



## Account Profile

Name Insured/Prospect: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

E-mail Address: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Policy Term (from mm/yy to mm/yy): \_\_\_\_\_ Broker Contact: \_\_\_\_\_

Tunnel Name (if any): \_\_\_\_\_ Year Built : \_\_\_\_\_

Tunnel Location (Latitude and Longitude or Address): \_\_\_\_\_

## Technical Issues

Length (ft) \_\_\_\_\_ Excavation diameter (ft) \_\_\_\_\_ Average depth from ground surface to top of tunnel (ft) \_\_\_\_\_

Cross-section  Circular  Horseshoe  Elliptical  Rectangular

Structure type  Road  Railway  Subway  Station  
 Pedestrian  Ventilation  other \_\_\_\_\_

Excavation type  
NATM: New Austrian Tunneling Method  Cut&Cover  NATM  SEM  TBM  
SEM: Sequential Excavation Method  Immersed tunnel  other \_\_\_\_\_  
TBM: Tunnel Boring Machines

Materials for Cut&Cover tunnel  Concrete  Steel  Masonry  na  
 other \_\_\_\_\_

Rock reinforcement  Rock dowels  Rock bolts  Rock anchor  
 other \_\_\_\_\_

Permanent lining

Unlined       Timber       In-situ reinforced concrete  
 Shotcrete       Masonry       Segmental cast iron  
 Steel arch ribs only       Precast reinforced concrete  
 other \_\_\_\_\_

Design method

ASD: Allowable Stress Design       ASD       LFD       LRFD  
 LFD: Load Factor Design  
 LRFD: Load & Resistance Factor Design  
 other \_\_\_\_\_

Maximum grades of tunnel (%) \_\_\_\_\_ Minimum horizontal and vertical curvatures of tunnel (radius in ft) \_\_\_\_\_

Tunnel drainage system       Yes       No

## Defective damage

Damage in tunnel

Heaving       Squeezing       Re-bar exposure       Cracks  
 other \_\_\_\_\_

Damage on ground

Significant rock weathering       Sinkholes       Slides  
 other \_\_\_\_\_

## Geology and geotechnical issues

Ground conditions

Soil       Rock       Mixed ground

Rock conditions

Intact       Stratified       Fractured (jointed, blocky and seamy rock)

Presence of faults

Multiple active fault lines       Faults present, believed dormant  
 None

Explosive gases & combustible fumes

Major explosion risk       Minor seepage easily controlled by standard ventilation  
 None

Site Investigation documentation

Some level (rock or stiff clays) coupled with conservative excavation  
 Detailed ground investigation by borehole logging       None

Groundwater pressure

Coastal region       Lake or riverside       Marine or river crossing  
 Dry area

Presence of karstic terrain or groundwater springs       Yes       No

## Neighborhood Issues

Utility services underground or overhead  Electric supply  Gas  Water  None  
 other \_\_\_\_\_

Buildings and infrastructures  City centre  Suburb  Commercial  Industrial  
 Rural

Traffic density (number of cars per day) \_\_\_\_\_

Traffic condition (rate of heavy commercial vehicles) \_\_\_\_\_

## Organization & Management

What factors govern inspection and repair priorities?  Legislative  Budget  Maintenance schedule  
 other \_\_\_\_\_

Do you have an emergency response program (alternative service and repair) in the event of shutdown? \_\_\_\_\_

History of major rehabilitation projects (previous repair and replacement works) and costs? \_\_\_\_\_

Record of major catastrophic loss from natural hazards  Earthquake  Flood  Wind  Rainfall  
 Snow  Ice  Extreme Temperature  Landslide  
 other \_\_\_\_\_

Do you have a comprehensive, systematic program of inspection?  Yes  No

Inspection type  In-depth  Visual  
 other \_\_\_\_\_

Inspection frequency  Weekly  Monthly  Annual  Bi-annual  
 3 years  5 years  Emergency-basis-only  
 None to date

Who performs inspection?  in-house staff  Consulting engineers  Authorities  
 other \_\_\_\_\_

Geotechnical and structural instrumentation for monitoring  Extensometer or similar gage measuring ground movement  
 Extensometer on anchor bolts  
 Vertical, horizontal, longitudinal deformation gage of linings  
 Groundwater movement gage due to changes in the water percolation pattern

Access lay-out on the tunnel cross-section to permit easy inspection and maintenance  Yes  No

Emergency egress and access shafts  Yes  No

Ventilation system  Natural  Semi-Transverse  Full-Transverse  
 Single-Point Extraction

Surveillance system for operational control (e.g. traffic accidents, blockage and fire)  Yes  No

Lighting/Signal/Communication System  Yes  No

## Fire Damage Control

Distance to the nearest fire brigade (mi) \_\_\_\_\_

Compliance to NFPA 502 – Standard for Road Tunnels  Yes  No

Fire protection of structural elements (e.g. fire resistant coating and steel and concrete lining)  Yes  No

Fire detection and communication system  Yes  No

Fire protection system?  Standpipe  Fire hydrants  Water supply  
 Portable fire extinguisher  Fixed water-base fire-fighting systems  
 None

Emergency egress walkways, alcove, ventilation, and lighting  Yes  No

## Attachments

The questionnaire has to be completed with the following documents attached:

- Geotechnical report
- Architectural drawings
- Site plan

**Fraud Warning:**

Any person who knowingly and with intent to defraud any company or other person files an application for insurance or statement of claim containing any materially false information or conceals for the purpose of misleading, information concerning any fact material thereto commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties. (Not applicable to Nebraska, Oregon and Vermont)

**Notice to Colorado applicants:**

It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, denial for insurance, and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policy holder or claimant for the purpose of defrauding or attempting to defraud the policy holder or claimant with regard to a settlement or award payable from insurance proceeds shall be reported to the Colorado Division of Insurance within Department of Regulatory Agencies.

**Warning to district of Columbia applicants:**

It is a crime to provide false or misleading information to an insurer for the purpose of defrauding the insurer or any other person. Penalties include imprisonment and/or fines. In addition, an insurer may deny insurance benefits if false information materially related to a claim was provided by the applicant.

**Notice to Florida applicants:**

Any person who knowingly and with intent to injure, defraud, or deceive any insurer files a statement of claim or an application containing any false, incomplete, or misleading information is guilty of a felony of the third degree.

**Notice to Louisiana applicants:**

Any person who knowingly presents a false or fraudulent claim for payment of a loss or benefit or knowingly presents false information in an application for insurance is guilty of a crime and may be subject to fines and confinement in prison.

**Notice to Maine applicants:**

It is a crime to knowingly provide false, incomplete or misleading information to an insurance company for the purpose of defrauding the company. Penalties may include imprisonment, fines or a denial of insurance benefits.

**Notice to Maryland applicants:**

Any person who knowingly and willfully presents a false or fraudulent claim for payment of a loss or benefit or who knowingly and willfully presents false information in an application for insurance is guilty of a crime and may be subject to fines and confinement in prison.

**Notice to Minnesota applicants:**

A person who files a claim with intent to defraud or helps commit a fraud against an insurer is guilty of a crime.

**Notice to Ohio applicants:**

Any person who knowingly and with intent to defraud any insurance company files an application for insurance or statement of claim containing any materially false information or conceals for the purpose of misleading, information concerning any fact material thereto commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties.

**Notice to Oklahoma applicants:**

Any person who knowingly, and with intent to injure, defraud or deceive any insurer, makes any claim for the proceeds of an insurance policy containing any false, incomplete or misleading information is guilty of a felony.

**Notice to Rhode Island applicants:**

Any person who knowingly presents a false or fraudulent claim for payment of a loss or benefit or knowingly presents false information in an application of insurance is guilty of a crime and may be subject to fines and confinement in prison.

**Fraud Warning (Applicable in Tennessee, Virginia and Washington):**

It is a crime to knowingly provide false, incomplete, or misleading information to an insurance company for the purpose of defrauding the company. Penalties include imprisonment, fines, and denial of insurance benefits.

**Fraud Warning (Applicable in the State of New York):**

Any person who knowingly and with intent to defraud any insurance company or other person files an application for insurance or statement of claim containing any materially false information or conceals for the purpose of misleading, information concerning any fact material thereto, commits a fraudulent insurance act, which is a crime, and shall also be subject to a civil penalty not to exceed five thousand dollars and the stated value of the claim for each such violation.

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APPLICANT'S NAME AND TITLE

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DATE APPLICANT'S SIGNATURE (Must be signed by an active owner, partner or executive officer)

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PRODUCER'S NAME

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DATE PRODUCER'S SIGNATURE

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BROKER LICENSE NUMBER