1603002 Occ 20190319							X					

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Certificates and Licences	Schedule 13	Schedule 15-1	Schedule 15-2 Part 1	Schedule 15-2 Part 2	Schedule 15-2 Part 3	Schedule 15-2 Part 4	Schedule 15-2 Part 5	Schedule 15-2 Part 6	Schedule 15-2 Part 7	NFPA130	TVA Requirements	Variation Confirmation Log
Station Occupancy Cert OTT-06-2-DESU-PER-1602815 - 20190515							X					
Station Occupancy Cert OTT-06-2-DESU-PER-1602815-20190410							X					
Station Occupancy Cert OTT-06-2-DESU-PER-1602925-20190410							X					
Station Occupancy Cert OTT-06-2-DWSU-PER-1600520-20190408							X					
Station Occupancy Cert OTT-06-2-RISU-PER-1403041-20190429							X					
Station Occupancy Cert OTT-06-2-RISU-PER-1600131-20190429							X					
Station Occupancy Cert OTT-06-2-RISU-PER-1600131-20190515							X					
Station Occupancy Cert OTT-06-2-RISU-PER-1604287 - 20190515							X					
Station Occupancy Cert OTT-06-2-RISU-PER-1604287-20190429							X					
Station Occupancy Cert OTT-06-3-HUST-PER-1507443-20190320							X					
Station Occupancy Cert OTT-06-3-LEST-PER-1603002-20190319							X					
Station Occupancy Cert OTT-06-5-SLSU-PER-1506028-20190402							X					
Station Occupancy Cert OTT-06-5-SLSU-PER-1506028-OCC							X					
Station Occupancy Cert Pimisi BP1601842 Occ 20190227							X					
Station Occupancy Cert Tremblay BP1506673 Occ 20190319							X					
Station Occupancy Cert Tunney's BP1605328 Occ 20190327							X	X				
Station Occupancy Cert UOttawa BP1601877 Occ 20190319							X					
TSSA Licence 38600							X					
TSSA Licence 38601							X					
TSSA Licence 63087							X					
TSSA Licence 64489440							X					
TSSA Licence 6474638							X					

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TSSA Licence 6474639							X					
TSSA Licence 64748693							X					
TSSA Licence 64748695							X					
TSSA Licence 64748696							X					
TSSA Licence 64748698							X					
TSSA Licence 64748699							X					
TSSA Licence 64756537							X					
TSSA Licence 64758740							X					
TSSA Licence 64758741							X					
TSSA Licence 64759135							X					
TSSA Licence 64759136							X					
TSSA Licence 64759137							X					
TSSA Licence 64759138							X					
TSSA Licence 64759340							X					
TSSA Licence 64759341							X					
TSSA Licence 64760839							X					
TSSA Licence 64760840							X					
TSSA Licence 64760842							X					
TSSA Licence 64760843							X					
TSSA Licence 64762678							X					
TSSA Licence 64763976							X					
TSSA Licence 64763977							X					
TSSA Licence 64763978							X					
TSSA Licence 64763979							X					
TSSA Licence 64764091							X					
TSSA Licence 64764640							X					
TSSA Licence 64764641							X					
TSSA Licence 64764793							X					
TSSA Licence 64764794							X					
TSSA Licence 64764795							X					

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TSSA Licence 64764796							X						
TSSA Licence 64764797							X						
TSSA Licence 64764798							X						
TSSA Licence 64764799							X						
TSSA Licence 64764800							X						
TSSA Licence 64764801							X						
TSSA Licence 64764802							X						
TSSA Licence 64764836							X						
TSSA Licence 64765467							X						
TSSA Licence 64765472							X						
TSSA Licence 64765473							X						
TSSA Licence 64765475							X						
TSSA Licence 64765476							X						
TSSA Licence 64765477							X						
TSSA Licence 64765479							X						
TSSA Licence 64765496							X						
TSSA Licence 64765497							X						
TSSA Licence 64765501							X						
TSSA Licence 64765502							X						
TSSA Licence 64767485							X						
TSSA Licence 64767486							X						
TSSA Licence 64767540							X						
TSSA Licence 64767541							X						
TSSA Licence 64767542							X						
TSSA Licence 64767543							X						
TSSA Licence 64768468							X						
TSSA Licence 64774900							X						
TSSA Licence 64774901							X						
TSSA Licence 64774902							X						
TSSA Licence 64774903							X						

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TSSA Licence 64810909							X					
TSSA Licence 64810910							X					
TSSA Licence 64810923							X					
TSSA Licence 64810925							X					
TSSA Licence 64810926							X					
TSSA Licence 64810931							X					
TSSA Licence 64810932							X					
TSSA Licence 64810933							X					
TSSA Licence 64810934							X					
TSSA Licence 64810935							X					
TSSA Licence 64821858							X					
TSSA Licence 64821859							X					
TSSA Licence 64821860							X					
TSSA Licence 64821861							X					
TSSA Licence 64821862							X					
TSSA Licence 64821863							X					
TSSA Licence 64821864							X					
TSSA Licence 64821865							X					
TSSA Licence 64863768							X					
TSSA Licence 64863769							X					
TSSA Licence 64863837							X					
TSSA Licence 64863838							X					
TSSA Licence 64863839							X					
TSSA Licence 64863840							X					
TSSA Licence 64863841							X					
TSSA Licence 64863842							X					
TSSA Licence 64863844							X					
TSSA Licence 64863846							X					
TSSA Licence 64863961							X					
TSSA Licence 64863962							X					

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TSSA Licence 64864217							X					
TSSA Licence 64864218							X					
TSSA Licence 64864219							X					
TSSA Licence 64864220							X					
TSSA Licence 64864223							X					
TSSA Licence 64864224							X					