



Safety and Security Certification Audit Report October 4, 2024

Projects: Lynnwood Link Extension

Audit Type: Safety and Security Audit Profiles 3000 (Follow-up) and 4000

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Date: September 9, 2024

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September 9, 2024

APPROVED BY (TALSON):

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Date: September 16, 2024

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Date: October 4, 2024



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I. EXECUTIVE SUMMARY

Commencing in July 2024 and extending through September 2024, Talson Solutions, LLC (Talsoln) performed a Safety and Security Certification Audit (SSCA) of Sound Transit's Lynnwood Link Extension project (LLE). The audit was performed on behalf of the Sound Transit's Audit Division, focusing on contracts L200, L300, and L800.

Objectives

The objective of SSCAs is to verify evidence that construction and operational activities are in conformance with Sound Transit hazard mitigation plans and certification policy. Sound Transit uses certifiable item forms in the Safety and Security Information Management System (SSIMs) to evidence hazard mitigating documentation in accordance with required specifications and plans. Hazard mitigation and certification standards are detailed within the Agency Safety and Security Certification Plan (SSCP), dated April 2023 and the Agency Safety and Security Management Plan (SSMP), dated March 2022. Specific focus was placed on: *Construction Conformance Verification*¹; and *System Integrated and Pre-Operational Testing*.

Audit Profile 3000 (Follow-up) – Construction Conformance Verification

- Reviewed construction hazards for mitigation in accordance with hazard analyses and the "Safety and Security Requirements" SSIMs fields
- Evaluated evidence that construction conformance mitigation has been achieved, inspected, and documented
- Key documents reviewed included Inspection Reports, Resident Engineer Summary Reporting, Level 1 & 2 Plans & Testing Reports

Audit Profile 4000 –Pre-Operational Integrated Testing

- Assessed the application and effectiveness of testing as defined in plans and procedures
- Reviewed evidence that safety and security requirements have been adequately tested and appropriately documented with review and approval
- Assessed that uploaded testing documentation is signed by appropriate personnel

Results

Talsoln found that design and construction activities performed by Sound Transit generally align with safety and security certification processes and plans with noted exceptions. Testing resulted in **one (1) finding** and **two (2) observations** relating to the accuracy of uploaded documentation and references within the SSIMs Project Dashboard.

Preliminary observations were shared with appropriate Sound Transit personnel prior to the Closeout Briefing and issuance of this draft report. Continued discussion and correspondence will occur through the auditor's evaluation and acceptance of Audit Response Forms (ARFs), detailed in Section V. of this report.

¹ There were some elements within contracts that were incomplete during the Task Order 38's AP 3000 SSCA. Additional Certifiable Items were sampled as part of this audit.

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II. SCOPE AND METHODOLOGY

SSCAs provide assurance that identified hazards are effectively mitigated and appropriately documented during each phase of a capital project spanning from preliminary engineering to revenue service. The Audit Profiles (APs) of SSCAs are specific to the completed phases of a capital project:

- **Audit Profile 1000** – Hazard Analysis
- **Audit Profile 2000** – Design
- **Audit Profile 3000** – Construction
- **Audit Profile 4000** – System Testing
- **Audit Profile 5000** – Vehicle Fabrication
- **Audit Profile 6000** – Training/SOPs
- **Audit Profile 7000** – Fire/Life Safety Readiness / Certification Reporting

SSCP, Appendix 5 (dated 2023) outlines the use of Certifiable Items (CI) Checklist Forms within SSIMs for uploading documented evidence that each identified hazard has been mitigated throughout each completed capital project phase. SSCA testing targets stratified sampling for 15% of all completed CIs covering each identified contract and element. Each sampled CI is verified for relevancy, appropriateness, traceability, and proper referencing. A three (3) tiered rating system is used to categorize the results:

- **Acceptable:** No deviation from the implemented SSCP / SSMP standards.
- **Conditionally Acceptable:** Minor deviation of the implemented SSCP /SSMP standard and unlikely to result in a nonconforming product or service.
- **Unacceptable:** A significant breakdown or partial breakdown in processes that resulted in, or incorrectly documented, a nonconforming product or service.

CIs that are rated below “Acceptable” may or may not result in the assignment of audit findings, observations, and/or corrective action plans based on the criteria listed in Section V of this report and the professional judgement of the auditor.

Audit activities for this audit focused on the following:

Talson’s Audit Activities

- Conducted a Kick Off meetings with applicable personnel on July 18, 2024
- Assessed relevant compliance documentation including prior audit reports, SSCP, SSMP, and the LLE specific Preliminary Hazard Analysis, dated March 22, 2017
- Reviewed Integrated Testing Pre-Revenue Service Memo, signed May 17, 2024
- Reviewed uploaded documentation and notations within each sampled certifiable item
- Completed Audit Profiles 3000 Testing Checklists/Workpapers
- Reviewed workaround schedules, open items, testing matrices, and procedures
- Conducted a Closeout Briefing with preliminary results on July 30, 2024
- Produced audit draft and final reports

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III. FINDINGS

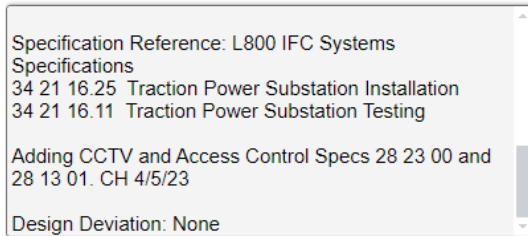
The audit resulted in **one (1) finding**.

Finding No. 1 – AP 3000

CI forms within SSIMs had missing references to uploaded documents and listed files that were not uploaded or located. These have been marked as **Conditional Acceptable** within the audit checklist to be shared with Sound Transit staff.

- Safety AP 3000: 5 out of 11 samples (45%) had missing or incomplete documentation
- Security AP 3000: 2 out of 10 samples (20%) had mis-referenced documentation

Design Conformance



**Specification
28 23 00 was
not uploaded
into SSIMS**

This has been marked as a finding due the recurrence of the issue.

IV. OBSERVATIONS

The audit resulted in **two (2) observations**:

Observation No. 1 – AP 4000

Talson noted that five (5) Safety Critical, Systems Integrated Tests that did not have a corresponding CI Form or ID Number referenced within the SSIMS field. As a result, the tests were not readily accessible to demonstrate completion.

Tests Without CI	Description	CI ID
102	Cart Clearance	No ID
103	LRV Car Mover Clearance	No ID
404	Train Tracking	No ID
406	Control Line Braking	No ID
505	SCADA BMS Test	No ID

Talson reviewed and verified that Tests 102, 103, and 406 were completed with no issues noted. Tests 404 and 505 are reported as open with an appropriate workaround.


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Observation No. 2 – AP 4000

CI forms within SSIMs had two tests with missing contractor signatures and one test without test procedures attached. However, Talson verified an appropriate Sound Transit signature on all verification forms and the testing director had signed the testing data. These have been marked as **Conditional Acceptable**.

Safety and Security Audit Profile 4000: 3 out of 25 Test Reports had Certificates of Completion that were missing the Testing Director Signature (two of the samples) or did not have the associated test procedures attached to the results (one of the samples): L800 ID Nos 104, 86, and 163.

Example: Missing the Test Director's Signature:

Test Witnesses:	
Integrated Test Lead: _____	Date: _____
Test Director: _____	Date: _____
Sound Transit Representative: Andrew Escobedo 	Date: _____
L800 Lynnwood Link Project	

V. Management Response Forms (MRFs):

Observations can be addressed separately, but management corrective action should be submitted within 30 days of the final distribution of this report and corresponding MRFs. Verification of conforming corrective action and root cause explanation will be reviewed by Talson upon submission of the MRFs by Sound Transit.

Below are the definitions of a Finding and an Observation, along with the acceptable response requirements:

- A. **Findings** indicate areas where Sound Transit or another entity is non-compliant with its own established policy, plan, procedure and/or regulation and which must be corrected, and documented in writing on a corrective action plan. Action plans should also include a specific, measurable amount of time it will take to correct the issue and reduce risk.
- B. **Observations** do not mean the issue is deficient. However, the auditor has determined that the issue poses the potential risks of becoming a finding in the future if recommended changes are not put in place to prevent occurrence.

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VI. DISTRIBUTION:

Safety and Security Audit
Dates:

July 2024 – September 2024

Organization:

Sound Transit

(Auditee)

Responsible Party:

Branden Porter, Acting Chief Safety Officer

(Auditee)

Talson Auditor(s):

Ken Brzozowski, Norman Jones, and Robert Farrow

(Auditors)

Report To:

- Robert Taaffe, Acting Director, Transportation Safety & Security

Distribution List:

- Moises Gutierrez, DCEO & Chief Agency Oversight Officer
- Terri Mestas, Deputy CEO, Chief Capital Delivery Officer
- Craig DeLalla, Acting Chief Engineer, PSO
- Randy Harlow, Executive Project Director, DECM
- Kerry Pihlstrom, Acting Executive Director, Asset Transition Office
- Jodi Mitchell, ST Deputy Director – Safety Business Processes, Transportation Safety & Security
- Josiah Durham, ST Manager, Transportation Safety & Security
- Heather Wright, Deputy Director, Audit Division
- Michael Flood, ST Sr Compliance Auditor, Audit Division
- Molly Hughes, WSDOT State Safety Oversight Program Administrator
- Andrew Royer, WSDOT State Safety Oversight Program Administrator

Attachments:

- SSCA Management Response Forms (MRFs)