

STATIC LOADING & CALCULATION QUESTIONNAIRE

This form is to be filled out as best as possible as it will aid Solo Ltd. in carrying out accurate static calculations for design and quoting purposes. The calculations are carried out in accordance with AS/NZS2566.1:1998 – *Buried Flexible Pipelines: Structural design and the installation parameters used are in accordance with AS/NZS 2566.2:2002 – Buried flexible pipelines – Installation.*

Project Name: _____ Customer: _____

Contact Person: _____ Email: _____

Ph: _____ Delivery Address: _____

Pipe Specification Details:

Material: PE100 Polypropylene
 Joint/Connection: Electrofusion Rubber Ring Butt Welded Extrusion Welded
 Inner Colour: Black Yellow Grey Blue

Pipe Dimensions:

Internal Diameter: _____ mm SN Rating (if required): _____

Outside Diameter: _____ mm SDR/PN (if required): _____

Loads

Flow medium: _____

Density: _____ g/cm³

Operating Temperature: Minimum: _____ °C

Maximum: _____ °C

Operating Pu: _____ bar (otherwise unpressurised)

Service Life: 50 years 100 years Temporary Works

Vehicle Loading: HN/HO72 None Special Construction

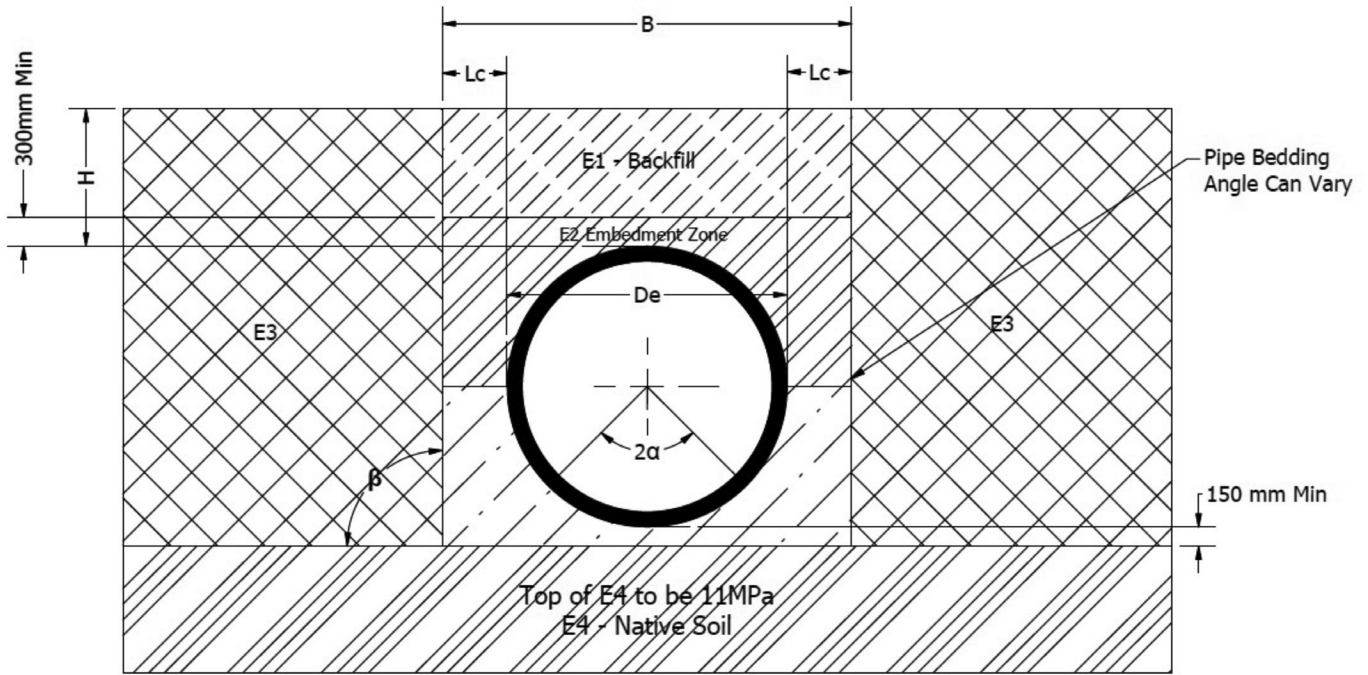
Additional Structural loading: _____ N/mm²

Water filling (Tank or Storage System): Yes No

Notes:



INSTALLATION – TRENCH (OPEN CUT)



Ground water level above pipe bed: _____ mm

Trench width at Pipe Crown (B): _____ mm

Note: This is determined by AS/NZS 2566.2:2002 – Buried flexible pipelines – Installation, but specify if there are site restrictions.

Trench Cut/Slope Angle (β): 90 120 180

Pipe Bedding Support Angle (2α): 90 120 180

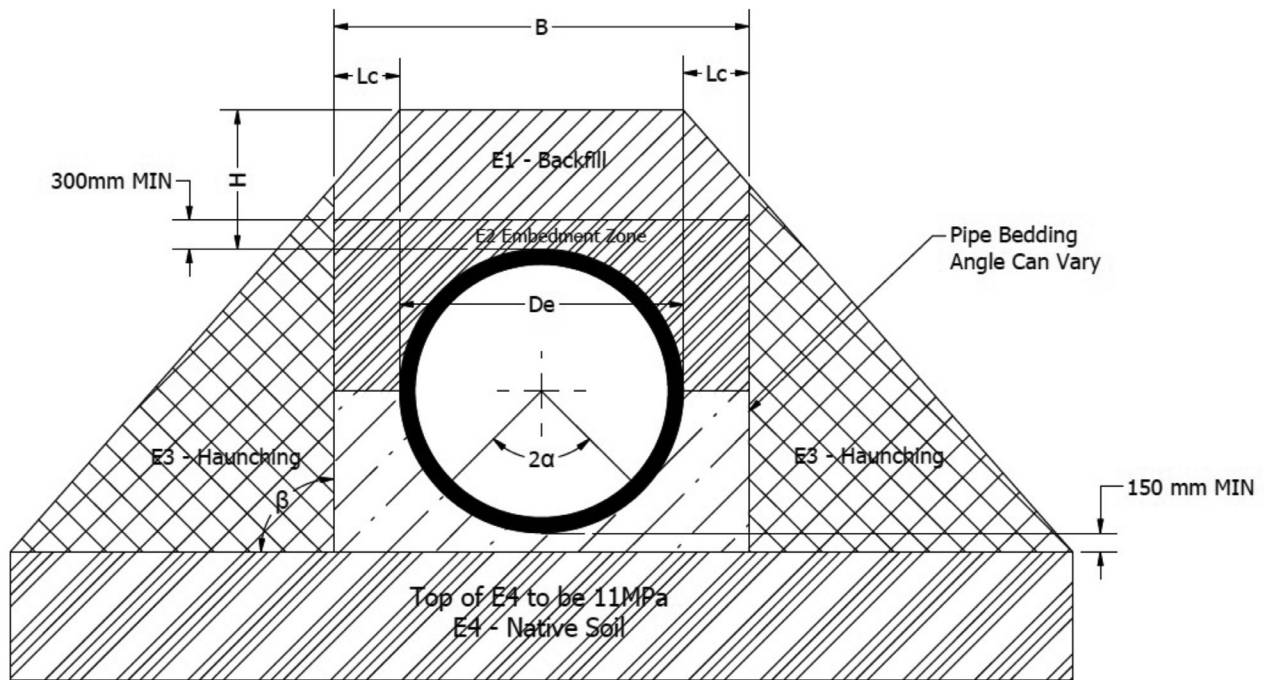
Soil Cover Height above crown (H): Maximum _____ mm

Minimum _____ mm

Soil type – See Backfill Material Classification Table on page 4		E1	E2	E3	E4
GROUP	G1 – non cohesive (sand, gravel)	G1 <input type="checkbox"/>	G1 <input type="checkbox"/>	G1 <input type="checkbox"/>	G1 <input type="checkbox"/>
	G2 – slightly cohesive (sand, gravel)	G2 <input type="checkbox"/>	G2* <input type="checkbox"/>	G2 <input type="checkbox"/>	G2 <input type="checkbox"/>
	G3 – cohesive mixed soil, coarse clay	G3 <input type="checkbox"/>	G3* <input type="checkbox"/>	G3 <input type="checkbox"/>	G3 <input type="checkbox"/>
	G4 – clay, loam *Note: In zone E2 preferably use material (G1)	G4 <input type="checkbox"/>	G4* <input type="checkbox"/>	G4 <input type="checkbox"/>	G4 <input type="checkbox"/>
Density Grade of density (85% - 100%)	kg/m ³				
Preferably $\geq 95\%$ E-Modulus EB	N/mm ²				



INSTALLATION – BANK



Ground water level above pipe bed: _____ mm

Trench width at Pipe Crown (B): _____ mm

Note: This is determined by AS/NZS 2566.2:2002 – Buried flexible pipelines – Installation, but specify if there are site restrictions.

Trench Cut/Slope Angle (β): 90 120 180

Pipe Bedding Support Angle (2α): 90 120 180

Soil Cover Height above crown (H): Maximum _____ mm

Minimum _____ mm

Soil type – See Backfill Material Classification Table on page 4		E1	E2	E3	E4
GROUP	G1 – non cohesive (sand, gravel)	G1 <input type="checkbox"/>	G1 <input type="checkbox"/>	G1 <input type="checkbox"/>	G1 <input type="checkbox"/>
	G2 – slightly cohesive (sand, gravel)	G2 <input type="checkbox"/>	G2* <input type="checkbox"/>	G2 <input type="checkbox"/>	G2 <input type="checkbox"/>
	G3 – cohesive mixed soil, coarse clay	G3 <input type="checkbox"/>	G3* <input type="checkbox"/>	G3 <input type="checkbox"/>	G3 <input type="checkbox"/>
	G4 – clay, loam <i>*Note: In zone E2 preferably use material (G1)</i>	G4 <input type="checkbox"/>	G4* <input type="checkbox"/>	G4 <input type="checkbox"/>	G4 <input type="checkbox"/>
Density Grade of density (85% - 100%)		kg/m ³			
Preferably $\geq 95\%$ E-Modulus EB		N/mm ²			



TECHNICAL INFORMATION

BACKFILL MATERIAL CLASSIFICATION TABLE:

GRANULAR BACKFILL			COHESIVE BACKFILL
G1	G2	G3	G4
<ul style="list-style-type: none"> Graded Crushed Rock River Gravel and Beach Gravel 	<ul style="list-style-type: none"> Valley Sand Drift & Basin Sand Dune Sand Beach Sand 	<ul style="list-style-type: none"> Weathered Gravel Clayey Gravel Loamy Sand Liquid Sand Alluvial Clay 	<ul style="list-style-type: none"> Clay Loess Loam Alluvial Marl

SOIL TYPES:

GROUP – SOIL ZONES AS PER DRAWINGS	SOIL DENSITY (KN/M3)	INTERNAL FRICTION ANGLE	MODULUS OF ELASTICITY IN N/MM2 AT VARIOUS COMPACTIONS RATES/MDD					
			85	90	92	95	97	100
G1	20	35	2.0	6	9	16	23	40
G2	20	30	1.2	3	4	8	11	20
G3	20	25	0.8	2	3	5	8	13
G4	20	20	0.6	1.5	2	4	6	10

SECURITY CLASS:

<p>Security Class A <input type="checkbox"/></p> <p><i>Definition:</i></p> <ul style="list-style-type: none"> Danger to ground water Impairment of serviceability Breakdown has considerable economic consequence. 	<p>Security Class B <input type="checkbox"/></p> <p><i>Definition:</i></p> <ul style="list-style-type: none"> No danger to ground water Little impairment of serviceability Breakdown has little economic consequence.
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