

FIRM

Soteria Company, LLC
Consultant
July 2012 – Present

Netira Group, LLC
Founding Principal
November 2011 - Present

EDUCATION

BSEE, Electrical Engineering, UCLA
MSE, Systems Engineering and
Technology Management, Wharton
School of Business and School of
Engineering, University of
Pennsylvania

AREAS OF EXPERTISE

- Security Assessments on Critical Infrastructure Projects with Key Experience on Rail Transit
- Operational/Military Operations
- Project Management
- Engineering

YEARS OF EXPERIENCE

22 Years

REGISTRATIONS & CERTIFICATIONS

IDF Officers Academy

EMPLOYMENT

- Israel Air Force
2000 - 2006
- Mantis Vision
2006 - 2010

TECHNICAL EXPERIENCE

Mr. Braverman has been a founding principle of Netira Group since 2011 and a consultant to Soteria Company since 2012. He has international experience in critical infrastructure assessment, military operations, project management and technology development within the security and defense arena. Avi has conducted security risk assessments on virtually all the completed and in-progress major Los Angeles Metro light rail projects. Additionally, he has completed Threat and Vulnerability Analyses for the LRT in Edmonton, Canada and Metrolink (SCRRA). Recently he completed a DHS project involving the assessment of 100 critical infrastructure sites throughout Southern California. Avi combines his engineering background from UCLA and experience as an officer in the Israel Defense Forces (IDF) to uniquely inform critical infrastructure projects with a robust yet streamlined security posture.

SUMMARY OF EXPERIENCE

- Currently conducting a Threat and Vulnerability Assessment (TVA) for the LA Metro Westside Extension Subway
- Recently completed a Threat and Vulnerability Assessment (TVA) for the high-profile Automated People Mover (APM) Project at LAX. This assessment included blast analysis, operational analysis, and a cyber security analysis on the various physical and cyber threats to the APM system.
- A Threat and Vulnerability Assessment (TVA) for the Airport Metro Connector (AMC), a major transit hub in the LACMTA system interfacing with the LAX APM Project
- A Threat and Vulnerability Assessment (TVA) for the LA Metro Regional Connector in Downtown Los Angeles
- A Threat and Vulnerability Assessment (TVA) for the Edmonton Light Rail Transit project in Downtown Edmonton
- A Threat and Vulnerability Assessment (TVA) for the LA Metro Gold Line Foothill Extension
- A Threat and Vulnerability Assessment (TVA) for the Crenshaw/LAX Transit Corridor
- System Security Plans (SSecP) for both the Westside Extension Purple Line Phase 1 and the Regional Connector Transit Corridor projects for LA Metro
- UASI (DHS) Critical Infrastructure Assessment Project for Riverside and San Bernardino Counties. This year-long effort included vulnerability assessments of one hundred (100) critical sites throughout the San Bernardino and Riverside counties of Southern California. The assessments included sites from all sixteen critical infrastructure sectors defined by the National Infrastructure Protection Plan of the US Department of Homeland Security.
- A Threat and Vulnerability Assessment (TVA) for Metrolink (SCRRA) on critical operations facilities, including major maintenance yards, Metrolink control center, Metrolink Communications and Signaling facility, and the Metrolink Training facility
- Threat and Vulnerability Assessments (TVAs) for thirteen (13) electric substations and the control center for ITC throughout the State of Michigan
- A Threat and Vulnerability Assessment (TVA) at the design stage for a new Emergency Operations Center in the City of Raleigh, North Carolina.

RELEVANT AND RELATED EXPERIENCE: PROJECTS ON WHICH NETIRA TEAMED WITH SOTERIA

LA Metro Westside Extension Project Security Planning and Threat and Vulnerability Assessment, Los Angeles, CA

2020 and 2015

Mr. Braverman's Role: Senior Security Risk Consultant

Threat and Vulnerability Assessment, 2020

Soteria/Netira is currently performing for LACMTA/STS a Design-Build phase Threat and Vulnerability Assessment. Final design will be evaluated to determine how design updates since preliminary engineering may impact vulnerabilities and security risk as well as potential mitigations. Updated risk analysis is being conducted to evaluate any changes in the risk profile as a result of new threats or vulnerabilities that have arisen since the early design stage. An alignment survey was conducted in January 2020 to evaluate potential vulnerabilities to acts of terror and crime. Threats and crime statistics are being researched to determine the updated threat picture. The assessment will verify that all recommended mitigations are aligned with current design and are being carried through to project completion.

Security Planning, 2015

The Security Program Plan (SSecPP) was written in August 2015 for LACMTA/STS and details the design builder's approach to security integration for the design and construction of the Purple Line-Westside Subway Extension.

Los Angeles International Airport (LAX) Automated People Mover (APM), Threat and Vulnerability Assessment

2018 - 2019

The Los Angeles International Airport (LAX) Automated People Mover (APM) is a major component of the Landside Access Modernization Program (LAMP). The APM Project will provide an elevated guideway with an at-grade Maintenance and Storage Facility and six stations, connecting to CTA passenger terminals through a network of elevated pedestrian walkways and a vehicle system. The APM Project also includes procurement of the Bombardier INNOVIA APM vehicle, along with operating systems and infrastructure to support the system.

In the role of subcontractor to LAX Integrated Express Solutions (LINXS), Soteria has an extensive role in ensuring system safety. Among other roles, Soteria is managing the System Safety Program Plan, additional Safety Plans, performing Threat and Vulnerability Assessment, and managing Certification.

Mr. Braverman's Role: Senior Security Risk Consultant

Avi completed for LINXS/LAWA a Design/Build/Maintain/Operate Threat and Vulnerability Assessment for the LAX Automated People Mover (APM). Together with traditional physical security risk analysis and mitigation work, Netira/Soteria APM risk analysis and mitigations were closely integrated with blast analysis by Hinman. The various risks to bomb threats and other attacks were assessed and mitigated using both structural hardening and operational measures along with design modifications including CPTED. In addition, a complete cyber risk analysis of vital train control and other potentially vulnerable systems to cyber attack was conducted with Soteria oversight to mitigate against these unique threats.

LACMTA/Gruen Associates, Airport Metro Connector 96th Street Transit Station, Threat and Vulnerability Assessment, Los Angeles, CA

2017 - 2018

The Airport Metro Connector (AMC) project is a transit hub containing the Crenshaw LRT line and future LAX Automated People Mover (APM).

Mr. Braverman's Role: Senior Security Risk Consultant

Avi conducted for LACMTA/Gruen/Grimshaw at the schematic design stage a Threat and Vulnerability Assessment for the Airport Metro Connector. Full station analysis was carried out to ensure that all system, architectural and structural design incorporates security countermeasures to match assessed risk. Recommendations to mitigate both crime and terror risks were incorporated in the TVA report.

LA Metro Regional Connector Transit Corridor Security Planning and Threat and Vulnerability Assessment DB Phase, Los Angeles, CA
2017 – 2018 and 2016

Mr. Braverman's Role: Senior Security Risk Consultant

Threat and Vulnerability Assessment, 2017 – 2018

Avi completed for LACMTA/Skanska-Traylor a Design-Build phase Threat and Vulnerability Assessment. Final design was evaluated to determine how design updates since preliminary engineering impacted vulnerabilities, consequences and threats, as well as potential mitigations. An alignment survey was conducted to evaluate potential vulnerabilities to acts of terror and crime. Threats and crime statistics were researched to determine the updated threat picture. The assessment correlated mitigations from PE phase to final design to ensure the appropriate mitigations were implemented.

Security Plan, 2016

The Security Program Plan (SSecPP) was written in October 2016 for LACMTA/Skanska-Traylor and details the design builder's approach to security integration for the design and construction of the Regional Connector Line.

LA Metro Gold Line Foothill Extension Threat and Vulnerability Assessment, Montclair, CA
2017

Mr. Braverman's Role: Senior Security Risk Consultant

Avi conducted a Threat and Vulnerability Assessment (TVA) for LACMTA/Gold Line Authority/Hill International at the advanced engineering stage for the Metro Gold Line Foothill Extension Project. Full station and alignment analysis was carried out to ensure that all system, architectural and structural design incorporates security countermeasures to match assessed risk. Recommendations to mitigate both crime and terror risks were incorporated in the TVA report.

City of Edmonton, Edmonton Valley Line LRT Project, Security Planning and Threat and Vulnerability Assessment , Edmonton, Canada
2016 - 2017

Mr. Braverman's Role: Senior Security Risk Consultant

Avi conducted for TransEd/Bechtel/Bombardier at the early design stage a Threat and Vulnerability Assessment and System Security Program Plan (SSecPP) for the Valley Line Light Rail Transit Project. Full station and alignment analysis were carried out to ensure that all system, architectural and structural design incorporates security countermeasures to match assessed risk. Recommendations to mitigate both crime and terror risks were suggested as part of the final TVA report.

LA Metro Crenshaw/LAX Transit Corridor Project, Threat and Vulnerability Assessment , Los Angeles, CA
2014 - 2016

Mr. Braverman's Role: Senior Security Risk Consultant

Avi conducted a TVA (Threat and Vulnerability Assessment) with Soteria Company under Walsh Shea on the Crenshaw/LAX Design Phase. A full assessment of the potential security risks to Metro property, employees, and passengers for the planned Crenshaw/LAX line was carried out. Site surveys and workshops were carried out with various stakeholders, including Metro staff, to ensure crime and terror risks were identified and mitigated.

Metrolink Risk & Vulnerability Assessment and Safety & Security Planning and Training, Los Angeles, Orange, Ventura, Riverside and San Bernardino Counties, CA
2014

Mr. Braverman's Role: Senior Security Risk Consultant

Avi completed work with ERRG on a risk and vulnerability assessment and security training and awareness project for Metrolink (SCRRA). The project included assessments on several critical operating facilities. An Incident Response Plan and Crisis Communication Plan Update were written and security training was provided.

RELEVANT AND RELATED EXPERIENCE, NETIRA GROUP PROJECTS

UASI Critical Infrastructure Assessment Project, Riverside, CA

2015 – 2016

Avi completed a 100-site critical infrastructure assessment project for the UASI Riverside Infrastructure Protection Program. The project involved vulnerability assessments on key infrastructure and other critical sites throughout the San Bernardino and Riverside counties of Southern California from June 2015 through May 2016. These included sites from all sixteen critical infrastructure sectors defined by the National Infrastructure Protection Plan of the US Department of Homeland Security.

For each site, key information related to the site security posture was collected and entered into the Digital Sandbox data management system for situational awareness. Additionally, a post-assessment report was written and submitted to each site owner/operator providing options for consideration to reduce risk to terrorism and other types of security threats.

ITC Holdings, Substation Protection Assessment CIP-014, Novi, Michigan

2014

Avi, together with Burns & McDonnell, conducted risk and vulnerability site assessments on electric substations and control centers for ITC Holdings. These involved assessments for each of the thirteen facilities throughout the State of Michigan, and discussions with stakeholders concerning all elements of site security and critical asset protection.

City of Raleigh, Risk & Vulnerability Analysis & Security Design and Planned Critical Public Safety Facilities, Raleigh, NC

2012

Avi, together with Burns & McDonnell, completed a security risk and vulnerability assessment, planning, and design effort for an Emergency Management facility in the City of Raleigh, NC. Interviews were conducted with public safety officials, a risk/consequence workshop was held, a threat and vulnerability assessment was performed, and security design criteria for the proposed facility were drafted.

HOMELAND SECURITY AND ANTI-TERROR PLANNING

Mr. Braverman brings unique experience from the Israel Defense Forces. While at the IDF's Officer Academy as a cadet from the Israel Air Force, he trained in Israeli methodologies in Homeland Security and anti-terror planning. These methods have in large part been adopted by US Defense and Homeland Security agencies.