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ROYAL BAY COMMUNITY  
 LIMITED PARTNERSHIP  
 ROYAL BAY DEVELOPMENT  
 METCHOSIN ROAD UPGRADE  
 PHASE 1 DESIGN  
 2012-2091-18

PRELIMINARY/  
 FOR DISCUSSION  
 NOT FOR CONSTRUCTION  
 DRAFT

# ROYAL BAY COMMUNITY LIMITED PARTNERSHIP METCHOSIN ROAD RECONSTRUCTION PHASE 1

| REV | DATE       | DESIGN     | DRAWN     | DESCRIPTION           |
|-----|------------|------------|-----------|-----------------------|
| B   | 2017-09-29 | M. DHILLON | A. SHEWAN | 90% DESIGN SUBMISSION |
| A   | 2017-09-25 | M. DHILLON | A. SHEWAN | 90% DESIGN SUBMISSION |

| DRAWING       | REVISION | SHEET  |
|---------------|----------|--------|
| 2091-18-C-001 | B        | 1 / 18 |

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 DATE: 2017-09-29, Anthony Shewan

**LINETYPES**

**ROAD**

|                         | EXISTING  | PROPOSED          |
|-------------------------|-----------|-------------------|
| CONTROL LINE            | ---       | 100-000<br> ----- |
| GRAVEL ROAD             | ----      | ----              |
| EDGE OF PAVEMENT        | =====     | =====             |
| CURB (ACTUAL WIDTH)     | =====     | =====             |
| SIDEWALK (ACTUAL WIDTH) | =====     | =====             |
| CURB DEPRESSION         | =====     | =====             |
| MARKING 1-1-1           | ----      | ----              |
| MARKING 3-3-3           | ----      | ----              |
| MARKING 3-6-3           | ----      | ----              |
| MARKING 5-8-5           | ----      | ----              |
| MARKING 6-3-6           | ----      | ----              |
| GUIDE RAIL              | □ □ □ □ □ | □ □ □ □ □         |

**MISCELLANEOUS**

|  |                         |                         |
|--|-------------------------|-------------------------|
| FENCE  | ---x---                 | ---x---                 |
| SILT FENCE   | ---o---                 | ---o---                 |
| ABANDONED PIPE   | ---ASH---               | ---ASH---               |
| RAILWAY  | +++++                   | +++++                   |
| BOTTOM OF BANK   | -----                   | -----                   |
| TOP OF BANK  | -----                   | -----                   |
| EDGE OF WATER  | -----EW                 | -----EW                 |
| HEDGE  | ~~~~~                   | ~~~~~                   |
| BUILDING   | ▭                       | ▭                       |
| DITCH  | →→→→→                   | →→→→→                   |
| DITCH (HIGH POINT)                                       | ←←←←←                   | ←←←←←                   |
| DITCH (LOWPOINT)   | →→→→→                   | →→→→→                   |
| STREAM (LESS THAN 3 m WIDE)                              | ~~~~~<br>MAXIMUS STREAM | ~~~~~<br>MAXIMUS STREAM |
| CREEK (OVER 3 m WIDE)<br>(WIDTH OF CREEK SHOWN TO SCALE) | ~~~~~<br>MAXIMUS CREEK  | ~~~~~<br>MAXIMUS CREEK  |

**CONTOUR**

|       |       |       |
|-------|-------|-------|
| MAJOR | ----- | ----- |
| MINOR | ----- | ----- |

**PROPERTY**

|                   |       |       |
|-------------------|-------|-------|
| PARCEL / LOT LINE | ----- | ----- |
| EASEMENT          | ----- | ----- |
| STATUTORY ROW     | ----- | ----- |
| ROAD ROW          | ----- | ----- |

**WATER**

|                      | EXISTING | PROPOSED |
|----------------------|----------|----------|
| WATER MAIN           | ---W---  | ---W---  |
| WATER MAIN (PROFILE) | -----    | -----    |
| FIRE SUPPRESSION     | ---F---  | ---F---  |
| IRRIGATION           | ---IR--- | ---IR--- |
| RAW WATER            | ---RW--- | ---RW--- |
| POTABLE WATER        | ---PW--- | ---PW--- |

**STORM DRAINAGE**

|                      |          |          |
|----------------------|----------|----------|
| CULVERT (Ø AND TYPE) | ---CP--- | ---CP--- |
| STORM SEWER          | ---D---  | ---D---  |

**SANITARY SEWER**

|                         |            |            |
|-------------------------|------------|------------|
| SANITARY SEWER          | ---SS---   | ---SS---   |
| SANITARY FORCEMAIN      | ---FM---   | ---FM---   |
| SANITARY COMBINED SEWER | ---CCMB--- | ---CCMB--- |

**COMMUNICATIONS / TELEPHONE**

|                       |            |            |
|-----------------------|------------|------------|
| CABLE                 | ---CATV--- | ---CATV--- |
| FIBRE OPTIC CABLE     | ---FO---   | ---FO---   |
| TELEPHONE/LINE        | ---T---    | ---T---    |
| UNDERGROUND TELEPHONE | ---UT---   | ---UT---   |

**ELECTRICAL / POWER**

|                        |          |          |
|------------------------|----------|----------|
| POWER / COMM / CONDUIT | ---P---  | ---P---  |
| OVERHEAD POWER         | ---OP--- | ---OP--- |
| UNDERGROUND POWER      | ---UP--- | ---UP--- |

**GAS/OIL**

|     |           |           |
|-----|-----------|-----------|
| GAS | ---G---   | ---G---   |
| OIL | ---OIL--- | ---OIL--- |

**PROFILE VIEW**

|                | EXISTING | PROPOSED |
|----------------|----------|----------|
| GROUND         | -----    | -----    |
| WATER MAIN     | -----    | -----    |
| SANITARY SEWER | -----    | -----    |
| STORM SEWER    | -----    | -----    |

**HATCH PATTERNS**

|                                |             |
|--------------------------------|-------------|
|                                |             |
| CLEARING & GRUBBING / REMOVALS | LANDSCAPING |
|                                |             |
| COLD PLANING / MILL / GRIND    | EXCAVATION  |
|                                |             |
| GRAVEL                         | FILL        |
|                                |             |
| ASPHALT                        | BEDROCK     |
|                                |             |
| CONCRETE                       |             |
|                                |             |
| PAVED DRIVE / SHOULDERS        |             |
|                                |             |
| INTERLOCK STONE                |             |
|                                |             |
| RIP-RAP / DRAIN ROCK           |             |
|                                |             |
| GABION WALL / BASKET           |             |
|                                |             |
| EARTH / NATIVE MATERIAL        |             |
|                                |             |
| TOP SOIL & SOD                 |             |
|                                |             |
| HYDRAULIC SEEDING              |             |
|                                |             |
| MARSH / GRASS                  |             |
|                                |             |
| WATER                          |             |

**STANDARD ABBREVIATIONS**

|        |                       |        |                         |
|--------|-----------------------|--------|-------------------------|
| AC     | ASPHALT CURB          | IP     | IRON PIN                |
| BC     | BARRIER CURB          | LOC    | LIMIT OF CONSTRUCTION   |
| BG     | BACK OF GUTTER        | LTS    | LENGTH TO SUIT          |
| BOB    | BOTTOM OF BANK        | M      | METER                   |
| BW     | BOTTOM OF WALL        | MAX    | MAXIMUM                 |
| C      | CABLE (SHAW)          | MC     | MOUNTABLE CURB          |
| CC     | CONCRETE CURB         | MIN    | MINIMUM                 |
| CAW    | COMPLETE WITH         | NIC    | NOT IN CONTRACT         |
| CB     | CATCHBASIN            | NMC    | NON-MOUNTABLE CURB      |
| CONC   | CONCRETE              | OC     | ON CENTRE               |
| CSP    | CORRUGATED STEEL PIPE | OH     | OVERHEAD                |
| D, DRN | DRAIN                 | OIC    | OIL INTERCEPTOR         |
| DW     | DRIVEWAY              | P      | POWER (BC HYDRO)        |
| DCB    | DOUBLE CATCHBASIN     | PE     | POLYETHYLENE            |
| DI     | DUCTILE IRON          | PIL    | PROPERTY LINE           |
| DMH    | DRAIN MANHOLE         | PRV    | PRESSURE REDUCING VALVE |
| EG     | EXISTING GROUND       | PVC    | POLYVINYL CHLORIDE      |
| ELEV   | ELEVATION             | S, SAN | SANITARY                |
| EP     | EDGE OF PAVEMENT      | SW     | SIDEWALK                |
| EX     | EXISTING              | SFM    | SEWER FORCEMAIN         |
| F      | FLANGE                | SMH    | SANITARY MANHOLE        |
| FC     | FLAT CURB             | SRW    | STATUTORY RIGHT-OF-WAY  |
| FG     | FINISHED GROUND       | ST     | STEEL                   |
| FV     | FLUSH VALVE           | STA    | STATION                 |
| G      | GAS                   | STM    | STORM DRAIN             |
| H      | HYDRO (BC HYDRO)      | T      | TEL (TELUS)             |
| HTC    | HYDRO/TEL/CABLE       | TC     | TOP OF CURB             |
| IG     | INVERT GUTTER         | TOB    | TOP OF BANK             |
| INV    | INVERT                | TW     | TOP OF WALL             |
|        |                       | TYP    | TYPICAL                 |
|        |                       | UG     | UNDERGROUND             |
|        |                       | W, WTR | WATR                    |

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 LIMITED PARTNERSHIP

ROYAL BAY DEVELOPMENT  
 METCHOSIN ROAD UPGRADE  
 PHASE 1 DESIGN  
 2012-2091-18

SCALE: N/A

GENERAL  
 LEGEND

| DRAWING       | REVISION | SHEET  |
|---------------|----------|--------|
| 2091-18-C-002 | B        | 2 / 18 |



**CIVIL GENERAL NOTES:**

**GENERAL:**

1. ALL WORKS TO LATEST EDITION OF MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) STANDARD SPECIFICATIONS & DRAWINGS, APPROPRIATE AMENDMENTS AND RESOLUTIONS UNLESS SPECIFIED OTHERWISE.
2. CONTRACTOR IS RESPONSIBLE TO COORDINATE WORKS WITH CITY OF COLWOOD (CoC), CAPITAL REGIONAL DISTRICT (CRD), TELUS, SHAW, BC HYDRO, FORTISBC.
3. CONTRACTOR TO CONFIRM ELEVATION OF ALL POINTS OF CONNECTION PRIOR TO COMMENCING WORK. ANY DISCREPANCIES ARE TO BE REFERRED TO THE ENGINEER FOR INSTRUCTIONS PRIOR TO COMMENCING INSTALLATION.
4. CONTRACTOR TO PROVIDE MARKED UP SET OF AS BUILT DRAWINGS AT THE TIME OF REQUEST FOR SUBSTANTIAL COMPLETION.
5. EXISTING UTILITIES INFORMATION SHOWN ON THESE DRAWINGS HAVE BEEN PROVIDED BY OTHERS. ASSOCIATED ENGINEERING LTD. ACCEPT NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED.
6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS.
7. CONTACT BC ONE CALL (1-800-474-6886) 72 HOURS IN ADVANCE OF ANY EXCAVATIONS. THE CONSULTANT IS NOT RESPONSIBLE FOR UNDERGROUND UTILITIES NOT INDICATED ON THIS DWG.
8. CONTRACTOR TO RELOCATE ALL EXISTING SIGNS DISPLACED BY CONSTRUCTION. ENSURE GOOD VISIBILITY
9. EXISTING OVERHEAD WIRING NOT SHOWN ON DRAWINGS.
10. PROPERTY LINES SHOWN ARE INDICATIVE ONLY.
11. LAINING & GEOMETRIC CONCEPT DESIGN PROVIDED BY BUNT & ASSOCIATES AND MODIFIED BASED ON CITY OF COLWOOD T.M.P.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL EXCAVATED MATERIAL (INCLUDING ASPHALT) UNSUITABLE FOR REUSE AT A SUITABLE OFF-SITE DUMP SITE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
13. ELEVATIONS ARE GEODETIC.
14. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
15. THE CONTRACTOR IS RESPONSIBLE FOR UTILITY POLE SUPPORT REQUIRED IN ORDER TO CONSTRUCT THE WORKS.
16. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT SURVEY.
17. ANY REVISIONS TO THESE DRAWINGS MUST BE APPROVED BY THE DESIGN ENGINEER, WHO SHALL REVIEW ANY CHANGES WITH THE CITY OF COLWOOD ENGINEERING.
18. WORKSAFE BC IS TO BE NOTIFIED PRIOR TO THE START OF CONSTRUCTION AND CONTRACTOR SHALL BE REGISTERED WITH WORKSAFE BC.

**PUBLIC SAFETY:**

19. THE CONTRACTOR IS TO PROVIDE & BE RESPONSIBLE FOR A TRAFFIC MANAGEMENT PLAN INCLUDING: RUSH HOUR PROCEDURES, NUMBER OF LANES OPEN AT ANY TIME, AND DETOURS. PROFESSIONAL TRAFFIC CONTROL SYSTEMS TO BE PROVIDED FOR ALL ROAD & LANE CLOSURES. LOCAL VEHICLE, PEDESTRIAN & EMERGENCY VEHICLE ACCESS IS TO BE MAINTAINED AT ALL TIMES. TRAFFIC MANAGEMENT PLAN IS TO BE SUBMITTED TO CITY OF COLWOOD PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL KEEP THE SITE NEAT AND TIDY AND AT ALL TIMES PROTECT PUBLIC SAFETY.
21. THE CONTRACTOR SHALL ORGANIZE HIS WORKS TO MINIMIZE INCONVENIENCE TO THE PUBLIC AND INDIVIDUAL PROPERTY OWNERS.
22. VEHICULAR AND PEDESTRIAN ACCESS IS TO BE MAINTAINED ALONG EXISTING ROADS DURING CONSTRUCTION.
23. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE ACCESS TO DRIVEWAYS TO MINIMIZE DISRUPTION TO LOCAL RESIDENTS.
24. RESIDENTS AND BUSINESSES AFFECTED BY THE PROPOSED CONSTRUCTION ARE TO BE NOTIFIED BY THE CONTRACTOR IN WRITING A MINIMUM OF 4 DAYS PRIOR TO THE START OF CONSTRUCTION AND PROVIDED WITH THE CONTRACTORS PHONE NUMBER AND SCHEDULE.
25. CONSTRUCTION STAGING AREAS & MATERIAL STOCK PILES TO BE LOCATED ON MUNICIPAL R.O.W. ONLY & CANNOT BLOCK ANY DRIVEWAYS.

**TEMPORARY FACILITIES:**

26. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT ANY CONSTRUCTION ACCESS. CONSTRUCTION ACCESS SHALL BE REMOVED UPON COMPLETION OF PROJECT AND ANY DISTURBED AREAS REINSTATED TO ORIGINAL CONDITIONS OR BETTER. THE COST OF ACCESS SHALL BE CONSIDERED INCIDENTAL TO THE PAYMENT FOR WORK AND NO SEPARATE PAYMENT OR EXTRA COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR CONSTRUCTING OR REMOVING CONSTRUCTION ACCESS.
27. CONSTRUCTION ACCESS SHALL BE CONSTRUCTED WITH A SURFACE THAT ALLOWS CONSTRUCTION TRAFFIC TO KEEP TIRES CLEAN AND LEAVE THE SITE WITHOUT TRACKING SEDIMENT OFFSITE OR ONTO PUBLIC ROADS.

**ENVIRONMENTAL PROTECTION:**

28. CONTRACTOR TO PROVIDE ENVIRONMENTAL PROTECTION AND SEDIMENT/EROSION CONTROL PLAN.
29. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING SEDIMENT AND OTHER CONSTRUCTION DEBRIS FROM THE EXISTING PAVED ROAD SURFACES USED BY SITE CONSTRUCTION TRAFFIC ON A REGULAR BASIS DURING THE CONSTRUCTION PERIOD OR AS DEEMED NECESSARY BY THE ENGINEER.
30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SILT & EROSION CONTROL MEASURES IN THE AREA OF WORK. THE CONTRACTOR WILL BE RESPONSIBLE AT HIS COST TO TAKE CORRECTIVE MEASURES AS DIRECTED BY THE ENGINEER. ANY FINES OR CHARGES RELATING DUE TO NONCOMPLIANCE WILL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL HAVE ALL TRUCKS CLEANED ON A REGULAR BASIS OR AS DEEMED NECESSARY BY THE ENGINEER.
31. THE CONTRACTOR SHALL USE SILT FENCE TO SURROUND ALL STOCKPILES OF GRANULAR MATERIAL TO PREVENT SILTATION.
32. THE CONTRACTOR SHALL USE FILTER CLOTH TO PROTECT DRAINAGE INLETS WHICH SHALL BE REGULARLY INSPECTED AND REPLACED, AS REQUIRED. ANY SEDIMENT ENTERING DRAINAGE INLETS SHALL BE IMMEDIATELY REMOVED AND DISPOSED OF OFF-SITE.

**EXCAVATION, TRENCHING & BACKFILLING:**

33. EXCAVATION TRENCHING AND BACKFILLING SHALL BE PER MMCD SPECIFICATIONS AND THE SUPPLEMENTAL SPECIFICATIONS FOR THIS CONTRACT.
34. ALL PIPE BEDDING IS TO BE CLASS 'B' WHERE THE TRENCH IS UNDER OR WITHIN 1.0 m OF A VEHICLE TRAFFIC AREA OR SIDEWALK.

**AGGREGATES, GRANULAR MATERIALS & ASPHALT:**

35. AGGREGATES AND GRANULAR MATERIALS SHALL BE PER MMCD SPECIFICATIONS.

**SEWERS, MANHOLES AND DRAINAGE STRUCTURES:**

36. ALL SEWERS, MANHOLES AND DRAINAGE STRUCTURES SHALL BE PER MMCD SPECIFICATIONS AND IN ACCORDANCE WITH CITY OF COLWOOD REGULATIONS. SHOP DRAWINGS REQUIRED FOR ALL MANHOLES, TRENCH DRAINS, AND OTHER DRAINAGE STRUCTURES.
37. ALLOW INSPECTION OF UNDERGROUND UTILITIES BY THE ENGINEER BEFORE BURYING. BACKFILL MATERIAL SHALL BE REMOVED TO ALLOW INSPECTION OF UNDERGROUND UTILITIES IF BURIED WITHOUT THE ENGINEER'S APPROVAL.
38. SEWER AND DRAIN MANHOLES AS PER MMCD STD. DWG S1. ALL MANHOLES TO BE 1050mmØ UNLESS OTHERWISE NOTED.
39. POWER FLUSH AND VIDEO INSPECT ALL NEW MAIN INSTALLATIONS.
40. POWER FLUSH AND VIDEO INSPECT EXISTING STORM MAIN FROM EX DMH AT 1+384 TO EX DMH AT 1+421.
41. WARNING TAPE SHALL BE PLACED ABOVE THE MAINS IN ALL AREAS WHERE COVER IS LESS THAN 1.0m.

**TRAFFIC MARKINGS:**

42. STOP BARS & CROSSWALKS TO BE THERMOPLASTIC.
43. ALL OTHER LINE MARKINGS TO BE REGULAR ROAD PAINT. REFER TO PLAN FOR COLOUR.
44. ALL PAVEMENT MARKINGS AND SIGNAGE TO BE TO TRANSPORTATION ASSOCIATION OF CANADA AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES STANDARDS.

**RESTORATION:**

45. ALL DAMAGED OR DISTURBED MONUMENTS AND IRON PINS ARE TO BE RECALIBRATED OR REPLACED AND TIED-IN BY A B.C.L.S. AT CONTRACTOR'S EXPENSE
46. ALL DISTURBED BOULEVARD AREAS AND DRIVEWAYS ARE TO BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER AFTER CONSTRUCTION.
47. RESTRIPE ALL DISTURBED TRAFFIC MARKINGS OUTSIDE THE AREA OF ROAD RECONSTRUCTION AS DIRECTED BY THE PROJECT ENGINEER.
48. RAISE ALL EXISTING CASTINGS TO NEW GRADE INCLUDING THOSE WITHIN LANDSCAPED AREAS.
49. ALL EXISTING CURBS AND ASPHALT DISTURBED OR SCARRED BY CONSTRUCTION ARE TO BE SAW CUT AND FULLY REINSTATED
50. WHERE TYING TO SIDEWALK, REMOVE AND REPLACE EXISTING SIDEWALK TO THE NEAREST EXPANSION JOINT.
51. NO ASPHALT RESTORATIONS ARE TO LEAVE A JOINT BETWEEN NEW AND OLD ASPHALT THAT FALLS WITHIN THE TRAVELED WHEEL PATH OF ANY ROADWAYS. MINIMUM DIMENSION OF REMAINING ASPHALT SECTIONS IS TO BE 1.0 m. IF ASPHALT REMOVAL WILL LEAVE A REMAINDER WITH A MINIMUM DIMENSION OF LESS THAN 1.0 m (I.E. BETWEEN TRENCHLINE AND CURB, OR TRENCHLINE AND EDGE OF ASPHALT), THIS REMAINING ASPHALT MUST BE REMOVED AND REINSTATED WITH NEW ASPHALT.
52. ALL EXISTING TREES WITHIN THE R.O.W. TO REMAIN UNLESS OTHERWISE NOTED.

**ROADWORKS:**

53. SUBGRADE TO BE INSPECTED AND APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO SUBBASE OR BASE COURSE CONSTRUCTION.
54. CONTRACTOR TO MAINTAIN DRAINAGE DURING CONSTRUCTION.
55. CURBS ARE TO BE CONCRETE CURB AND GUTTER AS PER MMCD STD. DWG. C4 UNLESS NOTED OTHERWISE. DRIVEWAYS AND CROSSWALK DROPS TO USE CONCRETE DROP CURB.
56. SIDEWALK THICKNESS TO BE 100mm EXCEPT 150mm THROUGH ALL DRIVEWAYS.
57. ALL LOOSE, ORGANIC, OTHERWISE DELETERIOUS MATERIALS OR SOFT SPOT(S) ARE TO BE EXCAVATED AND REMOVED FROM THE ROADWAY AND UTILITY TRENCHES IN THE ROADWAY.

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LIMITED PARTNERSHIP

ROYAL BAY DEVELOPMENT  
METCHOSIN ROAD UPGRADE  
PHASE 1 DESIGN  
2012-2091-18



GENERAL  
GENERAL NOTE

SCALE: N/A

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| 2091-18-C-003 | B        | 3 / 18 |



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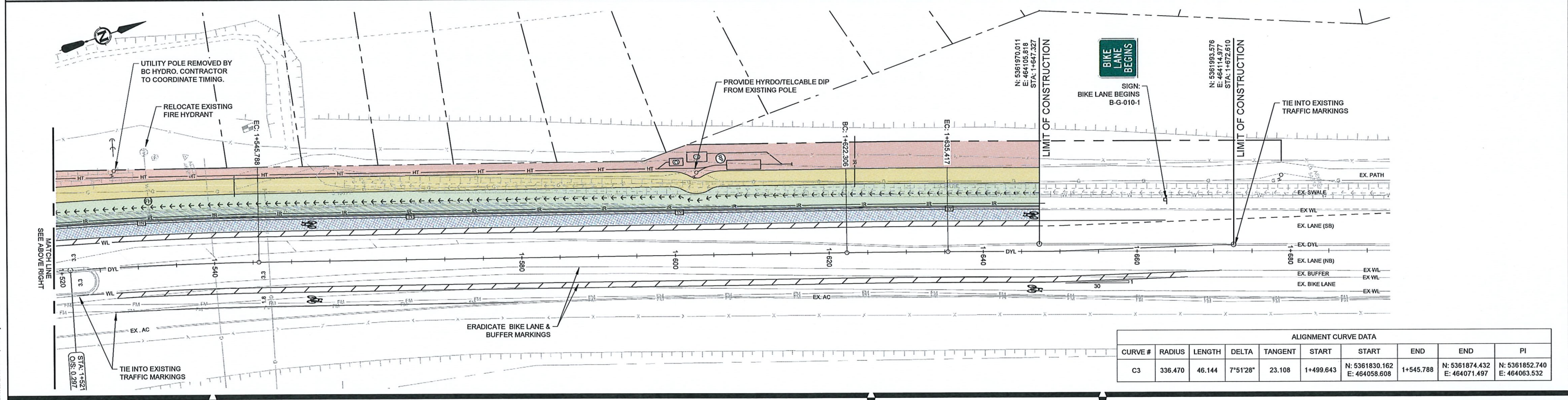
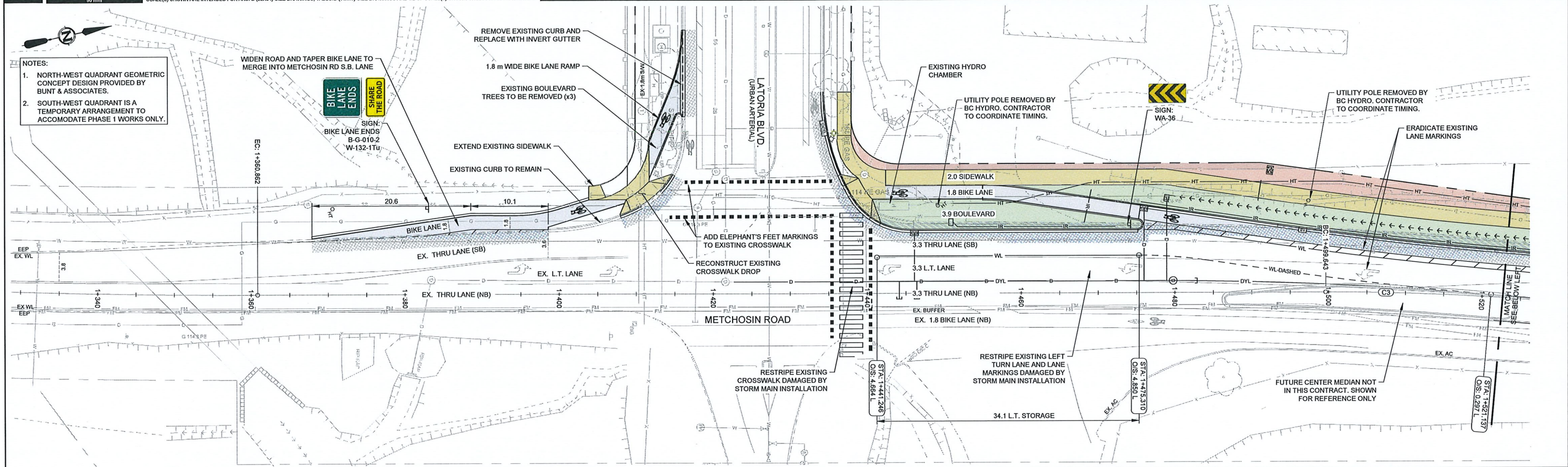


CIVIL  
KEY PLAN

SCALE: 1:1500

| DRAWING       | REVISION | SHEET  |
|---------------|----------|--------|
| 2091-18-C-004 | B        | 4 / 18 |

- NOTES:
1. NORTH-WEST QUADRANT GEOMETRIC CONCEPT DESIGN PROVIDED BY BUNT & ASSOCIATES.
  2. SOUTH-WEST QUADRANT IS A TEMPORARY ARRANGEMENT TO ACCOMMODATE PHASE 1 WORKS ONLY.



| ALIGNMENT CURVE DATA |         |        |          |         |           |                                 |           |                                 |                                 |
|----------------------|---------|--------|----------|---------|-----------|---------------------------------|-----------|---------------------------------|---------------------------------|
| CURVE #              | RADIUS  | LENGTH | DELTA    | TANGENT | START     | START                           | END       | END                             | PI                              |
| C3                   | 336.470 | 46.144 | 7°51'28" | 23.108  | 1+499.643 | N: 5361830.162<br>E: 464058.608 | 1+545.788 | N: 5361874.432<br>E: 464071.497 | N: 5361852.740<br>E: 464063.532 |

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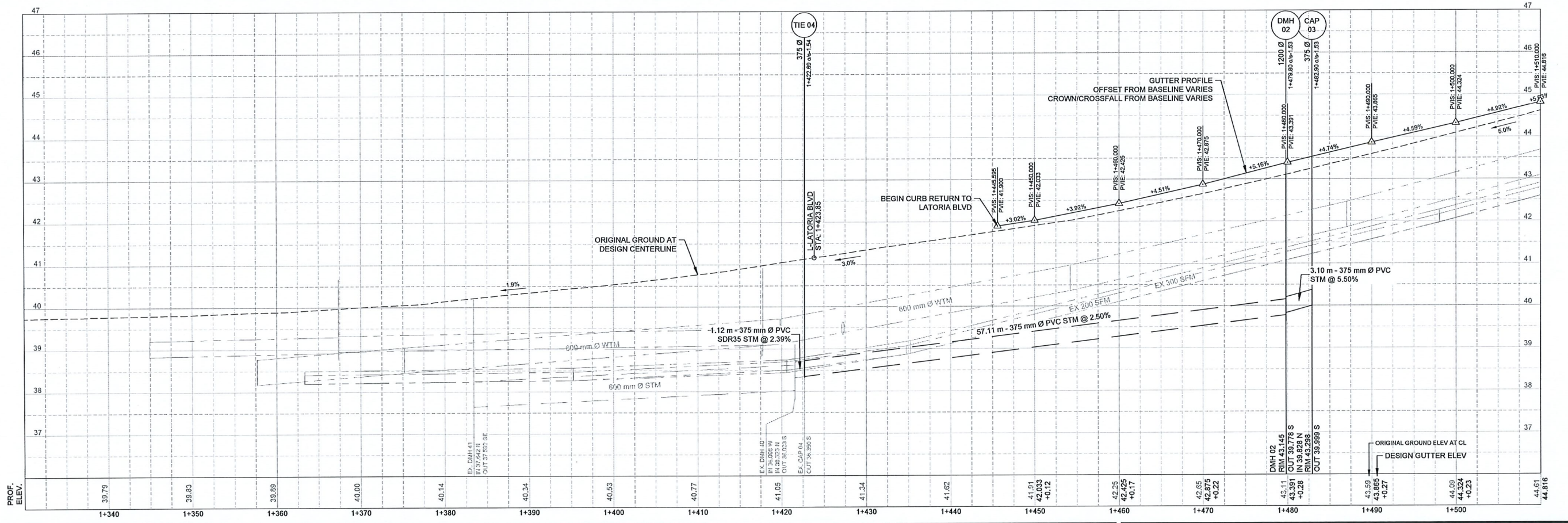
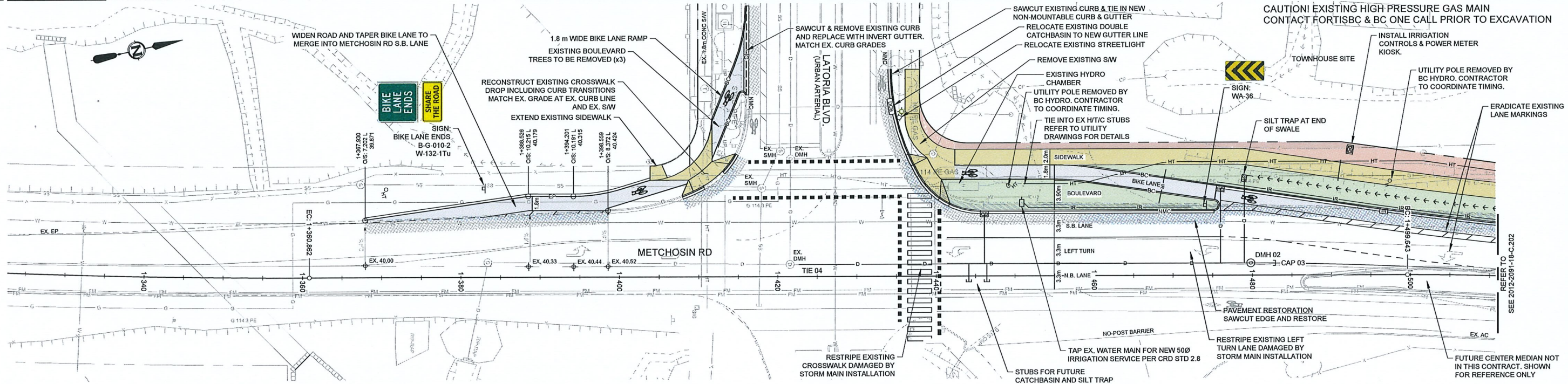
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| 2091-18-C-101 | B        | 5 / 18 |

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DATE: 2017-09-25, Anthony Shewan





P:\2012\2091-18\_Metchosin\_Rd\Working\_Dwg\1100\_Civil\2091-18-C-201-202.dwg  
DATE: 2017-09-29, Anthony Shewan



PRELIMINARY/  
FOR DISCUSSION  
NOT FOR CONSTRUCTION  
DRAFT

| REV | DATE       | DESIGN     | DRAWN     | DESCRIPTION                          |
|-----|------------|------------|-----------|--------------------------------------|
| B   | 2017-09-29 | M. DHILLON | A. SHEWAN | ADD TEL & CABLE BASED ON RECORD INFO |
| A   | 2017-09-25 | M. DHILLON | A. SHEWAN | 90% DESIGN SUBMISSION                |

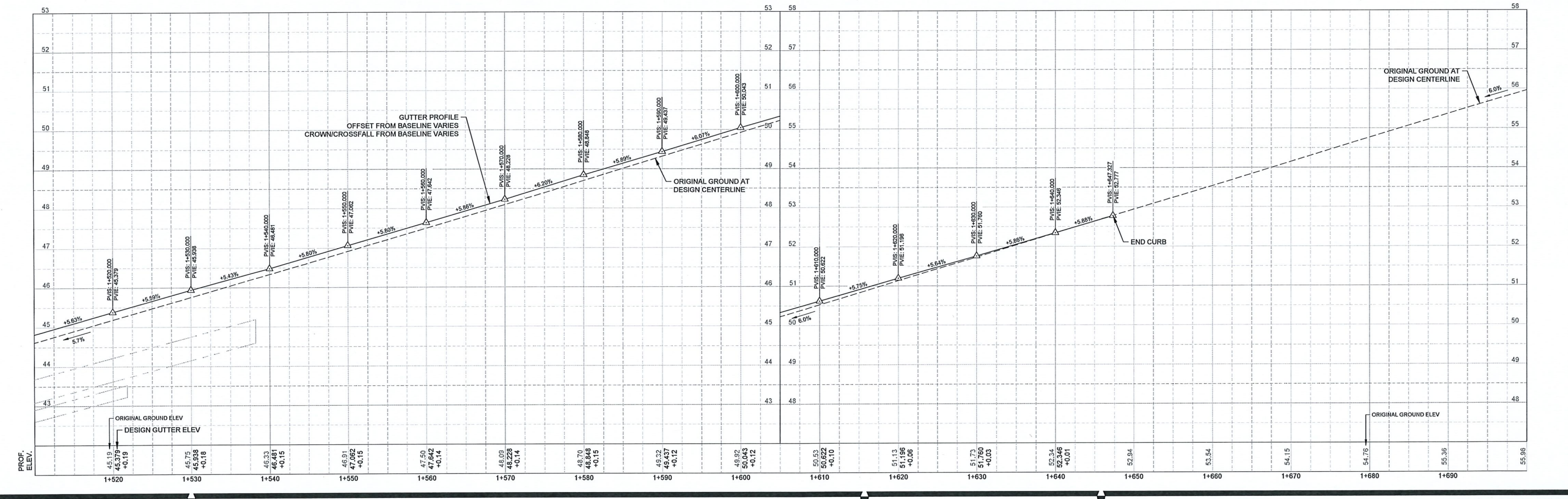
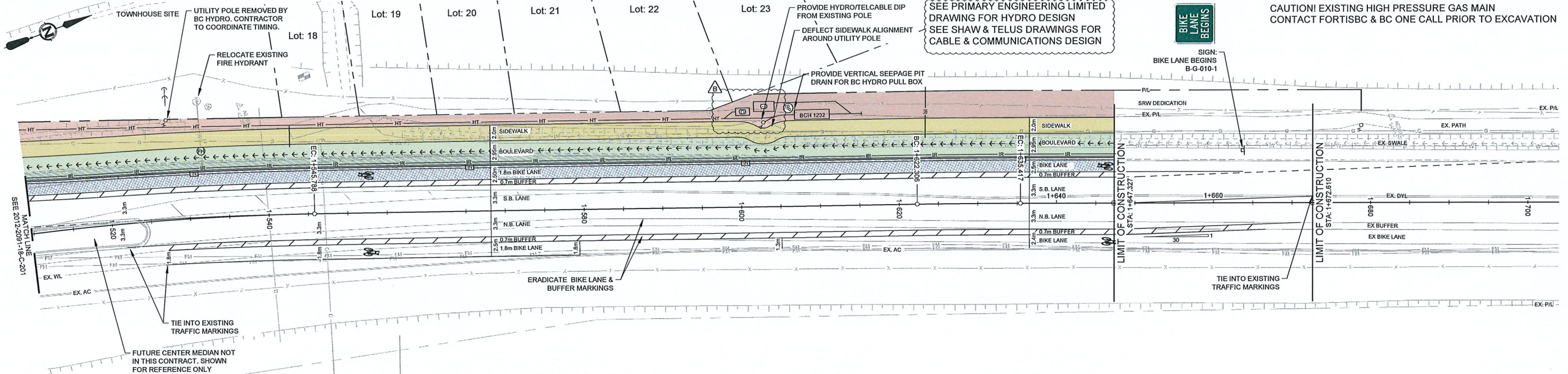
ROYAL BAY COMMUNITY LIMITED PARTNERSHIP  
ROYAL BAY DEVELOPMENT  
METCHOSIN ROAD UPGRADE  
PHASE 1 DESIGN  
2012-2091-18  
SCALE: AS SHOWN



CIVIL PLAN & PROFILE  
STA 1+380 TO 1+560

| DRAWING       | REVISION | SHEET  |
|---------------|----------|--------|
| 2091-18-C-201 | B        | 6 / 18 |

IF NOT 50 mm ADJUST SCALES  
50 mm  
SCALE(S) SHOWN ARE INTENDED FOR ANSI D (22X34) SIZE DRAWINGS, TABLOID (11X17) SIZE DRAWINGS ARE 1/2 OF SCALE(S) SHOWN UNLESS NOTED OTHERWISE



P:\3012209118\_Metchosin\_Rd\Working\_Dwg\1100\_Civil\2091-18-C-201-202.dwg  
DATE: 2017-09-29, Anthony Shewan



PRELIMINARY/  
FOR DISCUSSION  
NOT FOR CONSTRUCTION  
DRAFT

| REV | DATE       | DESIGN     | DRAWN     | DESCRIPTION                          |
|-----|------------|------------|-----------|--------------------------------------|
| B   | 2017-09-29 | M. DHILLON | A. SHEWAN | ADD TEL & CABLE BASED ON RECORD INFO |
| A   | 2017-09-25 | M. DHILLON | A. SHEWAN | 90% DESIGN SUBMISSION                |

ROYAL BAY COMMUNITY LIMITED PARTNERSHIP  
ROYAL BAY DEVELOPMENT METCHOSIN ROAD UPGRADE PHASE 1 DESIGN 2012-2091-18



CIVIL PLAN & PROFILE STA 1+560 TO 1+740

| DRAWING       | REVISION | SHEET  |
|---------------|----------|--------|
| 2091-18-C-202 | B        | 7 / 18 |

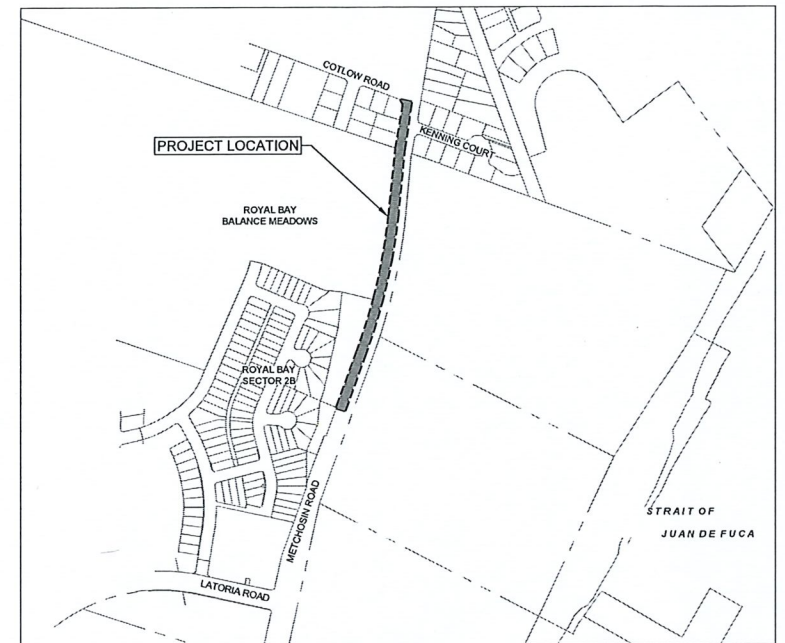
# Royal Bay Metchosin Road Upgrades

Royal Bay, Colwood, BC

## ISSUED FOR CONSTRUCTION

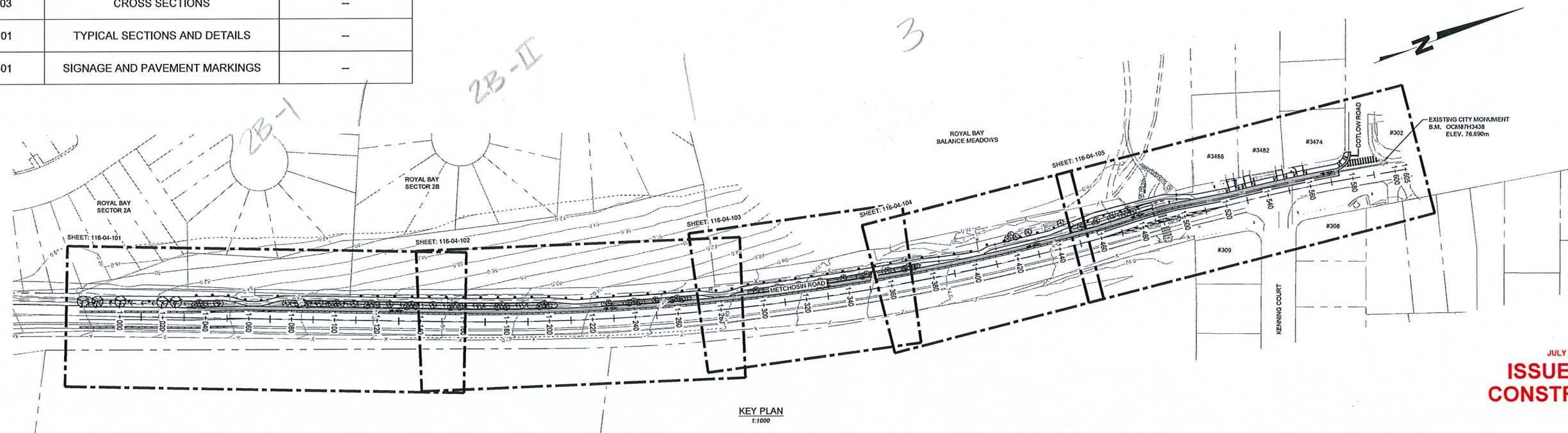
JULY 16, 2019

City of Colwood File: 5330-20-MET-21168



LOCATION PLAN  
1:5000

| LIST OF DRAWINGS |             |                               |                     |
|------------------|-------------|-------------------------------|---------------------|
| SHEET No.        | DRAWING No. | DESCRIPTION                   | STATIONS            |
| 1                | 000         | COVER SHEET                   | --                  |
| 2                | 001         | GENERAL NOTES                 | --                  |
| 3                | 101         | PLAN AND PROFILE              | STA: 1+000 TO 1+150 |
| 4                | 102         | PLAN AND PROFILE              | STA: 1+150 TO 1+280 |
| 5                | 103         | PLAN AND PROFILE              | STA: 1+280 TO 1+360 |
| 6                | 104         | PLAN AND PROFILE              | STA: 1+360 TO 1+510 |
| 7                | 105         | PLAN AND PROFILE              | STA: 1+510 TO 1+605 |
| 8                | 301         | CROSS SECTIONS                | --                  |
| 9                | 302         | CROSS SECTIONS                | --                  |
| 10               | 303         | CROSS SECTIONS                | --                  |
| 11               | 401         | TYPICAL SECTIONS AND DETAILS  | --                  |
| 12               | 501         | SIGNAGE AND PAVEMENT MARKINGS | --                  |



KEY PLAN  
1:1000

JULY 16, 2019  
**ISSUED FOR CONSTRUCTION**

ONPOINT PROJECT ENGINEERS LTD. 1111 BAYVIEW AVENUE, SUITE 111, COLWOOD, BC V9W 5A5



Contractor must check and verify all dimensions and conditions on site and report any discrepancies to the engineer prior to proceeding with work.  
**DO NOT SCALE THE DRAWING**  
The responsibility for all designs and drawings are the property of On Point Project Engineers Ltd. It is not to be used for any purpose other than that authorized by On Point Project Engineers Ltd. in a written form.

| ISSUED |  |                | REVISIONS |             |      |
|--------|--|----------------|-----------|-------------|------|
| No.    | DESCRIPTION  | DATE           | DATE      | DESCRIPTION | DATE |
| 1      | ISSUED FOR 50% REVIEW                                | APRIL 11, 2019 |           |             |      |
| 2      | ISSUED FOR APPROVAL                                  | AUGUST 8, 2019 |           |             |      |
| 3      | ISSUED TO CITY OF COLWOOD AND CRD FOR FINAL APPROVAL | JULY 2, 2019   |           |             |      |
| 4      | ISSUED FOR CONSTRUCTION                              | JULY 16, 2019  |           |             |      |

DESIGNER: ER  
REVIEWED: FC  
ENGINEER: E.M.  
SEAL



ROYAL BAY  
METCHOSIN ROAD UPGRADES  
CITY OF COLWOOD  
COVER SHEET  
ON POINT PROJECT No. 116-04  
GOVERNING AUTHORITY FILE No. 5330-20-MET-21168  
SHEET 1 of 12  
ON POINT DRAWING No. 116-04-000



**GENERAL NOTES**

- Permits for works within any public area or right of way shall be obtained by the Contractor prior to any works commencing within those areas.
- Backfilling of works not to commence until works and bedding have been approved by the Engineer of Record, or their representative.
- All work areas to be restored to original condition or better, and to the satisfaction of the Director of Engineering.
- In areas where appearances exist prior to construction, appearances shall be adjusted to suit new grades.
- Contractor to ensure any existing monuments and iron pins are not disturbed. Any monuments or iron pins disturbed during construction shall be replaced by a BCLS at the Contractor's expense.
- Contractor responsible to place a BC 1 Call and get as-built drawings from utilities and municipality prior to the commencement of any works.
- All work and material to be in accordance with City of Colwood bylaws, MMCD Platinum Edition, project specifications, and construction documents.
  - Specifications take precedence over drawings.
  - Any and all discrepancies between drawings and specifications are to be brought to the immediate attention of the Engineer prior to proceeding with installation.
- Site meeting required prior to commencement of construction with City of Colwood (CoC), Engineer, and Contractor.
- Connection or alteration of existing city owned utilities to be undertaken by respective utility forces only, at the developers expense unless otherwise noted.
- A permit to construct works within utility rights of way, streets, and city property areas will be required.
- All existing services to be exposed prior to construction and inverts confirmed. Notify Engineer in writing of any discrepancies immediately and before proceeding with construction.
- Contractor to verify locations of services, features and appurtenances. Any discrepancies to be brought to the attention of the project Engineer.
- All elevations based on metric geodetic datum unless otherwise noted.
- Protect trees designated to remain by erecting hoarding around the drip line.
- Engineer to have representative on site during the road construction and installation of utilities. Resident inspector to prepare daily reports and submit weekly to City of Colwood.
- Contractor to maintain in the site office at all times for use by the Engineer, city and trades, a copy of the latest approved drawings, on going redline drawings, MMCD specifications, City of Colwood specifications, binder of all site instructions, clarifications, contemplated changes notices and approved change orders.
- No change to the design is permitted without a formal instruction from the Engineer. Requests for information from the Contractor are to be in writing. Responses to RFI's or other contract or field instructions are to be issued by the Engineer in writing.
- BCLS to provide right of way, road dedication plans.
- Caution gas main - call before you dig 1-800-474-6886, (6886).
- For BC Hydro, Teles, Shaw and Fortis BC works refer to drawings supplied by utility companies. Information on utilities shown on civil drawings are not to be used for construction. Report conflicts to the Engineer. Obtain permits for utilities as applicable prior to starting. Utility boxes are to be set in elevation and location after curbs have been poured. Service boxes which are located in the sidewalk to be non-slip textured surface.
- All utility boxes to have edges perpendicular to edge of sidewalks.

**Drain**

- Compaction testing to be in accordance with City of Colwood bylaws.
- All sewer mains to be CCTV inspected in accordance with MMCD.
- 300mm-diameter storm sewer shall be concrete-reinforced ASTM C76 pipe.

**Sidewalks**

- All sidewalks are broom finished unless noted otherwise. Zip-strip type control joints to City of Colwood standards.
- Sidewalk let downs are to be smooth with no raised 'lip'.
- Concrete sidewalks shall be 150mm thick at driveway crossings and where mountable curbs are specified, 100mm thick where non mountable curbs are specified.

**Driveways**

- Driveways to be concrete with exposed aggregate finish only where existing driveways have exposed aggregate finish. Sidewalks passing through exposed aggregate driveways will be broom finished as noted above.

**Water works**

- Construction shall not proceed without first obtaining CRD water services acceptance of the design drawings and a construction permit from VIHA.
- Contractor shall be registered with WorkSafe BC.
- All waterworks construction and materials shall be in accordance with CRD water services Engineering specifications and standard drawings.
- Water mains shall be PVC DR 18 to AWWA C900, unless otherwise noted.
- Provide a minimum of 0.9m and a maximum of 1.2m cover for water mains, unless otherwise noted.
- Mark water mains below grade using a metallic detectable reinforced underground utility marking tape. The tape shall be minimum 300mm above the top of the pipe. Provide "Thorite" marking tape or approved equal.
- Maintain a minimum of 3m horizontal clear separation and 450mm clear vertical separation between water mains and all sanitary sewer services and except where noted and approved by CRD water services. Sanitary sewer mains shall not cross over water mains.
- Maintain a minimum of 3m horizontal clear separation and 450mm clear vertical separation between water services and sewer services, sanitary or storm drain. In special circumstances, where a sanitary sewer or storm drain service is lower than a water services by more than 450mm in elevation the horizontal offset may be reduced to no less than 1.0 metres except where noted and approved by CRD water services.
- Maintain a minimum of 1.5m horizontal centre to centre and 150mm clear vertical separation between water mains and electrical conduits, gas mains, and telephone conduits except where noted and approved by CRD water services.
- Contractor to provide 24 hour notice to CRD water services prior to proceeding with any waterworks.
- Any temporary or permanent connection to the Juan de Fuca water distribution system or the CRD supply system shall be performed by CRD water services personnel only.

**Roads**

- All materials to be in accordance with City of Colwood standards. Where materials standards are not specified master municipal contract document standards shall be used. In all other cases materials standards shall be in accordance with the Engineer of record's specification.
- Permits for works within any public area or row shall be obtained prior to any works commencing within those areas.
- Road construction and sections in accordance with the drawings.

**Property lines and rights of way**

- Rights of way shown represent general intent. Refer to drawing prepared by BCLS for final locations.
- BCLS To establish locations for utility rights of way and private easements as required.

**Signage & pavement markings**

- Pavement markings such as crosswalks, stopbars, and bicycle symbols are to be thermoplastic with non-slip surface. Long paint lines such as centerlines and fog lines are to be paint in accordance with MMCD specifications.
- Signage locations shown are for general intent only. All signs and locations are to be in accordance with MUTCD.
- Bike lane pavement markings, where applicable, to City of Colwood standards. In absence of standards use MUTCD.

**Earthworks and Geotechnical**

- Earthworks products/ materials may require permit prior to any removal or deposits. Contractor to ensure permits are obtained.
- All retaining walls and earthwork structures to be approved by the geotechnical Engineer of record.
- All fill to be compacted to minimum 95% standard modified proctor density unless otherwise noted or directed by geotechnical Engineer. Fill in landscape areas to be minimum 85% standard modified proctor density. Placement and depth of soil per landscape drawings. Landscape consultant to provide written acceptance of subgrade prior to placing soil.

**EROSION AND SEDIMENT CONTROL**

- Contractor to construct erosion and sediment control measures to prevent any runoff, in accordance with City of Colwood bylaws and MMCD guidelines.

**Erosion and sediment control practices**

- Dust Control**
- Excavations to be sprinkled until damp or to the discretion of the Engineer/erosion and sediment control supervisor. Do not over-water so as to create runoff.
  - All soil piles are to be securely covered nightly with anchored tarpaulins or when not in use for extended periods during the day or when rain events are anticipated.
  - A barrier fence is to be provided around the construction site consisting of a construction fence to restrict areas of disturbance.

**Spill Prevention**

- These practices are used to reduce the risk associated with hazardous material products that will be kept in original containers unless they are not re-sealable.
- Original labels and material safety data information will be retained; they contain important product information. If surplus products must be disposed of, manufacturers' or local and provincial recommended methods for proper disposal will be followed.
- All on-site vehicles to be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage.

**Petroleum Products**

- Petroleum products are to be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

**Fertilizers**

- Fertilizers are to be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizers are to be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizers are to be transferred to a sealable plastic bin to avoid spills.

**Paints**

- All containers are to be tightly sealed and stored when not required for use. Excess paint is not to be discharged to the storm water system, but properly disposed of according to manufacturers' instructions or provincial and local regulations.

**Concrete Trucks**

- Concrete trucks are not permitted to wash out or discharge surplus concrete or drum wash water on the site, unless to a designated location separate from the storm water sediment basin.

**Good Housekeeping**

- The following housekeeping practices are to be followed onsite during the construction project:
- An effort is made to store only enough product to do the job.
  - All materials stored onsite are to be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
  - Products are to be kept in their original containers with the original manufacturer's label.
  - Substances are not to be mixed with another unless recommended by the manufacturer.
  - Whenever possible, all of a product are to be used up before disposing of the container.
  - Manufacturers' recommendations for proper use and disposal are to be followed.
  - The site superintendent will inspect daily to ensure proper use and disposal of materials onsite.

**Spill Control Practices**

- In addition to the good housekeeping and material management practices, the following practices are to be followed for spill prevention and cleanup:
- Manufacturers' recommended methods for spill cleanup are to be clearly posted and site personnel are to be made aware of procedures and the location of the information and cleanup supplies.
  - Materials and equipment necessary for spill cleanup are to be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, oily litter, sand sawdust, and plastic and metal trash containers specifically for this purpose.
  - All spills are to be cleaned up immediately after discovery.
  - The spill area is to be kept well ventilated and personnel are to wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
  - Spills of hazardous or toxic material are to be reported to the appropriate provincial or local government agency, regardless of the size.
  - After a spill, the spill prevention plan is to be adjusted to include measures to prevent any type of spill from re-occurring. A description of the spill, what caused it, and the cleanup measures are to also be included.
  - The site superintendent is responsible for the day-to-day site operations and will be the spill prevention and cleanup coordinator. This person will designate other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel are to be posted in the material storage area and in the office trailer onsite.

**Erosion and sediment control - general**

- The Contractor is fully responsible for controlling erosion, sediment, dust and all potential releases from the project site.
- The Engineer or Environmental Monitor has the right to shut down construction activities if erosion and sediment control measures are not meeting their purpose or causing possible detrimental effects to protected riparian areas.
- Erosion and sediment works are to be installed where potential problems can be predicted or are likely to happen. Do not wait for an erosion and sediment problem to arise.
- Equipment and workmanship is to be of best quality. The Engineer or Environmental Monitor reserves the right to dismiss any equipment from the site which is unsuitable. (e. hydraulic leaks etc.)
- The Contractor shall be responsible for taking appropriate measures to keep silt and other deleterious material from leaving the site.
- To avoid reactive and costly application of sediment control practices, ensure that construction activities are phased so that exposed soils are limited to a small footprint. Since the only feasible way to remove sediment from water is to slow the water's movement and allow the sediments to drop out of suspension, erosion and sediment works are to be preventative, avoiding suspended sediment in water.
- All temporary erosion and sediment control measures are to be removed within 30 days of final site stabilization or after the temporary best management practice (bmp) is no longer needed. Trapped sediment should be removed or stabilized on site. Disturbed soil areas resulting from removal should be permanently stabilized.
- Erosion and sediment controls will be inspected during and after all major storm events. The Environmental Monitor will meet with the Contractor periodically as required to review the project schedule and related erosion control measures.
- Where disturbed soil is to be left for a period of at least 30 days; hydroseeding, temporary mulching or covering the exposed soil with a tarpaulin is recommended to reduce erosion during rain fall events. Exposed slopes may be backed using a bulldozer or other appropriate machinery to encourage infiltration and decrease runoff. If straw or hay mulch is used to cover exposed soil, coverage must be applied at 25-30mm thickness and be free of noxious weeds.
- Contractor to have onsite at all times, a minimum of:
  - 10.1. 100m of silt fencing
  - 10.2. 200 stakes

**Specifications**

**Silt/Sediment Fence Barrier**

The Contractor shall supply, install and maintain silt fence barriers in accordance with the guidelines outlined on these construction documents and in areas generally indicated on the Engineer's drawing after clearing but prior to grubbing, stripping and excavation operations.

The silt fence fabric shall meet the following minimum material properties:

- Fabric: woven polypropylene
- Tensile strength: 423 md
- Elongation: 15%
- Mullen burst: 1723 kpa
- Puncture strength: 134 n
- A.O.S. 600 microns
- Flow rate: 20 lsec/m<sup>2</sup>
- U.V. Resistance 80%

The stakes shall be of sufficient strength to satisfy silt fence barrier performance and maintenance requirements. The stakes shall be a minimum of 1.5m in length, driven 300mm into the ground, with a maximum spacing of 2.4m between stakes.

The Contractor shall install silt fencing in road ditches and toe of slopes as indicated on the Engineer's drawings.

- Maintenance**
- All silt fences shall be inspected immediately after a runoff event and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
  - The silt fence barriers shall be maintained in place, without gaps, and without undermining, so as to prevent sediment passage through or under the barrier.
  - Accumulated sediment shall be removed at the direction of the project Environmental Monitor or Engineer.
  - Silt fence barriers shall be removed when, in the opinion of the Environmental Monitor or Engineer, the measure is no longer required.
  - Silt fence barriers shall be removed in a manner that:
    - 11. avoids entry of equipment, other than hand held equipment, to any water course; and
    - 12. prevents release of sediment and debris to any water course.

**Rough Grading**

- Protection**
- Protect construction fencing, trees, erosion and sediment control features, natural features and bench marks which are to remain as directed by consultant. If damaged, remove to original or better condition unless directed otherwise.
  - Maintain access roads to prevent accumulation of construction related debris on roads.

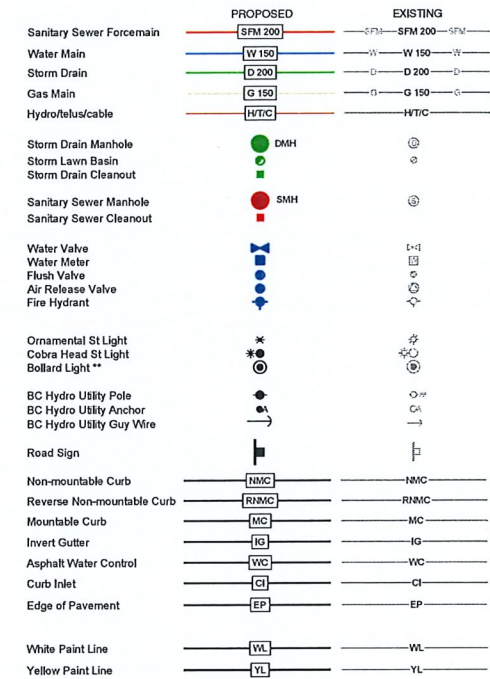
**Materials**

- Fill materials in accordance with MMCD specifications and construction documents.
- Stripping of Topsoil**
- Do not handle topsoil while in wet or frozen condition or in any manner in which soil structure is adversely affected as determined by consultant.
  - Commence topsoil stripping of areas as indicated after area has been cleared of brush weeds and grasses and removed from site.
  - Strip topsoil to depths as indicated.
  - Stockpile topsoil away from project site to prevent migration of fines to watercourse.

**Grading**

- Rough grade to levels, profiles, and contours allowing for surface treatment as indicated on construction documents.

**LEGEND**



\*\* Bollard Light legend symbols are exaggerated on plan view by approximately 2.3x actual size.

JULY 16, 2019  
**ISSUED FOR CONSTRUCTION**



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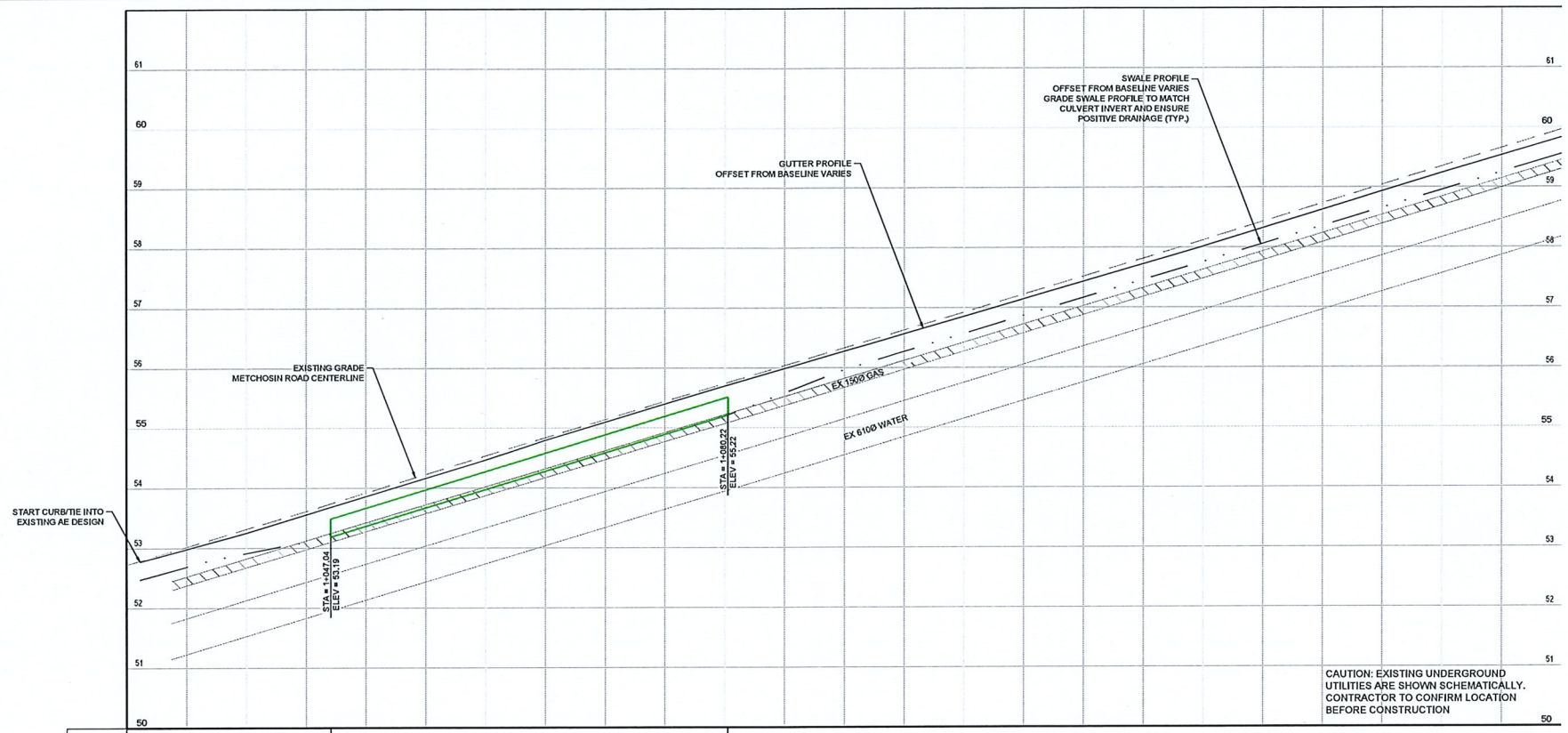
| ISSUED |  |                |      | REVISIONS |             |      |      |
|--------|--|----------------|------|-----------|-------------|------|------|
| No.    | DESCRIPTION  | DATE           | SIGN | No.       | DESCRIPTION | DATE | SIGN |
| 1      | ISSUED FOR 50% REVIEW                                | APRIL 11, 2019 | ER   |           |             |      |      |
| 2      | ISSUED FOR APPROVAL                                  | AUGUST 8, 2019 | ER   |           |             |      |      |
| 3      | ISSUED TO CITY OF COLWOOD AND CRD FOR FINAL APPROVAL | JULY 2, 2019   | ER   |           |             |      |      |
| 4      | ISSUED FOR CONSTRUCTION                              | JULY 16, 2019  | CV   |           |             |      |      |

DESIGNER: ER  
REVIEWED: FC  
ENGINEER: E.J.N.

**GABLEcraft HOMES**

**ROYAL BAY**  
METCHOSIN ROAD UPGRADES  
CITY OF COLWOOD

ON POINT PROJECT No. 116-04  
GOVERNING AUTHORITY FILE No. 5330-20-MET-21168  
SHEET 2 of 12  
REV: —  
ON POINT DRAWING No. 116-04-001

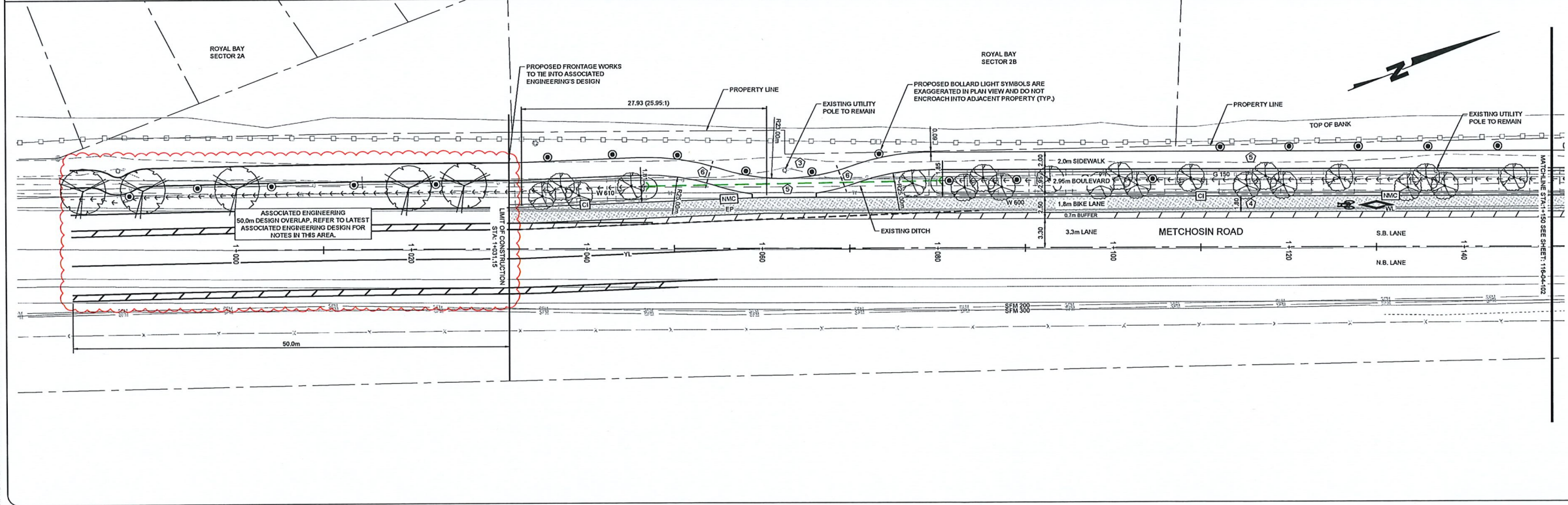


| CL STA | CL OG | CL PG  | CL OG  | CL PG  | CL STA | CL OG | CL PG  | CL OG  | CL PG  |
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| 1+005  | 53.02 | 52.987 | 52.987 | 52.987 | 1+005  | 53.02 | 52.987 | 52.987 | 52.987 |
| 1+010  | 53.32 | 53.256 | 53.256 | 53.256 | 1+010  | 53.32 | 53.256 | 53.256 | 53.256 |
| 1+015  | 53.62 | 53.560 | 53.560 | 53.560 | 1+015  | 53.62 | 53.560 | 53.560 | 53.560 |
| 1+020  | 53.92 | 53.864 | 53.864 | 53.864 | 1+020  | 53.92 | 53.864 | 53.864 | 53.864 |
| 1+025  | 54.23 | 54.167 | 54.167 | 54.167 | 1+025  | 54.23 | 54.167 | 54.167 | 54.167 |
| 1+030  | 54.54 | 54.471 | 54.471 | 54.471 | 1+030  | 54.54 | 54.471 | 54.471 | 54.471 |
| 1+035  | 54.84 | 54.775 | 54.775 | 54.775 | 1+035  | 54.84 | 54.775 | 54.775 | 54.775 |
| 1+040  | 55.14 | 55.079 | 55.079 | 55.079 | 1+040  | 55.14 | 55.079 | 55.079 | 55.079 |
| 1+045  | 55.44 | 55.383 | 55.383 | 55.383 | 1+045  | 55.44 | 55.383 | 55.383 | 55.383 |
| 1+050  | 55.74 | 55.687 | 55.687 | 55.687 | 1+050  | 55.74 | 55.687 | 55.687 | 55.687 |
| 1+055  | 56.04 | 55.991 | 55.991 | 55.991 | 1+055  | 56.04 | 55.991 | 55.991 | 55.991 |
| 1+060  | 56.34 | 56.295 | 56.295 | 56.295 | 1+060  | 56.34 | 56.295 | 56.295 | 56.295 |
| 1+065  | 56.64 | 56.599 | 56.599 | 56.599 | 1+065  | 56.64 | 56.599 | 56.599 | 56.599 |
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| 1+105  | 59.04 | 59.031 | 59.031 | 59.031 | 1+105  | 59.04 | 59.031 | 59.031 | 59.031 |
| 1+110  | 59.34 | 59.335 | 59.335 | 59.335 | 1+110  | 59.34 | 59.335 | 59.335 | 59.335 |
| 1+115  | 59.64 | 59.639 | 59.639 | 59.639 | 1+115  | 59.64 | 59.639 | 59.639 | 59.639 |
| 1+120  | 59.94 | 59.943 | 59.943 | 59.943 | 1+120  | 59.94 | 59.943 | 59.943 | 59.943 |
| 1+125  | 60.24 | 60.247 | 60.247 | 60.247 | 1+125  | 60.24 | 60.247 | 60.247 | 60.247 |
| 1+130  | 60.54 | 60.551 | 60.551 | 60.551 | 1+130  | 60.54 | 60.551 | 60.551 | 60.551 |
| 1+135  | 60.84 | 60.855 | 60.855 | 60.855 | 1+135  | 60.84 | 60.855 | 60.855 | 60.855 |
| 1+140  | 61.14 | 61.159 | 61.159 | 61.159 | 1+140  | 61.14 | 61.159 | 61.159 | 61.159 |
| 1+145  | 61.44 | 61.463 | 61.463 | 61.463 | 1+145  | 61.44 | 61.463 | 61.463 | 61.463 |
| 1+150  | 61.74 | 61.767 | 61.767 | 61.767 | 1+150  | 61.74 | 61.767 | 61.767 | 61.767 |

### LEGEND

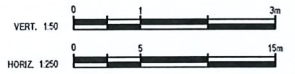
| PROPOSED                           | EXISTING                           |
|------------------------------------|------------------------------------|
| Sanitary Sewer Forcemain (SFM 200) | Sanitary Sewer Forcemain (SFM 200) |
| Water Main (W 150)                 | Water Main (W 150)                 |
| Storm Drain (D 200)                | Storm Drain (D 200)                |
| Gas Main (G 150)                   | Gas Main (G 150)                   |
| Hydrotelus/cable (HT/C)            | Hydrotelus/cable (HT/C)            |
| Storm Drain Manhole (DMH)          | Storm Drain Manhole (DMH)          |
| Storm Lawn Basin                   | Storm Lawn Basin                   |
| Storm Drain Cleanout               | Storm Drain Cleanout               |
| Sanitary Sewer Manhole (SMH)       | Sanitary Sewer Manhole (SMH)       |
| Sanitary Sewer Cleanout            | Sanitary Sewer Cleanout            |
| Water Valve                        | Water Valve                        |
| Water Meter                        | Water Meter                        |
| Flush Valve                        | Flush Valve                        |
| Air Release Valve                  | Air Release Valve                  |
| Fire Hydrant                       | Fire Hydrant                       |
| Ornamental St Light                | Ornamental St Light                |
| Cobra Head St Light                | Cobra Head St Light                |
| Bollard Light **                   | Bollard Light **                   |
| BC Hydro Utility Pole              | BC Hydro Utility Pole              |
| BC Hydro Utility Anchor            | BC Hydro Utility Anchor            |
| BC Hydro Utility Guy Wire          | BC Hydro Utility Guy Wire          |
| Road Sign                          | Road Sign                          |
| Non-mountable Curb (NMC)           | Non-mountable Curb (NMC)           |
| Reverse Non-mountable Curb (RNMC)  | Reverse Non-mountable Curb (RNMC)  |
| Mountable Curb (MC)                | Mountable Curb (MC)                |
| Invert Gutter (IG)                 | Invert Gutter (IG)                 |
| Asphalt Water Control (WC)         | Asphalt Water Control (WC)         |
| Curb Inlet (CI)                    | Curb Inlet (CI)                    |
| Edge of Pavement (EP)              | Edge of Pavement (EP)              |
| White Paint Line (WL)              | White Paint Line (WL)              |
| Yellow Paint Line (YL)             | Yellow Paint Line (YL)             |
| Wood Fence                         | Wood Fence                         |
| Chain Link Fence                   | Chain Link Fence                   |

\*\* Bollard Light legend symbols are exaggerated on plan view by approximately 2.3 x actual size.



- #### CONSTRUCTION NOTES:
- CAUTION: EXISTING 1500 HIGH PRESSURE GAS MAIN. CONTACT FORTIS BC & BC ONE CALL PRIOR TO EXCAVATION.
  - CONTRACTOR TO MATCH PROPOSED GRADES AND ALIGNMENTS TO EXISTING ASSOCIATED ENGINEERING DESIGN AT LIMIT OF CONSTRUCTION.
  - DEFLECT SIDEWALK ALIGNMENT AROUND EXISTING UTILITY POLE. CAUTION: EXISTING UTILITY LINES OVERHEAD.
  - SAWCUT EXISTING ASPHALT C&W LAP JOINT AND DISPOSE OFFSITE TO AN APPROPRIATE FACILITY.
  - INSTALL 3000 CONCRETE CULVERT C/W MORTARED ROCK HEADWALLS.
  - INSTALL 1500 PVC IRRIGATION SLEEVE.
  - TEMPORARILY REMOVE EXISTING WOOD FENCE AS REQUIRED AND NEATLY STACK ONSITE. REINSTATE EXISTING WOOD FENCE AFTER FINAL SITE GRADING IS COMPLETE. EXTENTS OF REMOVAL TO BE DETERMINED ONSITE PRIOR TO CONSTRUCTION.
  - REFER TO STREET LIGHTING DESIGN DRAWINGS BY PBX ENGINEERING. CONTRACTOR TO ENSURE STREET LIGHTING INFRASTRUCTURE TO BE INSTALLED WITHIN METCHOSIN ROAD RIGHT OF WAY.
  - REFER TO SIGNAGE AND PAVEMENT MARKING DRAWING No. 501 FOR DETAILS.
  - REFER TO LANDSCAPE DESIGN DRAWINGS BY LADR.

JULY 16, 2019  
**ISSUED FOR CONSTRUCTION**



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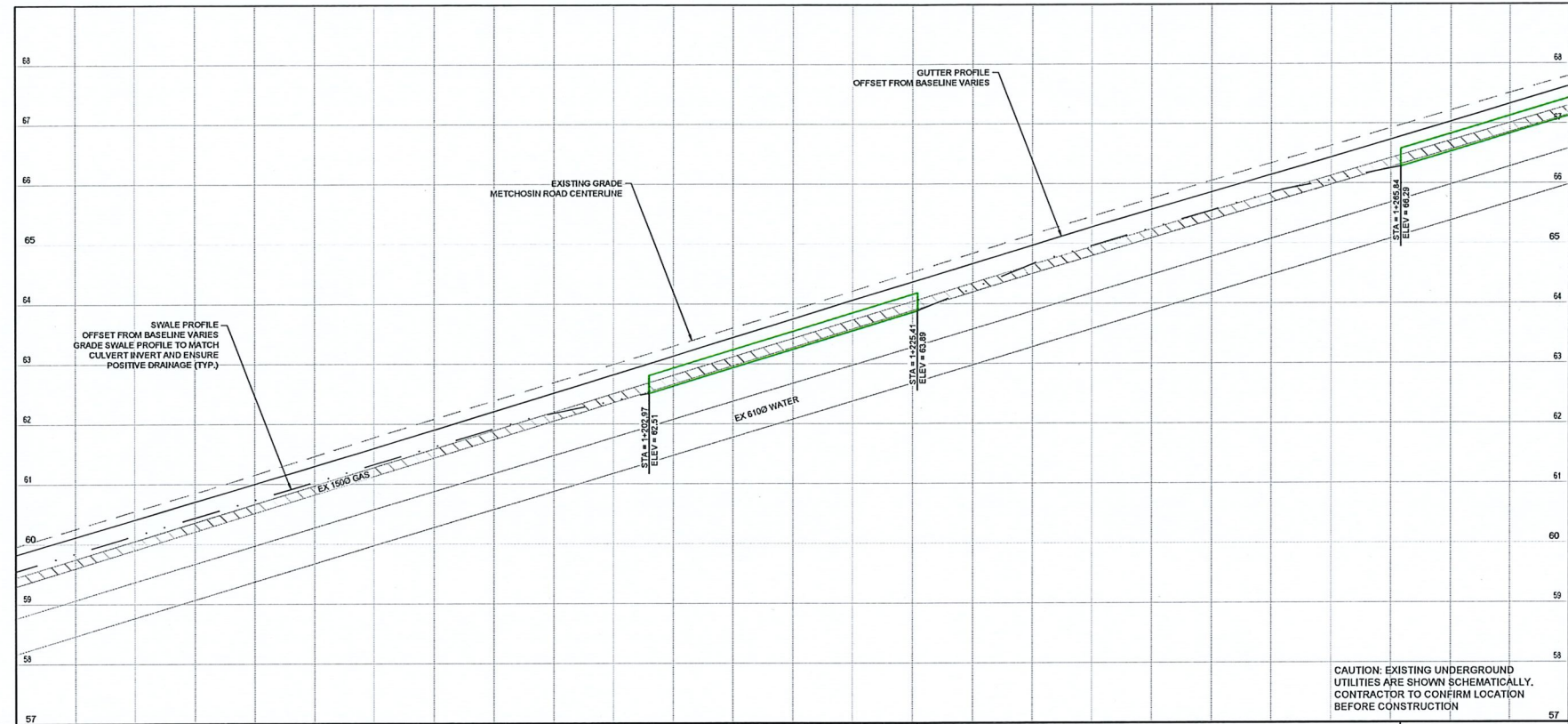
| No. | ISSUED DESCRIPTION                                   | DATE           | SIGN | No. | REVISIONS DESCRIPTION | DATE | SIGN |
|-----|--|----------------|------|-----|-----------------------|------|------|
| 1   | ISSUED FOR 50% REVIEW                                | APRIL 11, 2018 | ER   |     |                       |      |      |
| 2   | ISSUED FOR APPROVAL                                  | AUGUST 8, 2018 | ER   |     |                       |      |      |
| 3   | ISSUED TO CITY OF COLWOOD AND CRD FOR FINAL APPROVAL | MAY 2, 2019    | ER   |     |                       |      |      |
| 4   | ISSUED FOR CONSTRUCTION                              | JULY 16, 2019  | CV   |     |                       |      |      |

DESIGNER: ER  
 REVIEWED: FC  
 ENGINEER: E.J.N.  
 SEAL



ROYAL BAY  
 METCHOSIN ROAD UPGRADES  
 CITY OF COLWOOD  
 PLAN AND PROFILE  
 STA: 1+000 TO 1+150

ON POINT PROJECT No. 116-04  
 GOVERNING AUTHORITY FILE No. 5330-20-MET-21168  
 SHEET 3 OF 12  
 ON POINT DRAWING No. 116-04-101

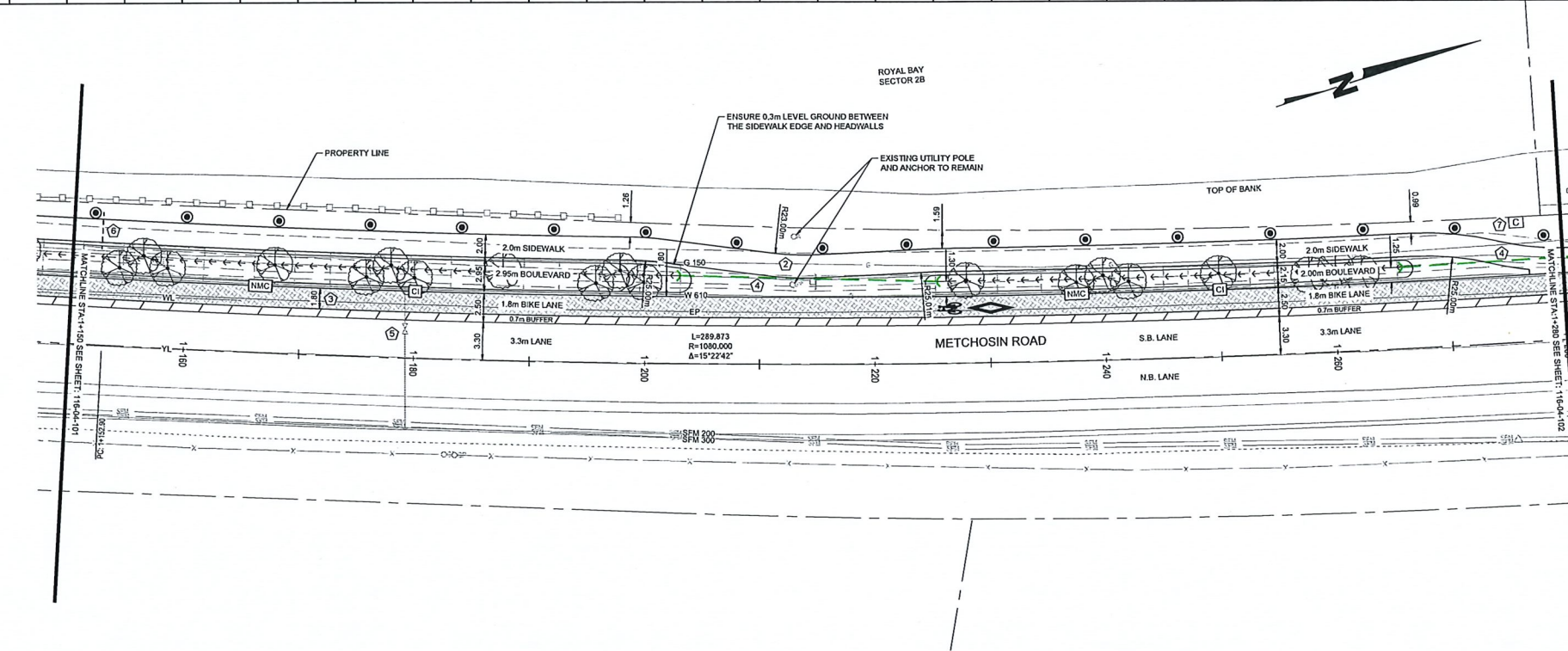


| CL STA | CL ELEV | CL STA | CL ELEV | CL STA | CL ELEV | CL STA | CL ELEV |
|--------|---------|--------|---------|--------|---------|--------|---------|
| 1+150  | 59.95   | 1+155  | 60.25   | 1+160  | 60.55   | 1+165  | 60.85   |
| 1+155  | 59.95   | 1+160  | 60.55   | 1+165  | 60.85   | 1+170  | 61.15   |
| 1+160  | 60.55   | 1+165  | 60.85   | 1+170  | 61.15   | 1+175  | 61.45   |
| 1+165  | 60.85   | 1+170  | 61.15   | 1+175  | 61.45   | 1+180  | 61.75   |
| 1+170  | 61.15   | 1+175  | 61.45   | 1+180  | 61.75   | 1+185  | 62.05   |
| 1+175  | 61.45   | 1+180  | 61.75   | 1+185  | 62.05   | 1+190  | 62.35   |
| 1+180  | 61.75   | 1+185  | 62.05   | 1+190  | 62.35   | 1+195  | 62.65   |
| 1+185  | 62.05   | 1+190  | 62.35   | 1+195  | 62.65   | 1+200  | 62.95   |
| 1+190  | 62.35   | 1+195  | 62.65   | 1+200  | 62.95   | 1+205  | 63.25   |
| 1+195  | 62.65   | 1+200  | 62.95   | 1+205  | 63.25   | 1+210  | 63.55   |
| 1+200  | 62.95   | 1+205  | 63.25   | 1+210  | 63.55   | 1+215  | 63.85   |
| 1+205  | 63.25   | 1+210  | 63.55   | 1+215  | 63.85   | 1+220  | 64.15   |
| 1+210  | 63.55   | 1+215  | 63.85   | 1+220  | 64.15   | 1+225  | 64.45   |
| 1+215  | 63.85   | 1+220  | 64.15   | 1+225  | 64.45   | 1+230  | 64.75   |
| 1+220  | 64.15   | 1+225  | 64.45   | 1+230  | 64.75   | 1+235  | 65.05   |
| 1+225  | 64.45   | 1+230  | 64.75   | 1+235  | 65.05   | 1+240  | 65.35   |
| 1+230  | 64.75   | 1+235  | 65.05   | 1+240  | 65.35   | 1+245  | 65.65   |
| 1+235  | 65.05   | 1+240  | 65.35   | 1+245  | 65.65   | 1+250  | 65.95   |
| 1+240  | 65.35   | 1+245  | 65.65   | 1+250  | 65.95   | 1+255  | 66.25   |
| 1+245  | 65.65   | 1+250  | 65.95   | 1+255  | 66.25   | 1+260  | 66.55   |
| 1+250  | 65.95   | 1+255  | 66.25   | 1+260  | 66.55   | 1+265  | 66.85   |
| 1+255  | 66.25   | 1+260  | 66.55   | 1+265  | 66.85   | 1+270  | 67.15   |
| 1+260  | 66.55   | 1+265  | 66.85   | 1+270  | 67.15   | 1+275  | 67.45   |
| 1+265  | 66.85   | 1+270  | 67.15   | 1+275  | 67.45   | 1+280  | 67.75   |

### LEGEND

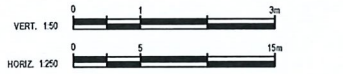
| PROPOSED                          | EXISTING                          |
|-----------------------------------|-----------------------------------|
| Sanitary Sewer Foremain (SFM 200) | Sanitary Sewer Foremain (SFM 200) |
| Water Main (W 150)                | Water Main (W 150)                |
| Storm Drain (D 200)               | Storm Drain (D 200)               |
| Gas Main (G 150)                  | Gas Main (G 150)                  |
| Hydro/tele/cable (HT/C)           | Hydro/tele/cable (HT/C)           |
| Storm Drain Manhole (DMH)         | Storm Drain Manhole (DMH)         |
| Storm Lawn Basin                  | Storm Lawn Basin                  |
| Storm Drain Cleanout              | Storm Drain Cleanout              |
| Sanitary Sewer Manhole (SMH)      | Sanitary Sewer Manhole (SMH)      |
| Sanitary Sewer Cleanout           | Sanitary Sewer Cleanout           |
| Water Valve                       | Water Valve                       |
| Water Meter                       | Water Meter                       |
| Flush Valve                       | Flush Valve                       |
| Air Release Valve                 | Air Release Valve                 |
| Fire Hydrant                      | Fire Hydrant                      |
| Ornamental St Light               | Ornamental St Light               |
| Cobra Head St Light               | Cobra Head St Light               |
| Bollard Light **                  | Bollard Light **                  |
| BC Hydro Utility Pole             | BC Hydro Utility Pole             |
| BC Hydro Utility Anchor           | BC Hydro Utility Anchor           |
| BC Hydro Utility Guy Wire         | BC Hydro Utility Guy Wire         |
| Road Sign                         | Road Sign                         |
| Non-mountable Curb (NMC)          | Non-mountable Curb (NMC)          |
| Reverse Non-mountable Curb (RNMC) | Reverse Non-mountable Curb (RNMC) |
| Mountable Curb (MC)               | Mountable Curb (MC)               |
| Invert Gutter (IG)                | Invert Gutter (IG)                |
| Asphalt Water Control (WC)        | Asphalt Water Control (WC)        |
| Curb Inlet (CI)                   | Curb Inlet (CI)                   |
| Edge of Pavement (EP)             | Edge of Pavement (EP)             |
| White Paint Line (WL)             | White Paint Line (WL)             |
| Yellow Paint Line (YL)            | Yellow Paint Line (YL)            |
| Wood Fence                        | Wood Fence                        |
| Chain Link Fence                  | Chain Link Fence                  |

\*\* Bollard Light legend symbols are exaggerated on plan view by approximately 2.3 x actual size.



- ### CONSTRUCTION NOTES:
- CAUTION: EXISTING 1500 HIGH PRESSURE GAS MAIN. CONTACT FORTIS BC & BC ONE CALL PRIOR TO EXCAVATION.
  - DEFLECT SIDEWALK ALIGNMENT AROUND EXISTING UTILITY POLE ANCHOR. CAUTION: EXISTING UTILITY LINES OVERHEAD.
  - SAWCUT EXISTING ASPHALT C/W LAP JOINT AND DISPOSE OFFSITE TO AN APPROPRIATE FACILITY.
  - INSTALL 3000 CONCRETE CULVERT C/W MORTARED ROCK HEADWALLS.
  - EXISTING WATER VALVE TO REMAIN.
  - INSTALL 1500 PVC IRRIGATION SLEEVE.
  - PROPOSED LOCATION FOR IRRIGATION CONTROLLER [C]. REFER TO IRRIGATION DESIGN BY WES-TECH IRRIGATION SYSTEMS FOR DETAILS.
  - TEMPORARILY REMOVE EXISTING WOOD FENCE AS REQUIRED AND NEATLY STACK ON-SITE. REINSTATE WOOD FENCE AFTER FINAL SITE GRADING IS COMPLETE.
  - REFER TO STREET LIGHTING DESIGN DRAWINGS BY PBX ENGINEERING. CONTRACTOR TO ENSURE STREET LIGHTING INFRASTRUCTURE TO BE INSTALLED WITHIN METCHOSIN ROAD RIGHT OF WAY.
  - REFER TO SIGNAGE AND PAVEMENT MARKING DRAWING No. 501 FOR DETAILS.
  - REFER TO LANDSCAPE DESIGN DRAWINGS BY LADR.

JULY 16, 2019  
**ISSUED FOR CONSTRUCTION**



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| ISSUED |  |                |      | REVISIONS |             |      |      |
|--------|--|----------------|------|-----------|-------------|------|------|
| No.    | DESCRIPTION  | DATE           | SIGN | No.       | DESCRIPTION | DATE | SIGN |
| 1      | ISSUED FOR 50% REVIEW                                | APRIL 11, 2018 | ER   |           |             |      |      |
| 2      | ISSUED FOR APPROVAL                                  | AUGUST 8, 2018 | ER   |           |             |      |      |
| 3      | ISSUED TO CITY OF COLWOOD AND CRD FOR FINAL APPROVAL | MAY 2, 2019    | ER   |           |             |      |      |
| 4      | ISSUED FOR CONSTRUCTION                              | JULY 16, 2019  | CV   |           |             |      |      |

DESIGNER: ER  
REVIEWED: FC  
ENGINEER: E.J.N.  
SEAL



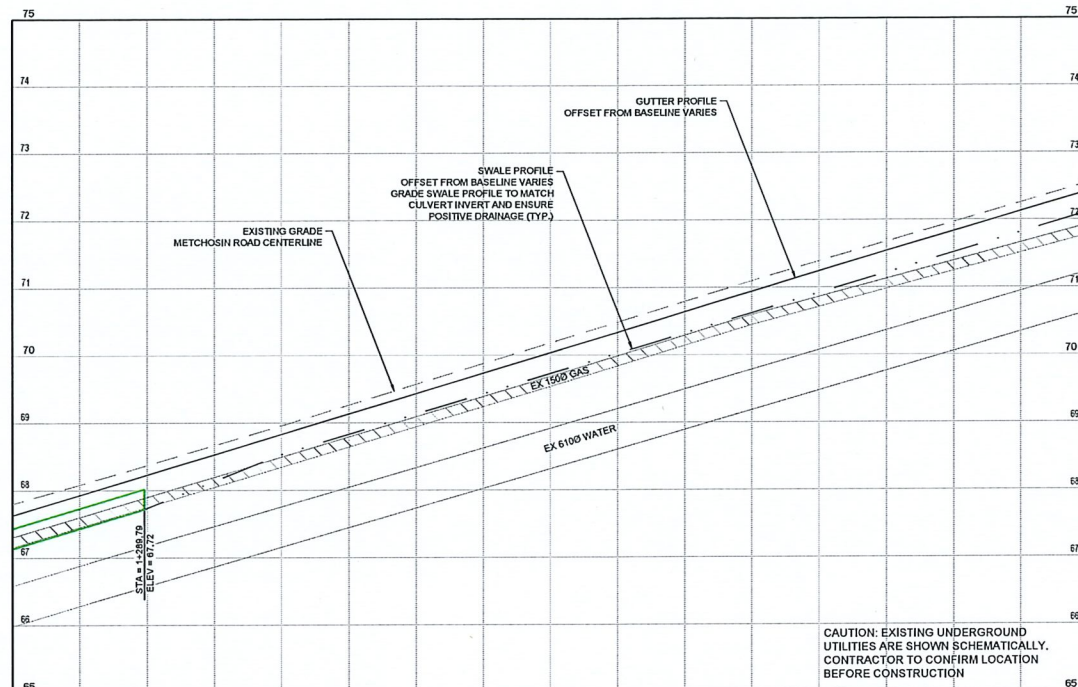
ROYAL BAY  
METCHOSIN ROAD UPGRADES  
CITY OF COLWOOD  
PLAN AND PROFILE  
STA: 1+150 TO 1+280

ON POINT PROJECT No. 116-04  
GOVERNING AUTHORITY FILE No. 5330-20-MET-21168  
SHEET 4 OF 12  
REV: —  
ON POINT DRAWING No. 116-04-102

LEGEND

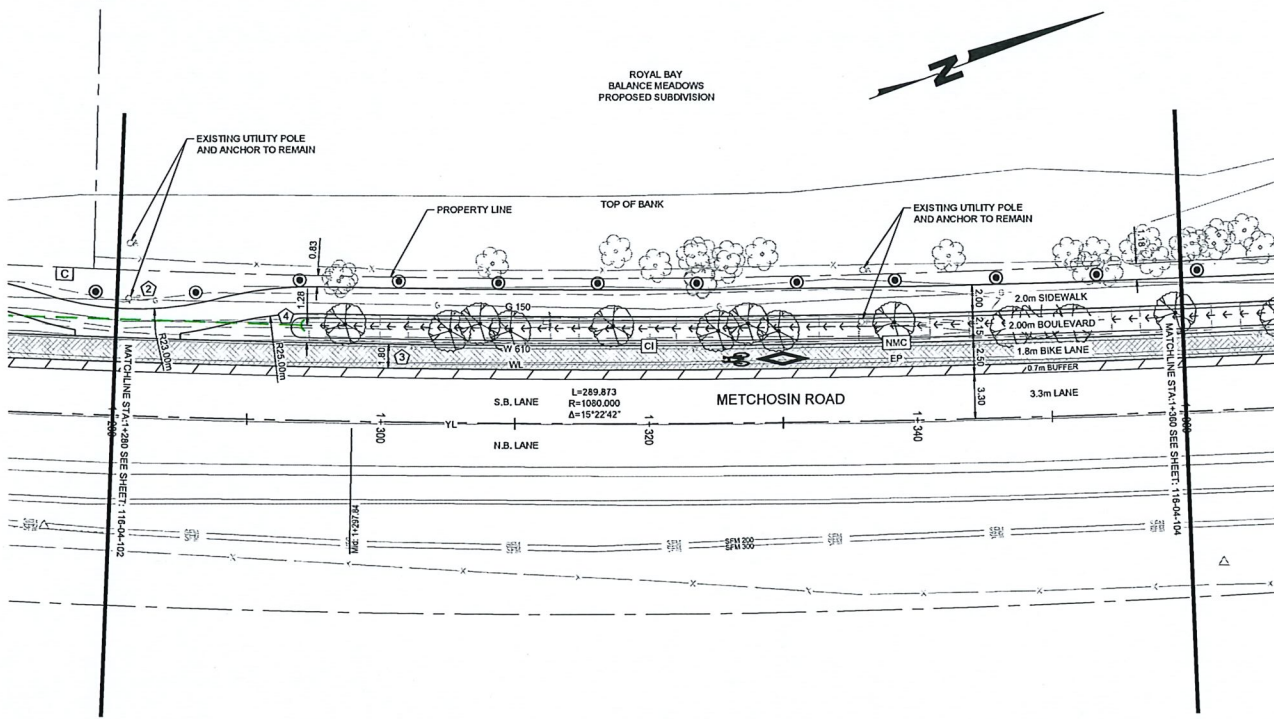
| PROPOSED                           | EXISTING                  |
|------------------------------------|---------------------------|
| Sanitary Sewer Forcemain (SFM 200) | SFM 200                   |
| Water Main (W 150)                 | W 150                     |
| Storm Drain (D 200)                | D 200                     |
| Gas Main (G 150)                   | G 150                     |
| Hydro/cable (HT/C)                 | HT/C                      |
| Storm Drain Manhole (DMH)          | DMH                       |
| Storm Lawn Basin                   | Storm Lawn Basin          |
| Storm Drain Cleanout               | Storm Drain Cleanout      |
| Sanitary Sewer Manhole (SMH)       | SMH                       |
| Sanitary Sewer Cleanout            | Sanitary Sewer Cleanout   |
| Water Valve                        | Water Valve               |
| Water Meter                        | Water Meter               |
| Flush Valve                        | Flush Valve               |
| Air Release Valve                  | Air Release Valve         |
| Fire Hydrant                       | Fire Hydrant              |
| Ornamental St Light                | Ornamental St Light       |
| Cobra Head St Light                | Cobra Head St Light       |
| Bollard Light**                    | Bollard Light**           |
| BC Hydro Utility Pole              | BC Hydro Utility Pole     |
| BC Hydro Utility Anchor            | BC Hydro Utility Anchor   |
| BC Hydro Utility Guy Wire          | BC Hydro Utility Guy Wire |
| Road Sign                          | Road Sign                 |
| Non-mountable Curb (NMC)           | NMC                       |
| Reverse Non-mountable Curb (RNMC)  | RNMC                      |
| Mountable Curb (MC)                | MC                        |
| Invert Gutter (IG)                 | IG                        |
| Asphalt Water Control (WC)         | WC                        |
| Curb Inlet (CI)                    | CI                        |
| Edge of Pavement (EP)              | EP                        |
| White Paint Line (WL)              | WL                        |
| Yellow Paint Line (YL)             | YL                        |
| Wood Fence                         | Wood Fence                |
| Chain Link Fence                   | Chain Link Fence          |

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CAUTION: EXISTING UNDERGROUND UTILITIES ARE SHOWN SCHEMATICALLY. CONTRACTOR TO CONFIRM LOCATION BEFORE CONSTRUCTION

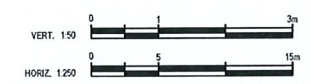
| CL STA | CL O.C. SWALE PG | CL O.C. GUTTER PG | CL O.C. SWALE PG | CL O.C. GUTTER PG | CL STA |
|--------|------------------|-------------------|------------------|-------------------|--------|
| 1+280  | 67.50            | 67.52             | 67.52            | 67.52             | 1+280  |
| 1+285  | 68.09            | 68.11             | 68.11            | 68.11             | 1+285  |
| 1+290  | 68.37            | 68.39             | 68.39            | 68.39             | 1+290  |
| 1+295  | 68.67            | 68.69             | 68.69            | 68.69             | 1+295  |
| 1+300  | 68.95            | 68.97             | 68.97            | 68.97             | 1+300  |
| 1+305  | 69.25            | 69.27             | 69.27            | 69.27             | 1+305  |
| 1+310  | 69.57            | 69.59             | 69.59            | 69.59             | 1+310  |
| 1+315  | 69.88            | 69.90             | 69.90            | 69.90             | 1+315  |
| 1+320  | 70.18            | 70.20             | 70.20            | 70.20             | 1+320  |
| 1+325  | 70.49            | 70.51             | 70.51            | 70.51             | 1+325  |
| 1+330  | 70.79            | 70.81             | 70.81            | 70.81             | 1+330  |
| 1+335  | 71.05            | 71.07             | 71.07            | 71.07             | 1+335  |
| 1+340  | 71.35            | 71.37             | 71.37            | 71.37             | 1+340  |
| 1+345  | 71.68            | 71.70             | 71.70            | 71.70             | 1+345  |
| 1+350  | 71.97            | 71.99             | 71.99            | 71.99             | 1+350  |
| 1+355  | 72.28            | 72.30             | 72.30            | 72.30             | 1+355  |
| 1+360  | 72.55            | 72.57             | 72.57            | 72.57             | 1+360  |



CONSTRUCTION NOTES:

- CAUTION: EXISTING 1500 HIGH PRESSURE GAS MAIN. CONTACT FORTIS BC & BC ONE CALL PRIOR TO EXCAVATION.
- DEFLECT SIDEWALK ALIGNMENT AROUND EXISTING UTILITY POLE. CAUTION: EXISTING UTILITY LINES OVERHEAD.
- SAWCUT EXISTING ASPHALT C/W LAP JOINT AND DISPOSE OFFSITE TO AN APPROPRIATE FACILITY.
- INSTALL 3000 CONCRETE CULVERT C/W MORTARED ROCK HEADWALLS.
- EXISTING TREES TO BE PROTECTED WITHIN ROW DURING CONSTRUCTION.
- REFER TO STREET LIGHTING DESIGN DRAWINGS BY PBX ENGINEERING. CONTRACTOR TO ENSURE STREET LIGHTING INFRASTRUCTURE TO BE INSTALLED WITHIN METCHOSIN ROAD RIGHT OF WAY.
- REFER TO SIGNAGE AND PAVEMENT MARKING DRAWING No. 501 FOR DETAILS.
- REFER TO LANDSCAPE DESIGN DRAWINGS BY LADR.

**ISSUED FOR CONSTRUCTION**



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| ISSUED |  |                |      | REVISIONS |             |      |      |
|--------|--|----------------|------|-----------|-------------|------|------|
| No.    | DESCRIPTION  | DATE           | SIGN | No.       | DESCRIPTION | DATE | SIGN |
| 1      | ISSUED FOR 50% REVIEW                                | APRIL 11, 2019 | ER   |           |             |      |      |
| 2      | ISSUED FOR APPROVAL                                  | AUGUST 8, 2019 | ER   |           |             |      |      |
| 3      | ISSUED TO CITY OF COLWOOD AND CRD FOR FINAL APPROVAL | MAY 2, 2019    | ER   |           |             |      |      |
| 4      | ISSUED FOR CONSTRUCTION                              | JULY 16, 2019  | CV   |           |             |      |      |

DESIGNER: ER  
REVIEWED: FC  
ENGINEER: E.J.N.

SEAL

GABLEcraft HOMES

ROYAL BAY  
METCHOSIN ROAD UPGRADES  
CITY OF COLWOOD

PLAN AND PROFILE  
STA: 1+280 TO 1+360

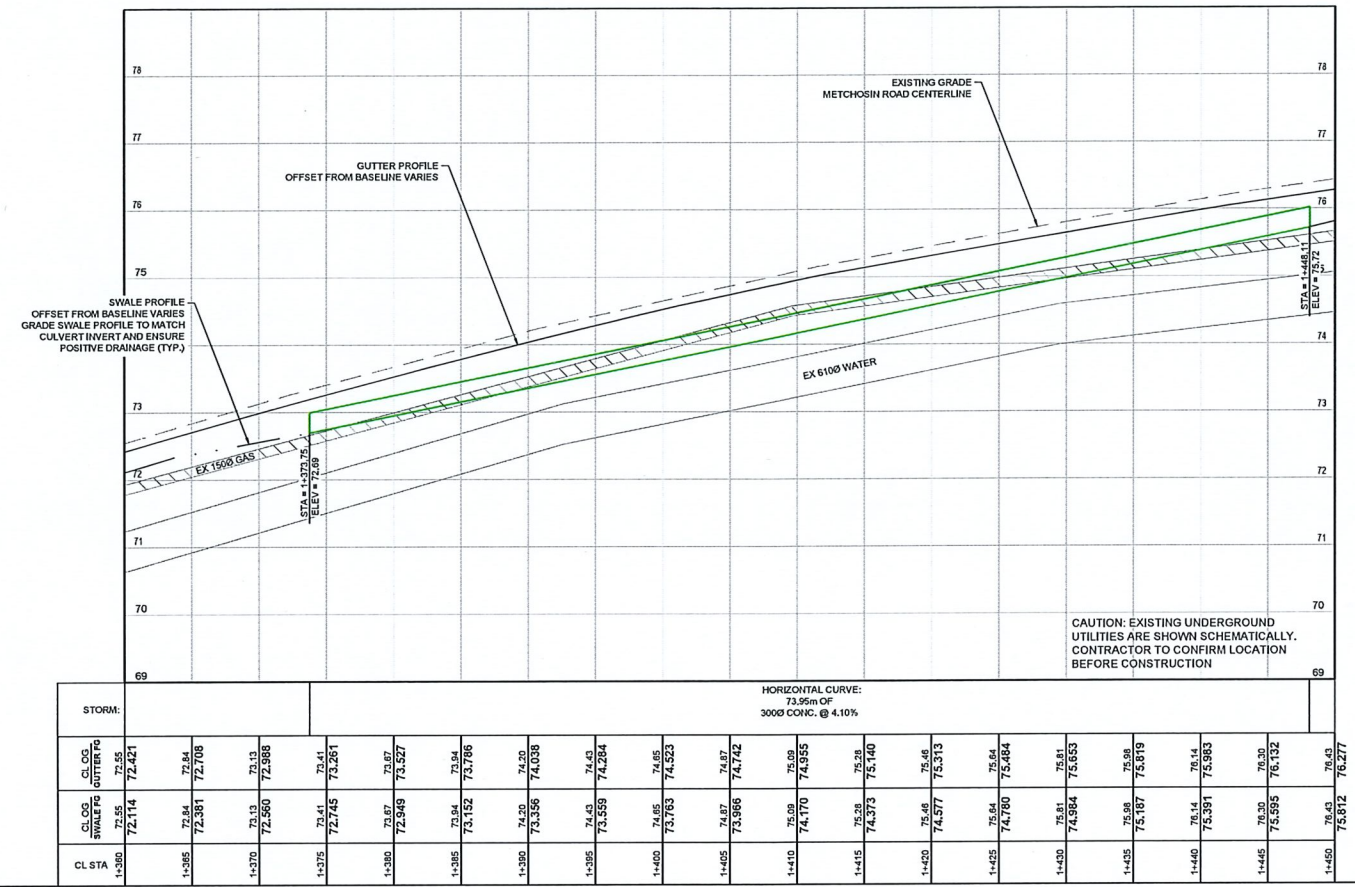
ON POINT PROJECT No. 116-04  
GOVERNING AUTHORITY FILE No. 5330-20-MET-21168  
SHEET 5 OF 12  
REV. —  
ON POINT DRAWING No. 116-04-103

ON POINT - JULY 11, 2019 11:04 AM - 11604-103 - METCHOSIN ROAD UPGRADES & LEGEND (CONSTRUCTION DRAWING) - 11604-103

**LEGEND**

|                            | PROPOSED | EXISTING |
|----------------------------|----------|----------|
| Sanitary Sewer Force Main  | SFM 200  | SFM 200  |
| Water Main                 | W 150    | W 150    |
| Storm Drain                | D 200    | D 200    |
| Gas Main                   | G 150    | G 150    |
| Hydrotelus/cable           | HTC      | HTC      |
| Storm Drain Manhole        | DMH      | DMH      |
| Storm Lawn Basin           |          |          |
| Storm Drain Cleanout       |          |          |
| Sanitary Sewer Manhole     | SMH      | SMH      |
| Sanitary Sewer Cleanout    |          |          |
| Water Valve                |          |          |
| Water Meter                |          |          |
| Flush Valve                |          |          |
| Air Release Valve          |          |          |
| Fire Hydrant               |          |          |
| Ornamental St Light        |          |          |
| Cobra Head St Light        |          |          |
| Bollard Light **           |          |          |
| BC Hydro Utility Pole      |          |          |
| BC Hydro Utility Anchor    |          |          |
| BC Hydro Utility Guy Wire  |          |          |
| Road Sign                  |          |          |
| Non-mountable Curb         | NMC      | NMC      |
| Reverse Non-mountable Curb | RNMC     | RNMC     |
| Mountable Curb             | MC       | MC       |
| Invert Gutter              | IG       | IG       |
| Asphalt Water Control      | WC       | WC       |
| Curb Inlet                 | CI       | CI       |
| Edge of Pavement           | EP       | EP       |
| White Paint Line           | WL       | WL       |
| Yellow Paint Line          | YL       | YL       |
| Wood Fence                 |          |          |
| Chain Link Fence           |          |          |

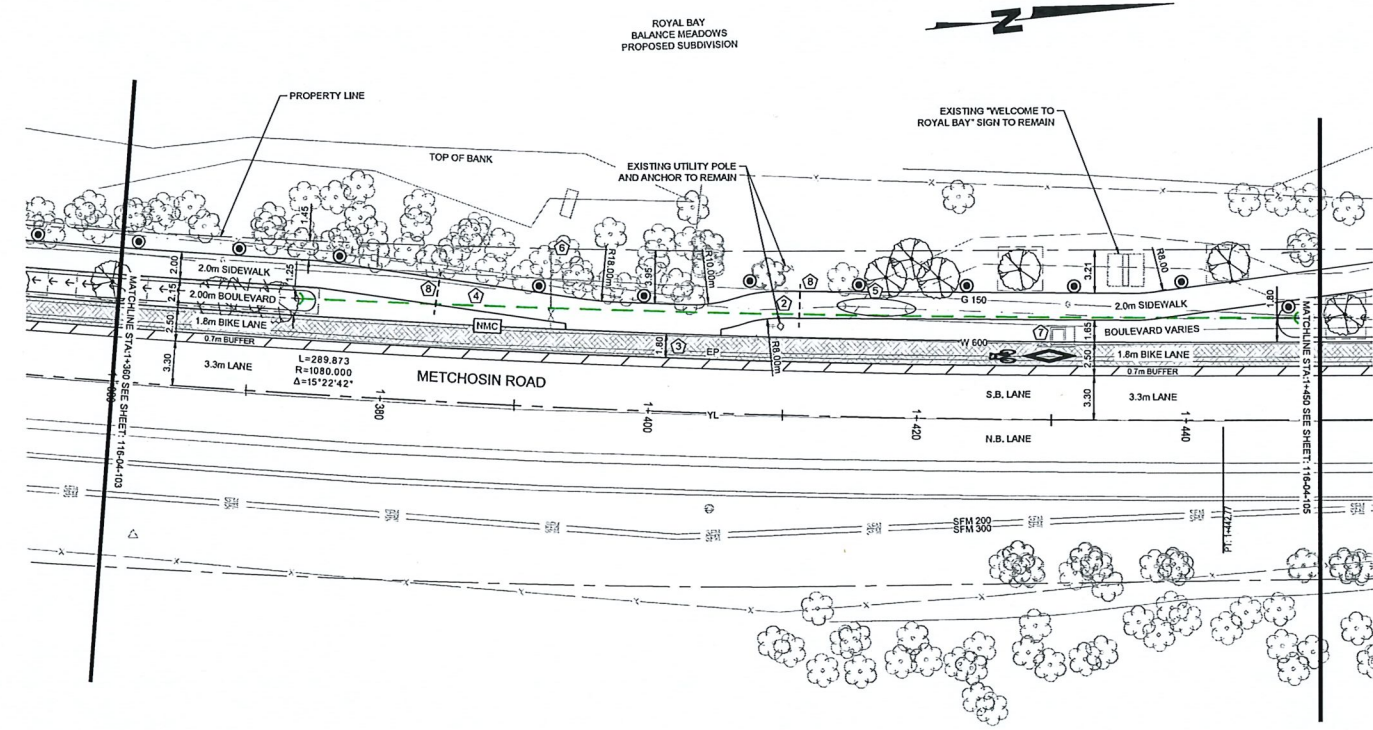
\*\* Bollard Light legend symbols are exaggerated on plan view by approximately 2.3 x actual size.



CAUTION: EXISTING UNDERGROUND UTILITIES ARE SHOWN SCHEMATICALLY. CONTRACTOR TO CONFIRM LOCATION BEFORE CONSTRUCTION

**CONSTRUCTION NOTES:**

- CAUTION: EXISTING 1500 HIGH PRESSURE GAS MAIN. CONTACT FORTIS BC & BC ONE CALL PRIOR TO EXCAVATION.
- DEFLECT SIDEWALK ALIGNMENT AROUND EXISTING UTILITY POLE. CAUTION: EXISTING UTILITY LINES OVERHEAD.
- SAWCUT EXISTING ASPHALT C/W LAP JOINT AND DISPOSE OFFSITE TO AN APPROPRIATE FACILITY.
- INSTALL 300Ø CONCRETE CULVERT C/W MORTARED ROCK HEADWALLS.
- REMOVE AND DISPOSE OFFSITE EXISTING CULVERT AND HEADWALL.
- DECOMMISSIONING OF EXISTING WATER SERVICE AND WATER VALVE CASTING TO BE DISCUSSED FURTHER WITH CITY OF COLWOOD AND CRD.
- EXISTING CHAMBER AND HATCH TO REMAIN. PROPOSED TOP OF CONCRETE CURB TO MEET CHAMBER WITH 1.0m TRANSITIONS. CONTRACTOR TO ENSURE CONCRETE CURB DOES NOT IMPEDE ACCESS TO CHAMBER. TOP OF CHAMBER TO BE EXPOSED PRIOR TO LAYOUT OF CURB AND CURB LAYOUT AROUND CHAMBER TO BE CONFIRMED ONSITE PRIOR TO CONSULTATION. ANY ALTERATIONS TO EXISTING CHAMBER, IF REQUIRED, ARE TO BE APPROVED BY CRD.
- INSTALL 150Ø PVC IRRIGATION SLEEVE.
- EXISTING TREES TO BE PROTECTED WITHIN ROW DURING CONSTRUCTION. WHERE ANY SIDEWALK AND BOLLARD LIGHTING ARE TO BE INSTALLED WITHIN THE DRIPLINE, MONITORING OF EXISTING TREE ROOT SYSTEMS SHALL BE PROVIDED TO DETERMINE IF ANY TREES WILL BE COMPROMISED AND REQUIRE REMOVAL AND REPLACEMENT.
- REFER TO STREET LIGHTING DESIGN DRAWINGS BY PBX ENGINEERING. CONTRACTOR TO ENSURE STREET LIGHTING INFRASTRUCTURE TO BE INSTALLED WITHIN METCHOSIN ROAD RIGHT OF WAY.
- REFER TO SIGNAGE AND PAVEMENT MARKING DRAWING No. 501 FOR DETAILS.
- REFER TO LANDSCAPE DESIGN DRAWINGS BY LADR.
- WHERE ANY SIDEWALK AND BOLLARD LIGHTING ARE TO BE INSTALLED WITHIN THE DRIPLINE OF THE EXISTING TREES, MONITORING REQUIRED OF EXISTING TREE ROOT SYSTEMS SHALL BE PROVIDED TO DETERMINE IF ANY TREES WILL BE COMPROMISED AND REQUIRE REPLACEMENT.



**ISSUED FOR CONSTRUCTION**



Contractor must check and verify all dimensions and conditions on site and report any discrepancies to engineer prior to proceeding with work.  
**DO NOT SCALE THE DRAWING**

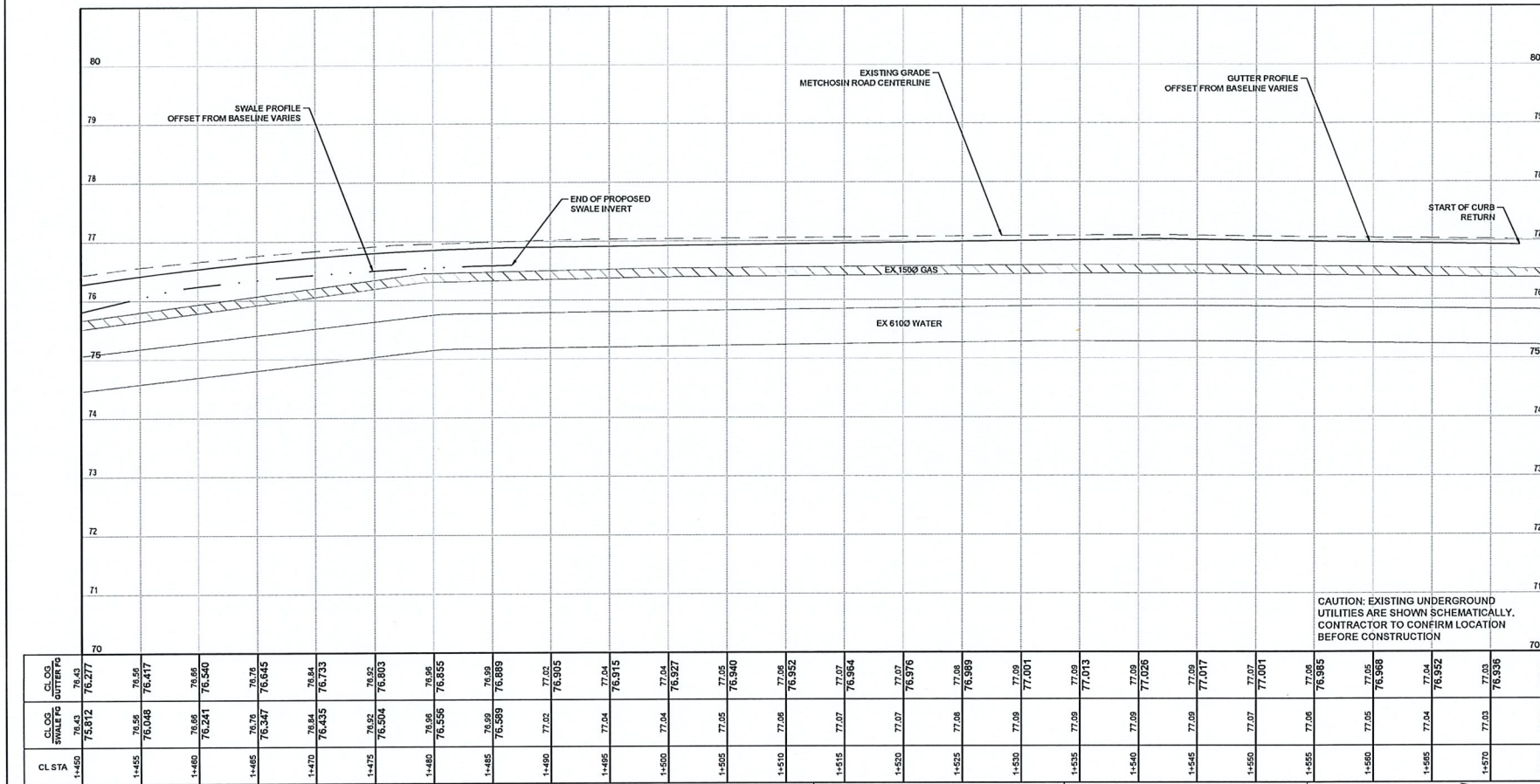
| ISSUED |  |                |      | REVISIONS |             |      |      |
|--------|--|----------------|------|-----------|-------------|------|------|
| No.    | DESCRIPTION  | DATE           | SIGN | No.       | DESCRIPTION | DATE | SIGN |
| 1      | ISSUED FOR 50% REVIEW                                | APRIL 11, 2019 | ER   |           |             |      |      |
| 2      | ISSUED FOR APPROVAL                                  | AUGUST 8, 2019 | ER   |           |             |      |      |
| 3      | ISSUED TO CITY OF COLWOOD AND CRD FOR FINAL APPROVAL | MAY 2, 2020    | ER   |           |             |      |      |
| 4      | ISSUED FOR CONSTRUCTION                              | JULY 16, 2019  | CV   |           |             |      |      |

DESIGNER: ER  
REVIEWED: FC  
ENGINEER: E.J.N.

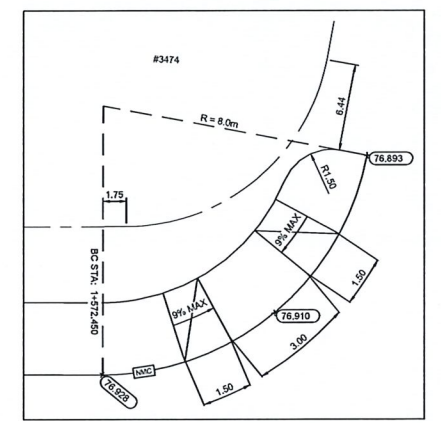
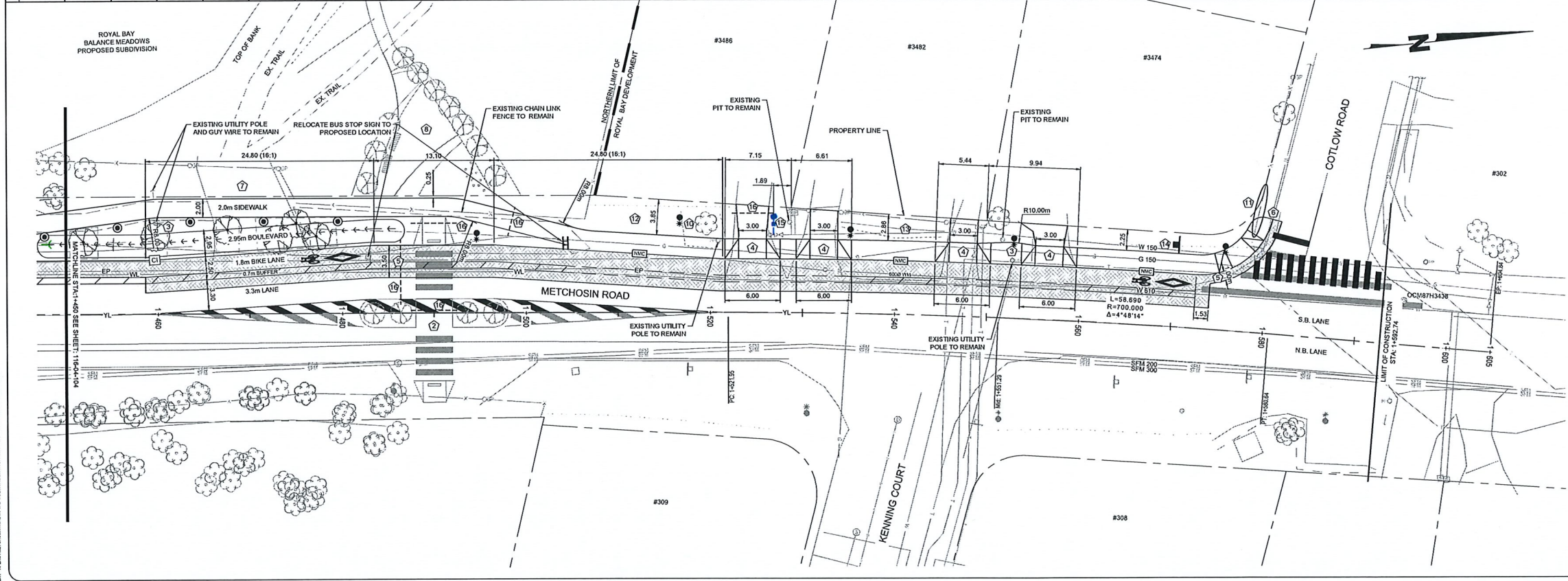
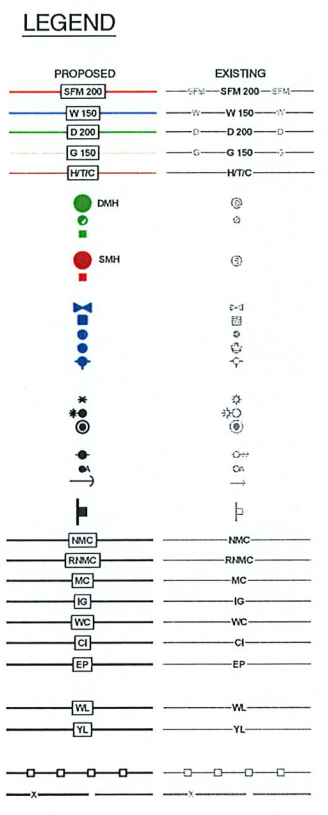


**ROYAL BAY METCHOSIN ROAD UPGRADES**  
CITY OF COLWOOD  
PLAN AND PROFILE  
STA: 1+360 TO 1+510

ON POINT PROJECT No. 116-04  
GOVERNING AUTHORITY FILE No. 5330-20-MET-21168  
SHEET 6 OF 12  
REV. —  
ON POINT DRAWING No. 116-04-104



- ### CONSTRUCTION NOTES:
- CAUTION: EXISTING 1500 HIGH PRESSURE GAS MAIN AND UNDERGROUND ELECTRICAL CONTACT FORTIS BC & BC ONE CALL PRIOR TO EXCAVATION.
  - SECURITY SHALL BE PROVIDED FOR PEDESTRIAN LETDOWN RAMP AND MARKED CROSSINGS AS WELL AS 50% OF THE MEDIAN GORE MARKING AREA, AND MEDIAN TREES THAT ARE NOT TO BE CONSTRUCTED AS PART OF THIS PROJECT. MARKED CROSSINGS TO BE NON-SLIP WHERE LOCATED IN BIKE LANE.
  - DEFLECT SIDEWALK ALIGNMENT AROUND EXISTING UTILITY POLE. CAUTION EXISTING UTILITY LINES OVERHEAD.
  - SIDEWALK DRIVEWAY CROSSING AS PER CITY OF COLWOOD STANDARD DRAWING No. R21. REINSTATE ASPHALT/CONCRETE DRIVEWAYS TO TIE INTO EXISTING DRIVEWAYS AT A MAXIMUM SLOPE OF 9.0% TO BE REVIEWED ONSITE PRIOR TO CONSTRUCTION.
  - SAWCUT EXISTING ASPHALT C&W LAP JOINT AND DISPOSE OFFSITE TO AN APPROPRIATE FACILITY.
  - TIE CURB AND GUTTER INTO EXISTING ASPHALT.
  - REMOVE EXISTING ASPHALT DRIVEWAY ACCESS AND DISPOSE OFFSITE. EXTENT OF REMOVAL TO BE CONFIRMED ONSITE PRIOR TO CONSTRUCTION. NOTIFY ON POINT OF ANTICIPATED SCHEDULE TO REMOVE TO COORDINATE ONSITE REVIEW.
  - PLAZA ENTRY TO NORTH PARK TO BE LOCATED AT CROSSING. REFER TO LANDSCAPE DRAWINGS.
  - ADJUST EXISTING FLUSHOUT, AIR VALVE, GATE VALVE, AND WATER METER CASTINGS TO MATCH PROPOSED GRADES.
  - TREES TO REMAIN OR TO BE PRUNED BY A CERTIFIED ARBORIST AS DIRECTED BY THE CITY OF COLWOOD.
  - REMOVE EXISTING FENCE TO START OF THE PROPERTY LINE CURVE. PORTION OF ENCROACHING HEDGE TO BE REMOVED IN CONSULTATION WITH THE CITY OF COLWOOD AND PROPERTY OWNER.
  - GRADE BOULEVARD TOWARDS METCHOSIN ROAD FROM PROPERTY LINE AT MINIMUM 2.0%.
  - INSTALL TYPICAL SEEPAGE PIT TO CITY OF COLWOOD STANDARD DRAWING No. D12 AT LOW POINT OF BOULEVARD. PIT LOCATION TO BE DETERMINED ONSITE PRIOR TO CONSTRUCTION TO ENSURE POSITIVE DRAINAGE TO PIT.
  - GRADE BEHIND PROPOSED SIDEWALK TO ENSURE POSITIVE DRAINAGE TOWARDS COTLOW ROAD BOULEVARD.
  - CRD TO INSTALL 50mm IRRIGATION WATER SERVICE TO CRD STANDARD DRAWING 2.8 AT DEVELOPERS EXPENSE.
  - INSTALL 1500 PVC IRRIGATION SLEEVE.
  - REFER TO STREET LIGHTING DESIGN DRAWINGS BY PBX ENGINEERING. CONTRACTOR TO ENSURE STREET LIGHTING INFRASTRUCTURE TO BE INSTALLED WITHIN METCHOSIN ROAD RIGHT OF WAY.
  - REFER TO SIGNAGE AND PAVEMENT MARKING DRAWING No. 501 FOR DETAILS.
  - REFER TO LANDSCAPE DESIGN DRAWINGS BY LADR.



DETAIL : CURB RETURN  
METCHOSIN ROAD AND COTLOW ROAD  
SCALE 10:1

JULY 16, 2019  
**ISSUED FOR CONSTRUCTION**



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|-----|--|----------------|------|-----|-----------------------|------|------|
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DESIGNER: ER  
REVIEWED: FC  
ENGINEER: E.J.N.  
SEAL



ROYAL BAY  
METCHOSIN ROAD UPGRADES  
CITY OF COLWOOD  
PLAN AND PROFILE  
STA: 1+510 TO 1+605

ON POINT PROJECT No. 116-04  
GOVERNING AUTHORITY FILE No. 5330-20-MET-21168  
SHEET 7 OF 12  
ON POINT DRAWING No. 116-04-105