

FILE NAME: 15-0107-010\_E03.dwg DATE: 2015.07.03 PROJECT No: 2015-NNN SHEET TITLE: ELECTRICAL SCOPE OF WORK, SPECIFICATIONS, AND SCHEDULES ADDRESS: 1950 PACIFIC AVENUE WEST

**ELECTRICAL SPECIFICATIONS**  
**SCOPE OF WORK**

THE SCOPE OF WORK FOR THIS PROJECT IS TO SUPPLY AND INSTALL ALL REQUIRED ELECTRICAL ITEMS FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM IN ACCORDANCE WITH THE INTENT OF THESE SPECIFICATIONS, DRAWINGS AND ALL APPLICABLE CODES. THESE ITEMS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- DISCONNECT AND REMOVE THE EXISTING POLES AND POLE MOUNTED LUMINAIRES IN ACCORDANCE WITH THE DRAWINGS.
- SUPPLY AND INSTALL ALL LUMINAIRES AND POLES ONTO NEW PILES IN ACCORDANCE WITH THE DRAWINGS.
- SUPPLY AND INSTALL NEW WIRING. ALL NEW WIRING SHALL BE PUSHED UNDERGROUND, WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE SOFT EXCAVATIONS.
- THE CONTRACTOR SHALL PROVIDE A FULLY FUNCTIONAL LIGHTING AND LIGHTING CONTROL SYSTEM.
- PROVIDE NEW EXTERIOR LIGHTING CONTROLS INCLUDING A NEW TIME CLOCK AND PHOTOCELL.
- THE EXISTING PILES SHALL BE DEMOLISHED UNDER THE STRUCTURAL SCOPE OF WORK.

**EXECUTION SPECIFICATION**

THE CONTRACT INCLUDES THE FURNISHING OF LABOUR, MATERIAL, EQUIPMENT, AND SERVICES NECESSARY FOR A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS AND OPERATING TO THE COMPLETE SATISFACTION OF THE CONTRACT ADMINISTRATOR.

ALL ELECTRICAL WORK AND MATERIAL SHALL CONFORM WITH THE CURRENT RELEVANT AND/OR APPLICABLE BUILDING CODE, CANADIAN ELECTRICAL CODE AND TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION AND THE DESIGN PROFESSIONAL. FOR THE PURPOSE OF THIS SPECIFICATION INTERPRETATION OF THE WORD "CODE" SHALL MEAN ALL CODES, REGULATIONS AND REQUIREMENTS AS STATED ABOVE.

EXAMINE THE SITE, BUILDING AND LOCAL CONDITIONS AFFECTING WORK OF THIS CONTRACT. EXAMINE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL CONDITIONS TO ENSURE WORK CAN BE PERFORMED WITHOUT CHANGES, AS SHOWN ON CONTRACT DRAWINGS. NO ALLOWANCE SHALL BE MADE LATER FOR NECESSARY CHANGES, UNLESS IT HAS BEEN BROUGHT TO CONTRACT ADMINISTRATOR'S ATTENTION IN WRITING, PRIOR TO CLOSING OF BID.

APPLY FOR ALL PERMITS, SERVICES, FEES AND INSPECTIONS AND PAY FOR ALL FEES TO THE AUTHORITIES HAVING JURISDICTION. INCLUDE ALL COSTS IN BID.

OBTAIN APPROVALS FROM THE ELECTRICAL INSPECTION AUTHORITY AND NOTIFY THE CONTRACT ADMINISTRATOR OF ANY CHANGES REQUESTED BY THE INSPECTION AUTHORITY.

WHERE DOUBT EXISTS AS TO THE MEANING OF THE DRAWINGS OR SPECIFICATIONS, OBTAIN CLARIFICATION PRIOR TO BID.

INCLUDE ALL FEDERAL, PROVINCIAL AND MUNICIPAL TAXES FOR THE WORK IN THE BID PRICE.

ALL MATERIALS USED SHALL BE NEW, OF THE TYPE SPECIFIED, AND APPROVED BY CERTIFICATION AGENCY RECOGNIZED BY THE AUTHORITY HAVING JURISDICTION, AND FREE FROM DEFECTS.

CLEAN ALL EQUIPMENT DURING CONSTRUCTION AND AGAIN ON COMPLETION OF THE CONTRACT.

REMOVE ALL SURPLUS MATERIALS, CUTTINGS, PACKAGING AND DEBRIS FROM THE SITE DURING THE PROGRESS AND AT FINAL COMPLETION OF THE WORK.

EXECUTE WORK IN A FIRST-CLASS AND WORKMANLIKE MANNER.

**SUBMITTALS**

SUBMIT PRODUCT DATA FOR ALL EQUIPMENT. ACCEPTABLE MATERIALS SHALL BE AS SPECIFIED, CODE APPROVED OR APPROVED BY THE CITY. ALL MATERIAL SHALL BE NEW, UNLESS SPECIFIED OTHERWISE.

SUBMISSION SHALL INCLUDE FIXTURE CUTSHEETS AND A PHOTOMETRIC CALCULATION SHALL STATE THE ASSUMED LIGHT LOSS FACTOR AND INCLUDE THE FOOT CANDLES (FC) DELIVERED TO THE PARKING LOT AS WELL AS SURROUNDING AREAS.

SHOP DRAWINGS FOR ELECTRICAL EQUIPMENT MATERIALS SHALL BE SUBMITTED FOR REVIEW BY THE CONTRACT ADMINISTRATOR BEFORE MANUFACTURING AND INSTALLATION CAN PROCEED.

SUBMIT TO THE CONTRACT ADMINISTRATOR UPON COMPLETION OF THE CONTRACT, ONE MARKED UP SET OF RECORD DRAWINGS AND THREE SETS OF MAINTENANCE MANUALS FOR SERVICE, DISTRIBUTION PANELS, LIGHT FIXTURES, LAMPS, EXITS, EMERGENCY UNITS, EMERGENCY HEADS, AND FIRE ALARM EQUIPMENT.

AFTER WORK IS COMPLETED, FURNISH TO THE CITY A WRITTEN GUARANTEE THAT FOR ONE YEAR FROM DATE OF ACCEPTANCE, ANY DEFECTS IN MATERIALS OR WORKMANSHIP WILL BE CORRECTED AT NO COST TO THE CITY. SUBMIT COPY OF GUARANTEE TO CONTRACT ADMINISTRATOR.

**COORDINATION**

THE CONTRACTOR SHALL COORDINATE WITH THE OWNER DURING ANY DEMOLITION AND CONSTRUCTION PHASES OF THE WORK FOR ALL TEMPORARY ELECTRICAL CONNECTIONS REQUIRED AND FOR THE REMOVAL OF EXISTING POWER SERVICES AND THE INSTALLATION OF NEW SERVICES. CONTRACTOR SHALL COMPLETE ALL PRELIMINARY WORK PRIOR TO ANY POWER OUTAGES.

CONTRACTOR SHALL COORDINATE, NOTIFY AND ARRANGE WITH THE CONTRACT ADMINISTRATOR, ALL STAGING REQUIREMENTS TO MINIMIZE DISRUPTIONS NECESSARY TO COMPLETE THE WORK AT NO ADDITIONAL COST.

**PRODUCT SPECIFICATIONS:**

**CONDUIT, WIRE AND CONNECTIONS**

DRAWINGS ARE SCHEMATIC ONLY. CONDUIT RUNS SHOWN INDICATE POINTS TO BE JOINED. RUNS MAY BE ALTERED BY THE CONTRACTOR TO SUIT ACTUAL FIELD CONDITIONS. ELECTRICAL DRAWINGS ONLY GIVE INDICATION OF OTHER TRADES EQUIPMENT.

WIRING DEVICES IN FINISHED AREAS SHALL BE RECESSED MOUNTED AND FOR ALL UNFINISHED AREAS MAY BE SURFACE MOUNTED.

UNLESS OTHERWISE NOTED, FOR ALL OUTSIDE LIGHTING, USE MINIMUM #10 RW90 RUN CW BOND WIRE. INCREASE WIRE GAUGE ACCORDING TO LOAD AND DISTANCE.

ALL WIRE AND CABLE SHALL BE COPPER, 98% CONDUCTIVITY, COLOUR CODED, NEW AND MARKED AS PER CODE REQUIREMENTS AND INSTALLED IN RACEWAYS. WIRES SHALL BE RATED MINIMUM 300V NMWU 60 FOR UNDERGROUND RACEWAY INSTALLATIONS.

ALL WIRING SHALL BE SIZED AS PER CODE. MINIMUM ALLOWABLE WIRE SIZE IS #12 AWG. CONDUCTORS #8 AWG AND LARGER TO BE STRANDED. ALL WIRES INSTALLED IN CONDUIT SHALL BE PULLED IN AT THE SAME TIME. ONLY APPROVED PULLING LUBRICANT SHALL BE USED. COLOUR CODE CONDUCTORS WITH DIFFERENT COLOURS FOR EACH PHASE, NEUTRAL, GROUND AND BOND WIRES AS REQUIRED BY CODE.

MAXIMUM VOLTAGE DROP SHALL BE AS PER CODE REQUIREMENTS.

ALL WIRE CONNECTIONS TO BE SECURELY FASTENED BY MEANS OF APPROVED CONNECTORS.

ALL NON-CURRENT CARRYING METAL PARTS SHALL BE GROUNDED AND/OR BONDED IN ACCORDANCE WITH THE CODE.

OPENINGS IN ALL ELECTRICAL METAL BOXES SHALL BE PUNCHED OR CUT. BURNING OF HOLES SHALL NOT BE PERMITTED.

INSTALL ALL CONDUITS, ETC. TO ACCOUNT FOR EXPANSION AND INSTALL APPROVED EXPANSION JOINTS WHERE REQUIRED.

RACEWAYS INSIDE THE BUILDING SHALL BE RIGID METAL CONDUITS, EMT OR FLEXIBLE CONDUIT AS SHOWN ON THE DRAWINGS, ALL CONDUIT INSTALLED IN CONCRETE FLOOR OR ON THE EXTERIOR OF THE BUILDING SHALL BE RIGID PVC OR RIGID GALVANIZED STEEL CONDUIT CW BOND CONDUCTOR.

ALL CONDUITS MUST BE SECURELY FASTENED WITH APPROVED CLIPS AND SCREWS IN PARTITIONS AND CADDY CLIPS IN CEILING. NAILS SHALL NOT BE ACCEPTED.

ALL CONDUIT, CONDUCTORS, WIRES, ETC. SHALL BE LABELED IN INDELIBLE INK AT PANEL AND JUNCTION BOXES INDICATING DEVICE FED, PANEL NAME AND CIRCUIT NUMBER.

**LUMINAIRES**

LUMINAIRES SHALL BE AS DETAILED ON THE FIXTURE SCHEDULE AND INSTALLED AS INDICATED IN LOCATIONS SHOWN. INSTALL COMPLETE WITH HANGERS, GASKETS AND SUPPORTS FOR A COMPLETE AND FINISHED OPERATION

**ELECTRICAL NOTES:**

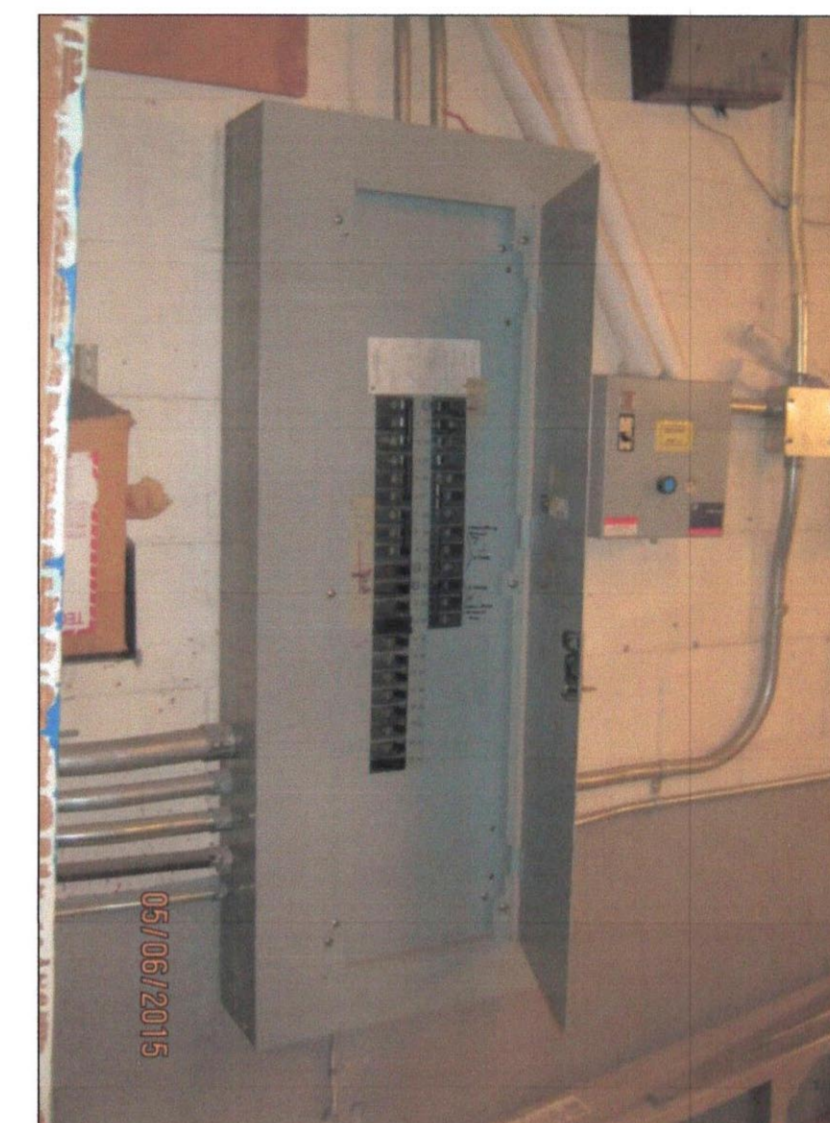
1. THE EPA OF THE LUMINAIRES (A2, A3 AND A4) SHALL NOT EXCEED 1.2 FT.

**NOTES:**

THESE DRAWINGS SHALL NOT BE SCALED.

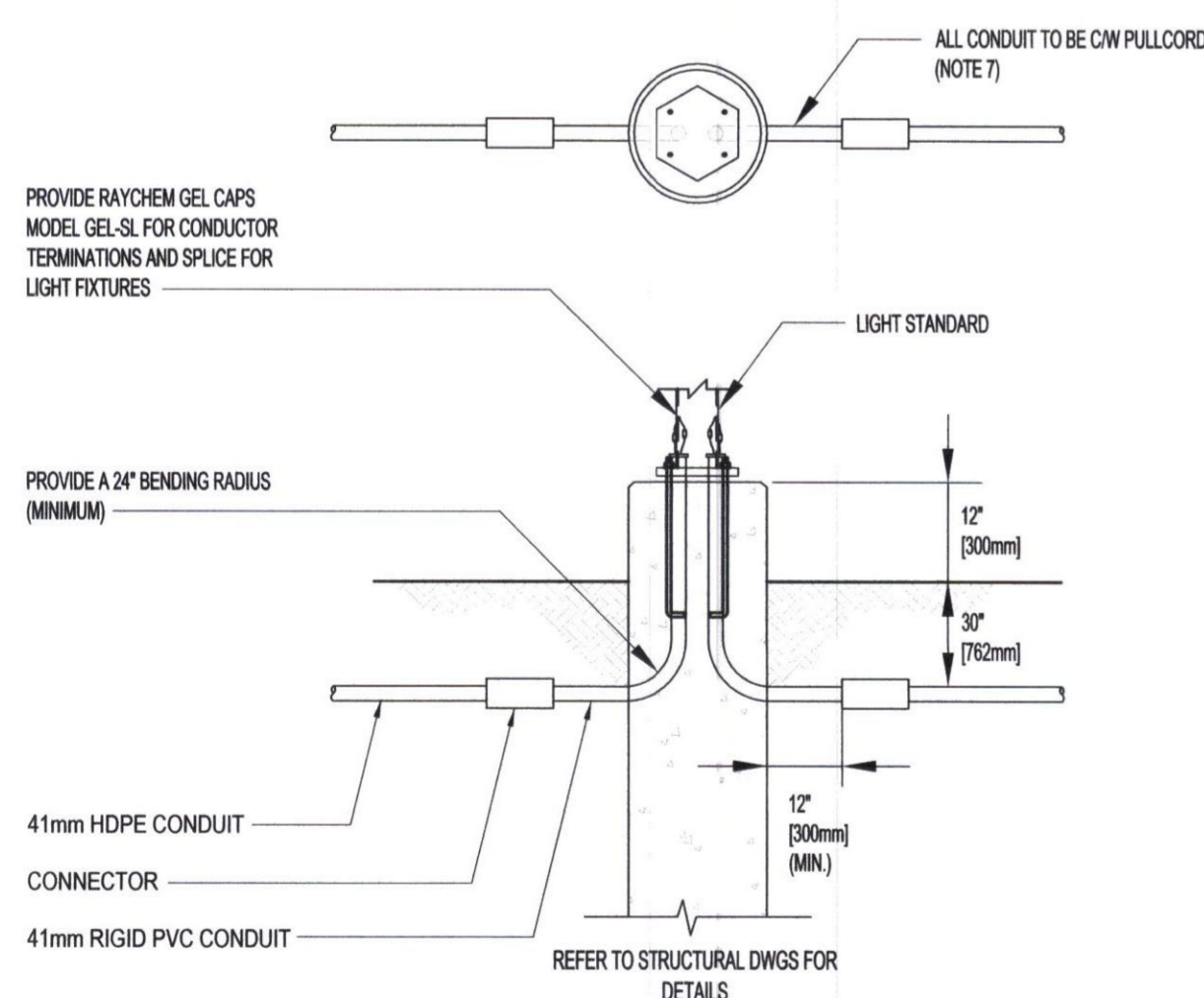
THE CONTRACTOR SHALL VISIT THE SITE AND SATISFY ONESELF ALL DIMENSIONS, DATUM, AND DETAILED INFORMATION SHOWN ARE CORRECT.

ALL PRODUCTS AND MATERIALS TO BE USED AND INSTALLED SHALL CONFORM WITH MANUFACTURER'S SPECIFICATIONS & APPLICABLE CODES.



BOILER ROOM PANELBOARD PHOTO

LUMINAIRE SCHEDULE (NOTE 1)				
TYPE	DESCRIPTION	VOLTAGE	LAMPS	DESIGN BASICS
A3	<ul style="list-style-type: none"> <li>13"x23" POLE MOUNTED LED LUMINAIRE c/w DIE CAST ALUMINUM HOUSING, POWDER COATED DARK BRONZE FINISH, 80CRI, TYPE 3 DISTRIBUTION, IP65 RATED, 5 YEAR WARRANTY, ACRYLIC LENS, NIGHT TIME FRIENDLY.</li> <li>18" ROUND ALUMINUM POLE CW DARK BRONZE FINISH</li> </ul>	120V	52W LED 3000°K	LUMINAIRE • LITHONIA: DSK1 LED 30C 530 30K T3M 120 RPA PER DOBXD POLE • HAPCO: RTA 18
A4	<ul style="list-style-type: none"> <li>13"x23" POLE MOUNTED LED LUMINAIRE c/w DIE CAST ALUMINUM HOUSING, POWDER COATED DARK BRONZE FINISH, 80CRI, FORWARD THROW TYPE 4 DISTRIBUTION, IP65 RATED, 5 YEAR WARRANTY, ACRYLIC LENS, NIGHT TIME FRIENDLY.</li> <li>18" ROUND ALUMINUM POLE CW DARK BRONZE FINISH</li> </ul>	120V	52W LED 3000°K	LUMINAIRE • LITHONIA: DSK1 LED 30C 530 30K T4TM 120 RPA PER DOBXD POLE • HAPCO: RTA 18



**A** PARKING LOT LIGHT POLE CONNECTION  
SCALE: N.T.S.

0	ISSUED FOR CONSTRUCTION	CLS	15.09.25
No.	REVISION/DESCRIPTION	BY	DATE

SEAL



SEPTEMBER 25, 2015

DRAWN	GCN	CHECKED	DESIGNED	CLS	APPROVED
DATE	2015.03.16	USER	APPROVAL		

THE CITY OF WINNIPEG  
PLANNING, PROPERTY AND  
DEVELOPMENT DEPARTMENT  
MUNICIPAL ACCOMMODATIONS DIVISION  
3-65 GARRY STREET, R3C 4K4

PROJECT  
BROOKLANDS SCHOOL  
SITE LIGHTING UPGRADE

1950 PACIFIC AVENUE WEST

SHEET TITLE  
ELECTRICAL  
SCOPE OF WORK, SPECIFICATIONS  
AND SCHEDULES

SCALE	PROJECT No:	SHEET No:
N.T.S.	2015-701	E3

