

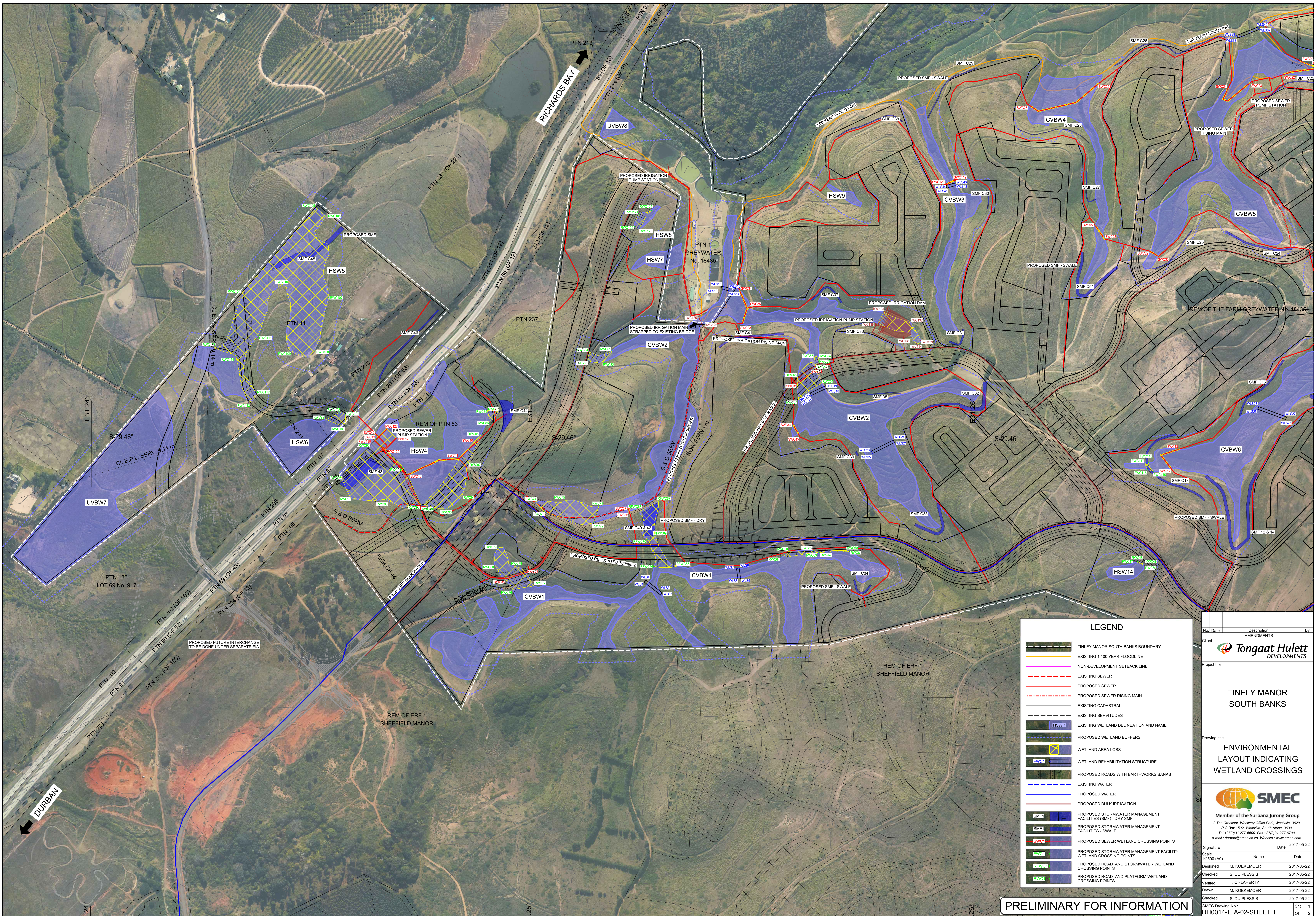


LEGEND

- TINLEY MANOR SOUTH BANKS BOUNDARY
- EXISTING 1:100 YEAR FLOODLINE
- NON-DEVELOPMENT SETBACK LINE
- EXISTING SEWER
- PROPOSED SEWER
- PROPOSED SEWER RISING MAIN
- EXISTING CADASTRAL
- EXISTING SERVITUDES
- EXISTING WETLAND DELINEATION AND NAME
- PROPOSED WETLAND BUFFERS
- WETLAND AREA LOSS
- WETLAND REHABILITATION STRUCTURE
- PROPOSED ROADS WITH EARTHWORKS BANKS
- EXISTING WATER
- PROPOSED WATER
- PROPOSED BULK IRRIGATION
- PROPOSED STORMWATER MANAGEMENT FACILITIES (SMF) - DRY SMF
- PROPOSED STORMWATER MANAGEMENT FACILITIES - SWALE
- PROPOSED SEWER WETLAND CROSSING POINTS
- PROPOSED STORMWATER MANAGEMENT FACILITY WETLAND CROSSING POINTS
- PROPOSED ROAD AND STORMWATER WETLAND CROSSING POINTS
- PROPOSED ROAD AND PLATFORM WETLAND CROSSING POINTS

No.	Date	Description	By
AMENDMENTS			
Client Tongaat Hulett DEVELOPMENTS			
Project title TINLEY MANOR SOUTH BANKS			
Drawing title ENVIRONMENTAL LAYOUT INDICATING WETLAND CROSSINGS			
 SMEC Member of the Surbana Jurong Group 2 The Crescent, Westway Office Park, Westville, 3629 P O Box 1502, Westville, South Africa, 3630 Tel +27(0)31 277-6600 Fax +27(0)31 277-6700 e-mail: durban@smec.co.za Website: www.smec.com			
Signature	Date		2017-05-22
Scale	1:3500 (A0)		Name
Designed	M. KOEKEMOER		Date
Checked	S. DU PLESSIS		2017-05-22
Verified	T. OFLAHERTY		2017-05-22
Drawn	M. KOEKEMOER		2017-05-22
Checked	S. DU PLESSIS		2017-05-22
SMEC Drawing No.: DH0014-EIA-01-SHEET 1			Sht 1
			Of 1

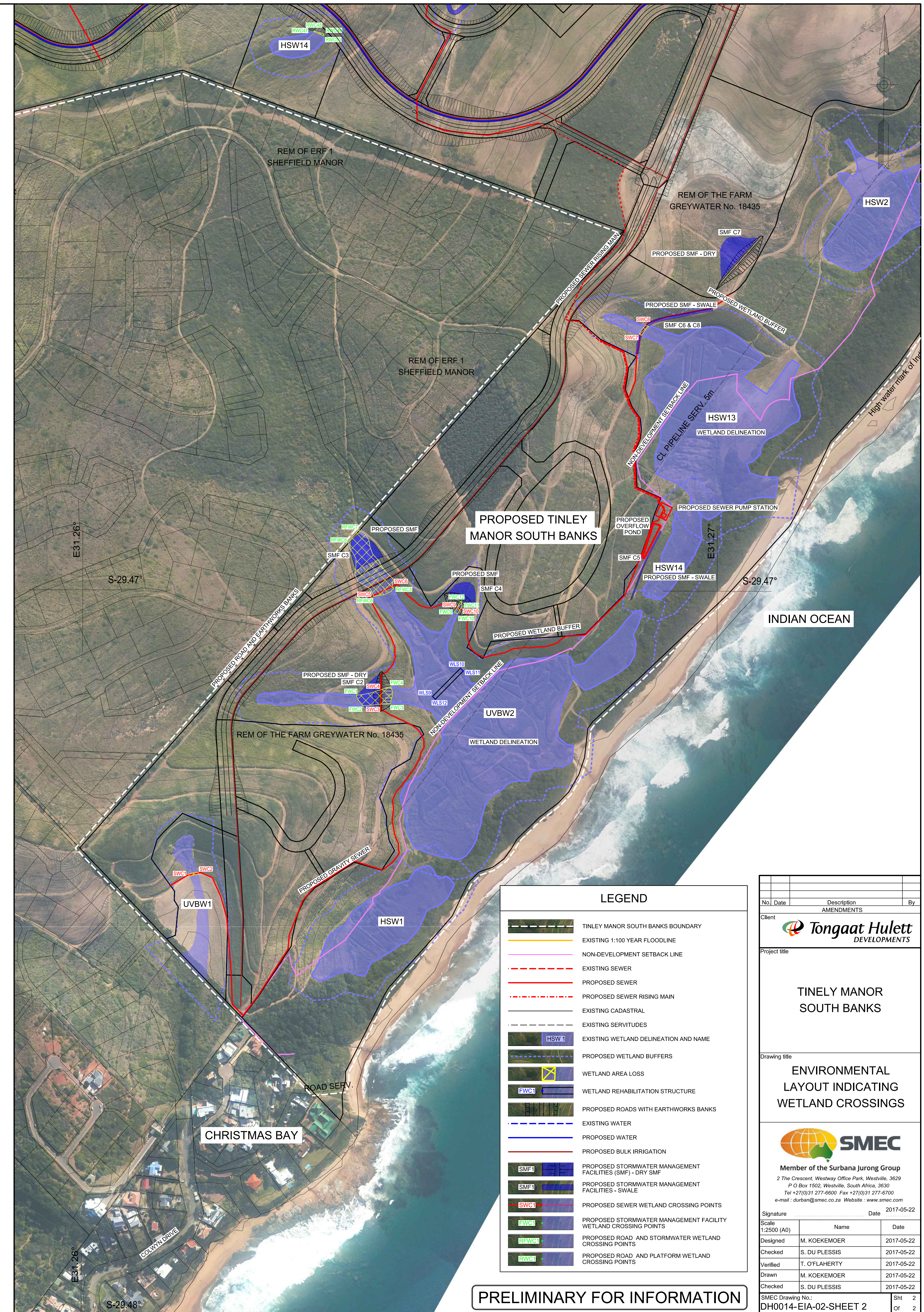
PRELIMINARY FOR INFORMATION



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ENVIRONMENTAL LAYOUT INDICATING WETLAND CROSSINGS			
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Signature	Date	2017-05-22	
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Checked	S. DU PLESSIS	2017-05-22	
Verified	T. OFLAHERTY	2017-05-22	
Drawn	M. KOEKEMOER	2017-05-22	
Checked	S. DU PLESSIS	2017-05-22	
SMEC Drawing No.:			Sh 1
DH0014-EIA-02-SHEET 1			Of 2



LEGEND	
	TINLEY MANOR SOUTH BANKS BOUNDARY
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PRELIMINARY FOR INFORMATION

No.	Date	Description	By
		AMENDMENTS	

Client: **Tongaat Hulett DEVELOPMENTS**

Project title: **TINLEY MANOR SOUTH BANKS**

Drawing title: **ENVIRONMENTAL LAYOUT INDICATING WETLAND CROSSINGS**

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Designed	M. KOEKEMOER	2017-05-22
Checked	S. DU PLESSIS	2017-05-22
Verified	T. O'FLAHERTY	2017-05-22
Drawn	M. KOEKEMOER	2017-05-22
Checked	S. DU PLESSIS	2017-05-22

SMC Drawing No.: **DH0014-EIA-02-SHEET 2** Sht 2 of 2

2017-05-22

SEWER WETLAND CROSSING POINTS

No.	Activity	Hydro-Geomorphic Type	Purpose or Description	Property Erf Number	Dimensions	Point	Latitude	Longitude
SWC1 - SWC2	c & i	UVBW1 - Unlined valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 14.5 m	SWC1	29° 28' 26.76" S	31° 15' 42.12" E
					Breadth : 3 m	SWC2	29° 28' 26.4" S	31° 15' 42.48" E
					Depth : 2 m			
					Volume : 87 m³			
					Service diameter : 200 mm			
SWC3 - SWC4	c & i	UVBW2 - Unlined valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 22.1 m	SWC3	29° 28' 18.12" S	31° 15' 52.92" E
					Breadth : 3 m	SWC4	29° 28' 17.4" S	31° 15' 52.92" E
					Depth : 2 m			
					Volume : 132.6 m³			
					Service diameter : 200 mm			
SWC5 - SWC6	c & i	UVBW2 - Unlined valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 32.2 m	SWC5	29° 28' 12.72" S	31° 15' 52.56" E
					Breadth : 3 m	SWC6	29° 28' 12.36" S	31° 15' 53.64" E
					Depth : 3 m			
					Volume : 289.8 m³			
					Service diameter : 200 mm			
SWC7 - SWC8	c & i	HSW13 - Hillslope	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 16.5 m	SWC7	29° 27' 59.76" S	31° 16' 7.68" E
					Breadth : 3 m	SWC8	29° 27' 59.4" S	31° 16' 8.04" E
					Depth : 2.5 m			
					Volume : 123.75 m³			
					Service diameter : 200 mm			
SWC9 - SWC10	c & i	HSW13 - Hillslope	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 5.5 m	SWC9	29° 28' 13.44" S	31° 15' 57.24" E
					Breadth : 3 m	SWC10	29° 28' 13.44" S	31° 15' 57.6" E
					Depth : 2.5 m			
					Volume : 41.25 m³			
					Service diameter : 200 mm			
SWC12 - SWC13	c & i	CVBW6 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 41 m	SWC12	29° 27' 38.16" S	31° 15' 51.84" E
					Breadth : 3 m	SWC13	29° 27' 36.72" S	31° 15' 52.56" E
					Depth : 2.5 m			
					Volume : 307.5 m³			
					Service diameter : 200 mm			
SWC14 - SWC15	c & i	CVBW6 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 98.5 m	SWC14	29° 27' 17.64" S	31° 16' 18.12" E
					Breadth : 3 m	SWC15	29° 27' 16.2" S	31° 16' 20.28" E
					Depth : 2.5 m			
					Volume : 738.75 m³			
					Service diameter : 200 mm			
SWC16 - SWC17	c & i	HSW10 - Hillslope	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 32.5 m	SWC16	29° 27' 11.88" S	31° 16' 19.56" E
					Breadth : 3 m	SWC17	29° 27' 11.16" S	31° 16' 19.56" E
					Depth : 2.5 m			
					Volume : 243.75 m³			
					Service diameter : 250 mm			
SWC18 - SWC19	c & i	HSW10 - Hillslope	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 2 m	SWC18	29° 27' 10.44" S	31° 16' 19.56" E
					Breadth : 3 m	SWC19	29° 27' 10.08" S	31° 16' 19.92" E
					Depth : 2.5 m			
					Volume : 15 m³			
					Service diameter : 250 mm			
SWC20 - SWC22	c & i	CVBW5 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 2 m	SWC20	29° 27' 9" S	31° 16' 2.28" E
					Breadth : 3 m	SWC21	29° 27' 9.36" S	31° 16' 4.08" E
					Depth : 2.5 m	SWC22	29° 27' 10.08" S	31° 16' 0.84" E
					Volume : 15 m³			
					Service diameter : 300 mm			
SWC23 - SWC24	c & i	CVBW5 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 99.5 m	SWC23	29° 27' 10.8" S	31° 15' 57.96" E
					Breadth : 3 m	SWC24	29° 27' 11.16" S	31° 15' 56.52" E
					Depth : 2.5 m			
					Volume : 746.25 m³			
					Service diameter : 200 mm			
SWC25 - SWC26	c & i	CVBW4 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 172.2 m	SWC25	29° 27' 10.8" S	31° 15' 45.72" E
					Breadth : 3 m	SWC26	29° 27' 12.24" S	31° 15' 40.32" E
					Depth : 2.5 m			
					Volume : 1291.5 m³			
					Service diameter : 200 mm			
SWC27 - SWC28	c & i	CVBW4 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 35.5 m	SWC27	29° 27' 20.88" S	31° 15' 45.72" E
					Breadth : 3 m	SWC28	29° 27' 21.6" S	31° 15' 46.44" E
					Depth : 2.5 m			
					Volume : 266.25 m³			
					Service diameter : 200 mm			
SWC29 - SWC30	c & i	CVBW5 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 16.5 m	SWC29	29° 27' 22.68" S	31° 15' 50.04" E
					Breadth : 3 m	SWC30	29° 27' 23.04" S	31° 15' 50.76" E
					Depth : 2.5 m			
					Volume : 123.75 m³			
					Service diameter : 200 mm			

SEWER WETLAND CROSSING POINTS

No.	Activity	Hydro-Geomorphic Type	Purpose or Description	Property Erf Number	Dimensions	Point	Latitude	Longitude
SWC31 - SWC32	c & i	CVBW2 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 50.5 m	SWC31	29° 27' 32.04" S	31° 15' 21.24" E
					Breadth : 3 m	SWC32	29° 27' 30.96" S	31° 15' 23.04" E
					Depth : 2 m			
					Volume : 303 m³			
					Service diameter : 200 mm			
SWC33 - SWC35	c & i	CVBW2 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 84 m	SWC33	29° 27' 27.72" S	31° 15' 16.56" E
					Breadth : 3 m	SWC34	29° 27' 25.56" S	31° 15' 16.56" E
					Depth : 3 m	SWC35	29° 27' 26.64" S	31° 15' 17.28" E
					Volume : 756 m³			
					Service diameter : 355 mm			
SWC36 - SWC37	c & i	CVBW2 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435	Length : 6 m	SWC36	29° 27' 41.4" S	31° 15' 7.56" E
					Breadth : 3 m	SWC37	29° 27' 41.04" S	31° 15' 7.56" E
					Depth : 2 m			
					Volume : 36 m³			
					Service diameter : 200 mm			
SWC38 - SWC39	c & i	CVBW2 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435 & REM OF PTN 83	Length : 48.2 m	SWC38	29° 27' 46.08" S	31° 14' 57.48" E
					Breadth : 3 m	SWC39	29° 27' 45.72" S	31° 14' 59.28" E
					Depth : 2 m			
					Volume : 289.2 m³			
					Service diameter : 700 mm			
SWC40 - SWC46	c & i	HSW4 - Hillslope	Sewer line crossing	REM OF PTN 83	Length : 179 m	SWC40	29° 27' 36.36" S	31° 14' 55.32" E
					Breadth : 3 m	SWC41	29° 27' 37.44" S	31° 14' 53.88" E
					Depth : 3 m	SWC46	29° 27' 38.52" S	31° 14' 49.56" E
					Volume : 1611 m³			
					Service diameter : 200 mm			
SWC42 - SWC43	c & i	HSW4 - Hillslope	Sewer line crossing	PTN 210	Length : 9 m	SWC42	29° 27' 35.64" S	31° 14' 47.04" E
					Breadth : 3 m	SWC43	29° 27' 36" S	31° 14' 47.4" E
					Depth : 3 m			
					Volume : 81 m³			
					Service diameter : 200 mm			
SWC44 - SWC45	c & i	CVBW2 - Channeled valley bottom	Sewer line crossing	REM OF THE FARM GREYWATER No. 18435 & REM OF PTN 83	Length : 9 m	SWC44	29° 27' 34.92" S	31° 15' 21.24" E
					Breadth : 3 m	SWC45	29° 27' 35.64" S	31° 15' 21.6" E
					Depth : 3 m			
					Volume : 81 m³			
					Service diameter : 200 mm			
SWC119 - SWC120	c & i	CVBW2 - Channeled valley bottom	Sewer line crossing - pipe bridge	REM OF THE FARM GREYWATER No. 18435	Length : 14 m	SWC119	29° 27' 17.64" S	31° 15' 34.2" E
					Breadth : 3 m	SWC120	29° 27' 18" S	31° 15' 33.48" E
					Depth : 3 m			
					Volume : 126 m³			
					Service diameter : 300 mm			

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Checked	S. DU PLESSIS	2017-02-15	
SMC Drawing No.:	Sht. 1		Of. 3
DH0014-EIA-03-SHEET 1			

STORMWATER MANAGEMENT FACILITIES AND ROAD CROSSINGS WETLAND CROSSING POINTS

No.	Activity	Hydro-Geomorphic Type	Purpose or Description	Property Erf Number	Dimensions	Point	Latitude	Longitude
RFWC1 - RFWC4	c & i	UVBW2 - Unlined valley bottom	Stormwater Management Facility	REM OF THE FARM GREYWATER No. 18435	Length : 33 m Breadth : 17 m Depth : 2.5 m Volume : 1403 m ³	RFWC1	29° 28' 17.76" S	31° 15' 51.48" E
						RFWC2	29° 28' 18.12" S	31° 15' 51.84" E
						RFWC3	29° 28' 18.12" S	31° 15' 53.64" E
						RFWC4	29° 28' 17.4" S	31° 15' 53.64" E
RFWC9 - RFWC12	c & i	UVBW2 - Unlined valley bottom	Stormwater Management Facility	REM OF THE FARM GREYWATER No. 18435	Length : 29 m Breadth : 17 m Depth : 2 m Volume : 986 m ³	RFWC9	29° 28' 13.44" S	31° 15' 57.24" E
						RFWC10	29° 28' 13.8" S	31° 15' 57.24" E
						RFWC11	29° 28' 13.44" S	31° 15' 57.6" E
						RFWC12	29° 28' 13.08" S	31° 15' 57.6" E
RWC47 - RWC50	c & i	HSW14 - Hillslope	Road crossing	REM OF THE FARM GREYWATER No. 18435	Length : 16 m Breadth : 2 m Area : 32 m ²	RWC47	29° 27' 44.64" S	31° 15' 48.96" E
						RWC48	29° 27' 44.64" S	31° 15' 48.96" E
						RWC49	29° 27' 45" S	31° 15' 49.68" E
						RWC50	29° 27' 45" S	31° 15' 49.68" E
RWC51 - RWC57	c & i	CVBW2 - Channel valley bottom	Road crossing	REM OF THE FARM GREYWATER No. 18435	Length : 51 m Breadth : 52 m Area : 2652 m ²	RWC51	29° 27' 32.04" S	31° 15' 23.4" E
						RWC52	29° 27' 30.96" S	31° 15' 22.68" E
						RWC53	29° 27' 30.6" S	31° 15' 23.04" E
						RWC54	29° 27' 30.24" S	31° 15' 23.04" E
						RWC55	29° 27' 30.24" S	31° 15' 22.68" E
						RWC56	29° 27' 31.68" S	31° 15' 21.6" E
						RWC57	29° 27' 33.12" S	31° 15' 21.6" E
RWC58 - RWC64	c & i	CVBW1 - Channel valley bottom	Road crossing	REM OF THE FARM GREYWATER No. 18435	Length : 147 m Breadth : 5 m Area : 735 m ²	RWC58	29° 27' 43.92" S	31° 15' 20.88" E
						RWC59	29° 27' 43.92" S	31° 15' 22.68" E
						RWC60	29° 27' 43.92" S	31° 15' 25.56" E
						RWC61	29° 27' 43.92" S	31° 15' 25.56" E
						RWC62	29° 27' 44.28" S	31° 15' 23.4" E
						RWC63	29° 27' 44.28" S	31° 15' 23.04" E
						RWC64	29° 27' 44.64" S	31° 15' 20.16" E
RFWC65 - RFWC70	c & i	CVBW1 - Channel valley bottom	Road crossing & Stormwater Management Facility	REM OF THE FARM GREYWATER No. 18435	Length : 144 m Breadth : 20 m Area : 2880 m ²	RFWC65	29° 27' 45" S	31° 15' 11.88" E
						RFWC66	29° 27' 45" S	31° 15' 9.72" E
						RFWC67	29° 27' 40.32" S	31° 15' 10.08" E
						RFWC68	29° 27' 41.04" S	31° 15' 8.64" E
						RFWC69	29° 27' 42.84" S	31° 15' 9.72" E
						RFWC70	29° 27' 43.2" S	31° 15' 9.36" E
RWC71 - RWC75	c & i	CVBW2 - Channel valley bottom	Road crossing & platforming	REM OF THE FARM GREYWATER No. 18435 & REM OF PTN 83	Length : 133 m Breadth : 45 m Area : 5985 m ²	RWC71	29° 27' 41.04" S	31° 15' 5.4" E
						RWC72	29° 27' 42.12" S	31° 15' 4.68" E
						RWC73	29° 27' 41.4" S	31° 15' 0.72" E
						RWC74	29° 27' 40.68" S	31° 15' 0.36" E
						RWC75	29° 27' 40.32" S	31° 15' 2.52" E
RWC76 - RWC80	c & i	CVBW1 - Channel valley bottom	Road crossing & platforming	REM OF THE FARM GREYWATER No. 18435 & REM OF PTN 83	Length : 102 m Breadth : 42 m Area : 4284 m ²	RWC76	29° 27' 46.8" S	31° 14' 58.2" E
						RWC77	29° 27' 46.44" S	31° 15' 0" E
						RWC78	29° 27' 45" S	31° 14' 58.2" E
						RWC79	29° 27' 43.92" S	31° 14' 57.12" E
						RWC80	29° 27' 45" S	31° 14' 56.76" E
RWC81 - RWC84	c & i	CVBW2 - Channel valley bottom	Road crossing	REM OF THE FARM GREYWATER No. 18435	Length : 47 m Breadth : 15 m Area : 705 m ²	RWC81	29° 27' 29.88" S	31° 15' 6.12" E
						RWC82	29° 27' 30.6" S	31° 15' 5.76" E
						RWC83	29° 27' 30.6" S	31° 15' 4.32" E
						RWC84	29° 27' 29.88" S	31° 15' 4.32" E
RWC85 - RWC92	c & i	HSW4 - Hillslope	Road crossing & Platforming	REM OF PTN 83	Length : 235 m Breadth : 22 m Area : 5170 m ²	RWC85	29° 27' 34.2" S	31° 14' 56.04" E
						RWC86	29° 27' 34.92" S	31° 14' 56.4" E
						RWC87	29° 27' 33.84" S	31° 14' 57.12" E
						RWC88	29° 27' 35.64" S	31° 14' 55.68" E
						RWC89	29° 27' 40.68" S	31° 14' 51" E
						RWC90	29° 27' 41.04" S	31° 14' 52.8" E
						RWC91	29° 27' 40.32" S	31° 14' 54.24" E
						RWC92	29° 27' 37.8" S	31° 14' 54.6" E
RWC93 - RWC98	c & i	HSW4 - Hillslope	Road crossing & Platforming	REM OF PTN 83 & REM OF 44	Length : 172 m Breadth : 93 m Area : 15996 m ²	RWC93	29° 27' 40.68" S	31° 14' 50.64" E
						RWC94	29° 27' 38.16" S	31° 14' 49.2" E
						RWC95	29° 27' 36" S	31° 14' 47.04" E
						RWC96	29° 27' 38.88" S	31° 14' 44.16" E
						RWC97	29° 27' 40.32" S	31° 14' 45.24" E
						RWC98	29° 27' 40.32" S	31° 14' 47.76" E
RWC99 - RWC102	c & i	HSW6 - Hillslope	Road crossing	PTN 240	Length : 28 m Breadth : 32 m Area : 896 m ²	RWC99	29° 27' 34.56" S	31° 14' 43.08" E
						RWC100	29° 27' 35.28" S	31° 14' 44.52" E
						RWC101	29° 27' 34.2" S	31° 14' 44.52" E
						RWC102	29° 27' 34.2" S	31° 14' 44.16" E

STORMWATER MANAGEMENT FACILITIES AND ROAD CROSSINGS WETLAND CROSSING POINTS

No.	Activity	Hydro-Geomorphic Type	Purpose or Description	Property Erf Number	Dimensions	Point	Latitude	Longitude
RWC103 - RWC108	c & i	HSW5 - Hillslope	Road crossing & Platforming & Stormwater Management Facilities	PTN 11	Area : 37688 m ²	RWC103	29° 27' 29.52" S	31° 14' 34.08" E
						RWC104	29° 27' 25.56" S	31° 14' 36.24" E
						RWC105	29° 27' 19.8" S	31° 14' 42.36" E
						RWC106	29° 27' 20.16" S	31° 14' 43.08" E
						RWC107	29° 27' 25.92" S	31° 14' 43.44" E
						RWC108	29° 27' 29.88" S	31° 14' 42" E
						RWC109	29° 27' 29.88" S	31° 14' 40.2" E
						RWC110	29° 27' 25.2" S	31° 14' 39.48" E
						RWC111	29° 27' 28.8" S	31° 14' 37.32" E
						RWC112	29° 27' 32.76" S	31° 14' 37.32" E
						RWC113	29° 27' 33.48" S	31° 14' 36.96" E
						RWC114	29° 27' 30.24" S	31° 14' 35.88" E
FWC115 - FWC118	c & i	CVBW6 - Channel valley bottom	Stormwater Management Facility	REM OF THE FARM GREYWATER No. 18435	Length : 18 m Breadth : 5 m Area : 90 m ²	FWC115	29° 27' 38.16" S	31° 15' 50.4" E
						FWC116	29° 27' 38.16" S	31° 15' 50.04" E
						FWC117	29° 27' 37.8" S	31° 15' 49.68" E
						FWC118	29° 27' 37.8" S	31° 15' 50.04" E
RWC121 - RWC124	c & i	HSW8 - Hillslope	Stormwater Management Facility	REM OF THE FARM GREYWATER No. 18435	Length : 37 m Breadth : 16 m Area : 592 m ²	RWC121	29° 27' 20.16" S	31° 15' 8.64" E
						RWC122	29° 27' 19.8" S	31° 15' 9.36" E
						RWC123	29° 27' 20.88" S	31° 15' 8.28" E
						RWC124	29° 27' 21.24" S	31° 15' 8.64" E

IRRIGATION CROSSINGS WETLAND CROSSING POINTS

No.	Activity	Hydro-Geomorphic Type	Purpose or Description	Property Erf Number	Dimensions	Point	Latitude	Longitude
IWC125 - IWC126	c & i	CVBW2 - Channel valley bottom	Irrigation pipe crossing	REM OF THE FARM GREYWATER No. 18435	Length : 16 m Breadth : 3 m Area : 48 m ²	IWC125	29° 27' 27.36" S	31° 15' 13.32" E
						IWC126	29° 27' 28.08" S	31° 15' 13.68" E
IWC131 - IWC136	c & i	CVBW2 - Channel valley bottom	Irrigation pipe crossing	REM OF THE FARM GREYWATER No. 18435	Length : 108 m Breadth : 24 m Area : 2592 m ²	IWC131	29° 27' 27" S	31° 15' 28.44" E
						IWC132	29° 27' 27.72" S	31° 15' 30.6" E
						IWC133	29° 27' 29.16" S	31° 15' 31.32" E
						IWC134	29° 27' 29.16" S	31° 15' 30.96" E
						IWC135	29° 27' 28.44" S	31° 15' 30.6" E
						IWC136	29° 27' 27.72" S	31° 15' 28.08" E



PUMP STATION WETLAND CROSSING POINTS

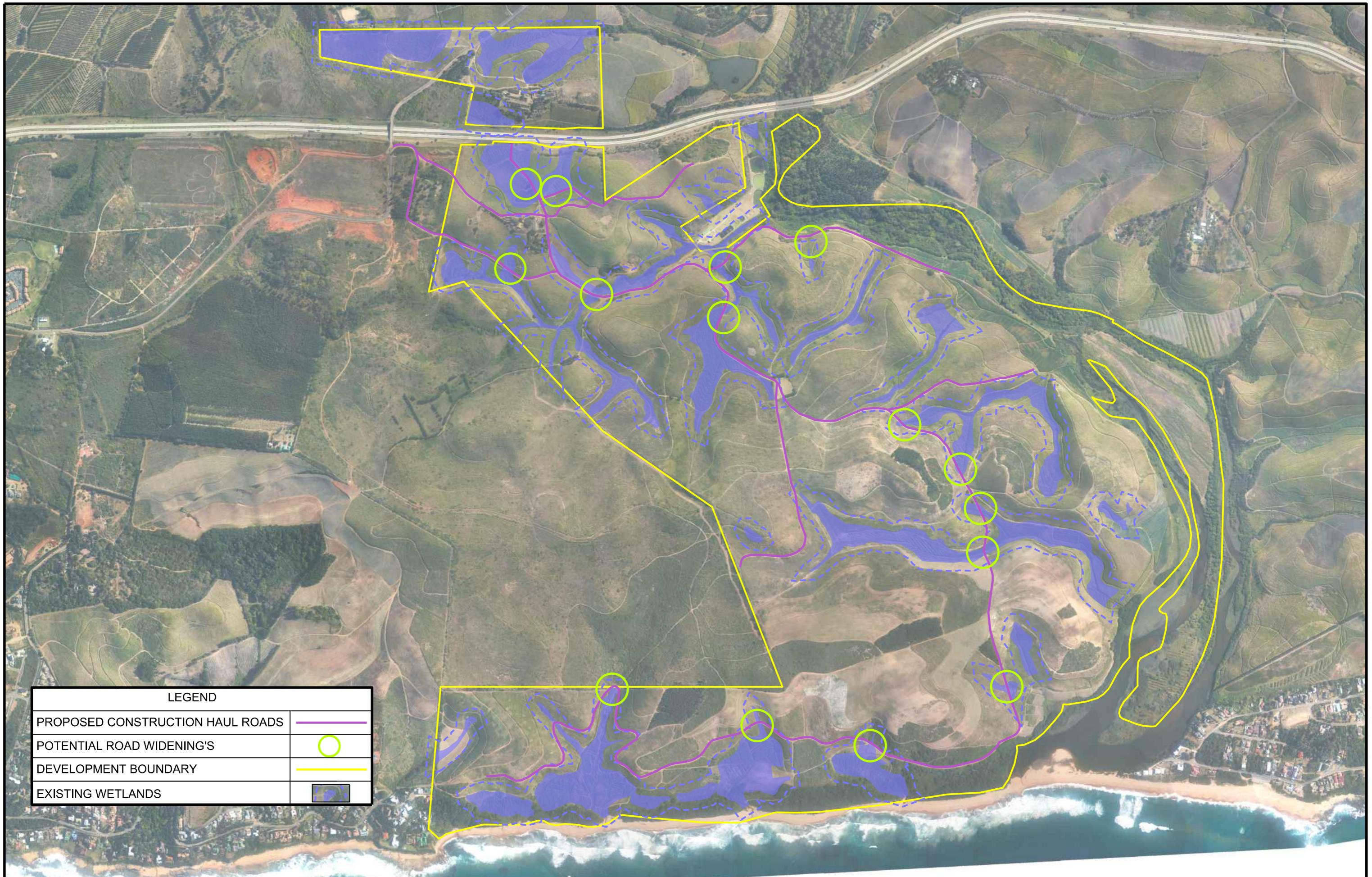
No.	Activity	Hydro-Geomorphic Type	Purpose or Description	Property Erf Number	Dimensions	Point	Latitude	Longitude
PWC127 - PWC130	c & i	HSW4 - Hillslope	Sewer pump station	REM OF THE FARM GREYWATER No. 18435	Length : 30 m Breadth : 37 m Area : 1110 m ²	PWC127	29° 27' 35.28" S	31° 14' 48.12" E
						PWC128	29° 27' 36" S	31° 14' 48.84" E
						PWC129	29° 27' 37.08" S	31° 14' 47.76" E
						PWC130	29° 27' 36.36" S	31° 14' 47.04" E





No.	Date	Description	By
		AMENDMENTS	
Client			
Project title			
TINELY MANOR SOUTH BANKS			
Drawing title			
ENVIRONMENTAL LAYOUT INDICATING WETLAND CROSSINGS			
Member of the Surbana Jurong Group			
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Signature	Date	2017-02-15	
Scale 1:2500 (A0)	Name	Date	
Designed	M. KOEKEMOER	2017-02-15	
Checked	S. DU PLESSIS	2017-02-15	
Verified	T. O'FLAHERTY	2017-02-15	
Drawn	M. KOEKEMOER	2017-02-15	
Checked	S. DU PLESSIS	2017-02-15	
SMC Drawing No.:			SH 2
DH0014-EIA-03-SHEET 2			OF 3

WETLAND REHABILITATION STRUCTURES

No.	Activity	Hydro-Geomorphic Type	Purpose or Description	Property Erf Number	Dimensions	Point	Latitude	Longitude
WLS1 - WLS4	c & i	CVBW1 - Channeled valley bottom	Wetland rehab structure	REM OF THE FARM GREYWATER No. 18435	Length : 37 m	WLS1	29° 27' 46.44" S	31° 15' 9.36" E
					Breadth : 6 m	WLS2	29° 27' 47.16" S	31° 15' 10.44" E
					Depth : 2 m	WLS3	29° 27' 46.8" S	31° 15' 10.08" E
					Volume : 444 m ³	WLS4	29° 27' 46.44" S	31° 15' 9.36" E
WLS5 - WLS8	c & i	CVBW1 - Channeled valley bottom	Wetland rehab structure	REM OF THE FARM GREYWATER No. 18435	Length : 20 m	WLS5	29° 27' 45.72" S	31° 15' 16.92" E
					Breadth : 6 m	WLS6	29° 27' 45.36" S	31° 15' 16.56" E
					Depth : 2 m	WLS7	29° 27' 45.36" S	31° 15' 16.56" E
					Volume : 240 m ³	WLS8	29° 27' 45.72" S	31° 15' 16.56" E
WLS9 - WLS12	c & i	UVBW2 - Unlined valley bottom	Wetland rehab structure	REM OF THE FARM GREYWATER No. 18435	Length : 61 m	WLS9	29° 28' 17.76" S	31° 15' 55.8" E
					Breadth : 6 m	WLS10	29° 28' 16.32" S	31° 15' 57.6" E
					Depth : 2 m	WLS11	29° 28' 16.68" S	31° 15' 57.6" E
					Volume : 732 m ³	WLS12	29° 28' 17.76" S	31° 15' 56.16" E
WLS13 - WLS16	c & i	CVBW2 - Channeled valley bottom	Wetland rehab structure	PTN 1 GREYWATER No. 18435	Length : 13 m	WLS13	29° 27' 25.56" S	31° 15' 15.48" E
					Breadth : 6 m	WLS14	29° 27' 25.56" S	31° 15' 15.84" E
					Depth : 2 m	WLS15	29° 27' 25.2" S	31° 15' 15.84" E
					Volume : 156 m ³	WLS16	29° 27' 25.2" S	31° 15' 15.48" E
WLS17 - WLS20	c & i	CVBW2 - Channeled valley bottom	Wetland rehab structure	REM OF THE FARM GREYWATER No. 18435	Length : 32 m	WLS17	29° 27' 33.12" S	31° 15' 22.68" E
					Breadth : 6 m	WLS18	29° 27' 32.4" S	31° 15' 23.76" E
					Depth : 2 m	WLS19	29° 27' 32.4" S	31° 15' 23.4" E
					Volume : 384 m ³	WLS20	29° 27' 32.76" S	31° 15' 22.32" E
WLS21 - WLS24	c & i	CVBW2 - Channeled valley bottom	Wetland rehab structure	REM OF THE FARM GREYWATER No. 18435	Length : 53 m	WLS21	29° 27' 36.36" S	31° 15' 29.16" E
					Breadth : 6 m	WLS22	29° 27' 37.08" S	31° 15' 27.36" E
					Depth : 2 m	WLS23	29° 27' 37.08" S	31° 15' 27.36" E
					Volume : 636 m ³	WLS24	29° 27' 36" S	31° 15' 29.16" E
WLS25 - WLS28	c & i	CVBW6 - Channeled valley bottom	Wetland rehab structure	REM OF THE FARM GREYWATER No. 18435	Length : 56 m	WLS25	29° 27' 33.84" S	31° 15' 58.68" E
					Breadth : 6 m	WLS26	29° 27' 34.56" S	31° 16' 0.84" E
					Depth : 2 m	WLS27	29° 27' 34.2" S	31° 16' 0.84" E
					Volume : 672 m ³	WLS28	29° 27' 33.84" S	31° 15' 59.04" E
WLS29 - WLS32	c & i	CVBW6 - Channeled valley bottom	Wetland rehab structure	REM OF THE FARM GREYWATER No. 18435	Length : 30 m	WLS29	29° 27' 25.92" S	31° 16' 9.84" E
					Breadth : 6 m	WLS30	29° 27' 26.28" S	31° 16' 10.92" E
					Depth : 2 m	WLS31	29° 27' 25.92" S	31° 16' 10.92" E
					Volume : 360 m ³	WLS32	29° 27' 25.92" S	31° 16' 10.2" E
WLS33 - WLS36	c & i	CVBW6 - Channeled valley bottom	Wetland rehab structure	REM OF THE FARM GREYWATER No. 18435	Length : 24 m	WLS33	29° 27' 19.8" S	31° 16' 13.08" E
					Breadth : 6 m	WLS34	29° 27' 20.52" S	31° 16' 13.8" E
					Depth : 2 m	WLS35	29° 27' 20.16" S	31° 16' 13.8" E
					Volume : 288 m ³	WLS36	29° 27' 19.8" S	31° 16' 13.08" E
WLS37 - WLS40	c & i	CVBW5 - Channeled valley bottom	Wetland rehab structure	REM OF THE FARM GREYWATER No. 18435	Length : 48 m	WLS37	29° 27' 6.84" S	31° 15' 58.68" E
					Breadth : 6 m	WLS38	29° 27' 7.56" S	31° 15' 57.24" E
					Depth : 2 m	WLS39	29° 27' 7.2" S	31° 15' 56.88" E
					Volume : 576 m ³	WLS40	29° 27' 6.84" S	31° 15' 58.68" E
WLS41 - WLS44	c & i	CVBW3 - Channeled valley bottom	Wetland rehab structure	REM OF THE FARM GREYWATER No. 18435	Length : 15 m	WLS41	29° 27' 18" S	31° 15' 33.84" E
					Breadth : 6 m	WLS42	29° 27' 18" S	31° 15' 34.2" E
					Depth : 2 m	WLS43	29° 27' 17.64" S	31° 15' 34.2" E
					Volume : 180 m ³	WLS44	29° 27' 18" S	31° 15' 33.48" E

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Signature	Date		2017-02-15
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Designed	M. KOEKEMOER	2017-02-15	
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Checked	S. DU PLESSIS	2017-02-15	
SMC Drawing No.:			Sht 3
DH0014-EIA-03-SHEET 3			of 3



LEGEND	
PROPOSED CONSTRUCTION HAUL ROADS	
POTENTIAL ROAD WIDENING'S	
DEVELOPMENT BOUNDARY	
EXISTING WETLANDS	

POTENTIAL TEMPOARY ROAD WIDENENING IN WETLANDS FOR CONSTRUCTION HAUL ROADS



Client	Scale	Sheet	Date
Tongaat Hulett DEVELOPMENTS	1:12 500	1 OF 1	19-05-2017
Drawing No DH0014-TMSB-CONSTRUCTION HAUL ROADS-01			