


Schedule of Co-ordinates (Geodetic 2000); Storm Water					
Structure	m.North	m.East	Lid Level	Depth to Inv	Inv Level
SMWH D2	799009.3	422058.1	30.95	1.36	29.59
SMWH D3	799049.7	422049.8	32.41	3.51	28.90
SMWH D3A	799073.4	422040.0	28.12	3.62	24.50
SMWH D4	798997.6	422029.0	34.78	1.40	33.38
SMWH D5	798957.7	422017.7	36.13	1.63	36.50
SMWH D6	798937.0	422002.2	42.77	1.70	41.07
SMWH D7	798912.5	421965.9	47.81	1.63	46.18
SMWH D8	798904.9	421932.6	32.96	1.24	31.72
SMWH D10	799034.6	422092.9	34.25	1.12	33.13
SMWH D12	798987.1	422067.0	36.63	1.65	34.98
SMWH D13	798972.3	422120.1	37.99	1.74	36.25
SMWH D18	798894.8	422080.5	43.79	1.25	42.54
SMWH E2	799134.1	422112.8	23.54	4.82	18.62
SMWH E3	799089.6	422084.3	27.82	3.49	24.33
SMWH F2	799225.5	422168.5	19.73	3.95	15.78
SMWH F2A	799229.3	422162.3	17.75	4.49	13.26
SMWH F3	799247.6	422161.2	18.02	1.93	16.09
SMWH F4	799260.0	422207.6	18.92	2.05	16.87
SMWH F5	799260.2	422241.2	20.30	3.15	17.15
SMWH F6	799174.5	422218.2	24.39	1.53	22.85
SMWH F7	799103.3	422199.5	28.37	1.58	26.79
SMWH F8	799036.9	422181.7	33.42	1.65	31.77
SMWH F9	798976.8	422165.7	37.60	1.99	35.61
SMWH F21	799218.2	422189.9	21.21	1.43	19.78
SMWH F22	799187.4	422174.5	22.96	1.98	20.98
SMWH F23	799130.2	422147.1	26.78	1.55	25.23
SMWH F24	799083.9	422128.4	29.96	1.45	28.51
SMWH G2	799325.6	422131.0	17.17	3.82	13.35
SMWH G3	799332.6	422185.4	16.16	2.40	13.76
EX SMWH 12/1	799027.9	422002.3	33.53	5.30	28.23
EX SMWH 12/2	799007.5	421983.1	33.74	2.63	31.11
EX SMWH 12/3	798988.4	421981.8	36.45	2.45	34.00
EX OUTLET 12/0	799043.3	422010.3	-	-	27.93
OUTLET D1	799076.8	422036.8	-	-	24.30
OUTLET E1	799142.7	422100.4	-	-	18.18
OUTLET F1	799233.2	422155.7	-	-	12.94
OUTLET G1	799310.5	422133.2	-	-	13.14

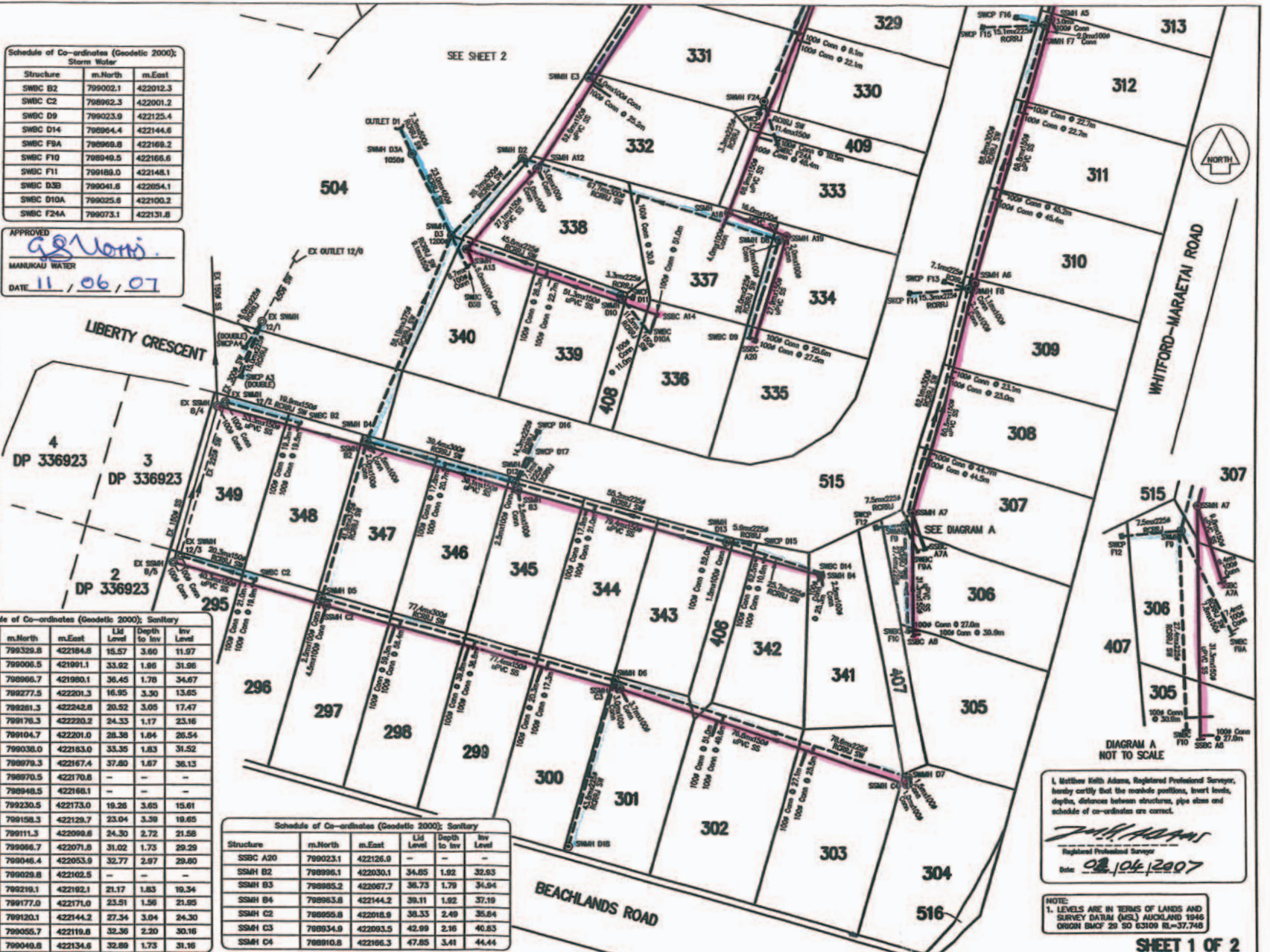
Schedule of Co-ordinates (Geodetic 2000); Storm Water		
Structure	m.North	m.East
SWBC B2	799002.1	422012.3
SWBC C2	798962.3	422001.2
SWBC D9	799023.9	422125.4
SWBC D14	798954.4	422144.6
SWBC F8A	798999.8	422169.2
SWBC F10	798949.5	422166.6
SWBC F11	799189.0	422148.1
SWBC D3B	799041.6	422054.1
SWBC D10A	799025.6	422100.2
SWBC F2A	799073.1	422131.8

APPROVED

 MANUKAU WATER
 DATE 11 / 06 / 07

Schedule of Co-ordinates (Geodetic 2000); Gess Pit			
Structure	m.North	m.East	Gross Level
CP C4	799311.4	422199.4	15.36
CP C5	799313.5	422206.4	15.40
CP F12	798978.1	422158.3	37.83
CP F13	799038.6	422174.7	33.08
CP F14	799035.5	422168.4	33.94
CP F15	799102.7	422184.4	28.34
CP F16	799105.2	422192.4	28.12
CP F17	799176.3	422211.2	24.22
CP F18	799170.6	422202.3	24.55
CP F19	799267.0	422213.1	17.95
CP F20	799268.8	422220.1	17.94
CP F25	799080.8	422127.2	30.12
CP F26	799127.9	422144.8	26.63
CP F27	799184.5	422173.1	22.96
CP A3	799013.9	421997.0	33.59
CP A4	799021.2	421998.0	33.50
CP D11	799034.1	422096.2	34.28
CP D15	798972.0	422206.4	37.85
CP D16	799000.2	422072.6	36.33
CP D17	798993.1	422070.6	36.37

Schedule of Co-ordinates (Geodetic 2000); Sanitary					
Structure	m.North	m.East	Lid Level	Depth to Inv	Inv Level
EX SMWH A1	799329.8	422184.8	15.57	3.60	11.97
EX SMWH B/4	799006.5	421991.1	33.92	1.86	31.96
EX SMWH B/5	798996.7	421990.1	36.45	1.78	34.67
SMWH A2	798977.5	422201.3	16.95	3.30	13.65
SMWH A3	798981.3	422242.8	20.52	3.05	17.47
SMWH A4	799176.3	422220.2	24.33	1.17	23.16
SMWH A5	799104.7	422201.0	28.38	1.84	26.54
SMWH A6	799038.0	422163.0	33.35	1.83	31.52
SMWH A7	798979.3	422167.4	37.80	1.67	36.13
SSBC A7A	798970.5	422170.8	-	-	-
SSBC A8	798949.5	422166.1	-	-	-
SMWH A9	799230.5	422173.0	19.28	3.65	15.61
SMWH A10	799158.3	422129.7	23.04	3.39	19.65
SMWH A11	799111.3	422099.6	24.30	2.72	21.58
SMWH A12	799096.7	422071.5	31.02	1.75	29.27
SMWH A13	799046.4	422053.9	32.77	2.97	29.80
SSBC A14	799029.8	422102.5	-	-	-
SMWH A15	798918.1	422182.1	21.17	1.83	19.34
SMWH A16	799177.0	422171.0	23.51	1.56	21.95
SMWH A17	799120.1	422144.2	27.34	3.04	24.30
SMWH A18	799055.7	422119.8	32.36	2.20	30.16
SMWH A19	799040.8	422134.6	32.89	1.73	31.16

Schedule of Co-ordinates (Geodetic 2000); Sanitary					
Structure	m.North	m.East	Lid Level	Depth to Inv	Inv Level
SSBC A20	799023.1	422126.0	-	-	-
SMWH B2	798996.1	422030.1	34.85	1.92	32.93
SMWH B3	798995.2	422067.7	36.73	1.79	34.94
SMWH B4	798963.8	422144.2	39.11	1.82	37.19
SMWH C2	798955.8	422018.9	38.33	2.49	35.84
SMWH C3	798934.9	422093.5	42.99	2.16	40.83
SMWH C4	798910.8	422106.3	47.85	3.41	44.44



CHURCHILL TIMMS LTD
 Land Development Consultants
 P.O. Box 84 246
 Botany Downs
 Manukau 2142
 Email: admin@ctltd.co.nz

PROJECT:

TITLE:

**PUBLIC DRAINAGE AS-BUILT
 SPINNAKER BAY STAGE 3B
 (LOT 2 DP 373198) BEACHLANDS**

AMENDMENT SCHEDULE		CLIENT: CHD
1	Some pipe sizes and MH dia altered	2/7/07
AUTOCAD: L/DWG/6164-STAGE 3B AS-BUILT		SCALE: 1:500 (A1)
CIVIL/CAD: BSA ASSAULT		DATE: FEB 2007
SURVEYING: MA		DRAWN: CR
DESIGNED: MA		CHECKED: MA
		REDUCED: 1:1000 (A3)
		6164-01A

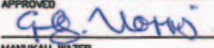
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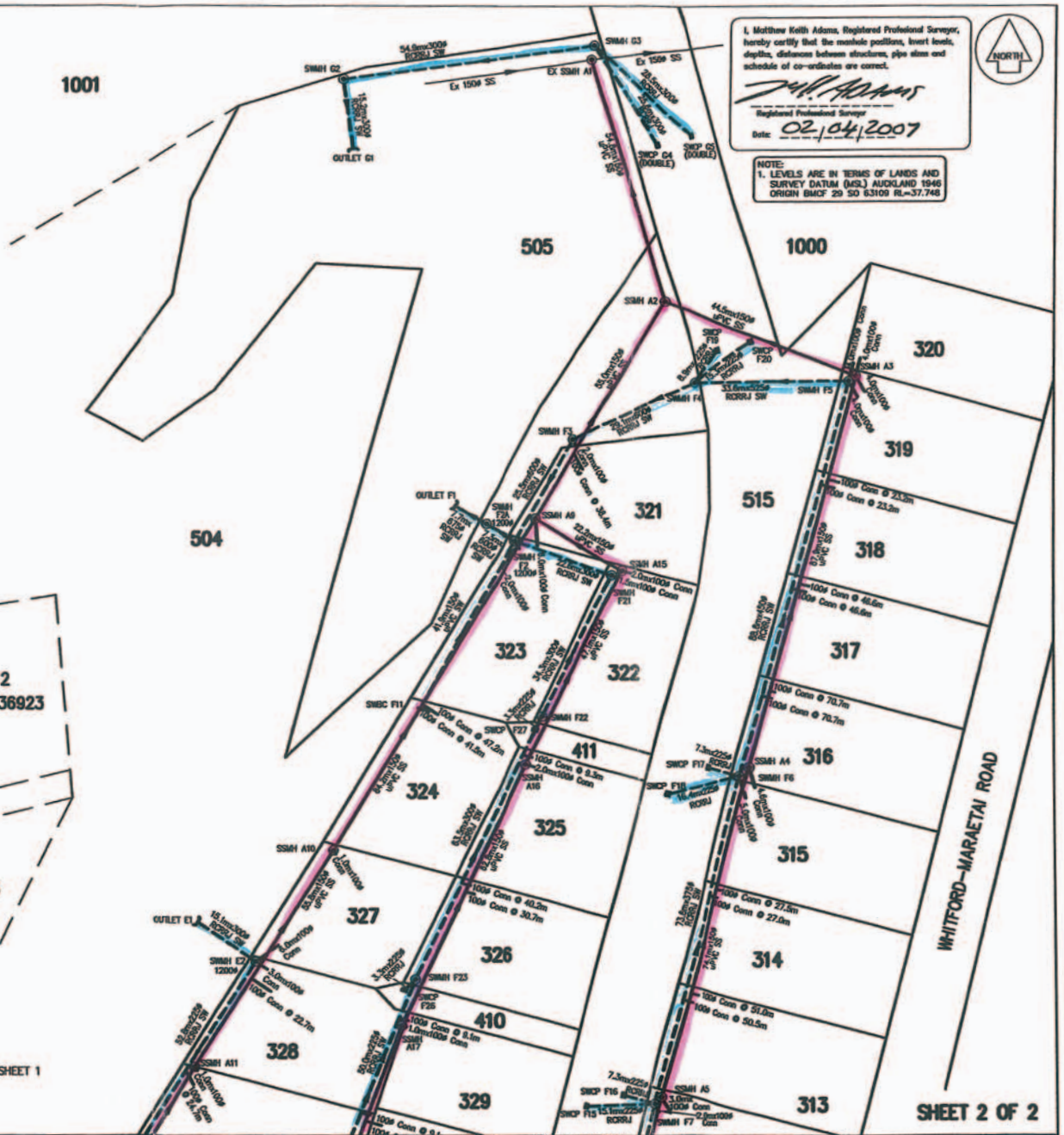
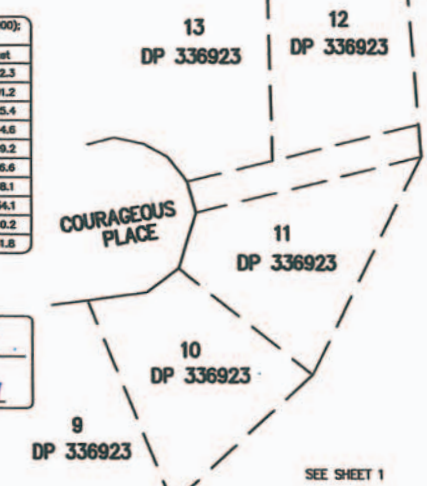
Schedule of Co-ordinates (Geodetic 2000); Storm Water					
Structure	m.North	m.East	Lid Level	Depth to Inv	Inv Level
SMH D2	799069.3	422068.1	30.95	1.36	29.59
SMH D3	799049.7	422049.8	32.41	3.51	28.90
SMH D3A	799073.4	422040.0	28.12	3.62	24.50
SMH D4	798997.6	422029.0	34.78	1.40	33.38
SMH D5	798957.7	422017.7	38.13	1.83	36.30
SMH D6	798937.0	422022.2	42.77	1.70	41.07
SMH D7	798912.5	422166.9	47.81	1.63	46.18
SMH D8	799048.9	422132.6	32.96	1.24	31.72
SMH D10	799034.6	422092.9	34.25	1.12	33.13
SMH D12	798987.1	422067.0	36.63	1.65	34.98
SMH D13	798972.3	422120.1	37.89	1.74	36.25
SMH D16	798948.8	422080.5	43.79	1.25	42.54
SMH E2	799134.1	422112.8	23.54	4.92	18.62
SMH E3	799089.6	422084.3	27.82	3.49	24.33
SMH F2	799225.5	422168.5	18.73	3.85	15.78
SMH F2A	799229.3	422162.3	17.75	4.49	13.26
SMH F3	799247.6	422181.2	18.02	1.93	16.09
SMH F4	799260.0	422207.6	18.52	2.05	16.47
SMH F5	799260.2	422241.2	20.30	3.18	17.15
SMH F8	799174.5	422218.2	24.38	1.53	22.85
SMH F7	799103.3	422199.5	28.37	1.58	26.79
SMH F8	799036.9	422181.7	33.42	1.65	31.77
SMH F9	798978.8	422165.7	37.60	1.99	35.61
SMH F21	799218.2	422189.9	21.21	1.43	19.78
SMH F22	799187.4	422174.5	22.96	1.98	20.98
SMH F23	799130.2	422147.1	26.78	1.55	25.23
SMH F24	799083.9	422128.4	29.86	1.45	28.51
SMH G2	799325.6	422131.0	17.17	3.82	13.35
SMH G3	799332.8	422185.4	16.16	2.40	13.76
EX SMH 12/1	799027.9	422002.3	33.53	5.30	28.23
EX SMH 12/2	799007.5	421993.1	33.74	2.63	31.11
EX SMH 12/3	798968.4	421981.8	36.45	2.45	34.00
EX OUTLET 12/0	799043.3	422010.3	--	--	27.93
OUTLET D1	799076.8	422036.6	--	--	24.30
OUTLET E1	799142.7	422100.4	--	--	18.18
OUTLET F1	799233.2	422155.7	--	--	12.94
OUTLET G1	799310.5	422133.2	--	--	13.14

Schedule of Co-ordinates (Geodetic 2000); Sanitary					
Structure	m.North	m.East	Lid Level	Depth to Inv	Inv Level
EX SSMH A1	799329.8	422184.5	15.57	3.60	11.97
EX SSMH B/4	799006.5	421991.1	33.92	1.96	31.96
EX SSMH B/5	798966.7	421980.1	36.45	1.78	34.67
SSMH A2	799277.5	422201.3	16.95	3.30	13.65
SSMH A3	799261.3	422242.8	20.52	3.05	17.47
SSMH A4	799176.3	422230.2	24.33	1.17	23.16
SSMH A5	799104.7	422201.0	28.38	1.84	26.54
SSMH A6	799038.0	422183.0	33.36	1.83	31.52
SSMH A7	798979.3	422167.4	37.80	1.67	36.13
SSBC A7A	798970.5	422170.8	--	--	--
SSBC A8	798948.5	422168.1	--	--	--
SSMH A9	799230.5	422173.0	19.26	3.65	15.61
SSMH A10	799158.3	422129.7	23.04	3.39	19.65
SSMH A11	799111.3	422099.6	24.30	2.72	21.58
SSMH A12	799066.7	422071.8	31.02	1.73	29.29
SSMH A13	799046.4	422053.9	32.77	2.97	29.80
SSBC A14	799029.8	422102.5	--	--	--
SSMH A15	799219.1	422192.1	21.17	1.83	19.34
SSMH A16	799177.0	422171.0	23.51	1.56	21.95
SSMH A17	799120.1	422144.2	27.34	3.04	24.30
SSMH A18	799055.7	422119.8	32.36	2.20	30.16
SSMH A19	799049.8	422134.8	32.89	1.73	31.16
SSBC A20	799023.1	422126.9	--	--	--
SSMH B2	798996.1	422030.1	34.85	1.92	32.93
SSMH B3	798965.2	422067.7	36.73	1.79	34.94
SSMH B4	798963.8	422144.2	39.11	1.92	37.19
SSMH C2	798920.8	422018.9	38.33	2.49	35.84
SSMH C3	798934.9	422093.5	42.99	2.16	40.83
SSMH C4	798910.8	422166.3	47.85	3.41	44.44

Schedule of Co-ordinates (Geodetic 2000); Case Fit				
Structure	m.North	m.East	Grote Level	
CP G4	799311.4	422199.4	15.36	
CP G5	799313.5	422206.4	15.40	
CP F12	798978.1	422158.3	37.83	
CP F13	799038.6	422174.7	33.08	
CP F14	799035.5	422166.4	33.54	
CP F15	799102.7	422184.4	28.34	
CP F16	799105.2	422192.4	28.12	
CP F17	799176.3	422211.2	24.22	
CP F18	799170.6	422202.3	24.55	
CP F19	799267.0	422213.1	17.95	
CP F20	799268.6	422220.1	17.94	
CP F25	799080.8	422127.2	30.12	
CP F28	799127.9	422144.8	26.63	
CP F27	799184.5	422173.1	22.86	
CP A3	799013.9	421997.0	33.59	
CP A4	799021.2	421998.0	33.50	
CP D11	799034.1	422096.2	34.28	
CP D15	798972.0	422206.4	37.85	
CP D16	799000.2	422072.6	36.33	
CP D17	798993.1	422070.8	36.37	

Schedule of Co-ordinates (Geodetic 2000); Storm Water			
Structure	m.North	m.East	
SWBC B2	799002.1	422012.3	
SWBC C2	798962.3	422001.2	
SWBC D9	799023.9	422125.4	
SWBC D14	798964.4	422144.6	
SWBC F9A	798969.8	422169.2	
SWBC F10	798949.5	422166.6	
SWBC F11	799189.0	422148.1	
SWBC D3B	799041.8	422054.1	
SWBC D10A	799025.6	422100.2	
SWBC F24A	799073.1	422131.8	

APPROVED

 MANUKAU WATER
 DATE: 11, 06, 07



I, Matthew Keith Adams, Registered Professional Surveyor, hereby certify that the marked positions, invert levels, depths, distances between structures, pipe sizes and schedule of co-ordinates are correct.
 Date: 02/04/2007

NOTE:
 1. LEVELS ARE IN TERMS OF LANES AND SURVEY DATUM (MSL) AUCKLAND 1946 ORIGIN BMCF 29 SO 63109 RL=37.748

CHURCHILL TIMMS LTD
 Licensed Engineering Consultants
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 Botany Downs
 Manurewa 2145
 Email: edwards@ctlltd.co.nz

PROJECT: PUBLIC DRAINAGE AS-BUILT
 TITLE: SPINNAKER BAY STAGE 3B (LOT 2 DP 373198) BEACHLANDS

AMENDMENT SCHEDULE
 A: Some pipe sizes and MH dia altered 12/04

CLIENT: CHD
 AUTOCAD: L/DWG/6164-STAGE 3B AS-BUILT
 CIVILCAD: 6164 ASBUILT
 SURVEYOR: MA
 DRAWN: CR
 DESIGNED: MA
 SCALE: 1:500 (A1)
 REDUCED: 1:1000 (A3)
 DATE: FEB 2007
 CHECKED: MA
 6164-02/A

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