TALSON
SOLUTIONS LLC

Safety Certification Audit Report
February 5, 2024

Projects: **East Link Extension Contracts E335, E360, & E750 (Starter Line)**

Audit Type: **Safety and Security Audit Profiles 2000 & 3000**

PREPARED BY (TALSON):

Norman Jones – Auditor	Date:	*December 11, 2023*
Robert Farrow – Auditor		*December 11, 2023*

APPROVED BY (TALSON):

Kenneth Brzozowski – Project Manager	Date:	*January 5, 2024*

APPROVED FOR ISSUE (SOUND TRANSIT):

Patrick Johnson – ST Director, Audit Division	Date:	*January 25, 2024*

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Safety Certification Audit Report

I.   EXECUTIVE SUMMARY

Commencing in October 2023 and extending through December 2023, Talson Solutions, LLC (Talson) performed a desktop Safety and Security Certification Audit (SSCA) of Sound Transit's East Link Extension (ELE) project, specifically contracts E335, E360, and E750. The audit was performed on behalf of the Sound Transit's Audit Division and focused on Audit Profiles 2000 and 3000 – *Design and Construction Conformance Verification*. Contract Nos. E335 and E360 are specific to East Link Starter Line activities, which is targeted for revenue service in March 2024.

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 August 2018[1] and the Agency Safety and Security Management Plan (SSMP), dated February 2017. Audit Profile objectives for this audit focused on the following:

Audit Profile 2000 – Design Phase Conformance Verification
  - ➢ Evaluated evidence that designs mitigated safety and security hazards according to the hazard analyses and the "Safety and Security Requirements" fields within SSIMs
  - ➢ Key documents reviewed included Drawings, Specifications, and Calculations

Audit Profile 3000 – Construction Phase Conformance Verification
  - ➢ Evaluated evidence that construction hazards were mitigated according to the hazard analyses and the "Safety and Security Requirements" SSIMS fields
  - ➢ Key documents reviewed included Inspection Reports, Safety Security Verification Reports, Resident Engineer Summary Memorandums, Level 1 & 2 Plans & Testing Reports and other applicable drawings, specifications and documents

Results

Talson 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 **no (0) findings** and **three (3) observations** relating to the accuracy and availability 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.

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[1] The revised SSCP, dated April 2023 does not reference SSIMs but is not applicable to this project's start date

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 Section 3.1.2, B., 2. (dated 2018), requires the use of Certifiable Item Forms (CIs) 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 a nonconforming product or service.*

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

The Below Chart details the CI population size and sample for each Safety and Security contract:

Contract	Focus	AP Type	CI Total	Sampling	Percentage
E335	Security	2000	240	36	15%
E335	Safety	3000	680	106	15%
E335	Security	3000	240	36	15%
E360	Security	2000	173	26	15%
E360	Security	3000	173	26	15%
E750	Security	2000	88	18	20%
E750	Security	3000	88	18	20%
E750	Safety	3000	95	30	32%
		Total	1,777	296	

Talson's audit procedures included the following:

➢ Conducted Kick Off meeting with applicable personnel on October 18, 2023
➢ Assessed relevant compliance documentation including prior audit reports, SSCP, SSMP, and Preliminary Hazard Analysis, dated November 29, 2017
➢ Selected 80 Safety and Security CIs out of 501 (16%) for Audit Profile 2000 Testing
➢ Selected 216 Safety and Security CIs out of 1,276 (17%) for Audit Profile 3000 Testing
➢ Reviewed uploaded documentation and notations within each CI
➢ Completed Audit Profile 2000 and 3000 Testing Checklists/Workpapers
➢ Conducted a Closeout Briefing with preliminary results on December 4, 2023
➢ Produced audit draft and final reports

III.   FINDINGS

The audit resulted in no findings.

IV.   OBSERVATIONS

The audit resulted in three (3) observations:

Observation No. 1

Talson observed that three (3) out of 296 (1%) safety and security CIs within SSIMs had no reference to the construction conformance, uploaded supporting documentation, nor adequate explanatory notation for closure of the hazard. These have been marked as ***Unacceptable*** within audit checklists:

• Contract E335 – Safety – Certifiable Item Nos: 540, 686, 781

The below example is a SSIMS screen shot depicting the missing document reference:
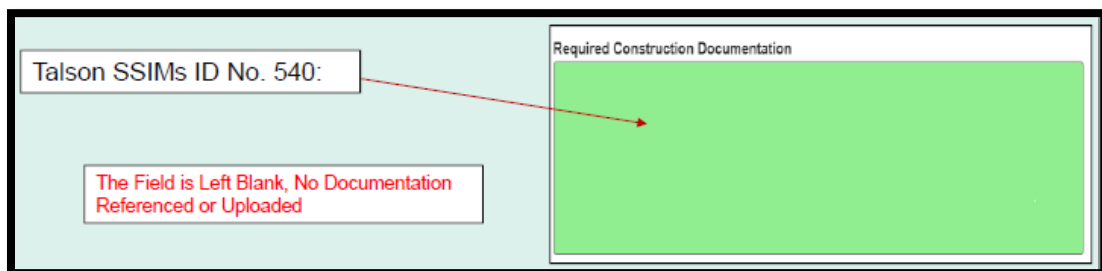
Observation No. 2

Six (6) of the eight (8) contracts tested with Safety and Security CIs within SSIMS had missing references to uploaded documents and listed files that were not uploaded with the SSIMs form. These have been marked as **Conditional Acceptable** within the Talson audit checklists:

- Contract E335 Security Audit Profile 2000: 3 out of 36 samples (8%)
- Contract E360 Security Audit Profile 2000: 8 out of 26 samples (30%)
- Contract E750 Security Audit Profile 2000: 3 out of 18 samples (17%)

- Contract E335 Safety Audit Profile 3000: 25 out of 106 samples (24%)
- Contract E750 Safety Audit Profile 3000: 2 out of 30 samples (7%)

- Contract E335 Security Audit Profile 3000: 3 out of 36 samples (8%)
- Contract E360 Security Audit Profile 3000: 0 out of 26 samples (0%)
- Contract E750 Security Audit Profile 3000: 0 out of 18 samples (0%)

Observation No. 3

Talson observed a total of nine (9) CIs with notations that the certificate of occupancy had not yet been attained and uploaded as of the date that construction conformance documentation was verified, approved, and closed. This was required for construction documentation phase completion according to several notations within SSIMs requirement fields. Talson will follow up at a later date to verify that the certificate of occupancy has been attained. Note that these CIs have been included in the **Conditional Acceptable** count and percentages in Observation No. 1:

Contract E335 – Safety CI Nos: 380, 570, 658, 661, 663, 702, 737, 832, 883

Note that Sound Transit management considers it an error that the certificate of occupancy was listed as a required uploaded document to complete the construction phase, rather than the operational phase.

V.   Audit Response Forms (ARFs)

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

VI. DISTRIBUTION

Safety and Security Audit Dates:	October 2023 – December 2023
Organization:	Sound Transit *(Auditee)*
Responsible Party:	Branden Porter, Director, Transportation Safety & Security *(Auditee)*
Talson Auditor(s):	Ken Brzozowski, Norman Jones, and Robert Farrow *(Auditors)*

Report To:
- Branden Porter, Director, Transportation Safety & Security

Distribution List:
- Mary Cummings, DCEO & Chief Administrative Officer
- David Wright, Chief Safety Officer, Safety Department
- Moises Gutierrez, Chief System Quality Officer
- Ron Lewis, Executive Director, DECM
- Jon Lebo, Executive Project Director, DECM
- Kerry Pihlstrom, Executive Director, Asset Transition Office
- Craig DeLalla, Chief Engineer
- Jodi Mitchell, ST Deputy Director – Safety Business Processes, Transportation Safety & Security
- Matt Mitchell, ST Manager, Transportation Safety & Security
- Heather Wright, Deputy Director, Audit Division
- Michael Flood, ST Senior Auditor, Audit Division
- Molly Hughes, WSDOT State Safety Oversight Program Administrator
- Andrew Royer, WSDOT State Safety Oversight Program Administrator

Attachments:
- E335 Security Audit Profile 2000 Checklist
- E360 Security Audit Profile 2000 Checklist
- E750 Security Audit Profile 2000 Checklist (E335)
- E750 Security Audit Profile 2000 Checklist (E360)
- E335 Safety Audit Profile 3000 Checklist
- E750 Safety Audit Profile 3000 Checklist (E335)
- E750 Safety Audit Profile 3000 Checklist (E360)
- E335 Security Audit Profile 3000 Checklist
- E360 Security Audit Profile 3000 Checklist
- E750 Security Audit Profile 3000 Checklist (E335)
- E750 Security Audit Profile 3000 Checklist (E360)
- SSCA Audit Response Form (ARF)