

Risk Engineering Report



Prepared for:

Stichting BVE Zuid-Limburg

Site Name: Arendstraat 12 (Valkstraat 10)

Date of Survey: April 11, 2024

Report Date: May 2, 2024

Survey Type: Property All Risk - Initial

TIV (EUR): 55,410,000

Site Address: Arendstraat 12 (Valkstraat 10), SITTARD, 6135 KT,

Latitude: Netherlands 51.003514

Longitude: 5.850307

RFS ID: RFS-198499

SIC Code: 8211-02-Elementary and Secondary Schools, Private

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Client Support Services

We maintain an extensive library of documents, forms, and other resources created specifically for client use including:

- A Hot Work Program that includes insights into Hot Work Risks and Permitting, an educational video, and downloadable or 3-part pre-printed permits. Available in multiple languages.
- A Fire Protection Impairment Program that includes insights into Managing Fire Protection System Impairments, a notification form, and downloadable or pre-printed tags. Available in multiple languages.
- A series of Property Risk Engineering Insights that include current and emerging risk topics.
- Tips sheets that offer guidance and checklists to use before, during and after extreme weather events

Customer web page access: www.aig.com/riskengineering

Questions or special requests: Email: globalproperty.impairment@aig.com

Fire Protection Impairment Hotline for reporting fire protection system outages:

- 1-877-705-7287 (US & Canada) or 1-817-490-3255 (Global)
- Email: globalproperty.impairment@aig.com or reach out to your dedicated account risk engineer

Purpose of Visit

This facility was visited to undertake a risk assessment of the fire and associated perils for insurance purposes. The purpose of the assessment was to assist in the identification and mitigation of hazards and exposures that could lead to the loss or damage to assets or business interruption.

Site Overview

VISTA college is a regional training center for intermediate vocational education in the South Limburg region. The site described in this report at the Arendstraat 12 Sittard. A wide range of practical and theoretical training is provided at this location. The highest risk are the technical and lab related courses with the use of gasses and other hazardous substances. The building is open on weekdays from 7:30 to about 17:30.

This Vista site is located between an industrial and urban area west of Sittard, on the premises are three connected buildings:

- Building A: This is the center building, with a concrete and steel load bearing structure. Sandwichpanel walls and a steel deck roof with bitumen roof covering. Type of insulation is unknown, therefore downgrade to ISO1C. The building has 3 floor levels, building height about 12 meter.
- Building B: The south part of the site, this building has a concrete and brickwork load bearing structure. Brickwork walls with glass windows. The floors including roof is concrete, insulation used on the roof is mineral wool, with bitumen roof finish and a gravel cover. The building has four above ground levels, with a building height of approximately 16 meter.
- Building C: The north part, this building has a steel and brickwork load bearing structure. Most walls are brickwork with windows, the north part a large part has a complete glass facade. The building has 1 floor level and a mezzanine, with a building height approximately 9 meter.

There are fire-resistant separations 30- and 60-minutes in all buildings and between according Dutch building code for safe evacuations.

The external exposure are limited with on the north side dwellings and an office at 20 meter. On the other sides similar exposures at > 50 meter:

No sprinkler protection, the site benefits from an automatic fire detection system almost covering the entire surface (additional information requested). Beside fire detection CO2 and gas detection is in place. The site is not fenced, fitted with a burglary protection system and during daytime a security guard is present.

Organizational measures and procedures are at a high level, only point uncertain is hotwork.

NATCAT is limited risk, only earthquake risk due to mining activities in this region. The mining activities stopped in 1974.

Risk improvements discussed and noted are:

- Implement hot work permit.
- Seal roof penetration.
- provide requested information.

Site Loss History

No large losses reported during the site visit.

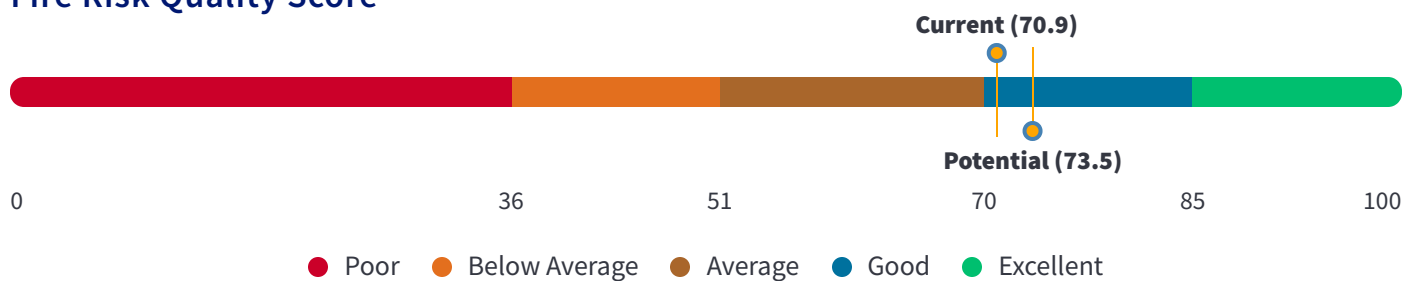
New Projects, Significant Changes and Observations

It is important to involve your insurer in new projects, such as refitting, refurbishment, extension work, new builds or relocating to a new site. Failure to do so could result in using non-approved construction materials (even though they meet local Building Codes and Fire Regulations) or inadequately protected facilities which could lead to expensive retrospective additions or rework. The Loss Prevention Engineering team at AIG can assist you with this by providing you with engineering support both before and during your project. Please contact us before you commence your project to ensure that we can arrange a consultation with one of our engineers.

Risk Summary

Open RI by Classification	3	Open RI by Age	3	Open RI by Type	3
Critical	0	New	3	Management Programs	1
Important	3	Outstanding	0	Physical Protection	2
Advisory	0	Completed RI	0		

Fire Risk Quality Score



Ratings

	Current rating	Potential rating
Hazards	Slight	Slight
Water Supply	Adequate	Adequate
Protection	Nearly Adequate	Nearly Adequate
Management Programs	Adequate	Adequate
Supervision	Adequate	Good
Exposures	Negligible	Negligible

Risk Improvements

Risk Improvements - Open

Number	Name	Classification	LE Before (EUR)	LE After (EUR)
24-04-01	Hot Work Program- Develop	Important	--	--
24-04-02	Closed exposed polystyrene (TR building B)	Important	--	--
24-04-03	Provide information	Important	--	--

Note: Risk Improvements associated with management programs will not have an associated Loss Estimate before or after implementation

Open Risk Improvements : Important

Number/Type	Name	LE Before (EUR)	LE After (EUR)
24-04-01 Management Programs	Hot Work Program- Develop		

Summary

Develop and implement a hot work program based on the AIG cutting and welding permit system to monitor hot work operations. The program should including logging and tracking of hot work and pre and post work approvals. The program should also require a continuous fire watch while hot work is being conducted, a 1 hour continuous fire watch after hot work has been completed and a 3 hour intermittent fire watch thereafter.

Details

Improper cutting and welding is a leading cause of fire. Loss history shows that some hot work fires can start some distance away from where the work is taking place, sometimes well after the work has been completed. A hot work permit system ensures that proper precautions are in place prior, during and after this work is completed. All hot work operations taking place outside designated workshop areas should be performed under this program, including work by contractors.

Number/Type	Name	LE Before (EUR)	LE After (EUR)
24-04-02 Physical Protection	Closed exposed polystyrene (TR building B)		

Summary

Seal the exhaust penetrations in the technical room of building B with non combustible materials like for example mineral wool.

Details

On the steel deck roof, polystyrene is used as insulation material. In a fire, some of the material liquefies. By sealing openings, it can be prevented that a second (or more) fire source(s) in the complex is created by the dripping of liquid or burning polystyrene. This increases the likelihood of effective fire department deployment in the event of a roof fire.

Number/Type	Name	LE Before (EUR)	LE After (EUR)
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Number/Type	Name	LE Before (EUR)	LE After (EUR)
24-04-03 Physical Protection	Provide information		

Summary

Provide the following information (as noted in the e-mail April 12th 2024):

- latest Automatic fire detection inspection report or maintenance report.
- specification of insulation in roof for all buildings and type of sandwichpanels for building A.
- drawings (site overview and compartmentation).

Occupancy & Process Overview

VISTA college is a regional training center for intermediate vocational education in the South Limburg and Venlo region of the Dutch province of Limburg. VISTA was formed on August 19, 2019 from a merger between ROC Leeuwenborgh and Arcus College

This former Leeuwenborgh site is located at the Arendstraat in Sittard. The site is between an industrial and urban area. A wide range of practical and theoretical training is provided at this location such of child care, technical studies like mechanical engineering, but also lab related studies. The highest risk are studies being the technical and lab courses with hot work type of activities and with hazardous substances. On the premises there three connected buildings forming one complex. West of the building a parking area for employees, students and guests.

About 250 people work here (teaching and non-teaching) and about 2,500 students at this location. The occupancy rate is < 60% on average.

The building is open on weekdays from 7:30 to about 17:30.

Occupancy Details

Building	SIC Code	Description	Operating Days/yr	Operating Hrs/Day	Other Tenants
Arendstraat Valkstraat 1210	821102	Elementary and Secondary Schools, Private	260	12	No

Hazards

Hazard Category	Type	Current Rating	Potential Rating	RI's
Heating, Ventilation, Air Cond & Refrigeration	Common	Slight	No Deficiencies	1
Electrical	Common	No Deficiencies	No Deficiencies	0
Storage	Common	No Deficiencies	No Deficiencies	0
Flammable Liquids - Storage, Transfer, Use	Common	No Deficiencies	No Deficiencies	0
Commercial Cooking	Process	Slight	Slight	0
Other Hazardous Gases and Liquids	Process	No Deficiencies	No Deficiencies	0

Non-Process HVAC Equipment

Heating of the buildings is by means of natural gas fired boilers, which are located the technical rooms at top floor level. Cooling compressors are located on top of the roof. Air ventilation ducts are equipped with fire dampers. The technical rooms are supervised by automatic smoke detection. The compartmentation and housekeeping in the technical rooms visited is adequate. Equipment appears visually in a good state of repair. Periodic maintenance is contracted out to specialized contractors. Status of installations are managed and monitored via the building management systems; alarms are transmitted to the technical department. A risk improvement is discussed and noted for the technical room (roof structure) of building B, as exposed polystyrene was visible.

Risk Improvements

Name	LE Before (EUR)	LE After (EUR)
Closed exposed polystyrene (TR building B) 24-04-02	0	0

Images



Heating



Cooling



Heating

Electrical

Electricity is supplied from the power grid. Each building has a transformer (rental), type and capacity unknown. Transformers are checked and maintained by the utility company.

The electrical installations appear visually in a good state of repair. Penetrations for electrical cables were found to be adequately fire stopped, including inside vertical utility shafts. An external company inspects and maintains the electrical installations in accordance with the local NEN 3140 standard (incl. thermographic checks).

There is no emergency power generator, although there is an emergency power supply (UPS) for safely shutting down the servers in the event of a power failure.

No solar panels, nor plans to install panels.

Images



Transformer



Main switch room

Incidental Storage

There are no large central storage areas, but a few small store rooms (< 25 m²) are present throughout the site with storage of classroom materials, office supplies, electronic components and parts, food storage, etc.. Storage takes place both on floor and on shelf racks to a height of 2.5 meters.

Incidental Flammable / Combustible Liquids & Gases

In the chemistry (labs with fume cupboards) and in the mechanical engineering class room small quantities of flammable / combustible liquids & gases can be present. And the end of the day/ class materials are removed or placed in steel closed chemical cabinets. Outside there are in a dedicated cabinet against the outer wall for storage of gasses, according Dutch PGS legislation.

Images



Practical classroom - lab



Practical classroom - fume cupboard



Practical classroom - Storage



Practical classroom - Gas cylinder storage

Cooking

There is one professional kitchen on the ground floor. It contains electrical and gas fired kitchen equipment like an oven (electrical) and deep fat fryers (gas). The professional equipment in the kitchen is well maintained and is always operated under supervision of professionals. High temperature limit switches are reportedly available. There are no special extinguishing devices installed in the metal exhaust hoods above the cooking and deep-frying installations, particularly through the use of the metal lids of the deep-frying installations, extinguishing can be organized. Periodic inspection and cleaning of the exhaust ducts is subcontracted to a professional company. The kitchen is not provided with a local extinguishing system (recommended only as best practice).

In one of the practical classroom food preparation, as part of a care study, is given with the use of gas-fired gas appliances and a electric oven. The gas supply is closed end of the day. Cooking is under supervision and no other heating equipment is present.

Images



Practical classroom



Kitchen

Practical classrooms

Practical classrooms at this Vista site are: chemistry, engineering, process operator, IT, maintenance, care, (media)designer, etc.. In these classroom technical equipment is present like welding machines, fume cupboard, computers, TV screens, printers, laser cutters, and so on. Students work under the guidance and supervision of teachers. The quantities of hazardous materials are limited and only provided by the teacher. At the end of a class or day hazardous materials are moved into safe storage.

Emergency stops are provided in several locations to shut off the gas and electric supply. Also at some courses the teachers have a sort of 'man down' controller. In case the teachers leaves the area, falls, or sees a hazardous situation the teacher can shut down the activities or will be shut down automatically, similar to an emergency stop.

At end of the working day all electric and gas supply to equipment is shut down.

Machines and equipment are maintained by specialized contractors.

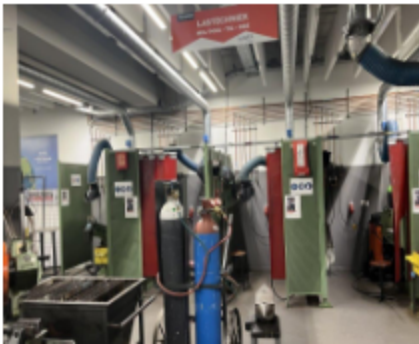
Images



Practical classroom - lab



Practical classroom - designer



Practical classroom - welding



Practical classroom - operator

Construction

Category	Current Rating	Potential Rating	RI's
Construction	ISO 4 / Class B - Masonry Noncombustible with noncombustible metal deck roof	ISO 4 / Class B - Masonry Noncombustible with noncombustible metal deck roof	1

Building	Year Built	# Stories	Height (m.)	Total Area (sq. m.)
Arendstraat Valkstraat 1210	1982	4	16	18,308

Area (1,000 sq. m.)

Building	ISO1/D	ISO2/C	ISO3/C	ISO3/B	ISO4/C	ISO4/B	ISO5/A	ISO6/AA
Arendstraat Valkstraat 1210	3.3 (18.02%)	--	--	--	--	15.0 (81.98%)	--	--
Total	3.3 (18.02%)	0.0 (0.00%)	0.0 (0.00%)	0.0 (0.00%)	0.0 (0.00%)	15.0 (81.98%)	0.0 (0.00%)	0.0 (0.00%)

Definitions: ISO1=wood frame walls roof, ISO2=masonry walls wood roof, ISO3=light non-combustible walls roof, ISO3 (CMD)=ISO3 with combustible metal deck, ISO4=non-combustible metal deck and masonry walls, ISO4 (CMD)=ISO4 with combustible metal deck, ISO5=modified fire resistive walls roof, ISO6=fire resistive walls roof.

Comments

The site consist of three connected buildings:

- Building A: This is the center building and the latest extension replacing an old part of the facility, construction was completed in 2021 The building has a concrete and steel load bearing structure. Sandwichpanel walls, with unknown insulation and a steeldeck room with unknown insulation and bitumen roof covering and Building A has 3 floor levels, building height is approximately 12 meter. As insulation is unknown the entire building is downgrade to ISO1C, based upon digital measurement the building size is about 3,300m²
- Building B: constructed in 1982.The building has a concrete and brickwork load bearing structure. Brickwork walls with glass windows. The floors including roof is concrete, insulation used on the roof is mineral wool, with bitumen roof finish and a gravel cover. On the back part a technical room is built on top of the building, this is a steel construction with combustible insulation, limited m². The building has four above ground levels. Building height is approximately 16 meter.
- Building C: constructed in 1982. The building has a steel and brickwork load bearing structure. Most walls are brickwork with windows, the north part a large part has a complete glass facade. The building has 1 floor level and

a mezzanine. Building height is approximately 9 meter.

Fire-resistant separations:

Between the sprinklered Center building and other buildings there are 60-minute fire-resistant separation. There are also lightweight fire-resistant separations 30- and 60-minutes in all buildings according Dutch building code for safe evacuations, no MFL separations.

Notes:

- *The exact fire separations unknown, additional information requested. Site must comply with Dutch building code, several rated walls were up to standard, not all were checked. Based upon requested information the compartment size, numbers and if higher fire rating (then 60-minutes) could be checked. for now the Dutch building code regulation apply.*
- *Additional information was requested after the site visit. As this was not received during drafting this report an overall ISO4B construction class was given to the site. As m^2 per building are unknown at AIG. The m^2 of the site is from the public site of Kadaster at bagviewer.kadaster.nl.*

2. AIG Risk Engineering Hazard Map

No legend



2 . AIG Risk Engineering Hazard Map- Visualization Map

40m

Risk Improvements

Name	LE Before (EUR)	LE After (EUR)
Provide information 24-04-03	0	0

Images



Building A and B



Building A



Roof Building A



Roof Building B

Water Supply & Fire Pumps

Category	Current Rating	Potential Rating	RI's
Water Supply	Adequate	Adequate	0

Comments

Hydrant connections in the public road. A (small) pond in front of building A.

Protection

Category	Current Rating	Potential Rating	RI's
Sprinklers	Nearly Adequate	Nearly Adequate	0
Fire Extinguishing Equipment	Good	Good	0
Public Fire Department	Good	Good	0

Sprinklers

Building	AS (%)	ASA (%)	ASN (%)	Fire Detection (%)
Arendstraat Valkstraat 1210	0.00	0.00	100.00	100.00
Total	0.00	0.00	100.00	100.00

Definitions: AS (%) =sprinklers provided, ASA (%) =adequate sprinklers provided, ASN (%) =sprinklers improvements needed, Detection=Smoke or other Fire Detection excluding sprinkler waterflow

Comments

The site is not sprinkler protected.

Note: rating based on loss estimated < 25 million Euro.

Fire Extinguishing Equipment

Water Supply & Inspection

Frequency

- Meets NFPA requirements

FEA/Hose Reel Details

- Equipment is properly maintained
- Inspections are properly documented with records maintained and readily available
- Plant personnel properly trained

Recommendations

None

Comments

Adequate number and appropriate types of portable fire extinguishers and fire hose reels available on each floor. Their number, visibility and accessibility are rated as being adequate throughout. Inspection and maintenance are subcontracted and conducted annually.

Public Fire Department

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Fire Department Type

- Combination

Fire Department Features

- Fully trained and funded (adequate for the risk if special hazards exist)
- Fully equipped with required modern pumping appliances, ladders, aerial equipment, BA equipment
- Equipment regularly tested and maintained
- Full time emergency communications center to dispatch FD
- Closest FD participates w/ other local full-time FD's w/in a "mutual aide" concept
- Response time is less than 20 minutes

Fire Department Distances (kilometers)

Station #1

1.90

Station #2

3.10

Supervision

Category	Current Rating	Potential Rating	RI's
Automatic Fire Detection	Adequate	Good	0
Security	Good	Good	0

Automatic Fire Detection

Signaling Systems Central Station/ARC	Recognized No	Monitored Line Yes	Fire Protection Alarm - Pull Boxes - Smoke Detection
Valve Locked NA	Fire Detection Coverage (Including Sprinklers) at least 90%	Smoke Detection Monitored Yes	Other Alarms Yes

Maintenance, Testing and Inspection per NFPA 25
Satisfactory

Comments

An automatic fire detection system is in place, main objective is safe evacuation of the site. Beside AFD also gas- and CO₂ installed. The scope of the fire alarm system is based upon the site visit covering the entire site, including classrooms and technical rooms. Forwarding of the fire alarm to the private alarm center. Additional information requested, based upon provided information this could result in a higher rating. For the per e-mail requested information a risk improvement is noted.

Security

Security & Watch Service (24/7) Other	Round Frequency at least every 8 hrs	Security Rounds Recorded	Coverage 100%
Security Alarms - CCTV - Door Contacts - Internal Movement Detection	Intrusion Alarm Monitoring Recognized central station	Site Fencing and Barriers None	Burglar and Theft Exposure Yes

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Vandalism / Malicious

Mischief Exposure

Yes

Sabotage and Terrorism

Exposure

No

Comments

The plot is not fenced, entrances are locked after opening hours. The buildings are equipped with a burglar alarm system consisting of movement detection and door contacts, providing good coverage. Alarm follow up is done by security. Cameras are installed at strategic locations and recorded for two weeks. From opening hours until 20:00 security personnel is on site present.

Management Programs

Category	Current Rating	Potential Rating	RI's
Emergency Organization & Planning	Good	Good	0
Self-Inspection Program	Good	Good	0
Fire System Impairment Procedures	Good	Good	0
Contractor Management	Good	Good	0
Hot Work Permit	Nearly Adequate	Good	1
Smoking	Excellent	Excellent	0
Housekeeping	Excellent	Excellent	0
Planned Preventative Maintenance	Good	Good	0
Management Interest	Adequate	Adequate	0
Site Level Business Continuity Planning	Adequate	Adequate	0

Management Programs

Emergency Organization & Planning

Comments

A trained emergency response team in first aid and the use of extinguishers.

Self-Inspection Program

Comments

Self inspection rounds are fully implemented.

Fire System Impairment Procedures

Comments

Broker is informed.

Contractor Management

Comments

Vista works with fixed contractors. All contractors are informed about site safety, regulations and so on. After arrival contractors first have to report to technical department.

Hot Work Permit

Comments

During the site visit it was unclear if the hotwork procedures are fully implemented, a risk improvement was discussed and is noted in this report.

Risk Improvements

Name	Classification
Hot Work Program- Develop 24-04-01	Important

Smoking

Comments

Smoking is highly regulated. On the premises of the school smoking is prohibited by Dutch Law. The smoking ban is largely observed, only at the edge of the premises and near the parking lot not in all cases. This is considered not to be a risk.

Housekeeping

Comments

Around the building no storage against building facade of combustible materials present, with exception of the gaseous storage cylinders according Dutch PGS legislation). A designated waste storage area (partly fenced) is > 10 meters from the complex. During site visit in all technical rooms the housekeeping is up to standard. Also within the buildings equipment with an enhanced risk and fire safety measures were kept free of storage.

Planned Preventative Maintenance

Comments

All installations are maintained according legislation, standards, and/or manufacturer's requirements. Maintenance contracts with specialized companies. The technical department is limited and only in place for troubleshooting and small-scale maintenance. The digital maintenance program Topdesk is implemented.

Site Level Business Continuity Planning

Comments

Not insured therefore not applicable and rated adequate. In case BI will be insured this needs to be checked.

Exposures

Category	Current Rating	Potential Rating	RI's
Exposure	Negligible	Negligible	0

Internal Exposure

None

External Exposure

This Vista site is located between an industrial and urban area west of Sittard, external exposure are:

- North: dwellings and a office at > 20 meter.
- East: a school at 50 meter (in between trees).
- South: businesses and a penitentiary institution at > 50 meter.
- West: businesses incl. a scrapyard at > 50 meter.

Yard Storage

The gaseous storage cylinders according Dutch PGS legislation at the facade of building C. Also near this building a designated waste storage area (partly fenced) is > 10 meters from the building facade.

Water Intrusion Exposure

No

Aircraft Exposure

No

Structural Collapse Exposure

No

NATCAT Exposure Summary

	Flood	Wind	Earthquake	Hail	Collapse	Other
Zone/Exposure	No Flood Exposure	34 m/s	Zone 3	Zone 3	No	No

Flood

Site Property Flood Zone

No Flood Exposure

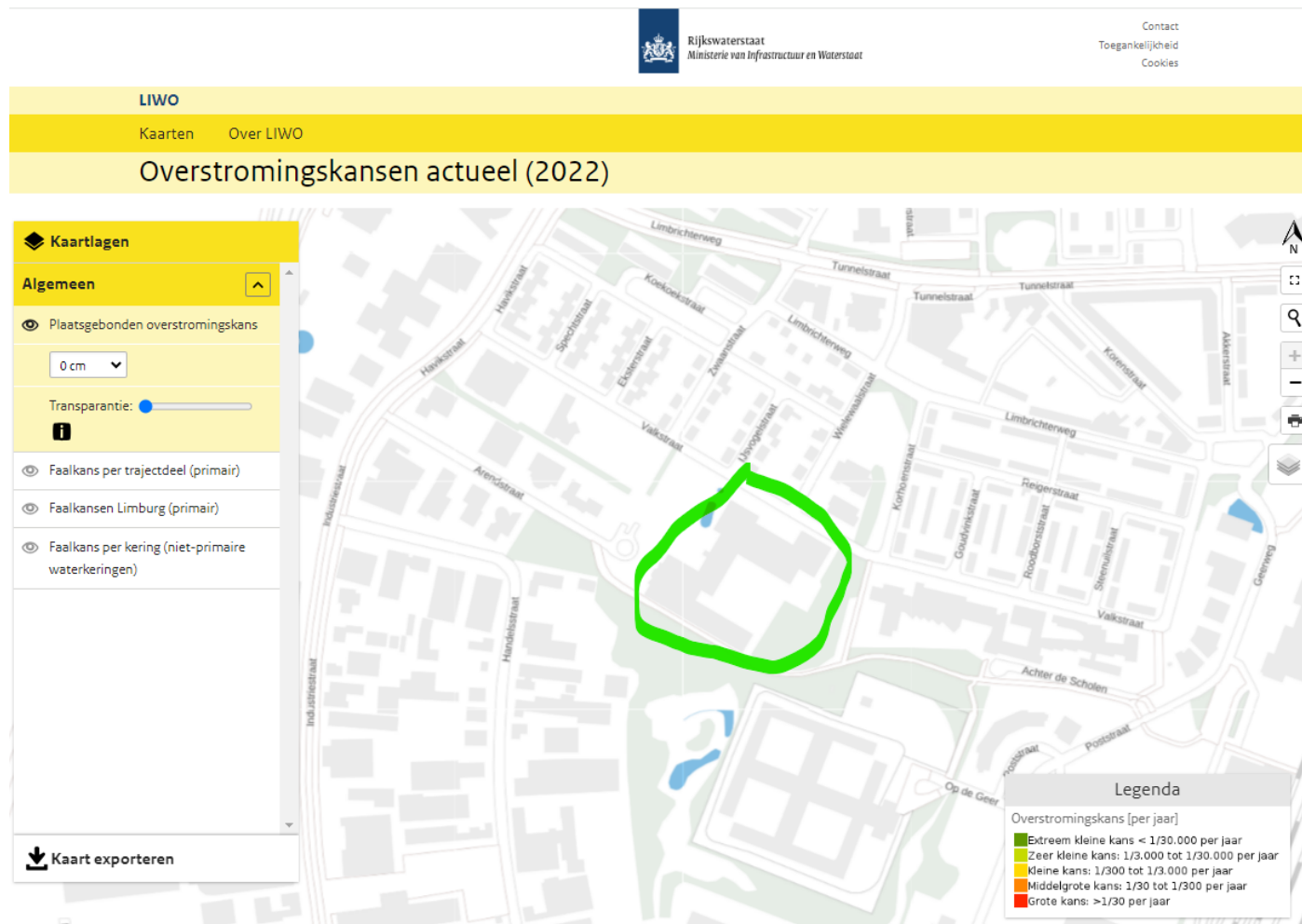
Redundant Power/Utilities

Client has no power nor utility redundancy

Building	Flood Zone	Flood Source	FFE (m)	100 Yr Flood Elv. (m)	500 Yr Flood Elv. (m)
Arendstraat Valkstraat 1210	No Flood Exposure	River	--	--	--

Comments

No flood exposure according Dutch government site Rijkswaterstaat:



Wind

Wind Speed (m/s)

34

Redundant Power/Utilities

Client has no power nor utility redundancy

Building

Distance to Coast

Arendstraat Valkstraat 1210

10 and greater miles

Earthquake

EQ Zone

EQ Emergency Response Plan

Redundant Power/Utilities

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Zone 3

Client has BCP program, not well documented

Client has no power nor utility redundancy

Seismic Bracing of Equipment

No seismic bracing or restraint is provided

Asset Strengthening

Client has documented asset strengthening - building 0 - 5 years of age

Seismic Gas Shutoff Valves (SGSV)

No SGSV's provided for flammable gas and liquid equipment

Severe Convective Storm

Hailstorm Exposure

Zone 3

Fire Loss Estimates

All loss estimates developed as a result of our property surveys are for the sole use of AIG underwriters. Engineering loss estimates are based on the professional judgement of our engineer / consultants. There is detailed guidance and methodologies that are reference and used in the calculate of our Loss Estimates. Using our Loss Estimates without an understanding of the underlying guidance and methodologies is not recommended. AIG assumes no responsibility for use or reliance upon the loss estimates presented below.

	PD (M EUR)	PD%	BI (M EUR)	BI%	IBI (M EUR)	TOTAL (M EUR)
MAS	55.41	100.0		0.0		55.41
MFL	41.56	75.0		0.0		41.56
NLE	7.27	13.1		0.0		7.27

Reported Values

Property Damage

Building (EUR)	Contents (EUR)	M&E (EUR)	Stock/Inventory (EUR)	Other PD (EUR)
40,726,000	14,684,000	0	0	0

Business Interruption

Indemnity Period	BI/Gross Revenues (EUR)	Rental Income (EUR)	Payroll (EUR)
12 Months	0	0	0

Totals	EUR
Total Property Damage Value	55,410,000
Total BI Value	0
Total Insured Value	55,410,000

Maximum Amount Subject (MAS)

Total LE (EUR): 55,410,000

PD Loss Estimate

Building	Bldg (EUR)	M&E (EUR)	Content (EUR)	Stock (EUR)	Other (EUR)	Total (EUR)
Arendstraat Valkstraat 1210	40,726,000 (100.00%)	0 (100.00%)	14,684,000 (100.00%)	0 (100.00%)	0 (100.00%)	55,410,000 (100.00%)
Total	40,726,000 (100.00%)	-- (--%)	14,684,000 (100.00%)	-- (--%)	-- (--%)	

Total Property Damage Loss Estimate (EUR): **55,410,000 (100.00%)**

TE Loss Estimate

Building	BI (EUR)	Payroll (EUR)	Rent (EUR)	Downtime (Months)	Total(EUR)
Arendstraat Valkstraat 1210	-- (100.00%)	-- (--%)	-- (--%)	24	--%
Total	-- (--%)	-- (--%)	-- (--%)	--	

Total TE Loss Estimate (EUR): -- (0.00%)

Loss Estimate Comments

MAS-PD:

Single site according AIG guidelines a total loss.

MAS-BI

Not insured, reconstruction will take up to 24 months.

Maximum Foreseeable Loss (MFL)

Total LE (EUR): 41,557,500

PD Loss Estimate

Building	Bldg (EUR)	M&E (EUR)	Content (EUR)	Stock (EUR)	Other (EUR)	Total (EUR)
Arendstraat Valkstraat 1210	30,544,500 (75.00%)	0 (75.00%)	11,013,000 (75.00%)	0 (75.00%)	0 (75.00%)	41,557,500 (75.00%)
Total	30,544,500 (75.00%)	-- (--%)	11,013,000 (75.00%)	-- (--%)	-- (--%)	

Total Property Damage Loss Estimate (EUR): **41,557,500 (75.00%)**

TE Loss Estimate

Building	BI (EUR)	Payroll (EUR)	Rent (EUR)	Downtime (Months)	Total(EUR)
Arendstraat Valkstraat 1210	-- (100.00%)	-- (--%)	-- (--%)	18	--%
Total	-- (--%)	-- (--%)	-- (--%)	--	

Total TE Loss Estimate (EUR): -- (**0.00%**)

Loss Estimate Comments

MFL-PD:

Under MFL conditions, the fire area can be restricted by clear space separations or a heavy, MFL quality fire wall. The buildings are connected, also no MFL rated fire walls are available.

However under MFL conditions recovery potential is anticipated according to table 5 of the AIG MFL loss expectancy guideline. Considering it is a HG 6 occupancy:

- ISO4: 70% building and 70% content.
- ISO3/ C: 100% building and content.

The total loss expectancy will be: $70\% \text{ of } 15,008 \text{ m}^2 + 100\% \text{ of } 3,300 \text{ m}^2 = 13,806 \text{ m}^2 \text{ out of } 18,308 \text{ m}^2 = 75\%$.

MFL-BI:

BI is not insured. Reconstruction would take up to 18 months.

Normal Loss Expectancy (NLE)

Total LE (EUR): 7,269,820

PD Loss Estimate

Building	Bldg (EUR)	M&E (EUR)	Content (EUR)	Stock (EUR)	Other (EUR)	Total (EUR)
Arendstraat Valkstraat 1210	4,479,860 (11.00%)	0 (19.00%)	2,789,960 (19.00%)	0 (19.00%)	0 (19.00%)	7,269,820 (13.12%)
Total	4,479,860 (11.00%)	-- (--%)	2,789,960 (19.00%)	-- (--%)	-- (--%)	

Total Property Damage Loss Estimate (EUR): **7,269,820 (13.12%)**

TE Loss Estimate

Building	BI (EUR)	Payroll (EUR)	Rent (EUR)	Downtime (Months)	Total(EUR)
Arendstraat Valkstraat 1210	-- (--%)	-- (--%)	-- (--%)	--	--%
Total	-- (--%)	-- (--%)	-- (--%)	--	

Total TE Loss Estimate (EUR): **-- (0.00%)**

Loss Estimate Comments

NLE-PD:

The site has an overall construction classified as ISO4(B). Adequate supervision in the combination with automatic fire detection. Fire load levels are standard for a school occupancy, though there are some special labs, where presents of gasses and small quantities of ignitable liquids is used. Storage in adequate arrangements. The NLE scenario is based upon a delayed fire brigade response with a fire situated on the third floor of building B, being the largest building. although the building are connected because the 30-, and 60-minutes fire rated walls only one building is considered. The scenario is based upon the maximum compartment size.

The building is spilt in into subcompartments of <1,000m² per Dutch building code. Therefore the fire area is at max. 1,000m². Secondary damage due to water is anticipated to all floors below the fire area (2 floors) and smoke damage is anticipated to the two compartment beside and the floor above (3 compartments). The susceptibility is rated 20% for the building and 50% for the content.

Calculation:

Fire damage;

- Buildings = $1,000\text{m}^2$
- M&E/Content = $1,000\text{m}^2 \times @100\% = 1,000\text{ m}^2$

Secondary damage;

- Buildings = (Water: $2 \times 1,000\text{m}^2$ + smoke: $3 \times 1,000\text{m}^2$) $\times @20\% = 1,000\text{ m}^2$
- M&E/Content = (Water: $2 \times 1,000\text{m}^2$ + smoke: $3 \times 1,000\text{m}^2$) $\times @50\% = 2,500\text{ m}^2$

Total PD_NLE:

- Building: $1,000\text{ m}^2 + 1,000\text{ m}^2 = 2,000\text{ m}^2$ out of $18,308\text{ m}^2 = 10,9 \rightarrow 11\%$
- M&E/Content: $1,000\text{ m}^2 + 2,500\text{ m}^2 = 3,500$ out of $18,308\text{ m}^2 = 19,12 \rightarrow 19\%$.

Risk Improvement Classification

Critical

Critical recommendations represent conditions or work practices that create an imminent or severe loss-producing situation. This means that there must be a readily available ignition source or the potential for a severe loss event.

Important

Important recommendations represent conditions or work practices that could result in a loss-producing situation, but for which immediate action is not necessary. These are recommendations to correct uncontrolled exposures or to achieve and maintain a reasonable level of property protection. These recommendations require commitment on the part of the insured to change or modify conditions or work practices in order to reduce the potential for serious loss, resulting from either frequency or severity events.

Advisory

Advisory recommendations represent conditions or work practices that do not directly pose a risk for severe loss or injury, but could contribute to a loss situation. These are recommendations that are considered best practices to enhance the level of property protection. Compliance with these recommendations improves the risk and reduces the likelihood of a loss occurring from the recognized hazard or situation.

Risk Improvement Types

Physical Protection:

A Physical Protection Risk Improvement is associated with provision of physical plant and equipment; typically there could be a capital expenditure associated with these improvements.

Management Programs

A Management Programs Risk Improvement typically relates to procedures and management programs and will not normally involve, or will have limited, capital expenditure.

NATCAT:

NATCAT Risk Improvement is either a physical improvement or the addition/enhancement of management procedures to reduce the risk associated with natural catastrophe events.

B&M Management Programs

A B&M Management Programs Risk Improvement relates to procedures and management programs, such as inspection, testing and maintenance, which will not normally involve, or have limited capital expenditure. Such a risk improvement is directed at reducing the probability of the identified risk exposure.

Loss Estimate Definitions

Maximum Amount Subject (MAS)

The **Maximum Amount Subject (MAS)** is defined as the area of the largest insured value (PD and BI) that is subject to a single fire or explosion. The amount Subject area will only be limited by clear space separation that is sufficient to restrict the spread of fire, as defined in the Space Separation Table which is found in the AIG Commercial Property Field Engineering Manual, MFL section. MAS considers complete failure of all active protection including automatic sprinkler systems, all water supplies, automatic extinguishing systems, alarm supervision, public and private water supplies, no firefighting effort and offers no credit for MFL or fire walls, fire proofing or other passive barriers. In circumstances where the location consists of only one building, the Amount Subject will normally be equal to the full TSI for that building. Calculate of MAS will include PD, BI, BI interdependencies, contingent BI and any other time element values such as Extra Expense, Extended Period of indemnity, Rents, etc.

Maximum Foreseeable Loss (MFL)

MFL is defined as the largest amount of loss that can be anticipated (including PD, BI, BI interdependencies, contingent BI and any other time element values such as extra expense, extended period of indemnity, rents, etc. due to a fire and/or explosion event with all fire protection systems and equipment out of service and with no fire-fighting effort, either public or private. The loss would be that which occurs if the fire were allowed to “burn freely” until it burns itself out. The MFL area is the maximum plant area that could be affected by a single fire or explosion, occurring in the more vulnerable area of the facility (i.e. that with the largest total PD and BI potential). The only acceptable ways to reduce the MFL estimate are:

- Adequate clear space separation between buildings
- Lack of continuity of combustibles
- Effective horizontal cut-offs with MFL walls
- Effective vertical cut-offs
- Expectable salvage values
- Reliable make-up capacity

Airports, High Rise Buildings, Hospitals and Universities are treated as unique and may have a MFL calculation that differs from the above providing certain favorable factors exist.

Normal Loss Estimate (NLE)

The Normal Loss Estimate (NLE) is defined as the largest loss anticipated for a location under existing conditions. The NLE for a protected (sprinklered) facility assumes that the existing automatic and manual protection functions as designed and for intended and in its existing condition, whether it is adequate for the occupancy or not. This can include both public and private protection, including fixed automatic protection (such as sprinkler systems with reliable water supplies), other fixed automatic protection (such as special extinguishing systems or fire alarms with off-site signaling), and proximity of the public fire department and availability of public and private water supplies for firefighting purposes. In addition, construction characteristics are considered that include firewalls, draft curtains, roof

parapets, fire doors, etc., as these factors relate to the hazard and combustibility of the occupancy. Fire department response is anticipated.

Factors that could influence the NLE include:

- Construction classification and characteristics including fire walls, fire doors, etc.
- Occupancy and contents susceptibility to damage (smoke or water damage)
- Continuity of combustibles and combustible loading (light, moderate, heavy)
- Sprinkler protection/water supply adequacy
- Special hazard conditions, protection and controls
- Public Fire Department
- Fire alarms and Central Station monitoring

Deficiencies, minor in nature that are not expected to contribute significantly to a loss but do represent or could contribute to unsafe conditions or unsafe acts. These are recommendations that are considered best practices to enhance the level of property protection. Although compliance with these recommendations improves the risk and reduces the likelihood of a loss occurring from the recognized hazard or situation, they are considered desirable and not mandatory in nature.