



APPENDIX 4-5

AECOM SILT TRENCH REVIEW



AECOM Ireland Limited
4th Floor
Adelphi Plaza
Georges Street Upper
Dun Laoghaire
Co. Dublin A96 T927
Ireland

T: +353 1 238 3100
aecom.com

Project name:
Seven Hills Windfarm

Project ref:
60634578_ACM_MO_CE_001_0

From:
Phillip Adams

Date:
24 June 2021

To:
Robert Scott
Mill House
Ashtown Gate
Navan Road
Dublin D15 H70K

CC:
Darren Doyle

Memo

Subject: Slit Trench Review

Please find enclosed a review of recent site investigation works as they pertain to the proposed cable route for the Seven Hills Windfarm Development.

Silt Trench 1

Figure 1 Site Investigation - Cross Section

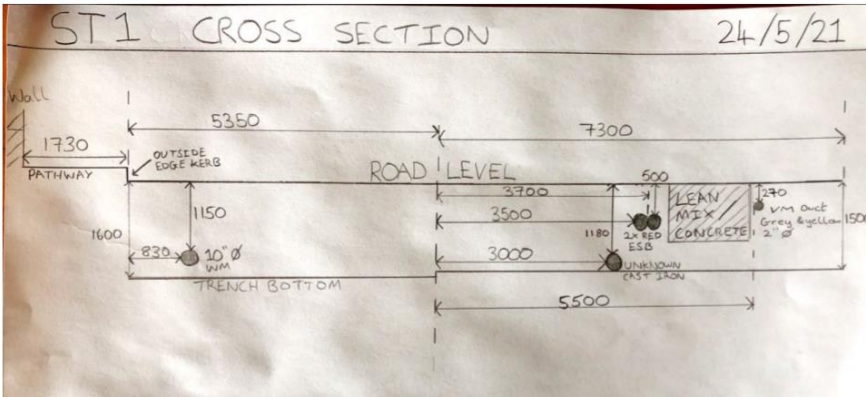


Figure 2 Cable Route Drawing Extract

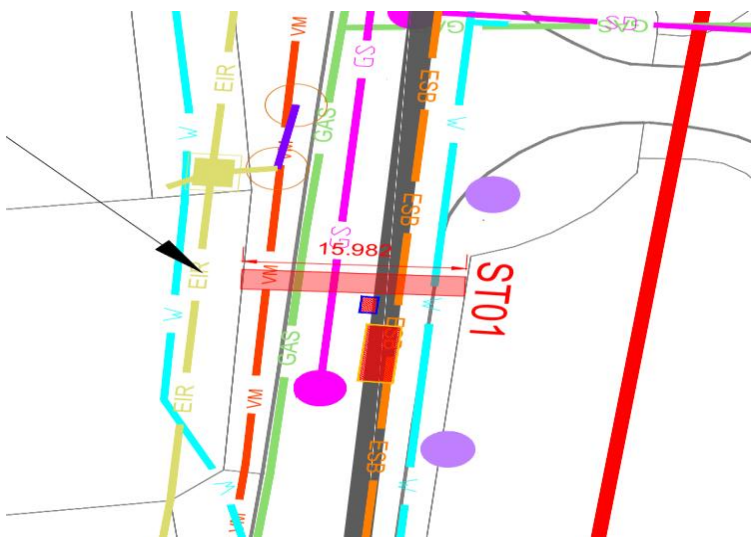


Table 1 Slit Trench 1

Utility	On Drawing	In Silt Trench	Comments
Irish Water	Yes	Yes	250mm dia. WM.
EIR	Yes		
Virgin Media	Yes	Yes	
GAS	Yes	-	
Gravity Sewer	Yes	-	Assumed below depth of trench dig.
ESB	Yes	Yes	2-way duct
Water	Yes	-	None
Public Lighting	-		In footway
Other	-	Yes	Cast iron - unknown – invert nmt 1.8m. Lean mix concrete - Could be cover.
Summary	Inverts of identified services as expected. Silt trench appears to have less services than dwgs. Impact on cable route minimal. Location of cable should not impinge conc. cover Open trench would be feasible through this section based on ST (silt trench) info. (see Detail A - see Dwg 60634578-ACM-DR-CE-036- Appendix 1).		

Silt Trench 3

Figure 5 Site Investigation - Cross Section

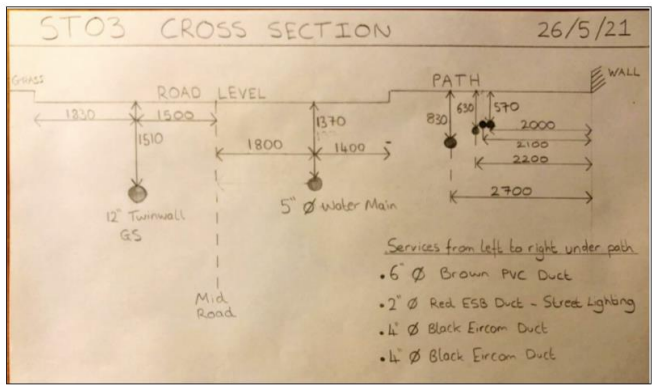


Figure 6 Cable Route Drawing Extract

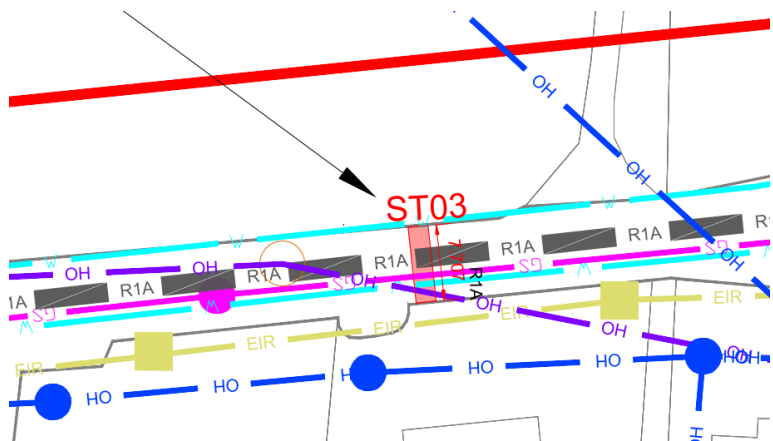


Table 3 Silt Trench 3

Utility	On Drawing	In Silt Trench	Comments
Irish Water	Yes	Yes	125mm dia. WM.
EIR	Yes	Yes	Footway 2-way duct
Virgin Media	-	-	
GAS	-	-	
Gravity Sewer	Yes	Yes	300mm diameter with 1.51m cover. (This more like Storm if twin wall)>>
ESB	-	-	
Irish Water	Yes	-	None
Public Lighting	-	Yes	In footway
Other	-	Yes	Footway Brown (150mm dia.) - This is Sewer or road storm.
Summary	Inverts of identified services as expected. Silt trench appears to have less services than dwgs. Impact of cable route minimal. Open trench would be feasible through this section based on ST info. (see Appendix 2 - Detail A or B - see Dwg 60634578-ACM-DR-CE-036).		

Silt Trench 4

Figure 7 Site Investigation - Cross Section

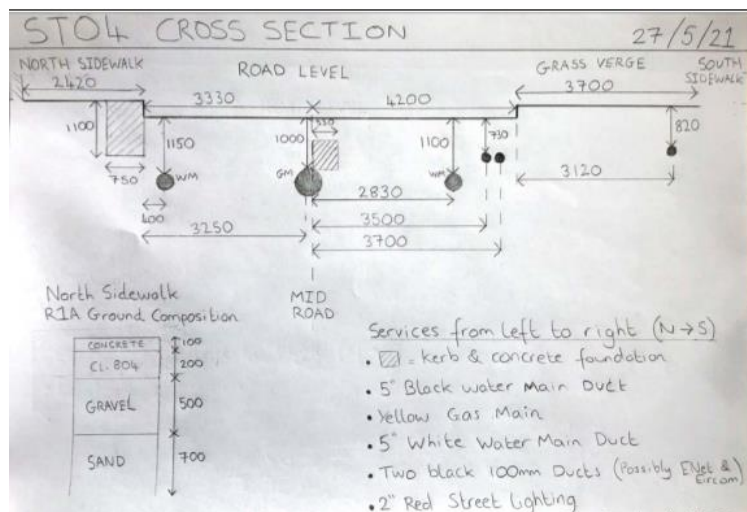


Figure 8 Cable Route Drawing Extract



Table 4 Silt Trench 4

Utility	On Drawing	In Silt Trench	Comments
Irish Water	Yes	Yes	125mm dia. WM.
EIR /ENET	Yes	Yes	2-way duct or ENET??
Virgin Media	Yes	-	
GAS	Yes	-	
Gravity Sewer	Yes	Yes	300mm diameter with 1.51m cover. (This more like Storm if twin wall)>>
ESB	-	-	
Irish Water	Yes	-	None
Public Lighting	-	Yes	In verge -2 way
Other	-		
Summary	Inverts of identified services as expected. Silt trench appears to have less services than dwgs. Impact on cable route minimal. Open trench would be feasible through this section based on ST info. (see Appendix 2 - Detail A or B - Dwg 60634578-ACM-DR-CE-036).		

Silt Trench 5

Figure 9 Site Investigation - Cross Section

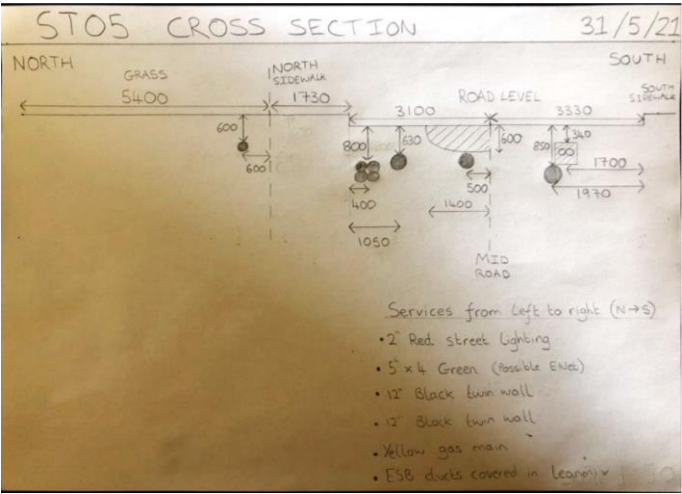


Figure 10 Cable Route Drawing Extract

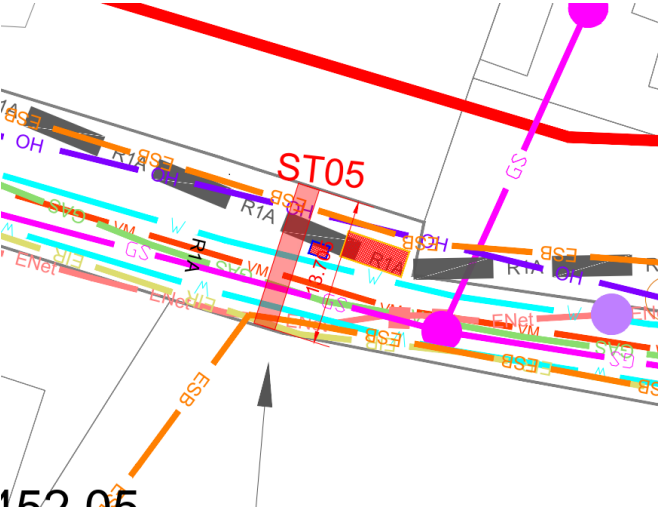


Table 5 Silt Trench 5

Utility	On Drawing	In Silt Trench	Comments
Irish Water	Yes	Yes	125mm dia. WM.
EIR /ENET	Yes	Yes	4 way + 2-way duct or ENET??
Virgin Media	Yes	-	Maybe in 4 way or 2 way?
GAS	Yes	Yes	No size stated – yellow duct (See Appendix 1)
Gravity Sewer	Yes	Yes	2 nr 300mm dia. 600mm average cover. (This more like Storm if twin wall)>>
ESB	Yes	-	2 way
Irish Water	Yes	-	None
Public Lighting	-	Yes	
Other	-		
Summary	Inverts of identified services as expected. Twin wall inverts high (may need diverted – clarify if storm or foul). Silt trench appears to have less services than dwgs. Impact on cable route based on ST info would be for		

cable route to run under telecom ducting – northern side. (see Appendix 2- Detail A - see Dwg - 60634578-ACM-DR-CE-036).
--

Silt Trench 6

Figure 11Site Investigation - Cross Section

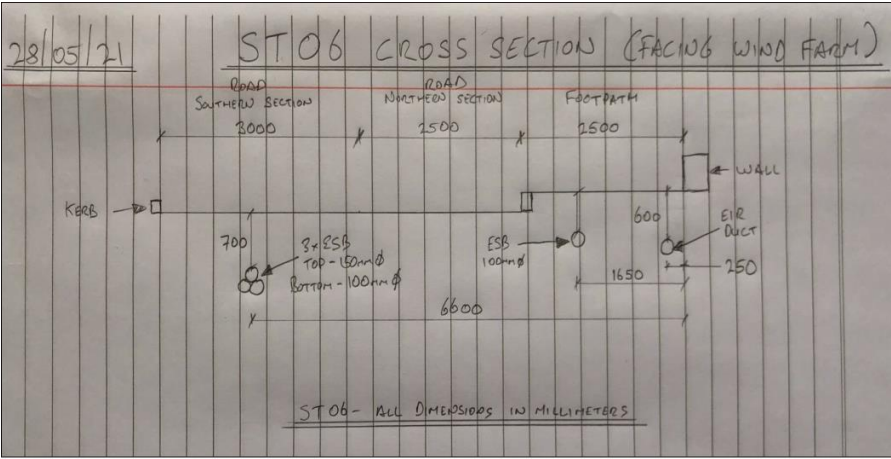


Figure 12 Cable Route Drawing Extract

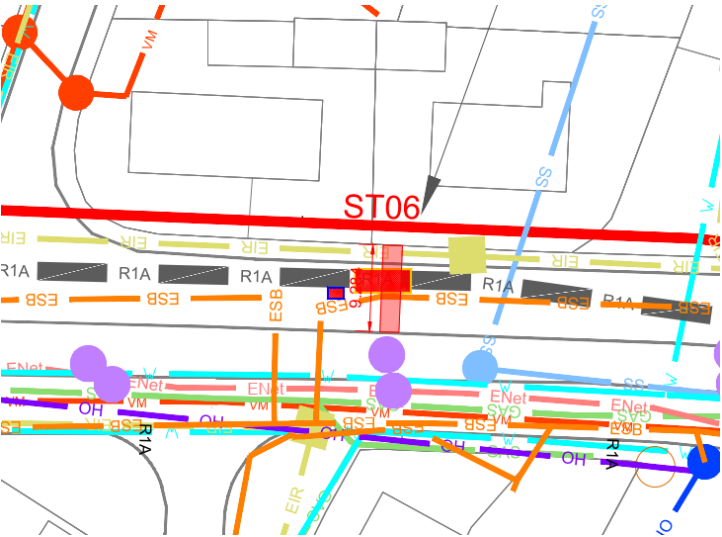


Table 6 Silt Trench 6

Utility	On Drawing	In Silt Trench	Comments
Irish Water			
EIR /ENET	Yes	Yes	1 -way duct
Virgin Media		-	
GAS		-	
Gravity Sewer		-	
ESB	Yes	Yes	3-way trefoil and 1 way
Irish Water		-	
Public Lighting	-	-	
Other	-		

Utility	Drawing	Silt Trench	Comments
GAS	-	-	
Gravity Sewer	-	Yes	Assumed ridged black (twin wall) needs clarified?
ESB	Yes	Yes	4-way duct red
Water	-	-	
Public Lighting	-	Yes	Assumed In footway
Other	Yes		Smooth black – not clarified?
Summary	Inverts of identified services as expected. Silt trench appears to have less services – some require further clarification (refer to Appendix 1). Based on info from ST the planned cable route would be feasible through this section. (See Appendix 2 - Detail A Dwg 60634578-ACM-DR-CE-036)		

Table 8 Silt Trench 8

Utility	Drawing	Silt Trench	Comments
Irish Water	Yes	Yes	None
EIR	Yes	No	
Virgin Media	Yes		
GAS	Yes	Yes	
Gravity Sewer	Yes	No	Assumed below depth of trench dig.
ESB	Yes	Yes	Transverse duct
Water	Yes	No	None
Public Lighting		Yes	In footway
Other	Yes		600mm wide chamber (no utility clarified)
Summary	Inverts of identified services as expected. Silt trench appears to have less services than dwgs although additional transverse ESB duct identified. Based on ST info fewer services identified. The impact on the planned cable route would be less when compared to the Desk Study data provided. (See Details proposals -Dwg 60634578-ACM-DR-CE-036 - Detail A preferred) – Cable route will need lowered under services.		

Silt Trench 10

Figure 18 Site Investigation - Cross Section

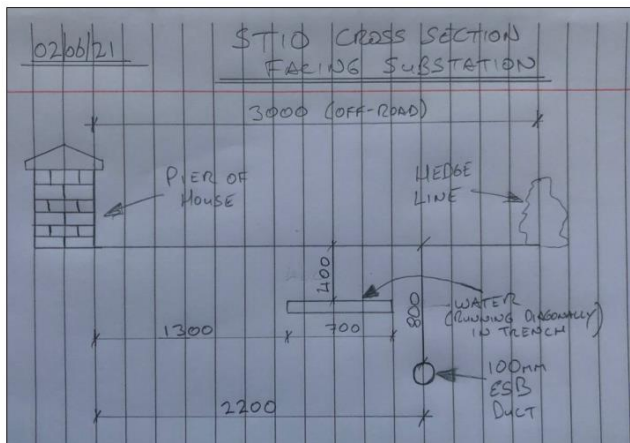


Table 10 Silt Trench 10 Facing Substation

Utility	Drawing	Silt Trench	Comments
Irish Water			None
EIR/ENET		Yes	3-way duct + 1 -way duct ENET
Virgin Media		-	
GAS		Yes?	Potential gas stated under CBGM which had power cable running through it.
Gravity Sewer			
ESB		Yes	2-way power duct (ESB)
Water			None
Public Lighting		-	
Other			
Summary	Silt trench has ESB service only. Water running may need directed and made good. Based on ST findings this will have minimum impact on the planned cable route. See Appendix 2 - Details proposals -Dwg 60634578-ACM-DR-CE-036).		

Summary

In general, the extent of services located in the silt trenches are less than those identified in the desk study. This may be due to the accuracy of data provided, updated utility works, or the invert depth of services in comparison to the maximum depth of dig for silt trenches. The inverts noted on the silt trenches are primarily in conformance with requirements of Code of Practice for Avoiding Danger from Underground Services and good practice utilities 'Dial Before You Dig Service' guidance. The planned cable will be affected by the services and if utilised will require for the cable route to be diverted under existing services and/or for existing services to be redirected. The proposed alignment appears to be feasible.