

RISK MANAGEMENT SURVEY REPORT



Tshwane Automotive Special Economic Zone (TASEZ)

Samcor Park (Corner Propshaft Road, Alwyn Road) Safatanaga Road (Nelmapius X 27) Silverton, Gauteng



Report prepared and presented to Territory Underwriting Managers By Kuvaneti Consultants

September 2023

PRIVATE, PRIVILEGED & CONFIDENTIAL



Contents

1. INFORMATION SHEET	3
2. EXECUTIVE SUMMARY	4
3. INTRODUCTION	7
4. OBJECTIVE	8
5. OVERALL IMPRESSION.....	8
6. FINDINGS AND RISK IMPROVEMENT RECOMMENDATIONS.....	10
7. CONSTRUCTION AND MAINTENANCE	12
8. OCCUPANCY	15
9. FIRE PROTECTION	15
10. SECURITY.....	24
11. MAXIMUM PROBABLE LOSS (MPL)	28
12. ESTIMATED MAXIMUM LOSS (EML).....	29
13. RISK RATING SCALE.....	30
14. OVERALL COMMENTS ON THE RISK	31
15. CONCLUSION.....	31

1. INFORMATION SHEET

INSURED NAME	Tshwane Automotive – Special Economic Zone (TASEZ)
POLICY NUMBER	TUM - 2306160
RISK ADDRESSES	Samcor Park (Cnr Propshaft Rd, Alwyn Rd) Safatanaga Rd (Nelmapius X 27) Silverton, Gauteng
OCCUPANCY	Automotive Body and Frame Parts Manufacture and Warehousing
INSURERS CONTACT DETAILS	Pride Choruma E-Mail: pride.choruma@brytesa.com Tel: +27 11 370 9111 Cell: +27 73 038 5942
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SURVEY TEAM:	
Yvonne Mashego	- African Dawn Insurance Brokers
Moruti Langa	- African Dawn Insurance Brokers
Shane Basikoro	- African Dawn Insurance Brokers
Nobert Kazingizi	- Risk Engineer (Kuvaneti Consultants)
INSURER	Territory Underwriting Managers
SURVEY DATE(S)	6,7, & 8 September 2023
REPORT BY	Nobert Kazingizi
REPORT CHECKED BY	Cleaver Warikandwa

2. EXECUTIVE SUMMARY

Construction of the Tshwane Automotive Special Economic Zone (TASEZ) facilities was completed in 2022. The zone is predominantly occupied by companies in the manufacturing and storage of automotive body and frame parts. The facilities are relatively new; the state of maintenance of the various buildings is generally good. Construction type is typical double and triple volume purpose-made IBR roof and IBR cladding supported by heavy duty structural steel framework. All buildings are sprinkler protected. The sprinkler system is complemented by early warning systems, fire alarms, fire doors with self-closing mechanisms, hydrants, hose reels and portable fire extinguishers. However, at the time of survey some of the fire equipment was not up to date in terms of service. Bad housekeeping was also observed in some buildings.

The industrial zone is divided into two phases. Phase 1 is the manufacturing section which houses 5 out of the 11 buildings on the schedule. Phase 1A is the warehousing section with the remaining 6 buildings, as indicated in the table below. The table also highlights the five buildings whose fire equipment was not up to date in terms of service:

BUILDING	FLOOR AREA	SUM INSURED	FIRE EQUIPMENT STATE OF SERVICE
Phase 1: Manufacturing			
Automould Building	4793	R116 996 973,37	Serviced
Aeroklasduys Building	17847	R269 051 565	Not Serviced
Ford Frame Building	101854	R1 110 898 740	Not Serviced
Hesto Harness	6482	R128 283 653	Serviced
Sodecia Building	24282	R667 310 102	Serviced
Phase 1A: Warehousing			
FELTEX Building	15667	R326 227 843	Serviced (MPL/EML Based On This Building)
Faurecia	12471	R198 592 762	Serviced
DSV	2193	R52 515 336	Serviced
Supavut	3324	R106 427 203	Not Serviced
ALSO	5024	R196 584 263	Not Serviced
Valoworx	5856	R66 072 846	Not Serviced
TOTAL	199,793	R3,238,961,287.15	

Major shortcomings on this risk are:

- Fire equipment not serviced in five out of eleven buildings
- Poor housekeeping particularly in the following buildings;
 - Feltex Building (Raw materials not properly stocked. Cardboard boxes stocked against the wall) **Fire Equipment serviced.**
 - Aeroclasduys Building (Dumping site too close to the building) **Fire Equipment not serviced.**
 - DSV Building (Unwanted waste lying on the floor) **Fire Equipment serviced.**
 - ALSO Building (Obstructed Fire Points. Empty boxes outside) **Fire Equipment not serviced.**
 - SODECIA Building (Pallets blocking Emergency Exit) **Fire Equipment serviced.**
 - Ford Frame Building (Boxes outside the workshop, close to the gate) **Fire Equipment not serviced.**
 - Hestro Harness Building (Boxes on the floor in the Server Room) **Fire Equipment serviced.**
- Documented evidence of Electrical Compliance and Automatic Sprinkler Inspection Bureau (ASIB) compliance was not availed to us.
- No Smoking signs not posted in some buildings.
- Emergency Evacuation Procedures not documented and/or displayed.
- Fire drills have not yet been introduced.
- No trained Fire Fighters in some buildings.

Overallly TASEZ is an average risk which scores 60% on the Kuvaneti Risk Rating Scale. The risk could improve from average to good if the recommended risk improvements are implemented.

Positive attributes of the risk are:

- The facility is new and in good state of maintenance.
- The facility is installed with a sprinkler system fed from onsite tanks. There are two 759 Kilolitre tanks of fire water for each of the two Phases.
- There is good spatial separation of the two Phases and of individual buildings, with plant rooms mostly enclosed within fire resistant compartments. The result is relatively low MPL and low EML.
- Fire load is relatively low within the manufacturing units as compared to the warehousing section. Buildings are equipped with smoke and fire detection systems.
- Security systems are good, and the security guards on site are vigilant.
- There is good contingency planning in the form of stand-by generators in some sections of the industrial zone.

Our Maximum Probable Loss (MPL) scenario is based on a fire within the Feltex Building where there is production and storage of Main Floor Carpets for vehicles. Flammable liquids are used in this section and the possibility of a hydraulic pipe rupturing at the hydraulic press cannot be overlooked. Pressurized hydraulic fluid presents a considerable fire hazard, particularly where ignition sources are present. The fire could be a result of human element (such as hot works) or accidental rupture of the hydraulic pipe resulting in spray of hydraulic fluid on hot surfaces of the pressing machine. The ejected fluid would support fire spread across the affected pressing machine. The possibility of fire spread across floor and onto stacks of stored Main Floor Carpets cannot be ruled out more so with bad housekeeping in the form of raw materials not properly stocked and cardboard boxes stacked against the wall. Damage would be limited to IBR cladding, IBR roof, and the integrity of some structural elements like concrete and steel columns and beams would also be compromised. We estimate a Maximum Probable Loss (MPL) of R260,982,274.45 which is 80% of the cost of re-building the structure, or 8,06% of the Total Sum Insured.

Our Estimated Maximum Loss (EML) is based on the same scenario as MPL. Given the fact that Primary Protection Systems might not be functioning because fire equipment might not be serviced, and people might not be available to operate the systems/equipment because of lack of training, we have assumed the same EML as MPL, which is R260,982,274.45 or 80% of the cost of re-building Feltex, or 8,06% of the Total Sum Insured.

Security is good. There are five layers of security; the perimeter clear-vu fence around building clusters, controlled and guarded access points, internal/external CCTV cameras, security lights and controlled physical barriers on doors. TASEZ is situated about 15km North-West of Pretoria CBD near Mamelodi residential area. Security services are outsourced to reputable companies like Bamogale Security, G4S Security, Imbali Security, Bidvest Protea Coin and Omega Risk Solutions. Premises are manned 24/7.

3. INTRODUCTION

Kuvaneti Consultants conducted a risk management survey on the 6th, 7th and 8th of September 2023 following a request from Territory Underwriting Managers being the Insurers for Tshwane Automotive Special Economic Zone (TASEZ). This report is based upon the conditions and practices observed and information made available to Kuvaneti Consultants at the time of the survey and does not purport to refer to or guarantee compliance with local, state or federal regulations which may be applicable to such practices, operations and conditions. Our Risk Rating Scale is based on conditions and practices observed as well as our opinion of the risk.

Our risk management survey covered the following, among other items:

- General state of buildings/structures
- Factual reporting regarding the site operations, hazards and in place risk management programs
- Evaluation of fire and security protection systems
- Summary of the risk profile of the operation
- Comment on housekeeping
- Proffering any suitable recommendations to mitigate or reduce risk exposures
- Estimation of the Maximum Probable Loss (MPL)
- Estimated Maximum Loss (EML)

The following eleven buildings were surveyed:

- Aeroklasduys (Manufacturing)
- Ford Frame (Manufacturing) Note: This is the highest valued building
- FELTEX (Warehousing) Note: Both MPL & EML scenarios are based on this building
- Faurecia (Warehousing)
- DSV (Warehousing)
- Supavut (Warehousing)
- ALSO (Warehousing)
- Automould Building (Manufacturing)
- Sodecia Building (Manufacturing)
- Valoworx (Warehousing)
- Hesto Harness (Manufacturing)

4. OBJECTIVE

The purpose of the risk management survey was to give Insurers a better understanding of the risk and to inform Insurers about the site exposures and mitigation systems available. This survey also includes a review of administrative controls such as inspection, testing and maintenance of fire protection systems and equipment. No tests were conducted during the survey.

5. OVERALL IMPRESSION

Positives

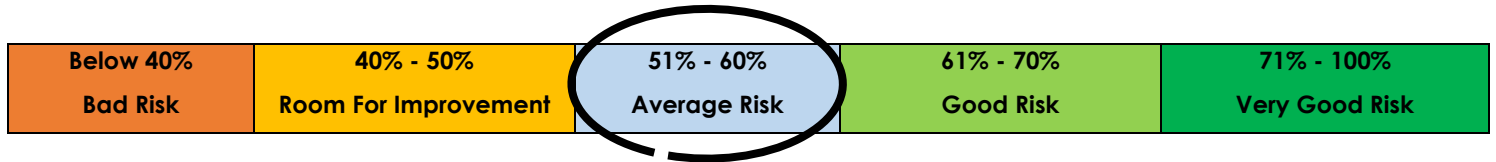
- The facility is relatively new with no visible structural faults noted at all the buildings surveyed
- The facility is installed with a sprinkler system fed from onsite tanks. There are two 759 Kilolitre tanks of fire water for each of the two Phases.
- There is good spatial separation of the two Phases and of individual buildings, with plant rooms mostly enclosed within fire resistant compartments. The result is relatively low MPL and low EML.
- Fire load is relatively low within the manufacturing units as compared to the warehousing section.
- Security systems are good, and the security guards on site are vigilant.
- There is good contingency planning in the form of stand-by generators in some sections of the industrial zone.

Negatives

- In five out of eleven buildings Fire Equipment was not up to date in terms of service.
- We noted bad housekeeping in some of the buildings, and this presents a Fire Hazard.
- Documented evidence of Electrical Compliance and Automatic Sprinkler Inspection Bureau (ASIB) compliance was not availed to us.
- No Smoking signs not posted in some buildings.
- Emergency Evacuation Procedures not documented and/or displayed.
- Fire drills have not yet been introduced.
- No trained Fire Fighters in some buildings.

Overall TASEZ is an average risk which scores 60% on the Kuvaneti Risk Rating Scale. Major shortcomings are fire equipment not serviced in seven out of eleven buildings, and poor housekeeping in some buildings. Documented evidence of Electrical Compliance and Automatic Sprinkler Inspection Bureau (ASIB) compliance was not availed to us. The risk could improve from average to good if the recommended risk improvements are implemented.

In our opinion TASEZ is an average risk which scores 60% on the Kuvaneti Consultants Risk Rating Scale. If all the occupants of the buildings observe strict housekeeping and servicing of the available fire-fighting equipment the risk will improve. Also training of fire fighters must be a priority for all occupants and every shift must have an equal number of trained fire fighters.



6. FINDINGS AND RISK IMPROVEMENT RECOMMENDATIONS

The risk would improve further if the following recommendations are implemented:

RISK MANAGEMENT RECOMMENDATIONS

ITEM	LOCATION	OBSERVATION	RECOMMENDATION	PRIORITY
Fire Protection (Service of Fire Equipment)	<ul style="list-style-type: none"> • Aerokladuys • Ford Frame • Supavut • ALSO • Valoworx 	Fire equipment was not serviced in five out of eleven buildings.	<ul style="list-style-type: none"> o Ensure that all Fire Equipment is serviced on time. o Client to furnish Automatic Sprinkler Inspection Bureau (ASIB) Certificates o Client to furnish Electrical Certificates of Compliance (CoCs) 	High
Fire Protection (Bad Housekeeping)	<ul style="list-style-type: none"> • Feltex • Aerokladuys • DSV • ALSO • Sodecia • Ford Frame • Hestro Harness 	<ul style="list-style-type: none"> o Raw materials not properly stocked, cardboard boxes stocked against the wall o Dumping site too close to the building o Unwanted waste material lying on the floor o Empty boxes outside, and obstructed Fire Points o Pallets blocking Emergency Exit o Boxes outside workshop, close to the gate o Boxes on the floor in the Server Room 	<ul style="list-style-type: none"> o Improve on housekeeping, implement and monitor waste management. o Ensure that all Fire Points and Emergency Exits are not obstructed. 	High
Fire Protection (Conveyor Maintenance)	<ul style="list-style-type: none"> o Sodecia 	Conveyor belt not greased.	Ensure that conveyor belt is cleaned and greased/ lubricated occasionally to mitigate the risk of friction on the moving parts which might give rise to a fire.	High
Fire Protection (Fire Extinguisher Mounting)	<ul style="list-style-type: none"> o Site wide 	Fire Extinguishers mounted just above floor level.	<ul style="list-style-type: none"> o Ensure that Fire Extinguishers are mounted 1 metre above floor level o Fire Extinguishers to be numbered 	High

Fire Protection (Emergency Evacuation)	<ul style="list-style-type: none"> ○ Site wide 	Emergency Evacuation Procedures not documented and/or displayed in the buildings.	Emergency Evacuation Procedures to be documented and displayed in all buildings.	High
Fire Protection (Smoking Restriction)	<ul style="list-style-type: none"> ○ Site Wide 	No Smoking signs not posted.	No Smoking signs must be posted to attract the attention of its intended audience	High
Fire Protection (Training and Drills)	<ul style="list-style-type: none"> ○ Site wide 	Fire drills have not yet been introduced.	<ul style="list-style-type: none"> ○ Fire drills to be conducted ○ Each shift to have an equal number of trained fire fighters 	High
Fire Protection (Electric Cables)	<ul style="list-style-type: none"> ○ Site wide 	Electric cables not sealed .	<ul style="list-style-type: none"> ○ Ensure that electric cables are sealed/fire proofed to mitigate the spread of fire from one section to another. 	High
Fire Protection (Kitchen Extraction System)	<ul style="list-style-type: none"> ○ Feltex ○ Automold ○ Aeroklasduys 	The extraction system in the kitchen has not been cleaned for the past six months. Accumulation of fat and dust is a fire hazard.	<ul style="list-style-type: none"> ○ Ensure that all kitchen extraction systems are cleaned every three months. 	High

UNDERWRITING CONSIDERATIONS

In view of our findings we would recommend that Fire and Allied Perils cover be subject to the Insured furnishing the following information to Insurers:

- i. Automatic Sprinkler Inspection Bureau (ASIB) Certificates.
- ii. Service Certificates for Fire-Fighting Equipment.
- iii. Documented Planned Maintenance Programme for all the buildings, facilities and equipment.

7. CONSTRUCTION AND MAINTENANCE

Construction of the Tshwane Automotive Special Economic Zone (TASEZ) facilities was completed in 2022. The facilities are relatively new; the state of maintenance of the various buildings is generally good. Construction type is typical double and triple volume purpose-made IBR roof and IBR cladding supported by heavy duty structural steel framework. Structures are predominantly built of reinforced concrete pillars, steel and reinforced concrete girders, steel beams and IBR roofing sheets. Walls are of brick on the lower level and IBR cladding elsewhere. Floors have got concrete screed finish.

Phase 1 A (Warehousing)



Supavut Building (Interior).



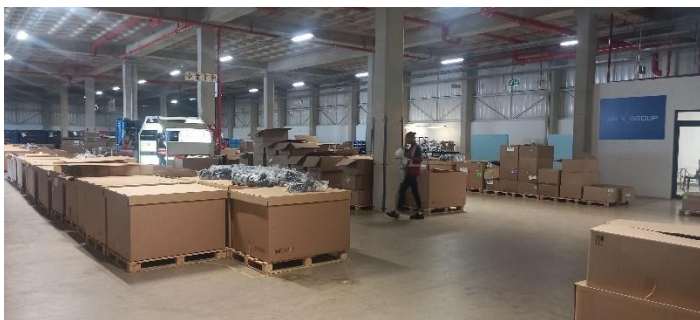
Exterior view of Supavut, Valoworx and DSV.



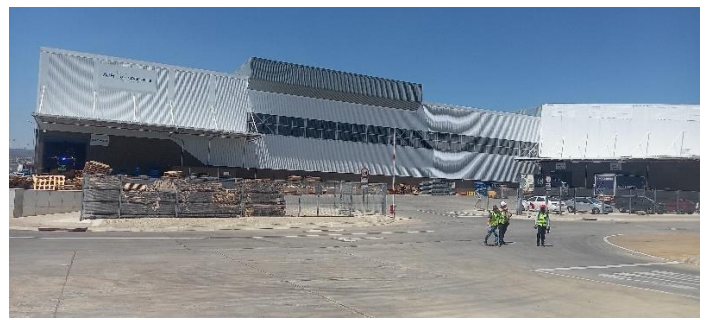
Faurecia Building, Interior.



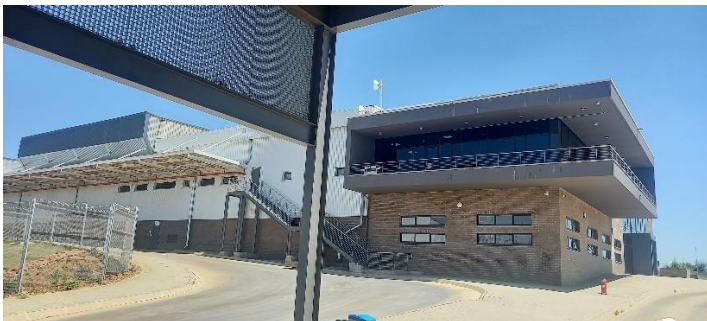
ALSO Building, Basement.



ALSO Building, Ground Floor.



ALSO Building, Exterior View.



Feltex Building, Exterior View.



Feltex Building, Interior View.



Feltex Building: Secluded Flammables Storage

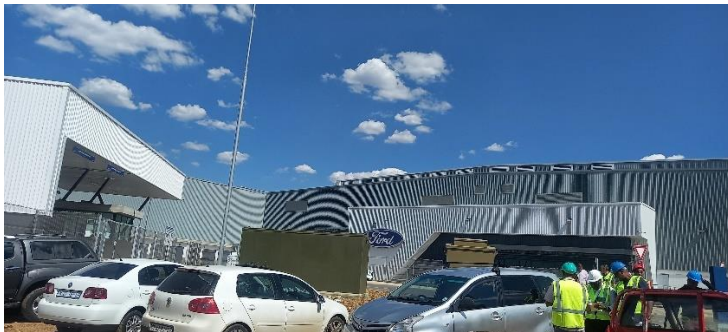
Phase 1 (Manufacturing)



Aeroklasduys Building, Exterior View



Aeroklasduys Building, Interior View



Ford Frame Building, Exterior View.



Ford Frame Building, Interior View.



Ford Frame Building, Production Using Robots.



Ford Frame Building, Finished Product (Ford Frames)

8. OCCUPANCY

TASEZ is predominantly occupied by companies in the manufacture and storage of automotive body and frame parts.

The industrial zone is divided into two phases. Phase 1 is the manufacturing section which houses 5 out of the 11 buildings on the schedule. Phase 1A is the warehousing section with the remaining 6 buildings.

9. FIRE PROTECTION

Each of the two Phases has got a shared fire pump station which consists of two fire water tanks. Each tank has got an Effective Storage Capacity of 759 Kilolitres of fire water. The buildings are installed with ceiling, wet, high hazard sprinklers. Water is supplied from the municipal line.

Overally TASEZ is an average risk mainly because of non-compliance in the area of fire protection. Major shortcomings are fire equipment not serviced in five out of eleven buildings, and poor housekeeping in some buildings which increases the fire hazard. Documented evidence of Electrical Compliance and Automatic Sprinkler Inspection Bureau (ASIB) compliance was not availed to us.



Fire Pump Station: Phase 1.



Fire Pump Station: Phase 1.



Fire Pump Station: Phase 1A



Fixed Fire Systems

**Feltex Building:**

Note: Fire Extinguishers mounted just above floor level, instead of 1 metre above floor level



Feltex Building: Fire Panels (both detection and suppression systems) -All Zones Functioning Properly.



Feltex Building: Raw Materials not properly stocked



Feltex Building: Raw Materials Stored Next to A mini Substation



Feltex Building: Bad Housekeeping; Empty Boxes Adding To The Fire Load



Feltex Building: Cardboard Boxes Stacked Against The Wall

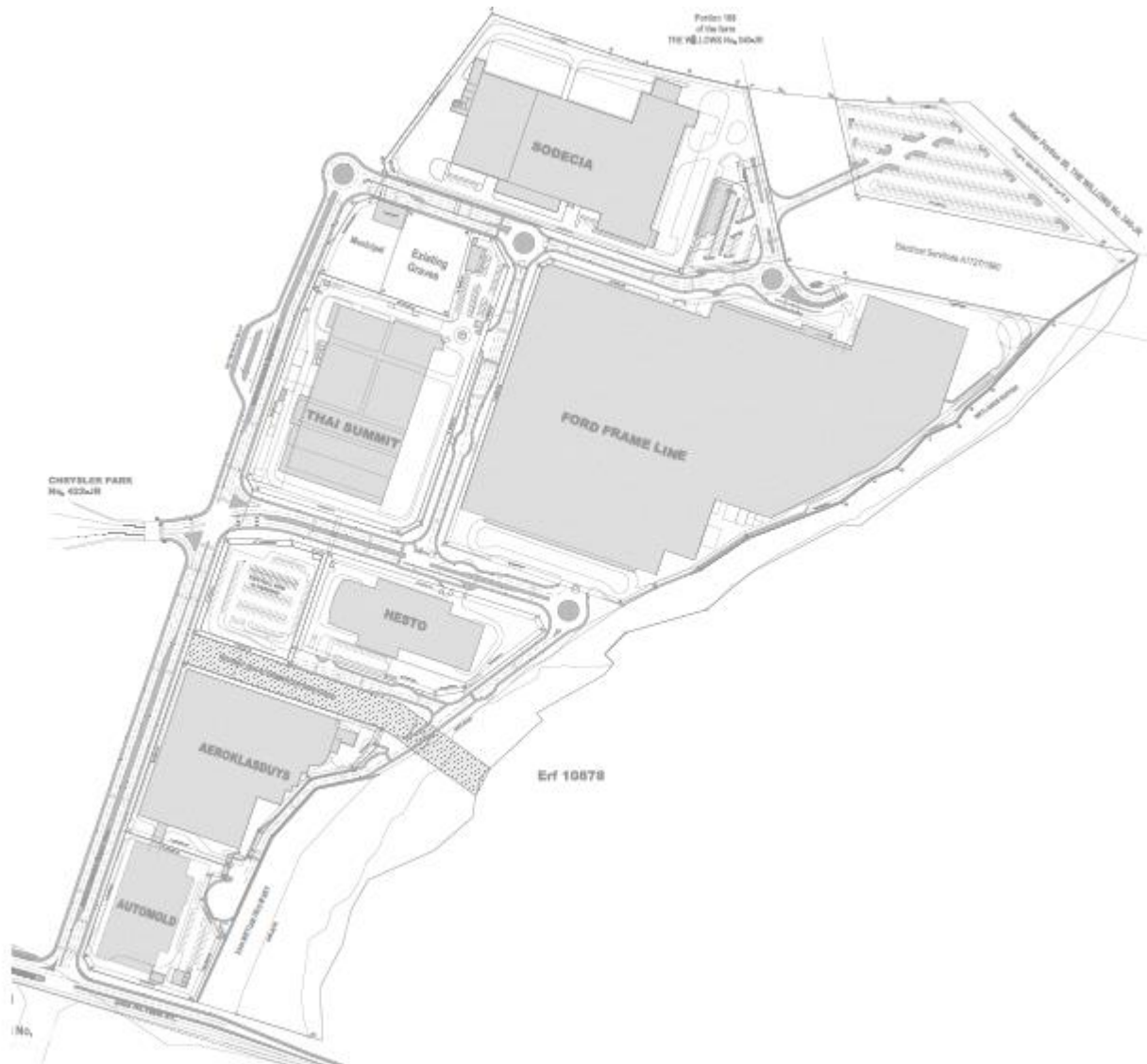


Feltex Building: Kitchen Extraction System

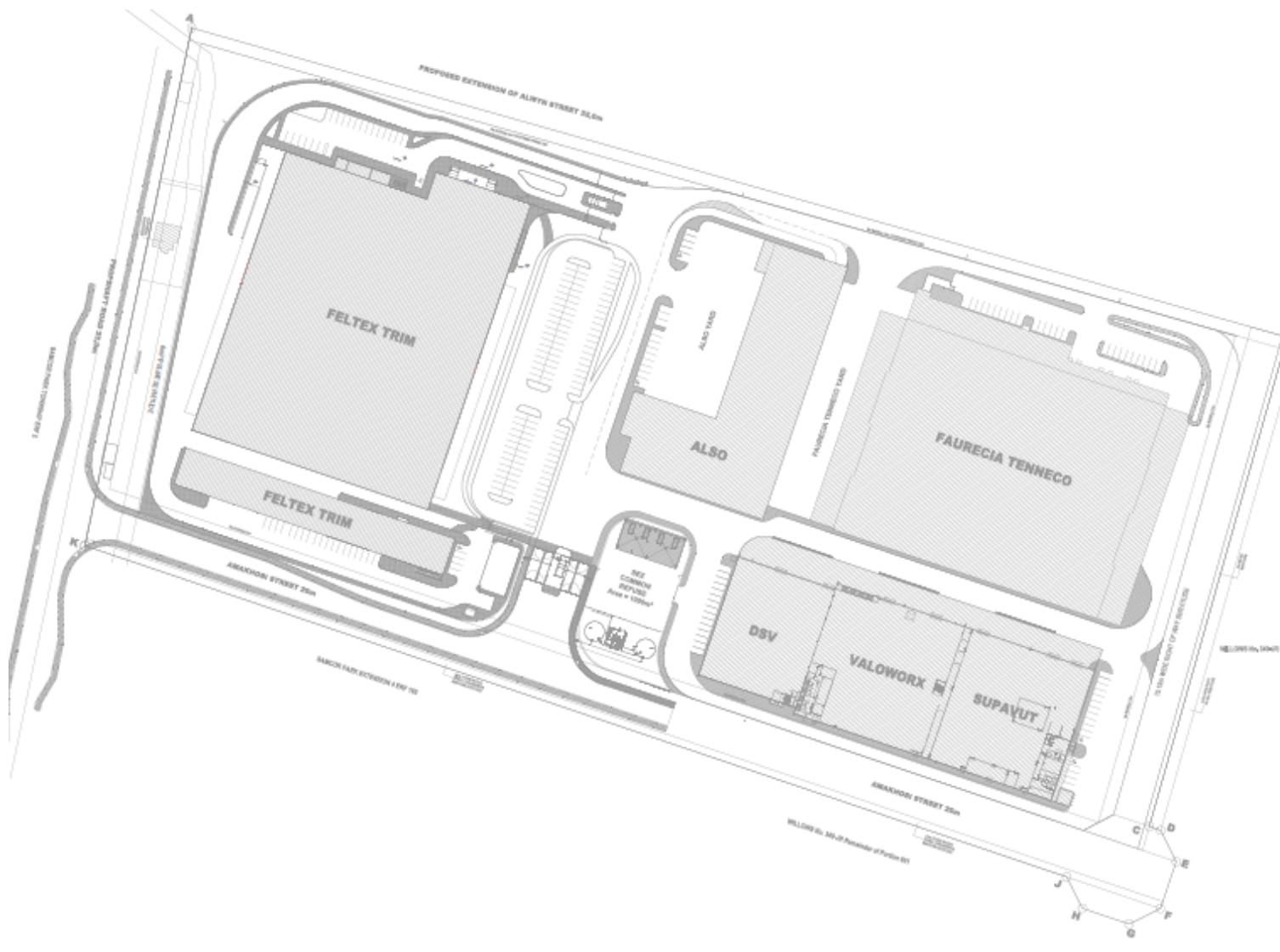
External Exposures

No undue external exposures were noted as spatial separation between buildings is generally good. There are no reports of Major Hazard Installations close to the two Phases. The entire industrial area is predominantly occupied by companies manufacturing, supplying and storing vehicle frames, body parts and accessories.

The industrial zone is not located along a flight route. Flooding risk is minimal. Drainage systems appear to be in good order.



Site Plan: Phase 1 (Manufacturing)



Site Plan: Phase 1A (Warehousing)

Internal Exposures

Internal exposures emanate from fire hazards caused by bad housekeeping of combustible raw materials and wastes. Generally NO SMOKING signs are not displayed within the buildings. Potential sources of ignition are electric shorts, friction on conveyor belts, smoking or kitchen fires.

10. SECURITY

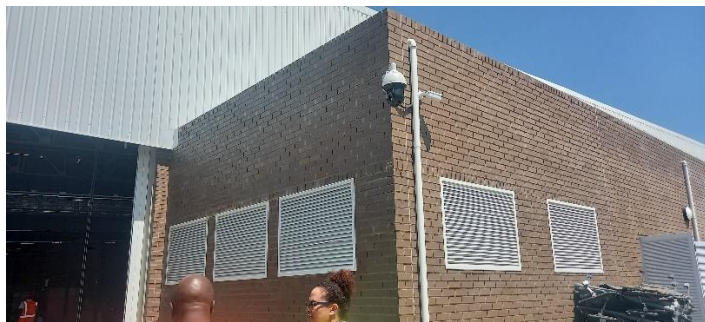
Security is good. There are five layers of security; the perimeter clear-vu fence around building clusters, controlled and guarded access points, internal/external CCTV cameras, security lights and controlled physical barriers on doors. TASEZ is situated about 15km North-West of Pretoria CBD near Mamelodi residential area. Security services are outsourced to reputable companies like Bamogale Security, G4S Security, Imbali Security, Bidvest Protea Coin and Omega Risk Solutions. Premises are manned 24/7.



Perimeter fence.



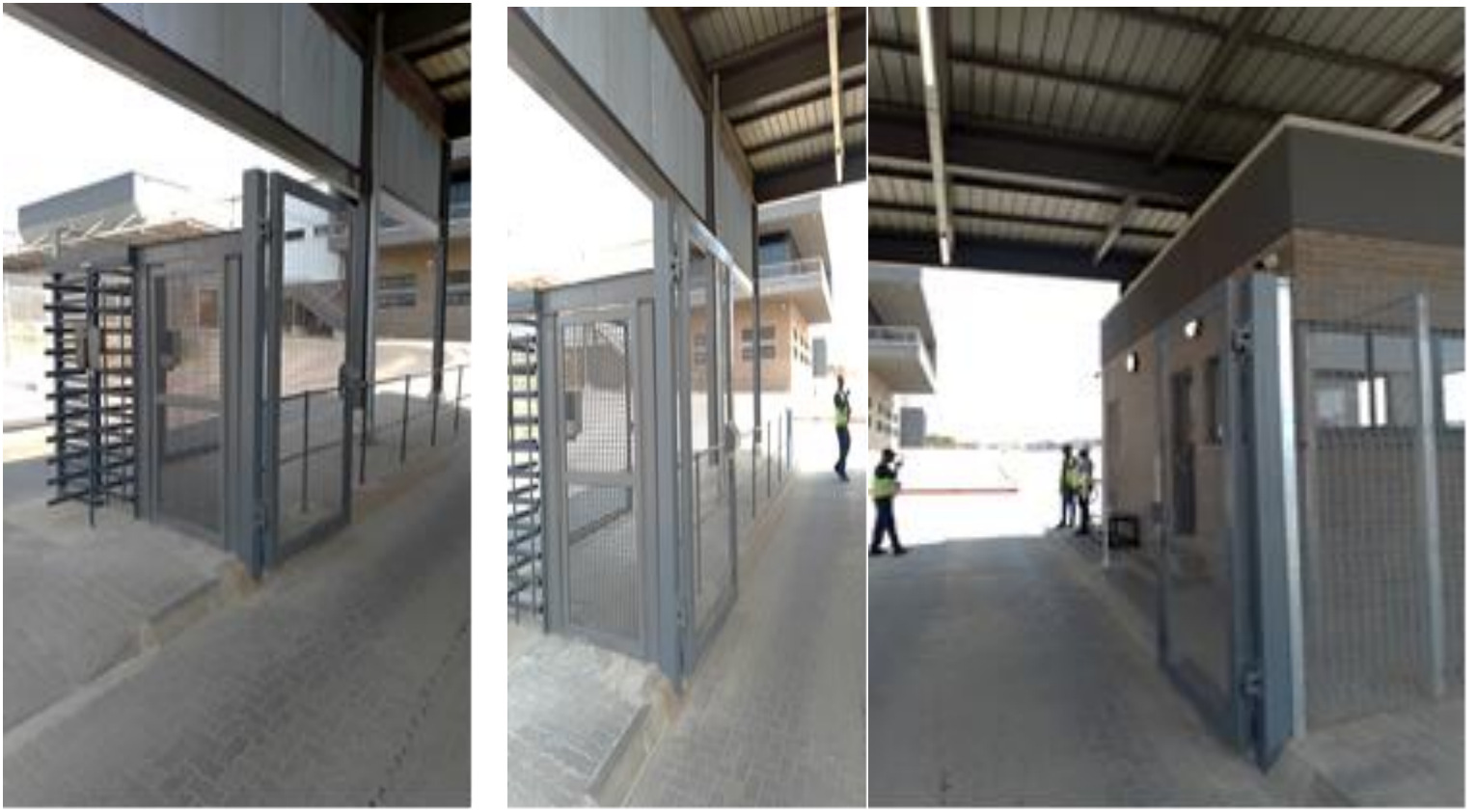
Controlled and guarded access point.



CCTV Cameras.



Security lights.



Feltex Building: The entrance to this building is guarded by two security guards during the day and at night, pedestrians use a bio-metric system to gain entry or exit from the building.



Sodecia Building: Access control systems are functioning properly.



DSV Building: Access Control



Faurecia Building: Access to the premises is controlled by guards, biometric system and a register



Ford Frame Building: Access control systems are functioning properly. Entry register system is also used for visitors.

11. MAXIMUM PROBABLE LOSS (MPL)

MPL Definition:

We define Maximum Probable Loss (MPL) as the worst-case scenario and the most pessimistic view that might be expected to occur as a result of a single fire event. It is the loss that may occur when the most unfavourable circumstances are combined and when, as a consequence, the fire is not or is unsatisfactorily fought against and therefore is only stopped by impassable obstacles.

MPL Scenario

Our Maximum Probable Loss (MPL) scenario is based on a fire within the Feltex Building where there is production and storage of Main Floor Carpets for vehicles. Flammable liquids are used in this section and the possibility of a hydraulic pipe rupturing at the hydraulic press cannot be discounted. Pressurized hydraulic fluid presents a considerable fire hazard, particularly where ignition sources are present. The fire could be a result of human element (such as hot works) or accidental rupture of the hydraulic pipe resulting in spray of hydraulic fluid on hot surfaces of the pressing machine. The ejected fluid would support fire spread across the affected pressing machine. The possibility of fire spread across floor and onto stacks of stored Main Floor Carpets cannot be ruled out. We do not expect the whole building to be totally destroyed. Damage would be limited to IBR cladding, IBR roof, and the integrity of some structural elements like concrete and steel columns and beams would also be compromised. We estimate a Maximum Probable Loss (MPL) of R260,982,274.45 which is 80% of the cost of re-building the structure, or 8,06% of the Total Sum Insured.

Sum Insured, Feltex Building:	R326,227,843.06
Total Sum Insured:	R3,238,961,287.15
Maximum Probable Loss:	R260,982,274.45 OR 8,06% of the Total Sum Insured

12. ESTIMATED MAXIMUM LOSS (EML)

EML Definition:

- Primary Protection Systems are functioning, and people are available to operate the systems/equipment
- It is the loss event in which damage is based on the nature of hazards and construction factors, and where all fire protection systems are in service and functioning as designed
- Full facility Emergency Response Team (Fire Brigade or Emergency Organization) and Municipal Fire Department response is expected
- All properly maintained fire barriers are functioning up to their design duration rating
- Construction features are functioning as designed
- Under normal circumstances the total damage would be confined to a relatively small area
- Where inadequate protection is provided, or unusual factors (eg. smoke damage, burning liquid runoff, etc.) exist, the loss expectancy may be greater

EML Scenario

Our Estimated Maximum Loss (EML) is based on the same scenario as MPL. Given the fact that Primary Protection Systems might not be functioning because fire equipment might not be serviced, and trained people might not be available to operate the systems/equipment, we have assumed the same EML as MPL, which is R260,982,274.45 or 80% of the cost of re-building Feltex, or 8,06% of the Total Sum Insured.

13. RISK RATING SCALE

FIRE	50 POINTS	MAINTENANCE	15 POINTS	HOUSEKEEPING	15 POINTS	SECURITY	20 POINTS	TOTAL 100 POINTS
Occupancy	3/5	Electrical Maintenance	3/5	Interior	2/5	Area Risk	2/4	Average Risk
Fire Load	2/5	Mechanical Maintenance	3/5	Exterior / Yard	3/5	Man Security (Guards)	4/4	
Service Of Equipment	4/10	Roof & Ceilings Maintenance	3/3	Fire Guard	3/3	Perimeter Wall or Fence & Electric Fence	3/4	
Portable Equipment	4/10	Walls & Floors Maintenance	2/2	Grass Cutting	2/2	Security Lighting	3/4	
Fixed Equipment	4/10					Reaction Team or Armed Response	2/4	
Early Warning Systems	4/5							
Automatic Systems	4/5							
	28/50		11/15		10/15		14/20	
KUVANETI RISK RATING SCALE								
Below 40% Bad Risk	40% - 50% Room For Improvement			51% - 60% Average Risk		61% - 70% Good Risk	71% - 100% Very Good Risk	

NOTES: The lower the risk, the higher the score.

The higher the risk, the lower the score.

14. OVERALL COMMENTS ON THE RISK

Tshwane Automotive Special Economic Zone (TASEZ) is relatively new with no visible structural faults noted on all buildings. The facility is installed with a sprinkler system fed from onsite tanks. There are two 759 Kilolitre tanks of fire water for each of the two Phases.

There is good spatial separation of the two Phases and of individual buildings, with plant rooms mostly enclosed within fire resistant compartments. The result is relatively low MPL and low EML.

Fire load is relatively low within the manufacturing units. Housekeeping needs to be strictly monitored across the two Phases. Security systems are good, and the security guards on site are vigilant.

Overall TASEZ is an average risk mainly because of non-compliance in the area of fire protection. Major shortcomings are fire equipment not serviced in five out of eleven buildings, and poor housekeeping in some buildings. Documented evidence of Electrical Compliance and Automatic Sprinkler Inspection Bureau (ASIB) compliance was not availed to us.

15. CONCLUSION

We would like to thank the Client (TASEZ) and Brokers (African Dawn Risk Solutions) for assisting us during the survey exercise.