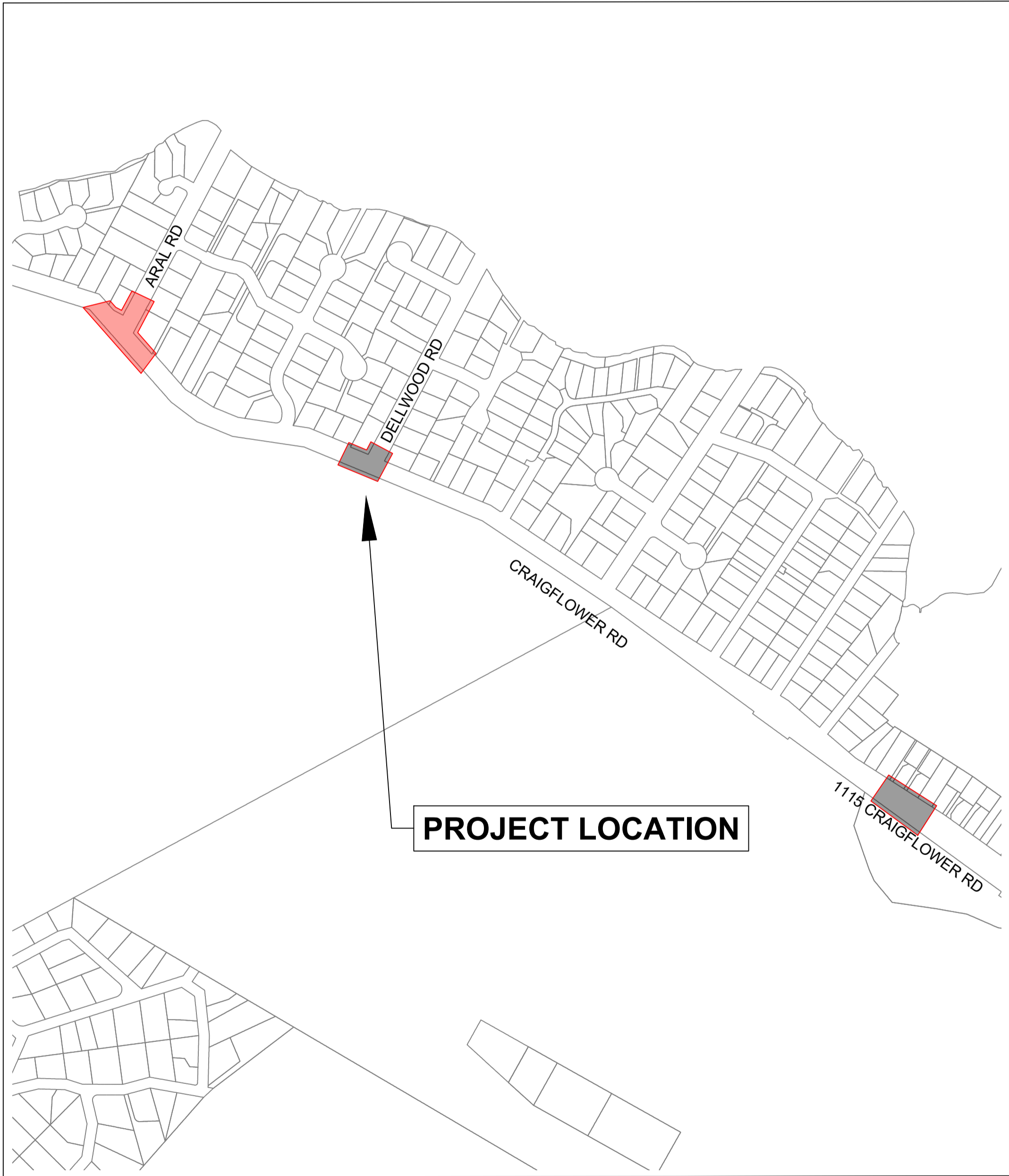


TOWNSHIP OF ESQUIMALT

PEDESTRIAN CROSSING UPGRADE

ISSUED FOR TENDER



LOCATION PLAN

DRAWING SCHEDULE		
SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
00	COVER	COVER
01	GENERAL NOTES	GENERAL NOTES
02	ARAL ROAD	ROADWORKS
03	DELLWOOD ROAD	ROADWORKS
04	1115 CRAIGFLOWER ROAD	ROADWORKS
05	CIVIL DETAIL	TYPICAL DETAIL
E01	NOTES AND LEGEND	ELECTRICAL
E02	SITE PLAN ENLARGEMENT - CRAIGFLOWER ROAD AT ARAL ROAD	ELECTRICAL
E03	ELEVATIONS - CRAIGFLOWER ROAD AT ARAL ROAD	ELECTRICAL
E04	SITE PLAN ENLARGEMENT - CRAIGFLOWER ROAD AT DELLWOOD ROAD	ELECTRICAL
E05	ELEVATIONS - CRAIGFLOWER ROAD AT DELLWOOD ROAD	ELECTRICAL
E06	SITE PLAN ENLARGEMENT - CRAIGFLOWER ROAD AT GARTHLAND ROAD	ELECTRICAL
E07	ELEVATIONS - CRAIGFLOWER ROAD AT GARTHLAND ROAD	ELECTRICAL
E08	SITE PLAN ENLARGEMENT - CRAIGFLOWER ROAD AT FORSHAW ROAD	ELECTRICAL
E09	ELEVATIONS - CRAIGFLOWER ROAD AT FORSHAW ROAD	ELECTRICAL
E10	SITE PLAN ENLARGEMENT - 1115 CRAIGFLOWER ROAD	ELECTRICAL
E11	ELEVATIONS - 1115 CRAIGFLOWER ROAD	ELECTRICAL
E12	SITE PLAN ENLARGEMENT - CRAIGFLOWER ROAD AT ARCADIA STREET	ELECTRICAL
E13	ELEVATIONS - CRAIGFLOWER ROAD AT ARCADIA STREET	ELECTRICAL



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MAY 2025

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GENERAL NOTES:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH:
- THE MASTER MUNICIPAL CONSTRUCTION DOCUMENT AND STANDARD DETAIL DRAWINGS (MMCD 2009 "PLATINUM EDITION"), EXCEPT AS OTHERWISE NOTED IN THESE DRAWINGS OR THE CONTRACT DOCUMENTS;

• APPLICABLE CONTRACT DOCUMENTS AND ALL SPECIFICATIONS REFERENCED THEREIN;

• MINISTRY OF TRANSPORTATION "BC TRAFFIC CONTROL MANUAL FOR WORK ON ROADWAYS", LATEST EDITION; AND

• WORKSAFEBC, LATEST EDITION.
- THE CONTRACTOR SHALL MAINTAIN ON SITE COPIES OF THE ABOVE DOCUMENTS AND SHALL ENSURE THAT ALL SUB CONTRACTORS ARE THOROUGHLY FAMILIAR WITH THE APPLICABLE SECTIONS OF THE DOCUMENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL EXCAVATED MATERIAL UNSUITABLE FOR REUSE AT A SUITABLE OFF-SITE DISPOSAL AREA, IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
3. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING ROAD SURFACES, SERVICES, SIGNS, LANDSCAPING, DRIVEWAY LETDOWNS, PRIVATE LANDSCAPING, OR PRIVATE IMPROVEMENTS THAT MAY BE DAMAGED AS A RESULT OF CONSTRUCTION. REPAIRS TO EXISTING TOWN SERVICES SUCH AS WATER, SANITARY SEWER, STORM SEWER, AND STREET OR TRAFFIC LIGHTING MAY BE MADE BY THE OWNER AT COST TO THE CONTRACTOR. REPAIRS TO EXISTING SURFACE WORKS MAY BE DONE BY THE CONTRACTOR AT THE DISCRETION OF THE CONTRACT ADMINISTRATOR.
4. THE LOCATION OF EXISTING UTILITIES IS COMPILED FROM OWNER AND UTILITY SUPPLIED RECORD DRAWINGS AND ARE CONSIDERED APPROXIMATE ONLY. THE EXACT LOCATION AND EXTENT OF UTILITIES SHOULD BE DETERMINED BY CONSULTING THE LOCAL AUTHORITIES AND UTILITY COMPANIES CONCERNED.
5. REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION TO ENSURE THAT THE LINE AND GRADE OF THE PROPOSED WORK CAN BE ADJUSTED TO SUIT FIELD CONDITIONS AS REQUIRED.
6. RESTORATION OF EXISTING DRIVEWAYS, CURBS, STAIRS AND WALKWAYS TO CONFORM TO TOWNSHIP OF ESQUIMALT SPECIFICATIONS AND TO BE INCIDENTAL TO THE UNIT PRICES IN THE CONTRACT.
7. EVERY EFFORT IS TO BE MADE TO SAVE EXISTING LANDSCAPING WITHIN THE ROAD R.O.W. LANDSCAPING IS TO BE RESTORED TO ITS ORIGINAL OR BETTER CONDITION. IN THE EVENT OF LANDSCAPING REMOVAL THE PROPERTY OWNER SHALL BE ADVISED OF THE REMOVAL AND THE LANDSCAPING PLACED IN OWNERS PROPERTY UPON THEIR REQUEST.
8. ALL SURVEY MONUMENTS, SURVEY PINS, OR LEAD PLUGS WITHIN THE PROJECT BOUNDARIES SHALL BE PROTECTED DURING THE COURSE OF THE WORK. SHOULD ANY SURVEY MONUMENT REQUIRE RAISING OR RELOCATION, THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEERING AND OPERATIONS DEPARTMENT AT LEAST FIVE (5) BUSINESS DAYS IN ADVANCE OF SCHEDULING WORK.
9. ALL ELEVATIONS ARE GEODETIC AND REFERENCED TO INTEGRATED SURVEY MONUMENT ELEVATIONS LOCATED ON ROAD RIGHT-OF-WAYS.
10. ALL PUBLIC ROADWAYS AFFECTED BY THE WORKS SHALL BE KEPT IN A CLEAN STATE AT ALL TIMES AND FREE OF EQUIPMENT AND MATERIALS AT ALL TIMES WHEN CONSTRUCTION ACTIVITY IS NOT UNDERWAY. DUST CONTROL MEASURES SHALL ALSO BE EMPLOYED AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
11. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, AND FOR COORDINATING THE VARIOUS PARTS OF THE WORK. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THERE IS NO DISRUPTION TO SERVICE, AND IF DISRUPTION IS ANTICIPATED, TO NOTIFY THE CONTRACT ADMINISTRATOR A MINIMUM OF 72 HOURS PRIOR, AND OBTAIN APPROVAL FOR THE DISRUPTION.
12. THE CONTRACTOR SHALL PROVIDE TEMPORARY HOT MIX ASPHALT PATCHING TO MMCD REQUIREMENTS AT LOCATIONS SPECIFIED IN THE CONTRACT DOCUMENTS. TEMPORARY ASPHALT PATCHING THICKNESS SHALL MATCH THE EXISTING ASPHALT THICKNESS WITH A MINIMUM OF 75mm AND SHALL MEET THE EXISTING ASPHALT SURFACE. USE OF COLD MIX IS NOT ACCEPTABLE. TEMPORARY PATCHING OF SIDEWALKS AND CURBS AND GUTTERS IS ALSO TO BE MADE WITH HOT MIX AND MEET THE EXISTING SURFACE.
13. ALL CONCRETE AND ASPHALT IDENTIFIED FOR REMOVAL IS TO BE DISPOSED OFFSITE UNLESS OTHERWISE NOTED.
14. CONTRACTOR TO PROVIDE CUT SHEETS ONE WEEK PRIOR TO CONCRETE FORM WORK.
15. CONTRACTOR TO CONFIRM UNDERGROUND LOCATIONS WITH UTILITY COMPANIES. THE LOCATION AND ELEVATION OF THE EXISTING UNDERGROUND INFRASTRUCTURE SHOWN ON THESE DRAWINGS MAY NOT BE ACCURATE OR COMPLETE. THE ACTUAL HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES AND INFRASTRUCTURE MUST BE CONFIRMED BY THE CONTRACTOR PRIOR TO THE START OF ANY EXCAVATION.
16. THE LOCATIONS OF EXISTING GAS SERVICES ARE SHOWN APPROXIMATELY BASED ON AVAILABLE RECORDS. EXISTING GAS SERVICE CONNECTIONS BEYOND THOSE INDICATED MAY BE PRESENT WITHIN THE PROJECT EXTENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM UNDERGROUND LOCATIONS WITH UTILITY COMPANIES PRIOR TO THE START OF ANY EXCAVATION.
17. CONTRACTOR TO APPLY FOR AND OBTAIN ALL REGULATORY AND OPERATIONAL PERMITS. ROAD OCCUPATION PERMITS (ROPs) MUST BE APPLIED FOR. FEE FOR ROP PERMIT WILL BE WAIVED.
18. THE CONTRACTOR IS TO PROVIDE GRADE SHEETS FOR ALL CONCRETE WORK 5 DAYS IN ADVANCE OF CONSTRUCTION. NAILS ARE TO BE SET ON THE ROADSIDE OF CURB AT ALL GEOMETRY POINTS AT A MAXIMUM SPACING OF 5m.

CONCRETE NOTES:

1. NO CONCRETE WORKS SHALL BE ALLOWED IF THE CURRENT TEMPERATURE ON SITE IS BELOW 5°C OR ABOVE 32°C.
2. IF TEMPERATURES ARE EXPECTED TO DROP BELOW FREEZING WITHIN THE 5 DAY WINDOW FOLLOWING A CONCRETE POUR A THERMO BLANKET WILL BE REQUIRED TO MAINTAIN CONCRETE TEMPERATURES.
3. IF CONCRETE IS POURED AT TEMPERATURES ABOVE 25°C IT SHALL BE SPRAYED WITH WATER 5 TIMES PER DAY AT REASONABLE INCREMENTS BETWEEN THE HOURS OF 10am AND 3pm.
4. CONCRETE WORKS TO BE COMPLETED DURING RAIN EVENTS MAY BE ALLOWED AT THE DISCRETION OF THE CONTRACT ADMINISTRATOR. IN THE EVENT THAT CONCRETE IS POURED DURING A RAIN EVENT THE CONTRACTOR SHALL PROVIDE A PLASTIC COVERING THAT IS MAINTAINED TO PROTECT THE CONCRETE FOR A MINIMUM OF 24 HOURS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE MONITORING OF FRESHLY POURED CONCRETE TO ENSURE NO DAMAGE IS CAUSED. ANY DAMAGE OR DEFACEMENT OF FRESHLY POURED CONCRETE SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

ENVIRONMENTAL NOTES:

1. ALL INLET STRUCTURES IN PROXIMITY TO TRENCH WORK OR EXPOSED ROAD BASE WILL BE FITTED WITH MANUFACTURED INLET CONTROL DEVICES AND OR 'FILTER SACK' TYPE CATCHBASIN CONTROL (OR APPROVED ALTERNATIVE). CONTROL DEVICES TO BE MAINTAINED AT A REASONABLE INTERVAL TO ACHIEVE A FULLY FUNCTIONAL STATE AT ALL TIMES.
2. INLET CONTROL DEVICES (I.E. FILTER SACKS) MUST HAVE A MINIMUM 8" DROP FROM SURFACE OF THE CATCHBASIN.
3. UNDER NO CIRCUMSTANCES ARE CATCHBASINS TO BE FITTED WITH GEOTEXTILE SHEATHS CUT FROM STOCKPILE ROLLS.
4. AVOID EARTH DISTURBING ACTIVITIES DURING SUBSTANTIAL RAIN EVENTS.
5. AVOID STOCKPILING SOILS, SANDS AND OTHER ERODIBLE MATERIALS ONSITE. IT IS PREFERABLE TO "HOT-LOAD" SOIL DIRECTLY INTO TRUCKS FOR OFFSITE DISPOSAL. IF TEMPORARY WASTE OR SOIL STOCKPILES ARE NECESSARY, MAKE SURE THEY ARE FULLY COVERED WITH TARPS AND WEIGHTED WITH SANDBAGS.
6. TRACKING OF SEDIMENT, SOIL AND/OR ROADBASE FROM WORKSITE TO VEHICLE TRAVEL LANES MUST BE PREVENTED.
7. ROADS MUST BE SWEEPED CLEAN OF SOIL, LOOSE ROAD BASE, EARTH AND SEDIMENT. MECHANICAL SWEEPING IS PREFERRED TO MANUAL SWEEPING. HOWEVER, FREQUENT HAND SWEEPING IS PREFERABLE TO ONCE DAILY MECHANICAL SWEEPING.
8. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SEDIMENT OR SEDIMENT LADEN WATER IS DISCHARGED FROM THE WORKS TO THE OWNER'S DRAINAGE SYSTEM.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DEVELOP AND PROVIDE TO THE OWNER THE FOLLOWING ENVIRONMENTAL SUBMITTALS WITHIN 15 DAYS AFTER NOTICE OF AWARD:

9.1. SPILL RESPONSE PLAN THAT PROVIDES WRITTEN SAFE WORK PROCEDURES IN THE EVENT OF A SPILL

9.1.1. AN EMERGENCY SPILL KIT WILL BE KEPT ONSITE AT ALL TIMES THE CONTRACTOR IS OPERATING. SPILL KITS MUST INCLUDE BOOMS, SPILL PADS, GLOVES, AND CATCHBASIN BARRIERS. A SPILL KIT WITH AT LEAST 125 LITRES ABSORBENCY IS RECOMMENDED. SANDBAGS AND A SUPPLY OF SAND MUST BE KEPT ONSITE.
- 9.2. AN EROSION AND SEDIMENT CONTROL PLAN (ESC).
10. THE CONTRACTOR IS TO HAVE ONSITE SODIUM THIOSULPHATE TO TREAT CHLORINATED WATER IN THE EVENT OF A WATER MAIN BREAK.

TRAFFIC MANAGEMENT, NOTIFICATION AND APPROVALS NOTES:

1. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SIGNAGE, BARRIERS, FLASHING INDICATORS ACCORDING TO MOTI, BC TRAFFIC MANAGEMENT MANUAL FOR WORK ON ROADWAYS (LATEST EDITION) & WORKSAFE BC REGULATIONS AT ALL TIMES TO ENSURE THE SAFETY OF THE PUBLIC. TRAFFIC CONTROL WILL BE REQUIRED FOR ALL CONSTRUCTION WORKS WITHIN THE TRAVELED PORTION OF THE ROAD. NO ROAD SHALL BE CLOSED WITHOUT WRITTEN CONSENT FROM THE TOWNSHIP OF ESQUIMALT.
2. THE CONTRACTOR SHALL ENSURE THAT ALL APPROVALS REQUIRED FOR THE PROPOSED WORKS HAVE BEEN OBTAINED FROM ALL AUTHORITIES AND AGENCIES PRIOR TO COMMENCING THE WORK.
3. THE CONTRACTOR SHALL ARRANGE FOR, AND COORDINATE THE WORKS DONE BY:

A) OWNER; AND

B) FRANCHISE UTILITIES.
5. THE CONTRACTOR SHALL MAKE CONTACT WITH THE APPROPRIATE PERSONNEL AT LEAST 72 HOURS PRIOR TO THE WORK. SCHEDULING AND OTHER CONSTRUCTION CONSTRAINTS IMPOSED BY THESE WORKS SHALL BE TAKEN INTO ACCOUNT.
6. RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION OF THESE WORKS SHALL BE GIVEN MINIMUM 5 DAYS WRITTEN NOTICE OF THE PROPOSED START OF CONSTRUCTION. THE CONTRACTOR IS TO DISTRIBUTE A NOTICE OF CONSTRUCTION LETTER TO ALL AFFECTED RESIDENTS AND BUSINESSES. LETTER TO DIRECT INQUIRIES TO CONTRACT ADMINISTRATOR. FOLLOWING CONSTRUCTION ACTIVITY ON ANY PRIVATE PROPERTY, A WRITTEN RELEASE MAY BE REQUIRED FROM THE PROPERTY OWNER AT THE DISCRETION OF THE OWNER.
7. ACCESS TO ALL PRIVATE PROPERTIES AND BUSINESSES MUST BE MAINTAINED FOR VEHICULAR AND PEDESTRIAN TRAFFIC. WHERE ACCESS IS AFFECTED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 24 HOUR NOTICE TO ANY RESIDENT OR BUSINESS BEFORE STARTING WORK
8. A MOTI CATEGORY 1 TRAFFIC MANAGEMENT PLAN CLEARLY DEFINING THE SAFE MANAGEMENT OF ALL ROAD USERS (VEHICLES, BICYCLES, PEDESTRIANS ETC) TO BE SUBMITTED WITHIN 15 DAYS OF NOTICE OF AWARD AND WORK SHALL NOT COMMENCE WITHIN THE ROADWAY UNTIL IT IS REVIEWED/REVISED/ACCEPTED BY THE TOWNSHIP OF ESQUIMALT.
9. NOISE BYLAW MUST BE ADHERED TO AND TWO-WAY TRAFFIC MUST BE MAINTAINED BETWEEN 6AM-9AM AND 3PM-6PM UNLESS OTHERWISE APPROVED BY THE TOWNSHIP OF ESQUIMALT. ANY EXEMPTION TO BE SUBMITTED TO THE TOWNSHIP, ONE WEEK IN ADVANCE TO THE DESIRED EXEMPTION DATE.
10. NOTICE OF CONSTRUCTION SIGNS TO BE INSTALLED AT ALL PROJECT LIMITS AND PREFERRED DETOUR ROUTE. NOTIFY CONTRACT ADMINISTRATOR WITH CONSTRUCTION SCHEDULE AND LOCATIONS. SIGNS PROVIDED AND INSTALLED BY CONTRACTOR.
11. APPROVAL OF NOISE VARIANCE FOR ALL WORK OUTSIDE OF NORMAL APPROVED WORK HOURS REQUIRED BY THE OWNER.
12. LAP JOINTS ARE TO BE INSTALLED AT ALL LIMITS OF CONSTRUCTION.
13. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLETION OF ALL PERMANENT PAINT AND THERMOPLASTIC PAVEMENT MARKINGS IN THE PLACE OF THE WORK. PERMANENT LANE MARKINGS ARE TO BE PLACED WITHIN SEVENTY-TWO (72) HOURS OF FINAL PAVING AND PERMANENT THERMOPLASTIC PAVEMENT MARKINGS ARE TO BE PLACED WITHIN FIVE (5) DAYS OF FINAL PAVING.
14. ALL TEMPORARY MARKINGS ARE TO BE REMOVED IMMEDIATELY FOLLOWING INSTALLATION OF THE PERMANENT MARKINGS.
15. APPROVALS FOR REQUIRED TREE CUTTING OR TRIMMING NOT INDICATED IN CONTRACT DRAWINGS SHALL BE OBTAINED BY THE CONTRACTOR FROM THE OWNER PRIOR TO WORK BEING PERFORMED.

SIGNAGE AND PAVEMENT MARKING NOTES:

1. ALL PAVEMENT MARKINGS AND SIGNS PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION UNLESS STATED OTHERWISE. ALL RAIL SIGNS PER TRANSPORT CANADA GRADE CROSSING STANDARDS (JANUARY, 2019). ALL REGULATORY AND SAFETY SIGNAGE PER TRANSPORTATION ASSOCIATION OF CANADA'S BIKEWAY TRAFFIC CONTROL GUIDELINES FOR CANADA, LATEST EDITION UNLESS STATED OTHERWISE. ALL PAVEMENT MARKINGS TO BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED.
2. ALL SIGNS TO BE DIAMOND GRADE.
3. ALL PAVEMENT MARKINGS ARE NOT TO SCALE.
4. CONFLICT PAINT METHYL-METHACRYLATE (MMA):

• ULTRA-VIOLET ("UV") STABLE;

• ISO CERTIFIED DURABLE ROAD MARKING MATERIAL;

• HAVE MINIMUM SKID RESISTANCE OF 49 BPN;

• COLOUR MUST MATCH THE TOWNSHIP'S CURRENT GREEN TINT (PANTONE #368) WHICH CONFORMS TO THE NEW FHWA FLUORESCENT GREEN STANDARDS; AND

• GLASS BEADS MUST CONFORM TO AASHTO M247 TYPE 1 (STANDARD GRADATION) SPECIFICATIONS.
5. WHITE AND YELLOW PAVEMENT MARKINGS WITHIN MMA CONFLICT PAINT TO BE MMA.
6. ALL BIKE STENCILS INCLUDING BIKE SYMBOLS, SHARROWS, DIRECTIONAL CHEVRONS, RESERVED SYMBOL DIAMONDS AND ARROWS, ETC. SHALL BE PERFORMED TORCH ON THERMOPLASTIC STENCILS THAT WILL REQUIRE SURFACE CLEANING/HEATING AND APPLICABLE SEALER APPLIED BEFORE APPLICATIONS. SEALER SHALL ONLY BE OMITTED WHEN NEW ASPHALT IS HIGHLIGHTED WITHIN OUR CIVIL SCOPE FOR THE STENCIL LOCATION.
7. ALL SIGNPOST HARDWARE TO BE STAINLESS STEEL C/W 2 WASHERS PER BOLT AND A VINYL LOCKING NUT. NUTS SHALL BE REPLACED IF REMOVED.
8. ALL NEW SIGN INSTALLATIONS IN BOULEVARD LOCATIONS SHALL INCLUDE A PROPER BASE AND SITE PREPARATION TO PREVENT MOVEMENT.
9. ALL SIGN POSTS SHALL HAVE A SLEEVE INSTALLED C/W SUITABLE BOLT (TO PREVENT SIGN ROTATION) WITH SUFFICIENT THREADS TO ALLOW VINYL LOCKING NUT TO BE FULLY THREADED. POST AND SLEEVE: 12.7mm DIAMETER X 12.7mm OR 19.1mm LENGTH CUP POINT STAINLESS STEEL ALLEN KEY SET SCREW. REFER TOE-SD-C-16 BYLAW DRAWING OF SIGN POST SLEEVE.

COORDINATION NOTES:

1. CONTRACTOR SHALL COORDINATE WITH TOWNSHIP FORCES, PRIVATE DEVELOPMENTS AND OTHER RELEVANT PARTIES FOR THE DURATION OF THE PROJECT SCHEDULE. THIS MAY INCLUDE BUT IS NOT LIMITED TO SHARED ROAD OCCUPANCY WITH THIRD PARTY CONTRACTORS WHILE COMPLETING WORKS ON THE RIGHT OF WAY AND WHILE ACCESSING PRIVATE PROPERTY. THE CONTRACTOR SHALL ALLOW FOR THIS OCCUPANCY AND COORDINATE THEIR WORKS TO MITIGATE ANY CONFLICTS WHILE MAINTAINING PUBLIC ACCESS TO THE RIGHT OF WAY.

SANITARY AND STORM SEWER NOTES:

1. SEWER AND DRAIN PIPE UP TO AND INCLUDING 150mm DIAMETER SHALL BE PVC DR-28.
2. SEWER AND DRAIN PIPE 200mm TO 525mm SHALL BE PVC DR-35.
3. ALL PVC PIPE SHALL BE C.S.A APPROVED.
4. CONTRACTOR TO USE ACCEPTABLE METHOD FOR UTILITY REPLACEMENT WORK.
5. CONTRACTOR TO CONFIRM DIAMETERS AND LENGTH OF PIPES PRIOR TO ORDERING MATERIALS.
6. CONTRACTOR TO COMPLETE CCTV OF ALL LINES (AS NOTED IN DRAWINGS) PRIOR TO REHAB WORK AND CONFIRM STATUS AND NUMBER OF LIVE SERVICES, AND ALSO COMPLETE CCTV POST INSTALLATION OF ALL LINES.
7. CONTRACTOR SHALL RECONNECT THE REHABILITATED MAINS TO EXISTING MANHOLES, AS REQUIRED.

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PLOT DATE: May 22, 2025

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GENERAL NOTES



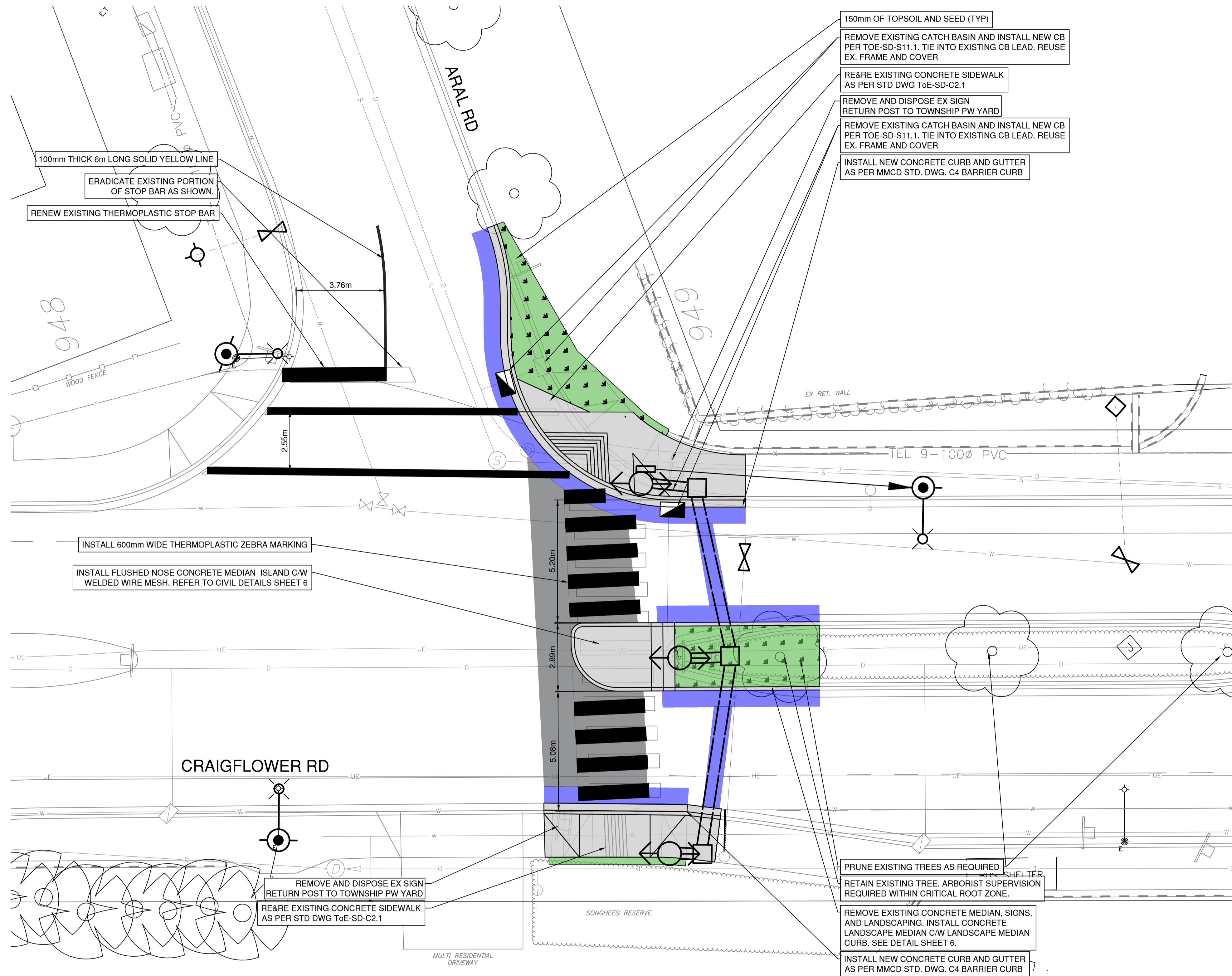
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DESIGN NO.

SCALE		CREATION DATE	ABR/2025	DWG. NO.
DRAWN BY	ECH	DESIGN BY	ECH	01 OF 05
CHECKED BY	BJO	APPROVED BY		REV. 0

33995



PLAN
SCALE: 1:100

CIVIL LEGEND

CONCRETE INSTALLATION
REFER TO DRAWING FOR DETAILS

MILL AND INLAY - REMOVE 50mm AND
PLACE 50mm - LIMITS TO BE CONFIRMED
IN THE FIELD PRIOR TO CONSTRUCTION

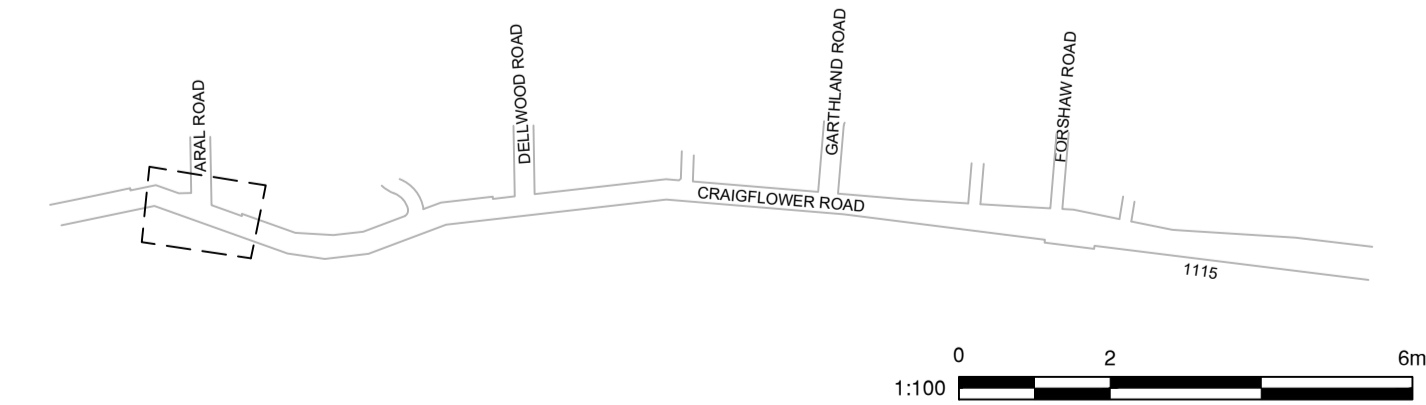
FULL DEPTH RESTORATION - 100mm OF
ASPHALT (TWO LIFTS) ON TOP OF 100mm
OF GRANULAR BASE AND 250mm OF
GRANULAR SUB BASE

CIVIL NOTES

1. CONTRACTOR TO CONFIRM CONDITION OF EXISTING CATCH BASIN LEADS WITH PUSH CAMERA AND/OR CCTV INSPECTION PRIOR TO CONNECTION.

2. CONCRETE WHEELCHAIR RAMP LETDOWNS TO BE INSTALLED AS PER TOE-SD-C9.1-C9.4.

3. PRUNE EXISTING TREES AS REQUIRED TO MAINTAIN CLEAR SIGHT LINES TO CROSSINGS AND ENSURE ALL TRAFFIC SIGNAGE REMAINS FULLY VISIBLE. ALL PRUNING TO BE PERFORMED IN ACCORDANCE WITH MUNICIPAL STANDARDS AND UNDER THE SUPERVISION OF A CERTIFIED ARBORIST.

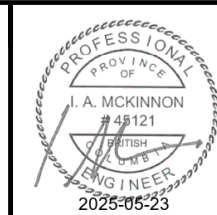


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ROAD
WORKS

ROADWORKS
ARAL ROAD



ISL

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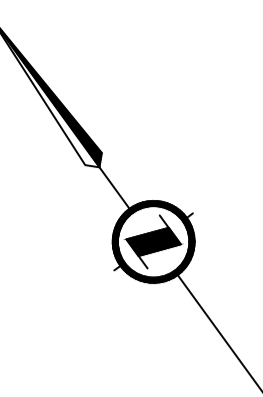
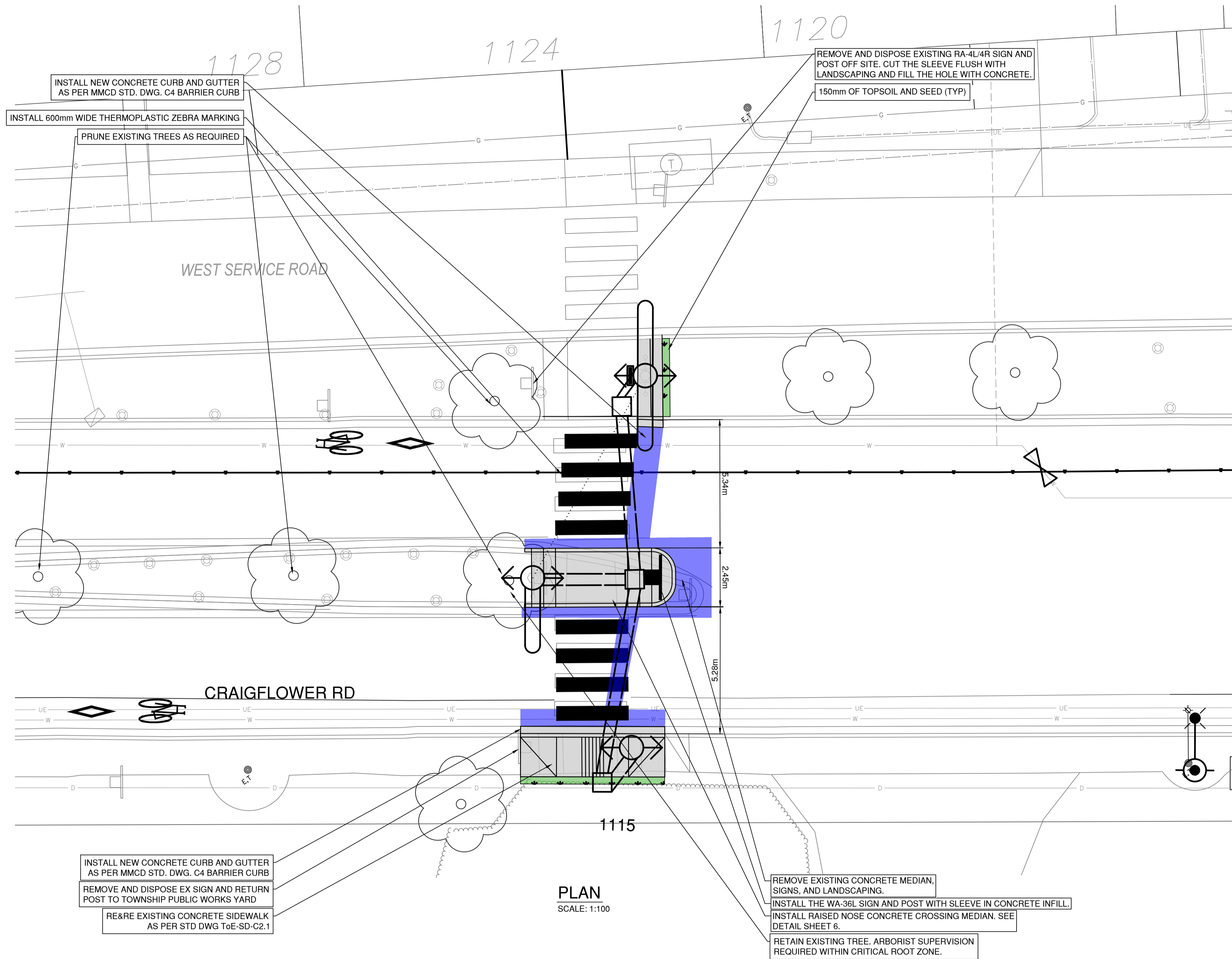
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PLOT DATE	May 22, 2025			REV. ----

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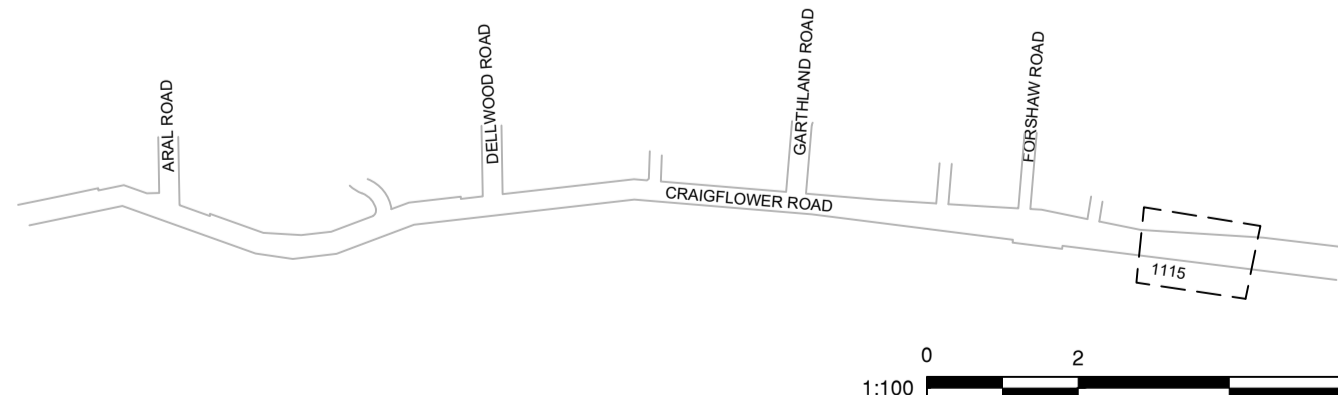


CIVIL LEGEND

- CONCRETE INSTALLATION
REFER TO DRAWING FOR DETAILS
- MILL AND INLAY - REMOVE 50mm AND
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ROAD
WORKS

ROADWORKS
1115 CRAIGFLOWER



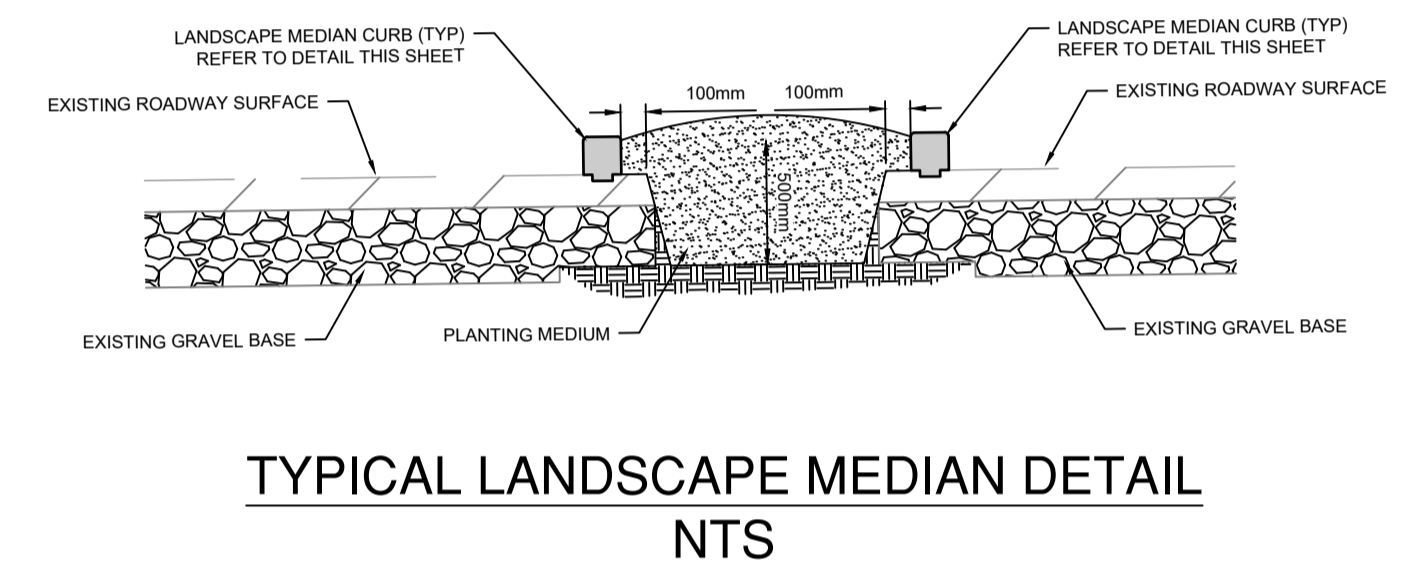
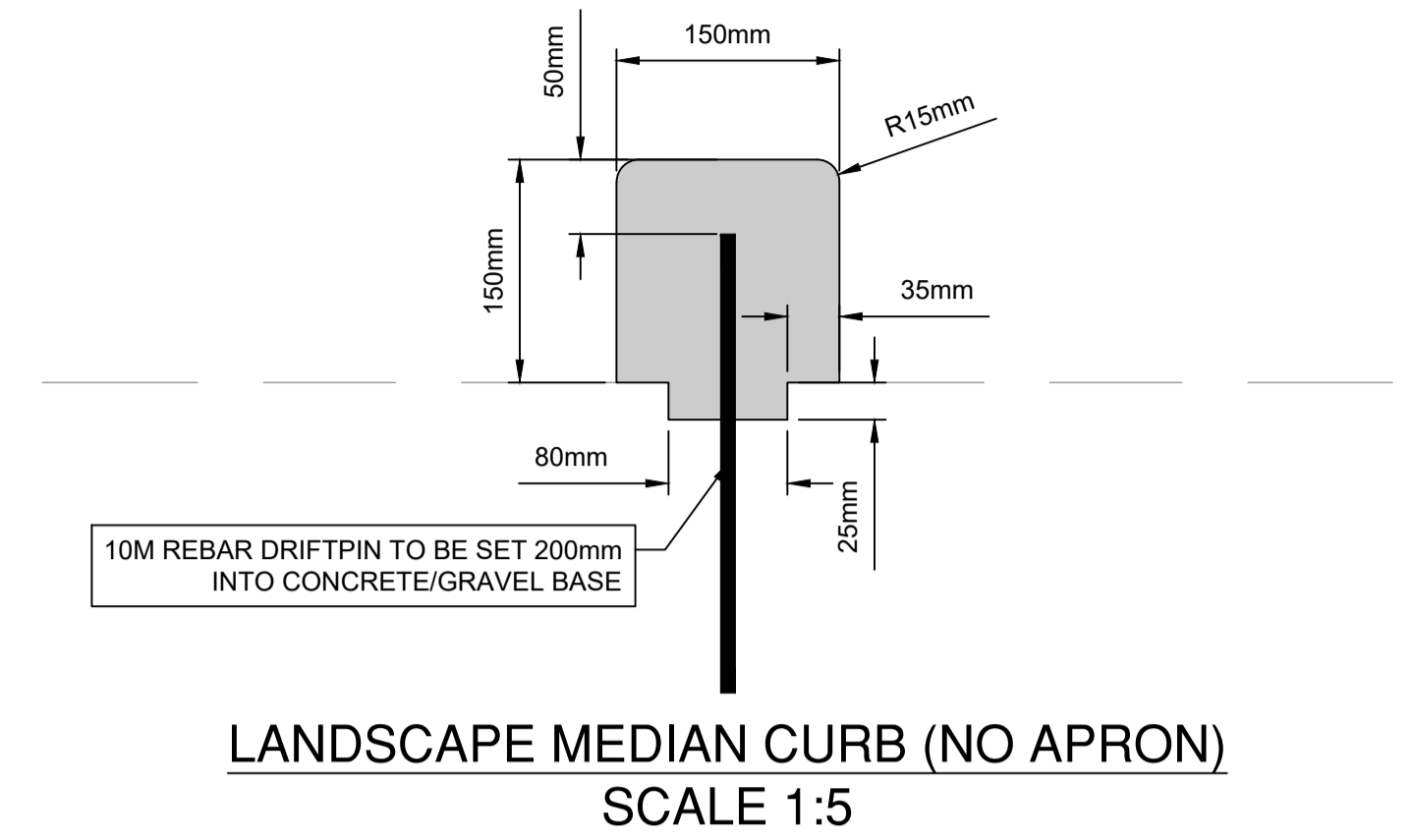
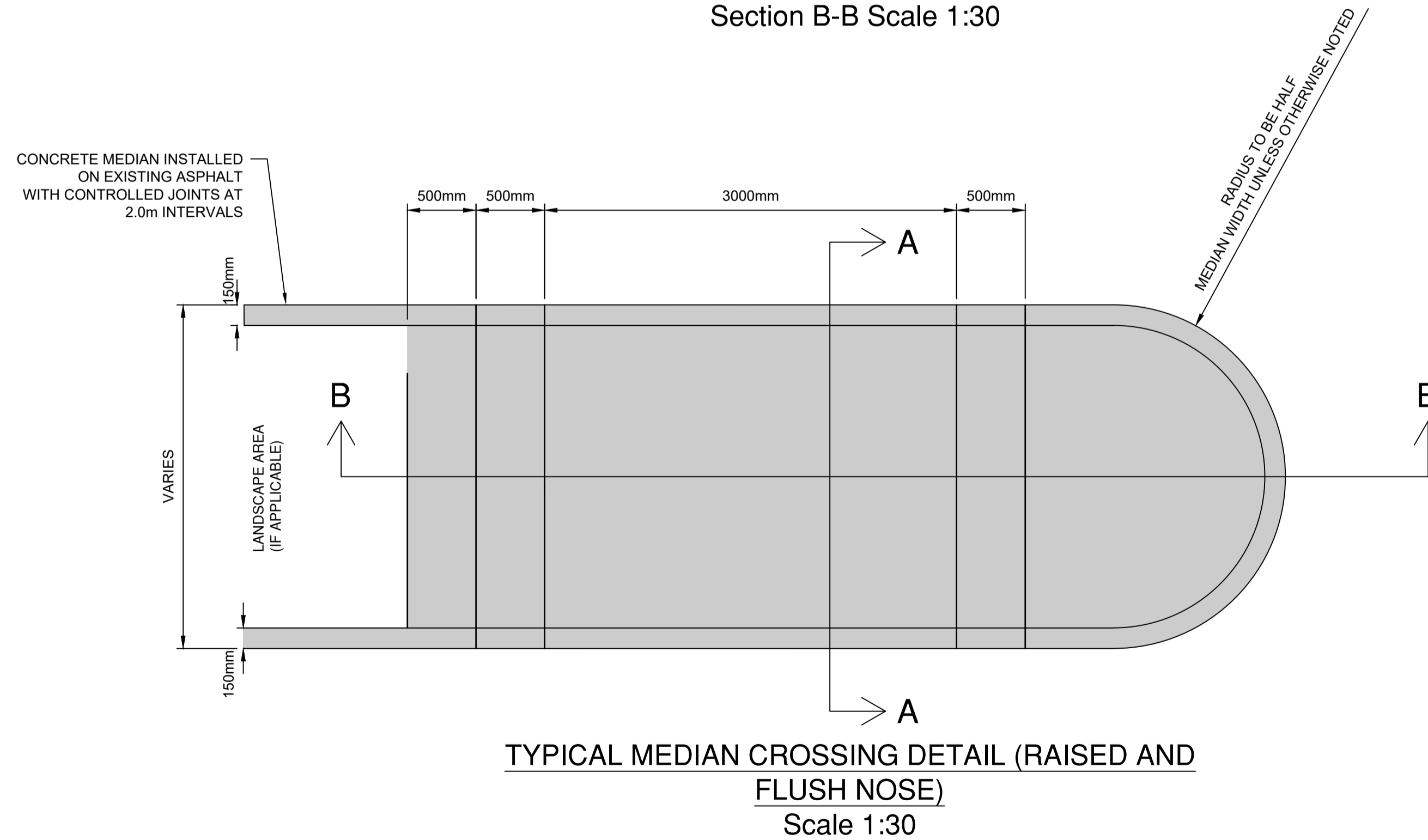
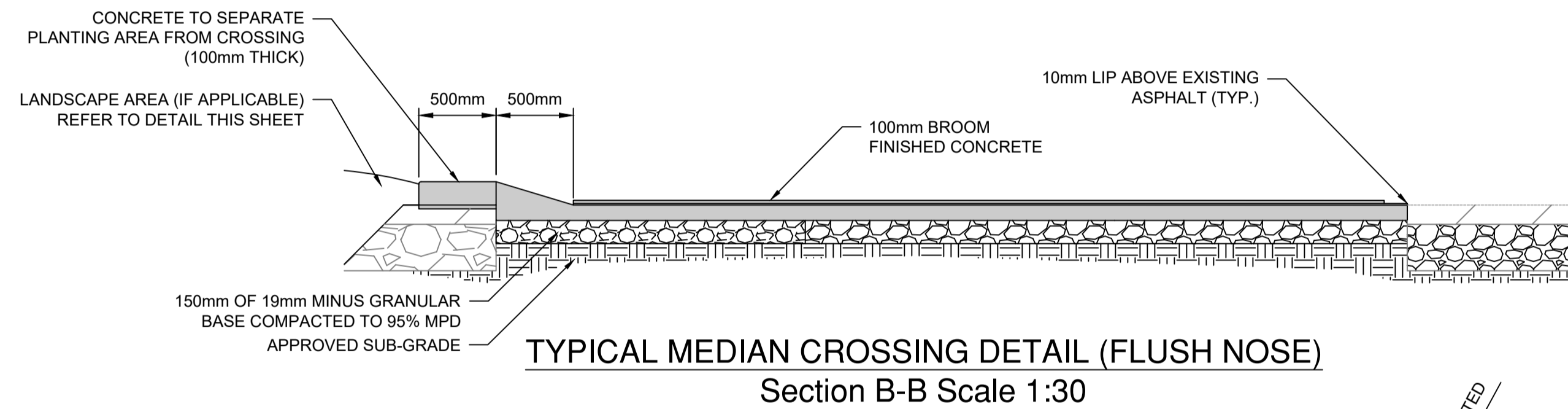
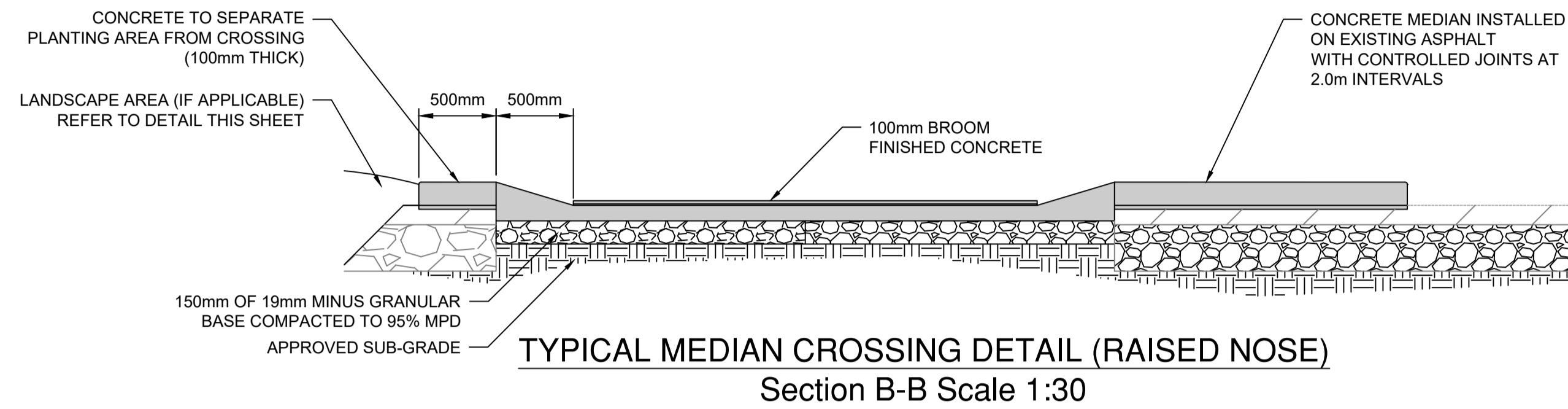
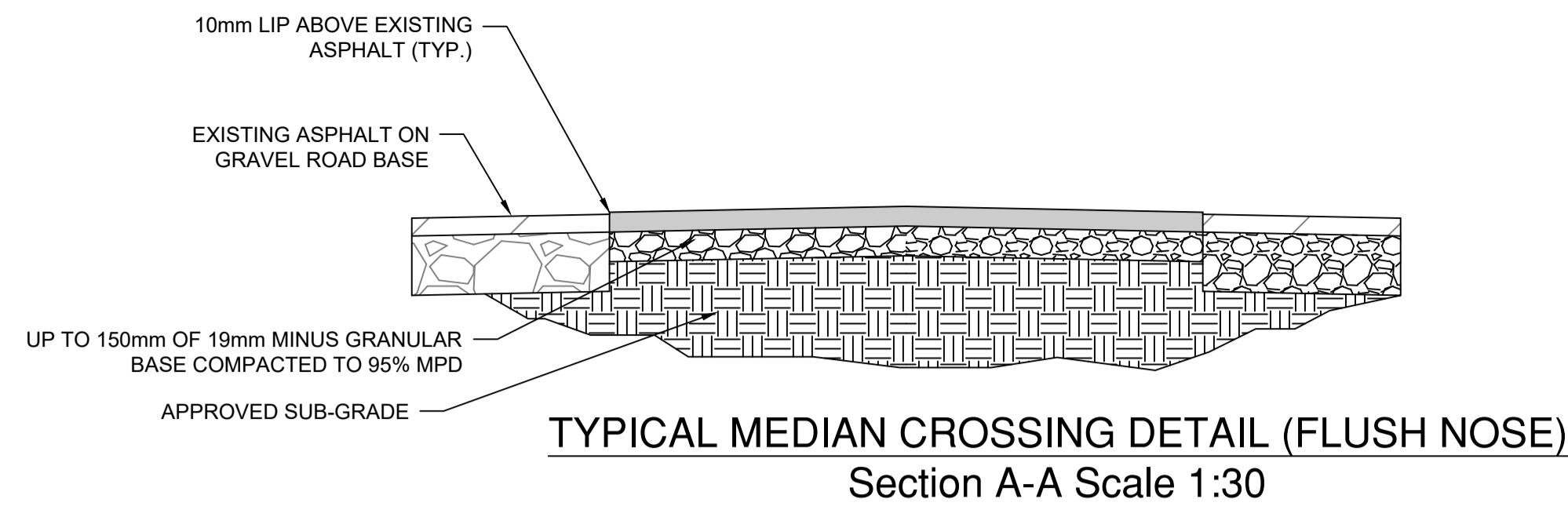
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DRAWN BY	ECH	DESIGN BY ECH	04 OF 05
CHECKED BY	BJO	APPROVED BY	REV. ----
PLOT DATE	May 22, 2025		

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DESIGN NO.

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REV NO.	REVISION DESCRIPTION	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	12MAY/25	JM	IM
2				
3				
4				
5				



ROAD
WORKS

CIVIL DETAILS
TYPICAL DETAILS



ISSUED FOR TENDER



1051 Vancouver St, Victoria, BC V8V 3K3
T: (250) 361-1320 F: (250) 361-5756

SCALE	AS NOTED	CREATION DATE	DWG. NO.
DRAWN BY	ECH	DESIGN BY ECH	05 OF 05
CHECKED BY	BJO	APPROVED BY	REV. ----
PLOT DATE	May 22, 2025		

33995

ELECTRICAL NOTES
GENERAL NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) AND THE TOWNSHIP OF ESQUIMALT SUBDIVISION AND DEVELOPMENT CONTROL BYLAW No. 3128
- ELECTRICAL WORK SHALL CONFORM TO LATEST EDITION OF CANADIAN ELECTRICAL CODE AND BULLETINS PUBLISHED BY TECHNICAL SAFETY BC.
- ALL WORK SHALL CONFORM TO ALL APPLICABLE REGULATIONS OF WORKSAFE BC.
- THE CONTRACTOR SHALL SUPPLY ALL MATERIALS, EQUIPMENT AND LABOUR TO COMPLETE THE WORKS, EXCEPT AS NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES FOR PERMITS AND INSPECTIONS, AS REQUIRED BY TECHNICAL SAFETY BC.
- ALL REDUNDANT HOLES IN POLES SHALL BE TREATED WITH GALVACON PAINT AND PLUGGED USING SUITABLE GALVANIZED PLUG OR COVER PLATE.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL CONCRETE BASES AND JUNCTION BOX SYMBOLS ARE NOT TO SCALE.
- THE CONTRACTOR SHALL NOT PRE-DRILL HOLES IN A SIGNAL POLE UNTIL AFTER THE BASE FOR THAT POLE HAS BEEN INSTALLED. THE CONTRACTOR SHALL ADVISE THE CONTRACT ADMINISTRATOR OF ANY ADJUSTMENTS MADE TO THE BASE LOCATION WHICH WILL EFFECT THE LOCATIONS OF HARDWARE TO BE MOUNTED ON THAT POLE PRIOR TO DRILLING.
- CONTRACTOR SHALL CONFIRM THE SERVICE CONNECTION WITH BC HYDRO.
- THE CONTRACTOR SHALL ENSURE THERE IS NO INTERRUPTION OF THE EXISTING LIGHTING DURING DARKNESS HOURS.
- ENSURE CLEARANCES FROM OVERHEAD UTILITY LINES MEET UTILITY AND WORKSAFE BC REGULATIONS PRIOR TO CONCRETE BASE INSTALLATION. CONTACT PBX ENGINEERING IN THE EVENT OF CONFLICT.
- ALL COMMON CIRCUIT WIRING SHALL BE TAGGED AND TY--RAPPED AS DETAILED IN THE MMCD, SECTION 26 56 01, SUBSECTION 3.8.
- HANDHOLES SHALL BE POSITIONED ON THE DOWNSTREAM TRAFFIC SIDE OF THE POLE OR BEHIND.
- LANE CLOSURES DURING CONSTRUCTION SHALL BE PERMITTED BETWEEN 9am AND 3pm ONLY UNLESS OTHERWISE COORDINATED WITH AND APPROVED BY THE TOWNSHIP. CONTRACTOR SHALL ADVISE THE TOWNSHIP OF ESQUIMALT 2 DAYS IN ADVANCE OF PLANNED LANE CLOSURE ACTIVITY TO ALLOW THE TOWNSHIP TO NOTIFY LOCAL EMERGENCY RESPONSE DEPARTMENTS INCLUDING FIRE DEPARTMENT, AMBULANCE, POLICE, AND BC TRANSIT OF ANY ROAD CLOSURES.
- ALL NEW POLES INSTALLED ON EDGE OF SIDEWALK SHALL HAVE 0.3m OFFSET FROM FACE OF CURB.

ELECTRICAL CIVIL NOTES

- ALL CONDUITS FROM JUNCTION BOXES TO BASES SHALL BE 53mm RPVC.
- ALL EMPTY CONDUITS SHALL HAVE A PULL STRING AND SHALL BE CAPPED. PULL STRING SHALL BE POLYPROPYLENE WITH A MINIMUM TENSILE STRENGTH OF 1.1 kN.
- ALL EXISTING WIRING, CONDUIT AND BASES TO BE REMOVED SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL NOT USE ANY FACTORY BENDS IN CONDUIT RUNS UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER IN THE FIELD. WHERE FACTORY 90 DEGREE BENDS ARE APPROVED, THE RADIUS SHALL BE GREATER THAN 900mm.
- ALL CONDUITS SHALL BE VERIFIED AND CLEANED USING THE FOLLOWING PROCEDURE: IN THE EVENT OF EXISTING CONDUIT FAILURE. NOTIFY CONTRACT ADMINISTRATOR.
 - TO VERIFY INTEGRITY OF CONDUIT, PULL THROUGH EACH DUCT, A HARD RUBBER MANDREL NOT LESS THAN 300mm LONG AND OF A DIAMETER 6mm LESS THAN INTERNAL DIAMETER OF DUCT, PRECEDED BY A SWAB OF SUITABLE DIAMETER TO REMOVE SAND, EARTH AND OTHER FOREIGN MATTER.
 - NOTIFY PROJECT ENGINEER IN THE EVENT OF CONDUIT FAILURE.
 - CLEAN DUCTS BEFORE LAYING. CAP ENDS OF DUCTS DURING CONSTRUCTION AND AFTER INSTALLATION TO PREVENT ENTRANCE OF FOREIGN MATERIALS.
 - TERMINATE CONDUIT ENDS IN THE JUNCTION BOX AS PER STANDARD DRAWINGS.
 - CLEAN AND VACUUM JUNCTION BOXES.

ELECTRICAL MATERIAL SPECIFICATIONS

- ALL MATERIALS SHALL BE NEW AND SUPPLIED FROM THE "APPROVED PRODUCTS LIST" EXCEPT WHERE NOTED. ALL LIKE MATERIALS SHALL BE FROM THE SAME MANUFACTURER.
- ELECTRICAL MATERIAL, EQUIPMENT AND FITTINGS MUST BEAR EVIDENCE OF C.S.A. APPROVAL OR SPECIAL CERTIFICATIONS ACCEPTABLE TO THE CHIEF ELECTRICAL INSPECTOR. UNAPPROVED ITEMS SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- CONDUCTORS SHALL BE STRANDED COPPER, RW90 XLPE INSULATED AND COLOUR CODED UNLESS OTHERWISE NOTED.
- JUNCTION BOXES SHALL BE:
 - STREET LIGHTING/RRFB -- DFW PLASTICS INC, DFW37C4--18--4DP BLANK C/W MANUFACTURERS BOLT DOWN LID. REFER TO MMCD STANDARD DRAWING E2.1.
- ALL NEW POLES SHALL BE GALVANIZED STEEL.

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PERMIT TO PRACTICE NUMBER:
1000208

TOWNSHIP OF ESQUIMALT

CRAIGFLOWER ROAD

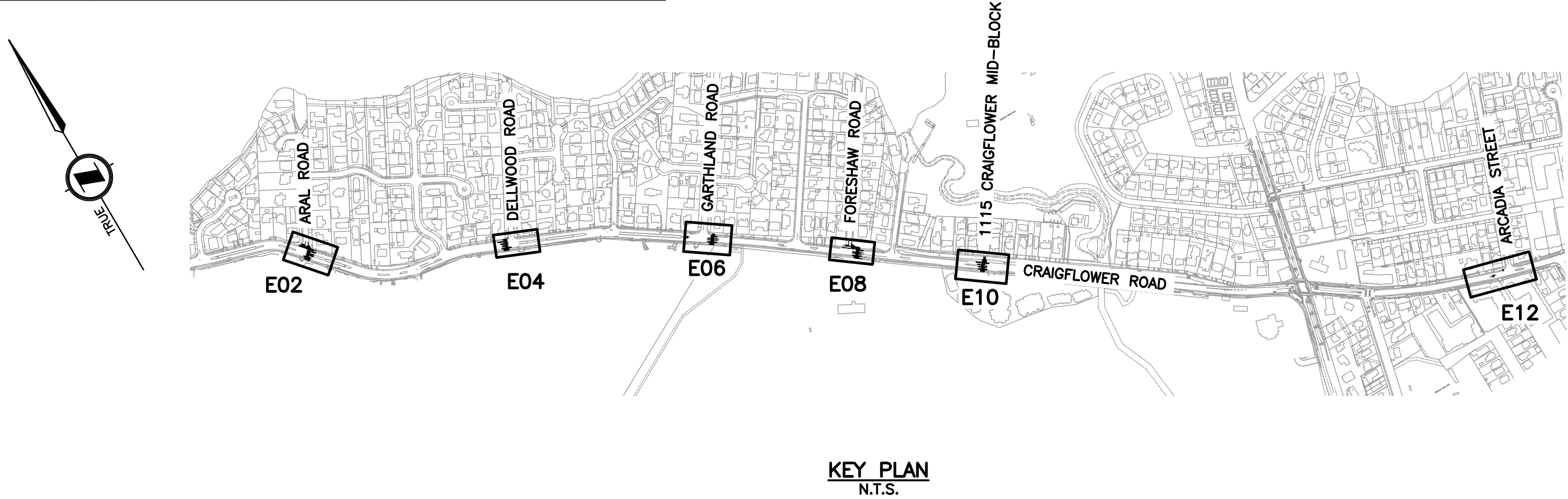
RRFB'S

ISSUED FOR TENDER

DRAWING LIST		
DRAWING NO.	REV.NO	DESCRIPTION
E01	1	NOTES AND LEGEND
E02	1	SITE PLAN ENLARGEMENT -- CRAIGFLOWER ROAD AT ARAL ROAD
E03	1	ELEVATIONS -- CRAIGFLOWER ROAD AT ARAL ROAD
E04	1	SITE PLAN ENLARGEMENT -- CRAIGFLOWER ROAD AT DELLWOOD ROAD
E05	1	ELEVATIONS -- CRAIGFLOWER ROAD AT DELLWOOD ROAD
E06	1	SITE PLAN ENLARGEMENT -- CRAIGFLOWER ROAD AT GARTHLAND ROAD
E07	1	ELEVATIONS -- CRAIGFLOWER ROAD AT GARTHLAND ROAD
E08	1	SITE PLAN ENLARGEMENT -- CRAIGFLOWER ROAD AT FORSHAW ROAD
E09	1	ELEVATIONS -- CRAIGFLOWER ROAD AT FORSHAW ROAD
E10	1	SITE PLAN ENLARGEMENT -- 1115 CRAIGFLOWER ROAD
E11	1	ELEVATIONS -- 1115 CRAIGFLOWER ROAD
E12	1	SITE PLAN ENLARGEMENT -- CRAIGFLOWER ROAD AT ARCADIA STREET
E13	1	ELEVATIONS -- CRAIGFLOWER ROAD AT ARCADIA STREET

LED LUMINAIRE PRODUCT LIST				
MANUFACTURER	MODEL No.	WATTAGE	DISTRIBUTION TYPE	QUANTITY
AMERICAN ELECTRIC	ATBO P203 MVOLT R2 3K	70W LED	TYPE II	4
AMERICAN ELECTRIC	ATBO P303 MVOLT R3 3K	106W LED	TYPE III	1
AMERICAN ELECTRIC	ATBO P453 MVOLT R3 3K	159W LED	TYPE II	3

APPROVED PRODUCT LIST					
PRODUCTS	MANUFACTURER	SPECIFICATIONS	EXCEPTIONS	SUPPLIER	COMMENTS
POLES, SIGNAL ARM, AND ANCHOR BOLTS	WEST COAST ENGINEERING/NOVA POLE	MMCD/MoTT	--	CONTRACTOR	GALVANIZED
PEDESTRIAN PUSHBUTTON (AT RRFB CROSSINGS)	POLARA	INX 9WNO--Y--NA	--	CONTRACTOR	AUDIBLE MESSAGE "YELLOW LIGHTS ARE FLASHING" AND PBFA9X15--X SIGN ADAPTER
SERVICE PANEL	VALID MANUFACTURING	HWYSP12--6S--M	--	CONTRACTOR	
JUNCTION BOXES	DFW PLASTICS INC	DFW37C4--18--4DP	--	CONTRACTOR	
RRFB'S (120V HARDWIRED)	CARMANAH	R920--MX 300--AC	--	CONTRACTOR	



KEY PLAN
N.T.S.

LEGEND (SOLID FILL DENOTES EXISTING)	
	DECORATIVE LUMINAIRE POLE
	LUMINAIRE POLE (SINGLE)
	LUMINAIRE POLE (DOUBLE)
	RRFB POLE
	DFW PLASTICS DFW37C4--18--4DP JUNCTION BOX
	DFW PLASTICS DFW1730C4--18--4DP JUNCTION BOX
	SIGNAL POLE WITH SIGNAL HEAD MOUNTED ON SIDE
	COMBINATION LUMINAIRE/TRAFFIC SIGNAL POLE
	LANE--USE SIGN POLE
	ILLUMINATED SIGN W/ AMBER FLASHERS
	POWER/TELEPHONE POLE
	PEC PHOTO ELECTRIC CELL
	RPVC RIGID P.V.C. CONDUIT
	RAISED CURB
	PROPERTY LINE
	EDGE OF GRAVEL SHOULDER
	EDGE OF PAVEMENT
	PAINT LINE
	FUTURE ELECTRICAL AND GEOMETRICS
	ELECTRICAL EQUIPMENT TO BE REMOVED
	PROPOSED UNDERGROUND CONDUIT
	EXISTING UNDERGROUND CONDUIT
	FENCE
	CORRUGATED METAL PIPE (CULVERT)
	U/G UTILITY:
	'G' DENOTES GAS
	'S' DENOTES STORM DRAINS/SEWERS
	'W' DENOTES WATER
	'UE' DENOTES ELECTRIC
	'UT' DENOTES TELEPHONE
	'SAN' DENOTES SANITARY SEWER

ISSUED FOR TENDER
NOT FOR CONSTRUCTION

ELECTRICAL DRAWING: E01

33995

ISSUED FOR TENDER

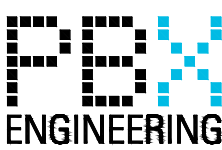
DESIGN NO.

REV NO	REVISIONS	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	25/05/22	PBX	MD



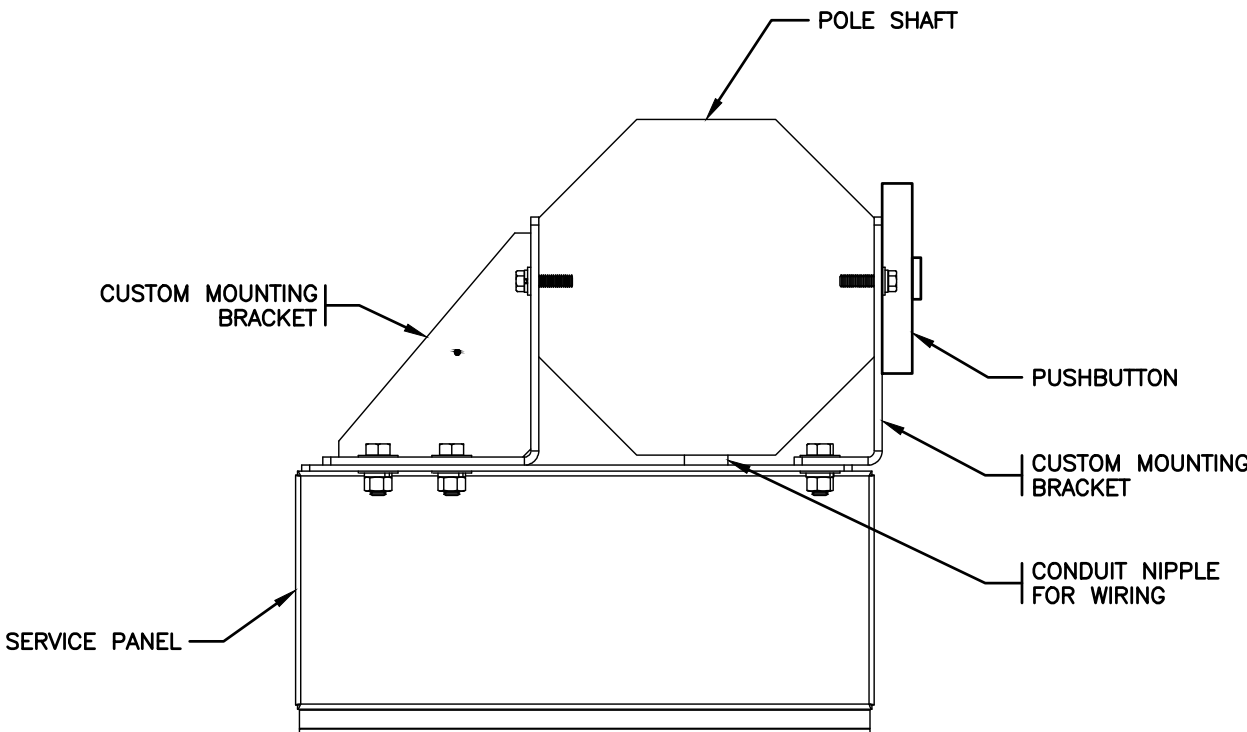
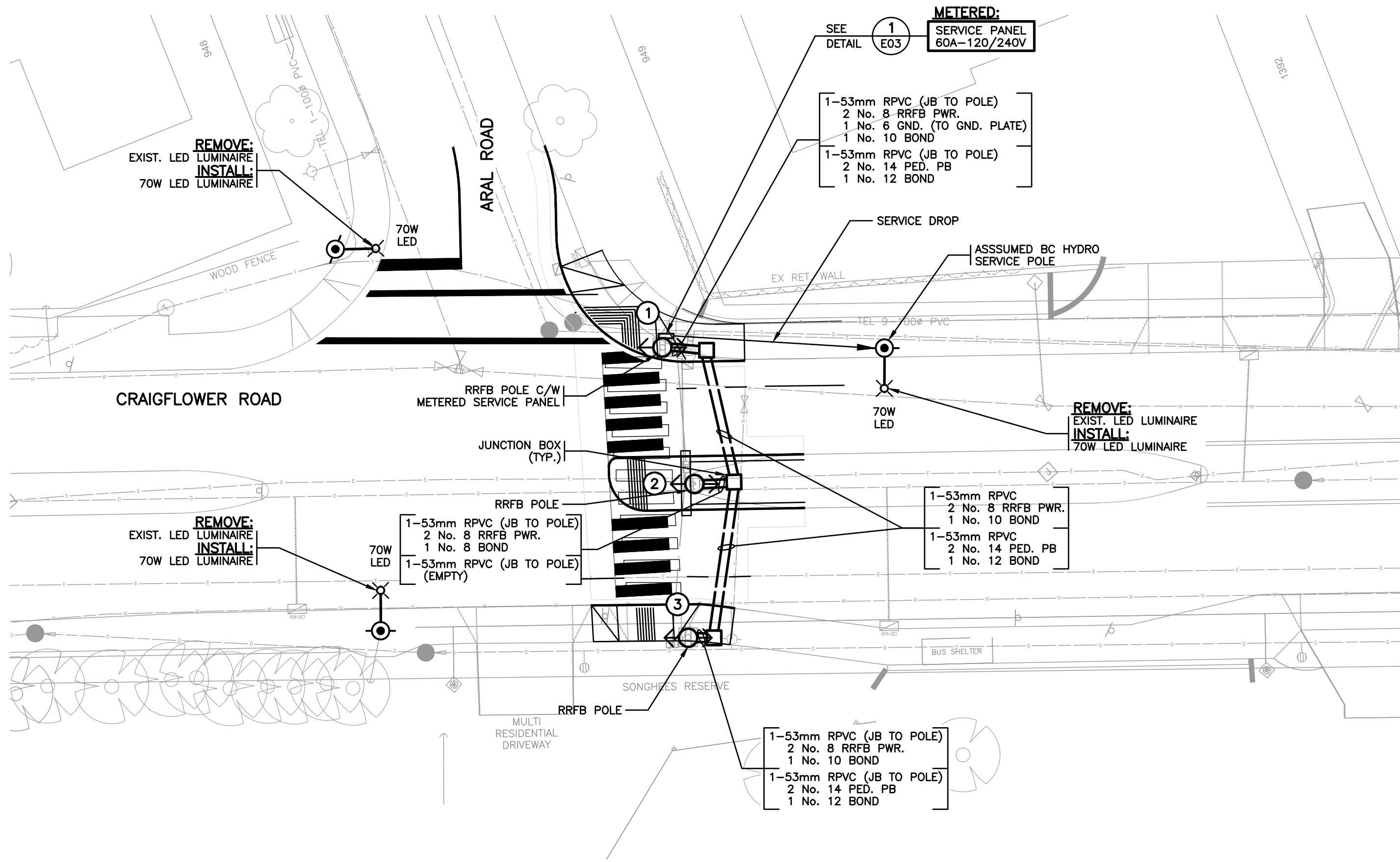
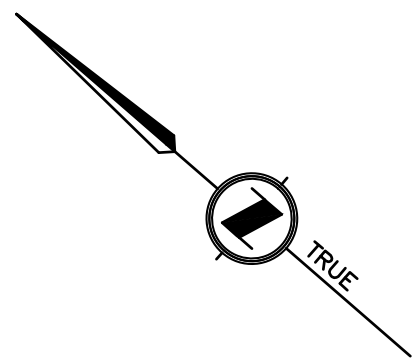
STREET LIGHTING & RRFB'S

NOTES AND LEGEND



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SCALE	AS NOTED	DATE	25/05/22	DWG. NO.
DRAWN BY	PBX	DESIGN BY	AJB	1
CHECKED BY	MD	APPROVED BY	MD	OF 13
				REV. 1



DETAIL 1 TOP VIEW OF CUSTOM
MOUNTING BRACKET
N.T.S.

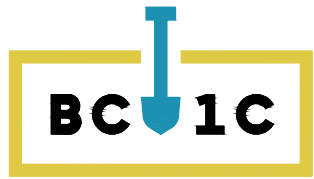
FUNCTIONAL DESIGN OF MOUNTING BRACKET ONLY.
CONTRACTOR TO PROVIDE ENGINEERED SHOP
DRAWING FOR APPROVAL PRIOR TO FABRICATION.

INTERSECTION LIGHTING DESIGN CRITERIA		
INTERSECTION NAME	CRAIGFLOWER ROAD AT ARAL ROAD	
ROAD CLASSIFICATION	MAJOR/LOCAL	
PEDESTRIAN CONFLICT	MEDIUM	
WATTAGE/TYPE/ LUMINAIRE MANUFACTURER/ MODEL NUMBER	70W/TYPE II/AMERICAN ELECTRIC/ATBO-P203-MVOLT-R2-3K	
	RECOMMENDED ILLUMINANCE	ACHIEVED ILLUMINANCE
ILLUMINATION LEVEL (AVG.)	20.0 LUX	20.2 LUX
UNIFORMITY RATIO (AVG:MIN)	3.0:1	2.4:1

NOTE: BASED ON IESNA RP-8-21 (TABLE 12-1)



POSTED SPEED LIMIT 40 km/h



CHECK BEFORE YOU DIG
CONTRACTOR SHALL CONFIRM THE LOCATIONS
OF ALL UNDERGROUND UTILITIES.

SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS
(MMCD) - LATEST EDITION AND TOWNSHIP OF
ESQUIMALT SUPPLEMENTAL SPECIFICATIONS FOR
APPLICABLE STANDARDS AND DRAWINGS

ALL EQUIPMENT IS PROPOSED
UNLESS NOTED OTHERWISE

ISSUED FOR TENDER
NOT FOR CONSTRUCTION

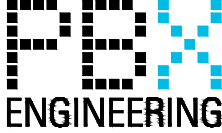
ELECTRICAL DRAWING: E02

33995

REV NO	REVISIONS	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	25/05/22	PBX	MD



STREET LIGHTING & RRFBs
SITE PLAN ENLARGEMENT - CRAIGFLOWER ROAD AT ARAL ROAD

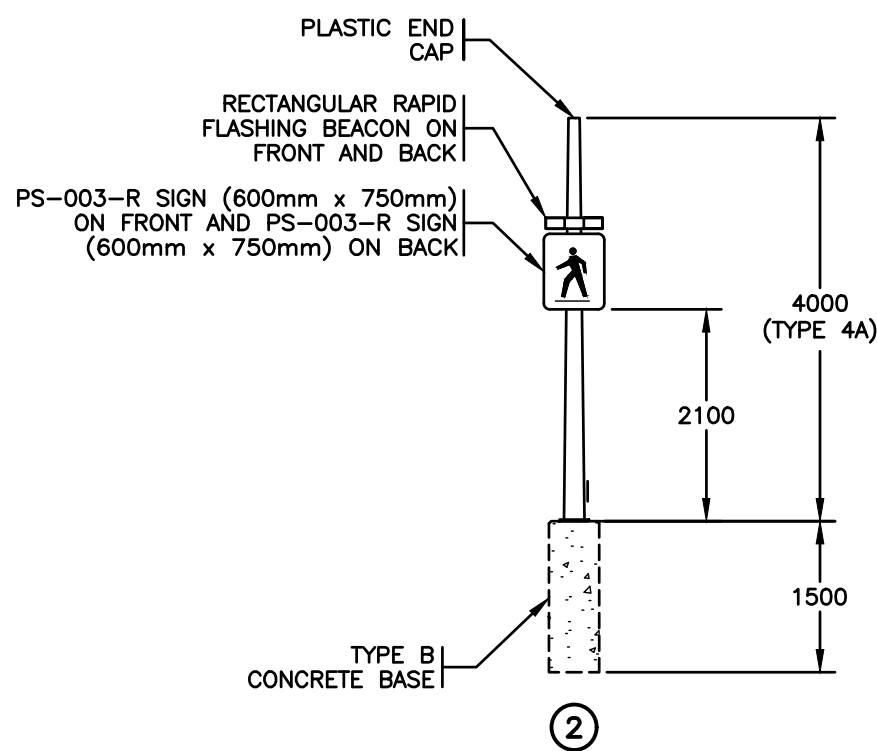
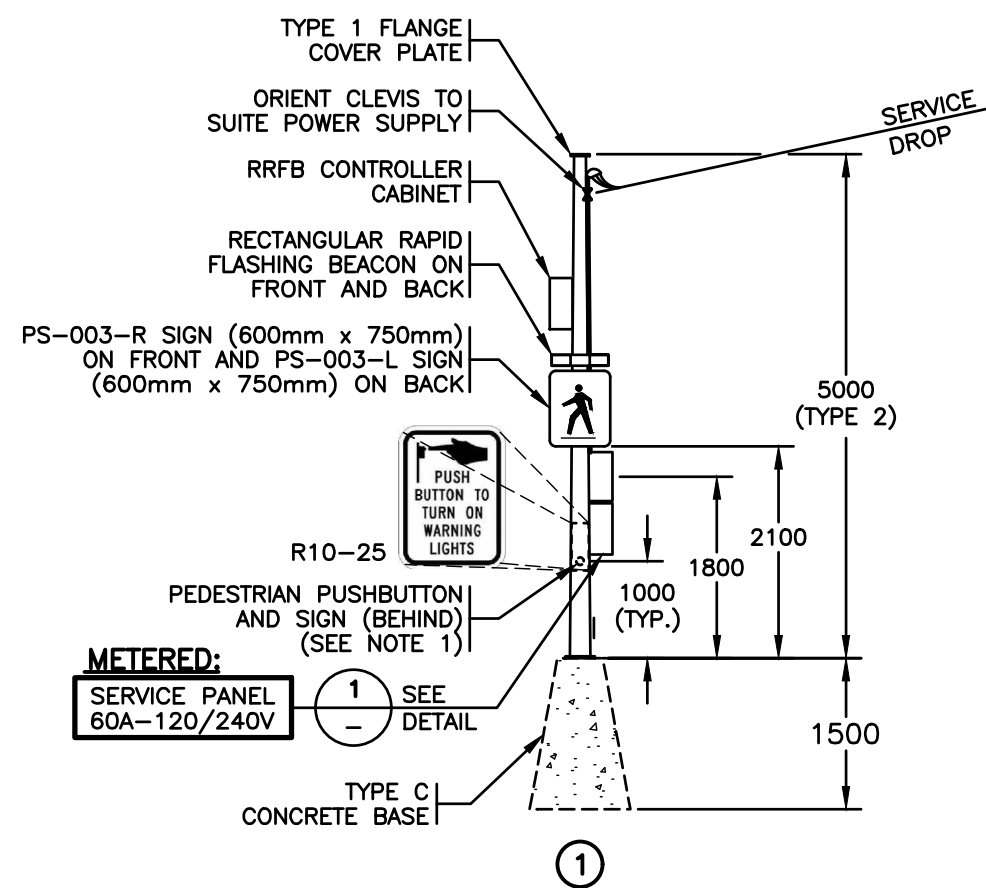


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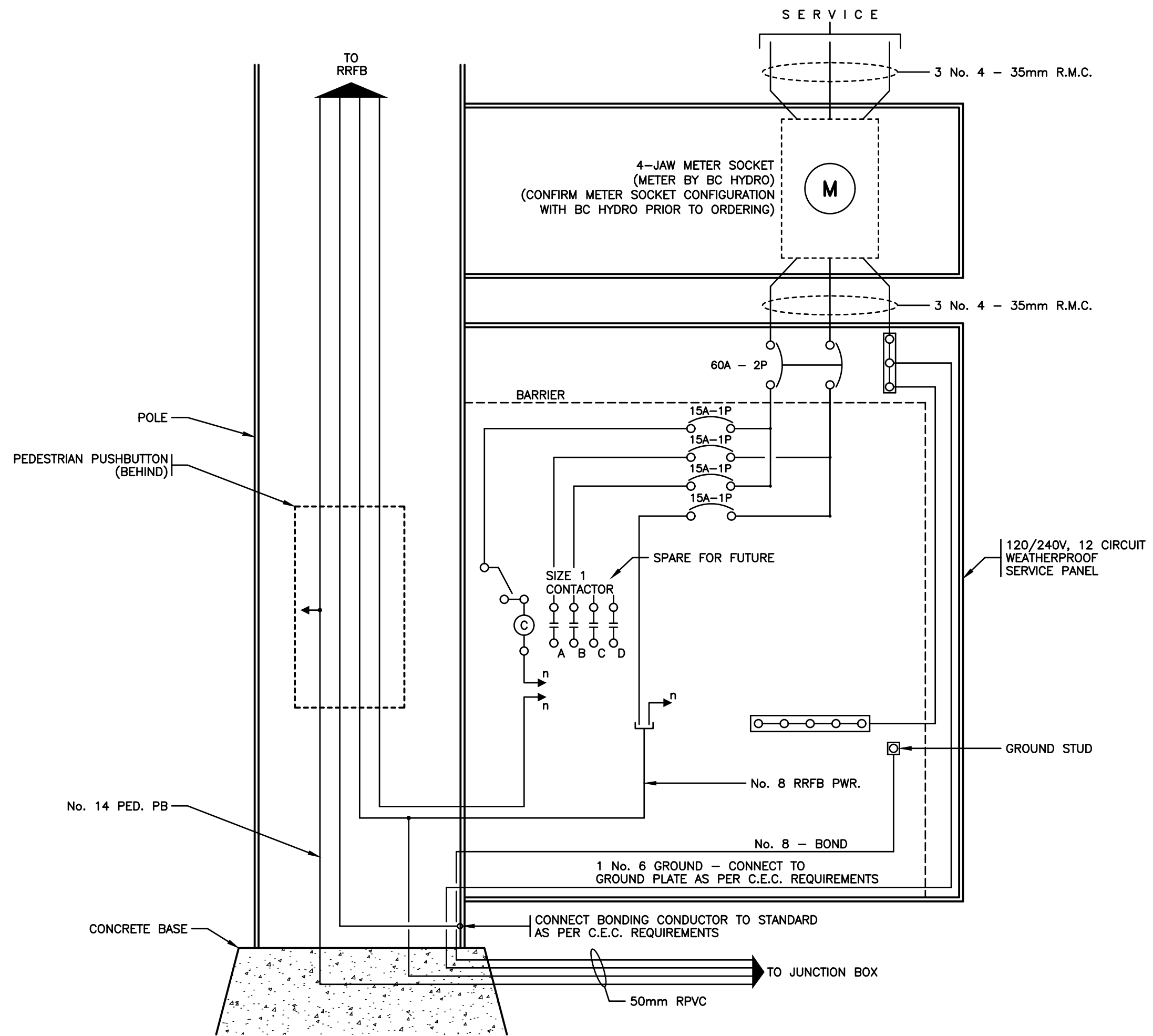
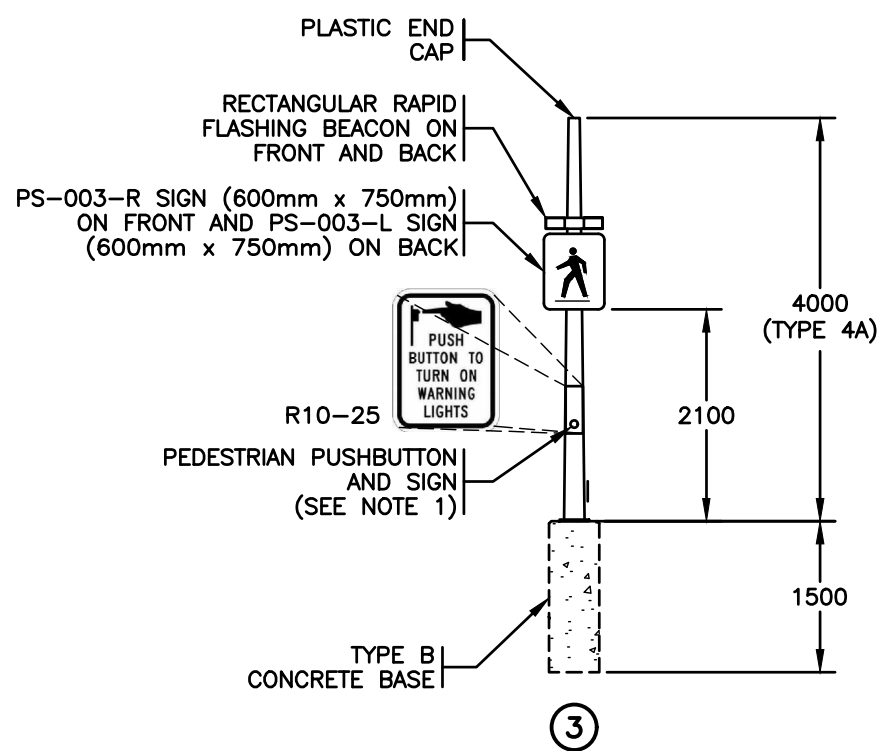
ISSUED FOR TENDER

DESIGN NO.

SCALE	AS NOTED	DATE	25/05/22	DWG. NO.	2
DRAWN BY	PBX	DESIGN BY	AJB	OF	13
CHECKED BY	MD	APPROVED BY	MD	REV.	1



ELEVATIONS
0 1:75 5



DETAIL 1 1 WIRING DIAGRAM - METERED SERVICE PANEL
N.T.S. - E02

NOTES:

1. PEDESTRIAN PUSHBUTTON SHALL BE POLARA INX AUDIBLE PUSHBUTTON.
AUDIBLE MESSAGE SHALL BE "YELLOW LIGHTS ARE FLASHING".

SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) - LATEST EDITION AND TOWNSHIP OF ESQUIMALT SUPPLEMENTAL SPECIFICATIONS FOR APPLICABLE STANDARDS AND DRAWINGS

ALL EQUIPMENT IS PROPOSED
UNLESS NOTED OTHERWISE

ISSUED FOR TENDER
NOT FOR CONSTRUCTION

ELECTRICAL DRAWING: E03

33995

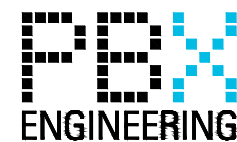
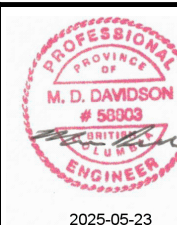
ISSUED FOR TENDER

DESIGN NO.

REV NO	REVISIONS	DATE	DRAWN	APPR'D
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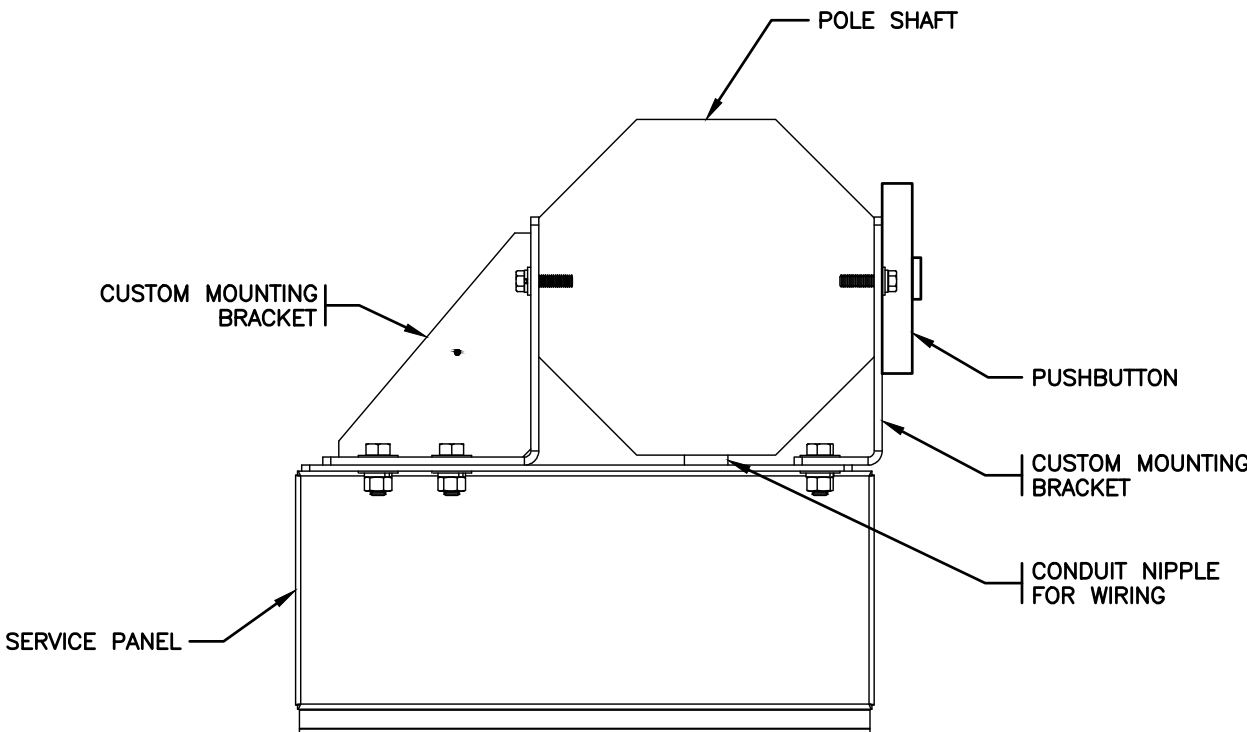
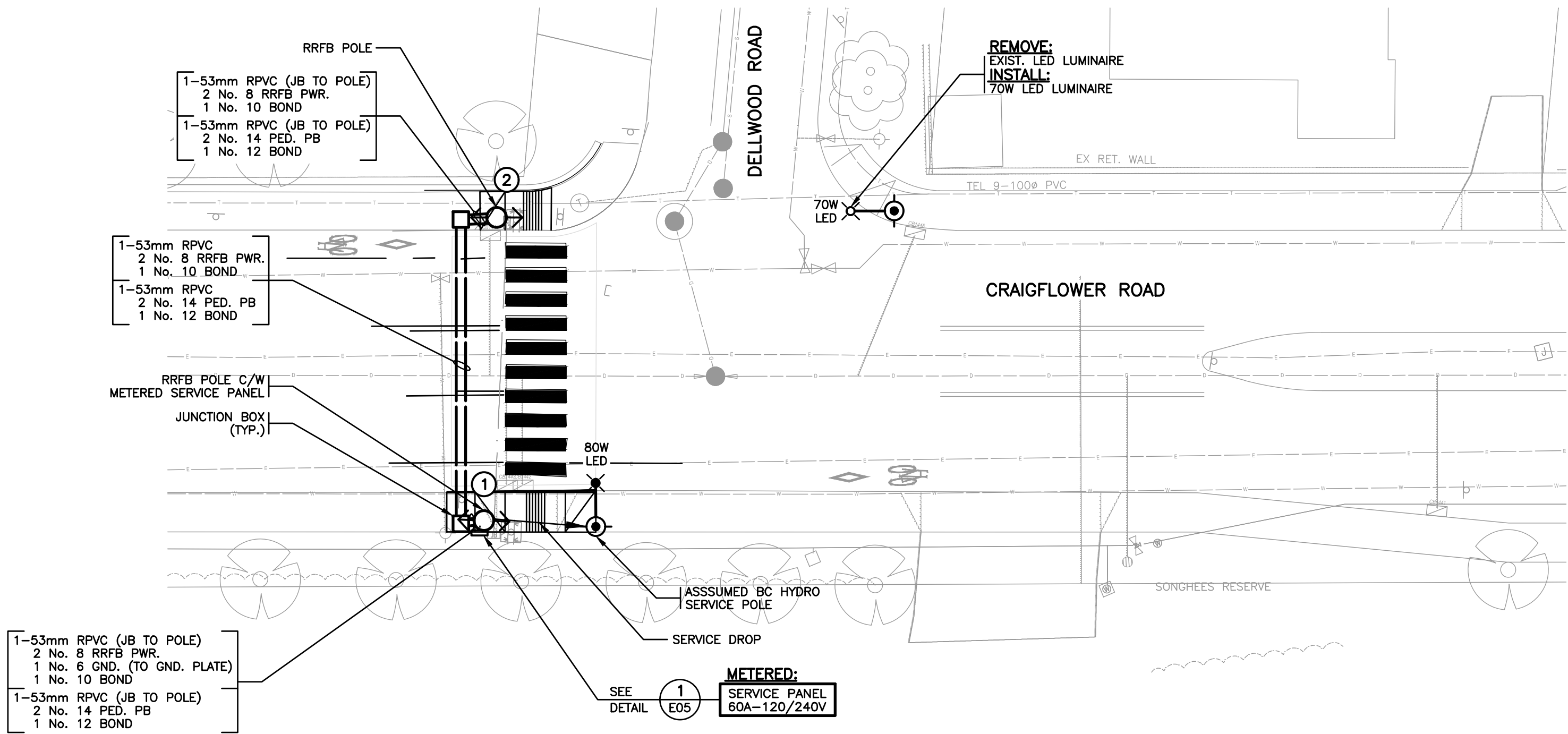
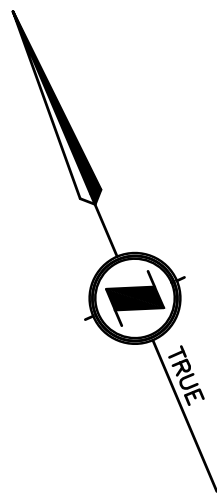


STREET LIGHTING & RRFBs
ELEVATIONS - CRAIGFLOWER ROAD AT ARAL ROAD



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SCALE	AS NOTED	DATE	25/05/22	DWG. NO.
DRAWN BY	PBX	DESIGN BY	AJB	3
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				REV. 1



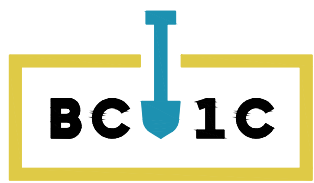
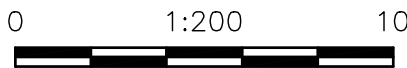
DETAIL 1 TOP VIEW OF CUSTOM
MOUNTING BRACKET
N.T.S.

FUNCTIONAL DESIGN OF MOUNTING BRACKET ONLY.
CONTRACTOR TO PROVIDE ENGINEERED SHOP
DRAWING FOR APPROVAL PRIOR TO FABRICATION.

INTERSECTION LIGHTING DESIGN CRITERIA		
INTERSECTION NAME	CRAIGFLOWER ROAD AT DELLWOOD ROAD	
ROAD CLASSIFICATION	MAJOR/LOCAL	
PEDESTRIAN CONFLICT	MEDIUM	
WATTAGE/TYPE/ LUMINAIRE MANUFACTURER/ MODEL NUMBER	70W/TYPE II/AMERICAN ELECTRIC/ATB0-P203-MVOLT-R2-3K 80W/TYPE II/AMERICAN ELECTRIC/ATB0-30BLEDE85-MVOLT-R2-3K	
	RECOMMENDED ILLUMINANCE	ACHIEVED ILLUMINANCE
ILLUMINATION LEVEL (AVG.)	20.0 LUX	20.7 LUX
UNIFORMITY RATIO (AVG:MIN)	3.0:1	2.5:1

NOTE: BASED ON IESNA RP-8-21 (TABLE 12-1)

SITE PLAN ENLARGEMENT



CHECK BEFORE YOU DIG
CONTRACTOR SHALL CONFIRM THE LOCATIONS
OF ALL UNDERGROUND UTILITIES.

POSTED SPEED LIMIT 40 km/h

SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS
(MMCD) - LATEST EDITION AND TOWNSHIP OF
ESQUIMALT SUPPLEMENTAL SPECIFICATIONS FOR
APPLICABLE STANDARDS AND DRAWINGS

ALL EQUIPMENT IS PROPOSED
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NOT FOR CONSTRUCTION

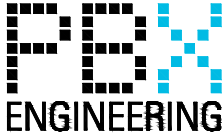
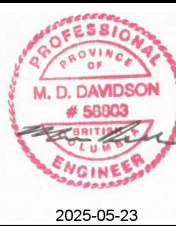
ELECTRICAL DRAWING: E04

33995

REV NO	REVISIONS	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	25/05/22	PBX	MD



STREET LIGHTING & RRFBS
SITE PLAN ENLARGEMENT - CRAIGFLOWER ROAD AT DELLWOOD ROAD

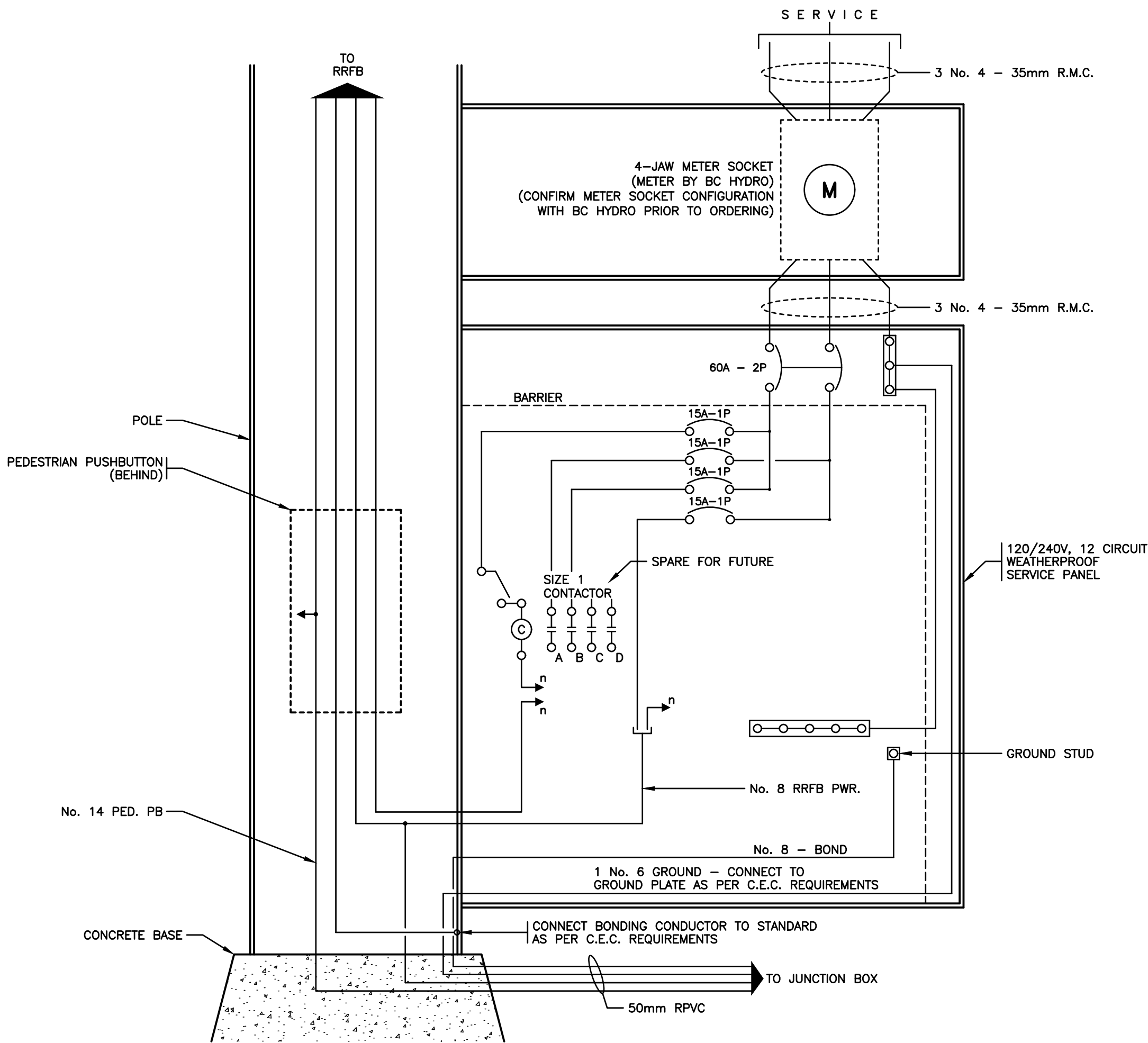
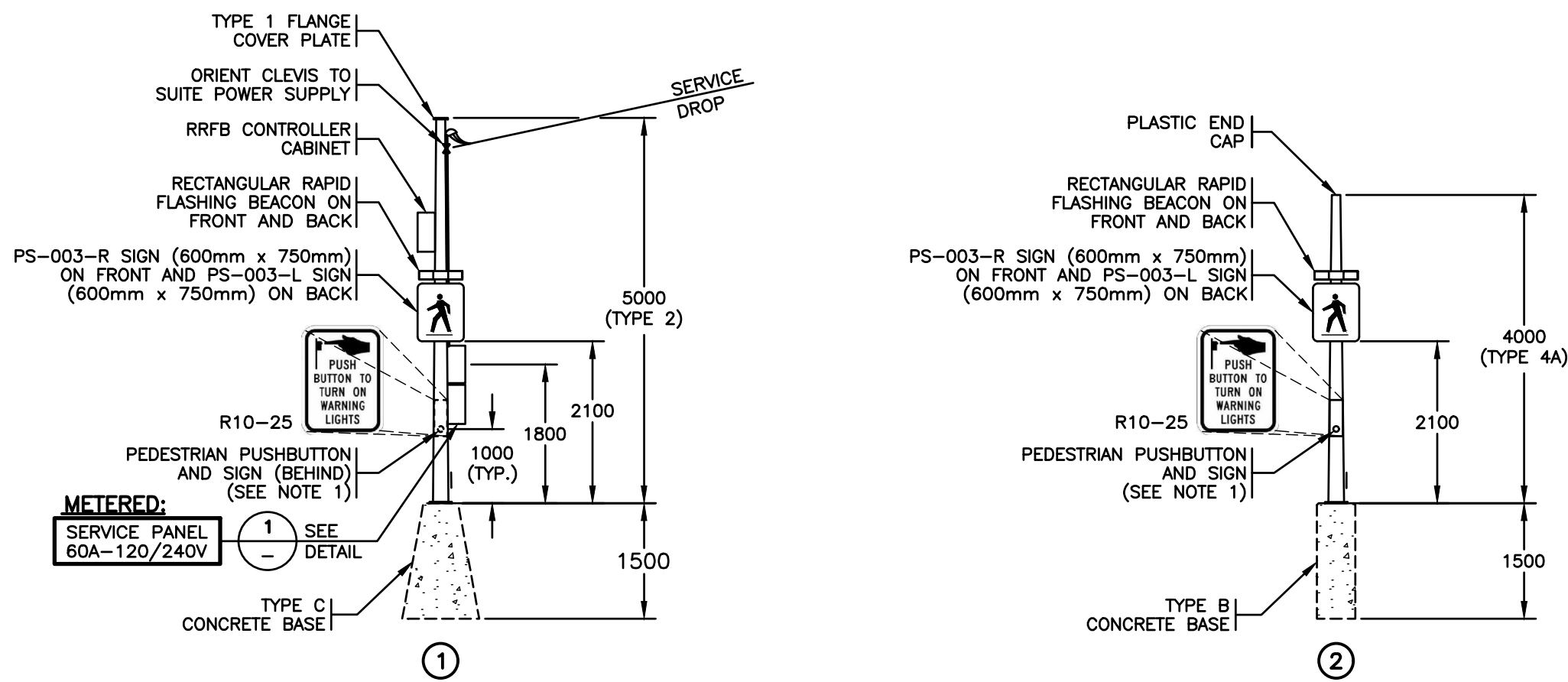


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DESIGN NO.

SCALE	AS NOTED	DATE	25/05/22	DWG. NO.	4
DRAWN BY	PBX	DESIGN BY	AJB	OF	13
CHECKED BY	MD	APPROVED BY	MD	REV.	1



DETAIL 1 1 WIRING DIAGRAM - METERED SERVICE PANEL
N.T.S. - E04

NOTES:

1. PEDESTRIAN PUSHBUTTON SHALL BE POLARA INX AUDIBLE PUSHBUTTON.
AUDIBLE MESSAGE SHALL BE "YELLOW LIGHTS ARE FLASHING".

SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS
(MMCD) - LATEST EDITION AND TOWNSHIP OF
ESQUIMALT SUPPLEMENTAL SPECIFICATIONS FOR
APPLICABLE STANDARDS AND DRAWINGS

ALL EQUIPMENT IS PROPOSED
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ISSUED FOR TENDER
NOT FOR CONSTRUCTION

ELECTRICAL DRAWING: E05

33995

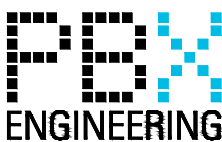
ISSUED FOR TENDER

DESIGN NO.

REV NO	REVISIONS	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	25/05/22	PBX	MD

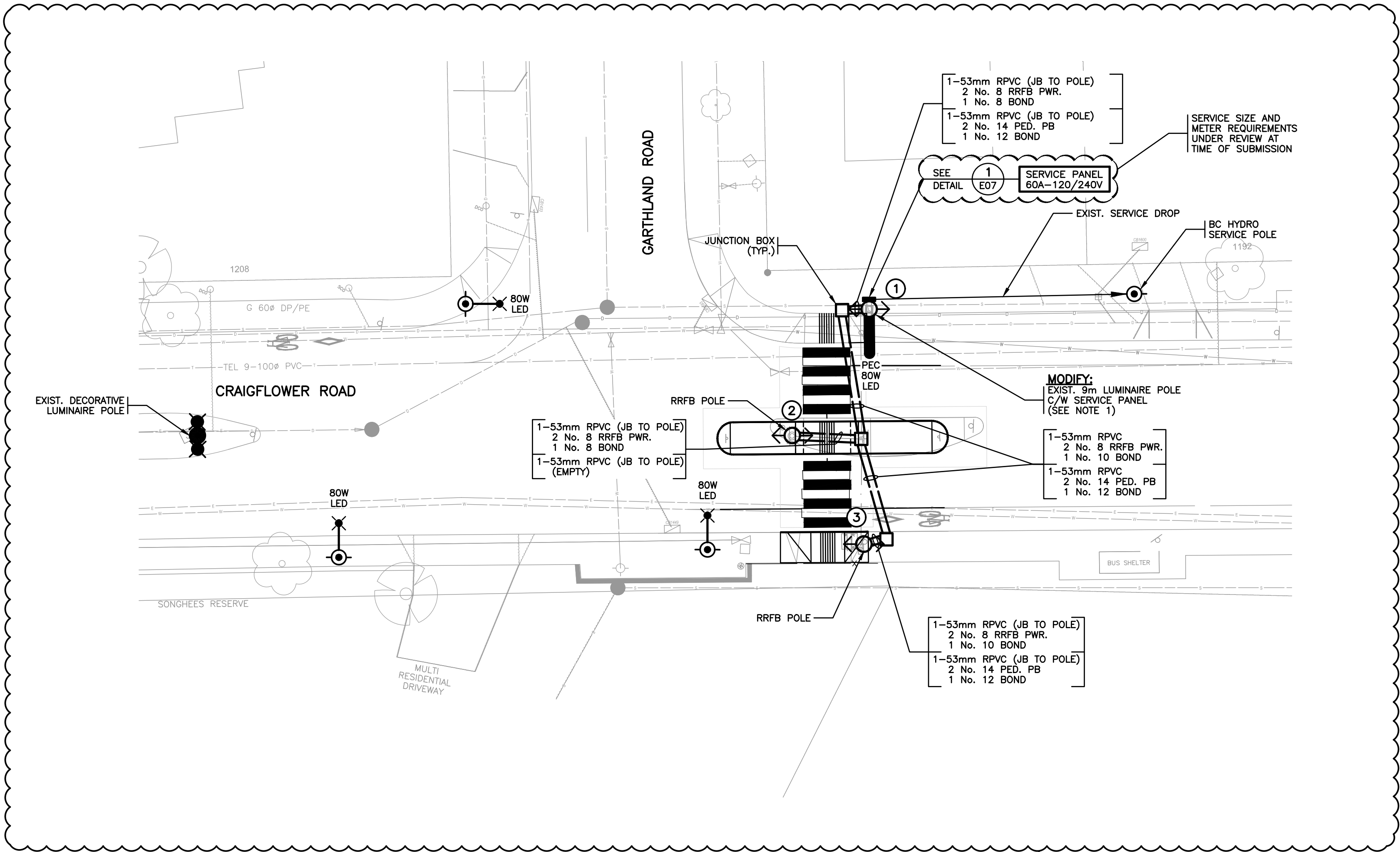


STREET LIGHTING & RRFBs
ELEVATIONS - CRAIGFLOWER ROAD AT DELLWOOD ROAD



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DRAWN BY	PBX	DESIGN BY	AJB	5
CHECKED BY	MD	APPROVED BY	MD	13
				REV. 1

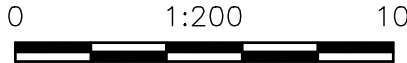


ALL WORK ON THIS SHEET IS OPTIONAL

INTERSECTION LIGHTING DESIGN CRITERIA		
INTERSECTION NAME	CRAIGFLOWER ROAD AT GARTHLAND ROAD	
ROAD CLASSIFICATION	MAJOR/LOCAL	
PEDESTRIAN CONFLICT	MEDIUM	
WATTAGE/TYPE/LUMINAIRE MANUFACTURER/MODEL NUMBER	80W/TYPE II/AMERICAN ELECTRIC/ATBO-30BLEDE85-MVOLT-R2-3K	
	RECOMMENDED ILLUMINANCE	ACHIEVED ILLUMINANCE
ILLUMINATION LEVEL (AVG.)	20.0 LUX	25.9 LUX
UNIFORMITY RATIO (AVG:MIN)	3.0:1	2.1:1

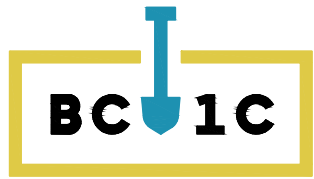
NOTE: BASED ON IESNA RP-8-21 (TABLE 12-1)

SITE PLAN ENLARGEMENT



NOTES:

1. EXISTING CONDUITS AND CONDUCTORS FROM EXISTING SERVICE PANEL SHALL BE CONNECTED INTO NEW CONDUIT SYSTEM AND MAINTAINED.



CHECK BEFORE YOU DIG
CONTRACTOR SHALL CONFIRM THE LOCATIONS OF ALL UNDERGROUND UTILITIES.

POSTED SPEED LIMIT 40 km/h

SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) - LATEST EDITION AND TOWNSHIP OF ESQUIMALT SUPPLEMENTAL SPECIFICATIONS FOR APPLICABLE STANDARDS AND DRAWINGS

ALL EQUIPMENT IS PROPOSED
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ISSUED FOR TENDER
NOT FOR CONSTRUCTION

ELECTRICAL DRAWING: E06

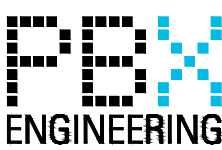
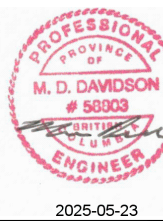
33995

ISSUED FOR TENDER DESIGN NO.

REV NO	REVISIONS	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	25/05/22	PBX	MD

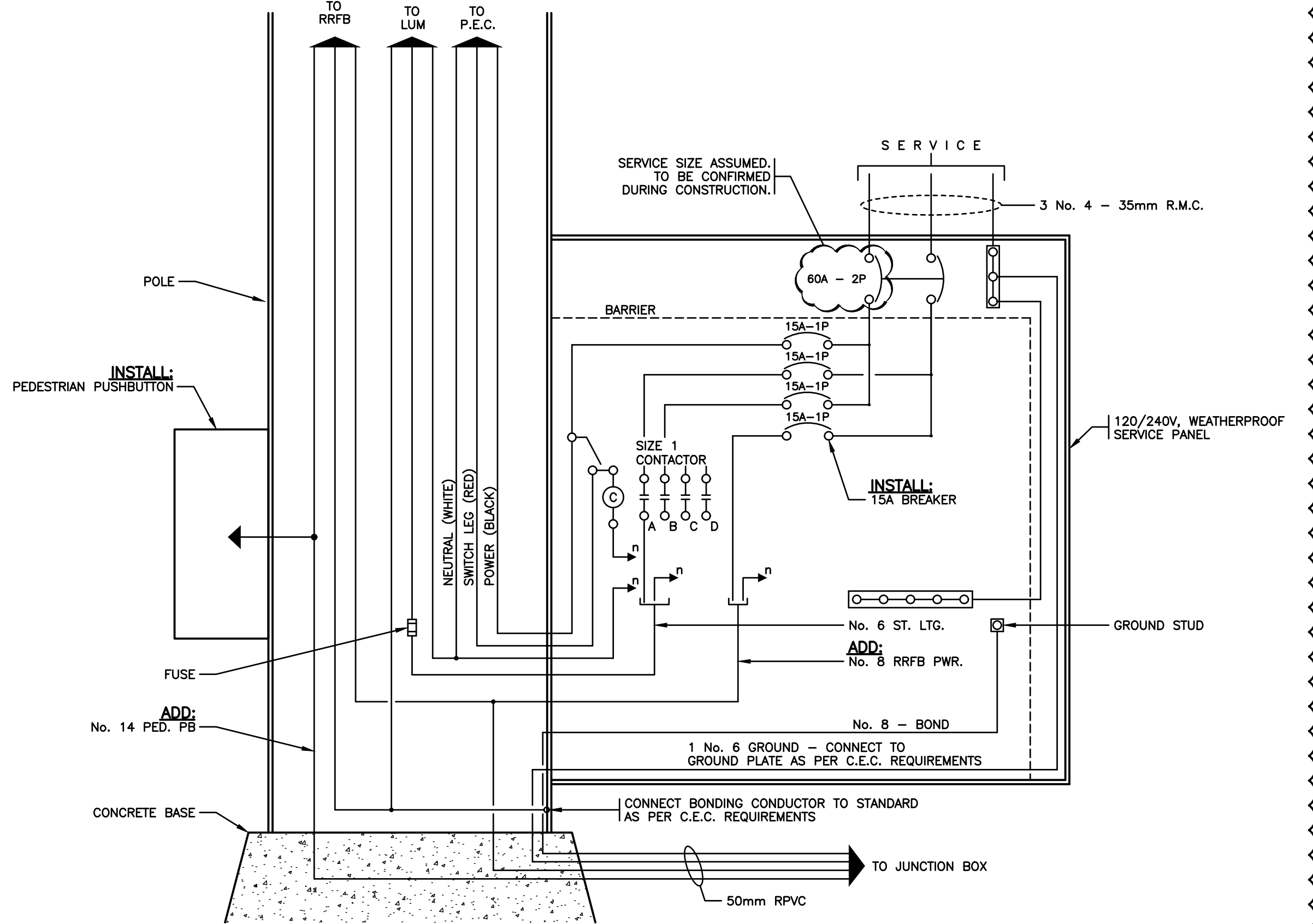
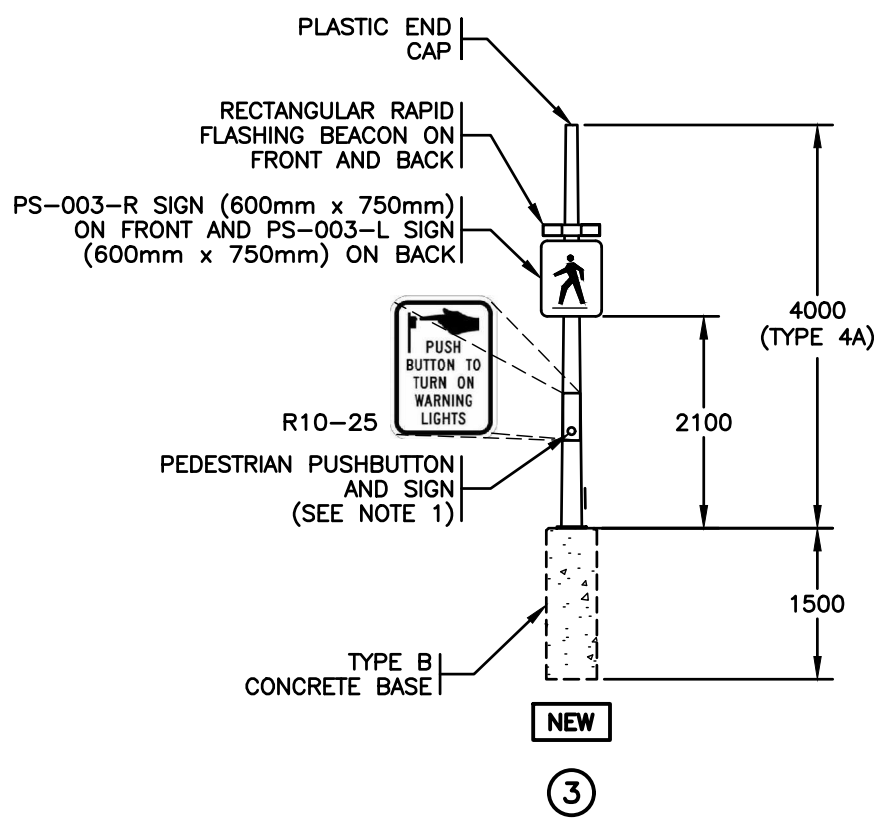
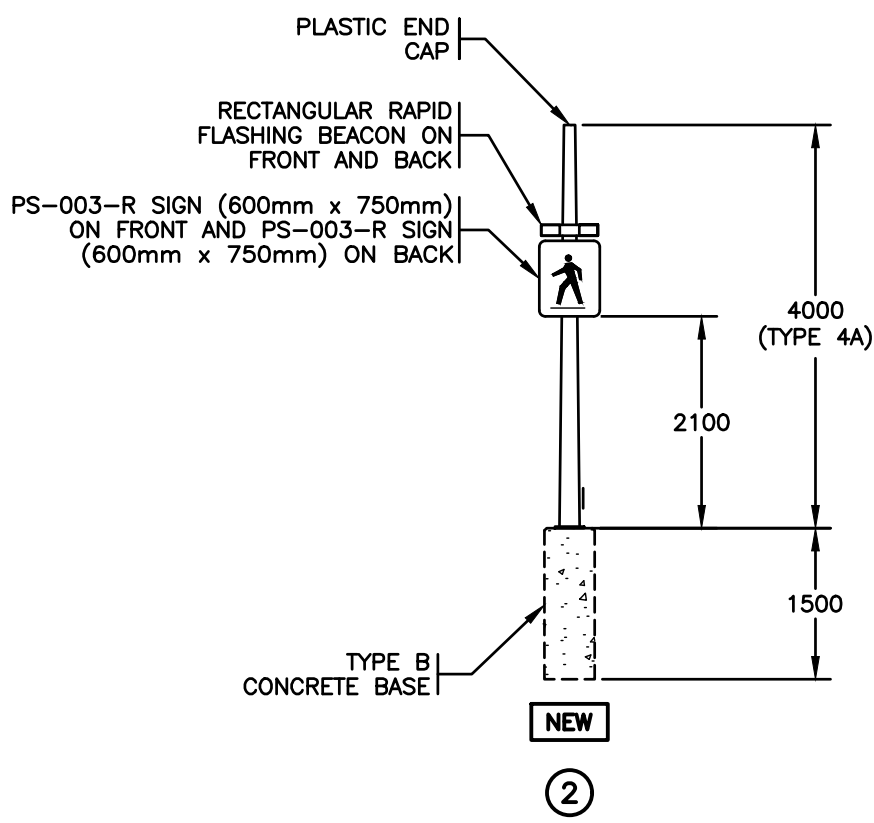
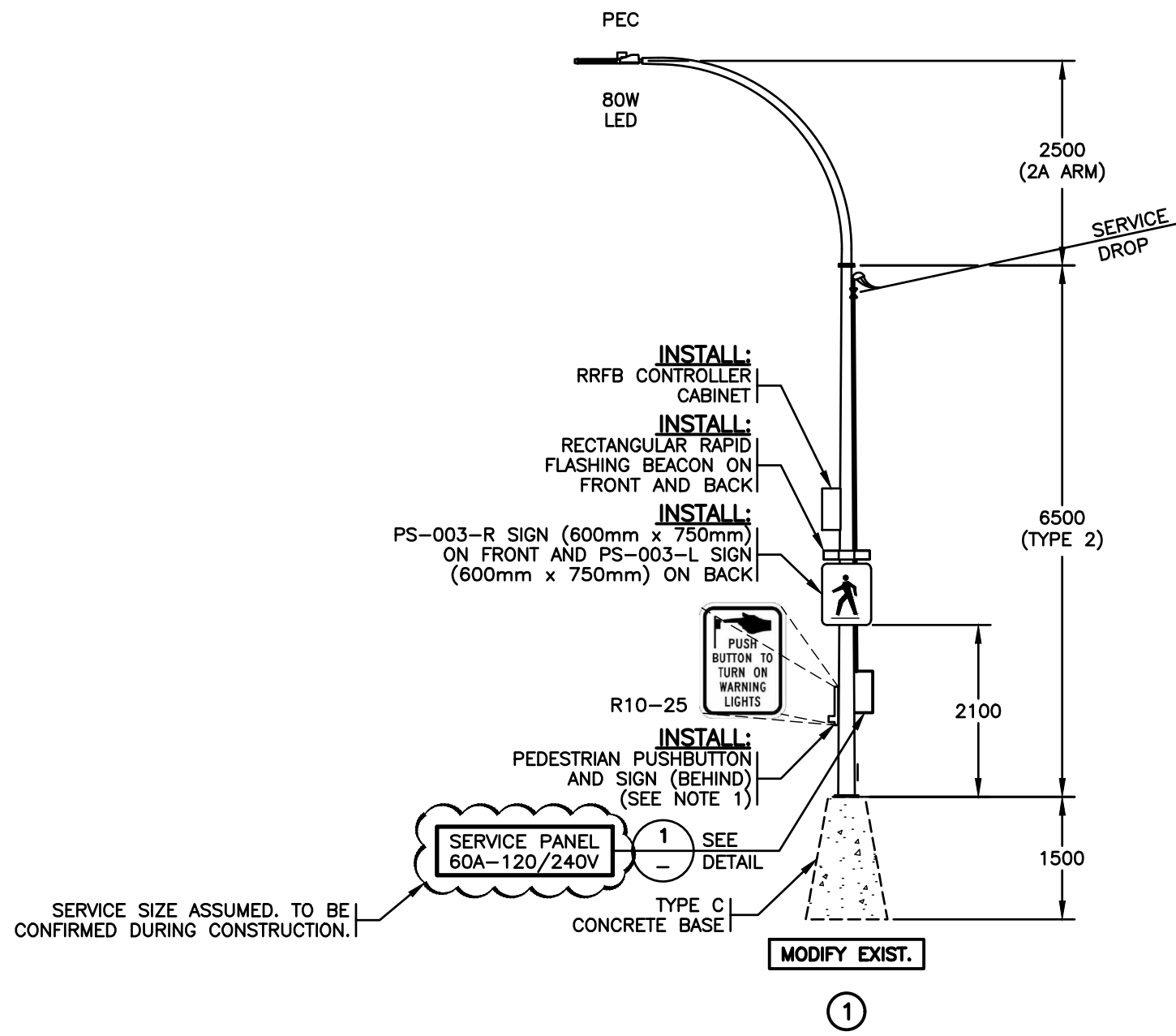


STREET LIGHTING & RRFBs
SITE PLAN ENLARGEMENT - CRAIGFLOWER ROAD AT GARTHLAND ROAD



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DRAWN BY	PBX	DESIGN BY	AJB	6
CHECKED BY	MD	APPROVED BY	MD	13
				REV. 1



DETAIL 1 1 WIRING DIAGRAM - SERVICE PANEL
N.T.S. - E06

ALL WORK ON THIS SHEET IS OPTIONAL

ALL EQUIPMENT IS PROPOSED
UNLESS NOTED OTHERWISE

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ELECTRICAL DRAWING: E07

33995

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DESIGN NO.

- NOTES:
1. PEDESTRIAN PUSHBUTTON SHALL BE POLARA INX AUDIBLE PUSHBUTTON. AUDIBLE MESSAGE SHALL BE "YELLOW LIGHTS ARE FLASHING"

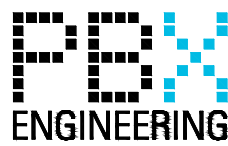
SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) - LATEST EDITION AND TOWNSHIP OF ESQUIMALT SUPPLEMENTAL SPECIFICATIONS FOR APPLICABLE STANDARDS AND DRAWINGS

REV NO	REVISIONS	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	25/05/22	PBX	MD



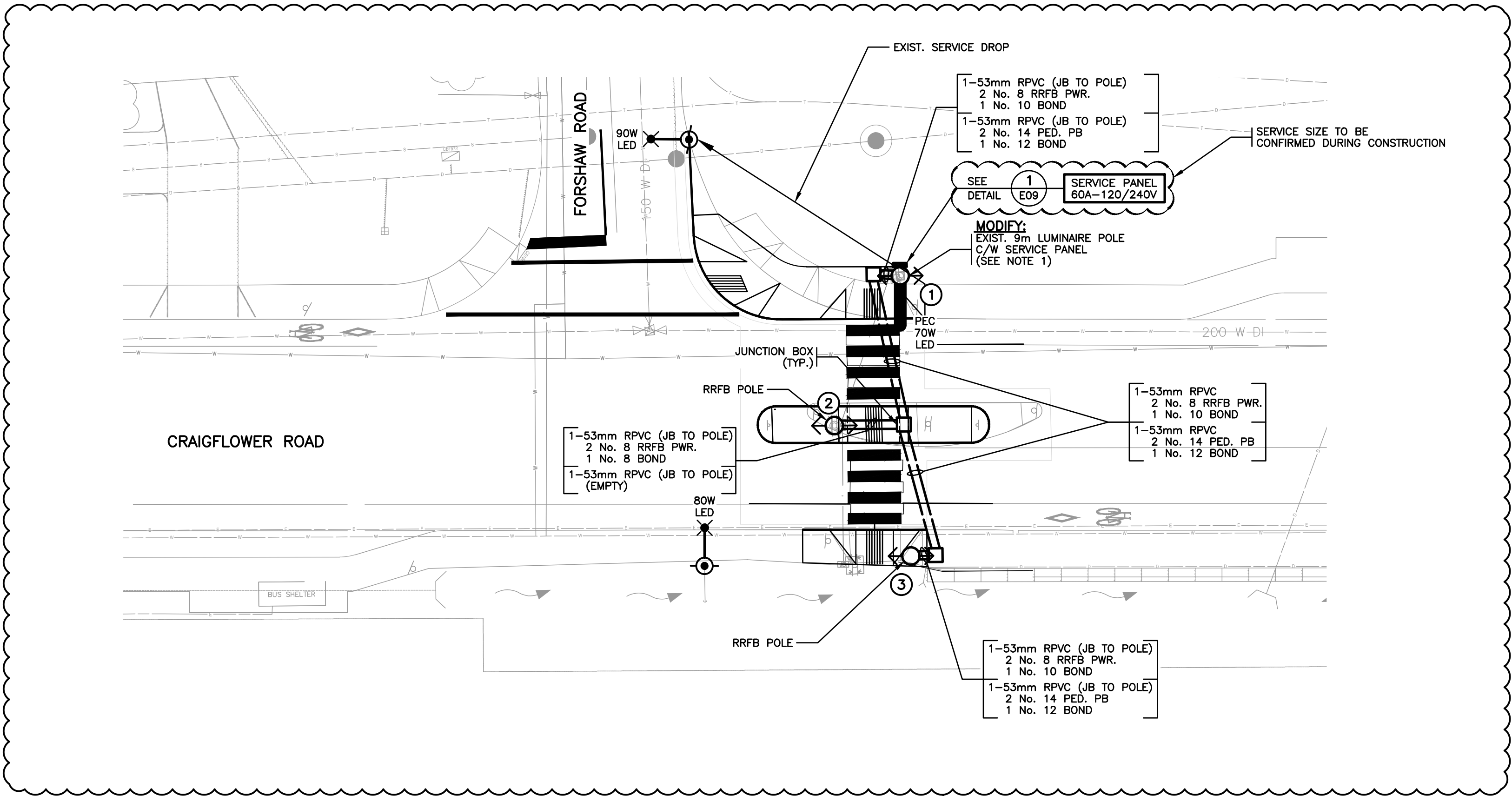
STREET LIGHTING & RRFBS

ELEVATIONS - CRAIGFLOWER ROAD AT GARTHLAND ROAD



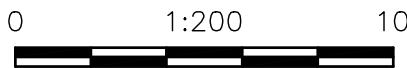
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SCALE	AS NOTED	DATE	25/05/22	DWG. NO.
DRAWN BY	PBX	DESIGN BY	AJB	7 OF 13
CHECKED BY	MD	APPROVED BY	MD	REV. 1



ALL WORK ON THIS
SHEET IS OPTIONAL

SITE PLAN ENLARGEMENT

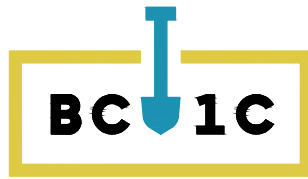


INTERSECTION LIGHTING DESIGN CRITERIA			
INTERSECTION NAME	CRAIGFLOWER ROAD AT FORSHAW ROAD		
ROAD CLASSIFICATION	MAJOR/LOCAL		
PEDESTRIAN CONFLICT	MEDIUM		
WATTAGE/TYPE/ LUMINAIRE MANUFACTURER/ MODEL NUMBER	70W/TYPE II/AMERICAN ELECTRIC/ATB0-30BLEDE70-MVOLT-R2-3K 80W/TYPE II/AMERICAN ELECTRIC/ATB0-30BLEDE85-MVOLT-R2-3K 90W/TYPE II/AMERICAN ELECTRIC/ATB0-20BLEDE13-MVOLT-R2-3K		
	RECOMMENDED ILLUMINANCE	ACHIEVED ILLUMINANCE	
ILLUMINATION LEVEL (AVG.)	20.0 LUX	20.0 LUX	
UNIFORMITY RATIO (AVG:MIN)	3.0:1	2.1:1	

NOTE: BASED ON IESNA RP-8-21 (TABLE 12-1)

NOTES:

1. EXISTING CONDUITS AND CONDUCTORS FROM EXISTING SERVICE PANEL SHALL BE CONNECTED INTO NEW CONDUIT SYSTEM AND MAINTAINED.



CHECK BEFORE YOU DIG
CONTRACTOR SHALL CONFIRM THE LOCATIONS
OF ALL UNDERGROUND UTILITIES.

POSTED SPEED LIMIT 40 km/h

SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS
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ELECTRICAL DRAWING: E08

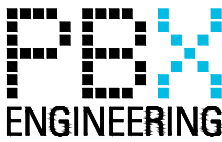
33995

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REV NO	REVISIONS	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	25/05/22	PBX	MD

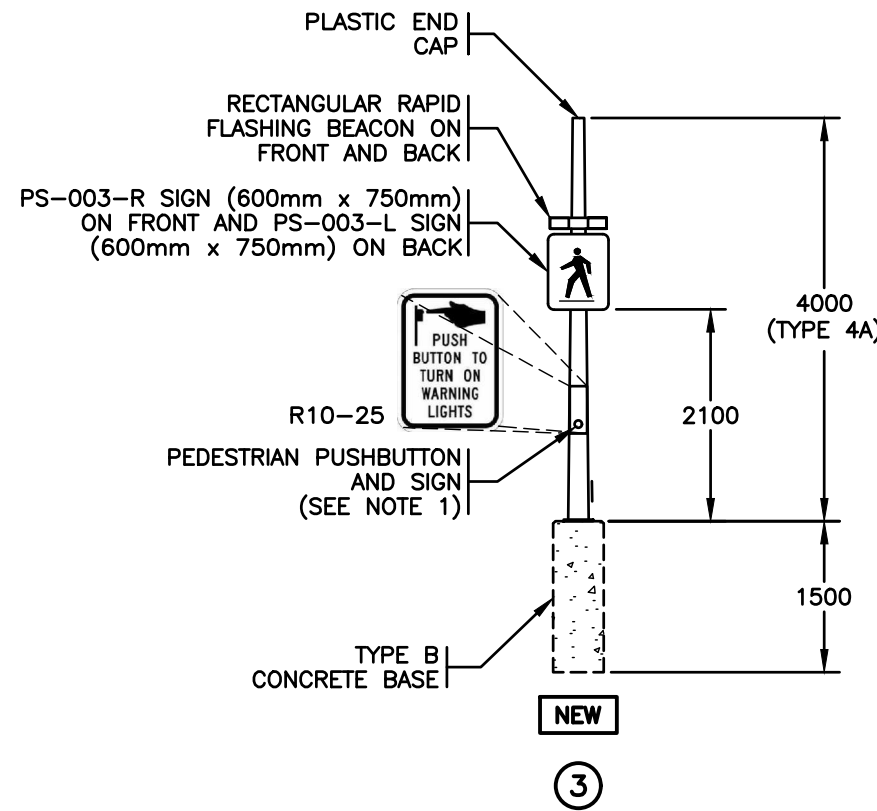
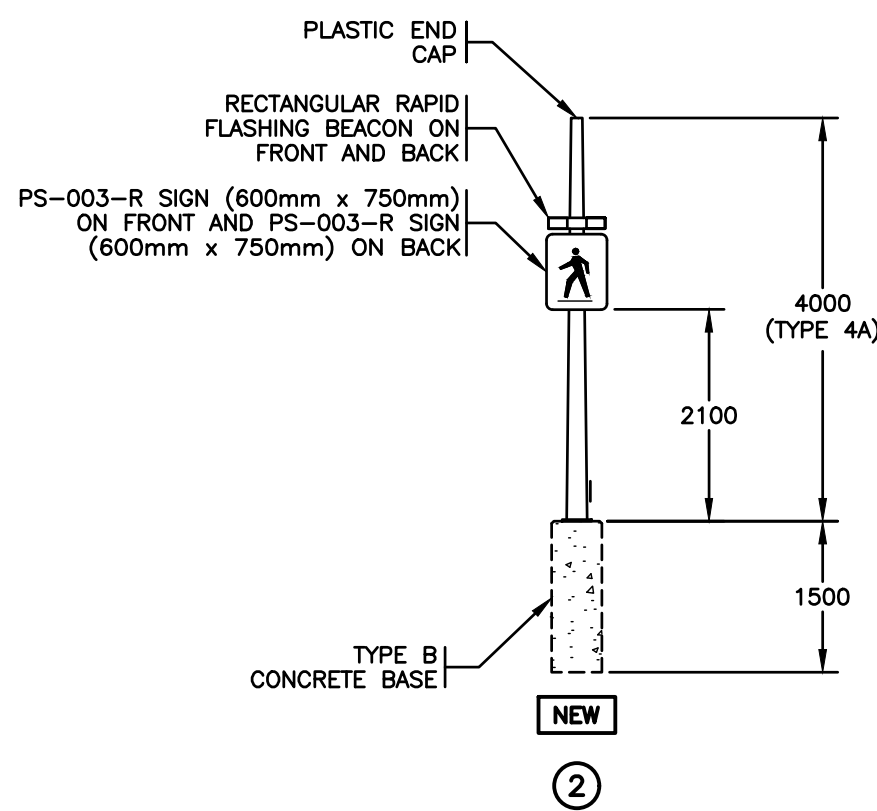
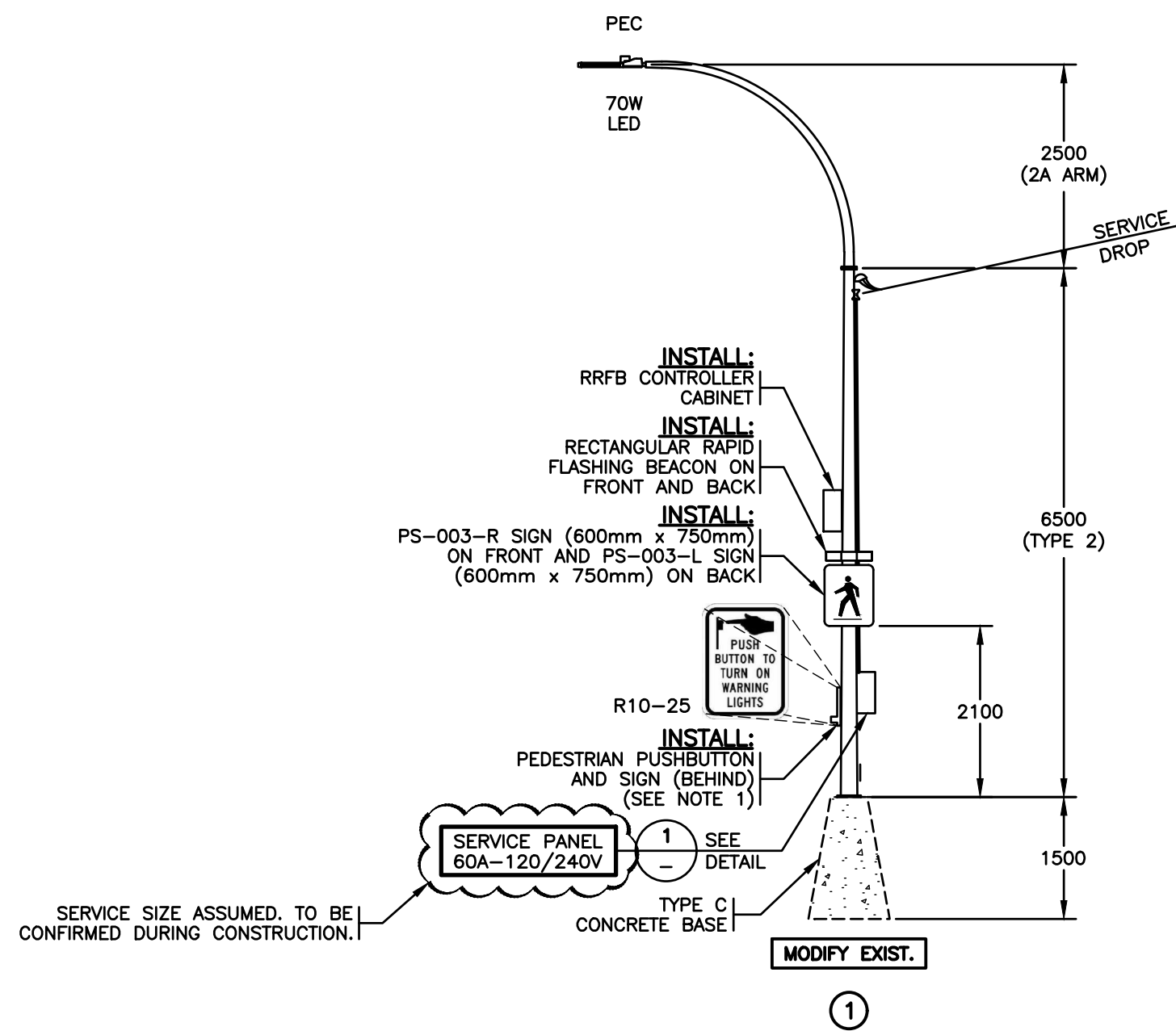


STREET LIGHTING & RRFBS
SITE PLAN ENLARGEMENT - CRAIGFLOWER ROAD AT FORSHAW ROAD

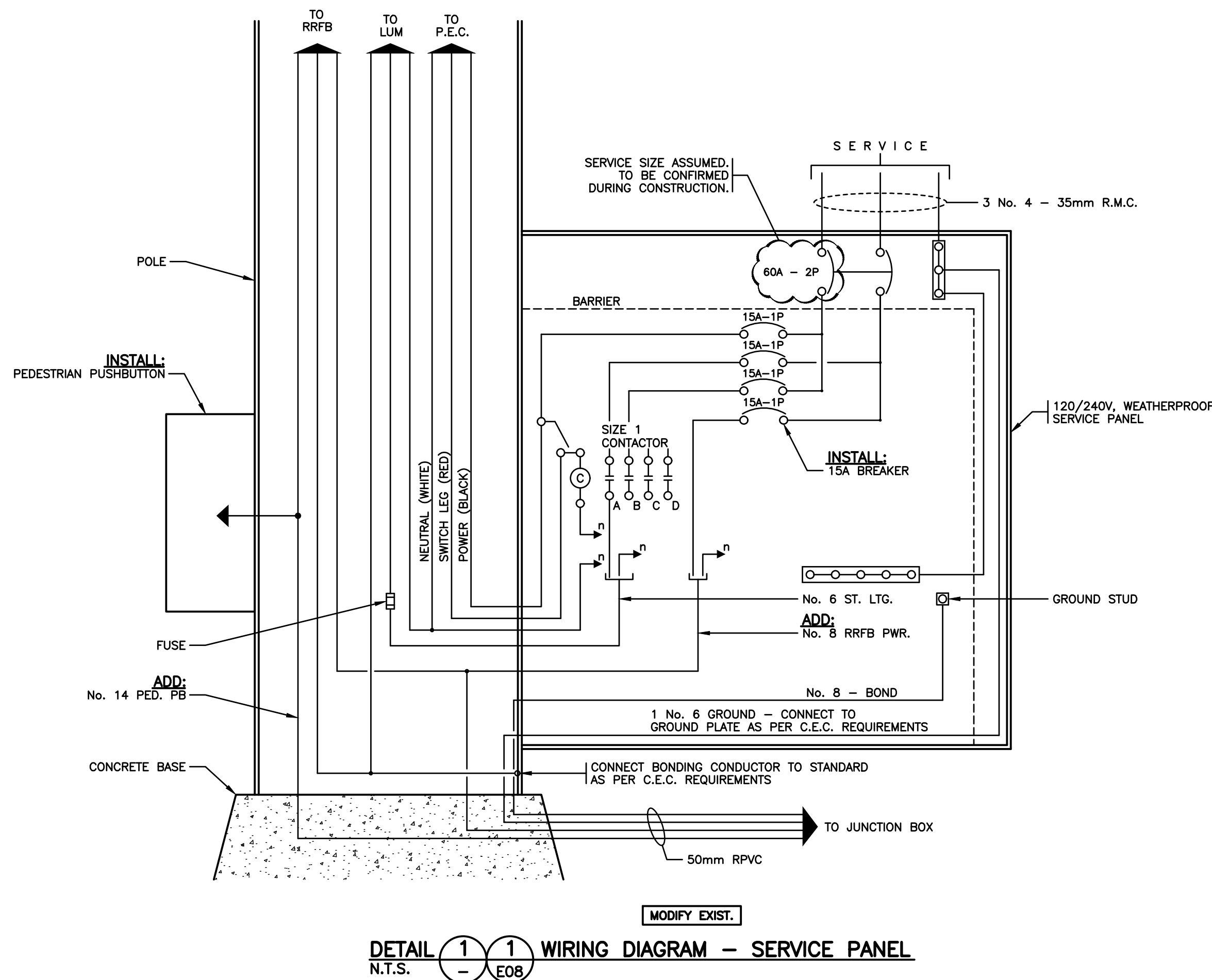


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ELEVATIONS
0 1:75 5



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ELECTRICAL DRAWING: E09

33995

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DESIGN NO.

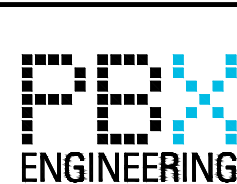
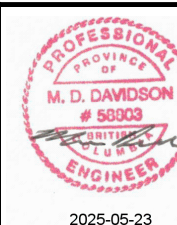
NOTES:

1. PEDESTRIAN PUSHBUTTON SHALL BE POLARA INX AUDIBLE PUSHBUTTON.
AUDIBLE MESSAGE SHALL BE "YELLOW LIGHTS ARE FLASHING".

SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) - LATEST EDITION AND TOWNSHIP OF ESQUIMALT SUPPLEMENTAL SPECIFICATIONS FOR APPLICABLE STANDARDS AND DRAWINGS

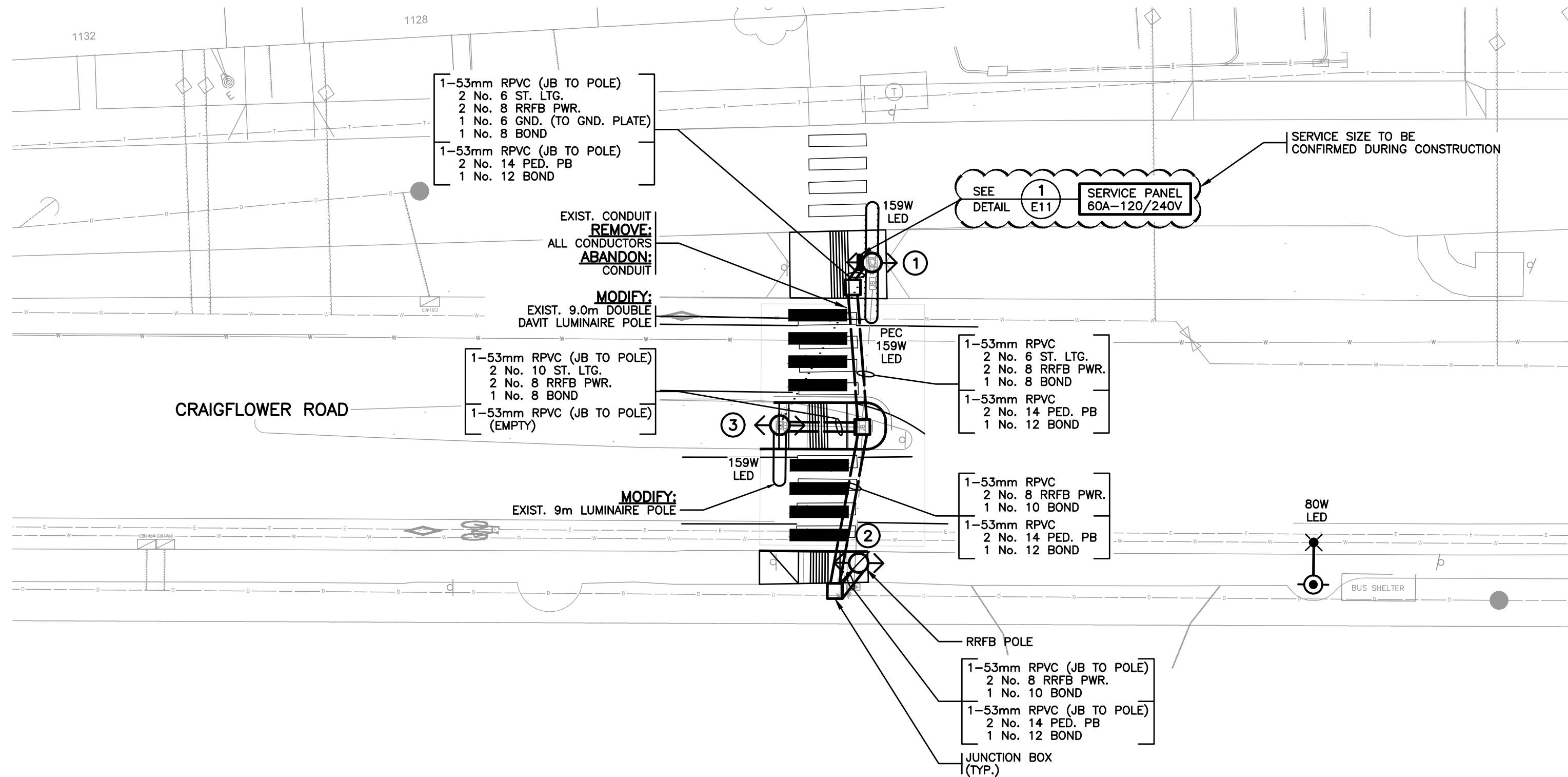
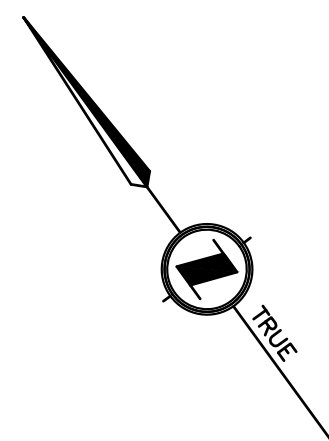


STREET LIGHTING & RRFBs
ELEVATIONS - CRAIGFLOWER ROAD AT FORSHAW ROAD

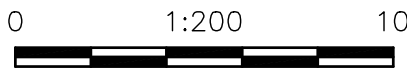


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SCALE	AS NOTED	DATE	25/05/22	DWG. NO.
DRAWN BY	PBX	DESIGN BY	AJB	9
CHECKED BY	MD	APPROVED BY	MD	13
				REV. 1

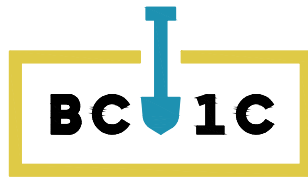


SITE PLAN ENLARGEMENT



PEDESTRIAN CROSSWALK LIGHTING DESIGN CRITERIA		
ROADWAY LOCATION	CRAIGFLOWER ROAD AT 1115 CRAIGFLOWER ROAD	
PEDESTRIAN CONFLICT	MEDIUM	
WATTAGE/TYPE/LUMINAIRE MANUFACTURER/MODEL NUMBER	80W/TYPE II/AMERICAN ELECTRIC/ATB0-30BLEDE85-MVOLT-R2-3K 159W/TYPE II/AMERICAN ELECTRIC/ATB0-P453-MVOLT-R2-3K	
	RECOMMENDED ILLUMINANCE	ACHIEVED ILLUMINANCE
VERT. CROSSWALK ILLUMINATION (AVG.)	30.0 LUX	31.0 LUX
HOR. ILLUMINATION LEVEL (AVG.)	9.0:1 LUX	62.8 LUX
HOR. UNIFORMITY RATIO (AVG:MIN)	3.0:1	1.3:1

NOTE: BASED ON IESNA RP-8-21 (SECTION 12.6.4)



CHECK BEFORE YOU DIG
CONTRACTOR SHALL CONFIRM THE LOCATIONS
OF ALL UNDERGROUND UTILITIES.

POSTED SPEED LIMIT 40 km/h

SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS
(MMCD) - LATEST EDITION AND TOWNSHIP OF
ESQUIMALT SUPPLEMENTAL SPECIFICATIONS FOR
APPLICABLE STANDARDS AND DRAWINGS

ALL EQUIPMENT IS PROPOSED
UNLESS NOTED OTHERWISE

ISSUED FOR TENDER
NOT FOR CONSTRUCTION

ELECTRICAL DRAWING: E10

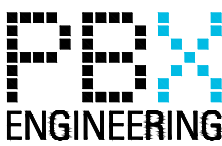
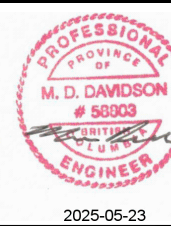
33995

ISSUED FOR TENDER DESIGN NO.

REV NO	REVISIONS	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	25/05/22	PBX	MD

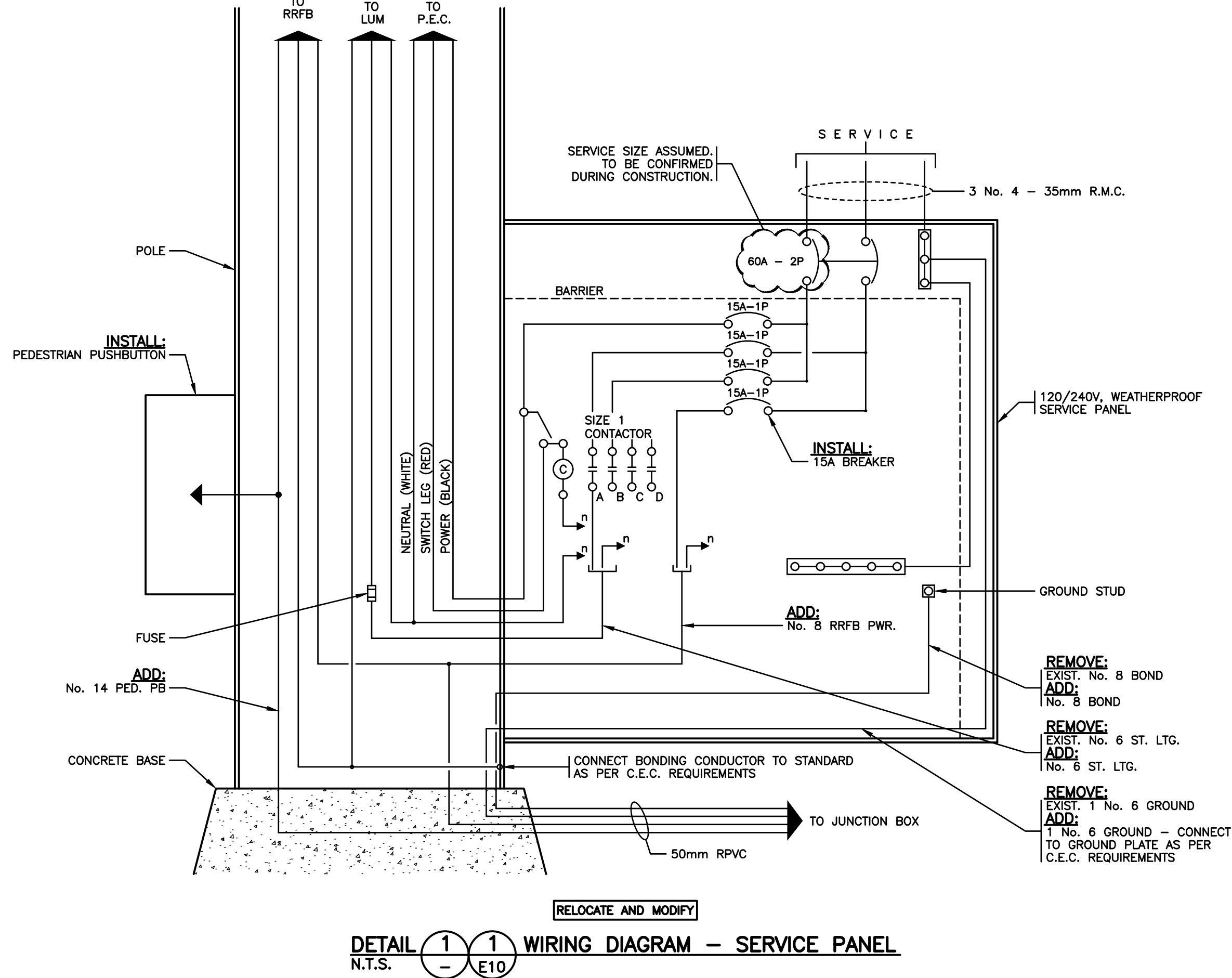
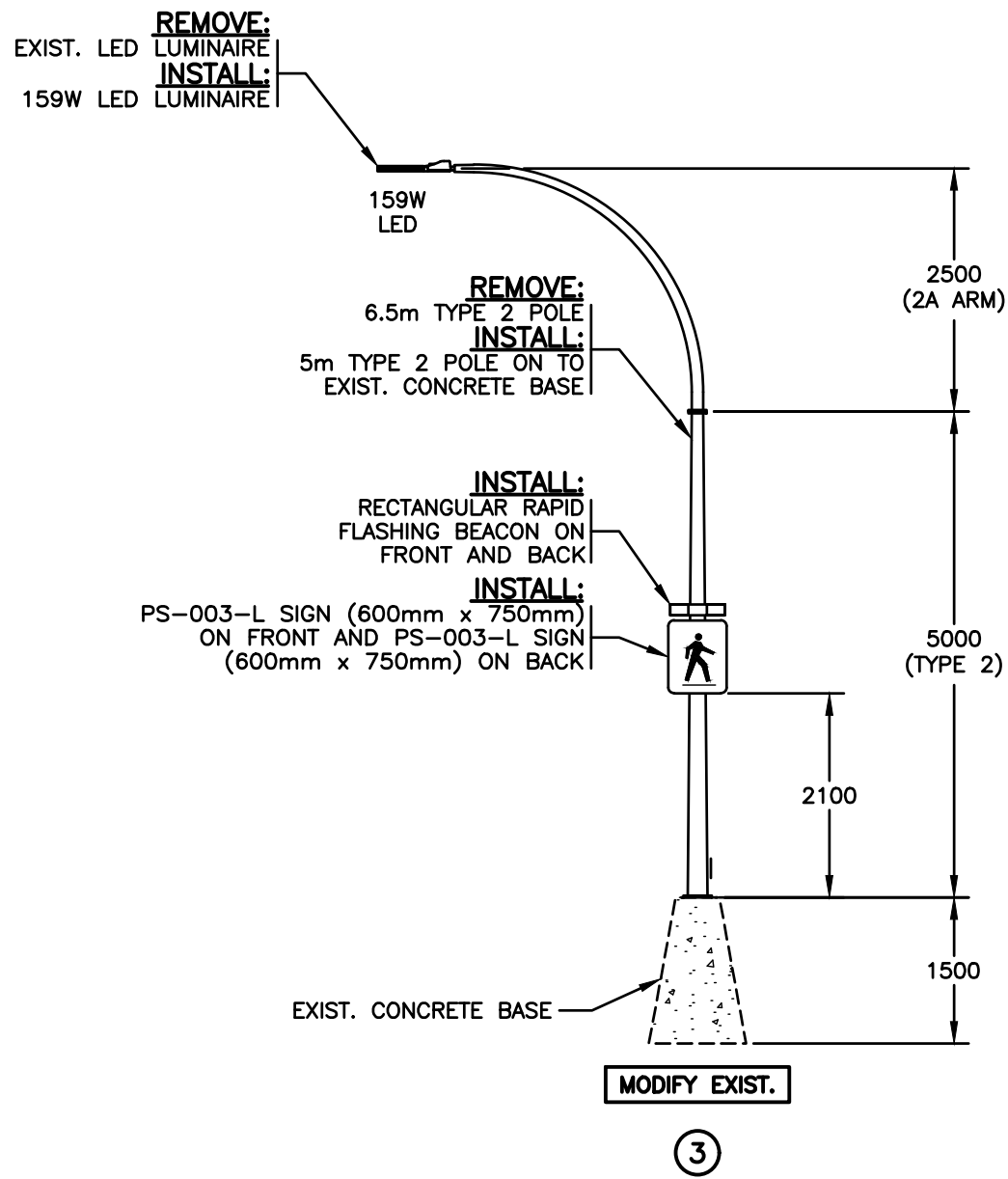
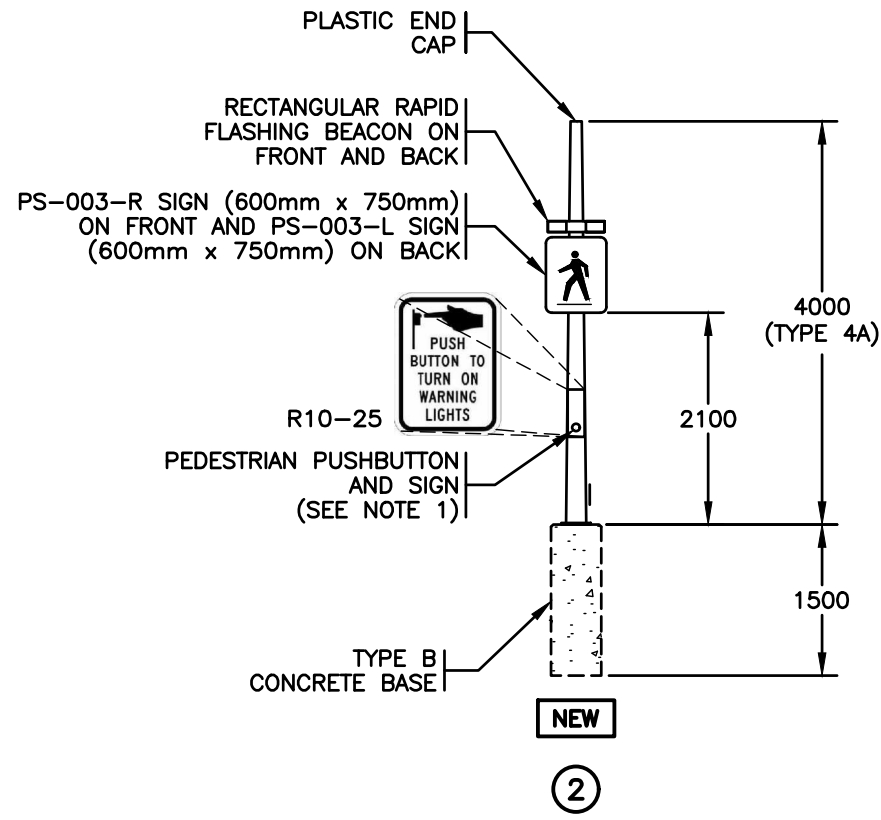
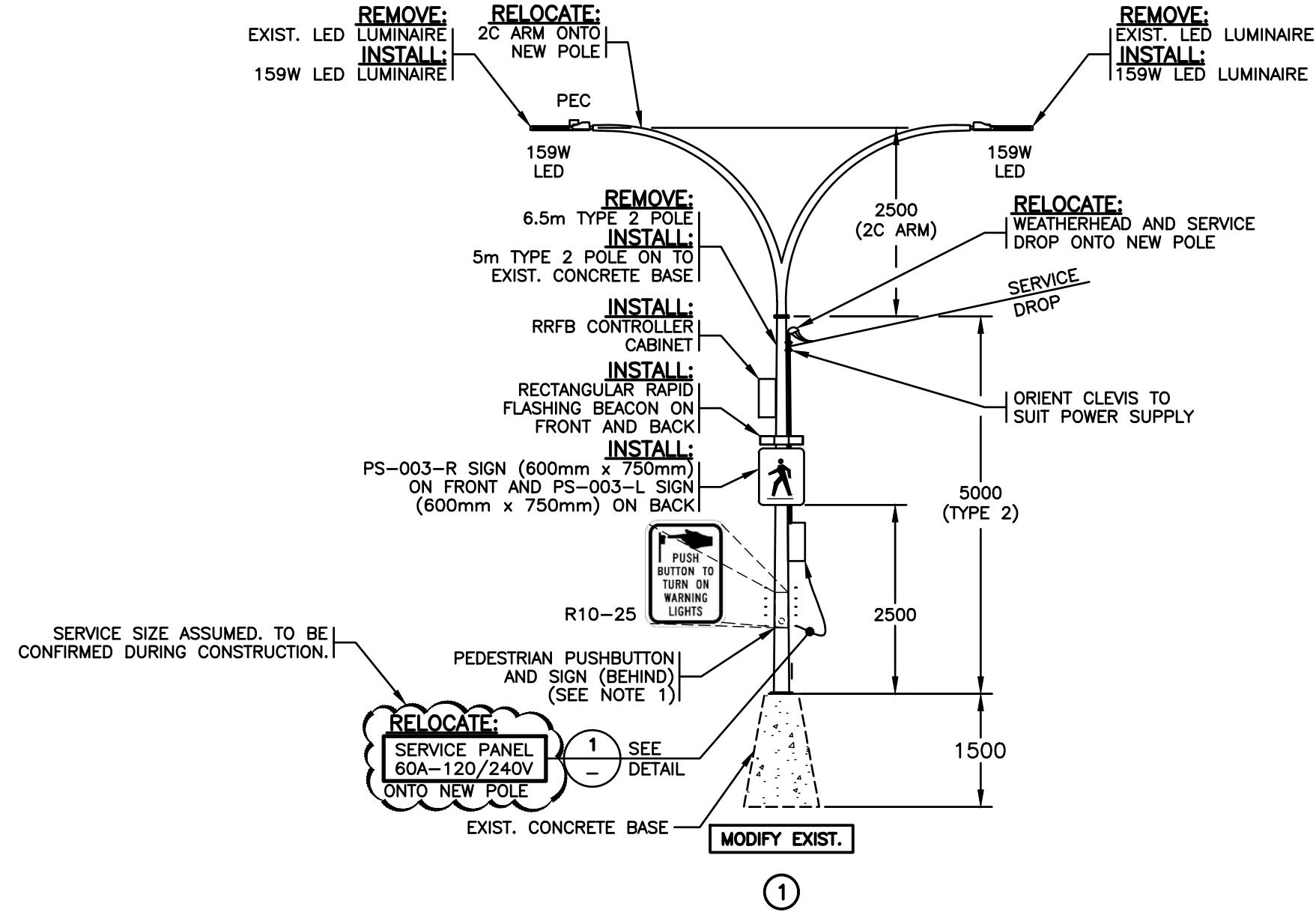


STREET LIGHTING & RRFBS
SITE PLAN ENLARGEMENT - 1115 CRAIGFLOWER ROAD



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DRAWN BY	PBX	DESIGN BY	AJB	10
CHECKED BY	MD	APPROVED BY	MD	13
				REV. 1



NOTES:

1. PEDESTRIAN PUSHBUTTON SHALL BE POLARA INX AUDIBLE PUSHBUTTON. AUDIBLE MESSAGE SHALL BE "YELLOW LIGHTS ARE FLASHING".

SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) - LATEST EDITION AND TOWNSHIP OF ESQUIMALT SUPPLEMENTAL SPECIFICATIONS FOR APPLICABLE STANDARDS AND DRAWINGS

ALL EQUIPMENT IS PROPOSED
UNLESS NOTED OTHERWISE

ISSUED FOR TENDER
NOT FOR CONSTRUCTION

ELECTRICAL DRAWING: E11

33995

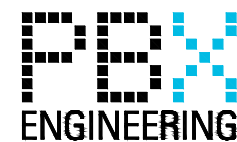
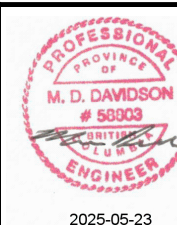
ISSUED FOR TENDER

DESIGN NO.

REV NO	REVISIONS	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	25/05/22	PBX	MD

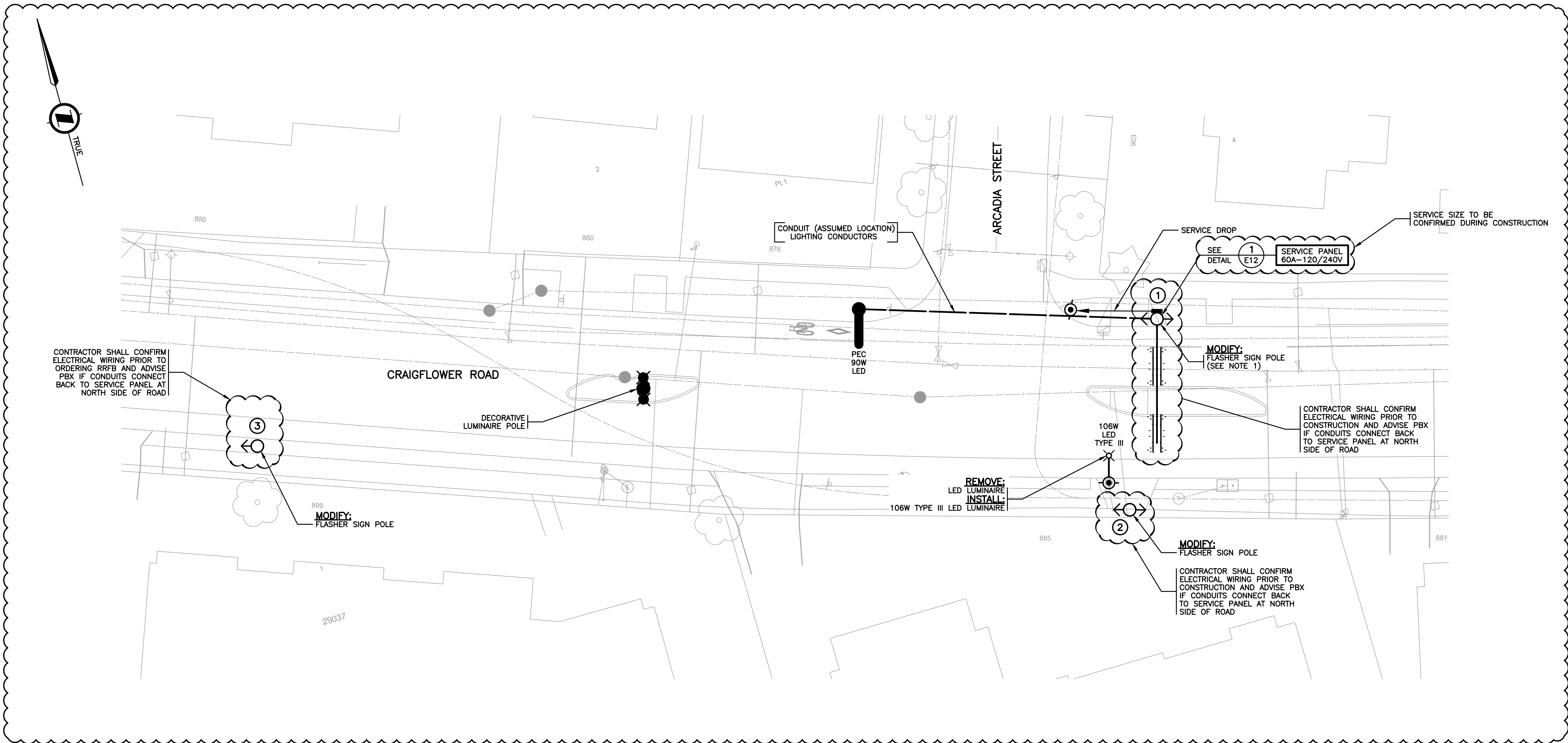


STREET LIGHTING & RRFBs
ELEVATIONS - 1115 CRAIGFLOWER ROAD



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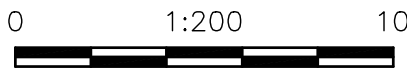
SCALE	AS NOTED	DATE	25/05/22	DWG. NO.
DRAWN BY	PBX	DESIGN BY	AJB	11
CHECKED BY	MD	APPROVED BY	MD	OF 13
				REV. 1



INTERSECTION LIGHTING DESIGN CRITERIA		
INTERSECTION NAME	CRAIGFLOWER ROAD AT ARCADIA STREET	
ROAD CLASSIFICATION	MAJOR/LOCAL	
PEDESTRIAN CONFLICT	MEDIUM	
WATTAGE/TYPE/LUMINAIRE MANUFACTURER/MODEL NUMBER	90W/TYPE II/AMERICAN ELECTRIC/ATB0-20BLEDE13-MVOLT-R2-3K 106W/TYPE III/AMERICAN ELECTRIC/ATB0-P303-MVOLT-R3-3K	
	RECOMMENDED ILLUMINANCE	ACHIEVED ILLUMINANCE
ILLUMINATION LEVEL (AVG.)	20.0 LUX	25.7 LUX
UNIFORMITY RATIO (AVG:MIN)	3.0:1	3.0:1

NOTE: BASED ON IESNA RP-8-21 (TABLE 12-1)

SITE PLAN ENLARGEMENT



ALL WORK ON THIS SHEET IS OPTIONAL

ALL EQUIPMENT IS EXISTING
UNLESS NOTED OTHERWISE

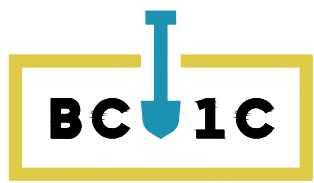
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NOT FOR CONSTRUCTION

ELECTRICAL DRAWING: E12

33995

NOTES:

1. EXISTING CONDUITS AND CONDUCTORS FROM EXISTING SERVICE PANEL SHALL BE CONNECTED INTO NEW CONDUIT SYSTEM AND MAINTAINED.



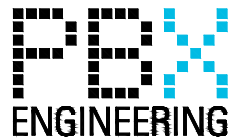
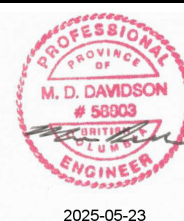
CHECK BEFORE YOU DIG
CONTRACTOR SHALL CONFIRM THE LOCATIONS
OF ALL UNDERGROUND UTILITIES.

POSTED SPEED LIMIT 40 km/h

SEE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS
(MMCD) - LATEST EDITION AND TOWNSHIP OF
ESQUIMALT SUPPLEMENTAL SPECIFICATIONS FOR
APPLICABLE STANDARDS AND DRAWINGS



STREET LIGHTING & RRFBS
SITE PLAN ENLARGEMENT - CRAIGFLOWER ROAD AT ARCADIA STREET

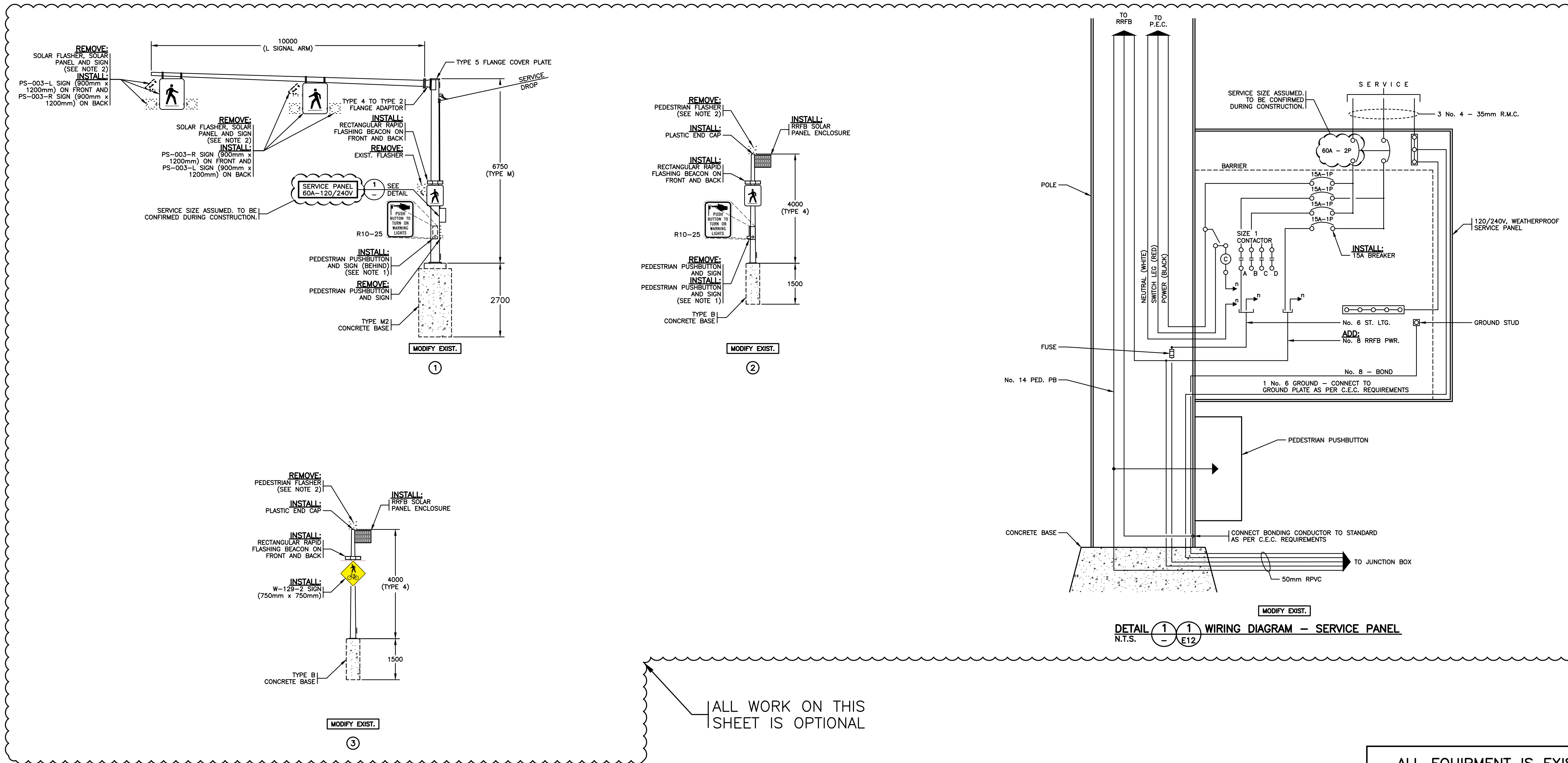


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SCALE	AS NOTED	DATE	25/05/22	DWG. NO.	12
DRAWN BY	PBX	DESIGN BY	AJB	OF	13
CHECKED BY	MD	APPROVED BY	MD	REV.	1



ALL WORK ON THIS SHEET IS OPTIONAL

ALL EQUIPMENT IS EXISTING
UNLESS NOTED OTHERWISE

**ISSUED FOR TENDER
NOT FOR CONSTRUCTION**

ELECTRICAL DRAWING: E13

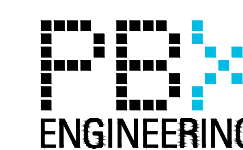
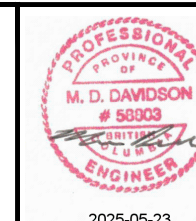
33995

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APPLICABLE STANDARDS AND DRAWINGS

STREET LIGHTING & RRFBS

ELEVATIONS - CRAIGFLOWER ROAD AT ARCADIA STREET



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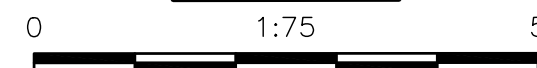
SCALE	AS NOTED	DATE	25/05/22	DWG. NO. 13 OF 13
DRAWN BY	PBX	DESIGN BY	AJB	
CHECKED BY	MD	APPROVED BY	MD	
				REV. 1

DESTROY ALL PRINTS BEARING PREVIOUS NO

NOTES:

1. PEDESTRIAN PUSHBUTTON SHALL BE POLARA INX AUDIBLE PUSHBUTTON
AUDIBLE MESSAGE SHALL BE "YELLOW LIGHTS ARE FLASHING".
2. RETURN FLASHER EQUIPMENT TO ESQUIMALT PUBLIC WORKS YARD.

ELEVATIONS



REV NO	REVISIONS	DATE	DRAWN	APPR'D
1	ISSUED FOR TENDER	25/05/22	PBX	MD

