Client:

WHITE ROCK
City by the Sea!

15322 Buena Vista Ave. White Rock, BC,
Canada V3B 1Y6

Description: JOHNSTON ROAD REVITALIZATION CIVIL DRAWINGS

NORTH BLUFF ROAD TO RUSSELL AVENUE

MCSL Project No: 2111-03898-00

Mun. Project No: WR18-008

ISSUED FOR TENDER
MARCH 15, 2018

McElhanney

McElhanney Consulting Services Ltd.

Consultant: McElhanney

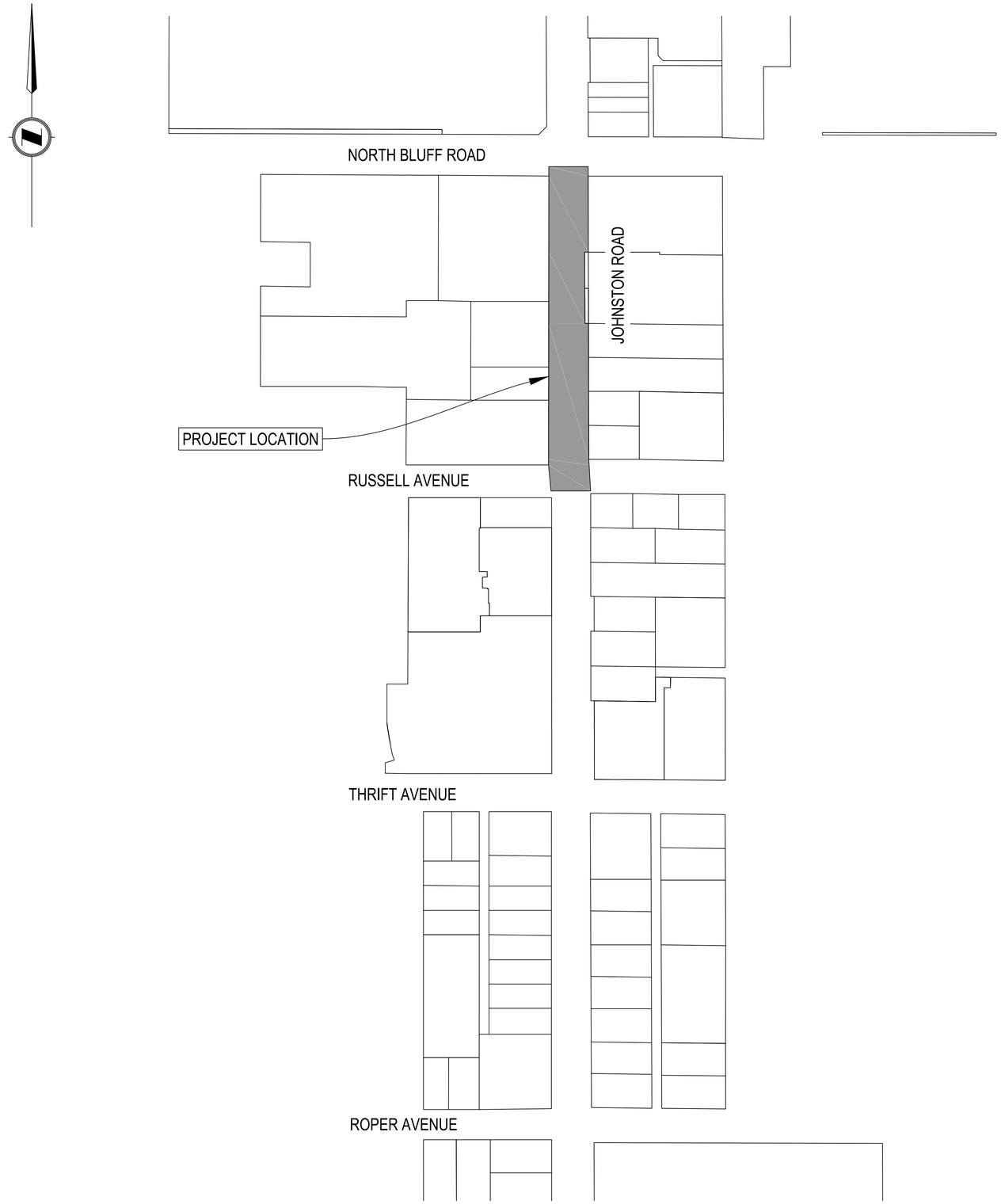
McElhanney Project Number: 2111-03898-00

Client: CITY OF WHITE ROCK

Client Project Number: WR18-008

McElhanney A1 - 14/07/22

DATE: 2018-03-13, 12:28 FILE: M:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-CV-000.dwg



CITY GENERAL NOTES:

1. Construction is to be in accordance with the MMCD Platinum edition and White Rock Specifications & Standard Details.
2. Contractor is to verify the location and elevation of all pipes, or other utility crossings, prior to construction and shall notify the Engineer of any conflicts.
3. Contractor to prepare and deliver notices.

DRAWING INDEX

TITLE	SHEET No.
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IRRIGATION DRAWINGS	IR-100 TO IR-104
DMD ELECTRICAL DRAWINGS	5996-17-01 TO 04

ENGINEERING LEGEND

IRON PROPERTY PIN
BENCHMARK - GEODETIC DATUM
SURREY SURVEY MONUMENT
CURB & GUTTER
SIDEWALK (CONCRETE)
SIDEWALK (ASPHALT)
PAVEMENT
ELEVATION
STORM SEWER
FRENCH DRAIN
LAWN BASIN
CULVERT
SWALE
DITCH
SANITARY SEWER
WATERMAIN
UNDERGROUND B.C. HYDRO
UNDERGROUND B.C. TEL
GAS MAIN
TRAFFIC SIGNAL & STREET LIGHT
UTILITY POLE LINE
STREETLIGHT (DAVIT)
ORNAMENTAL STREETLIGHT (POST TOP)
UTILITY POLE W/LIGHT
JUNCTION BOX

LEGAL DESCRIPTION

SURVEY BENCHMARK
SURVEY BENCHMARK FROM MONUMENT 88H3866. ELEVATION = 105.369m

REV.	DATE	DESCRIPTION	BY
C	2018-03-15	ISSUED FOR TENDER	MD
B	2017-12-21	ISSUED FOR 90% DESIGN	MD
A	2017-10-13	ISSUED FOR PRELIMINARY DESIGN	MD

"I ,Mandeep Deol, Professional Engineer, in good standing in and for the Province of British Columbia, hereby certify that the works as herein set out on the attached drawings have been designed to good engineering standards and in accordance with the latest edition of the City Of White Rock Criteria and the MMCD.

NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

McElhanney Consulting Services Ltd.
Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE
KEY PLAN
NOTES AND LEGEND
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

SCALE: 0 H 1:500 15 / 0 V 1:50 1.5

DESIGNED MH
DRAWN AE
REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO. 001
REV. C

WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: 2018-03-13, 11:06 FILE: M:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-CD-000.dwg

NOTES:

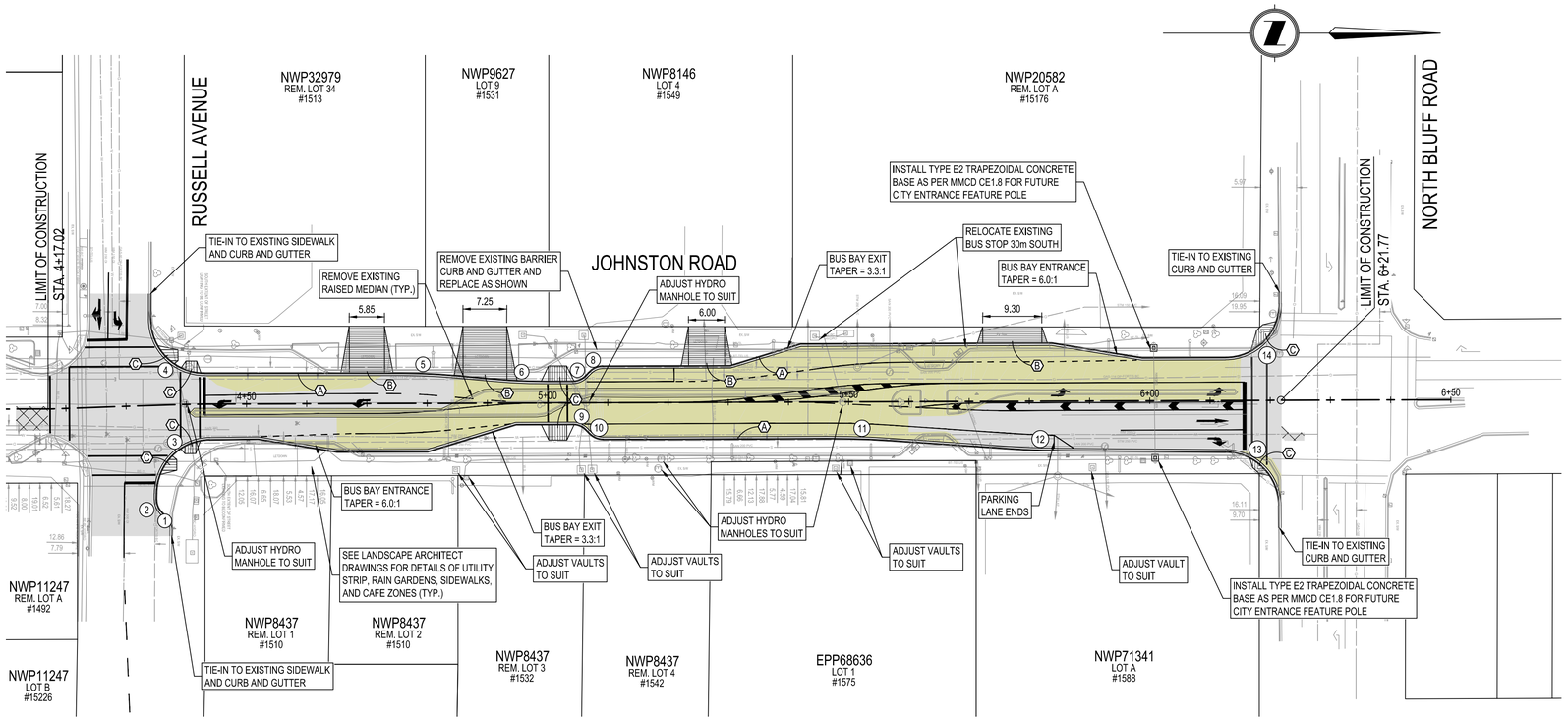
(A) CONCRETE BARRIER CURB AND GUTTER AS PER MMCD C4

(B) COMMERCIAL DRIVEWAY CROSSING - MIN 200mm THICK CONCRETE (TYP.) REFER TO MMCD C7

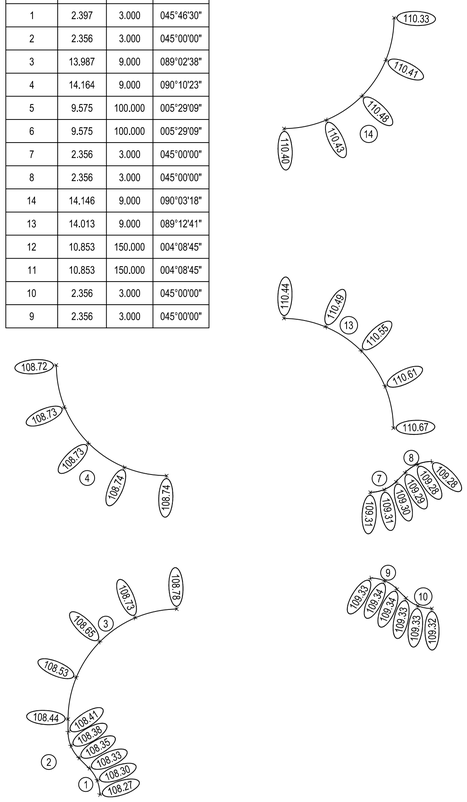
(C) WHEELCHAIR LETDOWN (TYP.) REFER TO MMCD STANDARD DRAWING C8 (TYP.)

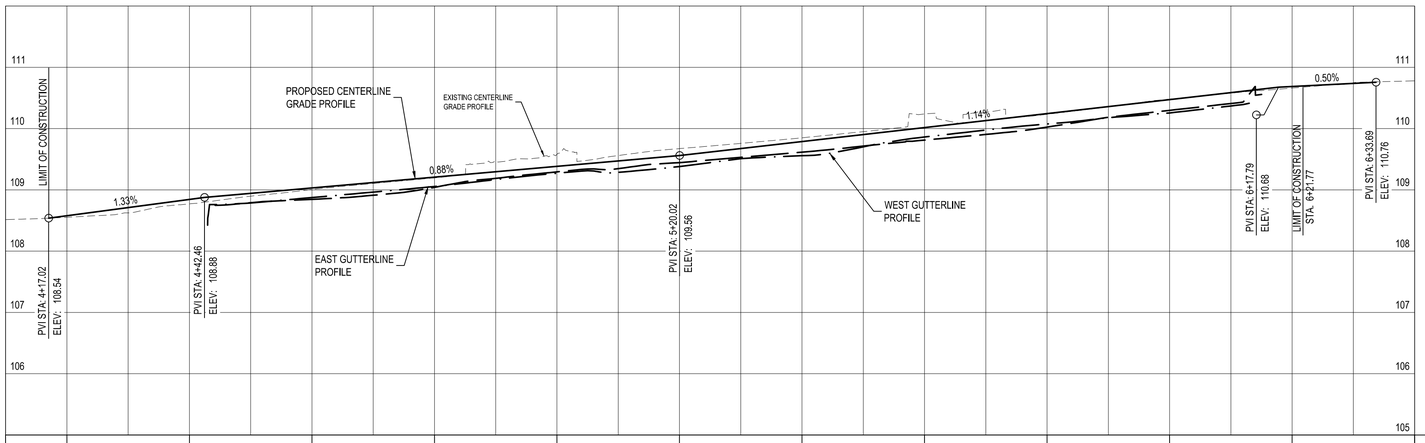
LEGEND

- FULL-DEPTH MILL, REGRADE BASE GRAVELS TO SUIT, AND PAVE (AS PER TYPICAL SECTIONS)
- UTILITY TRENCH RESTORATION
- FULL-DEPTH ROAD RECONSTRUCTION



CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
1	2.397	3.000	045°46'30"
2	2.356	3.000	045°00'00"
3	13.987	9.000	089°02'38"
4	14.164	9.000	090°10'23"
5	9.575	100.000	005°29'09"
6	9.575	100.000	005°29'09"
7	2.356	3.000	045°00'00"
8	2.356	3.000	045°00'00"
14	14.146	9.000	090°03'18"
13	14.013	9.000	089°12'41"
12	10.853	150.000	004°08'45"
11	10.853	150.000	004°08'45"
10	2.356	3.000	045°00'00"
9	2.356	3.000	045°00'00"





	108.58	108.84	109.03	109.21	109.38	109.56	109.79	110.02	110.24	110.47	110.69		PROPOSED ELEVATIONS @ CENTERLINE OF ROAD
108.51	108.55	108.77	109.01	109.20	109.58	109.67	109.85	110.24	110.23	110.48	110.66	110.78	ORIGINAL GROUND ELEVATIONS @ CENTERLINE
			108.85	109.04	109.29	109.44	109.62	109.81	110.02	110.30			PROPOSED ELEVATIONS @ EAST GUTTERLINE OF ROAD
			108.87	109.06	109.27	109.38	109.56	109.86	110.07	110.25			PROPOSED ELEVATIONS @ WEST GUTTERLINE OF ROAD
4+10	4+20	4+40	4+60	4+80	5+00	5+20	5+40	5+60	5+80	6+00	6+20	6+40	CHAINAGE

SUPERELEVATION TABLE			
LEFT SIDE		RIGHT SIDE	
STATION	SLOPE	STATION	SLOPE
4+17 TO 4+45	-2.50%	4+17 TO 4+75	-2.50%
4+50 TO 5+15	-3.00%	4+85	-1.50%
5+35 TO 5+45	-2.50%	4+95	-2.50%
5+55 TO 5+75	-1.50%	5+10	-2.00%
5+90	-2.00%	5+15	-1.50%
5+95	-2.50%	5+35	-2.50%
6+00 TO 6+20	-3.00%	5+45 TO 5+75	-3.00%
		5+90 TO 6+20	-2.00%

LEGAL DESCRIPTION

SURVEY BENCHMARK

SURVEY BENCHMARK FROM MONUMENT 88H3866. ELEVATION = 105.369m

REV.	DATE	DESCRIPTION	BY
C	2018-03-15	ISSUED FOR TENDER	MD
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Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

ROADWORKS
STA. 4+17 TO 6+30
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

SCALE: 0 H 1:500 15 / 0 V 1:50 1.5

DESIGNED MH

DRAWN AE

REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06

CONSULTANT PROJ. NO. 2111-03898-00

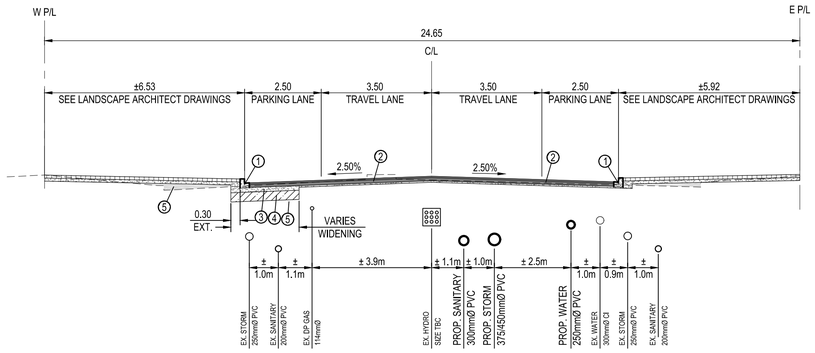
DWG. NO. 101 REV. C

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 13, 2018, 12:35 PM, FILE: M:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-C0-100.dwg



TYPICAL CROSS SECTION
JOHSTON ROAD STA. 4+17 TO STA. 6+30

1. CONCRETE BARRIER CURB AND GUTTER AS PER MMCD C4
2. 150mm FULL DEPTH MILL. INSTALL 100mm - 19mm SUPERPAVE ASPHALT, 50mm - 12.5mm SUPERPAVE CONCRETE PAVEMENT AND ADD GRANULAR BASE TO SUIT
3. 150mm - 19mm MINUS CRUSHED GRANULAR BASE COMPACTED TO 95% MODIFIED PROCTOR DENSITY
4. 300mm - 75mm MINUS SELECT GRANULAR SUBBASE COMPACTED TO 95% MODIFIED PROCTOR DENSITY TO BE PLACED ON APPROVED SUBGRADE
5. GRANULAR SUBGRADE FILL (75 MINUS SELECT GRANULAR SUBBASE COMPACTED TO 95% MODIFIED PROCTOR DENSITY) , AS REQUIRED (TO BE PLACED ON APPROVED SUBGRADE APPROVED BY THE PROFESSIONAL GEOTECHNICAL ENGINEER)

LEGAL DESCRIPTION

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REV.	DATE	DESCRIPTION	BY
B	2018-03-15	ISSUED FOR TENDER	MD
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CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE
TYPICAL SECTIONS
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

SCALE:
0 H 1:500 15
0 V 1:50 1.5

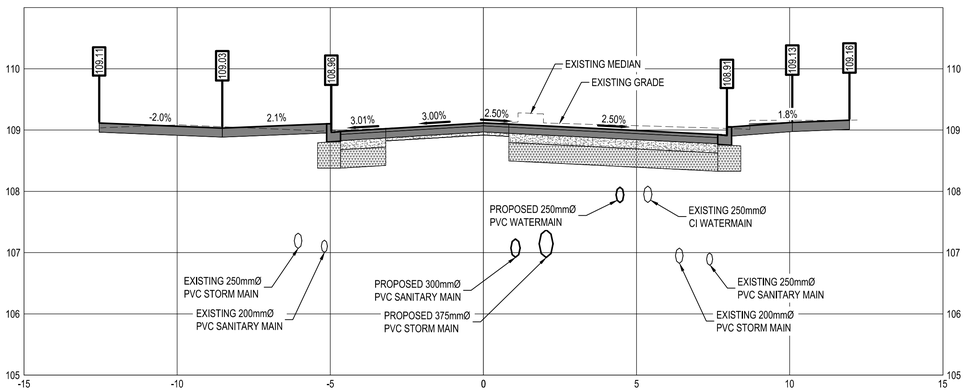
DESIGNED MH
DRAWN AE
REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO. 102
REV. B

WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 13, 2018, 11:55 AM FILE: N:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-C0-100.dwg



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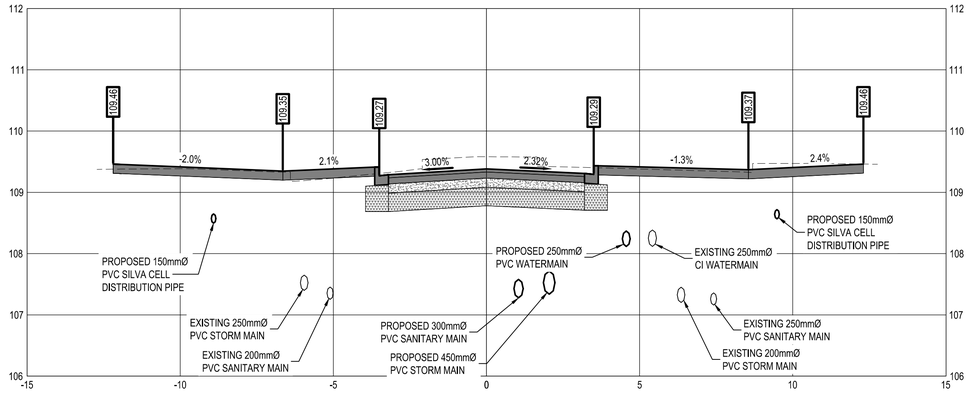
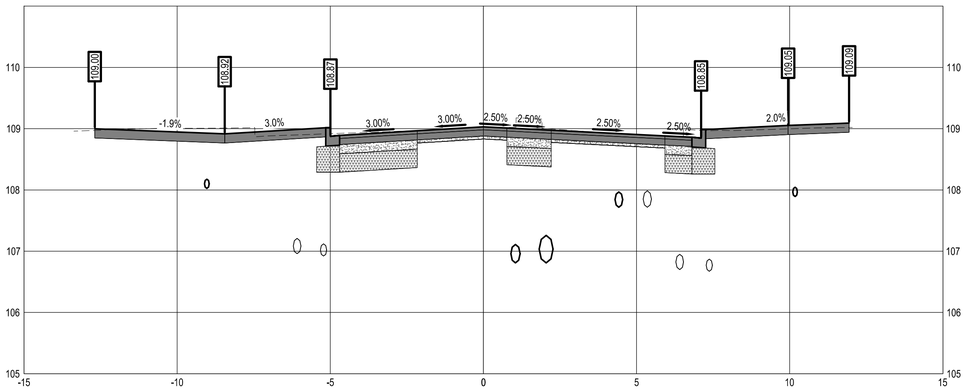


5+00



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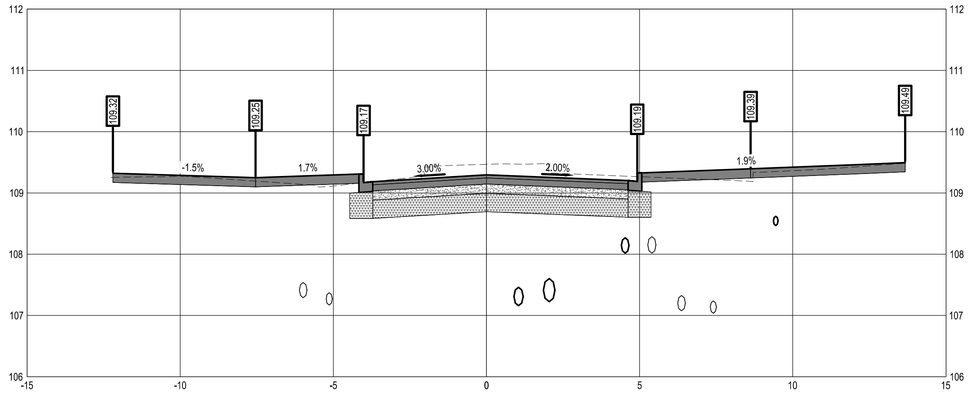

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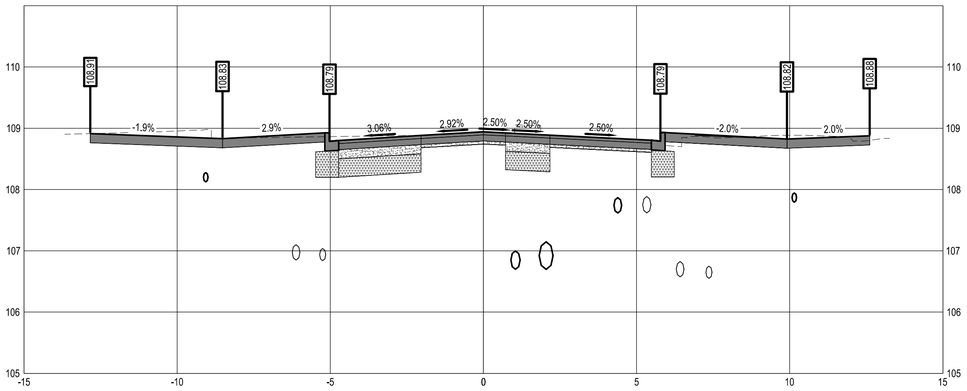
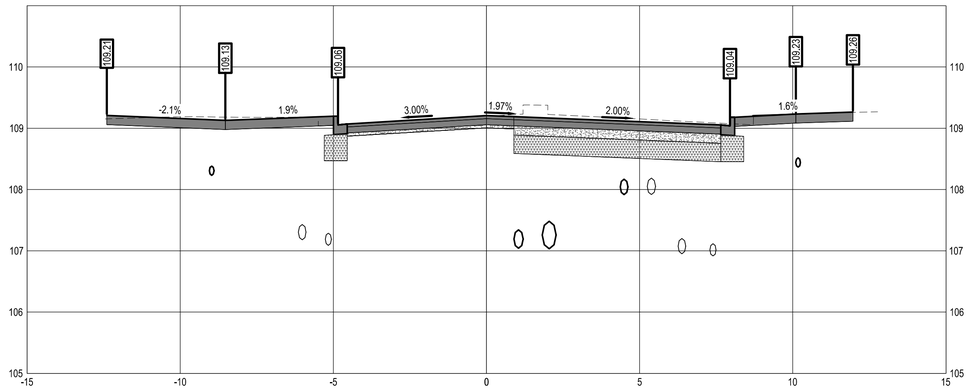


4+50



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LEGAL DESCRIPTION

SURVEY BENCHMARK
SURVEY BENCHMARK FROM MONUMENT 88H3866. ELEVATION = 105.369m

REV.	DATE	DESCRIPTION	BY
B	2018-03-15	ISSUED FOR TENDER	MD
A	2017-12-21	ISSUED FOR 90% DESIGN	MD

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CONSULTANT

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Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

CROSS SECTIONS
STA. 4+50 TO 5+00
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

SCALE:
0 H 1:500 15
0 V 1:50 1.5

DESIGNED MH

DRAWN AE

REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06

CONSULTANT PROJ. NO. 2111-03898-00

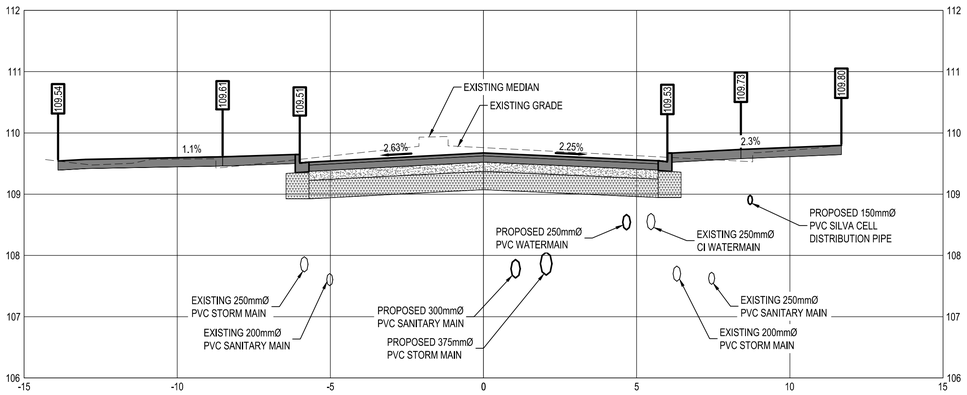
DWG. NO. 201

REV. B

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER



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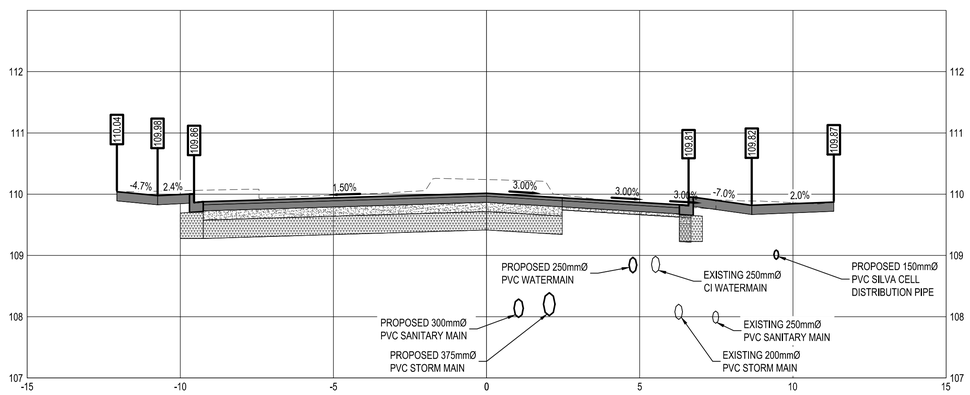

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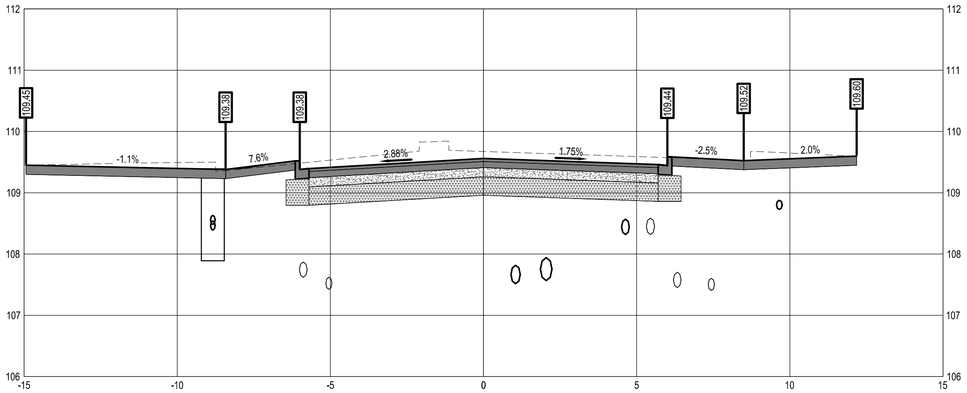

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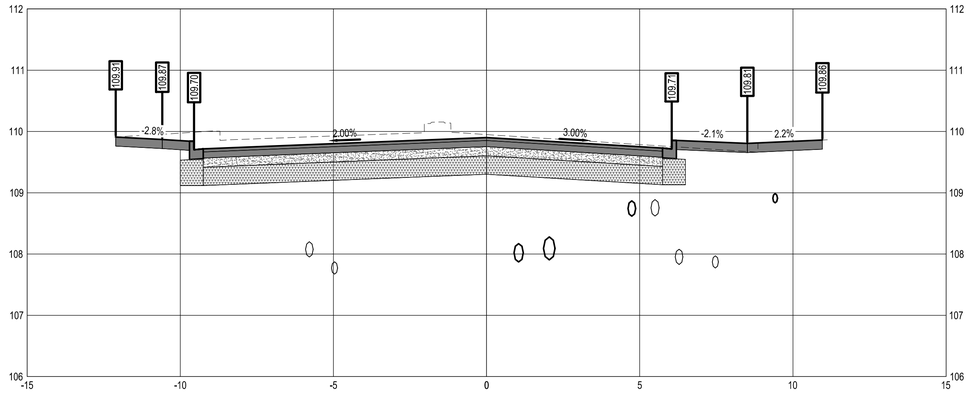

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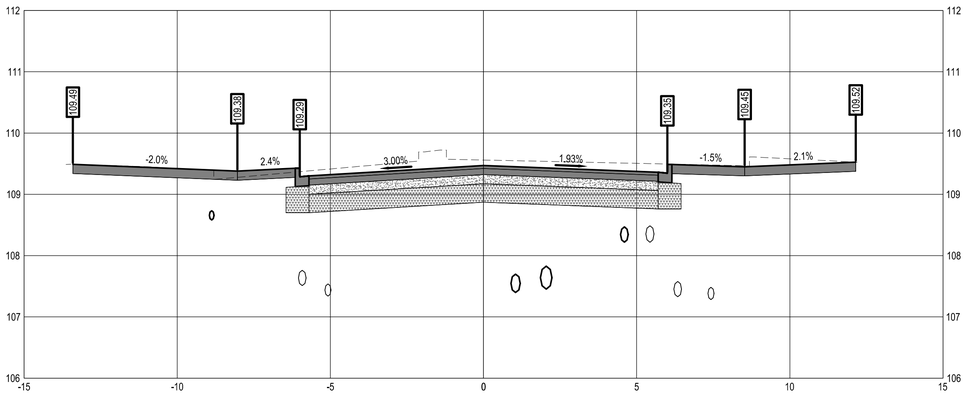

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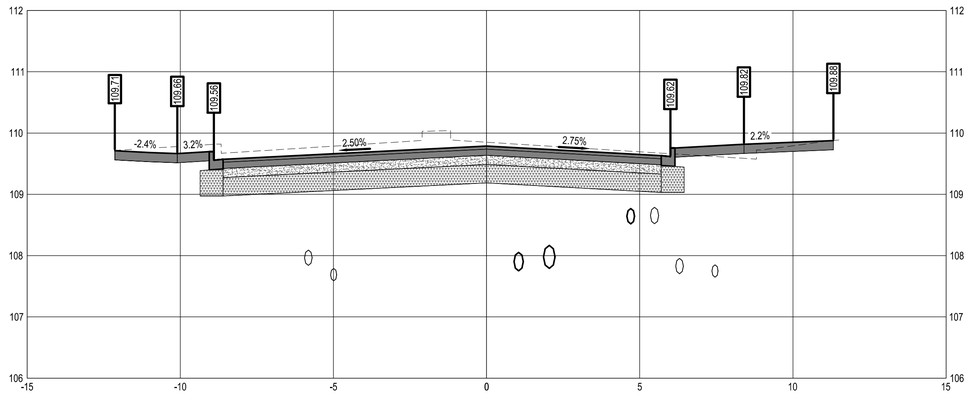

5+40

LEGAL DESCRIPTION

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CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE
CROSS SECTIONS
STA. 5+10 TO 5+60
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

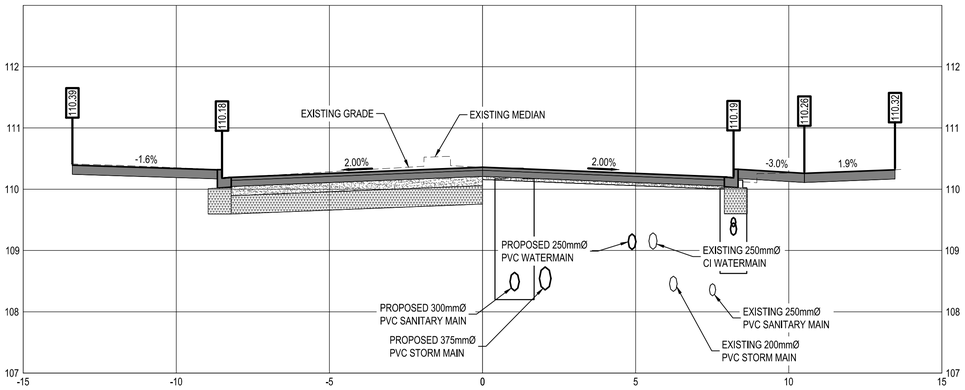
SCALE: 0 H 1:500 15 / 0 V 1:50 1.5
DESIGNED MH
DRAWN AE
REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO. 202
REV. B

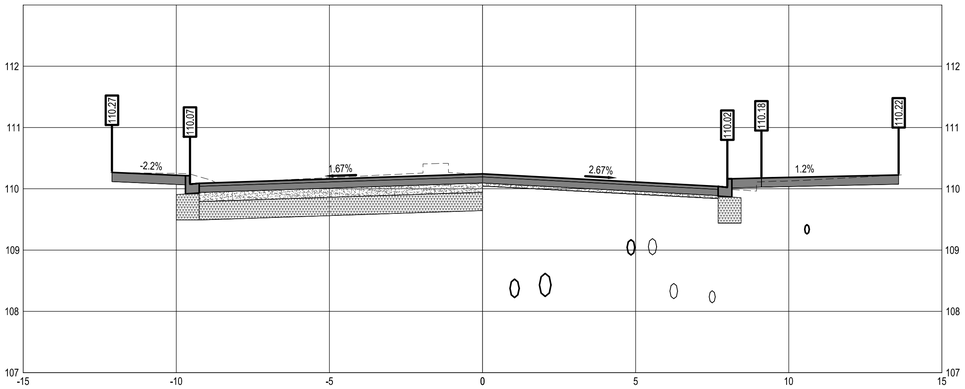
WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 13, 2018, 12:00 PM FILE: M:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-00-200.dwg



5+90



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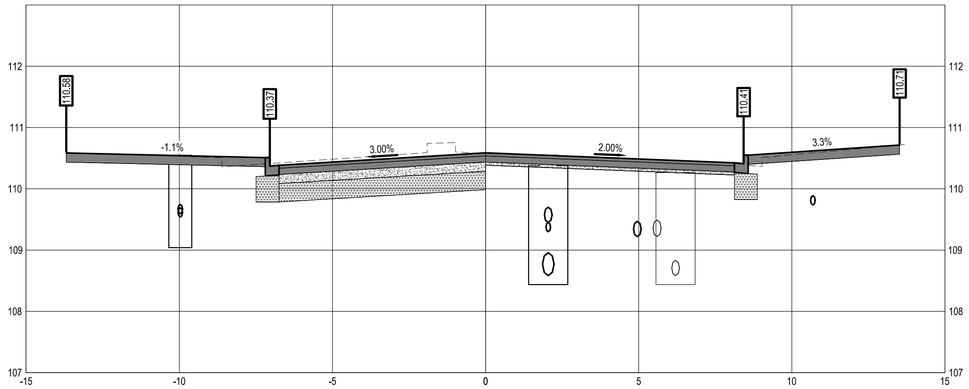

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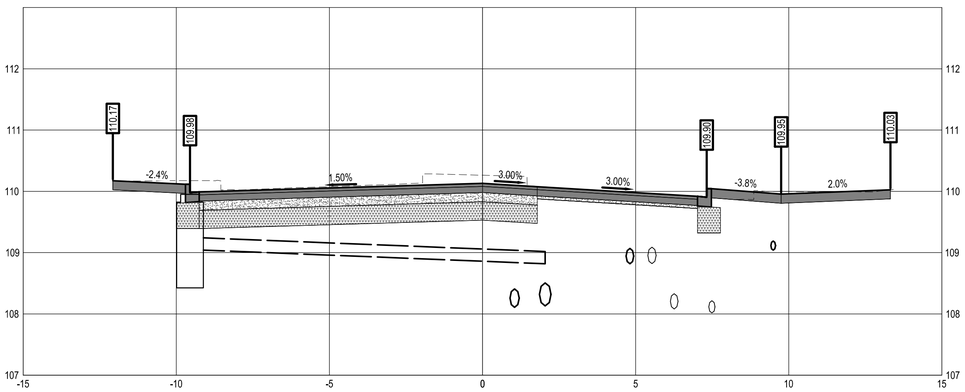

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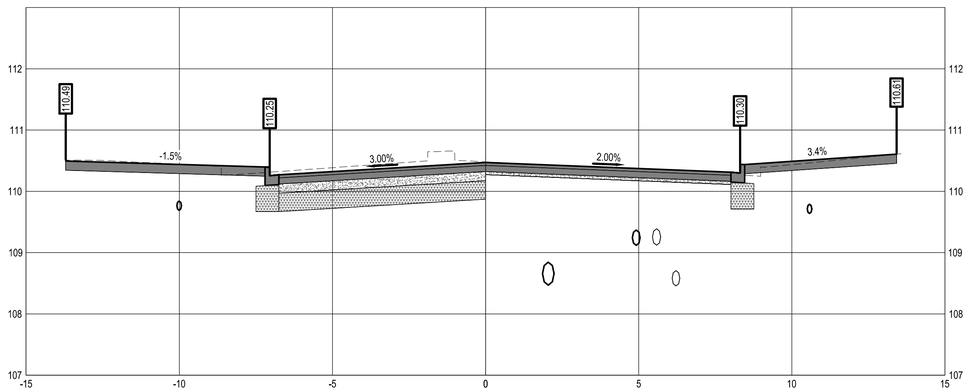

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DATE: March 13, 2018, 12:00 PM FILE: M:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-00-200.dwg

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TITLE

CROSS SECTIONS
STA. 5+70 TO 6+10
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

SCALE: 0 H 1:500 15 / 0 V 1:50 1.5

DESIGNED MH

DRAWN AE

REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06

CONSULTANT PROJ. NO. 2111-03898-00

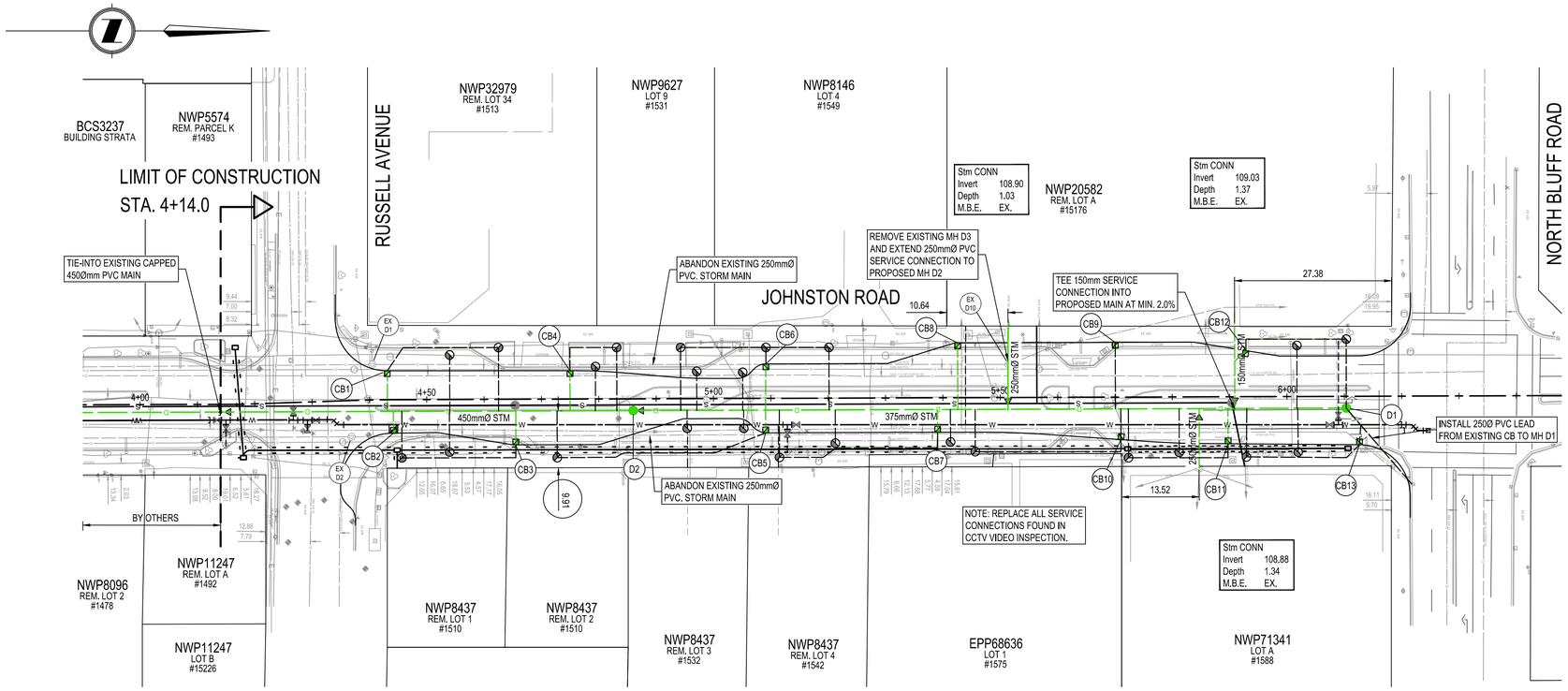
DWG. NO. 203

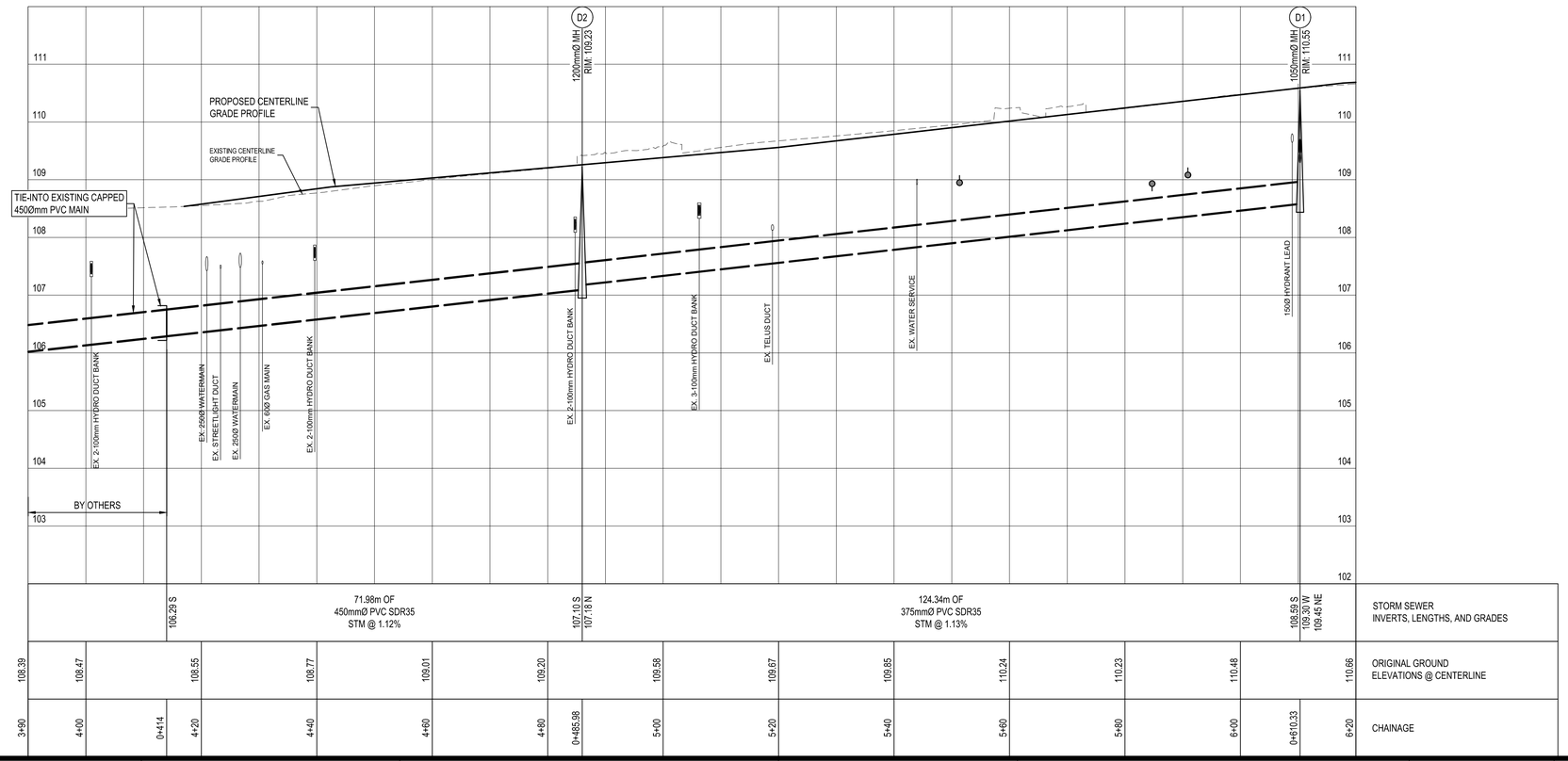
REV. B

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER





CITY STORM SEWER NOTES:

1. Storm Sewers are to be constructed with closed joints.
2. All existing storm sewer(s) to be abandoned and filled with slurry mix and shall have ends sealed with concrete prior to abandoning. Contractor to confirm that there are no live service connections.
3. All existing manholes that are no longer required shall have frame, cover, lid, and top barrel removed and the remains filled with crushed granular. Alternatively, the entire manhole can be removed and backfilled with crusher granular.
4. CCTV inspection to be completed to determine size and location of all service connections.

FLOW CAPACITY TABLE		
LOCATION	EXISTING PIPES / FLOW	PROPOSED PIPE / FLOW (cms)
NORTH BLUFF TO 1532 JOHNSTON ROAD	250Ø + 250Ø / 0.13 m^3/s	375Ø / 0.19 m^3/s
1532 JOHNSTON ROAD TO 1468 JOHNSTON ROAD	250Ø + 375Ø / 0.25 m^3/s	450Ø / 0.30 m^3/s
1468 JOHNSTON ROAD TO THRIFT AVENUE	250Ø + 375Ø / 0.35 m^3/s	450Ø / 0.38 m^3/s

NOTE: AECOM REPORT DATED DECEMBER 6, 2012 CONTAINS NO STORM PIPE UPSIZING RECOMMENDATIONS FOR THIS PART OF THE PROJECT

CATCH BASINS				
CB No.	DIAMETER	RIM ELEV.	INV. ELEV.	STA. / OFFSET
CB1	900mm	108.72	108.21 NW 107.80 E	0+443.14 / -5.05L
CB2	610mm	108.71	107.81 W	0+444.17 / 5.84R
CB3	900mm	108.87	107.97 E 107.97 W	0+465.51 / 7.95R
CB4	900mm	108.98	108.32 W 108.08 E	0+475 / -4.95L
CB5	900mm	109.31	108.67 S 108.68 W	0+509.08 / 6.00R
CB6	900mm	109.25	109.18 W 109.15 E	0+509.16 / -6.00L
CB7	900mm	109.58	108.95 E 108.98 W	0+539.07 / 6.00R
CB8	610mm	109.54	108.64 E	0+542.59 / -9.55L
CB9	610mm	109.95	109.05 E	0+570.08 / -9.55L
CB10	900mm	109.88	108.98 W 109.07 E	0+571.02 / 7.39R
CB11	900mm	110.15	109.39 E 109.25 W	0+589.70 / 8.19R
CB12	900mm	110.17	109.27 SE	0+592.87 / -8.03L
CB13	900mm	110.50	109.60 W 109.78 SE	0+612.61 / 8.45R

LEGAL DESCRIPTION

SURVEY BENCHMARK
SURVEY BENCHMARK FROM MONUMENT 88H3866. ELEVATION = 105.369m

REV.	DATE	DESCRIPTION	BY
C	2018-03-15	ISSUED FOR TENDER	MD
B	2017-12-21	ISSUED FOR 90% DESIGN	MD
A	2017-10-13	ISSUED FOR PRELIMINARY DESIGN	MD

"I Mandeep Deol, Professional Engineer, in good standing in and for the Province of British Columbia, hereby certify that the works as herein set out on the attached drawings have been designed to good engineering standards and in accordance with the latest edition of the City Of White Rock Design Criteria and the MMCD.

NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

McElhanney Consulting Services Ltd.
Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE
STORM SEWER
RUSSELL AVENUE TO NORTH BLUFF ROAD
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

SCALE: 0 H 1:500 15 / 0 V 1:50 1.5
DESIGNED MH
DRAWN AE
REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO. 301
REV. C

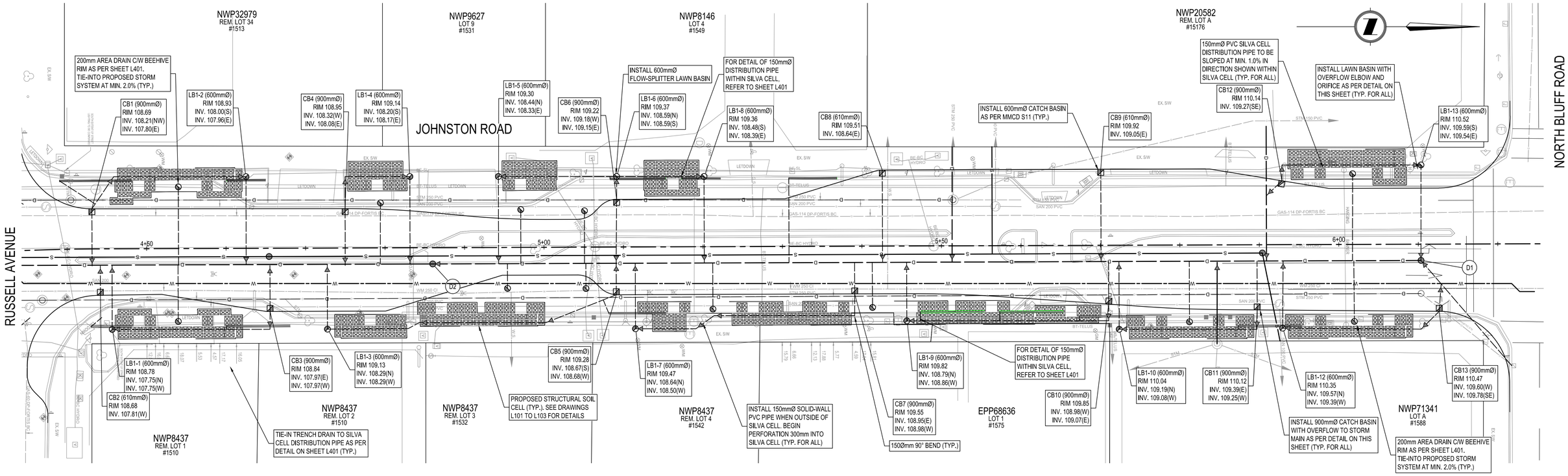
WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER

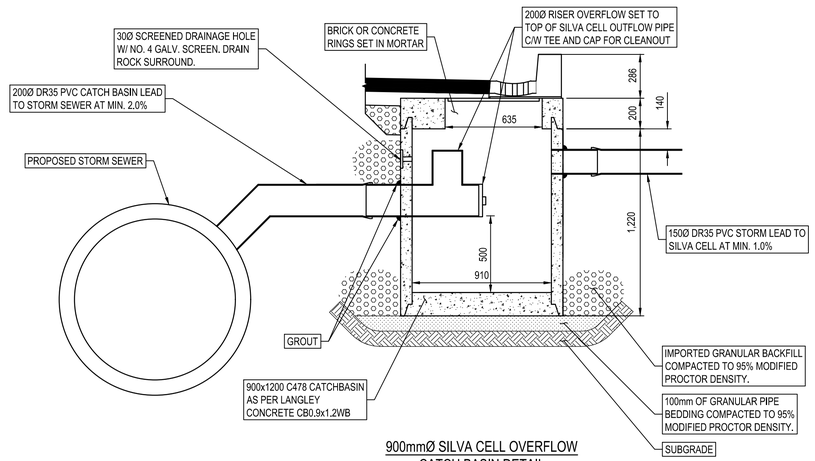
DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 13, 2018, 12:08 PM FILE: M:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-CD-300.dwg

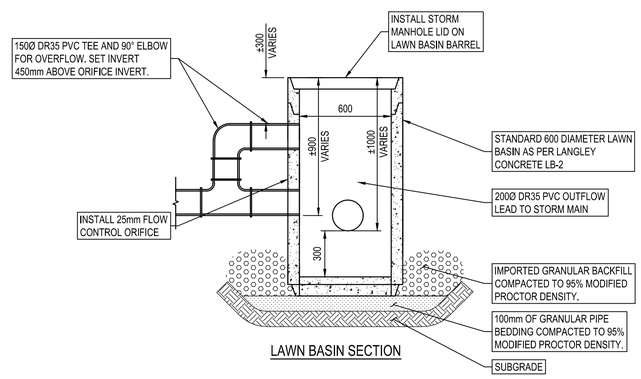
CITY STORM SEWER NOTES:

1. Storm Sewers are to be constructed with open joints.
2. All storm distribution pipe within silva cell is to be 150mmØ PVC perforated at 3, 6, and 9o'clock.
3. All existing manholes that are no longer required shall have frame, cover, lid, and top barrel removed and the remains filled with crushed granular. Alternatively, the entire manhole can be removed and backfilled with crusher granular.
4. CCTV inspection to be completed to determine size and location of all service connections.
5. All catch basin leads to be min. 200mmØ to storm sewer and 150mmØ to silva cells.





900mmØ SILVA CELL OVERFLOW CATCH BASIN DETAIL



LAWN BASIN SECTION

LEGAL DESCRIPTION

SURVEY BENCHMARK

SURVEY BENCHMARK FROM MONUMENT 88H3866. ELEVATION = 105.369m

REV.	DATE	DESCRIPTION	BY
A	2018-03-15	ISSUED FOR TENDER	MD

"I Mandeep Deol, Professional Engineer, in good standing in and for the Province of British Columbia, hereby certify that the works as herein set out on the attached drawings have been designed to good engineering standards and in accordance with the latest edition of the City Of White Rock Design Criteria and the MMCD.

NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

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Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE STORM RETENTION DETAILS
RUSSELL AVENUE TO NORTH BLUFF ROAD
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

SCALE: 0 H 1:500 15 / 0 V 1:50 1.5

DESIGNED MH

DRAWN AE

REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06

CONSULTANT PROJ. NO. 2111-03898-00

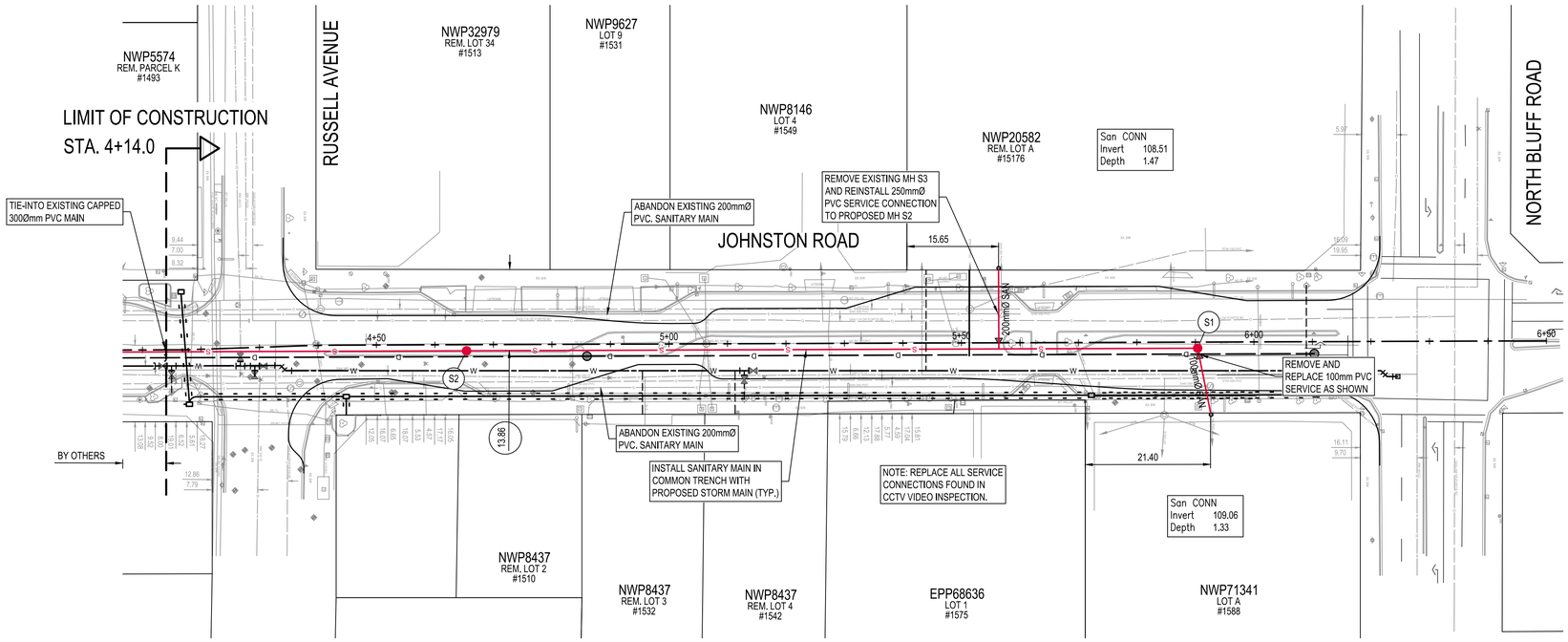
DWG. NO. 302 REV. A

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 13, 2018, 12:15 PM FILE: M:\Proj\2111-03898-00 (White Rock - Johnston Road)\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-00-303.dwg



SANITARY NOTES:

1.1. ALL WORKS TO BE DONE IN ACCORDANCE WITH MASTER MUNICIPAL CONSTRUCTION DOCUMENTS AND CITY OF WHITE ROCK SPECIFICATIONS.

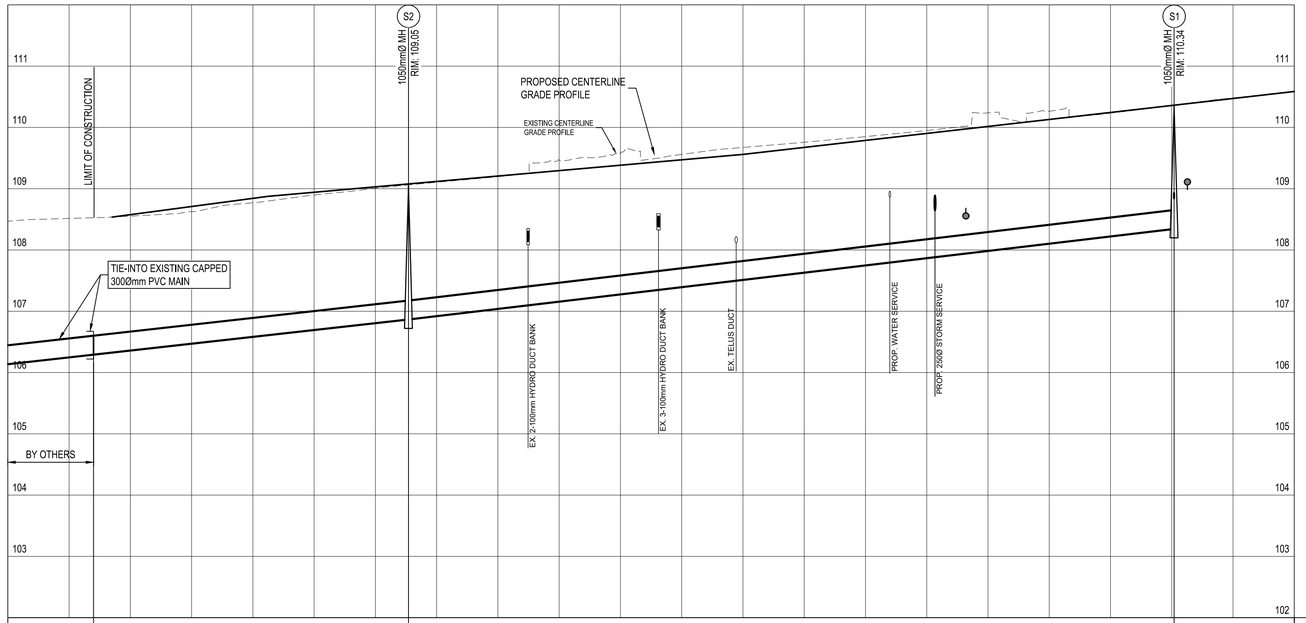
1.2. BEDDING AND BACKFILL SHALL BE AS PER MMCD G4 UNLESS NOTED OTHERWISE.

1.3. ALL SERVICE CONNECTIONS TO BE MINIMUM 100mmØ.

1.4. CCTV INSPECTION TO BE COMPLETED TO DETERMINE SIZE AND LOCATION OF ALL SERVICE CONNECTIONS.

FLOW CAPACITY TABLE		
LOCATION	EXISTING PIPES / FLOW	PROPOSED PIPE / FLOW (cms)
NORTH BLUFF TO RUSSELL AVE.	200Ø + 200Ø / 0.07 m^3/s	300Ø / 0.10 m^3/s
RUSSELL AVE TO 1456 JOHNSTON ROAD	200Ø + 200Ø / 0.07 m^3/s	300Ø / 0.10 m^3/s
1456 JOHNSTON ROAD TO THRIFT AVENUE	200Ø + 200Ø / 0.08 m^3/s	300Ø / 0.13 m^3/s

NOTE: AECOM REPORT DATED JANUARY 7, 2013 CONTAINS NO SANITARY PIPE UPSIZING RECOMMENDATIONS FOR THIS PART OF THE PROJECT



	106.30 S	51.39m OF 300mmØ PVC SDR35 SAN @ 1.12%				106.87 S / 106.87 N	124.97m OF 300mmØ PVC SDR35 SAN @ 1.18%										108.35 S / 108.84 E		SANITARY SEWER INVERTS, LENGTHS, AND GRADES
	108.58	108.84		109.03		109.21	109.38	109.56	109.79		110.02		110.24			110.47		110.59	ORIGINAL GROUND ELEVATIONS @ CENTERLINE
4+00	0+414	4+20	4+40		4+60	0+465.40	4+80	5+00	5+20	5+40		5+60		5+80	0+590.38	6+00		6+10	CHAINAGE

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
C	2018-03-15	ISSUED FOR TENDER	MD
B	2017-12-21	ISSUED FOR 90% DESIGN	MD
A	2017-10-13	ISSUED FOR PRELIMINARY DESIGN	MD

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NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

McElhanney Consulting Services Ltd.

Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

SANITARY SEWER
RUSSELL AVENUE TO NORTH BLUFF ROAD
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

SCALE: 0 H 1:500 15 / 0 V 1:50 1.5

DESIGNED MH

DRAWN AE

REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. 401 REV. C

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 13, 2018, 12:32 PM FILE: M:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-CO-400.dwg

BEARING AREA OF THRUST BLOCKS		
FITTING	PIPE DIA.	BEARING AREA
CAPS AND TEES	200mm	0.6m²
	300mm	1.4m²
90° BENDS	200mm	0.9m²
	300mm	2.0m²
45° BENDS	200mm	0.5m²
	300mm	1.1m²
22.5° BENDS	200mm	0.3m²
11.25° BENDS	300mm	0.5m²

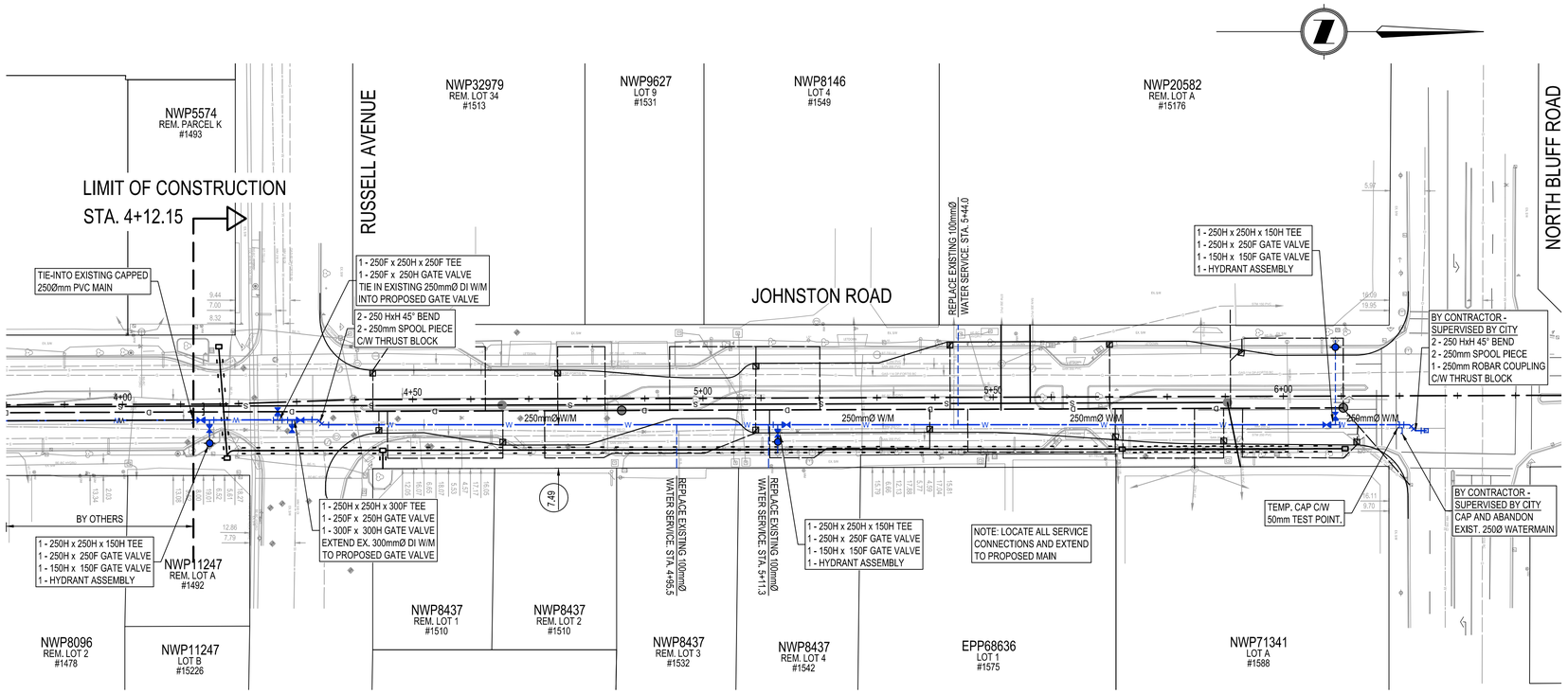
The table is based on soil bearing strength of 70kpa at 1380kpa working pressure.

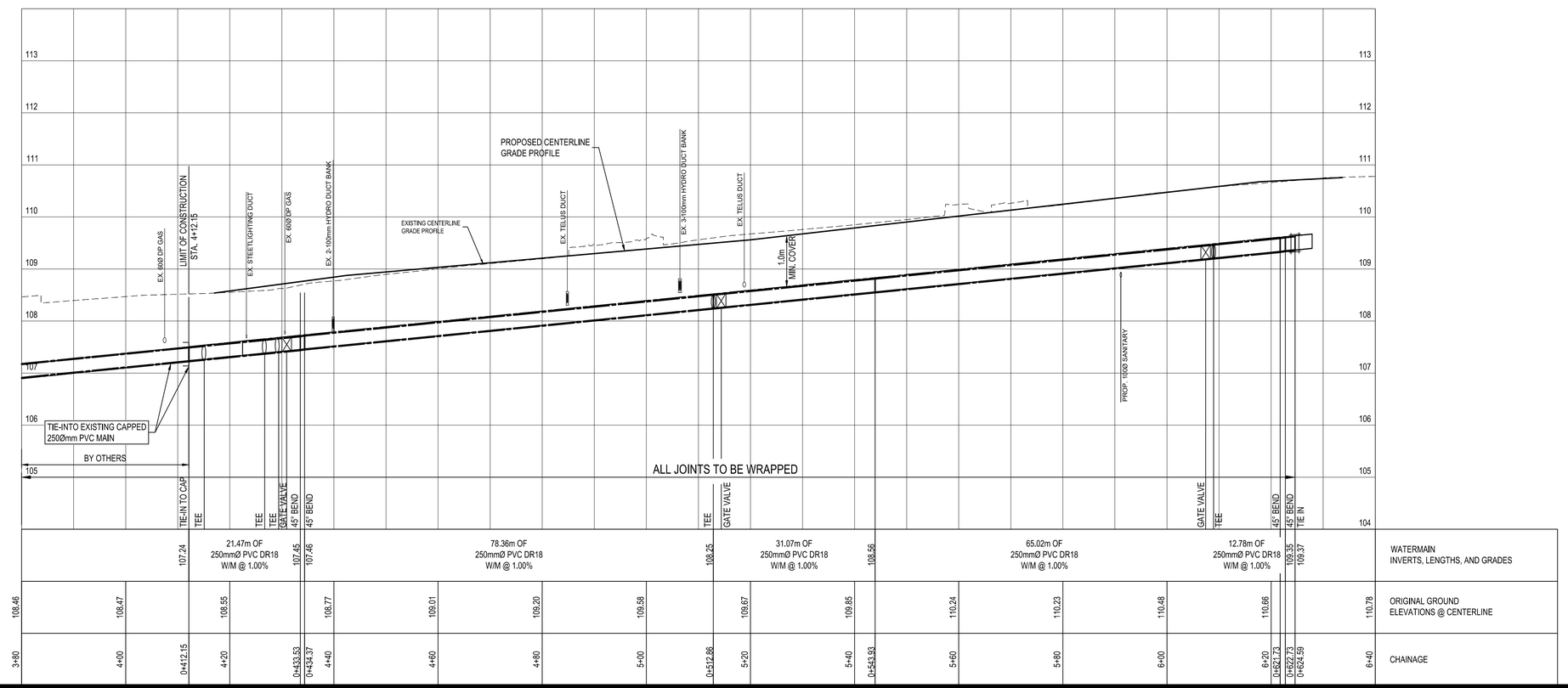
Notes:

1. Thrust blocks of 20mpa concrete to be placed against undisturbed ground.
2. Concrete shall not cover fittings, bells, or flanges.

General Notes:

1. Cathodic protection is to be provided on all watermain fittings.





LEGAL DESCRIPTION

SURVEY BENCHMARK
SURVEY BENCHMARK FROM MONUMENT 88H3866. ELEVATION = 105.369m

REV.	DATE	DESCRIPTION	BY
C	2018-03-15	ISSUED FOR TENDER	MD
B	2017-12-21	ISSUED FOR 90% DESIGN	MD
A	2017-10-13	ISSUED FOR PRELIMINARY DESIGN	MD

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NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

McElhanney Consulting Services Ltd.

Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

WATERMAIN
RUSSELL AVENUE TO NORTH BLUFF ROAD
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

SCALE:
0 H 1:500 15
0 V 1:50 1.5

DESIGNED MH

DRAWN AE

REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. 501

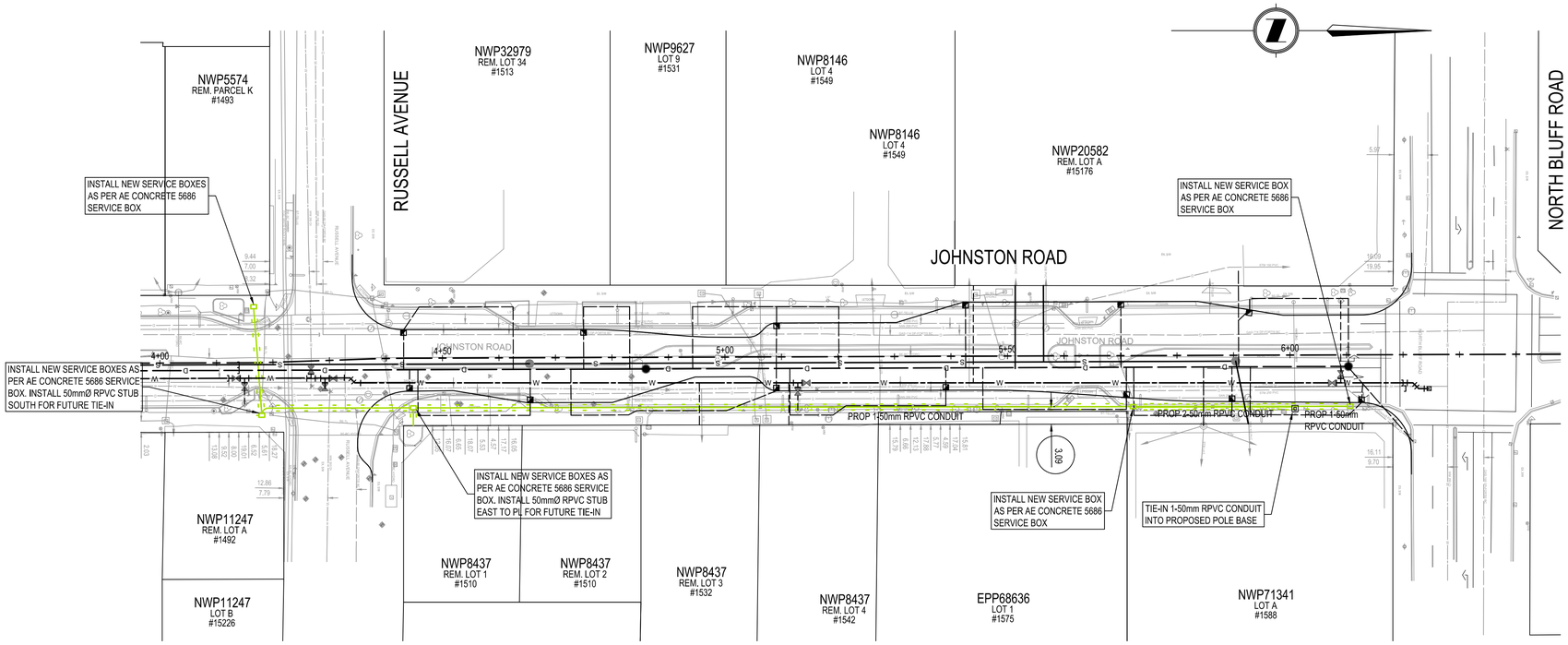
REV. C

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

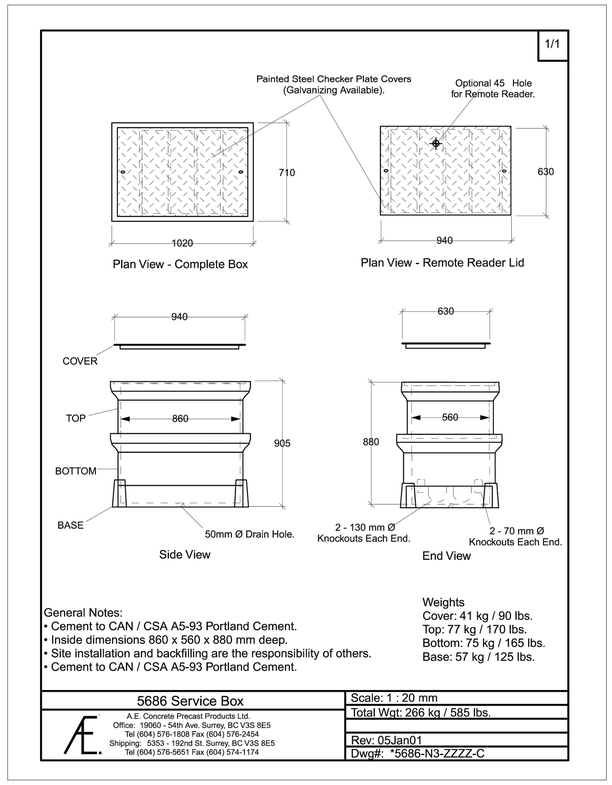
DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

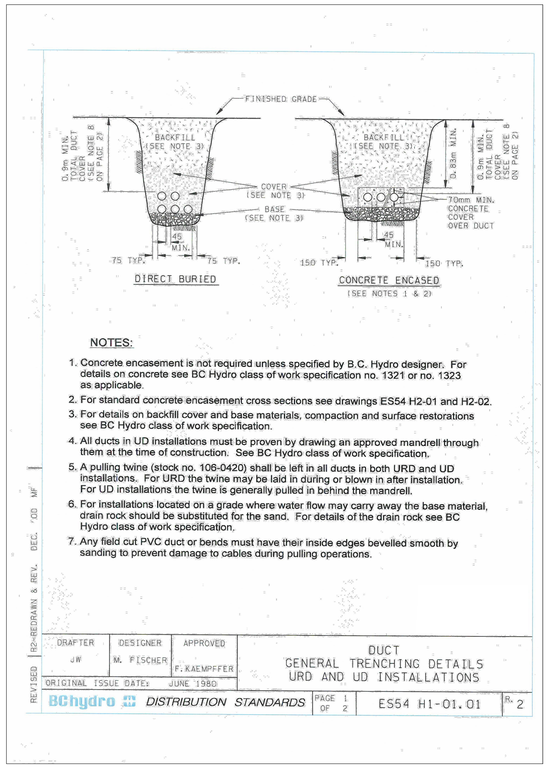
DATE: March 13, 2018, 12:16 PM FILE: M:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-C0-500.dwg



CITY COMMUNICATION NOTES:

1. Pull strings to be left in all conduit at the end of construction.





LEGAL DESCRIPTION

SURVEY BENCHMARK
SURVEY BENCHMARK FROM MONUMENT 88H3866. ELEVATION = 105.369m

REV.	DATE	DESCRIPTION	BY
A	2018-03-15	ISSUED FOR TENDER	MD

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NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT
McElhanney
McElhanney Consulting Services Ltd.
Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE COMMUNICATION DUCTS
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

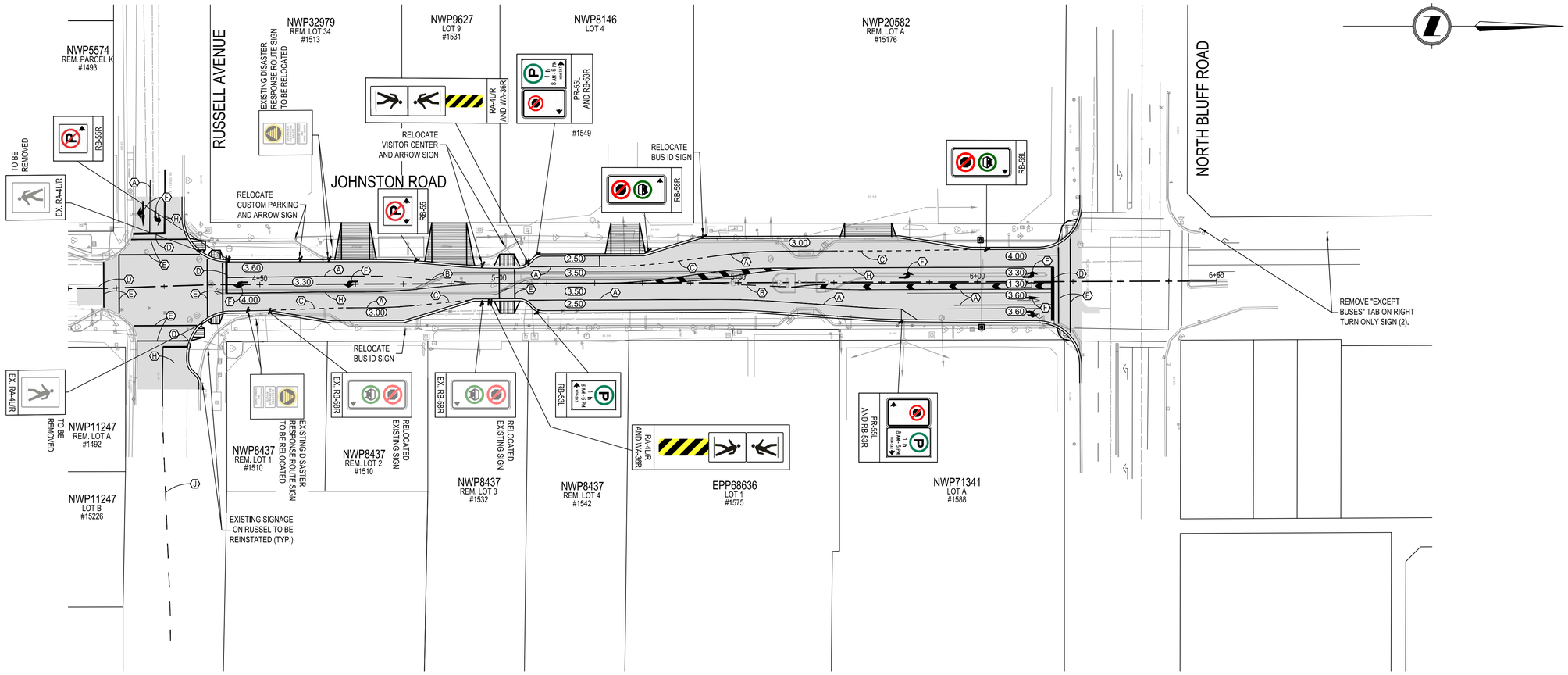
SCALE: 0 H 1:500 15 / 0 V 1:50 1.5
DESIGNED MH
DRAWN AE
REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO. 601
REV. A

WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 13, 2018, 12:18 PM, FILE: M:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.2 Engineering\10.3.1 Sheets\03898-C0-600.dwg



GENERAL NOTES:

1. ALL PAVEMENT MARKINGS AND SIGNAGE TO BE AS PER THE MANUAL UNIFORM TRAFFIC CONTROL DEVICES FOR CANADA. * DENOTES MoTI SIGN NUMBER.
2. ALL STOP BARS AND CROSSWALKS TO BE THERMOPLASTIC.
3. SIGN LOCATIONS MAY CHANGE UPON COMPLETION OF THE ELECTRICAL DWGS TO BE COMPLETED BY DMD & ASSOCIATES.
4. CONTRACTOR TO REINSTATE STREET NAME TABS AS REQUIRED
5. ALL SIGNAGE TO CARRY INCLUDE CITY OF WHITE ROCK MARK AND LOGO

KEY NOTES

- (A) 100mm WHITE SOLID LINE
- (B) 100mm WHITE BROKEN LANE LINE (3:3:3)
- (C) 100mm WHITE BROKEN LANE LINE (1:1)
- (D) 500mm THICK THERMOPLASTIC STOP BARS
- (E) 250mm THICK THERMOPLASTIC CROSSWALKS
- (F) ARROW MARKINGS AS PER MOTI MANUAL OF STANDARD TRAFFIC SIGNS & PAVEMENT MARKINGS FIGURE 7.2
- (G) ERADICATE EXISTING PAINT LINES AND PAVEMENT MARKINGS
- (H) 100mm SOLID YELLOW LINE
- (J) 100mm YELLOW BROKEN LINE (3:3:3)

LEGAL DESCRIPTION

SURVEY BENCHMARK
SURVEY BENCHMARK FROM MONUMENT 88H3866. ELEVATION = 105.369m

REV.	DATE	DESCRIPTION	BY
B	2018-03-15	ISSUED FOR TENDER	MD
A	2017-12-21	ISSUED FOR 90% DESIGN	MD

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NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

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13450-102 Ave.
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Tel 604 596 0391

CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE
SIGNAGE AND
PAVEMENT MARKINGS
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

SCALE: 0 1:500 15

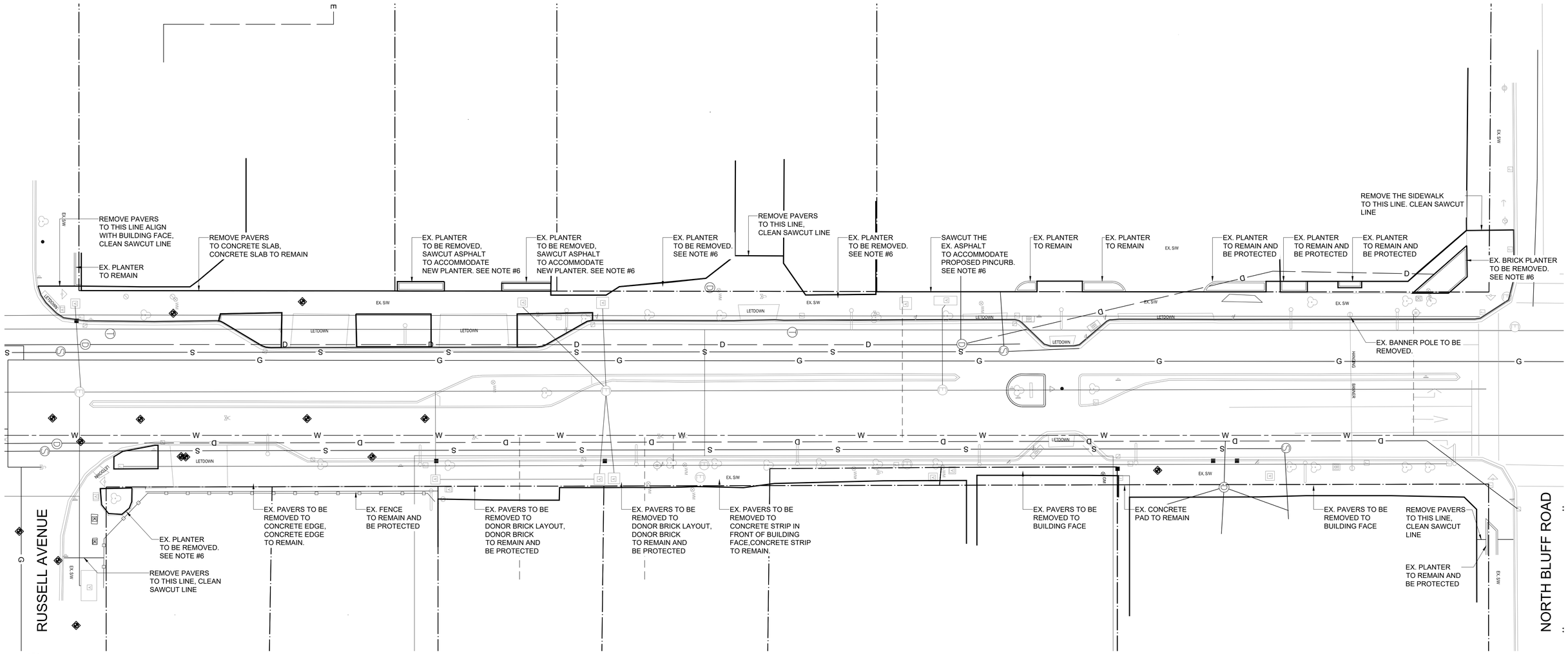
DESIGNED MH
DRAWN AE
REVIEWED MD

DATE (YYYY.MM.DD) 2017.10.06
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO. 701
REV. B

WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 13, 2018, 12:24 PM FILE: M:\Proj\2111-03898-00 White Rock - Johnston Road\10.0 DRAWINGS\10.3 Engineering\10.3.1 Sheets\03898-Dv700.dwg



1 L001 EXISTING REMOVAL AND DEMOLITION PLAN - NORTH BLUFF ROAD TO RUSSELL AVE.

SCALE 1:250

LEGEND FOR L002

- PROPERTY LINE
- EX. TREE TO BE REMOVED BY OTHERS
  TREE STUMP TO BE REMOVED BY CONTRACTOR
  APPROXIMATE QTY:26
- EX. LIGHT POLE TO BE REMOVED BY OTHERS
- EX. SIGN TO BE REMOVED BY OTHERS
- EX. PLANTER TO BE REMOVED BY OTHERS

NOTES

1. ALL TRAFFIC SIGNS TO BE REMOVED BY OTHERS.
2. CONTRACTOR TO PROTECT ALL EXISTING FEATURES THAT ARE TO REMAIN.
3. REFER TO CIVIL DRAWINGS FOR ALL ROADWAY REMOVALS.
4. CONTRACTOR TO REMOVE PAVERS AND CONCRETE TO PROPERTY LINE UNLESS OTHERWISE NOTED. OR AS DIRECTED BY CITY / CONSULTANT.
5. BUS SHELTERS TO BE REMOVED BY OTHERS.
6. CONTRACTOR SHALL CONFIRM WITH CITY OF WHITE ROCK THAT PERMISSION HAS BEEN GRANTED FROM ALL PROPERTY OWNERS PRIOR TO ANY CONSTRUCTION ACTIVITIES INSIDE PRIVATE PROPERTIES..
7. INSPECT THE SITE WITH THE CITY AND CONSULTANT TO VERIFY EXTENT AND LOCATION OF ITEMS DESIGNATED FOR REMOVAL, DISPOSAL, ALTERNATIVE DISPOSAL, RECYCLING, SALVAGE AND ITEMS TO REMAIN.
8. LOCATE AND PROTECT UTILITIES. PRESERVE ACTIVE UTILITIES TRAVERSING SITE IN OPERATING CONDITION.
9. NOTIFY AND OBTAIN APPROVAL OF UTILITY COMPANIES BEFORE STARTING DEMOLITION.
10. PREVENT MOVEMENT, SETTLEMENT, OR DAMAGE TO ADJACENT STRUCTURES, UTILITIES, AND LANDSCAPING FEATURES TO REMAIN IN PLACE. PROVIDE BRACING AND SHORING AS REQUIRED.
11. KEEP NOISE, DUST, AND INCONVENIENCE TO OCCUPANTS TO A MINIMUM.
12. PROTECT BUILDING SYSTEMS, SERVICES AND EQUIPMENT.
13. PROVIDE TEMPORARY DUST SCREENS, COVERS, RAILINGS, SUPPORTS AND OTHER PROTECTION AS REQUIRED.
14. PROTECT ALL SURVEY POINTS AND BENCH MARKS
15. PREVENT ANY DAMAGE TO PRIVATE PROPERTY. CONTRACTOR TO MAKE GOOD OF ANY DAMAGES.

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

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NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

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Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

EXISTING REMOVAL AND DEMOLITION PLAN

SEAL

SCALE: 0 1:250 6

DESIGNED SS

DRAWN LJ/RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L001

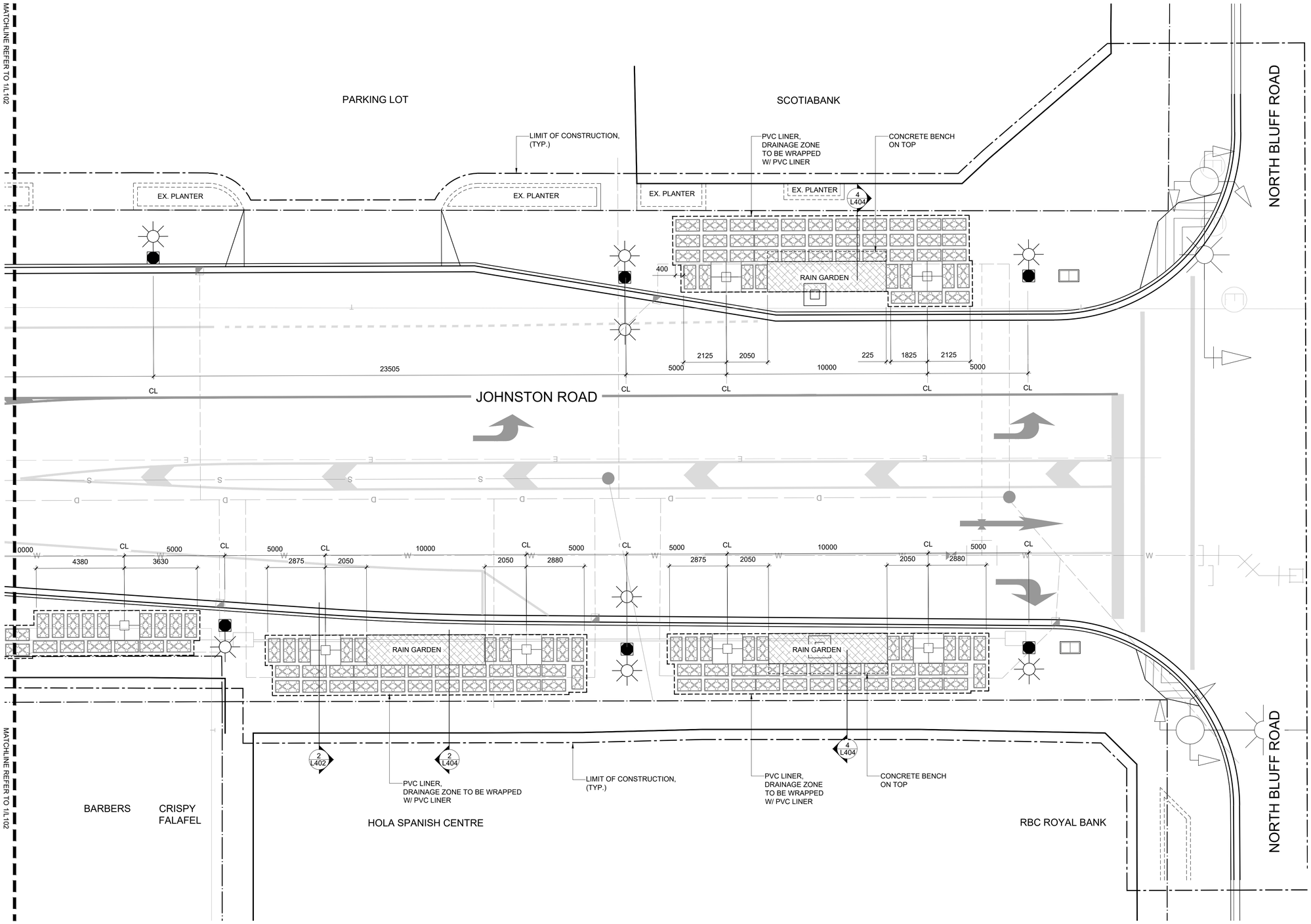
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 7, 2018, 11:04 AM FILE: G:\Projects\2511\00524.00 Johnston Road Gateway Redesign LA Services\10.0\Drawings\10.3 Sheet Files\00524.L000 Series_Phase1.dwg



1 L101 STRUCTURAL SOIL CELL LAYOUT PLAN

SCALE: 1:100

LEGEND FOR L101, L102 & L103

PROPERTY LINE

LIMIT OF CONSTRUCTION

LAMP POST, REFER TO ELECTRICAL DWGS.

RAIN GARDEN, SEE DETAILS 2 L401 3 L401 4 L401

PLANTING BED, SEE DETAIL 3 L403

STRUCTURAL SOIL CELL,(SILVA CELL) AVAILABLE FROM DEEP ROOT CANADA CORP. (OR APPROVED EQUAL.) MODEL NO: SILVA CELL 2-2X H: 784mm W: 600mm L: 1200mm SEE DETAIL SHEET L401 AND L402

SILVA CELL II

1. CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE MMCD PLATINUM EDITION AND CITY OF WHITE ROCK SPECIFICATIONS AND STANDARD DETAILS, UNLESS OTHERWISE NOTED.
2. CONTRACTOR IS TO VERIFY THE LOCATION AND ELEVATION OF ALL PIPES, OR OTHER UTILITY CROSSINGS PRIOR TO CONSTRUCTION AND SHALL NOTIFY CONSULTANT / ENGINEER OF ANY CONFLICTS.
3. REFER TO CIVIL DRAWINGS FOR ALL STORM WATER PIPING AND ALL OTHER UTILITIES.
4. MIN. 25mm / MAX. 150mm SPACING BETWEEN STRUCTURAL SOIL CELL UNITS. FIELD FITTING MAYBE NECESSARY.
5. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
6. DO NOT SCALE FROM THE DRAWINGS.
7. REFER TO IRRIGATION DRAWINGS FOR IRRIGATION PIPE INSIDE SOIL CELL.
8. PRIOR TO INSTALLATION OF SOIL CELLS, CONTRACTOR CONSTRUCT A MOCK UP OF THE COMPLETE INSTALLATION AT THE SITE. REFER TO CONTRACT DOCUMENTS FOR SOIL CELL MOCK UP CRITERIA.
9. CONTRACTOR SHALL CONFIRM WITH CITY OF WHITE ROCK THAT PERMISSION HAS BEEN GRANTED FROM ALL PROPERTY OWNERS PRIOR TO ANY CONSTRUCTION ACTIVITIES INSIDE PRIVATE PROPERTIES.

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

"I Mandeep Deol, Professional Engineer, in good standing in and for the Province of British Columbia, hereby certify that the works as herein set out on the attached drawings have been designed to good engineering standards and in accordance with the latest edition of the City Of White Rock Design Criteria and the MMCD.

NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

McElhanney Consulting Services Ltd.

Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT

City of White Rock

15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

Johnston Road Gateway Redesign

STRUCTURAL SOIL CELL LAYOUT

SEAL

SCALE: 0 1:100 3

DESIGNED SS

DRAWN LJ/RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L101

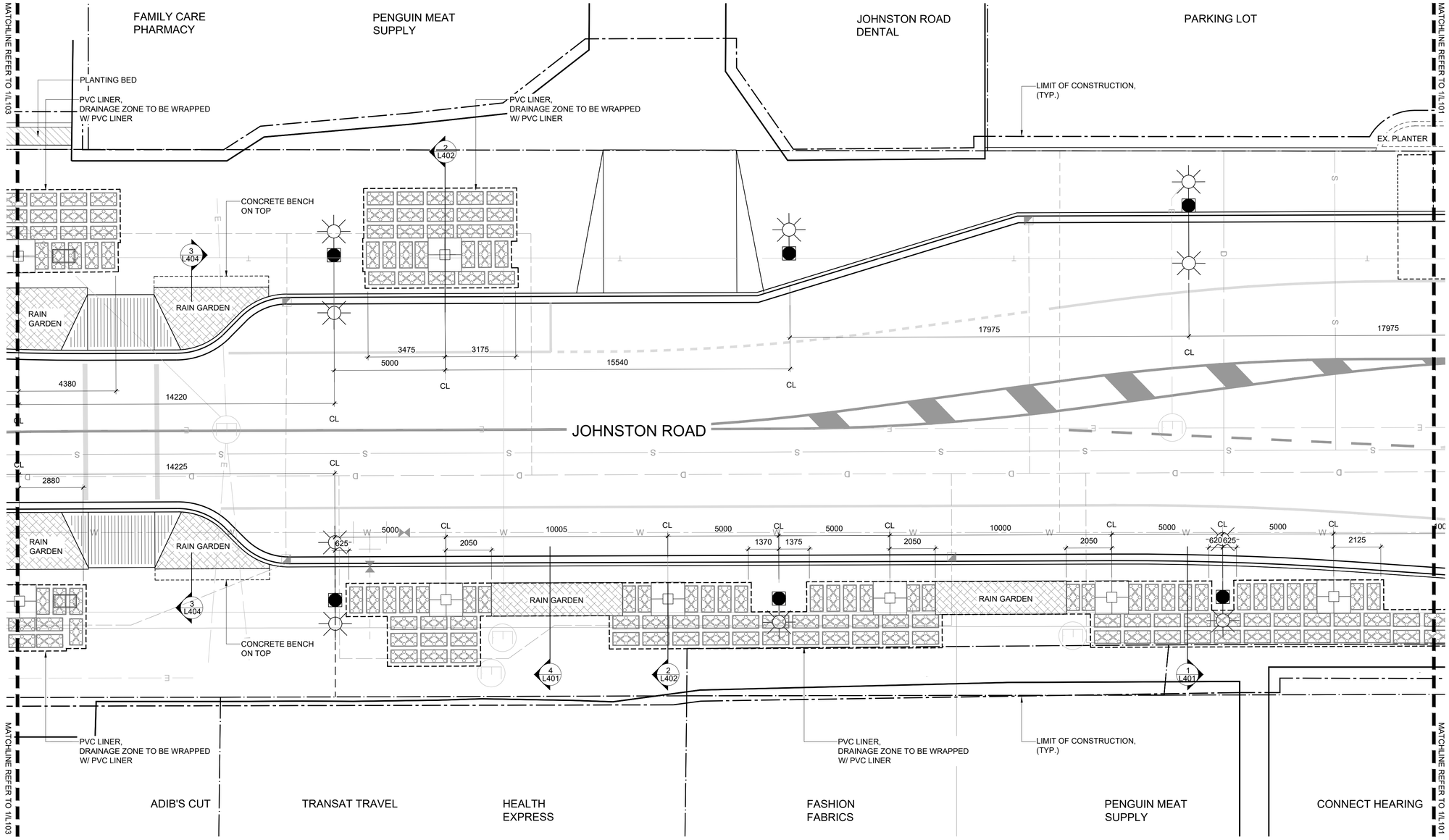
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 7, 2018, 2:20 PM FILE: G:\Projects\2511\00924.00_Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00924 L100 Series_Phase1.dwg



1 L102 STRUCTURAL SOIL CELL LAYOUT PLAN

SCALE: 1:100

LEGEND FOR L101, L102 & L103

- PROPERTY LINE
- LIMIT OF CONSTRUCTION
- LAMP POST, REFER TO ELECTRICAL DWGS.
- RAIN GARDEN, SEE DETAILS 2/L401 3/L401 4/L401
- PLANTING BED, SEE DETAIL 3/L403
- STRUCTURAL SOIL CELL,(SILVA CELL) AVAILABLE FROM DEEP ROOT CANADA CORP. (OR APPROVED EQUAL.) MODEL NO: SILVA CELL 2-2X H: 784mm W: 600mm L: 1200mm SEE DETAIL SHEET L401 AND L402

SILVA CELL II

1. CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE MMCD PLATINUM EDITION AND CITY OF WHITE ROCK SPECIFICATIONS AND STANDARD DETAILS, UNLESS OTHERWISE NOTED.
2. CONTRACTOR IS TO VERIFY THE LOCATION AND ELEVATION OF ALL PIPES, OR OTHER UTILITY CROSSINGS PRIOR TO CONSTRUCTION AND SHALL NOTIFY CONSULTANT / ENGINEER OF ANY CONFLICTS.
3. REFER TO CIVIL DRAWINGS FOR ALL STORM WATER PIPING AND ALL OTHER UTILITIES.
4. MIN. 25mm / MAX. 150mm SPACING BETWEEN STRUCTURAL SOIL CELL UNITS. FIELD FITTING MAYBE NECESSARY.
5. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
6. DO NOT SCALE FROM THE DRAWINGS.
7. REFER TO IRRIGATION DRAWINGS FOR IRRIGATION PIPE INSIDE SOIL CELL.
8. PRIOR TO INSTALLATION OF SOIL CELLS, CONTRACTOR CONSTRUCT A MOCK UP OF THE COMPLETE INSTALLATION AT THE SITE. REFER TO CONTRACT DOCUMENTS FOR SOIL CELL MOCK UP CRITERIA.
9. CONTRACTOR SHALL CONFIRM WITH CITY OF WHITE ROCK THAT PERMISSION HAS BEEN GRANTED FROM ALL PROPERTY OWNERS PRIOR TO ANY CONSTRUCTION ACTIVITIES INSIDE PRIVATE PROPERTIES.

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

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NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

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Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

Johnston Road Gateway Redesign
STRUCTURAL SOIL CELL LAYOUT

SEAL

SCALE: 0 1:100 3

DESIGNED SS

DRAWN LJ/RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L102

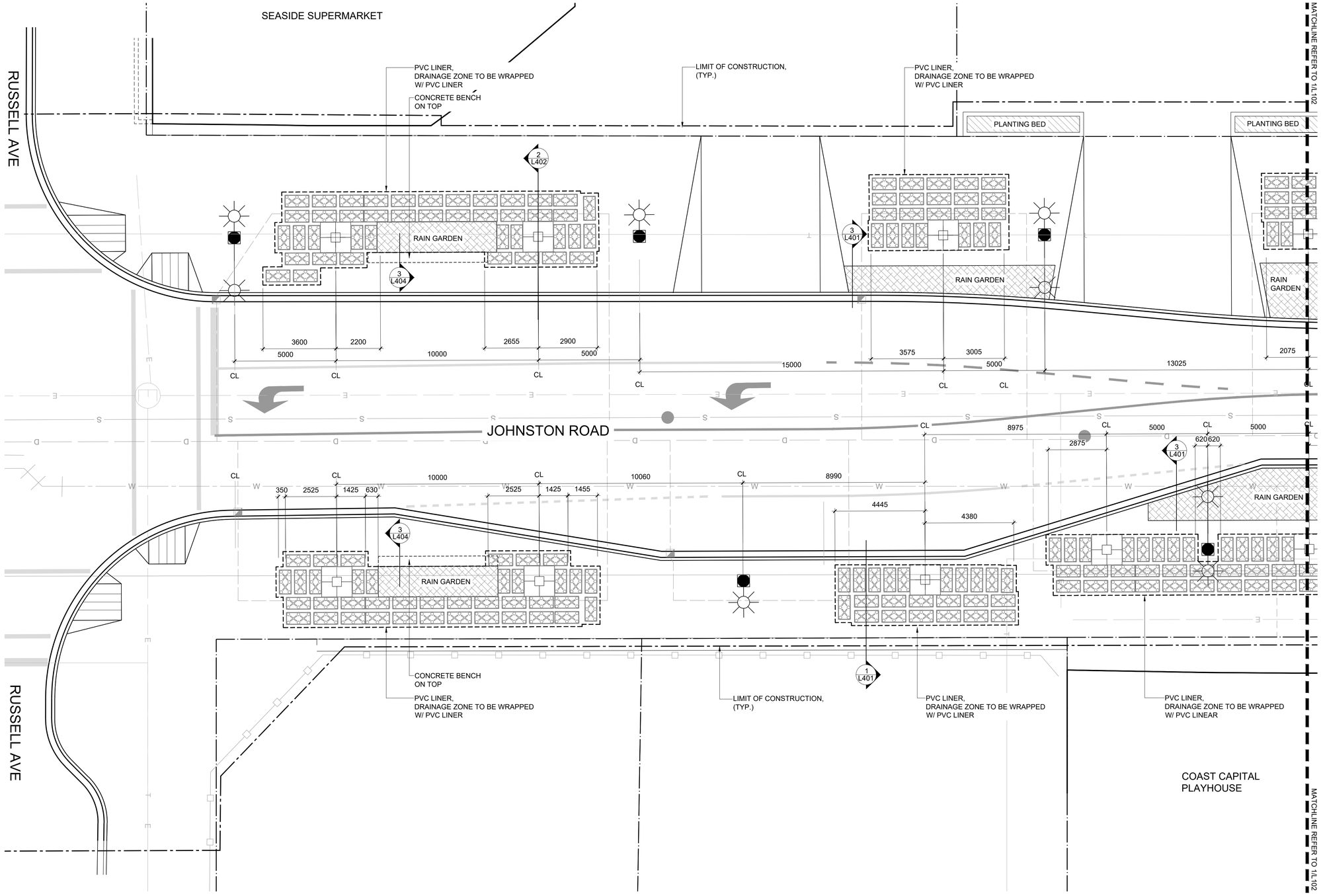
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 7, 2018, 2:21 PM FILE: G:\Projects\2511 00\024 00 Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00\024 L100 Series_Phase1.dwg



1 L103 STRUCTURAL SOIL CELL LAYOUT PLAN

SCALE: 1:100

LEGEND FOR L101, L102 & L103

- PROPERTY LINE
- LIMIT OF CONSTRUCTION
- LAMP POST, REFER TO ELECTRICAL DWGS.
- RAIN GARDEN, SEE DETAILS 2 L401, 3 L401, 4 L401
- PLANTING BED, SEE DETAIL 3 L403
- STRUCTURAL SOIL CELL,(SILVA CELL) AVAILABLE FROM DEEP ROOT CANADA CORP. (OR APPROVED EQUAL.) MODEL NO: SILVA CELL 2-2X H: 784mm W: 600mm L: 1200mm SEE DETAIL SHEET L401 AND L402

SILVA CELL II

1. CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE MMCD PLATINUM EDITION AND CITY OF WHITE ROCK SPECIFICATIONS AND STANDARD DETAILS, UNLESS OTHERWISE NOTED.
2. CONTRACTOR IS TO VERIFY THE LOCATION AND ELEVATION OF ALL PIPES, OR OTHER UTILITY CROSSINGS PRIOR TO CONSTRUCTION AND SHALL NOTIFY CONSULTANT / ENGINEER OF ANY CONFLICTS.
3. REFER TO CIVIL DRAWINGS FOR ALL STORM WATER PIPING AND ALL OTHER UTILITIES.
4. MIN. 25mm / MAX. 150mm SPACING BETWEEN STRUCTURAL SOIL CELL UNITS. FIELD FITTING MAYBE NECESSARY.
5. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
6. DO NOT SCALE FROM THE DRAWINGS.
7. REFER TO IRRIGATION DRAWINGS FOR IRRIGATION PIPE INSIDE SOIL CELL.
8. PRIOR TO INSTALLATION OF SOIL CELLS, CONTRACTOR CONSTRUCT A MOCK UP OF THE COMPLETE INSTALLATION AT THE SITE. REFER TO CONTRACT DOCUMENTS FOR SOIL CELL MOCK UP CRITERIA.
9. CONTRACTOR SHALL CONFIRM WITH CITY OF WHITE ROCK THAT PERMISSION HAS BEEN GRANTED FROM ALL PROPERTY OWNERS PRIOR TO ANY CONSTRUCTION ACTIVITIES INSIDE PRIVATE PROPERTIES.

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

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NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

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Tel 604 596 0391

CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE
Johnston Road Gateway Redesign
STRUCTURAL SOIL CELL LAYOUT

SEAL

SCALE: 0 1:100 3

DESIGNED SS

DRAWN LJ/RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L103

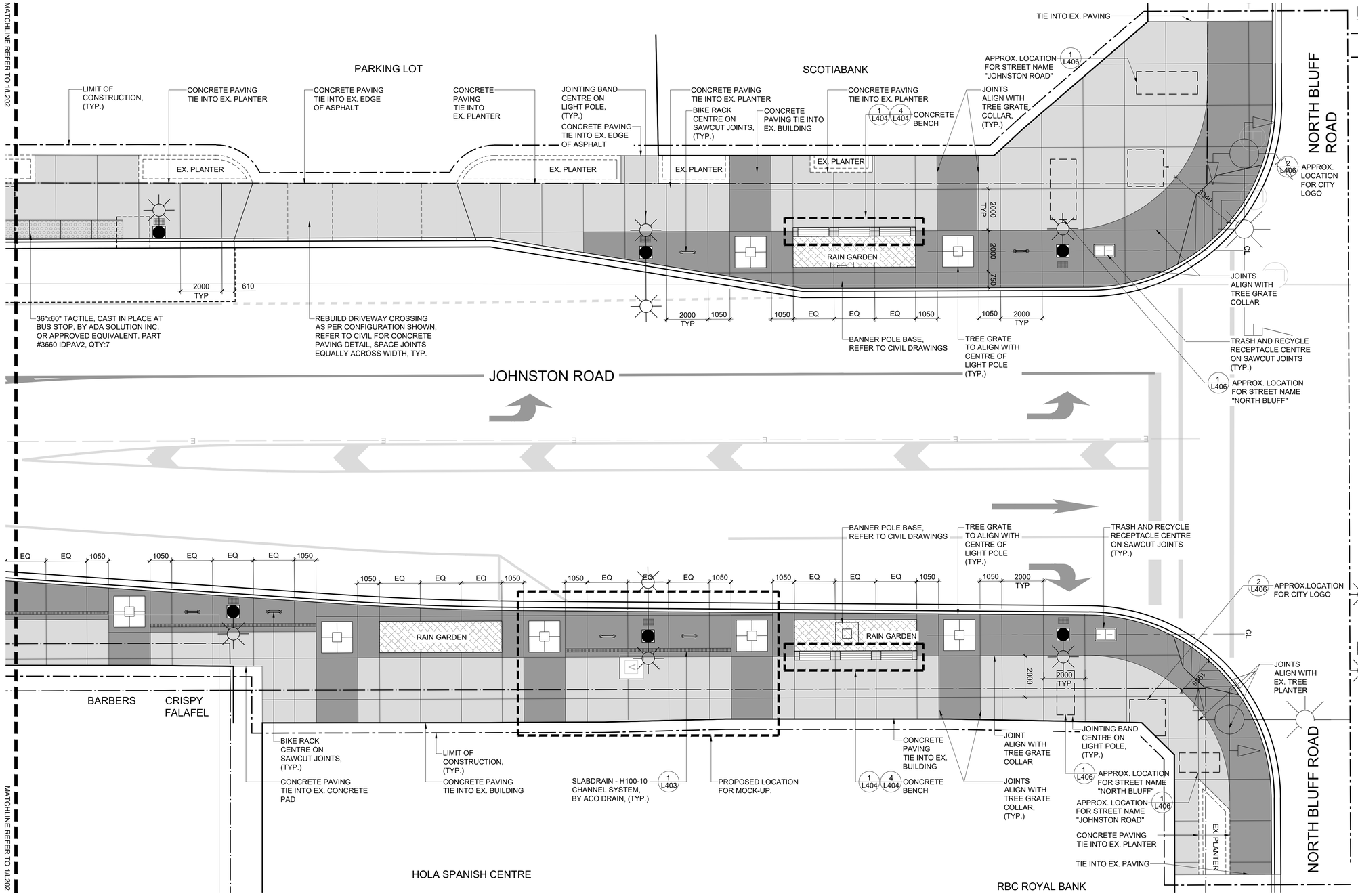
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 7, 2018, 2:24 PM FILE: G:\Projects\2511\00924.00 Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00924 L100 Series_Phase1.dwg



1 L201 PAVING AND FURNITURE LAYOUT PLAN

SCALE: 1:100

LEGEND FOR L201, L202 & L203

- PROPERTY LINE
- LIMIT OF CONSTRUCTION
- POURED IN PLACE CONCRETE COLOUR: NATURAL FINISH: BROOM FINISH C/W SAWCUT JOINTS (27MPa, 100mm THICK AT SIDEWALK)
- POURED IN PLACE CONCRETE COLOUR: BLACK ONYX (NR-5790R 2 BAGS) FINISH: BROOM FINISH C/W SAWCUT JOINTS (27MPa, 100mm THICK AT SIDEWALK)
- RAIN GARDEN, SEE DETAILS 2 L401 / 3 L401 / 4 L401
- PLANTING BED, SEE DETAIL 3 L403
- EQUIPARC EP 1901 BENCH QTY: 16 SEE DETAIL 3 L405
- EQUIPARC EP1791-WC-P-2B (WOOD) BENCH SHIM TO LEVEL QTY: 4 SEE DETAIL 2 L405
- EQUIPARC EP 5980 BIKE RACK SHIM TO LEVEL QTY: 18 SEE DETAIL 1 L405
- SLABDRAIN - H100-10 CHANNEL SYSTEM, BY ACO DRAIN, (TYP.) (OR APPROVED EQUAL.) SEE DETAIL 1 L403 3 L406
- TREE GRATE, QTY: 22 SEE SHEET L402
- TRASH AND RECYCLE RECEPTACLE, WISHBONE MCTRS-39. COLOUR: BLACK, SUPER TEXTURE INSTALL ONLY, TO BE SUPPLIED BY CITY QTY: 6
- IRRIGATION METER BOX AND COVER REFER TO IRRIGATION DWGS.
- LAMP POST, REFER TO ELECTRICAL DWGS.

GENERAL NOTES:

1. CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE MMCD PLATINUM EDITION AND CITY OF WHITE ROCK SPECIFICATIONS AND STANDARD DETAILS, UNLESS OTHERWISE NOTED.
2. CONTRACTOR IS TO VERIFY THE LOCATION AND ELEVATION OF ALL PIPES, OR OTHER UTILITY CROSSINGS PRIOR TO CONSTRUCTION AND SHALL NOTIFY CITY / CONSULTANT OF AND CONFLICTS.
3. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
4. DO NOT SCALE FROM THE DRAWINGS.
5. REFER TO CIVIL DRAWINGS FOR ALL GRADING INFORMATION. UTILITY RIM/BOX ADJUSTMENTS MAY BE REQUIRED TO ACCOMMODATE THE PROPOSED GRADING ON SIDEWALK. CONTRACTOR TO IDENTIFY ANY REQUIRED ADJUSTMENTS TO UTILITY RIM/BOX AND COORDINATE WITH RESPECTIVE UTILITY COMPANY.
6. FIBROUS CONCRETE MIX WITH SYNTHETIC FIBER FOR ALL CONCRETE SIDEWALKS.
7. THICKER SLAB MAY BE REQUIRED FOR FURNISHING, SEE DRAWING SHEET L405.
8. CONTRACTOR TO PROVIDE SAMPLES OF CONCRETE COLOUR AND FINISH FOR REVIEW AND APPROVAL PRIOR TO APPLICATION ON SITE.
9. 15mm MASTIC BOARD TO BE USED TO SEPARATE CURB FROM ALL EXISTING STRUCTURES, BUILDINGS AND ADJACENT CONCRETE WORKS.
10. CONTRACTOR TO PREVENT DAMAGE TO EXISTING STRUCTURES, BUILDINGS AND CONCRETE. CONTRACTOR IS RESPONSIBLE TO MAKE GOOD ANY REPAIRS OF DAMAGES.
11. CONTRACTOR TO SUBMIT SHOP DRAWING TO THE CITY / CONSULTANT FOR ALL FURNITURE FOR REVIEW AND APPROVAL.
12. CITY / CONSULTANT TO REVIEW THE LOCATION OF FURNITURE ON SITE PRIOR TO INSTALLATION.
13. CONTRACTOR SHALL CONFIRM WITH CITY OF WHITE ROCK THAT PERMISSION HAS BEEN GRANTED FROM ALL PROPERTY OWNERS PRIOR TO ANY CONSTRUCTION ACTIVITIES INSIDE PRIVATE PROPERTIES.

MOCK-UP NOTES:

1. CONSTRUCT IN LOCATIONS ACCEPTABLE TO CONSULTANT OR AS SPECIFIED ON DRAWINGS
2. PREPARE MOCK-UPS FOR CONSULTANT'S REVIEW WITH REASONABLE PROMPTNESS AND IN ORDERLY SEQUENCE, TO NOT CAUSE DELAYS IN WORK.
3. FAILURE TO PREPARE MOCK-UPS IN AMPLE TIME IS NOT CONSIDERED SUFFICIENT REASON FOR EXTENSION OF CONTRACT TIME AND NO CLAIM FOR EXTENSION BECAUSE OF SUCH DEFAULT WILL BE ALLOWED.
4. REJECTED MOCK-UPS TO BE REMOVED FROM SITE AT NO COST TO OWNER. ACCEPTABLE MOCK-UPS TO REMAIN AS PART OF WORK AND BE QUALITY CONTROL MECHANISM FOR WHICH ALL FUTURE WORK IS JUDGED.
5. DO NOT CONTINUE WITH WORK OF CONCRETE PAVING UNTIL CITY/CONSULTANT HAS REVIEWED AND APPROVED MOCK-UP.

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

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CONSULTANT

McElhanney

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Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

Johnston Road Gateway Redesign

PAVING AND FURNITURE LAYOUT PLAN

SEAL

SCALE: 0 1:100 3

DESIGNED SS

DRAWN LJ/RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

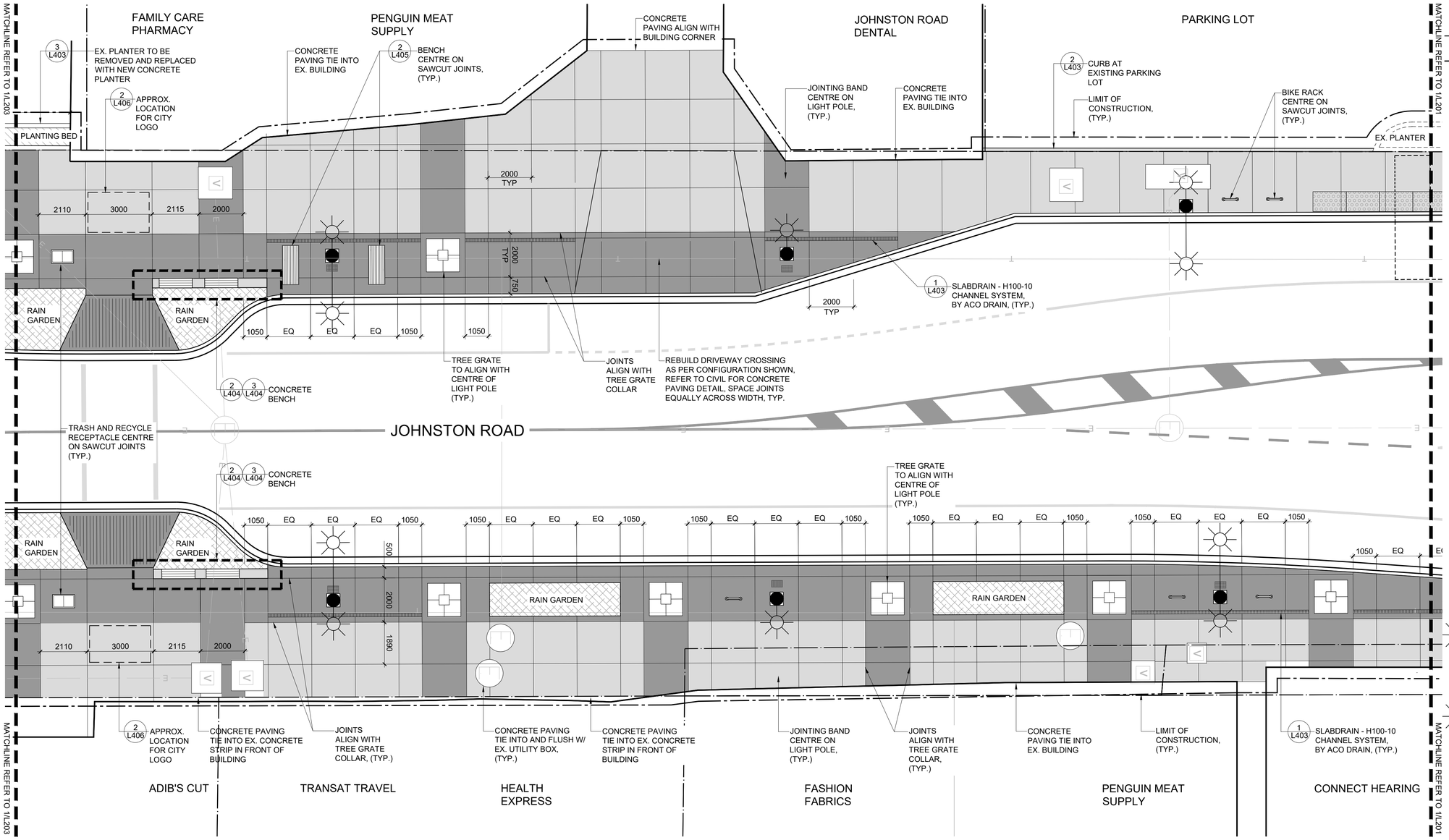
DWG. NO. L201 REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 7, 2018, 3:07 PM FILE: G:\Projects\2511 00\024.00 Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00\024.L200 Series_Phase1.dwg



1 L202 PAVING AND FURNITURE LAYOUT PLAN

SCALE: 1:100

LEGEND FOR L201, L202 & L203

- PROPERTY LINE
- LIMIT OF CONSTRUCTION
- POURED IN PLACE CONCRETE COLOUR: NATURAL FINISH: BROOM FINISH C/W SAWCUT JOINTS (27MPa, 100mm THICK AT SIDEWALK)
- POURED IN PLACE CONCRETE COLOUR: BLACK ONYX (NR-5790R 2 BAGS) FINISH: BROOM FINISH C/W SAWCUT JOINTS (27MPa, 100mm THICK AT SIDEWALK)
- RAIN GARDEN, SEE DETAILS 2 L401 / 3 L401 / 4 L401
- PLANTING BED, SEE DETAIL 3 L403
- EQUIPARC EP 1901 BENCH QTY: 16 SEE DETAIL 3 L405
- EQUIPARC EP1791-WC-P-2B (WOOD) BENCH SHIM TO LEVEL QTY: 4 SEE DETAIL 2 L405
- EQUIPARC EP 5980 BIKE RACK SHIM TO LEVEL QTY: 18 SEE DETAIL 1 L405
- SLABDRAIN - H100-10 CHANNEL SYSTEM, BY ACO DRAIN, (TYP.) (OR APPROVED EQUAL.) SEE DETAIL 1 L403 3 L406
- TREE GRATE, QTY: 22 SEE SHEET L402
- TRASH AND RECYCLE RECEPTACLE, WISHBONE MCTRS-39. COLOUR: BLACK, SUPER TEXTURE INSTALL ONLY, TO BE SUPPLIED BY CITY QTY: 6
- IRRIGATION METER BOX AND COVER REFER TO IRRIGATION DWGS.
- LAMP POST, REFER TO ELECTRICAL DWGS.

GENERAL NOTES:

1. CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE MMCD PLATINUM EDITION AND CITY OF WHITE ROCK SPECIFICATIONS AND STANDARD DETAILS, UNLESS OTHERWISE NOTED.
2. CONTRACTOR IS TO VERIFY THE LOCATION AND ELEVATION OF ALL PIPES, OR OTHER UTILITY CROSSINGS PRIOR TO CONSTRUCTION AND SHALL NOTIFY CITY / CONSULTANT OF AND CONFLICTS.
3. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
4. DO NOT SCALE FROM THE DRAWINGS.
5. REFER TO CIVIL DRAWINGS FOR ALL GRADING INFORMATION. UTILITY RIM/BOX ADJUSTMENTS MAY BE REQUIRED TO ACCOMMODATE THE PROPOSED GRADING ON SIDEWALK. CONTRACTOR TO IDENTIFY ANY REQUIRED ADJUSTMENTS TO UTILITY RIM/BOX AND COORDINATE WITH RESPECTIVE UTILITY COMPANY.
6. FIBROUS CONCRETE MIX WITH SYNTHETIC FIBER FOR ALL CONCRETE SIDEWALKS.
7. THICKER SLAB MAY BE REQUIRED FOR FURNISHING, SEE DRAWING SHEET L405.
8. CONTRACTOR TO PROVIDE SAMPLES OF CONCRETE COLOUR AND FINISH FOR REVIEW AND APPROVAL PRIOR TO APPLICATION ON SITE.
9. 15mm MASTIC BOARD TO BE USED TO SEPARATE CURB FROM ALL EXISTING STRUCTURES, BUILDINGS AND ADJACENT CONCRETE WORKS.
10. CONTRACTOR TO PREVENT DAMAGE TO EXISTING STRUCTURES, BUILDINGS AND CONCRETE. CONTRACTOR IS RESPONSIBLE TO MAKE GOOD ANY REPAIRS OF DAMAGES.
11. CONTRACTOR TO SUBMIT SHOP DRAWING TO THE CITY / CONSULTANT FOR ALL FURNITURE FOR REVIEW AND APPROVAL.
12. CITY / CONSULTANT TO REVIEW THE LOCATION OF FURNITURE ON SITE PRIOR TO INSTALLATION.
13. CONTRACTOR SHALL CONFIRM WITH CITY OF WHITE ROCK THAT PERMISSION HAS BEEN GRANTED FROM ALL PROPERTY OWNERS PRIOR TO ANY CONSTRUCTION ACTIVITIES INSIDE PRIVATE PROPERTIES.

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

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ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

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Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

Johnston Road Gateway Redesign

PAVING AND FURNITURE LAYOUT PLAN

SEAL

SCALE: 0 1:100 3

DESIGNED SS

DRAWN LJ/RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L202

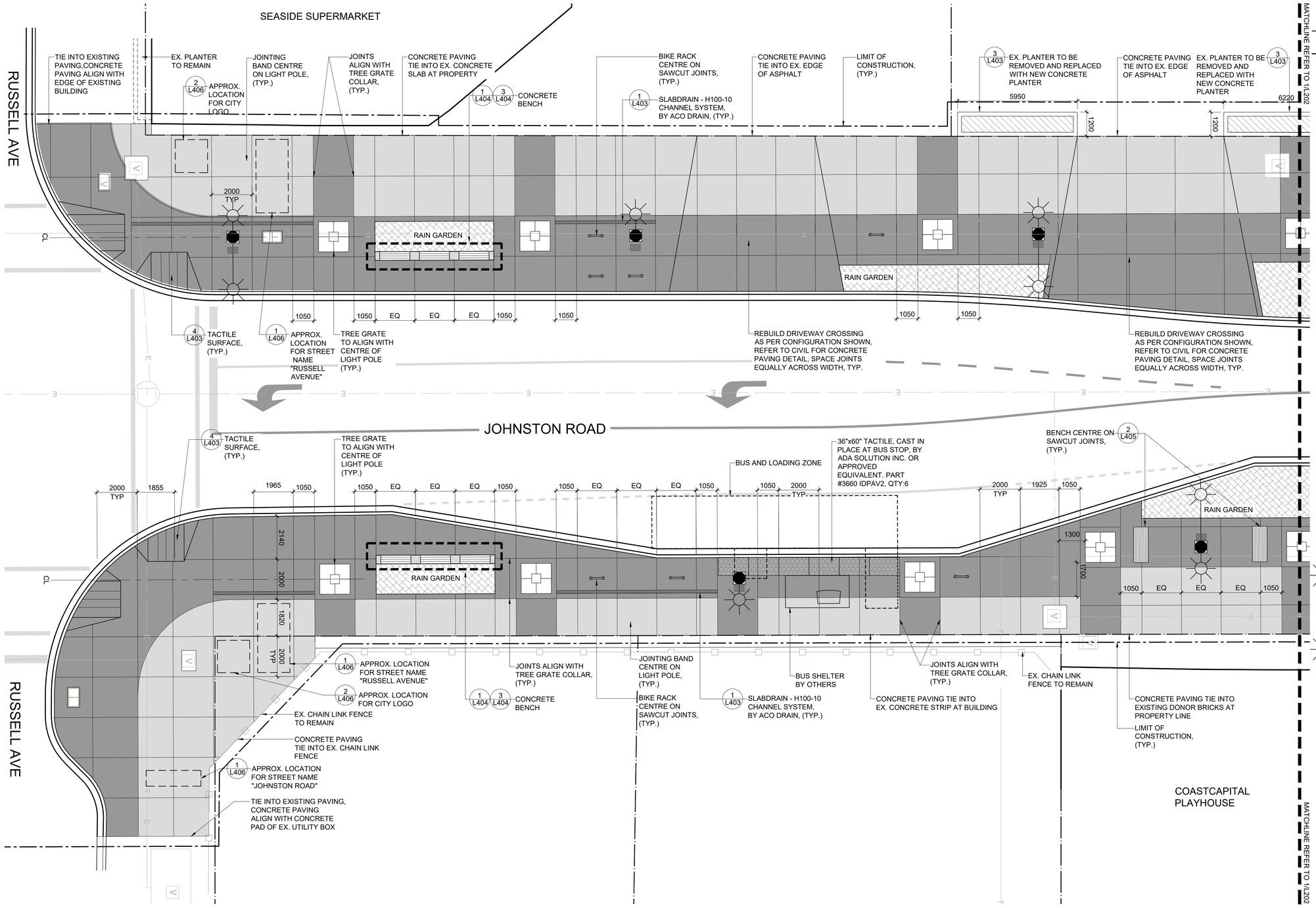
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 7, 2018, 3:16 PM FILE: G:\Projects\2511\00924\00 Johnston Road Gateway Redesign\LA Services\10.0 Drawings\10.3 Sheet Files\00924 L200 Series_Phase1.dwg



1 L203 PAVING AND FURNITURE LAYOUT PLAN

SCALE: 1:100

LEGEND FOR L201, L202 & L203

- PROPERTY LINE
- LIMIT OF CONSTRUCTION
- POURED IN PLACE CONCRETE COLOUR: NATURAL FINISH: BROOM FINISH C/W SAWCUT JOINTS (27MPa, 100mm THICK AT SIDEWALK)
- POURED IN PLACE CONCRETE COLOUR: BLACK ONYX (NR-5790R 2 BAGS) FINISH: BROOM FINISH C/W SAWCUT JOINTS (27MPa, 100mm THICK AT SIDEWALK)
- RAIN GARDEN, SEE DETAILS 2 L401 / 3 L401 / 4 L401
- PLANTING BED, SEE DETAIL 3 L403
- EQUIPARC EP 1901 BENCH QTY: 16 SEE DETAIL 3 L405
- EQUIPARC EP1791-WC-P-2B (WOOD) BENCH SHIM TO LEVEL QTY: 4 SEE DETAIL 2 L405
- EQUIPARC EP 5980 BIKE RACK SHIM TO LEVEL QTY: 18 SEE DETAIL 1 L405
- SLABDRAIN - H100-10 CHANNEL SYSTEM, BY ACO DRAIN, (TYP.) (OR APPROVED EQUAL.) SEE DETAIL 1 L403 3 L406
- TREE GRATE, QTY: 22 SEE SHEET L402
- TRASH AND RECYCLE RECEPTACLE, WISHBONE MCTRS-39. COLOUR: BLACK, SUPER TEXTURE INSTALL ONLY, TO BE SUPPLIED BY CITY QTY: 6
- IRRIGATION METER BOX AND COVER REFER TO IRRIGATION DWGS.
- LAMP POST, REFER TO ELECTRICAL DWGS.

GENERAL NOTES:

1. CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE MMCD PLATINUM EDITION AND CITY OF WHITE ROCK SPECIFICATIONS AND STANDARD DETAILS, UNLESS OTHERWISE NOTED.
2. CONTRACTOR IS TO VERIFY THE LOCATION AND ELEVATION OF ALL PIPES, OR OTHER UTILITY CROSSINGS PRIOR TO CONSTRUCTION AND SHALL NOTIFY CITY / CONSULTANT OF AND CONFLICTS.
3. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
4. DO NOT SCALE FROM THE DRAWINGS.
5. REFER TO CIVIL DRAWINGS FOR ALL GRADING INFORMATION. UTILITY RIM/BOX ADJUSTMENTS MAY BE REQUIRED TO ACCOMMODATE THE PROPOSED GRADING ON SIDEWALK. CONTRACTOR TO IDENTIFY ANY REQUIRED ADJUSTMENTS TO UTILITY RIM/BOX AND COORDINATE WITH RESPECTIVE UTILITY COMPANY.
6. FIBROUS CONCRETE MIX WITH SYNTHETIC FIBER FOR ALL CONCRETE SIDEWALKS.
7. THICKER SLAB MAY BE REQUIRED FOR FURNISHING, SEE DRAWING SHEET L405.
8. CONTRACTOR TO PROVIDE SAMPLES OF CONCRETE COLOUR AND FINISH FOR REVIEW AND APPROVAL PRIOR TO APPLICATION ON SITE.
9. 15mm MASTIC BOARD TO BE USED TO SEPARATE CURB FROM ALL EXISTING STRUCTURES, BUILDINGS AND ADJACENT CONCRETE WORKS.
10. CONTRACTOR TO PREVENT DAMAGE TO EXISTING STRUCTURES, BUILDINGS AND CONCRETE. CONTRACTOR IS RESPONSIBLE TO MAKE GOOD ANY REPAIRS OF DAMAGES.
11. CONTRACTOR TO SUBMIT SHOP DRAWING TO THE CITY / CONSULTANT FOR ALL FURNITURE FOR REVIEW AND APPROVAL.
12. CITY / CONSULTANT TO REVIEW THE LOCATION OF FURNITURE ON SITE PRIOR TO INSTALLATION.
13. CONTRACTOR SHALL CONFIRM WITH CITY OF WHITE ROCK THAT PERMISSION HAS BEEN GRANTED FROM ALL PROPERTY OWNERS PRIOR TO ANY CONSTRUCTION ACTIVITIES INSIDE PRIVATE PROPERTIES.

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

"I Mandeep Deol, Professional Engineer, in good standing in and for the Province of British Columbia, hereby certify that the works as herein set out on the attached drawings have been designed to good engineering standards and in accordance with the latest edition of the City Of White Rock Design Criteria and the MMCD.

NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

McElhanney Consulting Services Ltd.
Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

Johnston Road Gateway Redesign

PAVING AND FURNITURE LAYOUT PLAN

SEAL

SCALE: 0 1:100 3

DESIGNED SS

DRAWN LJ/RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L203

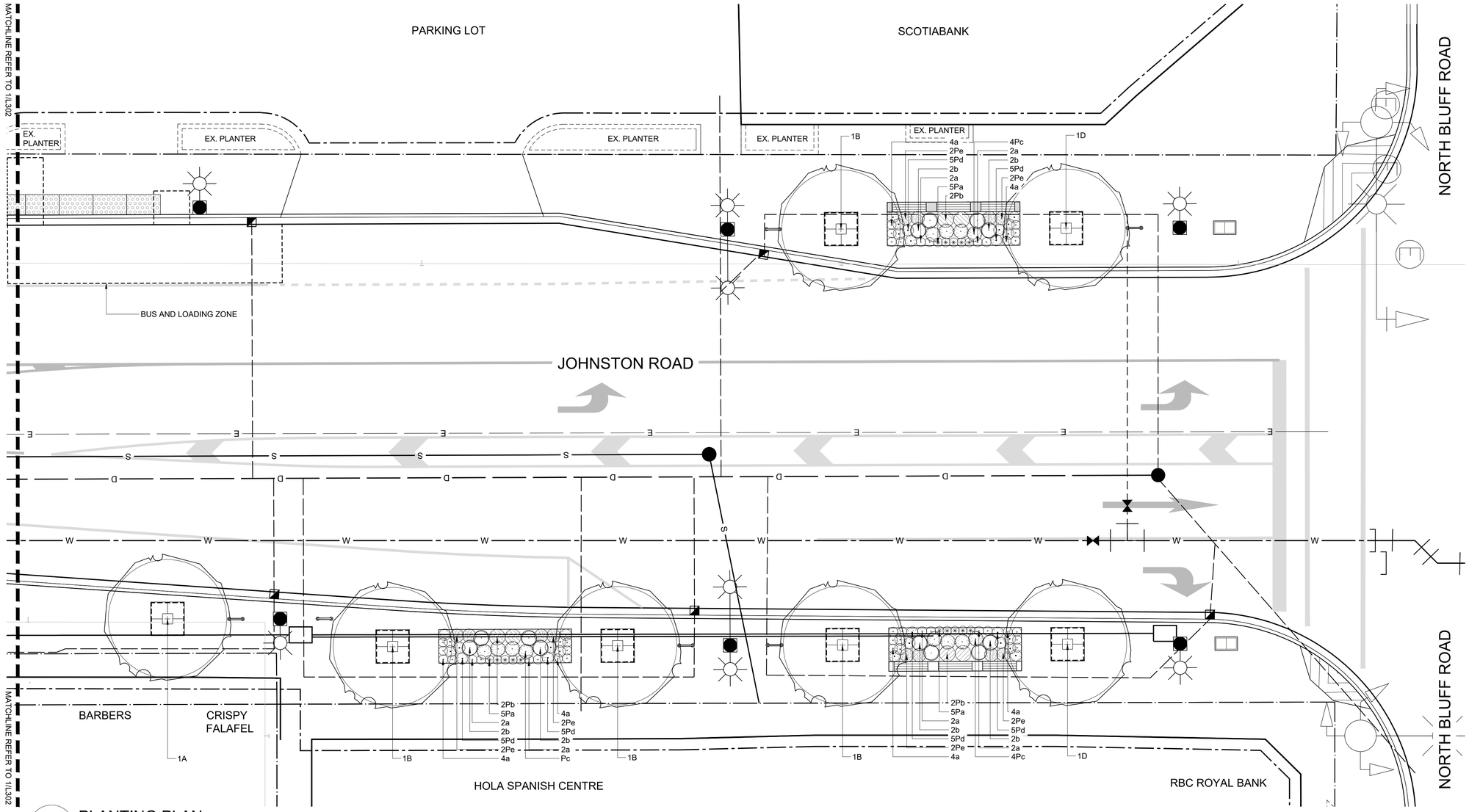
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 7, 2018, 3:12 PM FILE G:\Projects\2511 00\24 00_Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00\24 L200 Series_Phase1.dwg



1 L301 PLANTING PLAN

SCALE: 1:100

LEGEND FOR L301, L302 & L303

- PROPERTY LINE
- LIMIT OF CONSTRUCTION
- DECIDUOUS TREE PLANTING
- SHRUB AND GROUNDCOVER PLANTINGS
- GRASSES & PERENNIAL PLANTINGS
- ROOT BARRIER, DEEPROOT UB18-2, AROUND PERIMETER OF TREE PIT
- SEE DETAIL 2/L402

GENERAL NOTES:

1. CONTRACTOR IS TO VERIFY THE LOCATION AND ELEVATION OF ALL PIPES, OR OTHER UTILITY CROSSINGS PRIOR TO CONSTRUCTION AND SHALL NOTIFY CONSULTANT / ENGINEER OF ANY CONFLICTS.
2. ALL REFERENCES TO 'CITY SPECIFICATIONS' REFER TO CURRENT EDITION .
3. CONTACT CONSULTANT / ENGINEER IMMEDIATELY IF CONFLICT BETWEEN PROPOSED TREE AND EXISTING INFRASTRUCTURE EXISTS.
4. ALL PLANTING AND LANDSCAPE WORK AS PER CANADIAN LANDSCAPE STANDARD UNLESS OTHERWISE NOTED.
5. ALL PLANTING LAYOUT TO BE REVIEWED AND APPROVED BY CONSULTANT / LANDSCAPE ARCHITECT ON SITE.
6. SOIL MIX FOR RAIN GARDEN REFER TO DETAILS 2/L401, 3/L401, AND 4/L401.
   SOIL MIX INSIDE SOIL CELL SEE DETAIL 1/L401 AND CONTRACT DOCUMENT AND REFER TO SILVA CELL RECOMMENDED SPECIFICATIONS.
   SOIL MIX IN PLANTER BED REFER TO DETAIL 3/L403.
7. WHERE POSSIBLE, TREES SHALL BE SET BACK A MINIMUM DISTANCE, MEASURED FROM THE CENTRE OF THE TREE TRUNK, FROM ABOVE AND BELOW GRADE UTILITIES AND PROPERTY LINES:
   - DISTANCE FROM FENCE LINES - 2.5M MIN.
   - DISTANCE FROM MEDIAN AND ROAD CURB FACE - 1.0M MIN. AND 1.5M PREFERRED
   - DISTANCE FROM DRIVEWAYS - 1.5M MIN.
   - DISTANCE FROM FIRE HYDRANTS - 1.0M MIN.
   - DISTANCE FROM STREET LIGHTS - 5.0M MIN.
   - DISTANCE FROM SEWER SERVICES - 2.0M MIN.
   - DISTANCE FROM CORNERS - IN LINE WITH 8.0M SITE TRIANGLE
   - DISTANCE FROM SIDEWALK - 1.0M MIN. AND 1.5M PREFERRED
   - DISTANCE FROM MANHOLES, VALVE BOXES, SERVICE KIOSKS - 2.0M MIN.
8. CONTRACTOR SHALL CONFIRM WITH CITY OF WHITE ROCK THAT PERMISSION HAS BEEN GRANTED FROM ALL PROPERTY OWNERS PRIOR TO ANY CONSTRUCTION ACTIVITIES INSIDE PRIVATE PROPERTIES.

PLANTING SCHEDULE FOR L301, L302 AND L303

	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
A	7	*Pyrus calleryana 'Jaczam'*	JACK™ CALLERY PEAR	MIN. 60mm CAL.
B	4	*Syringa reticulata*	JAPANESE TREE LILAC	MIN. 60mm CAL.
C	7	*Zelkova serrata 'City Sprite'*	CITY SPRITE™ JAPANESE ZELKOVA	MIN. 60mm CAL.
D	4	*Fagus sylvatica 'Dawyck Purple'*	DAWYCK PURPLE BEECH	MIN. 60mm CAL.
NOTE: FOR ALL TREES DIMENSION FOR ROOT FLAIR TO THE FIRST BRANCH TO BE 2.0m MIN.				
SHRUBS AND GROUNDCOVERS				
a	172	*Arctostaphylos uva-ursi 'Vancouver Jade'*	VANCOUVER JADE BEARBERRY	#2 POT
b	53	*Weigela florida 'WFMOBLA'*	COCO KRUNCH® WEIGELA	#2 POT
GRASSES & PERENNIALS				
Pa	114	*Symphyotrichum subspicatum*	DOUGLAS' ASTER	#1 POT
Pb	36	*Calamagrostis x acutiflora 'Karl Foerster'*	FOERSTER'S FEATHER REED GRASS	#2 POT
Pc	63	*Carex stricta*	TUSSOCK SEDGE	#1 POT
Pd	138	*Hemerocallis 'Gentle Shepherd'*	GENTLE SHEPHERD DAYLILY	#1 POT
Pe	72	*Lavandula angustifolia 'Hidcote'*	LAVENDER	#1 POT

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
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TITLE

Johnston Road Gateway Redesign

PLANTING PLAN

SEAL

SCALE: 0 1:100 3

DESIGNED SS

DRAWN LJ/RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L301

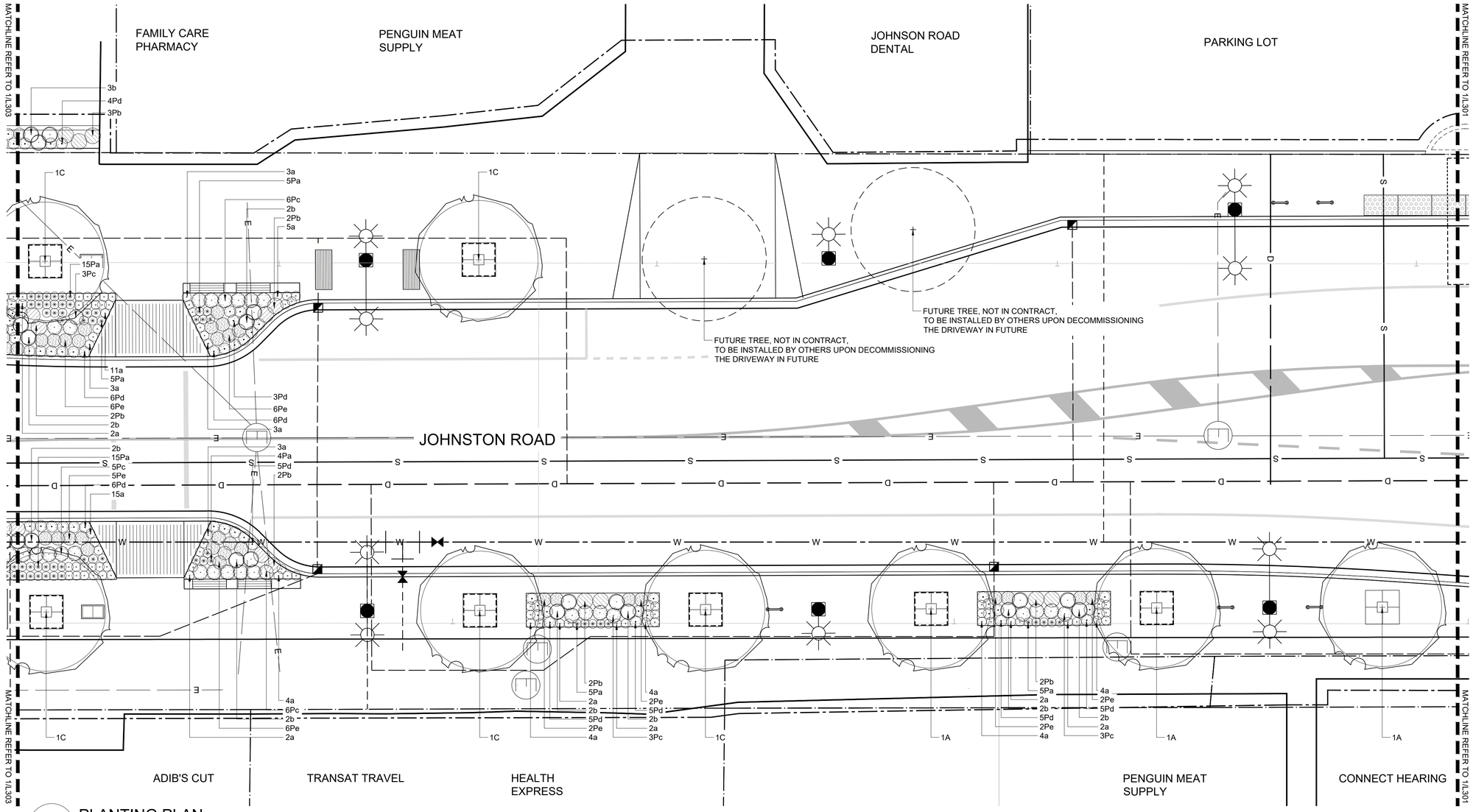
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 12, 2018, 12:45 PM FILE: G:\Projects\2511 00\24.00_Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00\24 L300 Series_Phase1.dwg



1 L302 PLANTING PLAN

SCALE: 1:100

LEGEND FOR L301, L302 & L303

- PROPERTY LINE
- LIMIT OF CONSTRUCTION
- DECIDUOUS TREE PLANTING
- SHRUB AND GROUNDCOVER PLANTINGS
- GRASSES & PERENNIAL PLANTINGS
- ROOT BARRIER, DEEPROOT UB18-2, AROUND PERIMETER OF TREE PIT
- SEE DETAIL 2/L402

GENERAL NOTES:

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5. ALL PLANTING LAYOUT TO BE REVIEWED AND APPROVED BY CONSULTANT / LANDSCAPE ARCHITECT ON SITE.
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   SOIL MIX IN PLANTER BED REFER TO DETAIL 3/L403.
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   - DISTANCE FROM FIRE HYDRANTS - 1.0M MIN.
   - DISTANCE FROM STREET LIGHTS - 5.0M MIN.
   - DISTANCE FROM SEWER SERVICES - 2.0M MIN.
   - DISTANCE FROM CORNERS - IN LINE WITH 8.0M SITE TRIANGLE
   - DISTANCE FROM SIDEWALK - 1.0M MIN. AND 1.5M PREFERRED
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PLANTING SCHEDULE FOR L301, L302 AND L303

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B	4	*Syringa reticulata*	JAPANESE TREE LILAC	MIN. 60mm CAL.
C	7	*Zelkova serrata 'City Sprite'*	CITY SPRITE™ JAPANESE ZELKOVA	MIN. 60mm CAL.
D	4	*Fagus sylvatica 'Dawyck Purple'*	DAWYCK PURPLE BEECH	MIN. 60mm CAL.
NOTE: FOR ALL TREES DIMENSION FOR ROOT FLAIR TO THE FIRST BRANCH TO BE 2.0m MIN.				
SHRUBS AND GROUNDCOVERS				
a	172	*Arctostaphylos uva-ursi 'Vancouver Jade'*	VANCOUVER JADE BEARBERRY	#2 POT
b	53	*Weigela florida 'WFMOBLA'*	COCO KRUNCH® WEIGELA	#2 POT
GRASSES & PERENNIALS				
Pa	114	*Symphyotrichum subspicatum*	DOUGLAS' ASTER	#1 POT
Pb	36	*Calamagrostis x acutiflora 'Karl Foerster'*	FOERSTER'S FEATHER REED GRASS	#2 POT
Pc	63	*Carex stricta*	TUSSOCK SEDGE	#1 POT
Pd	138	*Hemerocallis 'Gentle Shepherd'*	GENTLE SHEPHERD DAYLILY	#1 POT
Pe	72	*Lavandula angustifolia 'Hidcote'*	LAVENDER	#1 POT

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
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Canada V4B 1Y6

TITLE

Johnston Road Gateway Redesign

PLANTING PLAN

SEAL

SCALE: 0 1:100 3

DESIGNED SS

DRAWN LJ/RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L302

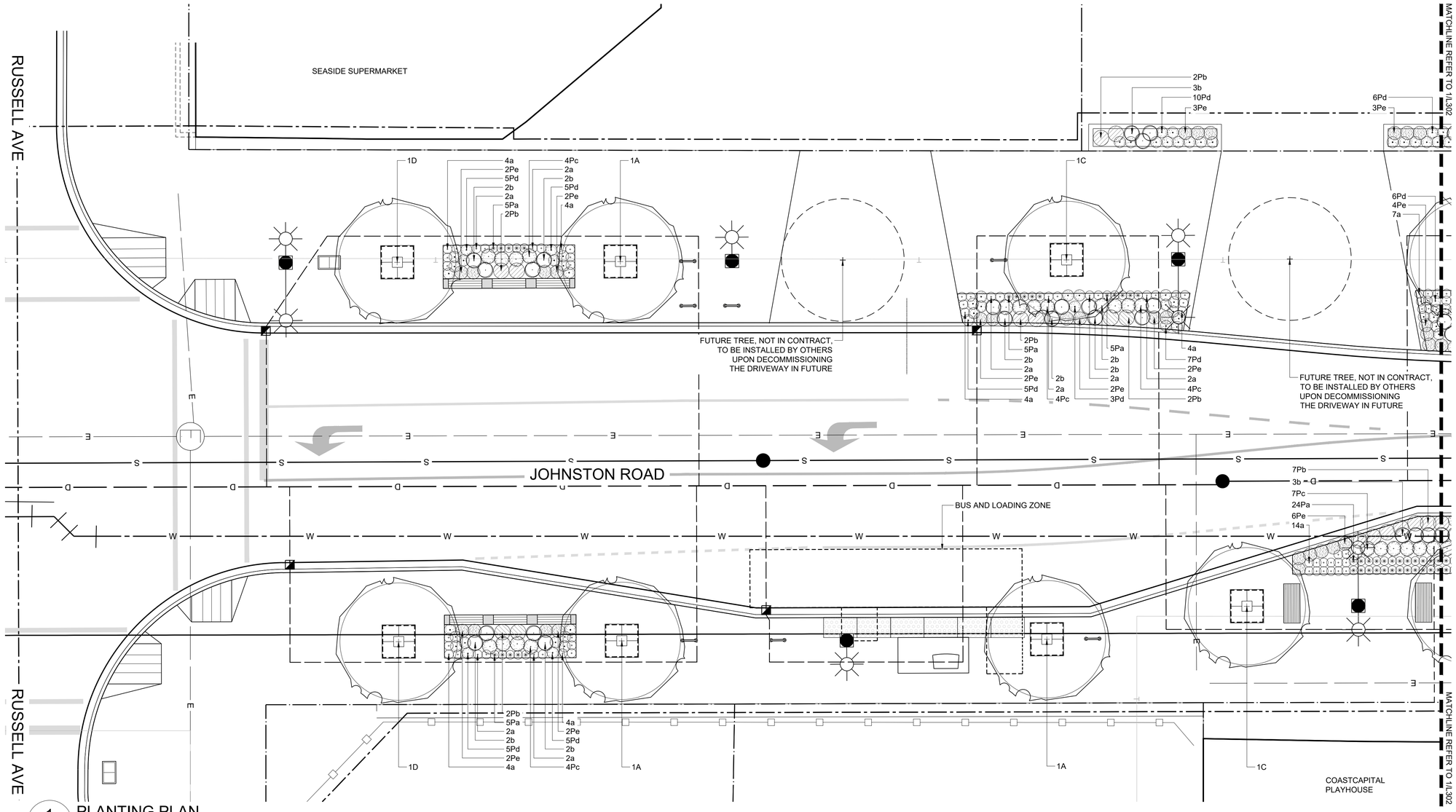
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 12, 2018, 12:43 PM FILE: G:\Projects\2511 00924.00 Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00924.L300 Series_Phase1.dwg



1 L303 PLANTING PLAN

SCALE: 1:100

LEGEND FOR L301, L302 & L303

- PROPERTY LINE
- LIMIT OF CONSTRUCTION
- DECIDUOUS TREE PLANTING
- SHRUB AND GROUNDCOVER PLANTINGS
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- ROOT BARRIER, DEEPROOT UB18-2, AROUND PERIMETER OF TREE PIT
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Pc	63	*Carex stricta*	TUSSOCK SEDGE	#1 POT
Pd	138	*Hemerocallis 'Gentle Shepherd'*	GENTLE SHEPHERD DAYLILY	#1 POT
Pe	72	*Lavandula angustifolia 'Hidcote'*	LAVENDER	#1 POT

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

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Canada V4B 1Y6

TITLE

Johnston Road Gateway Redesign

PLANTING PLAN

SEAL

SCALE: 0 1:100 3

DESIGNED SS

DRAWN LJ/RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L303

REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

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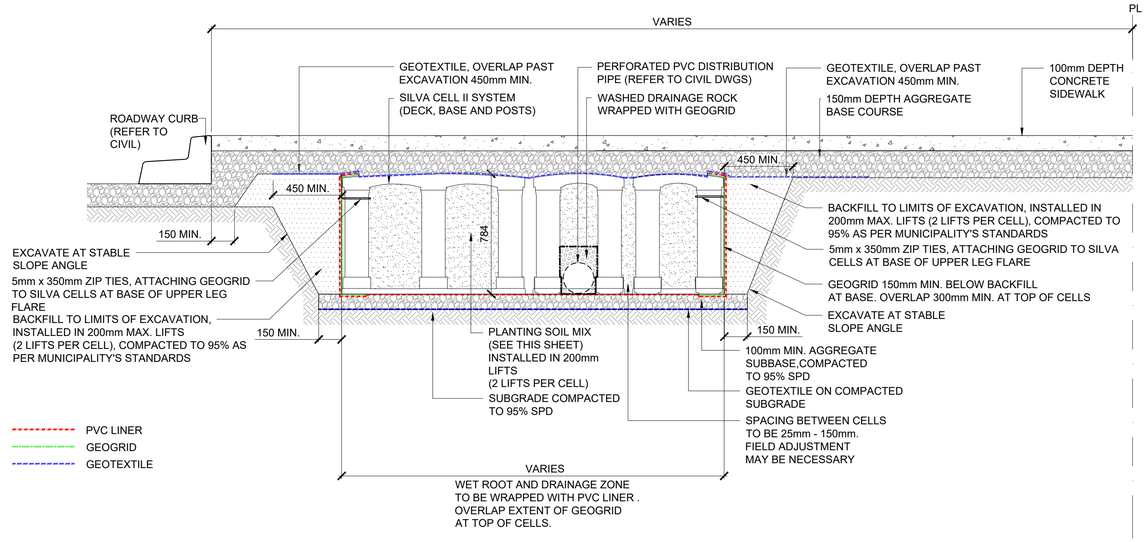


UNSCREENED PLANTING SOIL MIX NOTES:

THIS IS INTENDED TO BE A CUSTOM SOIL MIX. SPECIFIED BY PERCENT BY VOLUME OF EACH COMPONENT. LOCAL SOIL CONDITIONS AND AVAILABILITY MAY REQUIRE MODIFICATION TO THIS SPECIFICATION. MODIFY THE PHYSICAL AND CHEMICAL PARAMETERS TO REFLECT LOCAL SOIL AVAILABILITY.

PHYSICAL TESTING IS REQUIRED AS A RECORD OF THE APPROVED MIX DESIGN.

A. THIS SOIL IS A MIX OF COARSE SAND, TOPSOIL AND COMPOST TO ACHIEVE THE FOLLOWING PARAMETERS:

B. PHYSICAL PARAMETERS MATERIAL UNITS ACCEPTABLE RANGE:

COARSE SAND % BY VOLUME 35 - 50%
COMPOST % BY VOLUME 12 - 17%
TOPSOIL % BY VOLUME 35 - 50%

NOTE: ADJUST THE RATIO OF THE COMPONENTS TO ACHIEVE INFILTRATION RATES BETWEEN 2 AND 3 INCHES PER HOUR WHEN COMPACTED TO 80 - 85% MAXIMUM DRY DENSITY.

C. pH PARAMETERS - ACCEPTABLE RANGE: 5.5 TO 7.3 UNITS.

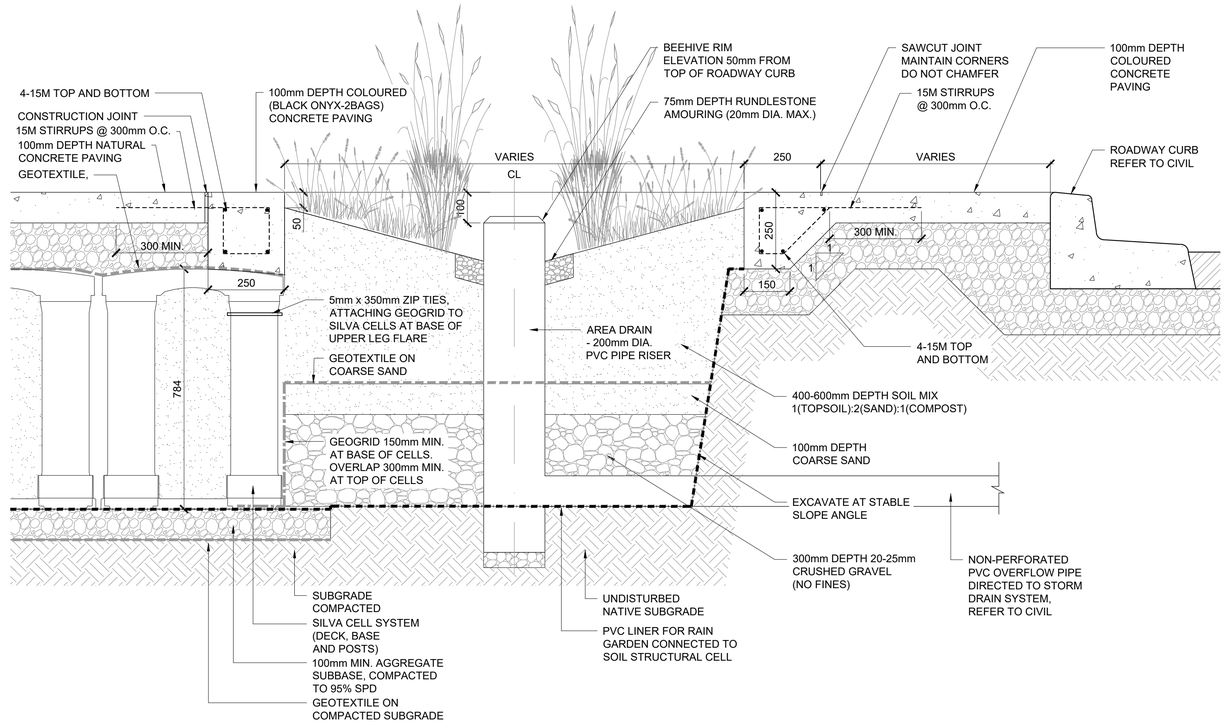
D. DO NOT SCREEN OR OVER MIX TO MAINTAIN SOIL PEDS. SOIL PEDS OR CLUMPS UP TO 4 INCHES IN DIAMETER ARE ACCEPTABLE IN THE SOIL MIX.

E. FERTILIZERS, WHERE INDICATED BY SOIL TEST AND APPROVED BY PROJECT LANDSCAPE ARCHITECT, SHALL BE ADDED DURING SOIL MIXING.

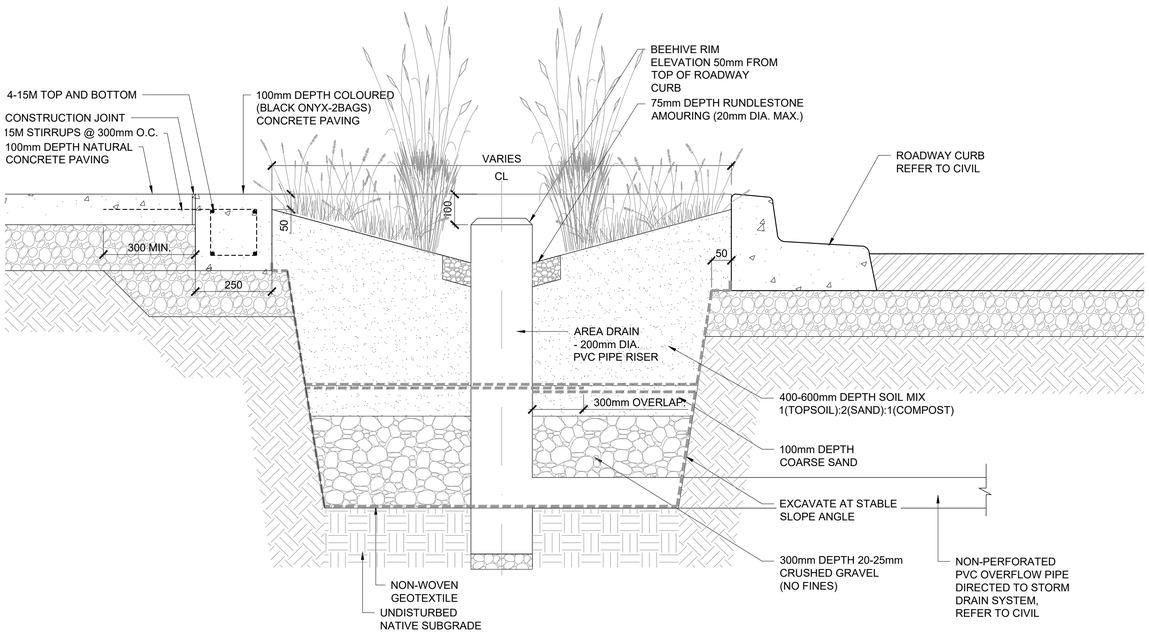
F. ONCE MIXING IS COMPLETE, COVER STOCK PILES WITH TARPS OR HEAVY PLASTIC TO PROTECT SOIL FROM DRYING, SATURATION AND EROSION.

G. SUBMITTALS SHALL BE COMPLETED 45 DAYS PRIOR TO START OF INSTALLATION OF ITEMS AND SHALL BE INTERPRETED BY PROJECT LANDSCAPE ARCHITECT BASED ON PLANT MATERIAL SPECIFIED AND TESTING RECOMMENDATIONS.

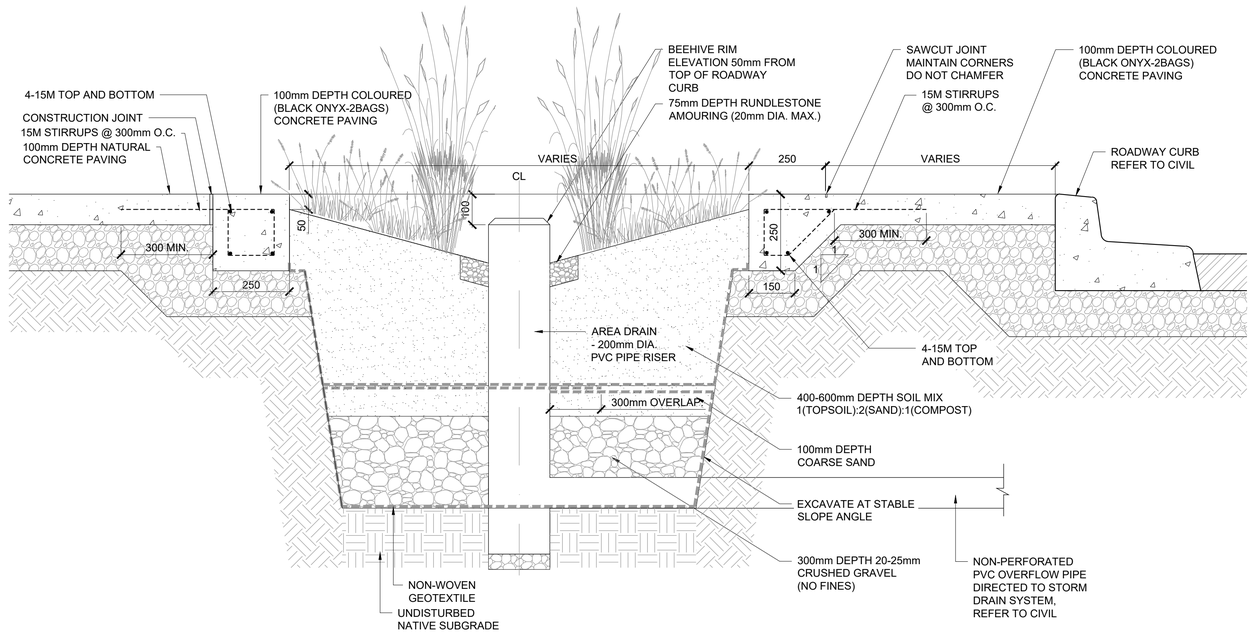
1 L401 STRUCTURAL SOIL CELL - TYPICAL SECTION
SCALE 1:20



2 L401 RAIN GARDEN - ADJACENT TO STRUCTURAL SOIL CELL - TYPICAL SECTION
SCALE 1:10



3 L401 RAIN GARDEN - ADJACENT TO CURB
SCALE 1:20



4 L401 RAIN GARDEN - WITHOUT STRUCTURAL SOIL CELL - TYPICAL SECTION
SCALE 1:10

LEGAL DESCRIPTION

SURVEY BENCHMARK

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TITLE Johnston Road Gateway Redesign
STRUCTURAL SOIL CELL AND
RAIN GARDEN DETAILS

SEAL

SCALE: AS SHOWN
DESIGNED SS
DRAWN LJ & RG
REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO. L401
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER

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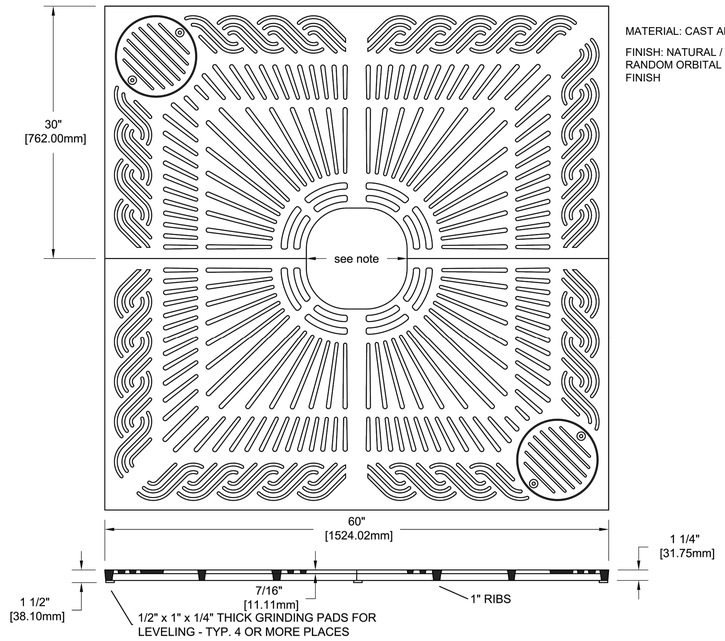
DATE: March 7, 2018, 3:21 PM FILE: G:\Projects\2511\00924.00 Johnston Road Gateway Redesign\LA Services\10.0 Drawings\10.3 Sheet Files\00924.L401-403 Series_Phase1.dwg



MATERIAL: CAST ALUMINUM

FINISH: NATURAL / 36 GRIT RANDOM ORBITAL BRUSHED FINISH

6086 MARINA TREE GRATE

60" x 60" tree grate in two sections.
two lightwells with bolted cover as shown.

1/2 Maximum slot opening for pedestrian safety and A.D.A Compliance.

Cast from 100% recycled Iron, Aluminum,or Bronze for pedestrian loads only.

Tree opening:
12",15",18"
Grates can be orderd with or later expanded to these openings. please specify when ordering.

Finish: unfinished or Black dip or Enamel paint or Polyurethane Paint or Powder coat
Specify finish and color

Use frame model:
6000F

Weight:
Iron= 414 lb/ 188 Kg
Aluminum=130 lb/59 Kg

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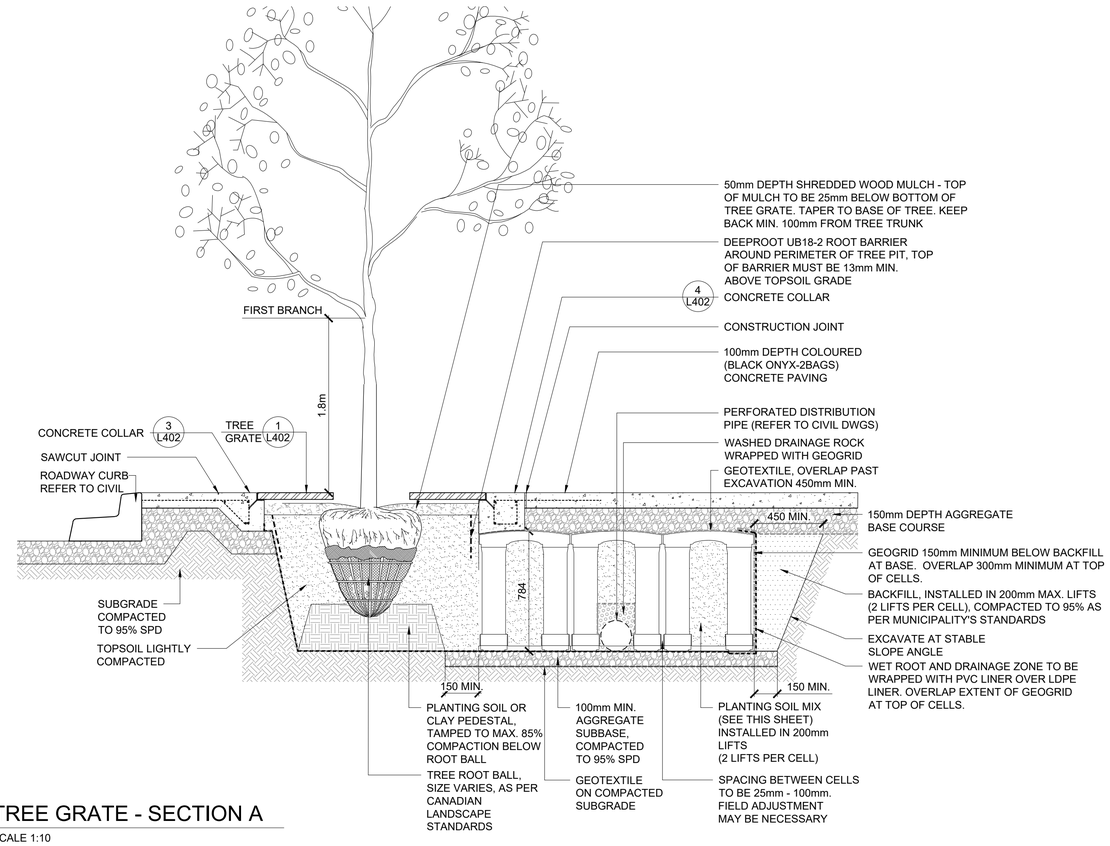
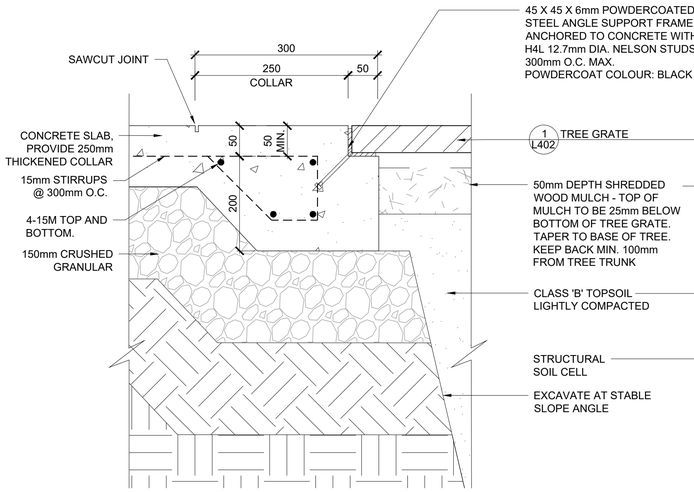
IRONSMITH
41-701 Corporate Way #3
Palm Desert, CA 92260
800.338.4766

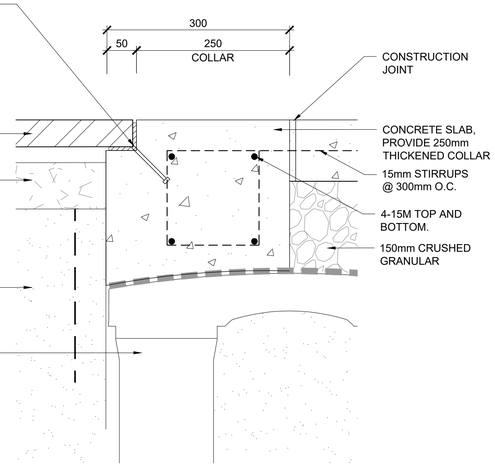
1 L402 METAL TREE GRATE
SCALE 1:15



2 L402 TREE GRATE - SECTION A
SCALE 1:10



3 L402 CONCRETE COLLAR AND GRATE SUPPORT
SCALE 1:5



4 L402 CONCRETE COLLAR AND GRATE SUPPORT ON TOP OF SILVA CELL
SCALE 1:5

GENERAL NOTES:

1. DIMENSIONS ARE SHOWN IN MILLIMETERS, UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO FABRICATE MATCHING ANGLE IRON TREE GRATE SUPPORT FRAME.
3. CONTRACTOR MUST ACCOUNT FOR SHRINKING OF CASTING OF GRATES IN THE FIT OF ELEMENTS.
4. TREE GRATE TO BE INSTALLED LEVEL WITH ALL SURROUNDING SURFACES.
5. ALL PAINT SCRATCHES, CHIPS, AND BARE METAL CAUSED BY INSTALLATION, TO BE PAINTED TO MATCH.
6. TREE GRATE MANUFACTURED BY:
   IRON SMITH
   (OR APPROVED EQUAL)
   CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL

STRUCTURAL NOTES:

1. THE STRUCTURAL ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTION AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB-CONTRACTOR OR ANY OTHER PERSON PERFORMING THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. **PRIOR TO COMMENCEMENT OF CONSTRUCTION, ALL UNDERGROUND SERVICES SHALL BE IDENTIFIED.** IN THE EVENT OF CONFLICT WITH NEW CONSTRUCTION CONTACT THE ENGINEER FOR INSTRUCTION ON HOW TO PROCEED.
3. THE CONSULTANT DOES NOT DO THE DESIGN AND FIELD REVIEW OF EXCAVATION OR BACKFILL.
4. **EXCAVATION AND BACKFILL**
   4.1 EXAMINATION
   .1 VISIT AND INSPECT THE SITE. CARRY OUT WHATEVER TEST BORINGS, LEVEL SURVEYS, ETC. DEEMED NECESSARY IN ORDER TO SUPPLEMENT THE INFORMATION PROVIDED. OBTAIN PERMISSION FROM THE OWNER BEFORE CARRYING OUT ANY WORK ON SITE.
   .2 THE CONTRACTOR SHALL MAKE HIS OWN ASSUMPTIONS REGARDING WATER CONDITIONS THAT MAY BE PRESENT AT THE TIME OF CONSTRUCTION.

5. **CONCRETE**
   5.1 ALL CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION SHALL BE IN CONFORMANCE WITH CAN/CSA A23.1-00.
   5.2 CONCRETE SPECIFICATIONS:

LOCATION	EXPOSURE CLASS	28 DAY STRENGTH 32 MPA*	CEMENT TYPE	MAX AGG. SIZE	SLUMP	W/C RATIO MAX.
			10	20 mm	80 mm	0.45

* AIR ENTRAINED 5% TO 8%
ALL CONCRETE WORK C-2

6. **REINFORCING STEEL & WELDED WIRE MESH**
   6 .1 ALL REINFORCING SHALL CONFORM TO CAN/CSA G30.18-M92 - 400 MPA.
   6 .2 DETAIL IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE, REINFORCING STEEL INSTITUTE OF CANADA.
   6 .3 PROVIDE CORNER BARS EQUAL TO MAIN REINFORCING - 24 DIAMETER LAPS, 450 mm MINIMUM.

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

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NOT FOR CONSTRUCTION
ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT
McElhanney
McElhanney Consulting Services Ltd.
Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE Johnston Road Gateway Redesign
TREE GRATE DETAILS

SEAL

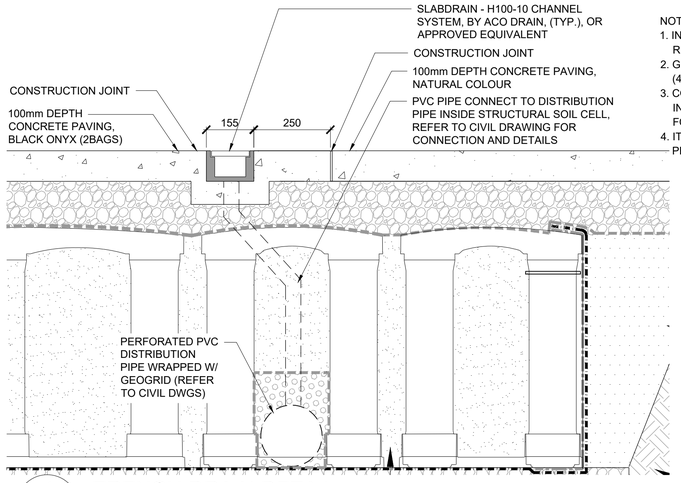
SCALE: AS SHOWN
DESIGNED SS
DRAWN LJ & RG
REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO. L402
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

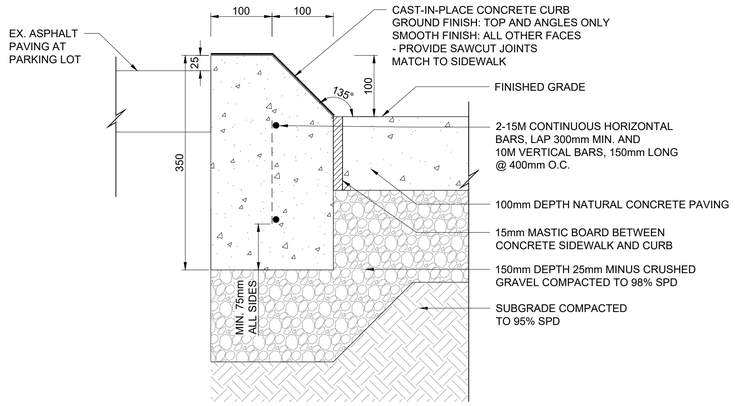
DATE: March 7, 2018, 3:32 PM FILE: G:\Projects\2511 00924 00 Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00924 L401-403 Series_Phase1.dwg



NOTES:
1. INSTALLATION AS PER MANUFACTURE RECOMMENDED SPECIFICATIONS.
2. GRATE: MARINA TRENCH GRATE CAST ALUMINUM 122MM X 500MM (4.8 X 19.63"). BY IRON SMITH OR APPROVED ALTERNATIVES. (3 / L406)
3. CONTRACTOR TO PROVIDE PRODUCT INFORMATION AND SHOP DRAWINGS FOR GRATE.
4. IT IS CONTRACTOR RESPONSIBILITY TO MAKE SURE THE PROPOSED GRATE FITS THE PROPOSED TRENCH DRAIN.

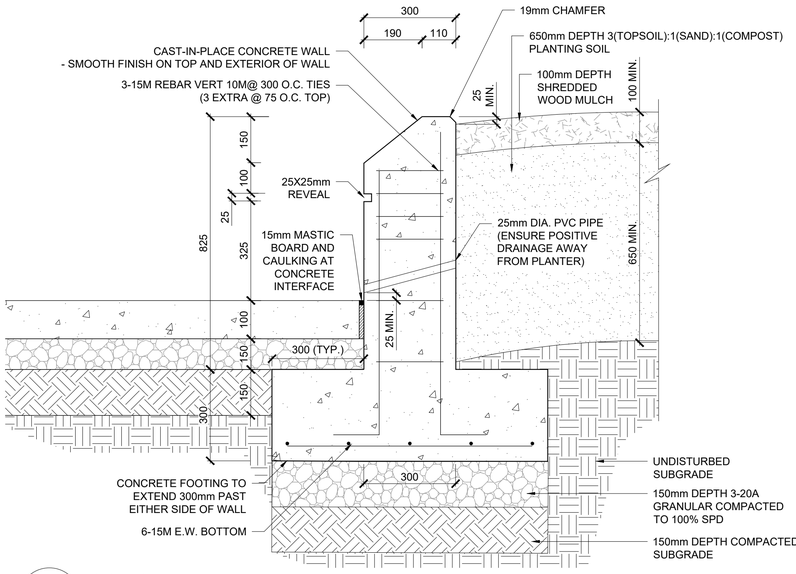
1 / L403 TRENCH DRAIN DETAIL

SCALE 1:10



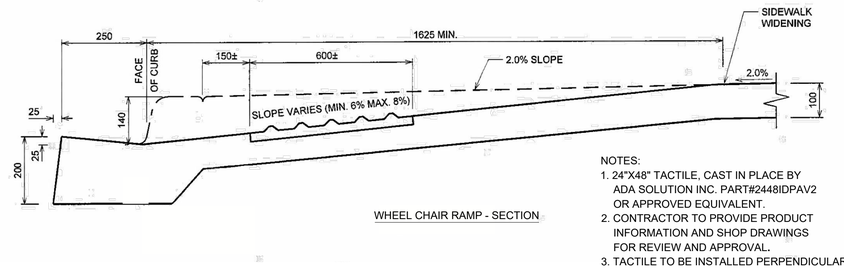
2 / L403 CURB AT EXISTING PARKING LOT

SCALE 1:10



3 / L403 CONCRETE PLANTER DETAIL

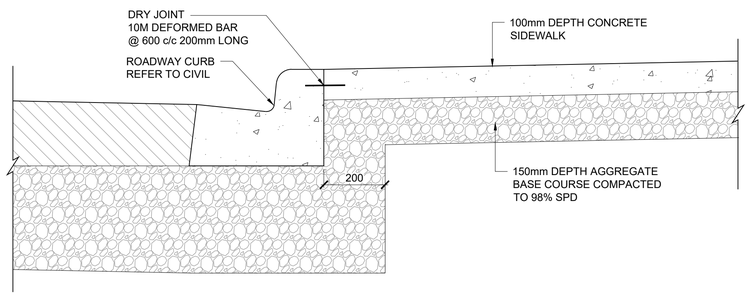
SCALE 1:10



NOTES:
1. 24"X48" TACTILE, CAST IN PLACE BY ADA SOLUTION INC. PART#2448IDPAV2 OR APPROVED EQUIVALENT.
2. CONTRACTOR TO PROVIDE PRODUCT INFORMATION AND SHOP DRAWINGS FOR REVIEW AND APPROVAL.
3. TACTILE TO BE INSTALLED PERPENDICULAR TO THE LANE OF TRAVEL.

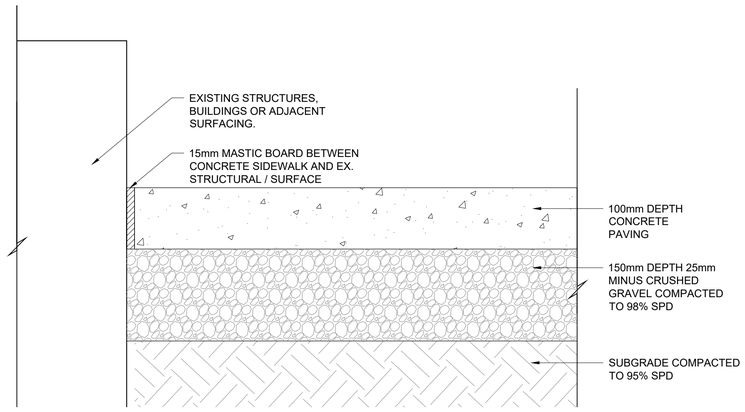
4 / L403 TACTILE SURFACE ON WHEEL CHAIR RAMP

SCALE N.T.S.



5 / L403 SIDEWALK DOWEL TO CURB - TYPICAL DETAIL

SCALE 1:20



6 / L403 ISOLATION JOINT - TYPICAL DETAIL

SCALE 1:5

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

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Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE Johnston Road Gateway Redesign

MISCELLANEOUS DETAILS

SEAL

SCALE: AS SHOWN

DESIGNED SS

DRAWN LJ & RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

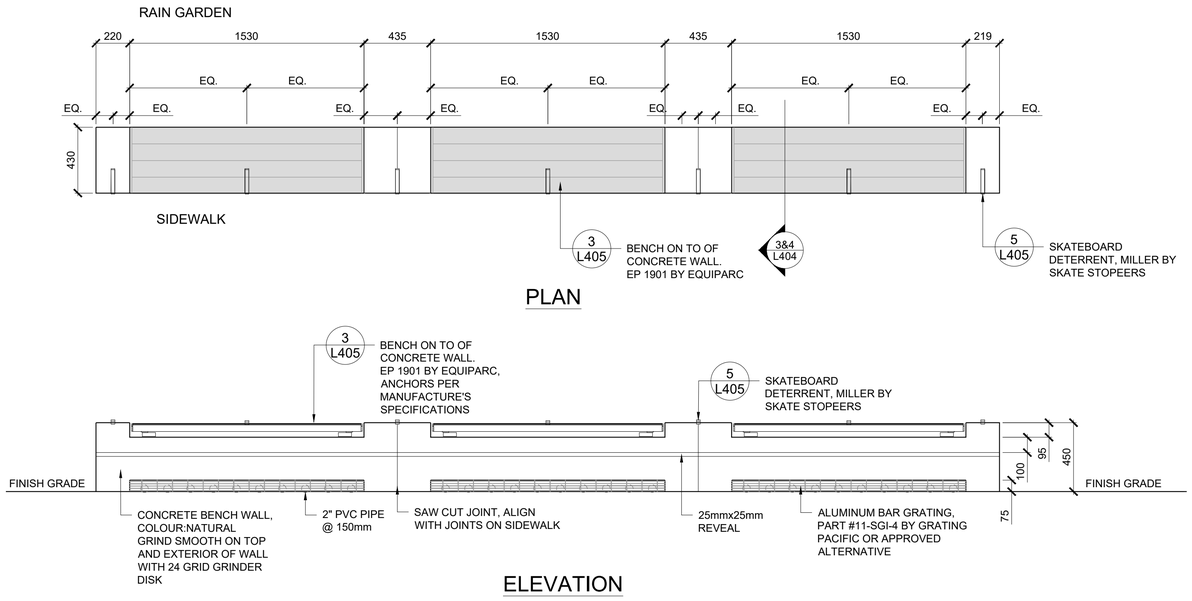
DWG. NO. L403 REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

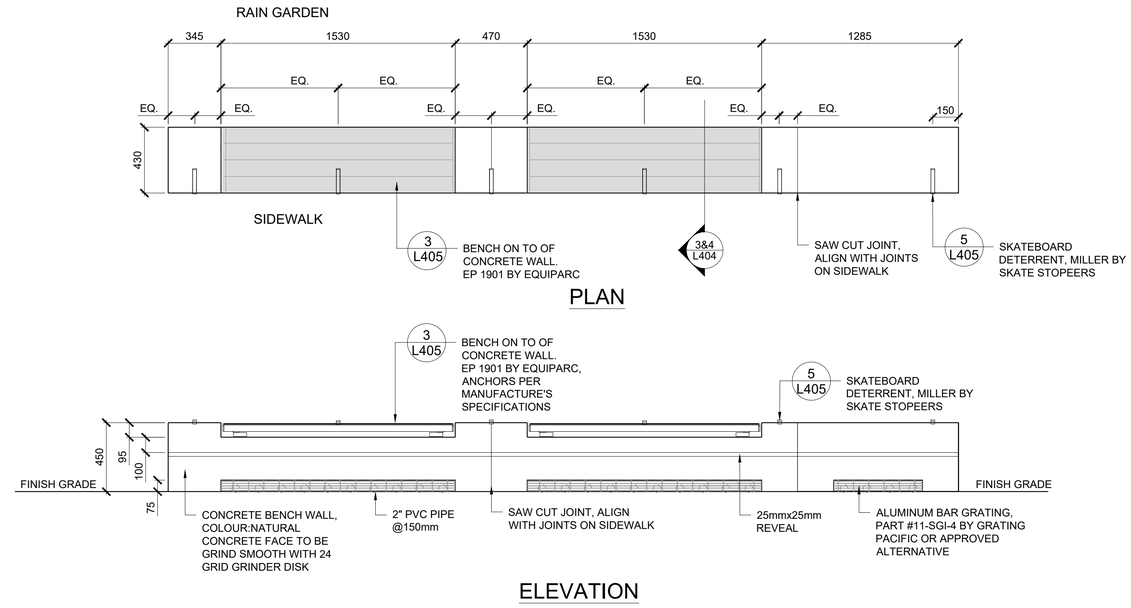
DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 7, 2018, 3:34 PM FILE: G:\Projects\2511 00\024.00 Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00\024.00-L401-L403 Series_Phase1.dwg



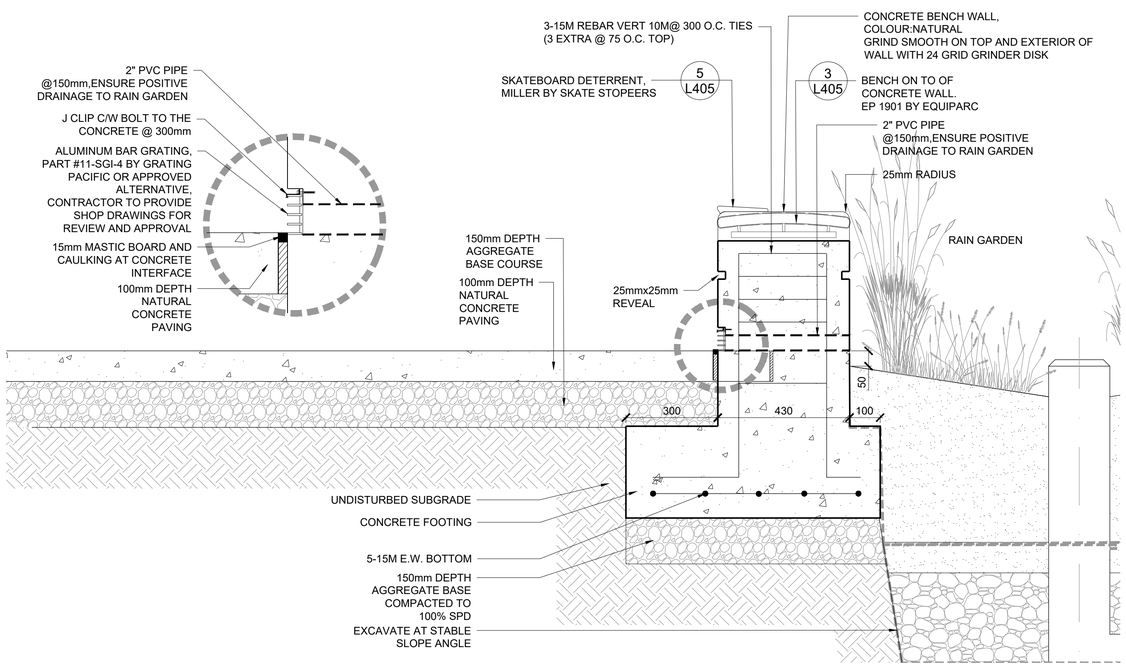
1 L404 CONCRETE BENCH - TYPE 1 - PLAN AND ELEVATION

SCALE 1:20



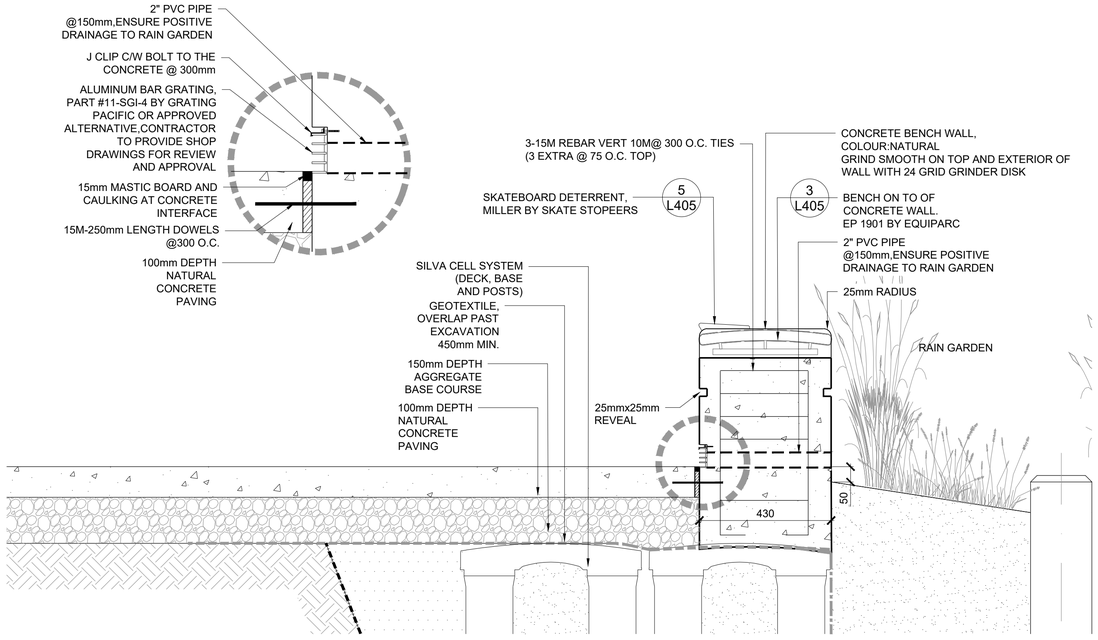
2 L404 CONCRETE BENCH - TYPE 2 - PLAN AND ELEVATION

SCALE 1:20



3 L404 CONCRETE BENCH - SECTION

SCALE 1:10



4 L404 CONCRETE BENCH ON TOP OF SILVA CELL - SECTION

SCALE 1:10

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

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Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE Johnston Road Gateway Redesign

CONCRETE BENCH DETAILS

SEAL

SCALE: AS SHOWN

DESIGNED SS

DRAWN LJ & RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L404

REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 7, 2018, 1:26 PM FILE G:\Projects\2511\00924\00 Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00924 L404-406 Series_Phase1.dwg

Equiparc

EP 5980 Bike rack

SPECIFICATIONS

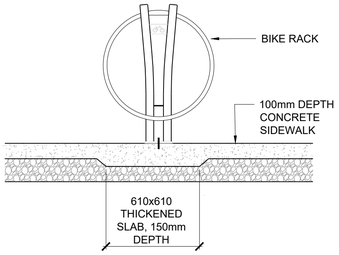
Frame:	51mm X 5mm (2" x 3/16") and 38mm X 3mm (2 1/2" x 1/8") square aluminium tubes, 25mm (1") diameter rod and a 13mm (1/2") plate
Finish:	Polyester powder coated POWDER COATING COLOUR: METEOR GREY

Depth : 177mm (7") Length : 724mm (28 1/2") Height : 907mm (35 3/4") Weight : 18 kg (40 lb)

This bike rack must be anchored.
Our warranty applies when our product is properly assembled and anchored.

CONCRETE SLABS AND ANCHORS

7005	1 slab 610mm X 610mm X 152mm (24" X 24" X 6") ✓
7016	1 slab Ø 610mm X 203mm (24" X 8")
QS	2 stainless steel kwik bolts
QAV	2 drop-in anchors with stainless steel theftproof bolts ✓



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T: 1 800 363.9264 www.equiparc.com 1001, rue James-Brodie
F: 1 866 346.2538 info@equiparc.com Saint-Jean-sur-Richelieu, QC Canada J2X 0C1

1 L405 BIKE RACK DETAIL

NTS

Equiparc

EP 1791 Bench

SPECIFICATIONS

Frame :	6mm (1/4") and 13mm (1/2") aluminum laser cuts and flats and 48mm (1.90") aluminum tube
Support :	10mm (3/8") and 13mm (1/2") hot-dipped galvanized steel laser cuts and flats
Finish:	Polyester powder coat POWDER COATING COLOUR: METEOR GREY
Slats:	IPE/JAT : 25mm X 76mm (1" X 3") ✓
	DFP/Plastic : 51mm X 76mm (2" X 3")
Fasteners:	Stainless steel

COVERINGS

YRP	Grey recycled plastic	DFP	Select Douglas fir
SRP	Sand recycled plastic	JAT	Jatoba ✓
GRP	Green recycled plastic	IPE	Ipe
CRP	Cedar recycled plastic	HWA	Select hardwood
WRP	Walnut recycled plastic	AL	Painted aluminum

OPTIONS

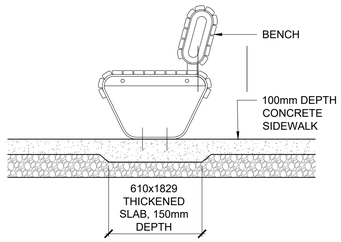
LB	Left backrest. Weights : 68 kg (150 lbs)
RB	Right backrest
2B	Double backrest
CA	Center armrest. Weights : 2kg (4 lbs)
LA	Left armrest
RA	Right armrest
A	Set of two armrests installed at both ends
3A	Set of three armrests
T1 to T4	Tablet : four possible positions. Weights : 4 kg (8 lbs)
R	Rail system with theftproof anchors (QAV)

Depth : 735mm (29") Length : 1765mm (69 1/2") Height : 448mm (17 3/4") Weight : 73 kg (160 lbs)

This bench must be anchored.
Our warranty applies when our product is properly installed and anchored.

CONCRETE SLABS AND ANCHORS

7000	1 slab 610mm X 1829mm X 152mm (24" X 72" X 6") ✓
7006	1 slab 1067mm X 1829mm X 152mm (42" X 72" X 6")
7028	2 slabs 305mm X 711mm X 152mm (12" X 28" X 6")
QS	4 stainless steel kwik bolts
QAV	4 drop-in anchors with stainless steel theftproof bolts ✓



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F: 1 866 346.2538 info@equiparc.com Saint-Jean-sur-Richelieu, QC Canada J2X 0C1

2 L405 BENCH DETAIL, EP 1791-WC-P-2B (WOOD)

NTS

Equiparc

EP 1901 Bench without backrest

SPECIFICATIONS

Frame :	8mm (5/16") and 10mm (3/8") steel flats
Supports :	6mm (1/4") steel flats and 3mm (1/8") steel plates to be anchored on a concrete or granite base. ***Base not included**
Finish :	Hot-dipped galvanized and polyester powder coated POWDER COATING COLOUR: METEOR GREY
Slats :	51mm X 152mm (2" X 6")
Fasteners :	6mm (1/4") and 10mm (3/8") anti-theft stainless steel bolts

COVERING

JAT	Jatoba ✓
IPE	Ipe

Depth : 432mm (17") Length : 1499mm (59") Height : 94mm (3 3/4") Weight : 50 kg (110 lbs)

***Concrete or granite base non included**

This bench must be anchored.
Our warranty applies when our product is properly assembled and anchored.

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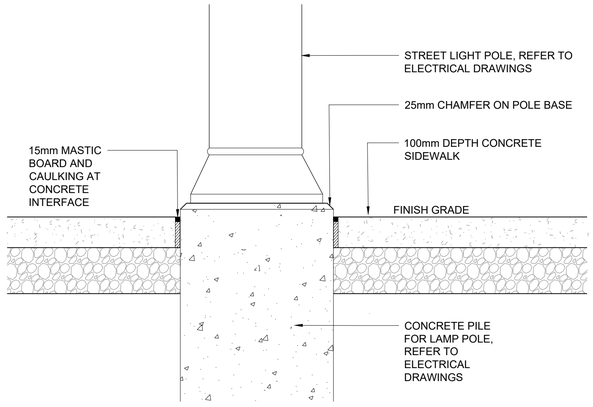
F: 1 866 346.2538 info@equiparc.com Saint-Jean-sur-Richelieu, QC Canada J2X 0C1

3 L405 EQUIPARC EP 1901 BENCH

NTS



4 L405 LAMP POLE BASE TIE-IN DETAIL

NTS

PRODUCT DETAILS

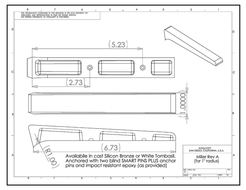
Miller

(Laser Series - Surface Mount)

SKATE STOPPERS®
1547 N. Cuyamaca, El Cajon, CA 92020
Tel 619-447-6374 Fax 619-447-6396
www.skatestoppers.com

Description: This cast part is designed for walls with a 1" radius edge. Miller is most commonly used on 2" bullnose brick and poured concrete with 1" radius edge. This part uses two concealed SMART PINS PLUS anchors.

(shown in White Tombasil)



Material: Cast Silicon Bronze or White Tombasil

Silicon Bronze finish: Brown Patina ✓
White Tombasil finish: Brushed finish with Matte Clear Coat

Corner Radius: For corner with 1" radius.

Outside Dimensions: 1" (wide) x 6-3/4" (deep) x 1" (tall)

Anchoring: Anchored with two blind SMART PINS PLUS anchors. Use anchors in conjunction with two-part epoxy.

Product Spacing: 18" from end of planters/walls and approximately 36" centers. Do not apply at grout joints.

5 L405 SKATE BOARD DETERRENT

NTS

DATE: March 7, 2018, 1:31 PM FILE: G:\Projects\2511 00924 00 Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00924 L404-406 Series_Phase1.dwg

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

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Tel 604 596 0391

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE Johnston Road Gateway Redesign

FURNISHING DETAILS

SEAL

SCALE: AS SHOWN

DESIGNED SS

DRAWN LJ & RG

REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15

CONSULTANT PROJ. NO. 2111-03898-00

DWG. NO. L405 REV. 1

WHITE ROCK PROJECT NUMBER WR18-008

WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

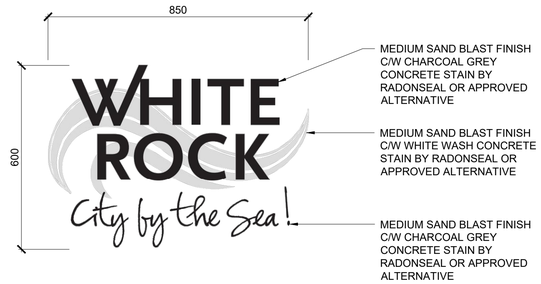
- FONT TYPE: ARIAL BLACK. FONT HEIGHT: 150MM
- APPLY MEDIUM SAND BLAST FINISH: GENERALLY EXPOSE COARSE AGGREGATE; 3/16-INCH TO 1/4-INCH REVEAL.
- APPROXIMATE LOCATIONS AS SHOWN IN DWG L201, L202 AND L203. EXACT LOCATION TO BR REVIEWED ONSITE BY CONSULTANT.
- APPLY COMMERCIAL GRADED CONCRETE STAIN ON SANDBLASTED CONCRETE. STAIN BY RADONSEAL,CHARCOAL GREY COLOUR OR APPROVED ALTERNATIVE.

CONCRETE STAIN AVAILABLE AT:
Eco-Building Resource
136 Wellington Street East
Aurora, Ontario L4G 1J
(905)841-3535, Fax: (905) 841-3536

- CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR SAND BLASTING TEMPLATE AND SAMPLE FOR CONCRETE STAIN FOR REVIEW AND APPROVAL.
- MOCK-UP: CONTRACTOR TO POUR A 300mmx300mm OFFSITE MOCK-UP INCLUDING TWO SANDBLASTED AND STAINED LETTERS. SEE CONTRACT SPECIFICATIONS FOR MOCK-UP CRITERIA.
- CLEAN-UP: MAINTAIN CONTROL OF CONCRETE CHIPS, DUST, AND DEBRIS IN EACH AREA OF THE WORK. PREVENT MIGRATION OF AIRBORNE MATERIALS BY USE OF TARPAULINS, WIND BREAKS, AND SIMILAR CONTAINING DEVICES.

1 L406 STREET NAMES - SANDBLASTED AND STAINED ON CONCRETE PAVING

N.T.S.



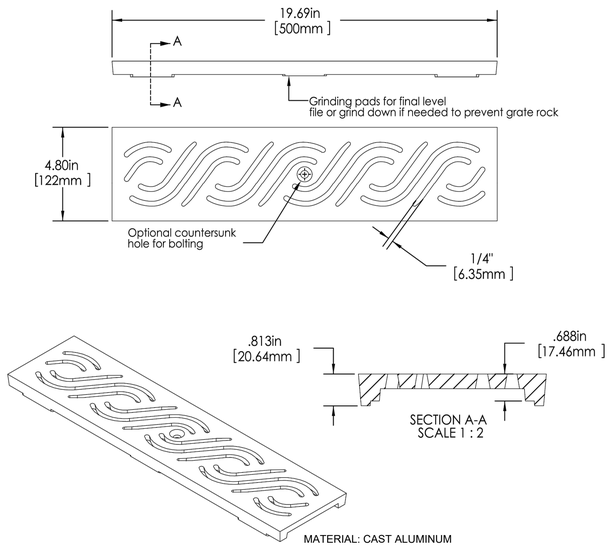
- FONT TYPE: ARIAL BLACK. FONT HEIGHT: 150MM
- APPLY MEDIUM SAND BLAST FINISH: GENERALLY EXPOSE COARSE AGGREGATE; 3/16-INCH TO 1/4-INCH REVEAL.
- APPROXIMATE LOCATIONS AS SHOWN IN DWG L201, L202 AND L203. CONTRACTOR TO MEET CONSULTANT ONSITE TO REVIEW EXACT LOCATIONS.
- APPLY COMMERCIAL GRADED CONCRETE STAIN ON SANDBLASTED CONCRETE. STAIN BY RADONSEAL,CHARCOAL GREY & WHITE WASH COLOUR OR APPROVED ALTERNATIVE.

CONCRETE STAIN AVAILABLE AT:
Eco-Building Resource
136 Wellington Street East
Aurora, Ontario L4G 1J
(905)841-3535, Fax: (905) 841-3536

- CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR SAND BLASTING TEMPLATE AND SAMPLE FOR CONCRETE STAIN FOR REVIEW AND APPROVAL.
- MOCK-UP: CONTRACTOR TO POUR A 300mmx300mm OFFSITE MOCK-UP INCLUDING TWO SANDBLASTED AND STAINED LETTERS. SEE CONTRACT SPECIFICATIONS FOR MOCK-UP CRITERIA.
- CLEAN-UP: MAINTAIN CONTROL OF CONCRETE CHIPS, DUST, AND DEBRIS IN EACH AREA OF THE WORK. PREVENT MIGRATION OF AIRBORNE MATERIALS BY USE OF TARPAULINS, WIND BREAKS, AND SIMILAR CONTAINING DEVICES.

2 L406 CITY OF WHITE ROCK LOGO - SANDBLASTED AND STAINED ON CONCRETE PAVING

N.T.S.



9059-PC
Marina
Trench Grate

Trench Grate for Pedestrian loads only.

1/4" maximum slot opening for A.D.A. compliance and pedestrian safety.

Cast from Gray Iron, or Aluminum from 100% Recycled Materials. Or Brass alloy C854 yellow brass

Finish: Unfinished, or Black Dip, or Enamel Paint, or Polyurethane Paint, or Powder Coat. Zinc undercoat available.

Specify finish and color.

Use Frame Model: ACO K100S. ABT Polydrain, MEA 1000 Series

Clear opening: 14 sq.In.

Weight per Each
Iron: 13 lb. / 5.9Kg.
Aluminum: 5.5 lb. / 2.5Kg.
Brass: 15.6 lb./ 7.1Kg.

Please specify if multiple run lengths are required to avoid field modification.

DO NOT SCALE DRAWING

IRONSMITH
41-701 Corporate Way #3
Palm Desert, CA 92260
(800) 338-4766
(760) 776-5080 Fax

PROPRIETARY AND CONFIDENTIAL
This drawing embodies a confidential design of IRONSMITH, INC. Palm Desert, CA. All design, manufacturing, reproduction, use, sale, and other rights regarding the same are expressly reserved. This drawing is submitted under confidential relationship for a specific purpose and the recipient agrees by accepting this drawing not to supply or disclose any information regarding it to any unauthorized person or to incorporate any special feature peculiar to this design in other projects. The information in this drawing may be covered completely or in part by patents pending.

NOTE: CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL. IT IS CONTRACTOR RESPONSIBILITY TO MAKE SURE GRATE FITS THE PROPOSED TRENCH DRAIN (H100-10 CHANNEL SYSTEM, BY ACO DRAIN) PRIOR TO ORDER THE PRODUCT.

3 L406 METAL TRENCH DRAIN GRATE

N.T.S.

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
1	2018-03-15	ISSUED FOR TENDER	LJ & RG

"I Mandeep Deol, Professional Engineer, in good standing in and for the Province of British Columbia, hereby certify that the works as herein set out on the attached drawings have been designed to good engineering standards and in accordance with the latest edition of the City Of White Rock Design Criteria and the MMCD.

NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney
McElhanney Consulting Services Ltd.
Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE
Johnston Road Gateway Redesign
SANDBLASTED STREET NAME &
TRENCH GRATE DETAILS

SEAL

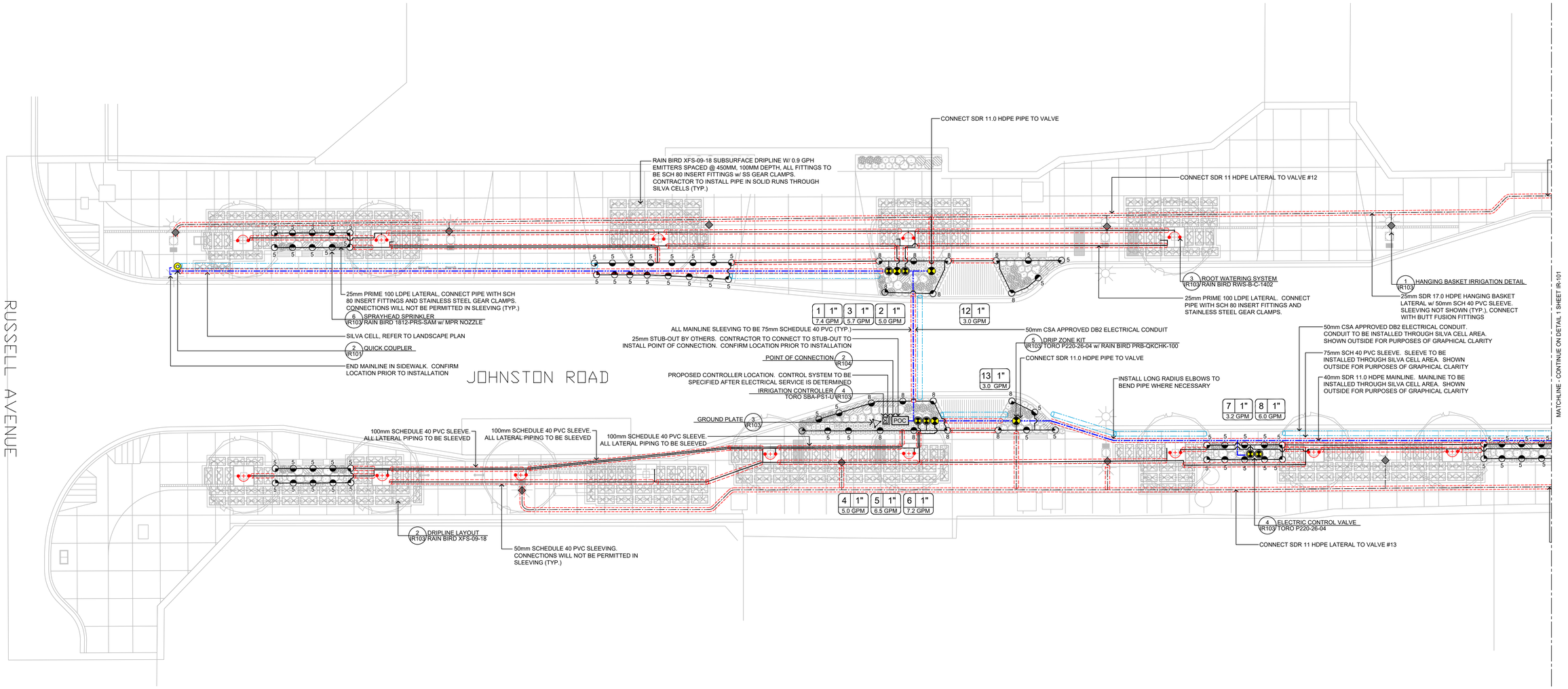
SCALE: AS SHOWN
DESIGNED SS
DRAWN LJ & RG
REVIEWED JS

DATE (YYYY.MM.DD) 2018.03.15
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO. L406
REV. 1

WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE: March 7, 2018, 1:37 PM FILE: G:\Projects\2511\00024.00_Johnston Road Gateway Redesign LA Services\10.0 Drawings\10.3 Sheet Files\00924.L406-408 Series_Phase1.dwg



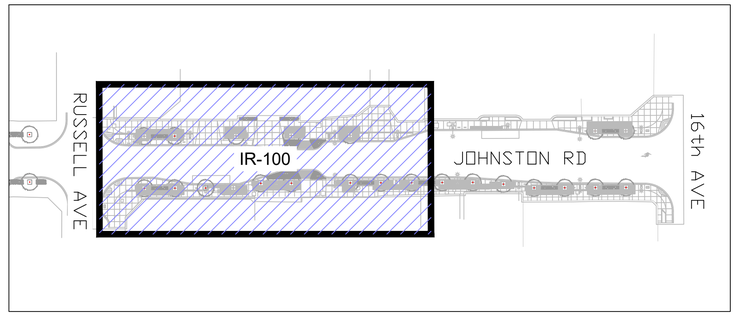
1 IR100 IRRIGATION PLAN
SCALE: 1:150

IRRIGATION LEGEND

RAIN BIRD XFS-09-18 SUBSURFACE DRIPLINE w/ 0.9 GPH EMITTERS SPACED @ 450mm, 100mm DEPTH	2 IR105 ROOT WATERING SYSTEM RAIN BIRD RWS-B-C-1402
1 IR105 DRIPLINE LAYOUT RAIN BIRD XFS-09-18	3 IR105 SPRAYHEAD SPRINKLER RAIN BIRD 1812-PRS-SAM w/ MPR NOZZLE
25mm PRIME 100 LDPE LATERAL	4 IR105 DRIP ZONE KIT TORO P220-26-04 RAIN BIRD PRB-QKCHK-100
SCHEDULE 40 PVC SLEEVING, SIZED AT 75mm FOR MAINLINE, 50mm FOR LATERAL PIPES UNLESS OTHERWISE NOTED	5 IR105 ELECTRIC CONTROL VALVE TORO P220-26-04
50mm CSA APPROVED DB2 ELECTRICAL CONDUIT	POC 6 IR105 POINT OF CONNECTION
40mm SDR 11.0 HDPE MAINLINE w/ PAIGE ELECTRIC P7350 TWO-WIRE CONDUCTOR	7 IR105 GROUND PLATE
25mm SDR 17.0 HDPE HANGING BASKET LATERAL w/ 50mm SCH 40 PVC SLEEVE. SLEEVING NOT SHOWN (TYP.)	8 IR105 IRRIGATION CONTROLLER TORO SBA-PS1-U
SILVA CELL, REFER TO LANDSCAPE PLAN	3&4 IR104 HANGING BASKET IRRIGATION DETAIL
	2 IR101 QUICK COUPLER

INSTALLATION NOTES

1. ALL IRRIGATION PRODUCTS, MATERIALS AND CONSTRUCTION SHALL CONFORM TO *SECTION 32 84 00 IRRIGATION SPECIFICATIONS*, UNLESS OTHERWISE NOTED ON PLANS.
2. CONTRACTOR SHALL SLEEVE ALL IRRIGATION AND WIRES UNDER ALL WALKWAYS, DRIVEWAYS, ROCK WALLS AND RETAINING WALLS. WATER LINES AND WIRE SHALL NOT SHARE SAME SLEEVE. SLEEVE SIZING SHALL BE TWICE THE THE DIAMETER OF IRRIGATION PIPE.
3. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES AND SERVICES PRIOR TO CONSTRUCTION.
4. IRRIGATION PLANS ARE SCHEMATIC ONLY. ALL PLANT MATERIAL, LIGHT STANDARDS, HARD SURFACES OR AMENITIES TAKE PRECEDENCE OVER LOCATION OF IRRIGATION COMPONENTS.
5. CONTRACTOR TO CONFIRM 60psi @ 28gpm AVAILABLE AT SOURCE PRIOR TO INSTALLATION.
6. ALL ELECTRIC CONDUIT SHALL BE CSA NON-METALLIC DB2 PVC, GREY IN COLOUR.
7. INSTALL VALVES WITH MINIMUM 50mm CLEARANCE BETWEEN VALVE AND VALVE BOX, AND BETWEEN VALVE AND DRAIN ROCK.
8. WIRE SPLICES SHALL BE MADE w/ DRYCONN DBR/Y-600 OR 3M DBR/Y CONNECTORS & LOCATED AT ELECTRIC CONTROL ZONE VALVES.
9. INSTALL WIRE WITH MINIMUM 600mm LENGTH OF COILED SLACK AT ALL CHANGES OF DIRECTION, IN WIRE SPLICE BOXES AND AT CONNECTIONS TO CONTROLLED COMPONENTS.
10. SPRAYHEADS AND ROTORS SHALL BE ADJUSTED TO MINIMIZE OVERSPRAY ONTO ADJACENT SURFACES.
11. CONTRACTOR SHALL MONITOR CONTROLLER SETTINGS AND ADJUST REGULARLY TO ACCOUNT FOR SEASONAL WEATHER CHANGES TO ENSURE THAT PLANT WATER REQUIREMENTS ARE MET AND NOT EXCEEDED.
12. IDENTIFY ELECTRIC CONTROL VALVE WITH PERMANENT LABEL OR TAG INDICATING ZONE NUMBER OF VALVE.
13. SUBSTITUTION REQUESTS SHALL BE MADE IN WRITING TO THE CONSULTANT MINIMUM 7 BUSINESS DAYS PRIOR TO CLOSE OF TENDER AND SHALL BE ACCOMPANIED BY PRODUCT LITERATURE, SHOP DRAWINGS, PERFORMANCE CHARTS, AND PROFILE & COVERAGE EVALUATION BY S.P.A.C.E.
14. CONTRACTOR SHALL CONFIRM LOCATION OF POINT OF CONNECTION AND CONTROLLER PRIOR TO INSTALLATION.
15. ALL WIRES SHALL BE 14 AWG DIRECT BURIAL WIRE. COMMON WIRE SHALL BE WHITE IN COLOUR, MASTER VALVE CONTROL WIRE SHALL BE RED IN COLOUR, CONTROL WIRES TO BE ORANGE, GREEN, YELLOW, BROWN OR BLACK IN COLOUR, SPARE WIRES TO BE BLUE IN COLOUR. COLOURS SHALL STAY CONSISTENT AND NOT CHANGE AT SPLICE.
16. CONTRACTOR SHALL ENSURE EACH DRIPLINE ZONE IS INSPECTED c/w COVERAGE TEST PRIOR TO BURIAL BY CONTRACT ADMINISTRATOR, IRRIGATION CONSULTANT, OR APPROVED PERSONNEL.
17. CONTRACTOR IS RESPONSIBLE TO CHECK AND CONFIRM ALL DIMENSIONS AND ELEVATIONS ON DRAWING.
18. INSTALL TORO DDCWP BATTERY OPERATED CONTROLLERS AT EACH VALVE CLUSTER. INSTALL IRRIGATION CONTROL WIRING AS PER PLAN FOR FUTURE.



2 IR100 SITE PLAN
SCALE: 1:1000

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
A	2018-03-15	ISSUED FOR TENDER	RH

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NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

McElhanney Consulting Services Ltd.
Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

WATER PLAN IT Irrigation Ltd.
205-1405 St. Paul St. Kelowna, BC V1Y 9H2 t: 250.878.6178

CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

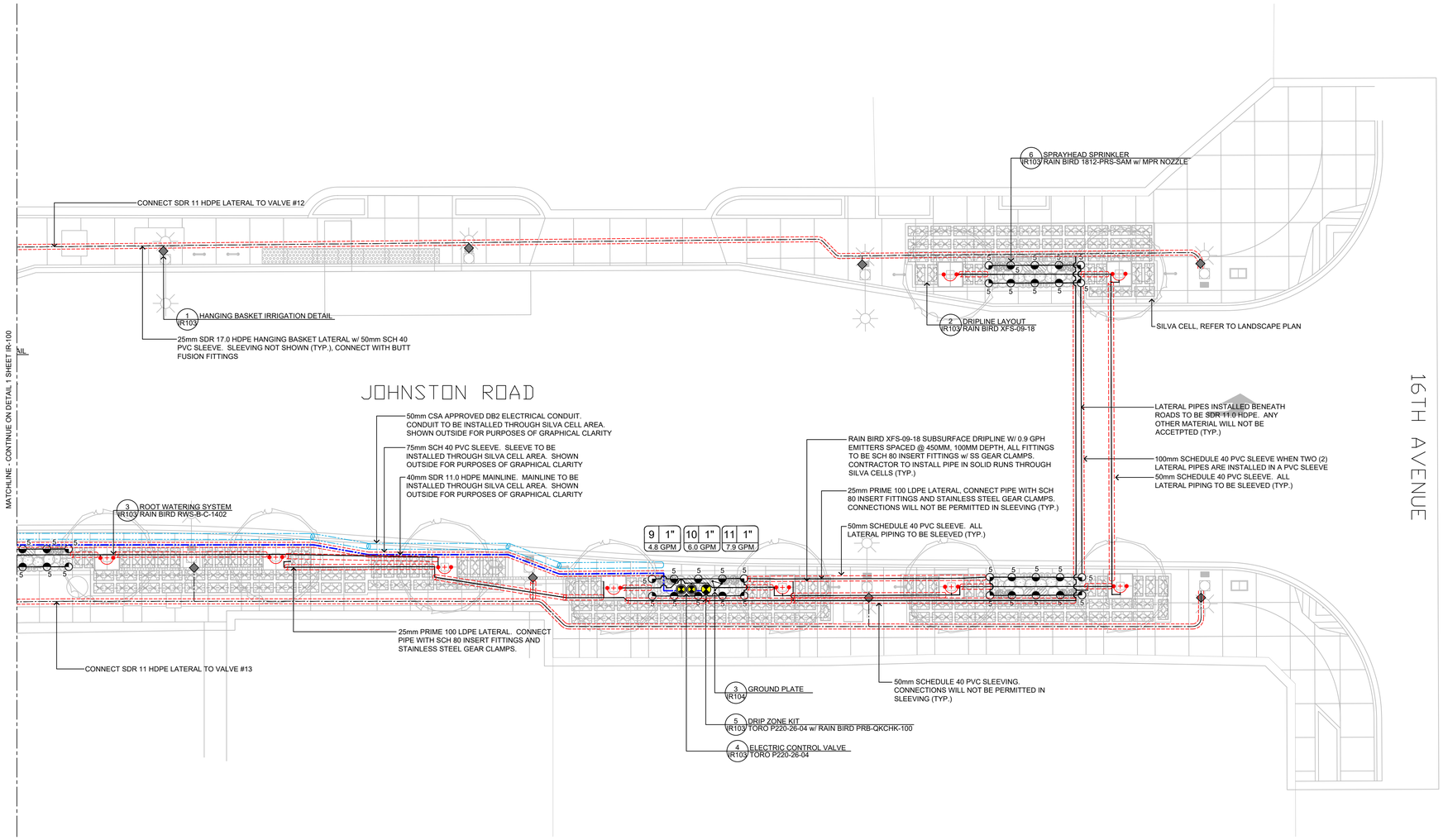
TITLE
IRRIGATION PLAN
JOHNSTON ROAD GATEWAY REDESIGN

SEAL
CERTIFIED DESIGNER TURF & COMPOSITE REGAN HYDE

SCALE:	1:150
DESIGNED	RH
DRAWN	RH
REVIEWED	RH
DATE (YYYY.MM.DD)	2017.10.06
CONSULTANT PROJ. NO.	2111-03898-00
DWG. NO.	
REV.	A
WHITE ROCK PROJECT NUMBER	WR18-008
WHITE ROCK DRAWING NUMBER	IR-100

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

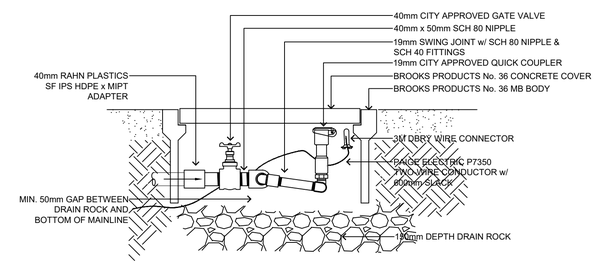
DATE: March 9, 2018, 11:15 AM FILE: G:\My Documents\Dropbox\Water Plan IT\Projects\2017_Projects\0063_McElhanney_White Rock\110_CAD\18-03-09_White Rock Ph1_Irr Plan (2.dwg



1 IR101 IRRIGATION PLAN
SCALE: 1:150

IRRIGATION SCHEDULE						BASED ON PEAK DEMAND FOR MONTH O JULY (ET=0.13"/DAY				
ZONE	LANDSCAPE	IRRIGATION	VALVE SIZE	DESIGN FLOW (GPM)	DESIGN PRESSURE (PSI)	PRECIPITATION RATE (IN/HR)	SOIL TYPE	INTERVAL DAYS	CYCLES PER RUN TIME	RUN TIME (MIN)
1	SHRUB	SPRAY	25mm	7.4	30	1.54	CLAY LOAM	2	1	14
2	TREE	RWS	25mm	5.0	30	n/a	CLAY LOAM	2	1	18
3	SILVA CELL	DRIP	25mm	5.7	40	0.64	CLAY LOAM	2	1	-
4	TREE	RWS	25mm	5.0	30	n/a	CLAY LOAM	2	1	18
5	SHRUB	SPRAY	25mm	6.5	30	1.54	CLAY LOAM	2	1	14
6	SILVA CELL	DRIP	25mm	7.2	40	0.64	CLAY LOAM	2	1	-
7	SHRUB	SPRAY	25mm	3.2	30	1.54	CLAY LOAM	2	1	14
8	TREE	RWS	25mm	6.0	30	n/a	CLAY LOAM	2	1	18
9	SHRUB	SPRAY	25mm	4.8	30	1.54	CLAY LOAM	2	1	14
10	TREE	RWS	25mm	6.0	30	n/a	CLAY LOAM	2	1	18
11	SILVA CELL	DRIP	25mm	7.9	40	0.64	CLAY LOAM	2	1	-
12	HANGING BASKET	DRIP	25mm	3.0	40	n/a	CLAY LOAM	2	3	3
13	HANGING BASKET	DRIP	25mm	3.0	40	n/a	CLAY LOAM	2	3	3
									TOTAL RUN TIME PER CYCLE:	128

NOTE: IRRIGATION RUN TIMES ARE FOR ESTABLISHED PLANT MATERIAL ONLY. PROGRAM CONTROLLER TO OPERATE ZONES SIMULTANEOUSLY.



2 IR101 QUICK COUPLER
N.T.S.

IRRIGATION LEGEND

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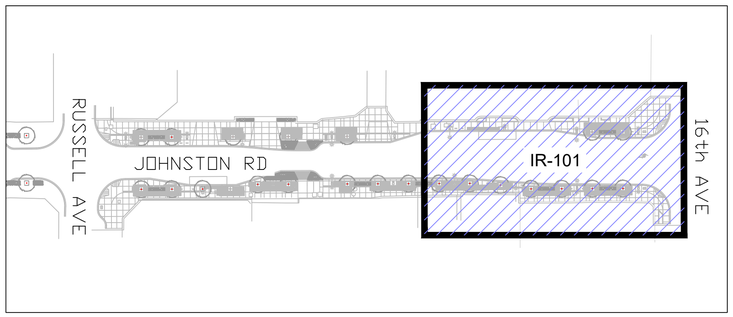

3 IR100 SITE PLAN
SCALE: 1:1000

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
A	2018-03-15	ISSUED FOR TENDER	RH

"I Mandeep Deol, Professional Engineer, in good standing in and for the Province of British Columbia, hereby certify that the works as herein set out on the attached drawings have been designed to good engineering standards and in accordance with the latest edition of the City Of White Rock Design Criteria and the MMCD.

NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

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Suite 2300
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Surrey BC
Canada V3T 5X3
Tel 604 596 0391

WATER PLAN IT Irrigation Ltd.
205-1405 St. Paul St. Kelowna, BC V1Y 9H2 t: 250.878.6178

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

IRRIGATION PLAN

JOHNSTON ROAD GATEWAY REDESIGN

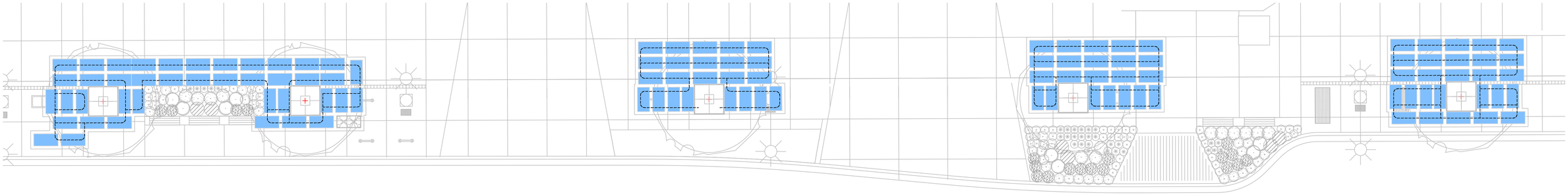
SEAL

CERTIFIED DESIGNER-TURF & ORNAMENTAL
iabc
REGAN HYDE

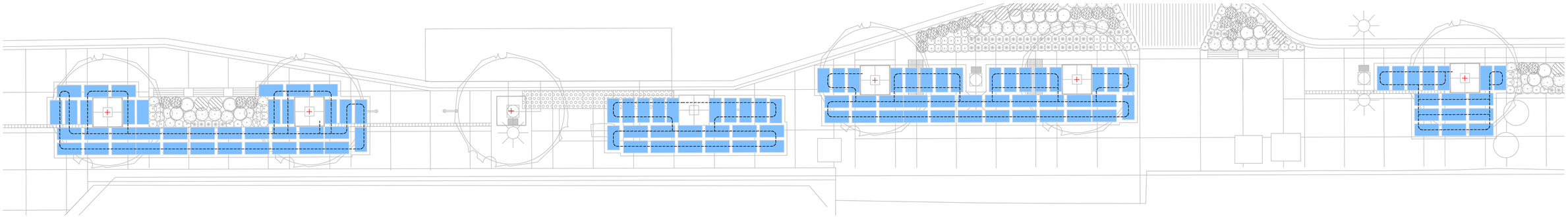
SCALE:	DATE (YYYY.MM.DD)	WHITE ROCK PROJECT NUMBER
1:150	2017.10.06	WR18-008
DESIGNED RH	CONSULTANT PROJ. NO. 2111-03898-00	WHITE ROCK DRAWING NUMBER
DRAWN RH	DWG. NO.	IR-101
REVIEWED RH	REV. A	

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

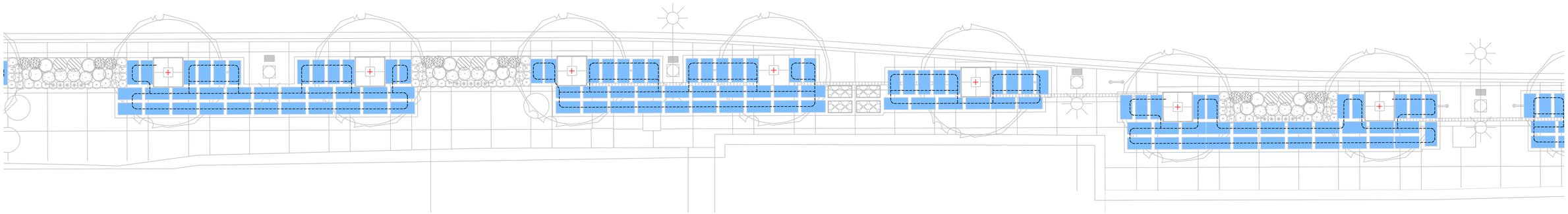
DATE: March 9, 2018, 11:16 AM FILE: G:\My Documents\Dropbox\Water Plan IR\Projects\2017_Projects\865_McElhanney_White Rock\4410_CAD\18-03-09_White Rock Ph1_Irr Plan r2.dwg



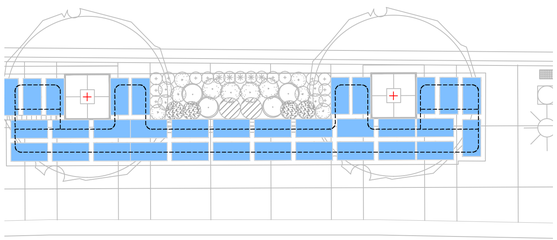
1 IRRIGATION PLAN: ZONE 3 SILVA CELL DRIP LAYOUT
IR102 SCALE: 1:100



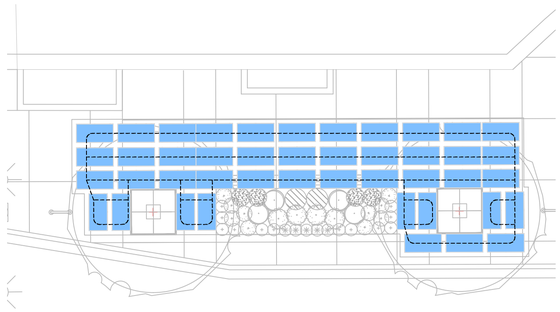
2 IRRIGATION PLAN: ZONE 6 SILVA CELL DRIP LAYOUT
IR102 SCALE: 1:100



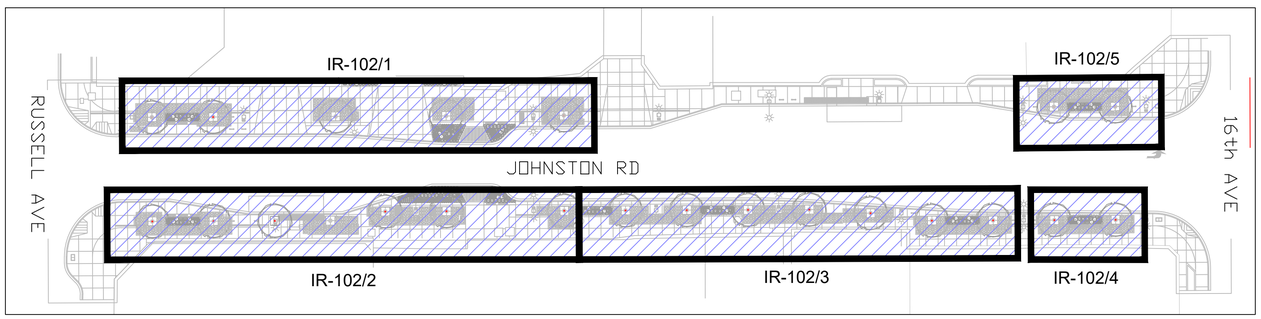
3 IRRIGATION PLAN: ZONE 6 & 11 SILVA CELL DRIP LAYOUT
IR102 SCALE: 1:100



4 IRRIGATION PLAN: ZONE 11 SILVA CELL DRIP LAYOUT
IR102 SCALE: 1:100



5 IRRIGATION PLAN: ZONE 11 SILVA CELL DRIP LAYOUT
IR102 SCALE: 1:100



4 SILVA CELL AREAS
IR102 SCALE: 1:500

NORTH

DATE: March 9, 2018, 11:18 AM FILE: G:\My Documents\Dropbox\Water Plan IrProjects\2017_Projects\005_McElhanney_White Rock\410_CAD\18-03-09_White Rock Ph1 Irr Plan r2.dwg

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
A	2018-03-15	ISSUED FOR TENDER	RH

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TITLE
IRRIGATION PLAN
SILVA CELL DRIP LAYOUT
JOHNSTON ROAD GATEWAY REDESIGN

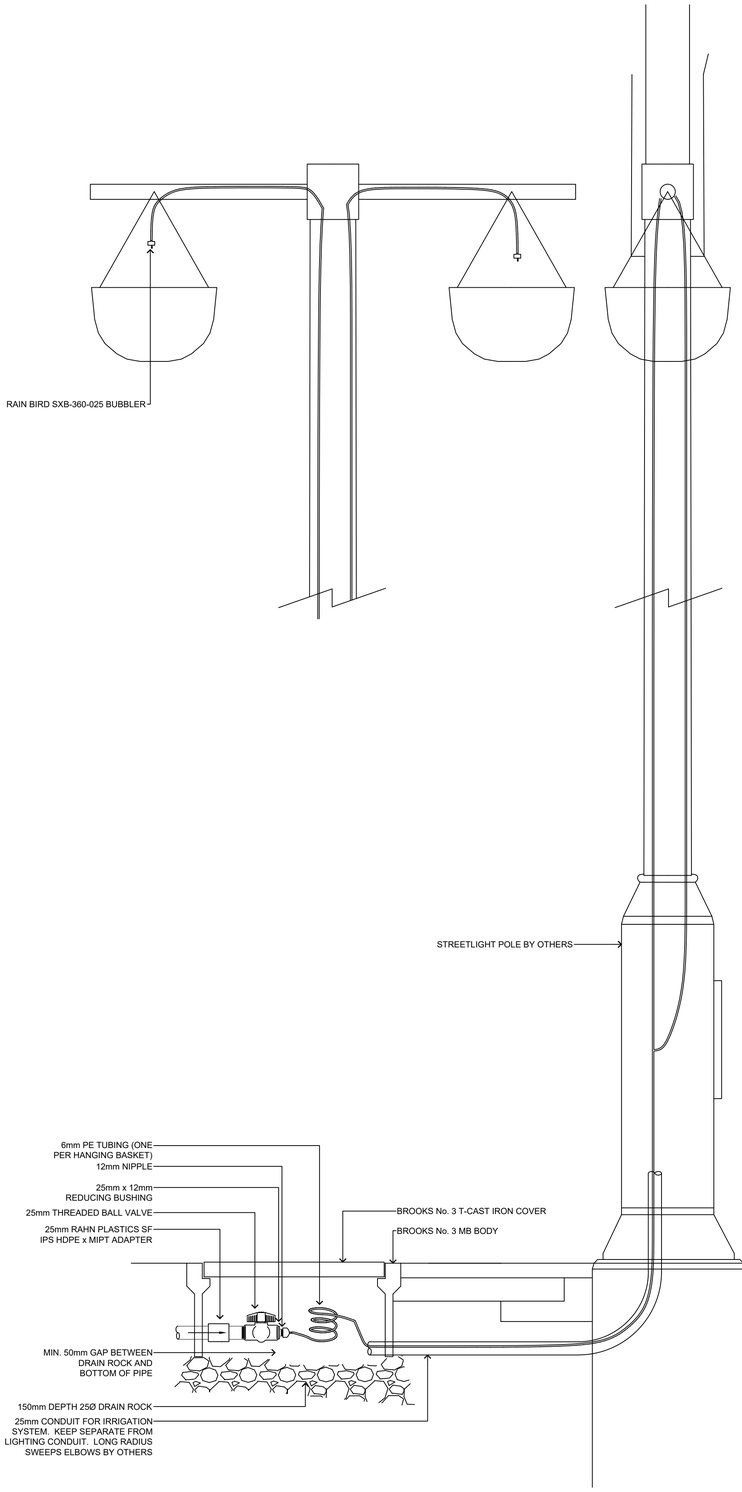
SEAL
CERTIFIED DESIGNER-TURF & LANDSCAPE
REGAN HYDE

SCALE: 1:150
DESIGNED RH
DRAWN RH
REVIEWED RH

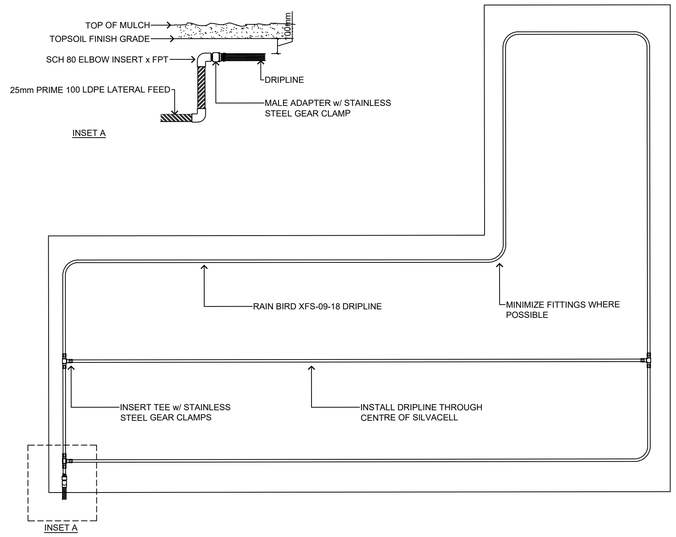
DATE (YYYY.MM.DD) 2017.10.06
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO.
REV. A

WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER IR-102

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER



1 IR103 HANGING BASKET IRRIGATION DETAIL
N.T.S.



2 IR103 DRIPLINE LAYOUT
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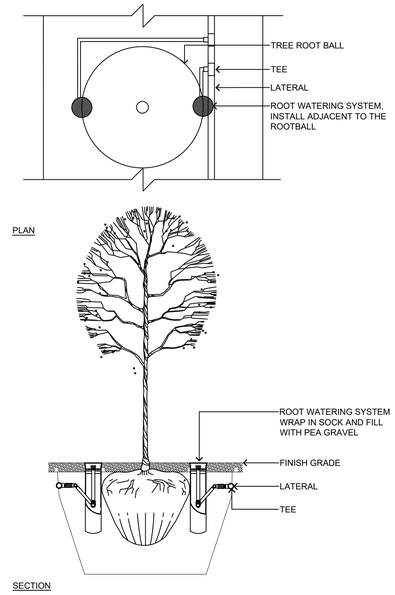
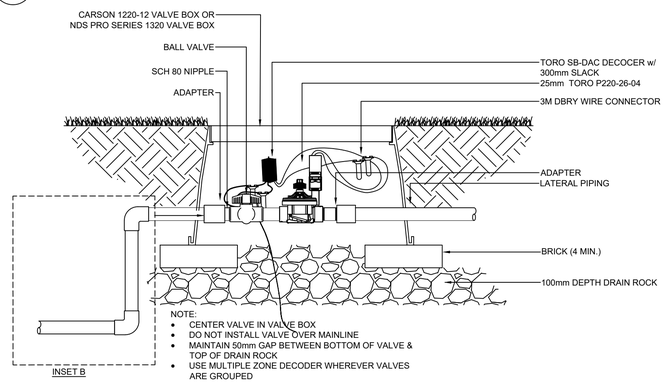
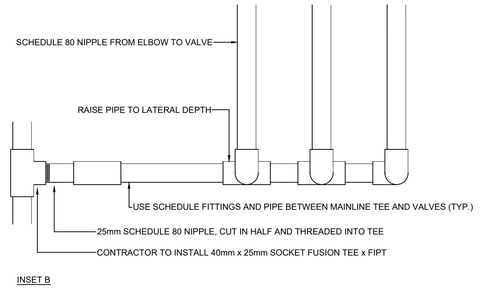
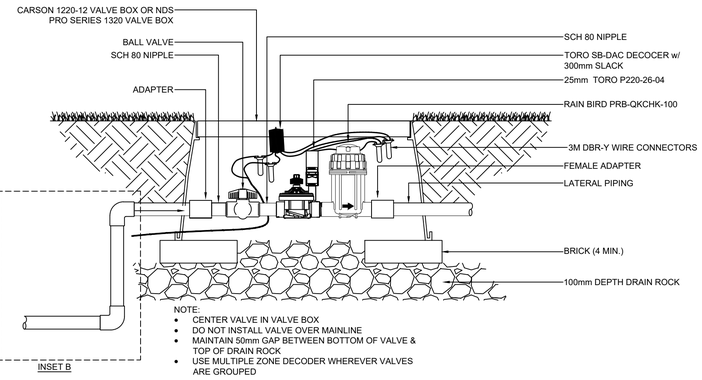


3 IR103 ROOT WATERING SYSTEM
N.T.S.

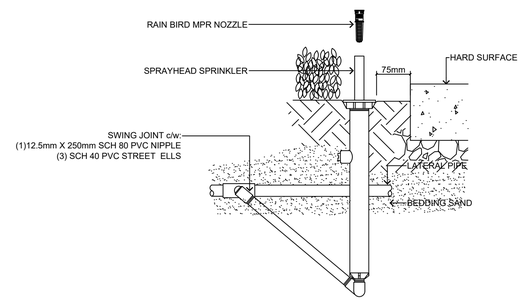


4 IR103 ELECTRIC CONTROL VALVE
N.T.S.





5 IR103 DRIP ZONE KIT
N.T.S.



6 IR103 SPRAYHEAD SPRINKLER
N.T.S.

NORTH

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
A	2018-03-15	ISSUED FOR TENDER	RH

"I Mandeep Deol, Professional Engineer, in good standing in and for the Province of British Columbia, hereby certify that the works as herein set out on the attached drawings have been designed to good engineering standards and in accordance with the latest edition of the City Of White Rock Design Criteria and the MMCD.

NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

McElhanney Consulting Services Ltd.
Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

WATER PLAN IT Irrigation Ltd.
205-1405 St. Paul St. Kelowna, BC V1Y 9H2 t: 250.878.6178

CLIENT
City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE
IRRIGATION DETAILS
JOHNSTON ROAD GATEWAY REDESIGN

SEAL
CERTIFIED DESIGNER-TURF CONTROL
iabc iapc
REGAN HYDE

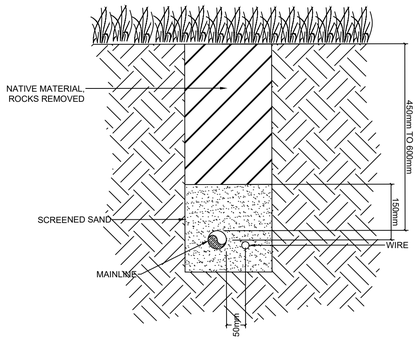
SCALE: 1:150
DESIGNED RH
DRAWN RH
REVIEWED RH

DATE (YYYY.MM.DD) 2017.10.06
CONSULTANT PROJ. NO. 2111-03898-00
DWG. NO.
REV. A

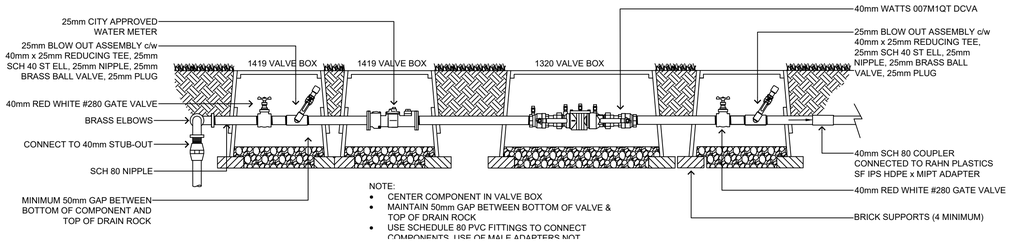
WHITE ROCK PROJECT NUMBER WR18-008
WHITE ROCK DRAWING NUMBER IR-103

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER

DATE March 9, 2018, 11:16 AM FILE G:\My Documents\Dropbox\Water Plan IT\Projects\2017_Projects\865_McElhanney_White Rock\410_CAD\18-03-09_White Rock Ph1_irr Plan r2.dwg

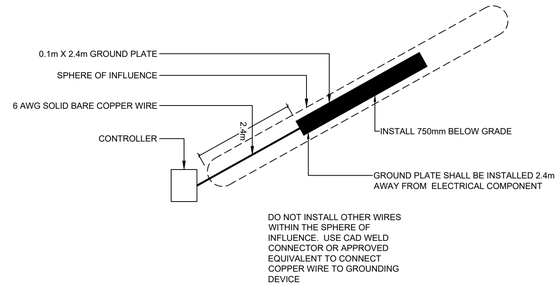


1 IR104 TRENCH SECTION
N.T.S.



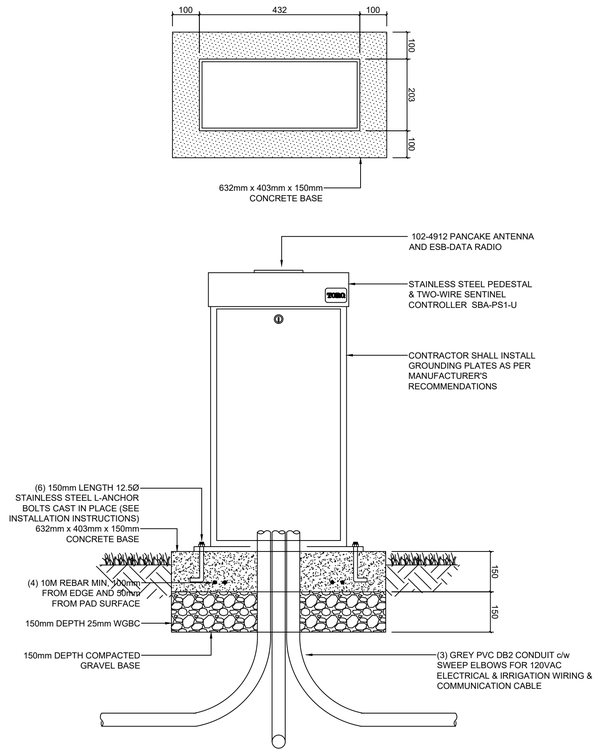
NOTE:
- CENTER COMPONENT IN VALVE BOX
- MAINTAIN 50mm GAP BETWEEN BOTTOM OF VALVE & TOP OF DRAIN ROCK
- USE SCHEDULE 80 PVC FITTINGS TO CONNECT COMPONENTS. USE OF MALE ADAPTERS NOT

2 IR104 POINT OF CONNECTION
N.T.S.



DO NOT INSTALL OTHER WIRES WITHIN THE SPHERE OF INFLUENCE. USE CAD WELD CONNECTOR OR APPROVED EQUIVALENT TO CONNECT COPPER WIRE TO GROUNDING DEVICE

3 IR104 GROUND PLATE
N.T.S.



4 IR104 IRRIGATION CONTROLLER
N.T.S.

NORTH

DATE: March 9, 2018, 11:16 AM FILE: G:\My Documents\Dropbox\Water Plan IT\Projects\2017_Projects\1062_McElhanney_White Rock\410_CAD\18-03-09_White Rock Phi_Irr Plan r2.dwg

LEGAL DESCRIPTION

SURVEY BENCHMARK

REV.	DATE	DESCRIPTION	BY
A	2018-03-15	ISSUED FOR TENDER	RH

"I Mandeep Deol, Professional Engineer, in good standing in and for the Province of British Columbia, hereby certify that the works as herein set out on the attached drawings have been designed to good engineering standards and in accordance with the latest edition of the City Of White Rock Design Criteria and the MMCD.

NOT FOR CONSTRUCTION

ORIGINAL DWG SIZE: A1 (594 x 841mm)

CONSULTANT

McElhanney

McElhanney Consulting Services Ltd.
Suite 2300
13450-102 Ave.
Surrey BC
Canada V3T 5X3
Tel 604 596 0391

WATER PLAN IT Irrigation Ltd.

205-1405 St. Paul St. Kelowna, BC V1Y 9H2 t: 250.878.6178

CLIENT

City of White Rock
15322 Buena Vista Ave. White Rock, BC,
Canada V4B 1Y6

TITLE

IRRIGATION DETAILS

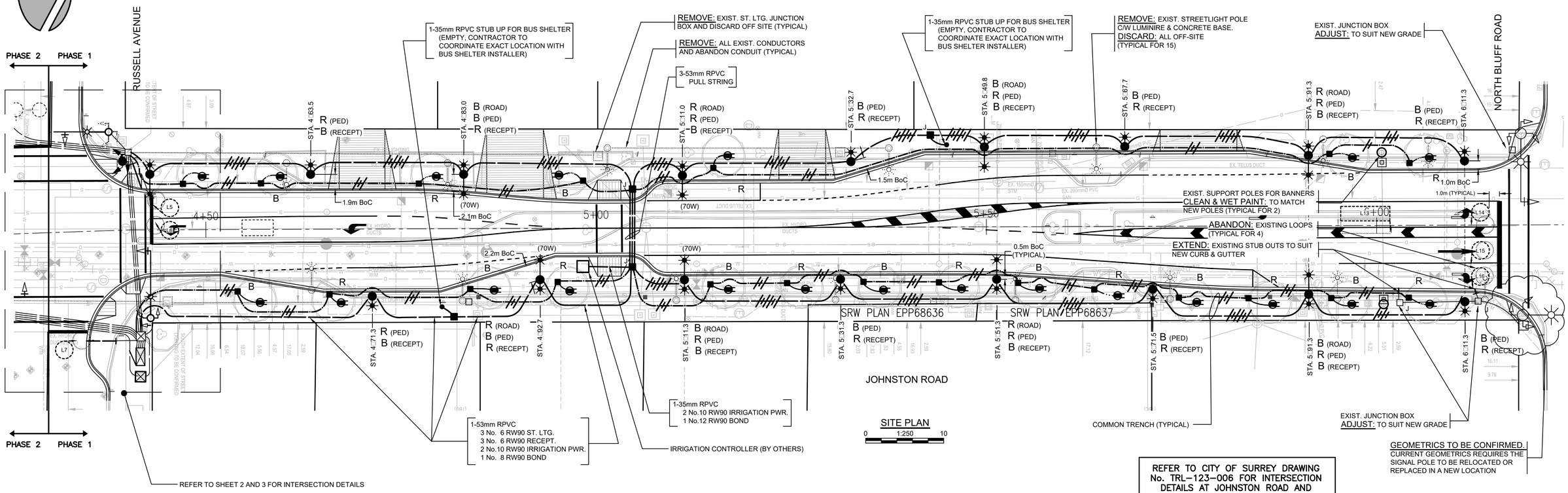
JOHNSTON ROAD GATEWAY REDESIGN

SEAL

CERTIFIED DESIGNER-TURF CONTRACTOR
iabc iapc
REGAN HYDE

SCALE:	1:150
DESIGNED	RH
DRAWN	RH
REVIEWED	RH
DATE (YYYY.MM.DD)	2017.10.06
CONSULTANT PROJ. NO.	2111-03898-00
DWG. NO.	
REV.	A
WHITE ROCK PROJECT NUMBER	WR18-008
WHITE ROCK DRAWING NUMBER	IR-104

DESTROY ALL PRINTS BEARING PREVIOUS NUMBER



GEOMETRICS TO BE CONFIRMED
CURRENT GEOMETRICS REQUIRES THE SIGNAL POLE TO BE RELOCATED OR REPLACED IN A NEW LOCATION

REFER TO CITY OF SURREY DRAWING No. TRL–123–006 FOR INTERSECTION DETAILS AT JOHNSTON ROAD AND NORTH BLUFF ROAD

NOTES

1. ALL STREET LIGHTING WORKS SHALL BE DONE IN ACCORDANCE WITH THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (CURRENT ISSUE) AND THE CITY OF WHITE ROCK STREET LIGHTING STANDARDS AND SPECIFICATIONS.
2. A TRON HEB-AA WATER-RESISTANT FUSE HOLDER C/W A 10A BUSS KTK FUSE, OR APPROVED EQUAL, & 2 :L' TYPE INSULATING BOOTS SHALL BE INSTALLED IN EACH LUMINAIRE LIVE CONDUCTOR AT THE HANDHOLE.
3. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER FOR ANY DEVIATIONS FROM THESE DESIGN DRAWINGS AND CONTRACT DOCUMENTS PRIOR TO CONSTRUCTION.
4. CONDUCTORS INSIDE POLE SHALL BE: No.12 RW90 X-LINK. ALL LUMINAIRES SHALL BE BONDED WITH No. 12 RW90 (GREEN) AT THE HANDHOLE.
5. ALL CONDUCTORS SHALL BE STRANDED COPPER, TYPE RW90 INSULATED AND COLOUR CODED.
6. ALL CONDUITS SHALL BE BURIED MIN. 600mm DEEP. A 'BURIED CABLE' MARKER TAPE SHALL BE INSTALLED IN ALL TRENCHES.
7. CONTRACTOR SHALL OBTAIN ALL PERMITS AND LICENSES PRIOR TO CONSTRUCTION.
8. CONTRACTOR SHALL LOCATE AND AVOID ALL UNDERGROUND SERVICES.
9. REFER TO ELEVATIONS OF SHEET 2 FOR LUMINAIRE DETAILS
10. SECURITY HANDHOLE COVER C/W TAMPER PROOF BOLTS TO BE INSTALLED ON ALL NEW POLES (CONTRACTOR TO CONFIRM TYPE WITH THE CITY).
11. EXACT POSITION AND ELEVATION OF CONCRETE BASES SHALL BE DETERMINED BY CIVIL ENGINEER ON SITE.

LOCATING EQUIPMENT

FOR CLARITY CONDUITS, JUNCTION BOXES AND STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN OFFSETS. CONTRACTOR SHALL LOCATE ALL EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS NOTED AND SHALL NOT RELY ON COORDINATES OBTAINED FROM DMD DIGITAL DRAWINGS. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES LTD. PRIOR TO ORDERING EQUIPMENT.

CHECK BEFORE YOU DIG

CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES LTD. PRIOR TO ORDERING BASES.

LEGEND:

- PROPOSED DECORATIVE POLE (8.8m - 55W (70W WHERE NOTED) LED TYPE LE3F DIST.) C/W PEDESTRIAN LUMINAIRE (35W LED) AND BASKET HANGERS ON A SONOTUBE CONCRETE BASE. REFER TO SHEET 2 FOR DETAILS
- PROPOSED PEDESTRIAN POLE (5.7m - 35W LED) ON A MODIFIED SONOTUBE CONCRETE BASE. REFER TO SHEET 2 FOR DETAILS
- PROPOSED SIGNAL POST. REFER TO ELEVATION FOR DETAILS
- EXISTING DECORATIVE TRAFFIC SIGNAL POLE
- EXISTING DECORATIVE POLE
- PROPOSED TREE RECEPTACLE (REFER TO SHEET 2 FOR DETAILS)
- PROPOSED 6"x6"x6" PVC BOX FOR TREE RECEPTACLE
- J — PROPOSED LARGE ROUND PLASTIC JUNCTION BOX 2 SECTIONS DEEP C/W BONDED GALVANIZED STEEL LID (LABELED "ELEC")
- J — EXISTING JUNCTION BOX
- R — ROADWAY LUMINAIRE / PEDESTRIAN LUMINAIRE / RECEPT.ON RED PHASE CONDUCTOR
- B — ROADWAY LUMINAIRE / PEDESTRIAN LUMINAIRE / RECEPT. ON BLACK PHASE CONDUCTOR
- PROPOSED 3 No. 6 RW90 ST. LTG & 3 No. 6 RW90 RECEPT. & 1 No. 8 RW90 BOND IN 53mm RPVC
- PROPOSED 2 No. 6 RW90 ST. LTG & 2 No. 6 RW90 RECEPT. & 1 No. 8 RW90 BOND IN 53mm RPVC
- PROPOSED 3 No. 10 RW90 TREE RECEPT. & 1 No. 12 RW90 BOND IN 35mm RPVC
- PROPOSED 2 No. 10 RW90 TREE RECEPT. & 1 No. 12 RW90 BOND IN 35mm RPVC
- PROPOSED 2C No.14 TECK 90 CABLE TREE RECEPT.
- PROPOSED 35mm RPVC STUB-OUT FOR FUTURE EXTENSION (CAP & MARK LOCATION)
- EXISTING CONDUIT AND CONDUCTORS

REFER TO SHEET 2 FOR DETAILS

MAXIMUM LOAD PER TREE RECEPTACLE IS 100W

NOT FOR CONSTRUCTION
JANUARY 25, 2018

ILLUMINANCE DESIGN CRITERIA

ITEM	DESIGN REQUIREMENTS	DESIGN ACHIEVED
STREET NAME(S)	JOHNSTON ROAD	
ROAD CLASSIFICATION	COLLECTOR	
PEDESTRIAN CONFLICT	HIGH	
APPLICATION	RESIDENTIAL	
ILLUMINATION TYPE	55W - LED	
SPACING (MAX)	23m OPPOSITE	
ILLUMINATION LEVEL (AVG.)	12.0 LUX	13.0 LUX
UNIFORMITY RATIO (AVG.:MIN.)	4.0:1	1.8:1

DMD & Associates Ltd.
#12-17358 104A Avenue
Surrey, BC, Canada V4N 5M3
www.dmdeng.com 604/589-9010
office□ dmdeng.com Fax 604/589-9012

DESIGNED	STUART ASHMORE
DRAWN	GABRIELA VARSANYI
CHECKED	XXX
DATE	NOVEMBER 17, 2017
SCALE:	1:500
SEAL	

No.	DATE	BY	CHK'D	REVISION
.	2018-01-25	SA	.	70□ SUBMISSION

DRAWING REFERENCE

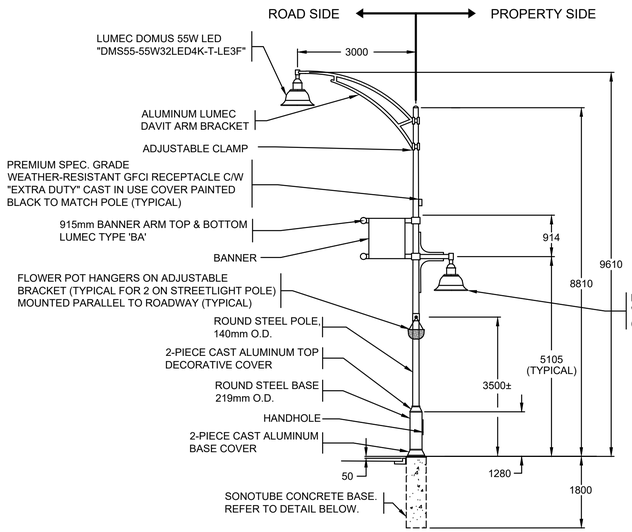
McElhanney Consulting Services Ltd., Surrey
#2300 Central City Tower 13450 - 102 Avenue, Surrey, BC V3T 5X3 Tel.: 604-596-0391

STREET LIGHTING
JOHNSTON ROAD GATEWAY REDESIGN (PHASE 1)
WHITE ROCK, BC

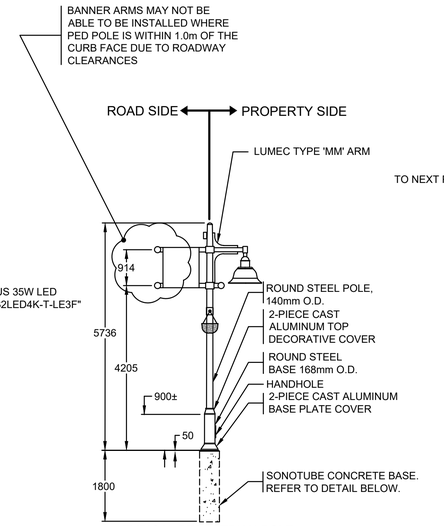
PROJECT No.	SHEET No.	REVISION
5996-17-01 of 04	1 of 4	.

CANCEL PRINTS BEARING PREVIOUS LETTER

DMD (2010)



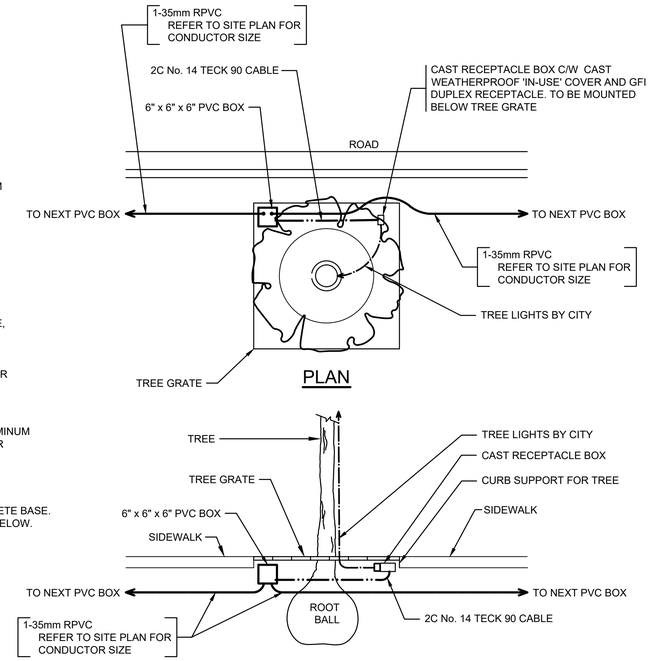
TYPICAL STREETLIGHT/PEDESTRIAN POLE



TYPICAL PEDESTRIAN POLE

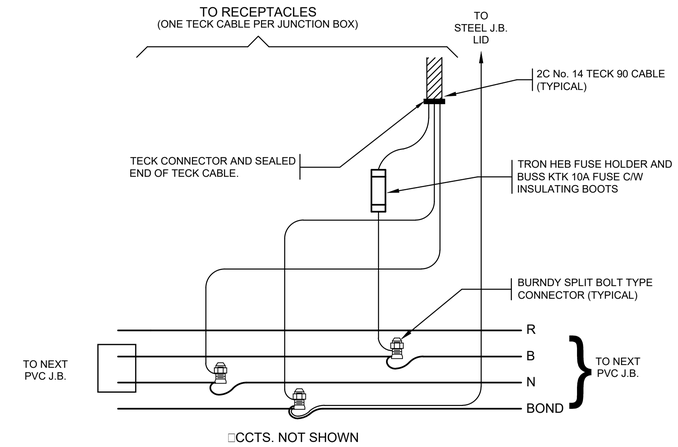
ELEVATIONS

0 1:75 5



TREE RECEPTACLE DETAIL

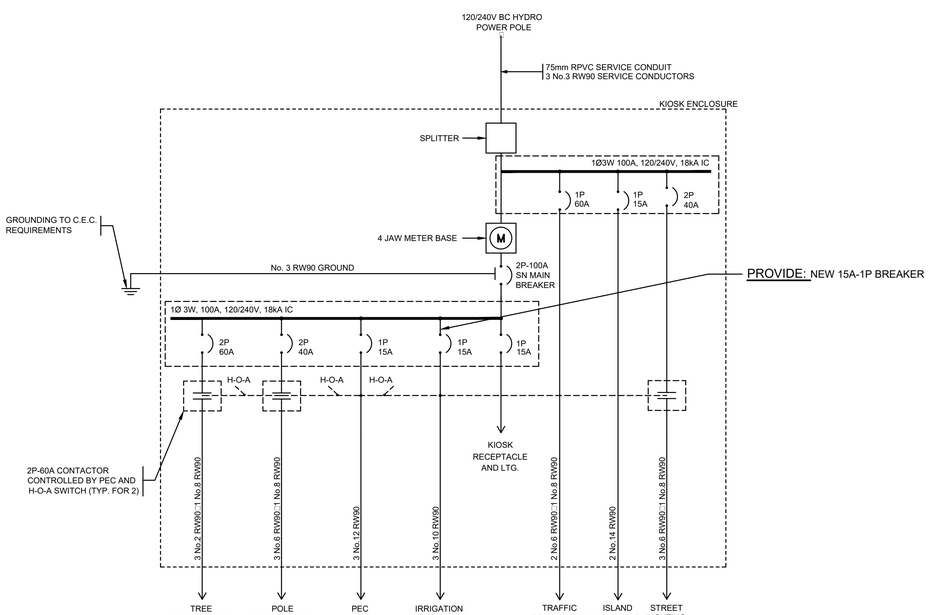
N.T.S.



TYPICAL TREE RECEPTACLE SPLICING DETAIL IN PVC J.B.

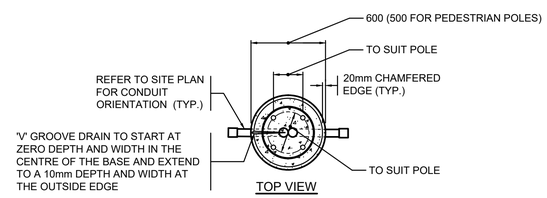
N.T.S.

MAXIMUM LOAD PER TREE RECEPTACLE IS 100W

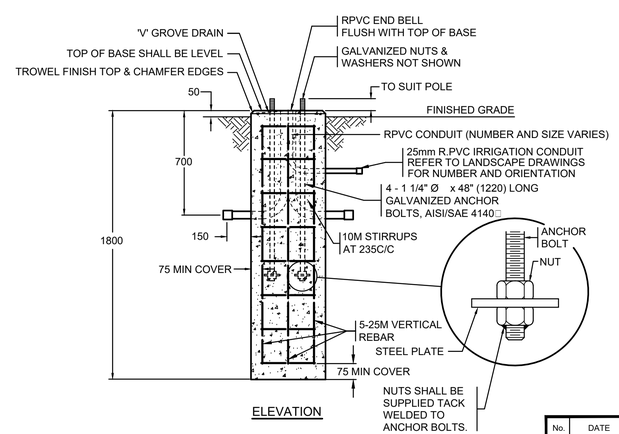


MODIFIED SERVICE KIOSK
SINGLE LINE DIAGRAM

N.T.S.



TOP VIEW



ELEVATION

SONOTUBE CONCRETE BASE DETAIL

N.T.S.

NOTES

1. ALL HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH CAN/CSA G14-M92
2. APPLY LUBRIPLATE OR OTHER SUITABLE GREASE TO EXPOSED PORTION OF ANCHOR BOLTS AND NUTS PRIOR TO POLE INSTALLATION
3. CONCRETE TO HAVE A MINIMUM STRENGTH OF 30MPa AT 28 DAYS.
4. FOOTINGS ARE DESIGNED FOR SOILS WITH A MINIMUM ALLOWABLE BEARING PRESSURE OF 125kPa.
5. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
6. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MINISTRY STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2012 ISSUE) UNLESS OTHERWISE NOTED ON THESE DRAWINGS OR IN THE SPECIAL PROVISIONS.
7. BACKFILL SHALL BE S.G.S.B. IN ACCORDANCE WITH SECTION 202 OF BC MoTI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NO MORE THAN 150mm THICK TO 100□ STANDARD PROCTOR MAXIMUM DENSITY (ASTM D-698).
8. CONTRACTOR SHALL PROVIDE ALL MEANS NECESSARY TO ENSURE THAT EXCAVATIONS SHALL REMAIN DRY DURING CONSTRUCTION.
9. ALL EXPOSED EDGES SHALL BE CHAMFERED 20 x 20 U.N.O.
10. CONFIRM ANCHOR BOLTS AND THEIR PLAN ORIENTATION PRIOR TO SETTING IN CONCRETE FORMS.

NOT FOR CONSTRUCTION
JANUARY 25, 2018

DMD & Associates Ltd.
#12-17358 104A Avenue
Surrey, BC, Canada V4N 5M3
www.dmdeng.com 604/589-9010
office□ dmdeng.com Fax 604/589-9012

DESIGNED	STUART ASHMORE
DRAWN	GABRIELA VARSANYI
CHECKED	XXX
DATE	NOVEMBER 17, 2017
SCALE:	AS NOTED

SEAL

No.	DATE	BY	CHK'D	REVISION
.	2018-01-25	SA	.	70□ SUBMISSION

DRAWING REFERENCE

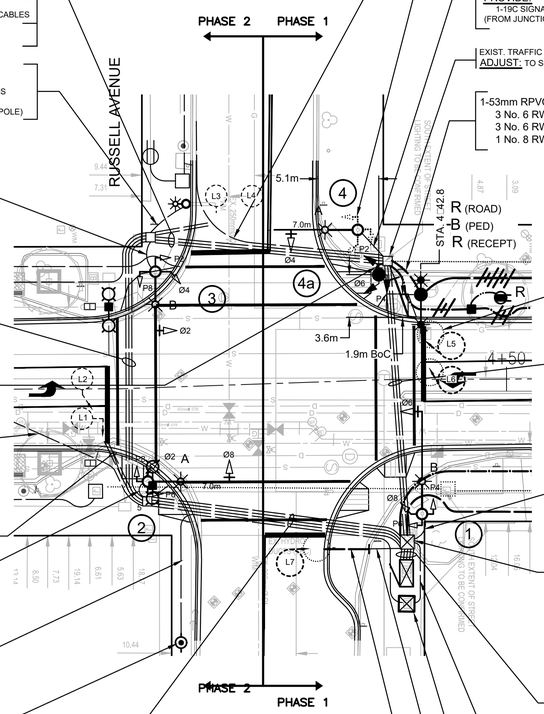
McElhanney Consulting Services Ltd., Surrey
#2300 Central City Tower 13450 - 102 Avenue, Surrey, BC V3T 5X3 Tel.: 604-596-0391

STREET LIGHTING
JOHNSTON ROAD GATEWAY REDESIGN (PHASE 1)
WHITE ROCK, BC

PROJECT No.	SHEET No.	REVISION
5996-17-02 of 04	2 of 4	.

CANCEL PRINTS BEARING PREVIOUS LETTER

DMD (2010)



1-27mm RPVC
3 No. 6 RW90 TREE RECEPTACLES
1 No. 8 RW90 BOND

REMOVE: EXISTING SECONDARY HEAD, PEDESTRIAN HEADS AND PUSH BUTTONS. REUSE ON NEW SIGNAL POST. REFER TO ELEVATIONS ON SHEET 4 FOR DETAILS

1-78mm RPVC
1-19C SIGNAL CABLE N/W POLE
2 No. 6 RW90 ST. LTG.
1 No. 8 RW90 BOND
PROVIDE:
1-19C SIGNAL CABLE N/W POST
(FROM JUNCTION BOX TO POLE)

EXIST. TRAFFIC SIGNAL JUNCTION BOX
ADJUST: TO SUIT NEW GRADE

1-53mm RPVC
3 No. 6 RW90 ST. LTG.
3 No. 6 RW90 RECEPT.
1 No. 8 RW90 BOND

1-78mm RPVC
1-19C SIGNAL CABLE S/W POLE
1 No. 8 RW90 BOND

1-53mm RPVC
3 No. 6 RW90 ST. LTG.
3 No. 6 RW90 POLE RECEPTACLES
1 No. 8 RW90 BOND

1-78mm RPVC
2-2C No.16 SH. DET. LOOP CABLES

1-78mm RPVC
(EMPTY)

1-53mm RPVC
3 No. 6 RW90 ST. LTG.
3 No. 6 RW90 RECEPTACLES
1 No. 8 RW90 BOND
(FROM JUNCTION BOX TO POLE)

1-78mm RPVC
1-19C SIGNAL CABLE S/W POLE
2 No. 6 RW90 ST. LTG.
1 No. 8 RW90 BOND
(FROM JUNCTION BOX TO POLE)

2-78mm RPVC
(EMPTY)

1-78mm RPVC
(EMPTY)

PROVIDE:
1-78mm RPVC
1-19C SIGNAL CABLE N/W POST
1 No. 8 RW90 BOND
(FROM JUNCTION BOX TO POST)

1-35mm RPVC
2 No.12 RW90 IS. FLASH.
1 No.12 RW90 BOND

2-27mm RPVC STUB OUTS (TYPICAL)

1-78mm RPVC
1-19C SIGNAL CABLE S/E POLE
2 No. 6 RW90 ST. LTG.
1-3C 3M VEHICLE PRE-EMPTION CABLE
1 No. 8 RW90 BOND
(FROM JUNCTION BOX TO POLE)

1-53mm RPVC SERVICE CONDUIT
3 No. 3 RW90 SERVICE CONDUCTORS

BC HYDRO SERVICE POLE LOCATION
(120/240V) - POLE #2413900

1-78mm RPVC
1-19C SIGNAL CABLE S/E POLE
1 No. 8 RW90 BOND

1-53mm RPVC
3 No. 6 RW90 ST. LTG.
3 No. 6 RW90 POLE RECEPTACLES
3 No.14 RW90 IS. FLASH.
1 No. 8 RW90 BOND

1-78mm RPVC
2-2C No. 16 SH. DET. LOOP CABLES
1-3C 3M VEHICLE PRE-EMPTION CABLE

1-53mm RPVC
(EMPTY)

REFER TO DMD PROJECT No. 1631-06-03&04 FOR INTERSECTION DETAILS AT JOHNSTON ROAD AND RUSSELL AVENUE

ABANDON: EXISTING LOOPS (TYPICAL FOR 3)

1-78mm RPVC
1-19C SIGNAL CABLE N/W POLE
1-19C SIGNAL CABLE S/W POLE
1 No. 8 RW90 BOND

1-53mm RPVC
3 No. 6 RW90 ST. LTG.
3 No. 6 RW90 POLE RECEPTACLES
3 No. 4 RW90 TREE RECEPTACLES
1 No. 8 RW90 BOND

1-78mm RPVC
4-2C No.16 SH. DET. LOOP CABLES

1-78mm RPVC
1-19C SIGNAL CABLE N/E POLE
2 No. 6 RW90 ST. LTG.
3 No.12 RW90 PHOTOCELL
1-3C 3M VEHICLE PRE-EMPTION CABLE
1-RADIO ANTENNA CABLE
1 No. 8 RW90 BOND
(FROM JUNCTION BOX TO POLE)

EXIST. TRAFFIC SIGNAL JUNCTION BOX
ADJUST: TO SUIT NEW GRADE

1-78mm RPVC
1-19C SIGNAL CABLE S/W POLE
1-19C SIGNAL CABLE N/W POLE
1 No. 8 RW90 BOND

1-78mm RPVC
1-19C SIGNAL CABLE S/E POLE
1-19C SIGNAL CABLE N/E POLE
1 No. 8 RW90 BOND

1-53mm RPVC
2 No. 6 RW90 CONTROLLER POWER
1 No. 8 RW90 BOND

1-78mm RPVC
7-2C No.16 SH. DET. LOOP CABLES
2-3C 3M VEHICLE PRE-EMPTION CABLES
1-RADIO ANTENNA CABLE

1-78mm RPVC
(EMPTY)

1-53mm RPVC
3 No. 6 RW90 ST. LTG
3 No. 6 RW90 RECEPTACLES
3 No. 4 RW90 TREE RECEPTACLES
2 No. 6 RW90 CONTROLLER POWER
3 No.14 RW90 IS. FLASH.
3 No.12 RW90 PHOTOCELL
1 No. 8 RW90 BOND
PROVIDE: 2 No.10 RW90 IRRIGATION PWR.

MODIFY: EXIST. ELECTRICAL KIOSK. REFER TO SHEET 4 FOR DETAILS

1-53mm RPVC STUB OUT

EXTEND: EXISTING STUB OUTS TO SUIT NEW CURB & GUTTER (TYPICAL FOR 2)

LEGEND

- PROPOSED DECORATIVE POLE (8.8m - 55W (70W WHERE NOTED) LED TYPE LE3F DIST.) C/W PEDESTRIAN LUMINAIRE (35W LED) AND BASKET HANGERS ON A SONOTUBE CONCRETE BASE. REFER TO SHEET 2 FOR DETAILS
- PROPOSED PEDESTRIAN POLE (5.7m - 35W LED) ON A MODIFIED SONOTUBE CONCRETE BASE. REFER TO SHEET 2 FOR DETAILS
- EXISTING COMBINATION TRAFFIC SIGNAL POLE
- EXISTING PEDESTRIAN POLE
- EXISTING STREET LIGHT POLE
- 5686 — EXISTING CONCRETE JUNCTION BOX (5686) C/W BONDED GALVANIZED STEEL LID
- EXISTING JUNCTION BOX
- L5 — PROPOSED 1.8mØ DETECTOR LOOP
- EXISTING DETECTOR LOOP
- A & C — LUMINAIRE/RECEPTACLE ON RED PHASE CONDUCTOR
- B & D — LUMINAIRE/RECEPTACLE ON BLACK PHASE CONDUCTOR
- Ø2 — VEHICLE PHASE
- P2 — PEDESTRIAN PHASE
- EXISTING TRAFFIC CONTROLLER
- CONDUIT AND CONDUCTORS
- CONDUIT AND CONDUCTORS
- 3 No.6 RW90 ST. LTG., 3 No. 6 RW90 RECEPT. & 1 No.8 RW90 BOND IN 53mm RPVC

NOTES

1. ALL WORK WAS CONSTRUCTED IN ACCORDANCE WITH CITY OF SURREY TRAFFIC SIGNAL SUPPLEMENTARY MASTER MUNICIPAL CONSTRUCTION DOCUMENTS.
2. SIGNAL CABLE: REFERENCE TO CSA 22.2 No. 239-97 - 600 VOLTS, No.14 AWG STRANDED COPPER, POLYETHYLENE INSULATED & POLYVINYL CHLORIDE JACKETED.

CONDUCTOR COLOUR CODE (FROM HANDHOLE TO SIGNAL)

ITEM	SIGNAL SECTION	CONDUCTOR COLOUR
Ø2	RED YELLOW GREEN	RED YELLOW BLUE
Ø4	RED YELLOW GREEN	RED BROWN BLUE
Ø6	RED YELLOW GREEN	RED YELLOW (RED T.T.) BLUE
Ø8	RED YELLOW GREEN	RED BROWN (ORANGE T.T.) BLUE
P2	DON'T WALK WALK PUSH BUTTON	YELLOW BLUE PURPLE/PURPLE (YELLOW T.T.)
P4	DON'T WALK WALK PUSH BUTTON	BROWN BLUE PURPLE/PURPLE (BROWN T.T.)
P6	DON'T WALK WALK PUSH BUTTON	YELLOW (RED T.T.) BLUE BLACK / BLACK
P8	DON'T WALK WALK PUSH BUTTON	BROWN (ORANGE T.T.) BLUE PURPLE/PURPLE (ORANGE T.T.)

ITEM	CIRCUITS	CONDUCTOR COLOUR
SIGNAL NEUTRAL	NEUTRAL	WHITE
STREET LIGHTING LUMINAIRES/RECEPT	B/D A/C	BLACK RED
TRAFFIC CONTROLLER	POWER	BLACK
PHOTOCELL	POWER SWITCH LEG	BLACK RED
PANEL SUPPLY	POWER POWER	BLACK RED
NEUTRAL	NEUTRAL	WHITE
GROUND/BOND	GROUND/BOND	GREEN

NOTE: T.T. DENOTES TAPE TRACER.

REFER TO SHEET 4 FOR ELEVATIONS

MAXIMUM LOAD PER TREE RECEPTACLE IS 100W

NOT FOR CONSTRUCTION
JANUARY 25, 2018

LOCATING EQUIPMENT

FOR CLARITY CONDUITS, JUNCTION BOXES AND STREETLIGHT POLES MAY NOT BE SHOWN AT DESIGN OFFSETS. CONTRACTOR SHALL LOCATE ALL EQUIPMENT BASED ON STATIONS AND/OR OFFSETS AS NOTED AND SHALL NOT RELY ON COORDINATES OBTAINED FROM DMD DIGITAL DRAWINGS. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES LTD. PRIOR TO ORDERING EQUIPMENT.

CHECK BEFORE YOU DIG

CONTRACTOR SHALL REFER TO MUNICIPAL RECORD / CIVIL DESIGN DRAWINGS FOR ALL OTHER UTILITIES, SERVICE LOCATIONS, AND DETAILS. THE EXACT LOCATION OF THESE UTILITIES SHALL BE DETERMINED ON SITE BY THE CONTRACTOR. CONTRACTOR TO REPORT ANY CONFLICTS OR DISCREPANCIES TO DMD & ASSOCIATES LTD. PRIOR TO ORDERING BASES.

DMD & Associates Ltd.
#12-17358 104A Avenue
Surrey, BC, Canada V4N 5M3
www.dmdeng.com 604/589-9010
office□ dmdeng.com Fax 604/589-9012

DESIGNED	STUART ASHMORE
DRAWN	GABRIELA VARSANYI
CHECKED	XXX
DATE	NOVEMBER 17, 2017
SCALE:	1:500
SEAL	

No.	DATE	BY	CHK'D	REVISION
.	2018-01-25	SA	.	70□ SUBMISSION

DRAWING REFERENCE

McElhanney Consulting Services Ltd., Surrey
#2300 Central City Tower 13450 - 102 Avenue, Surrey, BC V3T 5X3 Tel.: 604-596-0391

STREET LIGHTING
JOHNSTON ROAD GATEWAY REDESIGN (PHASE 1)
WHITE ROCK, BC

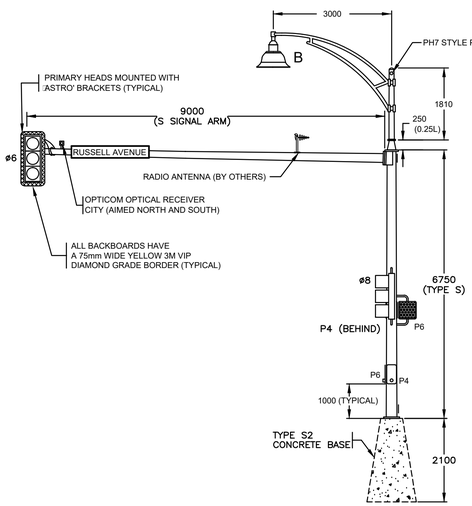
PROJECT No.	SHEET No.	REVISION
5996-17-03 of 04	3 of 4	.

DMD (2010)

CANCEL PRINTS BEARING PREVIOUS LETTER

ALL RED, GREEN, AND PEDESTRIAN DISPLAYS ARE L.E.D. ALL YELLOW SIGNAL DISPLAYS ARE 135W INCANDESCENT.

ALL EQUIPMENT IS EXISTING EXCEPT WHERE NOTED



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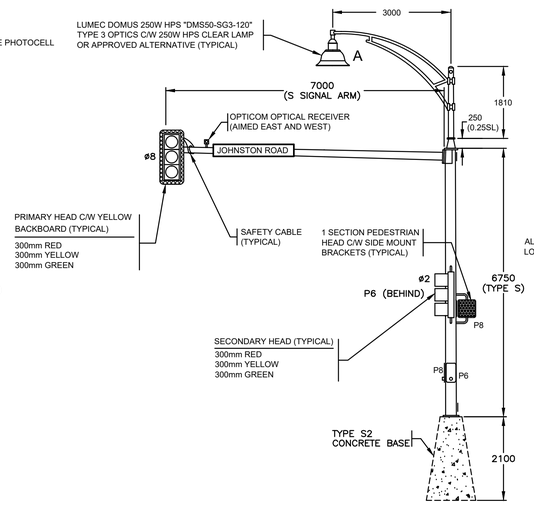

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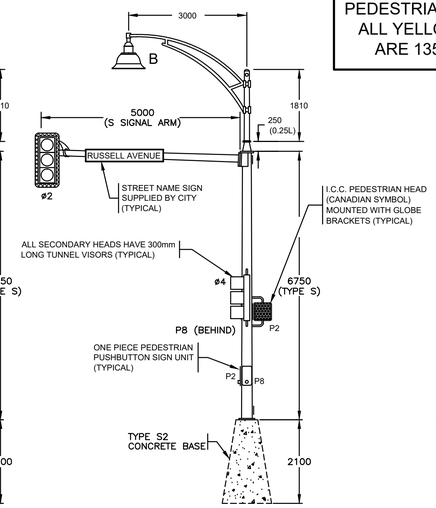

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ELEVATION

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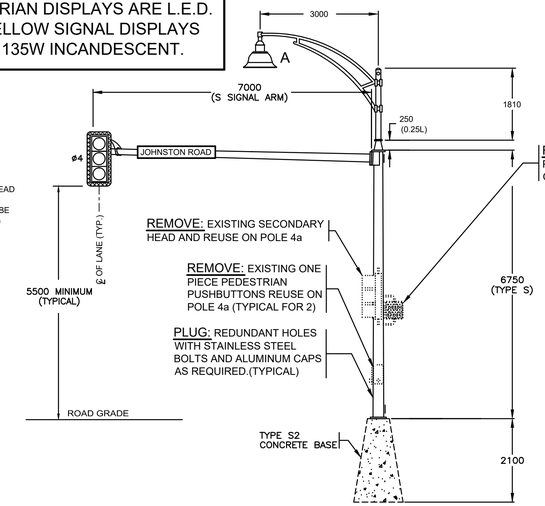
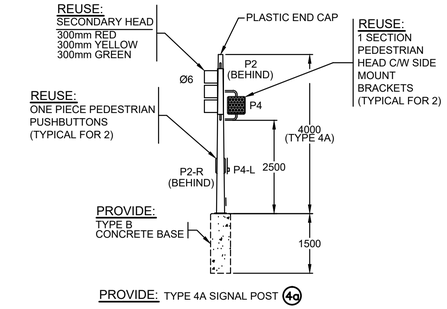


MODIFY POLE: 4



PROVIDE: TYPE 4A SIGNAL POST 4a

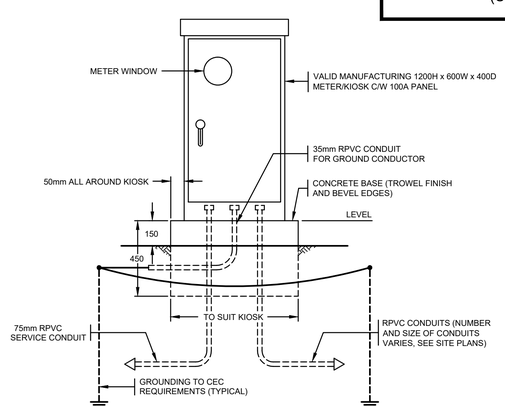
MAXIMUM LOAD PER POLE/TREE RECEPTACLE IS 100W

THERE IS NO SPLICING OF TECK CABLE IN HANDHOLES. CABLES RUN CONTINUOUS FROM J.B. TO LUMINAIRES (UNLESS OTHERWISE NOTED)

REFER TO SHEET 2 FOR NOTES

DETECTOR LOOP TABLE						
LOOP			INDUCTANCE			PHASE
LOOP No.	SIZE	TURNS	LOOP	LEAD	TOTAL	
L 1	1.8 DIA	4	95	34	129	Ø6
L 2	1.8 DIA	4	95	34	129	Ø6
L 3	1.8 DIA.	4	95	33	128	Ø8
L 4	1.8 DIA.	4	95	33	128	Ø8
L 5	1.8 DIA.	4	95	21	116	Ø2
L 6	1.8 DIA.	4	95	21	116	Ø2
L 7	1.8 DIA	4	95	5	100	Ø4

RECOGNIZED PRODUCT LIST			
PRODUCT	MANUFACTURER	SPECIFICATION	EXCEPTIONS
LUMINAIRES	LUMEC	DOMUS SERIES	250W H.P.S.
HID LAMPS	PHILLIPS	M.o.T.I.	
	OSRAM-SYLVANIA		
	GE LIGHTING		
CONCRETE JUNCTION BOXES	A.E. CONCRETE	MMCD	LABELED 'ELEC'
POLES AND ANCHOR BOLTS	WEST COAST ENG.	M.o.T.I.	GALVANIZED AND POWDER COATED SEMI-GLOSS TEXTURED BLACK
SIGNAL HEADS	ECONOLITE	M.o.T.I.	YELLOW HOUSING
LED DISPLAYS	INTERPROVINCIAL (DIALIGHT)	M.o.T.I.	CURRENT ITE SPECIFICATIONS
PEDESTRIAN HEADS	ICC	SURREY	
OVERHEAD ADJUSTABLE BRACKET	'ASTRO' BRACKET	ECONOLITE	
SIDE MOUNT BRACKETS	GREENLITE TRAFFIC	M.o.T.I.	
PEDESTRIAN PUSHBUTTON/ SIGN UNIT	GLOBE	BLACK ON WHITE G-53 AND G-7	
SERVICE PANEL	VALID MANUFACTURING	CITY OF SURREY TRAFFIC SIGNAL PANEL (STAINLESS STEEL)	
PRE-EMPTION CABLE	3M		
RADIO CABLE	ENCOM	LMR400	

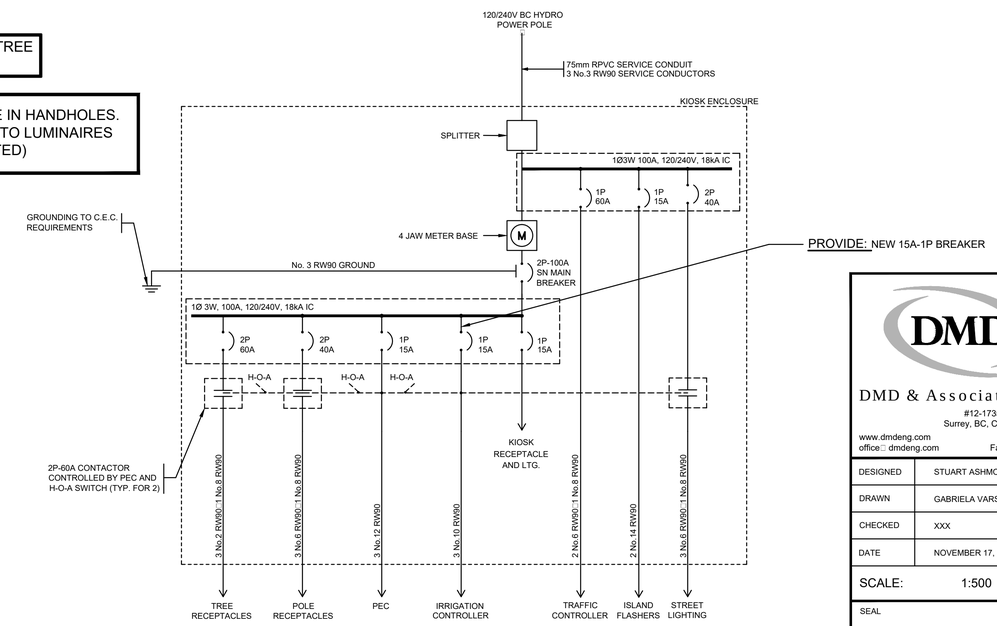


STREET LIGHTING KIOSK

N.T.S.

KIOSK NOTES:

1. KIOSK SHALL BE SECURED TO CONCRETE BASE WITH A MINIMUM OF 4 CONCRETE INSERTS.
2. CONCRETE SHALL HAVE A STRENGTH OF 30Mpa AT 28 DAYS.
3. LOCATE CONDUITS IN CONCRETE BASE TO SUIT KIOSK EQUIPMENT.
4. KIOSK SHALL MEET THE APPROVAL OF THE PROVINCIAL ELECTRICAL INSPECTOR & SHALL BARE A 'PROVINCIAL INSPECTION' STICKER.
5. SERVICE PANEL SHALL HAVE LAMICOID NAME PLATES INDICATING VOLTAGES & LABELING ALL EQUIPMENT.
6. A TYPE WRITTEN PANEL DIRECTORY SHALL BE LOCATED ON THE INSIDE OF THE PANEL DOOR.
7. ALL BREAKERS SHALL BE RATED AT A MINIMUM OF 10,000 AIC.
8. KIOSK SHALL BE POWDER COATED INSIDE AND OUT TO MATCH POLES.



MODIFIED SERVICE KIOSK SINGLE LINE DIAGRAM

N.T.S.

DMD & Associates Ltd.
#12-17358 104A Avenue
Surrey, BC, Canada V4N 5M3
www.dmdeng.com 604/589-9010
office@dmdeng.com Fax 604/589-9012

DESIGNED	STUART ASHMORE
DRAWN	GABRIELA VARSANYI
CHECKED	XXX
DATE	NOVEMBER 17, 2017
SCALE:	1:500

SEAL

No.	DATE	BY	CHK'D	REVISION
.	2018-01-25	SA	.	70% SUBMISSION

DRAWING REFERENCE

McElhanney Consulting Services Ltd., Surrey
#2300 Central City Tower 13450 - 102 Avenue, Surrey, BC V3T 5X3 Tel.: 604-596-0391

STREET LIGHTING
JOHNSTON ROAD GATEWAY REDESIGN (PHASE 1)
WHITE ROCK, BC

PROJECT No.	SHEET No.	REVISION
5996-17-04 of 04	4 of 4	.

CANCEL PRINTS BEARING PREVIOUS LETTER

DMD (2010)