

# ENVIRONMENTAL STEWARDSHIP SUMMARY

Proposed Saab Munitions Facility, Grayling Township, Michigan

PREPARED FOR KIRCO Manix Construction 101 W Big Beaver Road – Suite 200 Troy, Michigan 48084

**PROJECT #** 19610f-1-10

DATE December 3, 2024

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# **ENVIRONMENTAL STEWARDSHIP SUMMARY**

Proposed Saab Munitions Facility, Grayling Township, Michigan AKT Peerless Project No. 19610f-1-10

# 1.0 How This Affects You

This report was created to provide a complete summary of what products will be assembled in Saab's proposed Grayling Assembly Plant, how they will be assembled, and how they will be stored and shipped. The goal is to provide the people of Grayling and surrounding communities with as complete a picture of the activities within the Grayling Assembly Plant to continue to feel safe in their town.

What WILL occur at the Grayling Assembly Plant:

- 1. A new location for the assembly of critical munitions for the United States and its allies
  - a. Assembly, test (non-explosive), packaging, and shipping of the Ground Launched Small Diameter Bomb (GLSDB)
  - b. Assembly, test (non-explosive), packaging, and shipping of the Individual Assault Munition (IAM) or AT4
- 2. Receiving and temporary storage of sealed and approved munitions used in the assembly of the products identified above.
- 3. The Grayling Assembly Plant consists of three primary buildings and a group of munitions storage bunkers forming a secure, approximately 60-acre, campus.
- 4. Three primary buildings:
  - a. Administration / Engineering / Warehouse
  - b. Individual Assault Munition (IAM) Assembly
  - c. Ground Launched Small Diameter Bomb (GLSDB) Assembly
- 5. An Ammunition Storage Point consisting of several bunkers each designed and constructed to withstand all contents exploding while preventing debris from damaging any other nearby bunkers, local road traffic, or other buildings.
- 6. The Grayling Assembly Plant is a secure site. The perimeter of the site is protected by secure fence and is monitored 24/7 by various security systems and on-site security personnel.
- 7. The plant will be required to pass initial and ongoing audits by the DoD and ATF to assure that it is operating safely and within its operational limits.
- 8. Personnel involved with the assembly, handling, and transport of the products will be required to pass Saab prescribed drug screening and ATF background checks.

What WILL NOT occur at the Grayling Assembly Plant:

- 1. No production of chemicals or explosive compounds will be conducted on site.
- 2. The site will have no capability for the test firing or destruction of explosives.
- 3. The site will not be used for the long-term storage or warehousing of explosives. The site will maintain the amount of materials and finished product needed to meet current customer requirements.
- 4. Explosive component parts and finished products will not be shipped through downtown Grayling and will follow prescribed routes.



5. No long-term storage of any waste products. Refuse companies will be contracted to collect regular trash items. Any munitions requiring disposal will be taken to approved Explosive Ordinance Disposal (EOD) facilities for proper disposal.

# 2.0 Introduction

KIRCO Manix Construction, LLC (Client) retained AKT Peerless to prepare this Environmental Stewardship Summary for the proposed Saab Munitions Facility in Grayling Township, Michigan (subject property). Refer to AKT Peerless' proposal PF-35752, dated September 26, 2024, and the terms and conditions of that agreement.

The report documents the proposed development, existing property conditions, proposed construction activities, and environmental management strategies associated with the long-term use of the subject property by Saab, Inc.

The purpose of this report is to document environmental stewardship considerations associated with the construction, and Saab's long-term use of the subject property. The report summarizes efforts by the construction team (KIRCO Manix Construction, LLC), municipality (Grayling Township), and Saab, Inc. to plan for the proposed development and minimize negative impact to human health and the environment. Nothing in this report constitutes a legal opinion or legal advice.

Saab, Inc. is committed to excellence in environmental and health and safety management. Saab, Inc. recognizes the vital role that sustainability plays in their operations and impact on the planet. Saab, Inc.'s (Specific division?) ISO 14001 and ISO 45001 certifications underscores their dedication to establishing, implementing, and maintaining effective Environmental Management (EMS) and Health and Safety systems. This Environmental Stewardship Summary builds upon their existing framework, aiming to further enhance their environmental performance, reduce their ecological footprint, and engage their stakeholders in their sustainability journey.

# 3.0 Common Abbreviations

The following abbreviations are used throughout this report.

- ASP Ammunition Supply Point
- AT4 An anti-armor weapon system
- AUR All-Up Rounds
- CDP Carbon Disclosure Project
- CNC Computer Numeric Control
- DoD US Department of Defense
- EGLE Michigan Department of Environment, Great Lakes, and Energy
- EMS Environmental Management System
- FAT First Article Testing
- GFE Government Furnished Equipment
- GHG Green House Gas
- GLSDB Ground Launched Small Diameter Bomb



- IAM Individual Assault Munition
- ISO International Organization for Standardization
- LAT Lot Acceptance Testing
- LPC Launch Pod Container
- LPS Launch Pod System
- MEDC Michigan Department of Economic Development
- OSHA Occupational Safety and Health Administration
- PTP IAM Final and Launcher Assembly Process
- SDG Sustainable Development Goals
- SDS Safety Data Sheets
- SESC Soil Erosion and Sedimentation Control
- USFWS US Fish and Wildlife Service

# 4.0 Proposed Development

Development of an approximately 60-acre portion of the subject property has been proposed to support light assembly of two weapons systems by Saab, Inc. The assembly process will include the loading, coupling, and packing of various pre-assembled precursor parts into a completed product, some nonexplosive testing, and preparation for on-site storage and shipment. Upon completion, the finished product is staged in on-site bunkers until delivery to the customer. All incoming parts and out-going products are transported via over-the-road vehicles in compliance with all applicable regulations.

#### 4.1 Structures

Building	Proposed Use	Approximate Size (Square Feet)
Light Assembly 1	Assembly and testing (non-explosive) of military weapon system (GLSDB)	35,000
Light Assembly 2	Assembly and packing for shipment of military weapon system (IAM)	30,000
Administration and Warehouse 1	Office space, training room, kitchen, cafeteria, employee locker rooms, restrooms, etc.	30,000
	Warehouse for parts (non-explosives) used in Light Assembly Buildings.	21,000
Warehouse 2 – ASP Logistics Building	Open air shelter for use in unloading/loading trucks with explosives. Logistics for the Ammunition Supply Point (ASP) bunker field adjacent.	16,000
Maintenance Shed	Pole barn for grounds maintenance equipment (no explosives)	5,400 SF
IAM Bunkers	Reinforced concrete bunkers with blast resistant doors, electronic	400 SF each
GLSDB Bunkers	security systems, and covered in earth to resist blasts – Utilized for the storage of precursor parts or finished materials awaiting delivery to customers.	1,600 SF each

The development proposes construction of the following structures:



The redevelopment will also include a paved access drive providing ingress/egress to Industrial Street, and paved parking and walkways.

#### 4.2 Proposed Assembly Activities

The assembly of the Ground Launched Small Diameter Bomb (GLSDB), loading of the Launch Pod System (LPS), and Individual Assault Munition (IAM) are assembly processes only. Finished precursor components will be shipped to the facility, prepared for assembly, assembled, and shipped out to the customer as finished goods.

GLSDB All-Up Rounds (AUR) assembly begins with the removal of all excess dried epoxy and paint from Government Furnished Equipment (GFE) and the contractor provided interface assembly. An electronic test is conducted on components to ensure full functionality. Three of the four major components are then loaded onto carts where they are mated together in processes involving drilling, screwing, bolting, and the application of small amounts of epoxy and glue to secure fittings and smooth the surface of the munition. A heat treatment is applied to cure the epoxy and excess dried epoxy is removed. The process concludes with a physical test to ensure the munition is properly balanced.

The LPS loading process involves the loading of six AURs into a Launch Pod Container (LPC). The procedure begins with the cleaning of excess debris from the LPC followed by physically loading and locking in six AURs into the LPC. From there, umbilical wiring, cabling, brackets, seals, and securing plates are connected to the LPS with bolts, screws, and small amounts of epoxy and glue. Once complete, the nose cone and rear igniter system are installed using epoxy. Finally, the completed LPS is stenciled with spray paint and plywood shipping panels are affixed to protect critical components.

The assembly of the IAM system is an assembly process only. Finished sub-components will be shipped to the facility, prepared for assembly, assembled, and shipped out to the customer as finished goods.

The final assembly process involves the loading / installing of a shoulder fired munition launcher with a finished round and countermass, completed with the installation of shock absorbers and packaged for shipment to the customer. The procedure begins with a completed launcher to be assembled with a throttling ring to load the round into the launcher. A countermass would be installed and an X-Ray launch tube sensor will be utilized to ensure continuity between the launcher and round. The next step requires sandblasting the shock absorbers and then gluing the shock absorbers to the front and rear of the launcher. The shock absorber adhesives must cure overnight. The process concludes with a final measurement of weight and length, with a final control checkout to ensure proper assembly. The last step is final packaging for shipment.

#### 4.2.1 Anticipated Hazardous Materials Use and Storage

Saab, Inc. will store small quantities of various hazardous materials that support the assembly process. These materials will initially be stored in controlled areas in properly marked and classified containers and then moved to the appropriate facility for Work-In-Progress where the materials will be similarly stored in properly marked and classified containers. All materials listed are purchased in moderate quantities of small sized containers. None of the products are purchased in large, "bulk" containers. Rather, each item is purchased in small, single-use type tubes or containers which greatly reduces both waste and overall risk. Quantities will be shipped to Saab in volumes sufficient for roughly 3 months of production.



The table below provides a summary of materials used, their function in the assembly process, unit sizes at purchased, and the applicable assembly process.

Description	Function	Unit Size at Purchase	Assembly Process
Loctite 262	High strength thread locker	50 milliliter (mL)	AUR
Loctite EA9394	Epoxy adhesive	50 gram sim-kit	AUR
Loctite 222MS	Low strength thread locker	50- to 250-mL	AUR/LPS
Clear Epoxy for IUID Labels - EP30-2	Epoxy adhesive	1 pint	LPS
Desiccant, Activated 8-unit pack	Moisture control	Drum	LPS
DP-460/DP-460N	Epoxy adhesive	50 mL	LPS
Loctite 243	Medium strength thread locker	50 mL	LPS
Lusterless Enamel, Yellow	Paint	1 pint or 1 gallon	LPS
Permabond MT 3821	Flexible epoxy adhesive	50 mL	LPS
Teroson MS 5510	Moisture cure silicone sealant	300 mL	LPS
Two Component Epoxy Paint, White	Epoxy primer	1 pint or 1 gal	LPS
Ajax Lemon	Soap	Less than five gallons	IAM
White Vaseline	Lubricant	Less than five gallons	IAM
Wet Wipes	Cleaning	Less than five gallons	IAM
Epoxy Resin DER 331	Epoxy adhesive	Less than five gallons	IAM
ARADUR 140 BD	Hardening agent	Less than five gallons	IAM
Grease (W14-9001-11)	Lubricant	Less than five gallons	IAM
Adhesive (3M DP-410)	Epoxy adhesive	Less than five gallons	IAM
Adhesive Tape (transparent)	Box and Package Closure	Rolls	IAM

Safety data sheets (SDSs) will be maintained at the facility.

#### 4.2.2 Anticipated Tooling

The AUR and LPS process requires a limited amount of hand tools to include scrapers, screwdrivers, battery-powered drills, battery-powered drivers, and battery-powered grinders to remove excess paints and epoxies.

Larger capital equipment for GLSDP system includes:



- Overhead cranes
- Battery-powered forklifts
- One 20T combustion engine forklift
- Hand-pushed carts to move the missiles through the process
- A vertically mounted spin-balance machine that ensures missiles are properly balanced.
- Trucks (either battery- or combustion-powered)

The IAM process requires table mounts / fixtures with a limited amount of hand and compressed air tools to include screwdrivers, measuring pins, fixtures and keys, paintbrushes and other tools and pneumatic tools such as strapping and banding machines, staple guns and nail guns.

Larger capital equipment for IAM system includes:

- Forklift (Propane or Electric)
- Hand-pushed carts to move the components through the process
- Trucks (either battery or combustion powered)
- CNC Machine (for making prototype parts and fixtures from metal and plastic)
- X-ray machine (for assembly inspection)

# 5.0 Existing Conditions Description

#### 5.1 Location and Legal Description

The subject property is located in the eastern portion of Section 20 and western portion of Section 21 in Grayling Township (T.26N. /R.03W.), Crawford County, Michigan. The subject property is located near Grayling's Industrial Park, east of Industrial Street and southwest of the intersection of Wastewater Trail and E Railroad Trail (unpaved recreational trails). The subject property consists of approximately 395-acres of undeveloped, wooded land and has not been assigned a mailing address. The proposed development area will consist of approximately 60-acres of the subject property. See the following table for additional subject property details:

Address	Tax Identification Number	Owner of Record	Approximate Acreage
Not applicable	040-41-020-01-020-00	State of Michigan	
Not applicable	040-41-020-13-020-00	State of Michigan	395-acres
Not applicable	040-41-41-020-01-020	State of Michigan	

# **Subject Property Identifiers**

#### 5.2 Subject Property and Vicinity Characteristics

The subject property is located near Grayling's Industrial Park. A municipal wastewater treatment facility is located on the northwestern adjoining property (beyond Industrial Street) and treatment plant spray fields are located on the northeastern adjoining property. The remaining surrounding properties consist of railroad, wooded, agricultural, undeveloped land, and a sand/gravel mining operation. The subject



property is currently zoned Mixed General/Heavy Industrial Commercial & Industrial (MU-CCI). The subject property is not currently serviced by utilities.

#### 5.3 Current Use of the Subject Property

The subject property is currently void of structures and consists of wooded land managed by the Michigan Department of Natural Resources for forestry and wildlife habitat. A network of unimproved recreational paths and sand trails are present throughout the subject property. Those pathways and trails will be closed to the public and posted as such.

#### 5.4 Physical Settings

AKT Peerless reviewed various available physical setting resources pertaining to the geologic, hydrogeologic, hydrologic, and topographic characteristics that may affect potential contaminant migration to the subject property, or within or from the subject property. The results of AKT Peerless' review are presented in the following table:

General Topography and Hydrogeology			
Subject Property Elevation	1,200- to 1,295-feet above the National Geodetic Vertical Datum		
Topographic Gradient	Generally flat to gently rolling and sloping topography		
Closest Surface Water	Shellenbarger Lake located approximately 0.5 miles northeast		
Groundwater	Based on records of groundwater sampling performed by EGLE on the northern adjoining property, shallow groundwater flows to the north toward Shellenberger Lake, while the deeper groundwater is estimated to flow in a more northeasterly direction. Based on water well records in the area, the depth to water is approximately 25- to 45-feet below ground surface depending on topographic elevation.		
General Soil and Geology			
Bedrock	Michigan Formation in the Grand Rapids group, which is included in the Meramecian series within the Mississippian system of the Paleozoic Era.		
Quaternary Soil Description	Glacial outwash sand and gravel and postglacial alluvium, described as pale brown to pale reddish brown, fine to coarse sand alternating with layers of small gravel to heavy cobbles, mixed lithology of sedimentary, igneous, and metamorphic rocks, well to poorly-sorted, well-stratified, in places cross- bedded. Occurs as fluvial terraces along present and abandoned drainage ways, as fans and sheets flanking end moraines, and as deltas along glacial lake margins. Soil thickness ranges from 3 to 60 feet. Typically, glacial outwash sand and gravel are associated with moderate to high hydraulic permeability and may allow the movement of contaminants through groundwater.		

# **Physical Setting Data**



General Topography and Hydrogeology		
County Soil Survey Description	Graycalm and Grayling soils. The Graycalm series consists of very deep, somewhat excessively drained soils formed in sandy glaciofluvial deposits on moraines, kames, stream terraces, outwash plains, and glacial drainage channels. Slope ranges from 0 to 70 percent. Similarly, the Grayling series consists of very deep, excessively drained soils formed in glaciofluvial deposits on outwash plains, deltas, kames, kame moraines, stream terraces, disintegration moraines, and lake plains. Slope ranges from 0 to 45 percent. Both of these soils have saturated hydraulic activity that is high.	

#### 5.5 Current Condition Studies

The following subsections provides a summary of due diligence studies performed in preparation for the proposed development.

#### 5.5.1 Rescom July 2024 Desktop Archaeological and Architectural Resources Review

On July 8, 2024, Rescom conducted a desktop review of archaeological and architectural resources associated with the subject property on behalf of the Michigan State Historic Preservation Office (SHPO). Rescom's assessment consisted of a review of historic aerial photography, parcel maps and information, and available archaeological and architectural records. Rescom identified the following previously known archaeological sites within the boundaries of subject property:

- Site 20CR56 refers to the mapped location of a possible historic logging camp which has not been field verified.
- Site 20CR183 consists of two structural depressions, a cellar approximately 4 x 5 x 1.5 meters and a well pit 2.5 meters in diameter and 1.5 meters deep. Site 20CR183 has not been evaluated for National Register (NRHP) eligibility.

An additional nearby site (20CR55) was identified roughly one-half mile south of the subject property and consists of a historic root cellar.

Rescom concluded that historic resources more than 50 years old were not identified at or directly adjacent to the subject property. Therefore, the proposed project is not likely to have any effect on historic properties.

#### 5.5.2 Gosling Czubak September 2024 Wetland Determination

On September 6, 2024, Gosling Czubak completed a Wetland Determination of the subject property. Gosling Czubak's evaluation included a review of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) maps and soil survey maps, and field reconnaissance of the subject property. During the field reconnaissance, eight representative sample points (SP-1 through SP-8) were evaluated for hydrology, vegetation, and soil type. Gosling Czubak concluded that the subject property does not contain areas that meet the statutory description of a wetland based on the absence of hydrophytic vegetation, hydric soil, and wetland hydrology.

#### 5.5.3 Gosling Czubak September 2024 Phase I Environmental Site Assessment

On September 6, 2024, Gosling Czubak completed a Phase I Environmental Site Assessment (ESA) of the subject property on behalf of MEDC and the Michigan Strategic Fund. The purpose of Gosling Czubak's



Phase I ESA was to provide an independent, professional opinion regarding recognized environmental conditions (RECs), controlled RECs (CRECs), and historical RECs (HRECs) at the subject property.

Gosling Czubak's Phase I ESA was based on ASTM International Standard E1527-21 (*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*). Gosling Czubak's Phase I ESA included a review of physical settings, government records, historical records, interviews, and a physical inspection of the subject property.

Gosling Czubak concluded that the Phase I ESA did not reveal evidence of RECs, CRECs, or HRECs associated with the subject property.

#### 5.5.4 Gosling Czubak September 2024 Topographic and ALTA Survey

On September 12, 2024, Gozling Czubak conducted a Topographic and ALTA Survey of the subject property on behalf of the Michigan Department of Economic Development (MEDC). The following relevant information was gathered from review of Gozling Czubak's ALTA Survey:

- Flood Zone X the subject property is outside of the 0.2% annual flood chance
- Zoning the subject property is zoned Mixed General/Heavy Industrial Commercial & Industrial (MU-CCI)
- Exceptions easements across the subject property are held for Industrial Drive and by Consumers Power Company, Grayling Generating Station Limited Partnership, and various railway facilities

#### 5.5.5 Gosling Czubak and SME September 2024 DRAFT Preliminary Geotechnical Evaluation

On September 19, 2024, Gozling Czubak and SME completed a DRAFT Preliminary Geotechnical Evaluation of the subject property on behalf of the Michigan Department of Economic Development (MEDC). During the evaluation, Gozling Czubak drilled 10 soil borings (B1 through B10) at the subject property to depths ranging between 20- and 40-feet beneath the existing ground surface. SME determined the planned number, depths, and locations of the borings. GCES staked the boring locations and obtained the existing ground surface elevation data at the boring locations.

The soil borings were advanced using a rotary drill rig using continuous-flight augers. The borings included sampling based upon the Split-Barrel Sampling procedure. Portions of the recovered split-barrel samples were sealed in glass jars by the driller. Groundwater level measurements in the boreholes were recorded during and upon completion of drilling. The driller backfilled the boreholes with the auger cuttings at completion of drilling. Soil samples recovered from the field exploration were returned to the SME laboratory for further observation and testing.

Soil samples from varying depths at each boring location were submitted for laboratory analysis. The laboratory analyzed the soil samples for visual engineering classification, moisture content, hand penetrometer testing, Torvane Shear testing, Loss-on-ignition testing, and Atterberg limit testing.

Soil encountered during the borings was described as surficial topsoil, overlying natural sands that extended to the termination depths of the borings. The natural sands were encountered in a very loose to very dense condition. However, a majority of the natural sands were encountered in a loose to medium dense condition.



Groundwater was encountered in borings B1, B2, B4, B5, and B6 at depths ranging from 13.5- to 28.5feet below ground surface. Groundwater was encountered at depths ranging from 12.5- and 17.5-feet below ground surface at borings B4 and B5. Groundwater measurements were not obtained upon completion of drilling at borings B1 and B2.

Gosling Czubak and SME's report included a preliminary analysis and recommendations for geotechnical, foundations, and design and construction considerations. Gosling Czubak and SME noted that the recommendations should be revisited by SME once details and designs of the planned development are finalized.

# 6.0 Construction Strategies

The following subsections provide summaries of construction means and methods that will be employed to maintain compliance with applicable regulations and minimize unnecessary environmental impact during the construction phase.

# 6.1 Monitoring and Reporting Obligations

Monitoring and reporting obligations during the development phase are limited to those of typical construction projects (e.g., reporting results of soil compaction testing, concrete core testing, periodic and post-precipitation regulatory inspections, and third-party engineering inspections).

# 6.2 Construction Permitting

Any permits required by local, state, or federal regulations will be secured.

#### 6.2.1 Water Usage

During construction, a temporary municipal water tap and usage meter will be established to obtain water for use during construction. The volume of water used during construction from this tap is expected to be minimal (less than 100 gallons per day).

The installation of a new municipal water main will begin in winter 2025 and will be completed by summer 2025. This watermain will be installed within the Right of Way for the extension of Industrial Drive. The proposed development will be connected to the municipal water system at the time of construction. Water use onsite will include sinks, toilets, janitorial, and a fully functional kitchen. The anticipated water usage for the facility is typical of commercial uses; there is no proposed use of process water on site.

#### 6.2.2 Wetlands

As discussed in Section 3.5.2, the subject property does not contain areas that meet the statutory description of a wetland based on the absence of hydrophytic vegetation, hydric soil, and wetland hydrology. However, the Construction Team will develop and submit a Soil Erosion and Sedimentation Control (SESC) permit demonstrating protective measures to mitigate construction impact to surface water bodies, habitats, and stormwater infrastructure.

#### 6.2.3 Stormwater and Groundwater Recharge

The Construction Team will develop compliant plans and obtain a SESC permit describing protective measures to mitigate construction impact to surface water bodies, habitats, and stormwater



infrastructure from eroded soils. Control measures will include installation of a silt fence along the perimeter of the construction site, work adjustments during precipitation events, and daily inspections of mitigation devices.

#### 6.2.4 Air Emissions

Operations at the proposed development will not include significant releases to the air during the assembly process. The facility will include generator backup for power, which may include four generators (one 250kW, one 350kW, one 600kW, and one 800kW). The necessity for additional permits as a result of these generators is under further exploration. Should additional permits be required for these units, they will be secured. The proposed development will not have a significant negative effect on the current air quality conditions in the area, with the exception of minimal short-term impact from construction equipment.

#### 6.2.5 Endangered Species

According to the Michigan Department of Agriculture and Rural Development, Kirtland's warbler is known to be present in Crawford County. The habitat of Kirtland's warbler is young Jack pine stands. According to the United States Fish and Wildlife Service (USFWS) Kirtland's warbler is in the recovery stage. In addition, according to the USFWS, the Monarch butterfly is a candidate for the threatened or endangered species list; the little brown bat is currently under review for listing; Hungerford's crawling water beetle is endangered; eastern Massasauga rattlesnake is threatened; the northern long eared bat is endangered; and Houghton's goldenrod is threatened. These species are known to be present in Crawford County. An endangered species review is being conducted under a separate scope of work. The development team will follow recommendations provided in the final report to protect threatened or endangered species and habitat.

#### 6.2.6 Tree Removal

The subject property consists of undeveloped land that was managed forestland. The proposed development area was recently harvested. While the site plan will ultimately dictate the amount of tree removal necessary, it is Saab's intent to retain as much natural growth as possible.

#### 6.2.7 Historic Preservation

As discussed in Section 3.5.1, an archaeological evaluation of the subject property concluded that historic resources more than 50 years old were not identified at or directly adjacent to the subject property. Therefore, the proposed project is not likely to have any effect on historic properties.

#### 6.2.8 Material Use and Waste Management

Waste generated during construction is anticipated to be typical construction debris (i.e., cardboard, plastic, concrete, etc.). Wastes generated during this phase will be recycled, reused, or disposed in accordance with applicable local, state, and federal regulations.

#### 6.2.9 Landscaping

Construction activities will be performed to minimize disturbance to the land and to preserve key habitats. Proposed landscaped areas will be limited to the facility entrance and restoration of areas that may have been disturbed by construction. Native species will be utilized in landscape plantings.



#### 6.3 Proposed Utilities

The following utilities will be utilized as part of the proposed development:

#### 6.3.1 Natural Gas

The facility will be connected to natural gas service provided by DTE Energy during construction and permanent operations.

#### 6.3.2 Stormwater

Stormwater management will be designed in accordance with the City of Grayling's Stormwater Ordinance. Runoff will be conveyed through a system of underground pipes, above ground swales and culverts to a regional dry detention pond where it will infiltrate through the exposed sand subgrade relatively quickly as supported by the Geotechnical Report prepared by SME.

#### 6.3.3 Water Use

The proposed development will be connected to the municipal water system at the time of construction. Water use onsite will include sinks, toilets, and a fully functional kitchen. The anticipated water usage for the facility is typical of commercial uses.

#### 6.3.4 Sanitary Waste

A new on-site septic system will be constructed as part of the proposed redevelopment. Water use onsite will include sinks, toilets, and a fully functional kitchen with grease interceptor as required. The anticipated water usage for the facility is typical of commercial uses. The septic system will be regularly inspected and maintained in accordance with local and state regulations.

#### 6.3.5 Electricity

The facility will be connected to electrical services provided by Consumers Energy. The facility will also be equipped with emergency generators powered by natural gas or diesel. The development team is currently reviewing power needs to select the appropriately sized generator units, which may include four generators (one 250kW, one 350kW, one 600kW, and one 800kW). Once the units are selected, a permit evaluation will be performed, and all necessary permits will be obtained in accordance with local and state regulations.

#### 6.4 Recreational Trails

A network of unimproved recreational paths and sand trails are present throughout the subject property. Those pathways and trails will be closed to the public and posted as such.

# 7.0 Saab Environmental Management Strategies

Saab's commitment to ongoing environmental and health and safety stewardship is integral to their organization's mission and values. Saab recognizes the profound impact that their operations have on the environment and safety measures, and they are dedicated to implementing sustainable practices that not only reduce their ecological footprint but also promote the well-being of the community and future generations.



Saab believes that environmental sustainability is a shared responsibility and invites every employee to actively participate in these initiatives. Whether through small daily actions or larger project involvement, each plays a crucial role in driving Saab's sustainability goals forward.

# 7.1 Regulatory Compliance

Saab, Inc. is an ISO 14001 certified company which requires the following processes for ensuring regulatory compliance:

- **Regulatory Identification:** Saab conducts a thorough review of applicable environmental laws, regulations, and standards relevant to its operations. This involves keeping an updated list of all local, national, and international regulations that apply.
- Monitoring Changes: Saab monitors changes in legislation and regulatory requirements. This could include subscribing to legal updates, joining industry associations, and consulting with legal experts to stay informed.
- Assessment of Compliance: Annual audits and assessments are performed to evaluate compliance with identified regulations. This involves checking records, processes, and operational practices against regulatory requirements.
- **Documentation and Record-Keeping:** Saab maintains comprehensive documentation of compliance-related activities, including permits, licenses, audit results, and corrective actions. This ensures transparency and provides a clear trail for audits.
- **Training and Awareness:** Employees are trained in relevant regulations and their responsibilities for compliance. This ensures that everyone understands the legal requirements and how their roles contribute to compliance.
- **Corrective and Preventive Actions:** Saab maintains a system for identifying, documenting, and addressing non-compliance issues. This includes implementing corrective actions and preventive measures to avoid future issues.
- Management Review: The company conducts regular management reviews of its compliance status, involving top management to ensure accountability and alignment with strategic objectives.
- **Stakeholder Communication:** Saab communicates its commitment to regulatory compliance with stakeholders, including customers, regulators, and the community, demonstrating transparency and accountability.

By following these steps, Saab ensures that it not only complies with regulatory requirements but also integrates compliance into its overall environmental management system, fostering a culture of continuous improvement.

#### 7.2 Environmental Health and Safety Policy Statement

Through well-structured environmental work practices and continuous improvements, the environmental impacts from plants, products and services shall be minimized, as far as is technically possible and economically reasonable.

This will be achieved through:

- identifying and minimizing the products and operations' environmental risks
- minimizing the use and emission of hazardous substances and materials



- minimizing the emissions of greenhouse gases
- making more efficient use of energy and natural resources
- fulfilling applicable compliance obligations
- an attitude of openness in communicating environmental work.

#### 7.3 Occupational Health and Safety Policy Statement

Saab, Inc. is committed to health and safety to protect their employees from hazards at work and to create safe working environments. Through systematic occupational health and safety work Saab seeks to eliminate accidents, illness and injuries both now and in the future. Saab shares the responsibility for participating and helping to ensure that the working environment is safe from both physical, social and organizational hazards. In daily operations, Saab works together with their customers, suppliers and other stakeholders to ensure a safe working environment and healthy workplaces.

Saab is committed to:

- meet or exceed all relevant health and safety related laws, rules, regulations, and customer requirements
- have an effective management system, which is compliant with ISO 45001 and provides tools to support their business
- actively work with risk management to eliminate hazards associated with physical and psychological risks
- consider health and safety consequences when we design and maintain their facilities, manage projects, and execute operations
- encourage all employees to report and learn from incidents, near misses, accidents and injuries
- provide regular training and communicate effectively to build a strong safety culture
- encourage healthy and safe habits for employees both in the workplace and in their personal lives
- set measurable objectives to improve health and safety systems, processes and practices
- ensure the health and safety of staff while working away from Saab, Inc. locations through risk mitigations

not tolerate any form of harassment, bullying or other offensive physical or verbal treatments.Saab expects:

- all staff to follow Saab Inc.'s occupational health and safety policy and to protect their own health and safety and those around them
- all leaders and managers to lead by example and ensure that the environments are safe and healthy and to monitor that this policy is applied actively, constructively and consistently.

#### 7.4 Environmental Impact Assessment – Life Cycle Assessment

Analysis of Saab's environmental aspects and any resulting impacts are performed annually or when changes in operations are made, in accordance with ISO 14001 requirements.

Saab identifies and defines the environmental aspects of activities, products, and services that they can control and influence, adopting a high-level life cycle perspective. When determining these aspects, Saab also considers abnormal conditions and reasonably foreseeable emergency situations.



Key high-level life cycle phases include design and development, supply chain, manufacturing and production, use, maintenance, and end-of-life. Saab also considers relevant legal requirements, including general rules of consideration.

Environmental aspects can be identified in several areas, such as:

- Activities and Operations: Emissions or releases to water, air, or soil, including greenhouse gases, ozone-depleting gases, volatile organic compounds, particles, metals, and oils.
- Energy Use and Consumption: The energy required for various operations.
- Purchasing: The procurement of supplies, equipment, and components, focusing on the presence of hazardous substances.
- Product Development and Operation Manuals: Considerations during the development, use, and disposal of products, material selection and hazardous substance content.
- Carbon Footprint: Assessment of climate-affecting emissions and overall carbon impact.

By systematically addressing these areas, Saab aims to minimize their environmental footprint and enhance sustainability efforts.

#### 7.5 Sustainability Goals and Objectives

Commitment to society is at the core of Saab's identity and sustainability is the very basis for the company's long-term development and growth. Peace, security and stability are prerequisites to ensure that they can reach the UN's Sustainable Development Goals (SDG) together. In a world where threats against societies are growing increasingly diverse, and with climate change giving rise to a new type of instability, Saab contributes to defense and security capabilities as a trusted partner in Sweden and many other countries.



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Saab's sustainability strategy aims to integrate the management of sustainability topics into Saab's core business and to create a common agenda for the whole company. Through the strategy, Saab strives to manage the environmental, economic and social impacts of its value chain, operations and products.

To create security and defense capabilities in a responsible and sustainable way, Saab has prioritized several sustainability issues that are integrated in their business strategy. A long-term approach is extremely important to them, not least because several of their projects extend over very long periods. Saab continuously measures and monitors key sustainability aspects and integrates them in their processes. Saab's sustainability commitment serves as the basis for their long-term development and growth.

The sustainability strategy has been approved by Saab's Board of Directors as part of the approval of the strategic business plan.

#### 7.6 Waste Management Strategies

#### 7.6.1 Hazard Communication Program

Saab, Inc. is dedicated to preventing accidents and ensuring the safety and health of their employees. Saab complies with all relevant federal and state health and safety regulations.

Under this program, employees receive annual training on the U.S. Occupational Safety and Health Administration (OSHA) Hazard Communication Standard. This training covers the hazardous properties of the chemicals they work with, safe handling procedures, and protective measures to take when working with these substances.

#### 7.6.2 Hazardous Materials Disposal

Hazardous materials generated during the assembly process (i.e., solvent wipes, used batteries, residual paints, etc.) are assessed and organized for disposal with assistance from the Environmental Management System Lead. Saab, Inc. partners with a third-party service provider to profile and dispose of all hazardous waste properly. Currently, Saab utilizes Safety-Kleen, a Clean Harbors Company, for hazardous waste disposal needs. Safety-Kleen has locations in Saginaw, Grand Rapids, and Mason that can service the proposed facility.

#### 7.7 Energy and Water Management Strategies

Saab tracks its greenhouse gas (GHG) emissions and water usage—both withdrawal and discharge—on a quarterly basis. These results are essential for monitoring and decision-making related to climate issues and water management within the company. The data also informs the creation of annual targets and strategies, and are reported to the Carbon Disclosure Project (CDP) initiative and included in the Annual and Sustainability Report 2023 (saab.com)

To collect, calculate, and present greenhouse gas and water data, Saab utilizes a corporate reporting tool called CEMAsys, which incorporates emission factors for accuracy.

The company's environmental strategy focuses on three key areas:

- Reducing climate impact in line with the Race to Zero emissions initiative.
- Increasing resource efficiency and circularity.



• Phasing out and avoiding substances of concern.

Environmental targets are established at every organizational level, aligning with Saab's overarching environmental policy, which aims to reduce environmental impact and mitigate climate change.

#### 7.8 Biodiversity and Habitat Protection

As discussed in Section 4.2.5, an endangered species review is being conducted under a separate scope of work. The development team will follow recommendations provided in the final report to preserve threatened or endangered species and habitat.

#### 7.9 Munitions Testing

Saab, Inc. will conduct munitions testing at Camp Grayling Joint Maneuver Training Center (Camp Grayling). All range operations will be coordinated with and conducted in compliance with Camp Grayling and United States Department of Defense (DoD) regulations. Saab's testing is driven by contractual requirements from the DoD and other customers. Contractually required testing is most often defined as First Article Testing (FAT) and Lot Acceptance Testing (LAT). For shoulder launched products, Saab will conduct LAT for each product lot produced at the direction of the DoD or military service component. Testing frequency, volume, and duration will be approximately 1-2 times per quarter, testing between 5-20 rounds, which would take 3-4 hours in one day. This frequency, volume and duration falls well within what would be normally expected from a small unit training on Camp Grayling. Noise impacts from these tests will be similar to noise levels from past and ongoing Camp operations.

Transportation of all weapon systems, whether for shipment to a customer or movement to Camp Grayling for testing, will be conducted in accordance with DOT and DoD regulations along approved explosive movement routes. Saab will not move explosive materials through the city limits of Grayling.

#### 7.10 Training and Engagement

Human Resources provides the necessary training and development tools to help Saab employees succeed in achieving corporate goals. During the review of the annual Strategic Training Plan, HR evaluates the training needs of various organizational and business groups. This analysis results in a prioritized list of Learning and Employee Development initiatives that align with Saab's corporate objectives. These initiatives equip employees with the knowledge and skills they need to perform their jobs effectively, efficiently, and safely.

Compliance training is essential to ensure employees understand and adhere to the statutory and regulatory requirements relevant to their roles.

For example, Saab, Inc. identifies annual training needs to comply with OSHA and other regulatory requirements. Training is conducted both in person and on the Knowbe4 training platform. Annual training topics include Hazard Communication, Hazard Prevention, Saab Safety Awareness Training, Universal Waste Training and Emergency Action.

Additionally, Saab, Inc. has a safety committee at each location that meets monthly to engage all employees. These meetings facilitate sharing lessons learned and improving safety practices across all locations.



#### 7.11 Stakeholder Engagement

Saab understands that interested parties include a variety of stakeholders, such as certification authorities, employees, customers, industry associations, non-governmental organizations, the community, and neighbors. These stakeholders can influence the organization's ability to consistently deliver products and services that meet customer needs and comply with legal and regulatory requirements.

To address this, Saab:

- Identifies and maintains a list of relevant interested parties related to quality, environment, occupational health and safety, and security.
- Gathers and assesses the requirements of these parties that pertain to their management system.
- Establishes appropriate communication channels.

By continuously analyzing and managing these interested parties, Saab ensures that stakeholder needs are effectively met within the business.

#### 7.12 Operational Control, Monitoring and Reporting, Continuous Improvement

Saab maintains certified management systems compliant with both ISO 14001 (Environmental Management) and ISO 45001 (Occupational Health and Safety Management) frameworks for management of environmental responsibilities and to ensure worker safety. Saab ensures operational control through applications of these processes:

#### 1. Establishing Policies and Objectives

- Develop clear environmental and health & safety policies aligned with the organization's goals.
- Set measurable objectives to improve performance in both areas.

#### 2. Risk Assessment and Management

- Conduct regular assessments to identify environmental and health & safety risks.
- Implement control measures to mitigate identified risks, ensuring compliance with legal and other requirements.

#### **3. Operational Procedures**

- Develop standard operating procedures (SOPs) for processes that impact the environment and worker safety.
- Ensure that these procedures are documented, communicated, and understood by all employees.

#### 4. Training and Competence

 Provide training to employees on environmental and health & safety policies, procedures, and practices.

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• Ensure that staff are competent and aware of their responsibilities.

#### 5. Monitoring and Measurement



- Establish monitoring systems to track compliance with environmental and safety objectives.
- Regularly measure performance against established metrics to identify areas for improvement.

#### 6. Emergency Preparedness and Response

- Develop and implement emergency plans to respond to potential incidents related to environmental and health & safety issues.
- Conduct drills and training to ensure readiness.

#### 7. Internal Audits and Management Reviews

- Perform regular internal audits to evaluate the effectiveness of the management systems.
- Conduct management reviews to assess overall performance, compliance, and areas needing improvement.

#### 8. Continuous Improvement

- Use the findings from audits, monitoring, and feedback to drive continuous improvement in operational practices.
- The ISO 14001 environmental management system will be audited and reviewed by top site management at least once per calendar year and updated as systems and processes change to continuously improve.
- Encourage a culture of safety and environmental responsibility throughout the organization.

#### 9. Stakeholder Engagement

- Communicate with stakeholders, including employees, customers, and regulators, about environmental and health & safety matters.
- Incorporate feedback from stakeholders into operational controls.

By integrating these practices, Saab can effectively manage its operational control through their management system, leading to better environmental performance and enhanced worker safety.

#### 7.13 Emergency Preparedness and Response

Saab, Inc.'s Emergency Action Plan (IN-US-1902-3-1) is in place at all locations with designated teams to ensure action is taken in case of an emergency. Annual drills are performed to meet 29 CFR 1910.38.

Saab, Inc. also uses Alert Media. Alert Media is a threat intelligence, emergency communication, and travel risk management solution to communicate any potential emergency to any effected employee. Ex: This tool will send detailed emergency notification to employees that could be affected by a severe blizzard warning or a state of emergency to stay off roads by text, email, or actual phone to land line.

Saab, Inc. has initiated meetings with the local fire department to develop response plans, additional training, regular emergency drills, facility walk-throughs, pre-operational assessments and planning, evacuation plans, and muster points. Similar planning will be conducted with the local police department.

The facility will be designed in accordance with all building codes and requirements to ensure safety during proposed operations.



#### 7.14 Promotion of Employee Health and Well-Being

Wherever Saab conducts operations, it must ensure a safe and secure work environment. This is accomplished by:

- systematic and goal-oriented work environment management with focus on promoting good health, as well as identifying and managing physical, social and organizational risks
- prevention of accidents, ill health and work-related injuries in the short and long term by identifying and dealing with signs of ill health at an early stage, in addition to reporting and investigating work environment incidents
- engaging and involving employees and, where appropriate, their representatives in work relating to work environment
- continuous improvements to and application of processes, working methods and procedures
- encouraging employees to maintain a good balance in life and to look after their own health and the health of others
- no toleration of any form of harassment, reprisals, bullying or other physical or verbal acts of an abusive nature, employees are each other's work environment
- compliance with legal requirements and regulations, as well as giving consideration to other stakeholders in respect of the work environment.

# 8.0 Conclusion

The project team has, and continues to, plan for the development and long-term use of the subject property using means and methods that minimize environmental impact, protect human health, and contribute to the local economy.



# 9.0 Signatures of Environmental Professionals

The following consultants contributed to the completion of this report:

#### DRAFT

**Timothy J. McGahey, CHMM, LEED-AP** Senior VP Environmental Due Diligence **AKT Peerless** Phone: (248) 615-1333 mcgaheyt@aktpeerless.com

#### DRAFT

Julie Barton Senior Project Manager AKT Peerless Phone: (313) 962-9353 bartonj@aktpeerless.com



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