Appendix 14.1a - Trenchless Construction Techniques – Construction Vehicle Estimates

Activity	Sub-activity	Type of Vehicles	Abnormal	Year 1																									
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Pre & Post Construction	Site Mobilisation / Demobilisation	HGVs	×	30	30																								
Landfall Works (trenchless construction techniques)	Temporary Bridge	HGVs	×																										
		Cars and LGVs	×																										
	Beach works	HGVs	×																										
		Cars and LGVs	×																										
	Transition Pit	HGVs	×																										
		Cars and LGVs	×																										
	Cable pull in	HGVs	×																										
		Cars and LGVs	×																										
Cable Route Works	Trenching	HGVs	×								106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
		Cars and LGVs	×								35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	Cable Installation	HGVs	×												3	3		3	3		3	3		3	3		3	3	
		Cars and LGVs	×												33	33		33	33		33	33		33	33		33	33	
	Jointing	HGVs	×													1	1		1	1		1	1		1	1		1	1
		Cars and LGVs	×													24	24		24	24		24	24		24	24		24	24
	Crossings	HGVs	×													5	5	5	5	5				5	5	5	5	5	5
		Cars and LGVs	×													20	20	20	20	20				20	20	20	20	20	20
Substation	Earthworks and Civils	HGVs	×	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
		Cars and LGVs	×	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
	Electrical Equipment Installation	HGVs	✓																										
		Cars and LGVs	×																										
	Commissioning Tests of Electrical Equipment	HGVs	×																										
		Cars and LGVs	×																										
Total Weekly Vehicle Trips				193	193	163	163	163	163	163	305	305	305	305	341	390	354	366	390	354	341	365	329	366	390	354	366	390	354
Weekly HGV trips				144	144	114	114	114	114	114	220	220	220	220	223	229	226	229	229	226	223	224	221	229	229	226	229	229	226
Weekly Car / LGV trips				49	49	49	49	49	49	49	84	84	84	84	117	161	128	137	161	128	117	141	108	137	161	128	137	161	128
% increase in Traffic	Access Road A1 (36676 - Weekly 10hr base traffic flow)		% of 10 hour flow	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.9	1.1	1.0	1.0	1.1	1.0	0.9	1.0	0.9	1.0	1.1	1.0	1.0	1.1	1.0
Daily Vehicle Trips (Max)				32	32	27	27	27	27	27	51	51	51	51	57	65	59	61	65	59	57	61	55	61	65	59	61	65	59

Activity	Sub-activity	Type of Vehicles	Abnormal	Year 1																									
				27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Pre & Post Construction	Site Mobilisation / Demobilisation	HGVs	×																										
Landfall Works (trenchless construction techniques)	Temporary Bridge	HGVs	×																										
		Cars and LGVs	×																										
	Beach works	HGVs	×																										
		Cars and LGVs	×																										
	Transition Pit	HGVs	×																										
		Cars and LGVs	×																										
	Cable pull in	HGVs	×																										
		Cars and LGVs	×																										
Cable Route Works	Trenching	HGVs	×	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
		Cars and LGVs	×	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	Cable Installation	HGVs	×	3	3		3	3		3	3		3	3		3	3		3	3		3	3		3	3		3	3
		Cars and LGVs	×	33	33		33	33		33	33		33	33		33	33		33	33		33	33		33	33		33	33
	Jointing	HGVs	×		1	1		1	1		1	1		1	1		1	1		1	1		1	1		1	1		1
		Cars and LGVs	×		24	24		24	24		24	24		24	24		24	24		24	24		24	24		24	24		24
	Crossings	HGVs	×				5	5	5	5	5	5				5	5	5	5	5	5				5	5	5	5	5
		Cars and LGVs	×				20	20	20	20	20	20				20	20	20	20	20	20				20	20	20	20	20
Substation	Earthworks and Civils	HGVs	×	114	114	114	114	114	114	114	114	114	114	114	114														
		Cars and LGVs	×	49	49	49	49	49	49	49	49	49	49	49	49														
	Electrical Equipment Installation	HGVs	✓													66	66	66	66	66	66	66	66	66	66	66	66	66	66
		Cars and LGVs	×													49	49	49	49	49	49	49	49	49	49	49	49	49	49
	Commissioning Tests of Electrical Equipment	HGVs	×																										
		Cars and LGVs	×																										
Total Weekly Vehicle Trips				341	365	329	366	390	354	366	390	354	341	365	329	318	342	306	318	342	306	293	317	281	318	342	306	318	342
Weekly HGV trips				223	224	221	229	229	226	229	229	226	223	224	221	181	182	179	181	182	179	176	177	173	181	182	179	181	182
Weekly Car / LGV trips				117	141	108	137	161	128	137	161	128	117	141	108	136	160	128	136	160	128	117	141	108	136	160	128	136	160
% increase in Traffic	Access Road A1 (36676 - Weekly 10hr base traffic flow)		% of 10 hour flow	0.9	1.0	0.9	1.0	1.1	1.0	1.0	1.1	1.0	0.9	1.0	0.9	0.9	0.9	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.9	0.9	0.8	0.9	0.9
Daily Vehicle Trips (Max)				57	61	55	61	65	59	61	65	59	57	61	55	53	57	51	53	57	51	49	53	47	53	57	51	53	57

Activity	Sub-activity	Type of Vehicles	Abnormal	Year 2																														Total
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Pre & Post Construction	Site Mobilisation / Demobilisation	HGVs	×																													30	30	**120**
Landfall Works (trenchless construction techniques)	Temporary Bridge	HGVs	×							4																								4
		Cars and LGVs	×							33																								33
	Beach works	HGVs	×								15	15	15	15	15	15	15	15	15	15	15	15	15	15	15									219
		Cars and LGVs	×								93	93	93	93	93	93	93	93	93	93	93	93	93	93	93									1,399
	Transition Pit	HGVs	×																							5	5	5	5	5				27
		Cars and LGVs	×																							32	32	32	32	32				162
	Cable pull in	HGVs	×																												2			2
		Cars and LGVs	×																												13			13
Cable Route Works	Trenching	HGVs	×	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106					7,560
		Cars and LGVs	×	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35					2,496
	Cable Installation	HGVs	×		3	3		3	3		3	3		3	3		3	3		3	3		3	3		3	3							144
		Cars and LGVs	×		33	33		33	33		33	33		33	33		33	33		33	33		33	33		33	33							1,440
	Jointing	HGVs	×	1		1	1		1	1		1	1		1	1		1	1		1	1		1	1		1	1		1	1			24
		Cars and LGVs	×	24		24	24		24	24		24	24		24	24		24	24		24	24		24	24		24	24		24	24			1,104
	Crossings	HGVs	×	5				5	5	5	5	5	5				5	5	5	5	5	5												217
		Cars and LGVs	×	20				20	20	20	20	20	20				20	20	20	20	20	20												812
Substation	Earthworks and Civils	HGVs	×																															4,318
		Cars and LGVs	×																															1,872
	Electrical Equipment Installation	HGVs	✓	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66													2,126
		Cars and LGVs	×	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49													1,560
	Commissioning Tests of Electrical Equipment	HGVs	×																			61	61	61	61	61	61	61	61	61	61			613
		Cars and LGVs	×																			47	47	47	47	47	47	47	47	47	47			468
Total Weekly Vehicle Trips				306	293	317	281	318	342	344	426	450	414	401	425	389	426	450	414	426	450	407	394	418	382	324	348	312	288	170	148	30	30	26734
Weekly HGV trips				179	176	177	173	181	182	183	196	197	193	191	191	188	196	197	193	196	197	188	186	186	183	177	177	174	173	67	64	30	30	
Weekly Car / LGV trips				128	117	141	108	136	160	165	230	254	221	210	234	201	230	254	221	230	254	219	208	232	199	147	171	138	114	103	84	0	0	
% increase in Traffic	Access Road A1 (36676 - Weekly 10hr base traffic flow)		% of 10 hour flow	0.8	0.8	0.9	0.8	0.9	0.9	0.9	1.2	1.2	1.1	1.1	1.2	1.1	1.2	1.2	1.1	1.2	1.2	1.1	1.1	1.1	1.0	0.9	0.9	0.9	0.8	0.5	0.4	0.1	0.1	
Daily Vehicle Trips (Max)				51	49	53	47	53	57	57	71	75	69	67	71	65	71	75	69	71	75	68	66	70	64	54	58	52	48	28	25	5	5	

Appendix 14.1b – Open Cut Trench – Construction Vehicle Estimates

Year 1 (weeks 1–26)

Activity	Sub-activity	Type of Vehicles	Abnormal	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Pre & Post Construction	Site Mobilisation / Demobilisation	HGVs	×	30	30																								
Landfall Works (open cut trench)	Temporary Bridge	HGVs	×																										
		Cars and LGVs	×																										
	Beach works	HGVs	×																										
		Cars and LGVs	×																										
	Transition Pit	HGVs	×																										
		Cars and LGVs	×																										
	Cable pull in	HGVs	×																										
		Cars and LGVs	×																										
Cable Route Works	Trenching	HGVs	×								106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
		Cars and LGVs	×								35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	Cable Installation	HGVs	×												3	3		3	3		3	3		3	3		3	3	
		Cars and LGVs	×												33	33		33	33		33	33		33	33		33	33	
	Jointing	HGVs	×													1	1		1	1		1	1		1	1		1	1
		Cars and LGVs	×													24	24		24	24		24	24		24	24		24	24
	Crossings	HGVs	×													5	5	5	5	5				5	5	5	5	5	5
		Cars and LGVs	×													20	20	20	20	20				20	20	20	20	20	20
Substation	Earthworks and Civils	HGVs	×	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
		Cars and LGVs	×	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
	Electrical Equipment Installation	HGVs	✓																										
		Cars and LGVs	×																										
	Commissioning Tests of Electrical Equipment	HGVs	×																										
		Cars and LGVs	×																										
Total Weekly Vehicle Trips				193	193	163	163	163	163	163	305	305	305	305	341	390	354	366	390	354	341	365	329	366	390	354	366	390	354
Weekly HGV trips				144	144	114	114	114	114	114	220	220	220	220	223	229	226	229	229	226	223	224	221	229	229	226	229	229	226
Weekly Car / LGV trips				49	49	49	49	49	49	49	84	84	84	84	117	161	128	137	161	128	117	141	108	137	161	128	137	161	128
% increase in Traffic	**Access Road A1 (36676 - Weekly 10hr base traffic flow)**		% of 10 hour flow	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.8**	**0.8**	**0.8**	**0.8**	**0.9**	**1.1**	**1.0**	**1.0**	**1.1**	**1.0**	**0.9**	**1.0**	**0.9**	**1.0**	**1.1**	**1.0**	**1.0**	**1.1**	**1.0**
Daily Vehicle Trips (Max)				**32**	**32**	**27**	**27**	**27**	**27**	**27**	**51**	**51**	**51**	**51**	**57**	**65**	**59**	**61**	**65**	**59**	**57**	**61**	**55**	**61**	**65**	**59**	**61**	**65**	**59**

Year 1 (weeks 27–52)

Activity	Sub-activity	Type of Vehicles	Abnormal	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Pre & Post Construction	Site Mobilisation / Demobilisation	HGVs	×																										
Landfall Works (open cut trench)	Temporary Bridge	HGVs	×																										
		Cars and LGVs	×																										
	Beach works	HGVs	×																										
		Cars and LGVs	×																										
	Transition Pit	HGVs	×																										
		Cars and LGVs	×																										
	Cable pull in	HGVs	×																										
		Cars and LGVs	×																										
Cable Route Works	Trenching	HGVs	×	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
		Cars and LGVs	×	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	Cable Installation	HGVs	×	3	3		3	3		3	3		3	3		3	3		3	3		3	3		3	3		3	3
		Cars and LGVs	×	33	33		33	33		33	33		33	33		33	33		33	33		33	33		33	33		33	33
	Jointing	HGVs	×		1	1		1	1		1	1		1	1		1	1		1	1		1	1		1	1		1
		Cars and LGVs	×		24	24		24	24		24	24		24	24		24	24		24	24		24	24		24	24		24
	Crossings	HGVs	×				5	5	5	5	5	5				5	5	5	5	5	5				5	5	5	5	5
		Cars and LGVs	×				20	20	20	20	20	20				20	20	20	20	20	20				20	20	20	20	20
Substation	Earthworks and Civils	HGVs	×	114	114	114	114	114	114	114	114	114	114	114	114														
		Cars and LGVs	×	49	49	49	49	49	49	49	49	49	49	49	49														
	Electrical Equipment Installation	HGVs	✓													66	66	66	66	66	66	66	66	66	66	66	66	66	66
		Cars and LGVs	×													49	49	49	49	49	49	49	49	49	49	49	49	49	49
	Commissioning Tests of Electrical Equipment	HGVs	×																										
		Cars and LGVs	×																										
Total Weekly Vehicle Trips				341	365	329	366	390	354	366	390	354	341	365	329	318	342	306	318	342	306	293	317	281	318	342	306	318	342
Weekly HGV trips				223	224	221	229	229	226	229	229	226	223	224	221	181	182	179	181	182	179	176	177	173	181	182	179	181	182
Weekly Car / LGV trips				117	141	108	137	161	128	137	161	128	117	141	108	136	160	128	136	160	128	117	141	108	136	160	128	136	160
% increase in Traffic	**Access Road A1 (36676 - Weekly 10hr base traffic flow)**		% of 10 hour flow	**0.9**	**1.0**	**0.9**	**1.0**	**1.1**	**1.0**	**1.0**	**1.1**	**1.0**	**0.9**	**1.0**	**0.9**	**0.9**	**0.9**	**0.8**	**0.9**	**0.9**	**0.8**	**0.8**	**0.9**	**0.8**	**0.9**	**0.9**	**0.8**	**0.9**	**0.9**
Daily Vehicle Trips (Max)				**57**	**61**	**55**	**61**	**65**	**59**	**61**	**65**	**59**	**57**	**61**	**55**	**53**	**57**	**51**	**53**	**57**	**51**	**49**	**53**	**47**	**53**	**57**	**51**	**53**	**57**

Year 2

Activity	Sub-activity	Type of Vehicles	Abnormal	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total
Pre & Post Construction	Site Mobilisation / Demobilisation	HGVs	×																													30	30	120
Landfall Works (open cut trench)	Temporary Bridge	HGVs	×																		4													4
		Cars and LGVs	×																		33													33
	Beach works	HGVs	×																			1	1	1	1									3
		Cars and LGVs	×																			20	20	20	20									80
	Transition Pit	HGVs	×																							5	5	5	5	5				27
		Cars and LGVs	×																							32	32	32	32	32				162
	Cable pull in	HGVs	×																												2			2
		Cars and LGVs	×																												13			13
Cable Route Works	Trenching	HGVs	×	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106					7,560
		Cars and LGVs	×	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35					2,496
	Cable Installation	HGVs	×		3	3		3	3		3	3		3	3		3	3		3	3		3	3		3	3							144
		Cars and LGVs	×		33	33		33	33		33	33		33	33		33	33		33	33		33	33		33	33							1,440
	Jointing	HGVs	×	1		1	1		1	1		1	1		1	1		1	1		1	1		1	1		1	1		1	1			24
		Cars and LGVs	×	24		24	24		24	24		24	24		24	24		24	24		24	24		24	24		24	24		24	24			1,104
	Crossings	HGVs	×	5				5	5	5	5	5	5				5	5	5	5	5	5												217
		Cars and LGVs	×	20				20	20	20	20	20	20				20	20	20	20	20	20												812
Substation	Earthworks and Civils	HGVs	×																															4,318
		Cars and LGVs	×																															1,872
	Electrical Equipment Installation	HGVs	✓	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66													2,126
		Cars and LGVs	×	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49													1,560
	Commissioning Tests of Electrical Equipment	HGVs	×																			61	61	61	61	61	61	61	61	61	61			613
		Cars and LGVs	×																			47	47	47	47	47	47	47	47	47	47			468
Total Weekly Vehicle Trips				306	293	317	281	318	342	306	318	342	306	293	317	281	318	342	306	318	380	320	307	331	295	324	348	312	288	170	148	30	30	25200
Weekly HGV trips				179	176	177	173	181	182	179	181	182	179	176	177	173	181	182	179	181	186	174	172	172	169	177	177	174	173	67	64	30	30	
Weekly Car / LGV trips				128	117	141	108	136	160	128	136	160	128	117	141	108	136	160	128	136	194	146	135	159	126	147	171	138	114	103	84	0	0	
% increase in Traffic	**Access Road A1 (36676 - Weekly 10hr base traffic flow)**		% of 10 hour flow	**0.8**	**0.8**	**0.9**	**0.8**	**0.9**	**0.9**	**0.8**	**0.9**	**0.9**	**0.8**	**0.8**	**0.9**	**0.8**	**0.9**	**0.9**	**0.8**	**0.9**	**1.0**	**0.9**	**0.8**	**0.9**	**0.8**	**0.9**	**0.9**	**0.9**	**0.8**	**0.5**	**0.4**	**0.1**	**0.1**	
Daily Vehicle Trips (Max)				**51**	**49**	**53**	**47**	**53**	**57**	**51**	**53**	**57**	**51**	**49**	**53**	**47**	**53**	**57**	**51**	**53**	**63**	**53**	**51**	**55**	**49**	**54**	**58**	**52**	**48**	**28**	**25**	**5**	**5**	