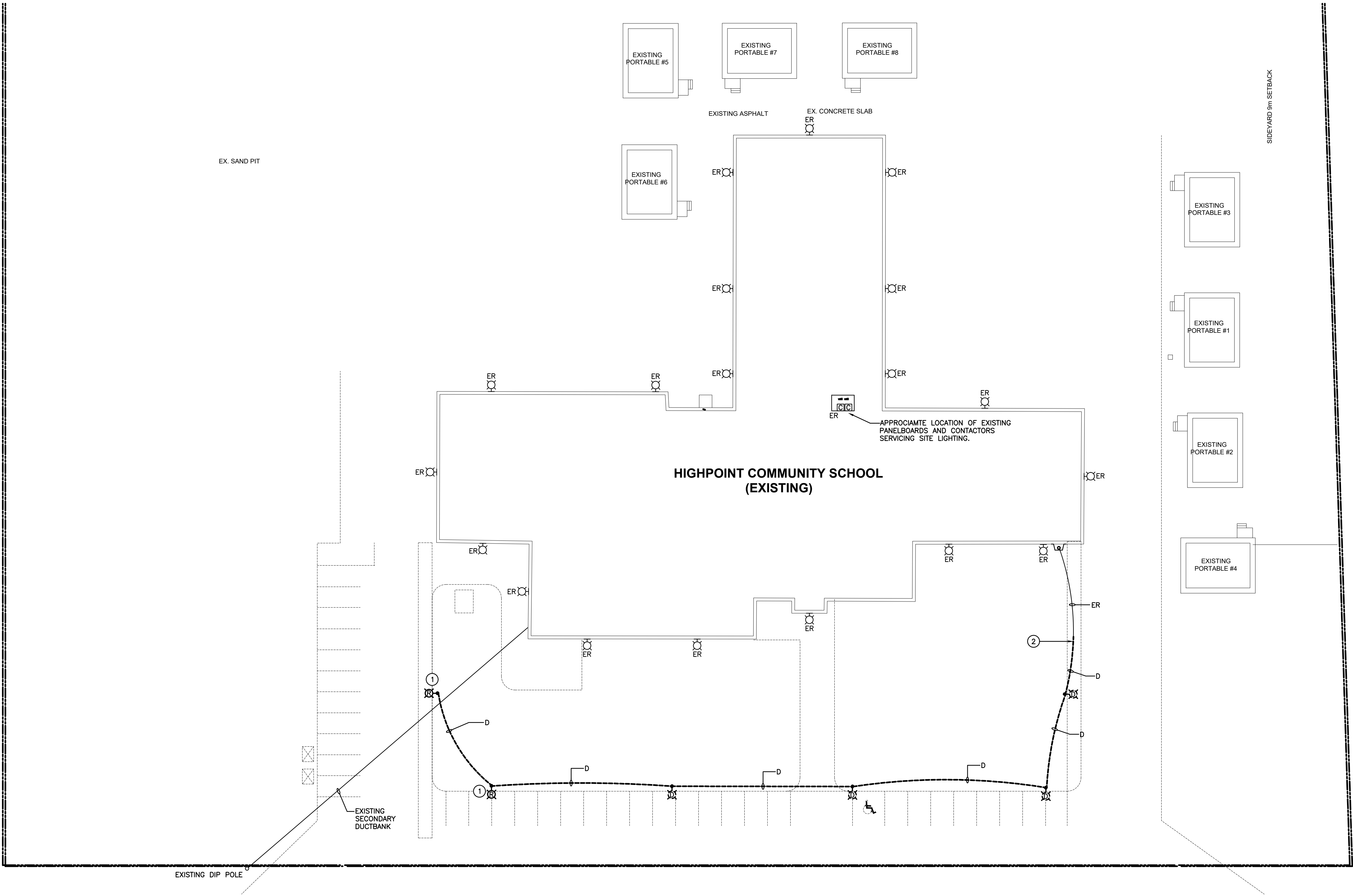


The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. The drawings shall be prepared and issued by the Consultant. The Contractor shall be responsible for the accuracy of the drawings. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are to be kept on site and not to be reproduced or copied without the consent of the Consultant. DEI 2025 215 & Associates Inc.



SITE PLAN — DEMOLITION
SCALE: 1:300

CARE SHALL BE TAKEN AROUND SECONDARY DUCTBANK. CONTRACTOR SHALL OBTAIN LOCATES PRIOR TO ANY EXCAVATION ACTIVITIES TAKING PLACE. SECONDARY DUCTBANK SHALL REMAIN AS PRESENTLY INSTALLED. PROVIDE ADEQUATE PROTECTION, SUPPORT, ETC. FOR ALL WORK WITHIN THIS AREA. DO NOT CAUSE DAMAGE TO EXISTING INFRASTRUCTURE.

ANY DAMAGES SHALL BE REPAIRED TO THE SATISFACTION OF THE CONSULTANT, THE OWNER, AND THE LOCAL DISTRIBUTION COMPANY AT THE EXPENSE OF THE CONTRACTOR.

GENERAL NOTES

- 'ER' DENOTES EXISTING ITEM TO REMAIN.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- 'R' INDICATES EXISTING ITEM TO BE RELOCATED. REFER TO RENOVATION DRAWINGS AND RELOCATE DEVICE AND WIRING TO SUIT. UNLESS OTHERWISE NOTED.
- 'D' INDICATES EXISTING ITEM TO BE DELETED. UNLESS OTHERWISE NOTED DISCONNECT AND REMOVE NOTED DEVICE AND WIRING BACK TO SOURCE.
- ALL LIGHTING FIXTURES BEING RELOCATED SHALL BE CLEANED AND CHECKED PRIOR TO BEING REINSTALLED.

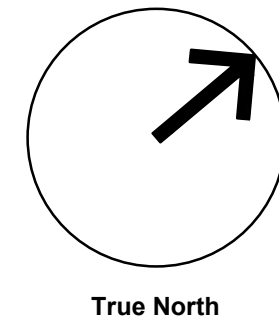
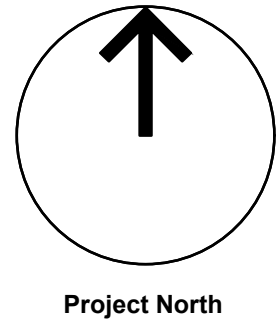
SPECIFIC NOTES

- 1 EXISTING LIGHT STANDARD IS TO BE RELOCATED. REMOVE EXISTING POLE AND ASSOCIATED FIXTURE. EXCAVATE AND REMOVE POLE BASE. PROVIDE NEW POLE BASE AT INDICATED LOCATION. MOUNT EXISTING POLE ON NEW CONCRETE BASE.
- 2 CAP EXISTING DUCTBANK AT INDICATED LOCATION.REMOVE SITE LIGHTING DUCTBANK TO SUIT WORK.

ELECTRICAL SYMBOLS

NOTE: ALL SYMBOLS MAY NOT BE USED

	CEILING OR WALL MOUNTED LIGHT FIXTURE TYPE AS INDICATED
	POLE MOUNTED LIGHT FIXTURE
	PANEL AS INDICATED
	CONTACTOR
	JUNCTION BOX
	NOTE INDICATOR
	DETAIL INDICATOR
	PHOTOMETRIC LEVEL (foot candle)
ER	INDICATED EXISTING ITEM TO REMAIN
D	INDICATES EXISTING ITEM TO BE DELETED
R	INDICATES EXISTING ITEM TO BE RELOCATED/IN RELOCATED POSITION



The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing. © 2025 DEI Consulting Engineers

2	28/03/2025	ISSUED FOR SPA
1	18/03/2025	ISSUED FOR TENDER
No.	Date	Revision

Client:



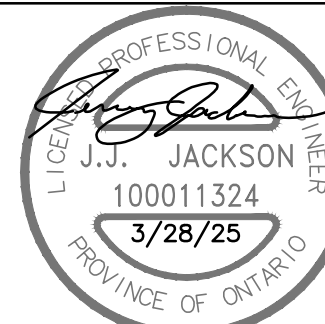
Project Name / Address:

BWDSB HIGHPOINT COMMUNITY SCHOOL

SRM architects+ urban*designers	Project No:	23014
	Drawing Date:	2025-03-05
	Drawn by:	ST
	Checked by:	SD
	Office Location:	WATERLOO
Plot Date / Time:		2025-03-28

Drawing Name:

SITE PLAN - DEMOLITION



Drawing Scale: AS NOTED
Status: TENDER
Revision No.: 1
Drawing No.: E1.1

E1.2

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of any work. The drawings do not indicate all offsets, fittings and accessories which may be required. Provide the items to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are to be returned to the consultant or anyone without the consent of the consultant. Do not reuse this drawing. © 2025 DEI & Associates Inc.

FIRESTOPPING

- 1. FIRESTOPPING MATERIAL AND INSTALLATION WITHIN ANNULAR SPACE BETWEEN CONDUITS, DUCTS, AND ADJACENT FIRE SEPARATION.
- 2. PROVIDE MATERIALS AND SYSTEMS CAPABLE OF MAINTAINING EFFECTIVE BARRIER AGAINST FLAME, SMOKE, AND GASES.
- 3. COMPLY WITH THE REQUIREMENTS OF CAN4--S115-M35, AND DO NOT EXCEED OPENING SIZED FOR WHICH THEY HAVE BEEN TESTED.
- 4. SYSTEMS TO HAVE AN F OR FT RATING (AS APPLICABLE) NOT LESS THAN THE FIRE PROTECTION RATING REQUIRED FOR CLOSURES IN A FIRE SEPARATION. PROVIDE "FIREWRAP" BLANKET AROUND SERVICES PENETRATING FIREWALLS.
- 5. EXTENT OF BLANKET MUST CORRESPOND TO ULC RECOMMENDATIONS. IN GENERAL, WRAP INDIVIDUAL CONDUITS WITH APPROVED FIREWRAP MATERIALS ON EACH SIDE OF FIREWALL. REFER TO ARCHITECTURAL DRAWINGS FOR FT RATINGS. PROVIDE 1 AND/OR 2 LAYERS OF FIREWRAP WITH TRANSVERSE AND LONGITUDINAL SEAMS OVERLAPPED AND/OR BUTTED (SECOND LAYER OFFSET FROM FIRST LAYER). CUT EDGES ARE TO BE SEALED WITH ALUMINUM FOIL TAPE. PROVIDE 50 MM STAINLESS STEEL BANDING AT 200 MM INTERVALS. INSTALL FIREWRAP TO MANUFACTURERS' RECOMMENDATIONS FOR PROPER FT RATING. ACCEPTABLE MANUFACTURERS ARE 3M FIREMASTER DUCTWRAP OR APPROVED EQUAL.
- 6. THE FIRESTOPPING MATERIALS ARE NOT TO SHRINK, SLUMP OR SAG AND BE FREE OF ASBESTOS, HALOGENS AND VOLATILE SOLVENTS.
- 7. FIRESTOPPING MATERIALS ARE TO CONSIST OF A COMPONENT SEALANT APPLIED WITH A CONVENTIONAL CAULKING GUN AND TROWEL.
- 8. FIRESTOP MATERIALS ARE TO BE CAPABLE OF RECEIVING FINISH MATERIALS IN THOSE AREAS, WHICH ARE EXPOSED AND SCHEDULED TO RECEIVE FINISHES.
- 9. FIRESTOPPING SHALL BE INSPECTED AND APPROVED BY LOCAL AUTHORITY PRIOR TO CONCEALMENT OR ENCLOSURE.
- 10. INSTALL MATERIAL AND COMPONENTS IN ACCORDANCE WITH ULC CERTIFICATION, MANUFACTURERS INSTRUCTIONS AND LOCAL AUTHORITY.
- 11. SUBMIT PRODUCT LITERATURE AND INSTALLATION MATERIAL ON FIRESTOPPING IN SHOP DRAWING AND PRODUCT DATA MANUAL.
- 12. ACCEPTABLE MANUFACTURERS: RECTORSEAL CORPORATION (METACAULK) PROSET SYSTEMS 3M HILTI STI FIRESTOP
- NOTE: FIRE STOP MATERIAL MUST CONFORM TO REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION. CONTRACTOR TO CONFIRM PRIOR TO APPLICATION AND ENSURE MATERIAL USED IS COMPATIBLE WITH THAT USED BY OTHER TRADES ON SITE.
- 13. ENSURE FIRESTOP MANUFACTURER REPRESENTATIVE PERFORMS ON SITE INSPECTIONS AND CERTIFIES INSTALLATION. SUBMIT INSPECTION REPORTS/CERTIFICATION AT TIME OF SUBSTANTIAL COMPLETION.

OCCUPANCY REQUIREMENTS

- 1. FINAL CERTIFICATES
 - 1. ELECTRICAL SAFETY AUTHORITY

READY FOR TAKEOVER

- 1. COMPLETE THE FOLLOWING TO THE SATISFACTION OF THE CONSULTANT PRIOR TO REQUEST FOR READY FOR TAKEOVER.
 - 1. AS-BUILT DRAWINGS.
 - 2. MAINTENANCE MANUALS.
 - 3. SYSTEM START UP.
 - 4. INSTRUCTIONS TO OWNERS.
 - 5. LIGHTING CONTROL SYSTEM.

LIGHTING SYSTEMS

FIXTURES ARE TO BE PROVIDED AS NOTED IN THE LIGHT FIXTURE SCHEDULE C/W THE FOLLOWING FEATURES:

- 1. LED
 - 1. FIXTURE LED'S MUST BE TESTED IN CONFORMANCE WITH IESNA LM80 STANDARD.
 - 2. LED'S MUST BE SELECTED USING A BINNING ALGORITHM TO ENSURE COLOUR AND LUMEN OUTPUT OF A GIVEN FIXTURE ARE CONSISTENT, AS WELL AS MEET OR SURPASS ANSI C78-377 SPECIFICATION FOR THE RATED LIFETIME OF THE FIXTURE. COLOUR ACCURACY BETWEEN PRODUCTS MUST BE WITHIN A 2-STEP MACADAM ELLIPSE.
 - 3. LUMINAIRES MUST BE TESTED TO IESNA LM79 BY AN INDEPENDENT APPROVED LABORATORY.
 - 4. LUMINAIRES MUST BE TESTED PRIOR TO SHIPPING.
 - 5. LUMINAIRES MUST BE ULC CERTIFIED AND APPROVED FOR USE IN CANADA.
 - 6. FIXTURES MUST MAINTAIN A MINIMUM OF 90% OF THEIR INITIAL LIGHT OUTPUT FOR 60,000 HOURS. SUBMIT TEST RESULTS UPON REQUEST.
 - 7. LUMEN VALUES INDICATED FOR FIXTURES IN THE PROJECT DOCUMENTS ARE TO BE CONSIDERED AS 'ABSOLUTE' OR 'DELIVERED' VALUES.
 - 8. OTHER THAN FOR SPECIALTY FIXTURES, AND UNLESS OTHERWISE INDICATED, THE MAXIMUM DRIVER CURRENT IS TO BE 750 MA.
- 6. FIXTURE INSTALLATION
 - 1. LOCATE AND INSTALL LUMINAIRES AS INDICATED.
 - 2. CONNECT LUMINAIRES TO LIGHTING CIRCUITS AS INDICATED.
 - 3. ALIGN LUMINAIRES MOUNTED IN CONTINUOUS ROWS TO FORM STRAIGHT UNINTERRUPTED LINES.
 - 4. ALIGN LUMINAIRES MOUNTED INDIVIDUALLY PARALLEL OR PERPENDICULAR TO BUILDING GRID LINES.
 - 5. ALL LIGHTING BRANCH CIRCUITS ARE TO BE PROVIDED WITH SEPARATE NEUTRALS.
- 7. GUARANTEE
 - 1. ALL LED FIXTURES AND DRIVERS ARE TO BE COMPLETE WITH A 5 YEAR GUARANTEE.
 - 2. THE LABOUR REQUIRED TO REPLACE THESE DRIVERS MUST BE INCLUDED IN THE ABOVE GUARANTEE
- ASBESTOS
 - 1. IF ASBESTOS IS SUSPECTED OR IDENTIFIED CEASE ALL WORK IN THE IMMEDIATE AREA IN ACCORDANCE WITH OHS&A AND NOTIFY CONSULTANT.
 - 2. EACH CONTRACTOR AND ON SITE EMPLOYEE OF THE CONTRACTOR SHALL HAVE 'ASBESTOS AWARENESS TRAINING'.
 - 3. THE CONTRACTOR SHALL ENSURE THAT EMPLOYEES WHO MAY COME INTO CONTACT WITH ASBESTOS DUE TO THE NATURE OF THE WORK THAT THEY PERFORM, HAVE RECEIVED TRAINING THAT ENABLES THEM TO RECOGNIZE ASBESTOS AND THAT ENABLES THEM TO REACT IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS THERETO SHOULD CONTACT WITH ASBESTOS OCCUR DURING THE COURSE OF THEIR WORK.
 - 4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE ASBESTOS BOOK IN THE BUILDING PRIOR TO STARTING ANY WORK.
 - 5. EXISTING OCCUPIED BUILDINGS (DEPENDING UPON THEIR AGE) MAY CONTAIN ASBESTOS IN THERMAL INSULATING MATERIALS AND SOME MANUFACTURED PRODUCTS, SUCH AS VINYL ASBESTOS FLOOR TILE, ANY INSULATING MATERIALS, ON PIPES, FITTINGS, BOILERS, TANKS, DUCTWORK, ETC. MAY CONTAIN ASBESTOS AND SHALL NOT BE DISTURBED.
 - 6. A SURVEY OF THE BUILDING DOCUMENTING THE LOCATION AND CONDITION OF ASBESTOS-CONTAINING MATERIALS IS AVAILABLE FOR YOUR MANDATORY REVIEW PRIOR TO COMMENCING ANY WORK ON PREMISES.

ELECTRICAL SPECIFICATION

GENERAL NOTES

- 1. PROVIDE LABOUR MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE INSTALLATION WITH QUALITY WORKMANSHIP ACCEPTABLE TO THE OWNER, ARCHITECT AND CONSULTANT.
- 2. OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES AND OTHER COSTS INCURRED WITH THIS WORK. FILE ALL PLANS. OBTAIN NECESSARY APPROVALS, CERTIFICATES AND INSPECTIONS. SUBMIT ALL FINAL CERTIFICATES TO THE CONSULTANT.
- 3. COMPLY WITH RULES AND RECOMMENDATIONS OF THE BOARD OF UNDERWRITERS, ELECTRICAL SAFETY AUTHORITY, THE CANADIAN STANDARDS ASSOCIATION AND ALL REQUIREMENTS OF THE LOCAL UTILITY.
- 4. VISIT THE SITE BEFORE SUBMITTING TENDERS TO EVALUATE ANY SITE CONDITIONS THAT MIGHT ARISE. INCLUDE ALL SITE CONDITIONS IN TENDER, EXTRAS WILL NOT BE ACCEPTED UNLESS BELIEVED TO BE REASONABLE BY THE OWNER AND CONSULTANT.
- 5. CUTTING AND PATCHING SHALL BE BY THE CONTRACTOR REQUIRING TO INSTALL THE SERVICE.
- 6. THE DRAWINGS ARE DIAGRAMMATIC, THE SERVICES SHALL BE INSTALLED TO CONSERVE HEADROOM AND INTERFERE AS LITTLE AS POSSIBLE WITH THE FREE USE OF THE SPACES THROUGH WHICH THEY PASS.
- 7. SUBMIT COPIES OF SHOP DRAWINGS AS PDF FILES VIA EMAIL FOR ALL MAJOR EQUIPMENT. THESE WILL BE REVIEWED BY THE CONSULTANT. RESUBMIT AS OFTEN AS MAY BE FOUND NECESSARY.
- 8. PROVIDE ALL NECESSARY PROTECTION FOR FINISHED OR UNFINISHED WORK. ALL OPENINGS IN CONDUITS, DUCTS AND EQUIPMENT SHALL BE CAPPED TO ENSURE SERVICES ARE KEPT CLEAN WHEN NOT IN USE.
- 9. MAINTAIN INSURANCE TO FULLY PROTECT THE CONTRACTOR, OWNER AND CONSULTANT FROM ANY AND ALL CLAIMS SUCH AS UNDER THE WORKMEN'S COMPENSATION ACT, ETC. POST PROJECT NOTIFICATION AT THE SITE IN ACCORDANCE WITH THE MINISTRY OF LABOUR REQUIREMENTS.
- 10. PROVIDE STRUCTURAL SUPPORTS, PLATFORMS, SUPPORTING ROOFS, HANGERS, INSERTS AND BRACKETS FOR EQUIPMENT AND SERVICES. DO NOT SUPPORT SERVICES FROM STEEL DECK.
- 11. INSTRUCT THE OWNER'S STAFF IN THE CARE, MAINTENANCE AND OPERATION OF THE SYSTEMS.
- 12. WARRANTY ALL LABOUR, MATERIAL AND EQUIPMENT FOR A PERIOD OF ONE (1) YEAR AFTER FINAL ACCEPTANCE OF SYSTEM.
- 13. COORDINATE WITH OTHER CONTRACTORS INSTALLING EQUIPMENT OR MATERIAL AND ARRANGE EQUIPMENT IN PROPER RELATION WITH APPARATUS OF ALL OTHER TRADES.
- 14. PROVIDE LAMCOID TAGS FOR IDENTIFICATION OF NEW EQUIPMENT ADDD.
- 15. ALL EXISTING ELECTRICAL DEVICES, OUTLET BOXES, ETC., NOT SHOWN ON DRAWINGS OR MENTIONED IN THE FOLLOWING NOTES AND INSTALLED IN WALLS SLATED FOR DEMOLITION, SHALL BE DISCONNECTED AND REMOVED COMPLETELY IN ALL RESPECTS.
- 17. EXCAVATION AND BACKFILLING SHALL BE BY THE TRADE INSTALLING THE SERVICE.
- 18. SUBMIT ONE COPY OF OPERATING AND MAINTENANCE INSTRUCTIONS IN A THREE RING BINDER LABELED FOR THE PROJECT COMPLETE WITH ITEMIZED SECTIONS CONTAINING PROJECT DATA, SHOP DRAWINGS, ETC. UPON ACCEPTANCE OF THE OPERATION AND MAINTENANCE MANUAL BY THE CONSULTANT PROVIDE TWO ADDITIONAL COPIES BOUND IN SEPARATE THREE RING BINDERS. A PDF FILE OF THE ENTIRE MANUAL IS TO BE PROVIDED ON A USB STICK. ONLY ONE USB STICK IS TO BE PROVIDED CONTAINING BOTH THE APPROVED MANUALS AND RECORD DRAWINGS.
- 19. CONTRACTOR SHALL PROVIDE 2 SETS OF REPRODUCIBLE ELECTRICAL DRAWINGS. MARK THEREON ALL CHANGES AS WORK PROGRESSES AND AS CHANGES OCCUR. THIS SHALL INCLUDE FIELD AND CONTRACT CHANGES TO ELECTRICAL SYSTEMS. IDENTIFY EACH DRAWING IN LOWER RIGHT HAND CORNER IN LETTERS AT LEAST 3mm (1/8") HIGH AS FOLLOWS: - "RECORD DRAWINGS: THIS DRAWING HAS BEEN REVISED TO SHOW ELECTRICAL SYSTEMS AS INSTALLED. (SIGNATURE OF CONTRACTOR)(DATE)". SUBMIT HARD COPY TO CONSULTANT FOR APPROVAL. WHEN RETURNED, MAKE CORRECTIONS (IF ANY) AS DIRECTED. ONCE APPROVED, SUBMIT COMPLETED REPRODUCIBLE PAPER RECORD DRAWINGS AS WELL AS A SCANNED PDF COPY FILE ON USB STICK WITH OPERATING AND MAINTENANCE MANUALS.
- 20. CONTRACTOR SHALL PROVIDE RED LINE RECORD DRAWINGS OF EACH AND EVERY ELECTRICAL DRAWING FOR DEI CONSULTING ENGINEERS TO CAD THE RECORD DRAWINGS. THE CAD DRAWING FILES WILL BE PROVIDED TO THE OWNER AS PART OF THE MAINTENANCE MANUALS.
- 21. THE CONTRACTOR IS TO DETERMINE GENERAL INSPECTION FEES WITH THE ELECTRICAL SAFETY AUTHORITY AND INCLUDE AS PART OF TENDER.

BASIC MATERIALS

- 1. JUNCTION, OUTLET AND PULL BOXES MUST BE APPROVED TO SUIT INSTALLATION METHODS AND ENVIRONMENT.
- 2. CONDUIT MUST BE CONCEALED UNLESS INSTALLED IN SERVICE OR STORAGE ROOMS.
- 3. CONDUIT MUST BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING LINES IN A NEAT AND WORKMANLIKE MANNER.
- 4. ALL FEEDER AND BRANCH CIRCUIT WIRING MUST BE COPPER, T90 RATING/STYLE RUN IN EMT CONDUIT WITH INTERNAL INSULATED GREEN GROUND WIRE UNLESS NOTED OTHERWISE. MINIMUM WIRE SIZE SHALL BE #12 AND MINIMUM CONDUIT SIZE SHALL BE 3/4" (19mm).
- 5. AC90 CABLE MAY BE USED FOR BRANCH CIRCUIT WIRING IN STEEL STUD WALLS AND "DROPS" IN T-BAR CEILING AREAS TO LIGHT FIXTURES AND FIRE ALARM DEVICES. LENGTH OF DROP MUST BE LIMITED TO 8'-0" (2400mm).
- 6. WHERE DEVICES ARE TO BE INSTALLED ON EXISTING WALLS IN FINISHED AREA, WHICH CANNOT BE FISHED, INSTALL FEEDS IN A SURFACE METAL RACEWAY EQUAL TO WIREMOLD V700 SERIES.
- 7. COLOUR CODE CONDUITS, BOXES AND METALLIC SHEATHED CABLES.
- 8. CODE WITH PLASTIC TAPE OR PAINT AT POINTS WHERE CONDUIT OR CABLE ENTERS WALL, CEILING, OR FLOOR, AND AT 15m(45') INTERVALS.
- 9. COLOUR BANDS MUST BE 25mm(1") WIDE AND CODED AS FOLLOWS FOR NOTED SYSTEMS. (WRITER TO EDIT)
- SYSTEM COLOUR
UP TO 208V YELLOW
- 10. THIS CONTRACTOR MUST PAINT ALL SYSTEM JUNCTION BOXES AND COVERS IN CONFORMANCE WITH THE ABOVE SCHEDULE.

DRAW BREAKDOWN

- 1. THIS CONTRACTOR MUST SUBMIT A BREAKDOWN OF THE TENDER PRICE INTO CLASSIFICATIONS TO THE SATISFACTION OF THE CONSULTANT, WITH THE AGGREGATE OF THE BREAKDOWN TOTALING THE TOTAL CONTRACT AMOUNT. EACH ITEM MUST BE BROKEN OUT INTO MATERIAL AND LABOUR COSTS. PROGRESS CLAIMS, WHEN SUBMITTED ARE TO BE ITEMIZED AGAINST EACH ITEM OF THE DRAW BREAKDOWN. THIS SHALL BE DONE IN TABLE FORM SHOWING CONTRACT AMOUNT, AMOUNT THIS DRAW, TOTAL TO DATE, % COMPLETE AND BALANCE.
- 2. BREAKDOWN SHALL BE AS FOLLOWS
 - 1. PERMITS AND FEES
 - 2. MOBILIZATION (MAXIMUM 1%)
 - 3. DUCTBANK
 - 4. LIGHTING FIXTURES
 - 5. CLOSEOUT DOCUMENT (MINIMUM 3%)
- 3. THE BREAKDOWN MUST BE APPROVED BY THE CONSULTANT PRIOR TO SUBMISSION OF THE FIRST DRAW.
- 4. BREAKDOWNS NOT COMPLYING TO THE ABOVE WILL NOT BE APPROVED.
- 5. BREAKDOWN MUST INDICATE TOTAL CONTRACT AMOUNT.
- 6. MOBILIZATION AMOUNT MAY ONLY BE DRAWN WHEN ALL REQUIRED SHOP DRAWINGS HAVE BEEN REVIEWED BY THE CONSULTANT.

SHOP DRAWINGS AND PRODUCT DATA

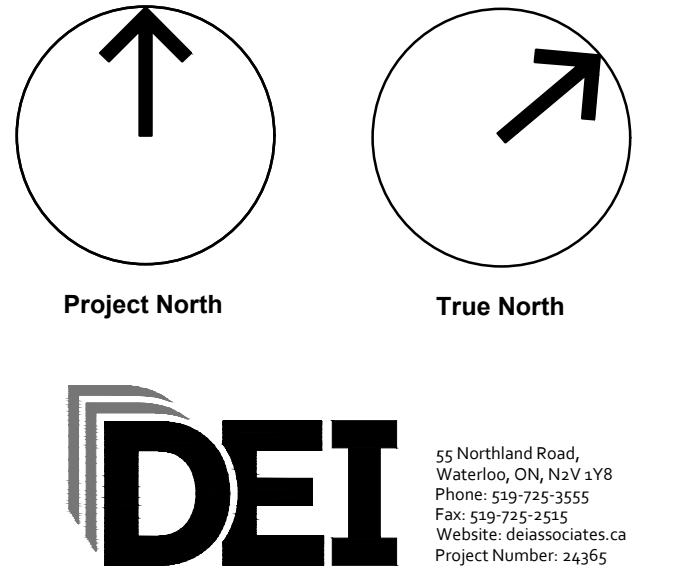
- 1. FURNISH COMPLETE CATALOG DATA FOR MANUFACTURED ITEMS OF EQUIPMENT TO BE USED IN THE WORK TO CONSULTANT FOR REVIEW WITHIN 30 DAYS AFTER AWARD OF CONTRACT.
- 2. IF MATERIAL OR EQUIPMENT IS NOT AS SPECIFIED OR SUBMITTAL IS NOT COMPLETE, IT WILL BE REJECTED BY CONSULTANT.
- 3. ADDITIONAL SHOP DRAWINGS REQUIRED BY THE CONTRACTOR FOR MAINTENANCE MANUALS, SITE COPIES ETC., SHALL BE PHOTOCOPIES OF THE 'REVIEWED SHOP DRAWINGS. ALL COSTS TO PROVIDE ADDITIONAL COPIES OF SHOP DRAWINGS SHALL BE BORNE BY THE CONTRACTOR.
- 4. PARTIAL SUBMITTALS WILL NOT BE ACCEPTED.
- 5. CATALOG DATA OR SHOP DRAWINGS FOR EQUIPMENT, WHICH ARE NOTED AS BEING REVIEWED BY CONSULTANT OR HIS ENGINEER SHALL NOT SUPERSEDE CONTRACT DOCUMENTS.
- 6. REVIEW COMMENTS OF CONSULTANT SHALL NOT RELIEVE THIS DIVISION FROM RESPONSIBILITY FOR DEVIATIONS FROM CONTRACT DOCUMENTS UNLESS CONSULTANT'S ATTENTION HAS BEEN CALLED TO SUCH DEVIATIONS IN WRITING AT TIME OF SUBMISSION, NOR SHALL THEY RELIEVE THIS DIVISION FROM RESPONSIBILITY FOR ERRORS IN ITEMS SUBMITTED.
- 7. CHECK WORK DESCRIBED BY CATALOG DATA WITH CONTRACT DOCUMENTS FOR DEVIATIONS AND ERRORS.
- 8. SHOP DRAWINGS AND PRODUCT DATA SHALL SHOW:
 - 1. MOUNTING ARRANGEMENTS.
 - 2. OPERATING AND MAINTENANCE CLEARANCES. E.G. ACCESS DOOR SWING SPACES.
- 9. SHOP DRAWINGS AND PRODUCT DATA SHALL BE ACCOMPANIED BY:
 - 1. DETAILED DRAWINGS OF BASES, SUPPORTS, AND ANCHOR BOLTS.
 - 2. MANUFACTURER TEST DATA WHERE REQUESTED.
 - 3. MANUFACTURER TO CERTIFY AS TO CURRENT MODEL PRODUCTION.
 - 4. CERTIFICATION OF COMPLIANCE TO APPLICABLE CODES.
- 10. STATE SIZES, CAPACITIES, BRAND NAMES, MOTOR HP, ACCESSORIES, MATERIALS, GAUGES, DIMENSIONS, AND OTHER PERTINENT INFORMATION. LIST ON CATALOG COVERS PAGE NUMBERS OF SUBMITTED ITEMS. UNDERLINE APPLICABLE DATA.
- 11. ONCE THESE SHOP DRAWINGS ARE RETURNED 'REVIEWED' OR 'REVIEWED AS NOTED' FABRICATION, PRODUCTION, AND INSTALLATION MAY COMMENCE. MAY COMMENCE NOTE: IF A SHOP DRAWING IS RETURNED 'REVIEWED AS NOTED' THIS CONTRACTOR MUST PROVIDE WRITTEN INDICATION THAT THE COMMENTS HAVE BEEN COMPLIED WITH.
- 12. A PARTIAL LIST OF SHOP DRAWINGS INCLUDES
 - 1. LUMINAIRES

LIGHT FIXTURE SCHEDULE

Item	Manufacturer/Catalog Number	Voltage	Lamp				Mounting	Listings	Description	
			Type	Lumens	Colour Temperature	Wattage				
P1	COOPER CAT. #GLEON-SA1B-730-U-T4FT-BZ-HSS POLE: DYNAPOLE CAT. #SSA6-17" (6" SQUARE STRAIGHT ALUMINUM - 17") LITHONIA CAT. #DSXO SERIES SIGNIFY CAT. #P15 SERIES	120V	LED	6019	3000K	44W	80	POLE	IP66	POLE MOUNTED DECORATIVE LED FIXTURE C/W EXTRUDEDALUMINUM ENCLOSURE, LOW PROFILE DESIGN, TYPE '4' DISTRIBUTION OPTICS, FULL CUT-OFF DARK SKY COMPLIANCE (DA), 800mA DRIVER, AND 17" (5.2m) X 6" (150mm) SQUARE ALUMINUM POLE. ENTIRE ASSEMBLY SHALL HAVE FINISH TO SUIT ARCHITECT. POLES MUST BE PROVIDED WITH ROUND BOLT/BASE COVERS.
	COOPER CAT. #GLEON-SA1A-730-U-5WQ-BZ POLE: DYNAPOLE CAT. #SSA6-17" (6" SQUARE STRAIGHT ALUMINUM - 17") LITHONIA CAT. #DSXO SERIES SIGNIFY CAT. #P15 SERIES	120V	LED	5139	3000K	34W	80	POLE	IP66	POLE MOUNTED DECORATIVE LED FIXTURE C/W EXTRUDEDALUMINUM ENCLOSURE, LOW PROFILE DESIGN, TYPE '5' DISTRIBUTION OPTICS, FULL CUT-OFF DARK SKY COMPLIANCE (DA), 800mA DRIVER, AND 17" (5.2m) X 6" (150mm) SQUARE ALUMINUM POLE. ENTIRE ASSEMBLY SHALL HAVE FINISH TO SUIT ARCHITECT. POLES MUST BE PROVIDED WITH ROUND BOLT/BASE COVERS.
P3	COOPER CAT. #GLEON-SA1A-730-U-T4FT-BZ-HSS POLE: DYNAPOLE CAT. #SSA6-17" (6" SQUARE STRAIGHT ALUMINUM - 17") LITHONIA CAT. #DSXO SERIES SIGNIFY CAT. #P15 SERIES	120V	LED	4909	3000K	34W	80	POLE	IP66	POLE MOUNTED DECORATIVE LED FIXTURE C/W EXTRUDEDALUMINUM ENCLOSURE, LOW PROFILE DESIGN, TYPE '4' DISTRIBUTION OPTICS, FULL CUT-OFF DARK SKY COMPLIANCE (DA), 800mA DRIVER, AND 17" (5.2m) X 6" (150mm) SQUARE ALUMINUM POLE. ENTIRE ASSEMBLY SHALL HAVE FINISH TO SUIT ARCHITECT. POLES MUST BE PROVIDED WITH ROUND BOLT/BASE COVERS.
NOTES: 1 LED LUMEN VALUES QUOTED FOR FIXTURES ARE TO BE CONSIDERED MINIMUM, AND AS ABSOLUTE OR DELIVERED LUMENS. LUMEN VALUES SHOULD NOT EXCEED MORE THAN 10% OF SPECIFIED OUTPUT. 2 IF THERE ARE ANY DISCREPANCIES BETWEEN THE FIXTURE PART NUMBER AND DESCRIPTION, IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO BRING THESE TO THE ELECTRICAL 3 CONSULTANT'S ATTENTION PRIOR TO TENDER CLOSE. NO EXTRAS WILL BE ENTERTAINED FOR FAILURE TO DO SO. FINAL FIXTURE CHARACTERISTICS AND DESCRIPTION WILL BE MARKED BY CONSULTANT AT TIME OF SHOP DRAWING REVIEW.										

INSTALLATION OF CABLES IN TRENCHES AND DUCTS

- 1. MATERIALS
 - 1. DUCTS AND/OR CABLES MUST BE EXCAVATED, BEDDED, REINFORCED, ENCASED AND BACKFILLED AS PER DETAILS ON THE DRAWINGS.
- 2. DUCT
 - 1. DUCTS INDICATED FOR ENCASEMENT IN CONCRETE MUST BE TYPE DB-2. IPEX "SUPER DUCT" OR APPROVED EQUAL.
 - 2. DUCTS INDICATED FOR DIRECT BURIAL MUST BE TYPE SCEPTER. IPEX "SCEPTER" RIGID PVC DUCT OR APPROVED EQUAL.
- 3. DUCT FITTINGS
 - 1. FITTINGS REQUIRED TO PROVIDE A COMPLETE CONTINUOUS DUCTBANK INSTALLATION SHALL INCLUDE BUT NOT BE LIMITED TO, COUPLINGS, BELL END FITTINGS, CAPS, ADAPTERS, BASE AND INTERMEDIATE SPACERS.
 - 2. SMALL OR LARGE ANGLE COUPLINGS WILL BE REQUIRED WHERE NOTED ON THE DRAWINGS.
- 4. BASIC INSTALLATION
 - 1. EXCAVATE TRENCH ALONG ROUTE AS INDICATED AND AT A DEPTH TO SUIT CABLES AND/OR DUCTS AS DETAILED.
 - 2. IF REQUIRED, TRENCH IS TO BE PUMPED TO MAINTAIN EXCAVATION FREE OF WATER.
 - 3. IMPORT GRANULAR FILL AND PLACE IN BOTTOM OF TRENCH. COMPACT TO PROVIDE A FIRM LEVEL BASE.
 - 4. QUANTITY AND ARRANGEMENT OF DUCTS MUST BE PROVIDED ACCORDING TO DRAWING DETAILS.
 - 5. ATTACH DUCTS TO SPACERS USING NON-METALLIC MATERIALS.
 - 6. PROVIDE CONCRETE AS DETAILED. POUR CONCRETE DOWN SIDES OF DUCTBANK TO ENSURE SPACES AROUND AND UNDER DUCTS ARE FILLED FIRST.
 - 7. CONCRETE MUST OBTAIN 50% OF ITS SPECIFIED STRENGTH PRIOR TO BACKFILLING.
 - 8. BACKFILLING MUST BE IMPORTED GRANULAR 'A' MATERIAL.
 - 9. BACKFILL MUST BE PLACED AS 150mm (6") COMPACTED LIFTS.
 - 10. EXCESS EXCAVATED MATERIAL MUST BE REMOVED FROM SITE BY THIS CONTRACTOR.
- 5. CABLE INSTALLATION IN DUCTS
 - 1. INSTALL CABLES AS INDICATED IN DUCTS.
 - 2. INSTALL MULTIPLE CABLES IN DUCT SIMULTANEOUSLY.
 - 3. USE CSA APPROVED LUBRICANTS OF TYPE COMPATIBLE WITH CABLE JACKET TO REDUCE PULLING TENSION.
 - 4. TO FACILITATE MATCHING OF COLOUR CODED MULTICONDUCTOR CONTROL CABLES REEL OFF IN SAME DIRECTION DURING INSTALLATION.
 - 5. BEFORE PULLING CABLE INTO DUCTS AND UNTIL CABLES ARE PROPERLY TERMINATED, SEAL ENDS OF CABLES WITH MOISTURE SEAL TAPE.
 - 6. AFTER INSTALLATION OF CABLES, SEAL DUCT ENDS WITH DUCT SEALING COMPOUND.
- 6. FIELD QUALITY CONTROL
 - 1. PERFORM TESTS USING QUALIFIED PERSONNEL. PROVIDE NECESSARY INSTRUMENTS AND EQUIPMENT.
 - 2. CHECK PHASE ROTATION AND IDENTIFY EACH PHASE CONDUCTOR OF EACH FEEDER.
 - 3. CHECK EACH FEEDER FOR CONTINUITY, SHORT CIRCUITS AND GROUNDS. ENSURE RESISTANCE TO GROUND OF CIRCUITS IS NOT LESS THAN 50 MEGA OHMS.
 - 4. PRE-ACCEPTANCE TESTS.
 - 1. AFTER INSTALLING CABLE BUT BEFORE TERMINATING, PERFORM INSULATION RESISTANCE TEST WITH 1000V MEGGER ON EACH PHASE CONDUCTOR.
 - 5. PROVIDE CONSULTANT WITH LIST OF TEST RESULTS SHOWING LOCATION AT WHICH EACH TEST WAS MADE, CIRCUIT TESTED AND RESULT OF EACH TEST.
 - 6. REMOVE AND REPLACE ENTIRE LENGTH OF CABLE IF CABLE FAILS TO MEET ANY OF TEST CRITERIA.
 - 7. THE CONSULTANT REQUIRES A MINIMUM OF 48 HOURS NOTICE TO INSPECT AT HIS DISCRETION THE FOLLOWING: DUCTBANK EXCAVATION, BEDDING AND DUCT PLACEMENT, POURING AND/OR PLACEMENT OF DUCTBANK ENCASEMENT.



The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing. © 2025 DEI Consulting Engineers

2	28/03/2025	ISSUED FOR SPA
1	18/03/2025	ISSUED FOR TENDER
No.	Date	Revision

Client:

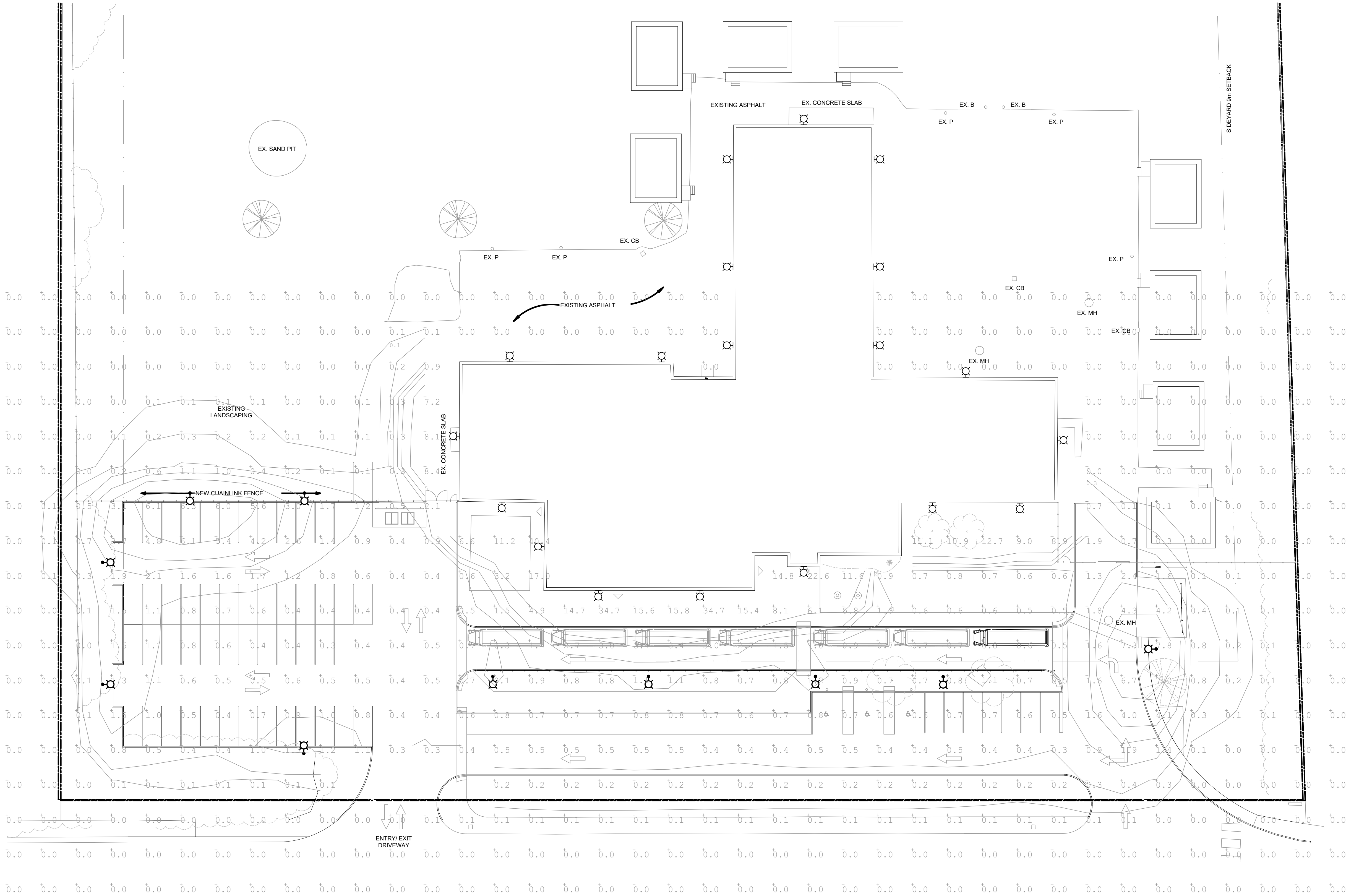


Project Name / Address:

BWDSB HIGHPOINT COMMUNITY SCHOOL

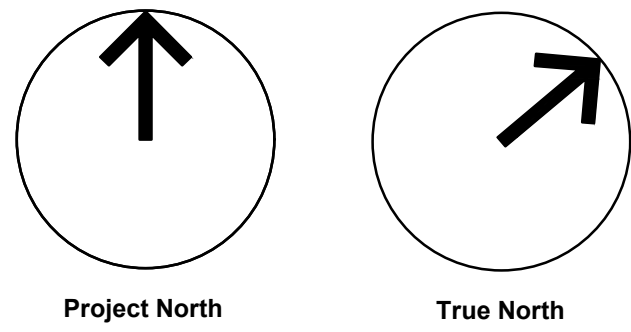
SRM architects+ urban★designers	Project No:	23014
	Drawing Date:	2025-03-05
	Drawn by:	ST
	Checked by:	SD
	Office Location:	WATERLOO
Plot Date / Time: 2025-03-28		
Drawing Name: LIGHT FIXTURE SCHEDULE AND SPECIFICATIONS		
	Drawing Scale:	AS NOTED
	Status:	TENDER
	Revision No.:	1
	Drawing No.:	E.1.3

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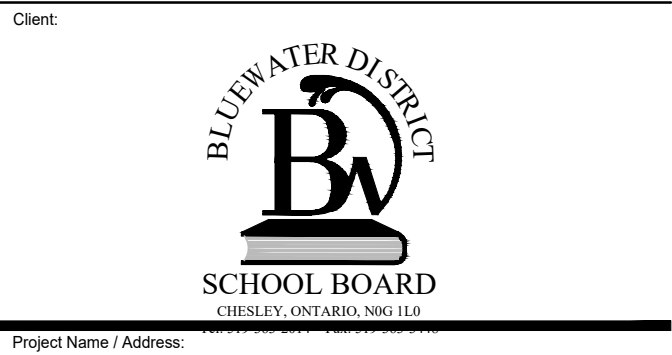
PHOTOMETRIC SITE PLAN
SCALE: 1:300

NUMERIC SUMMARY (OUTDOOR PARKING AREA LIGHTING)									
LABEL	TYPE	VERTICAL/HORIZONTAL	DESCRIPTION	UNITS	AVG.	MAX.	MIN.	AVG./MIN.	MAX./MIN.
P1	ILLUMINANCE	HORIZONTAL	WEST PARKING	foot candles	1.35	6.3	0.3	4.50	21.00
P2	ILLUMINANCE	HORIZONTAL	SOUTH PARKING	foot candles	0.5	0.7	0.3	1.67	2.33
P3	ILLUMINANCE	HORIZONTAL	ACCESS ROADS	foot candles	1.90	7.3	0.3	6.33	24.33



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2	28/03/2025	ISSUED FOR SPA
1	18/03/2025	ISSUED FOR TENDER



BWDSB HIGHPOINT COMMUNITY SCHOOL

Project No: 23014
Drawing Date: 2025-03-05
Drawn by: ST
Checked by: SD
Office Location: WATERLOO
Plot Date / Time: 2025-03-28

PHOTOMETRIC SITE PLAN

Drawing Scale: AS NOTED
Status: TENDER
Revision No.: 1
Drawing No.: E.14

