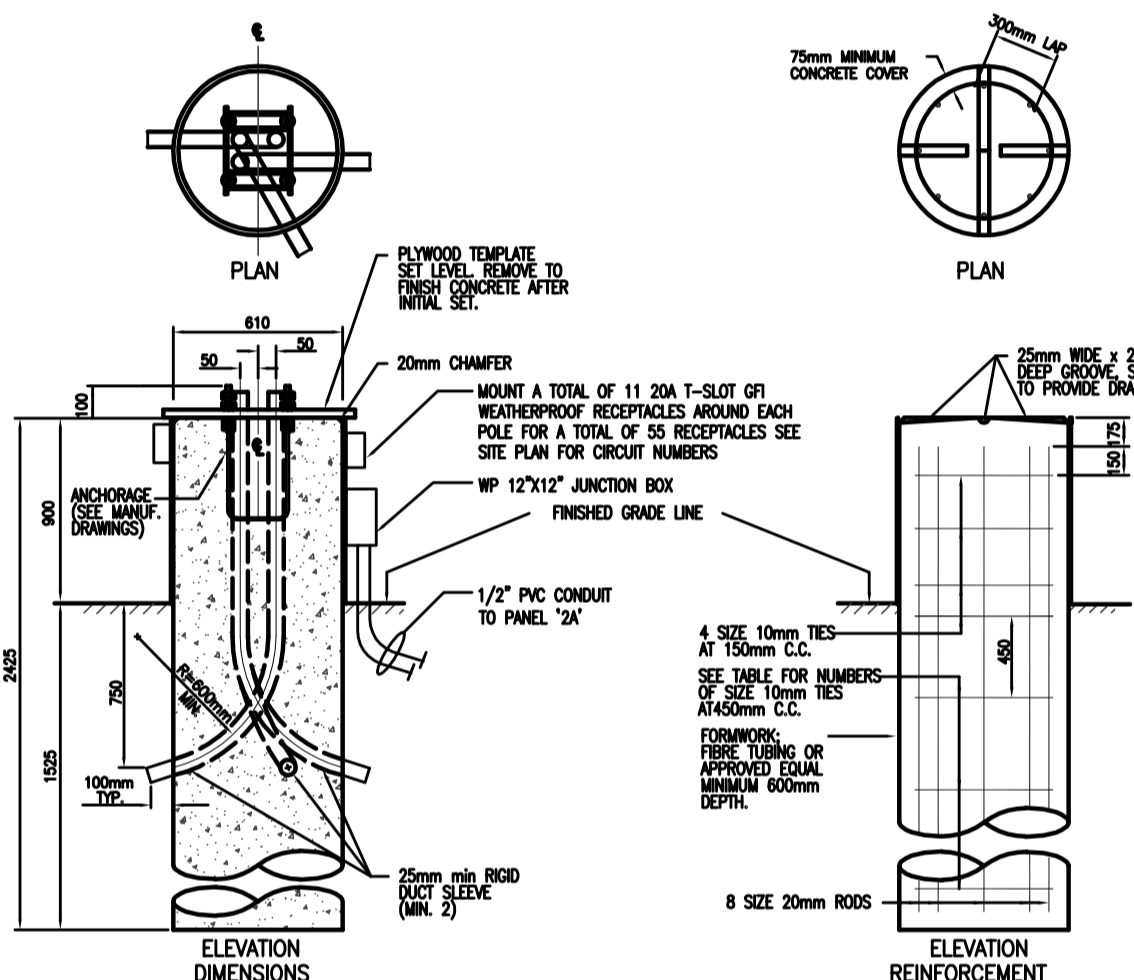


**SERVICE NOTES**

1. TRANSFORMER PAD SUPPLIED & INSTALLED BY ELECTRICAL CONTRACTOR TO SUIT BURLINGTON HYDRO, INCLUDING ALL GROUNDING, CABLE LUGS ETC. TRANSFORMER & FINAL CONNECTIONS BY BURLINGTON HYDRO.
2. 4-103mm PVC TYPE II DUCTS IN 78mm RE-INFORCED CONCRETE ENVELOPE BURIED MIN. 760mm BELOW GRADE. EXACT ROUTING AND TERMINATION TO SUIT BURLINGTON HYDRO.
3. 3-103mm PVC TYPE II DUCTS IN 78mm RE-INFORCED CONCRETE ENVELOPE BURIED MIN. 760mm BELOW GRADE. EXACT ROUTING AND TERMINATION TO SUIT BURLINGTON HYDRO.
4. 2-103mm PVC TYPE II DUCTS BURIED MIN 610mm BELOW GRADE FOR TELEPHONE SERVICE. EXACT ROUTING & TERMINATION TO BE VERIFIED WITH BELL CANADA PRIOR TO INSTALLATION.

**NOTES:**

- CLASS OF CONCRETE . . . . . 30MPa.
- REINFORCING STEEL SHALL BE GRADE 400.
- CLEAR COVER TO REINFORCING STEEL SHALL BE 80mm ± 20mm EXCEPT AS NOTED.
- EXCAVATION FOR PLACEMENT OF ELECTRICAL CONDUITS NOT TO EXCEED 1.2m BELOW TOP OF FOOTING. CONDUIT LOCATION TO BE SUITABLY MARKED ON TOP OF FOOTING.
- POLE ANCHOR BOLTS SHALL BE VERTICALLY INSTALLED IN THE CORRECT LOCATIONS. NO ADJUSTMENT SHALL BE ALLOWED AFTER CONCRETE PLACEMENT.
- CONCRETE TO BE PLACED AGAINST UNDISTURBED SOIL. THE FOUNDATION MAY BE CONSTRUCTED BY DRIVING AN OPEN END STEEL LINER TO THE ELEVATION OF THE BASE, AND EXCAVATING BY AUGERING OR OTHER SUITABLE METHOD. THE LINER MAY BE WITHDRAWN AS THE CONCRETE IS POURED.
- THE CONTRACTOR SHALL CHECK NUMBER OF ANCHOR BOLTS, AND BOLT CIRCLE DIAMETER FOR THE POLE PRIOR TO PLACING CONCRETE.
- ANCHORAGE ASSEMBLY SHALL BE PROVIDED WITH WOODEN OR STEEL TEMPLATES.
- ANCHOR RODS ARE ROUND BARS QUENCHED AND TEMPERED MEDIUM CARBON STEEL WITH MINIMUM YIELD OF 517MPa (MINIMUM TENSILE STRENGTH 725MPa) AND SHALL SATISFY CHERRY V-NOTCH REQUIREMENTS FOR 20 JOULES AT MINUS.
- ALL WATER SHALL BE REMOVED PRIOR TO CONCRETE PLACEMENT.
- CONTRACTOR SHALL MAINTAIN THE STABILITY OF THE CAISSON BASE AND SIDEWALLS FROM THE TIME OF DRILLING THE CAISSON HOLE TO PLACING THE CONCRETE.
- MINIMUM OF TWO (2) SLEEVES REQUIRED FOR EACH CONCRETE FOOTING.



| FOOTING NO. | FOOTING DIA. (mm) | FOOTING HEIGHT (mm) | FOOTING TYPE | FOOTING C.C. (mm) | TIES AT 150mm C.C. | TIES AT 450mm C.C. | REINFORCING BARS |
|-------------|-------------------|---------------------|--------------|-------------------|--------------------|--------------------|------------------|
| 1           | 610               | 36                  | CONCRETE     | 300               | 4                  | 300                | 8 # 20           |

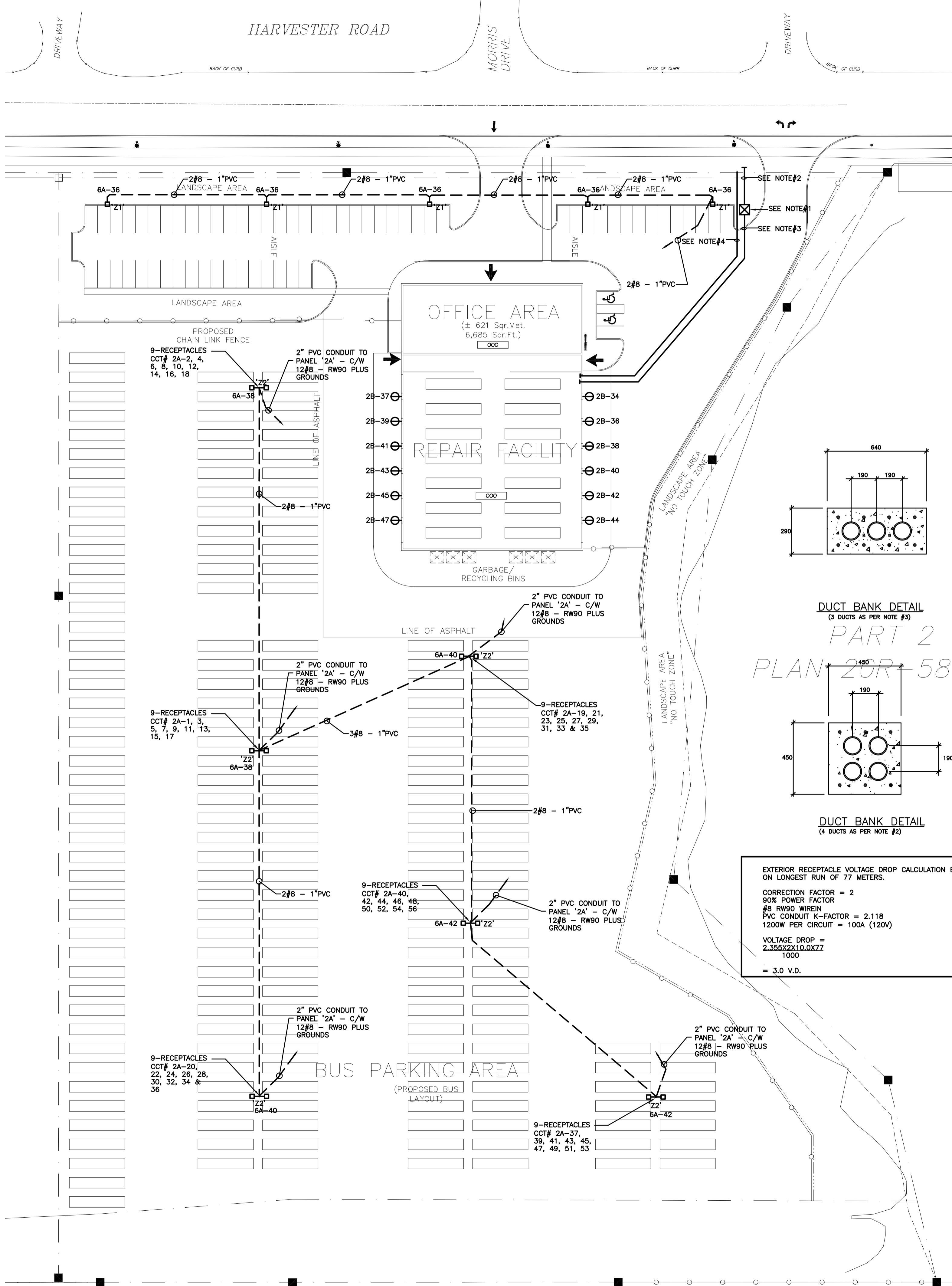
**ANCHORAGE ASSEMBLY FOR MEDIUM MAST LIGHTING POLE (VERIFY WITH STRUCTURAL ENGINEER PRIOR TO INSTALLATION)**  
N.T.S.

**NOTE**  
CONCRETE BASE TO BE ART FORMS CAT# KELAMY 610R 36" HIGH, SEE DETAIL PROVIDED BY ART FORMS DETAILS.

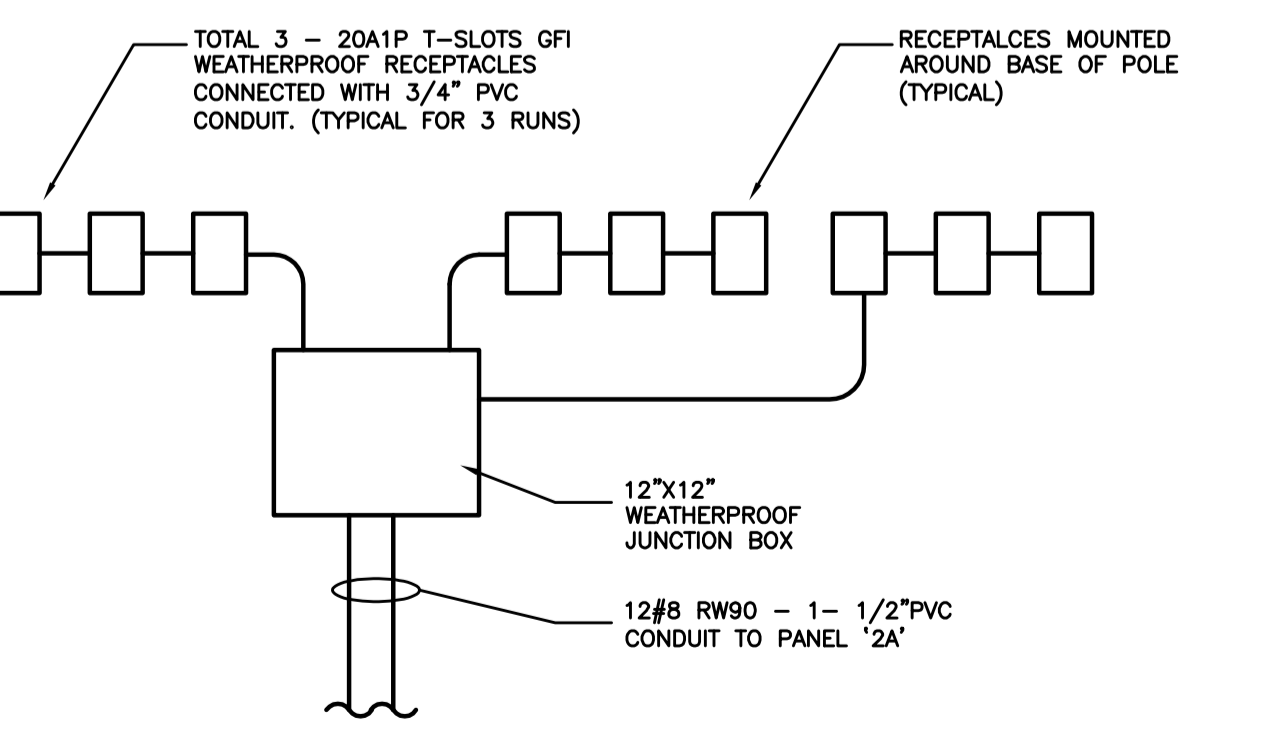
**FIXTURE SCHEDULE**

- 'W'-LSI LIGHTING-CHALLENGER CAT#CHWS 3 150 MH MT F C/W 150W METAL HALIDE LAMP. MOUNTED AT 20'-0" AFG
- 'Z1'-LSI LIGHTING-GREENBRIAR CAT#GFM-3-400-SMH-F-HSS C/W 400W METAL HALIDE LAMP. MOUNTED ON A 24'-0" POLE C/W 3'-0" CONCRETE BASE
- 'Z2'-LSI LIGHTING-GREENBRIAR CAT#GFR-3-1000-MHR-F C/W 1000W METAL HALIDE LAMP. MOUNTED ON A 24'-0" POLE C/W 3'-0" CONCRETE BASE
- 'A' RECESSED POT LIGHT-120V C/W DIMMING BALLAST & 226 QUAD 4-PIN JUNO CAT# CH6-226Q-2X26WQUAD-120V ELECTRONIC-DB120-650C-WH
- 'B' RECESSED POT LIGHT-347V C/W 2-32W TRIPLE 4-PIN LAMPS JUNO CAT# CH9-226/32/421-347V-950CWH
- 'F' 2'x4' RECESSED FLUORESCENT FOR T-BAR (BASKET FIXTURE) CEILING C/W 3-32W T8 LAMPS & ELECTRONIC BALLAST VISIONEERING CAT# BASCX2X23LT8-2X232IST8ELE347V
- 'F1' HIGH BAY FLUORESCENT FIXTURE C/W 6-54W T5 HO LAMPS REFLECTIVE BACKING & WIREGUARD, ELECTRONIC BALLAST VISIONEERING FHB648VFWGHD22354HOTSELE347V
- 'F2' RECESSED 1'x4' FLUORESCENT FOR DRYWALL CEILING C/W 2-32W T8 LAMPS & ELECTRONIC BALLAST VISIONEERING CAT# SPR4X1X42LMB3-1X232IST8ELE347V
- 'F3' 4FT 2 LAMP SUSPENDED FLUORESCENT STRIP LIGHT C/W -2-32W T8 LAMPS ELEC. BALLAST & WIRE GUARD VISIONEERING CAT# ECOM248/2WGLD2232IST8ELE347V
- 'F4' 2 LAMP 8 FT. FLUORESCENT STRIP C/W WIRE GUARD #4-32W T8 LAMPS, ELECTRONIC BALLAST 347V VISIONEERING CAT # COM296/2-432 IS HPF TB ELE 347V
- 'S' RECESSED SHOWER LIGHT C/W 60W A19 LAMP JUNO CAT# 241WH

**NOTE**  
LIGHTOLIER & KEENE ARE APPROVED ALTERNATIVES



**EXTERIOR RECEPTACLE VOLTAGE DROP CALCULATION BASED ON LONGEST RUN OF 77 METERS.**  
CORRECTION FACTOR = 2  
90% POWER FACTOR  
#8 RW90 WIREIN  
PVC CONDUIT K-FACTOR = 2.118  
1200W PER CIRCUIT = 100A (120V)  
VOLTAGE DROP =  $2.355 \times 2 \times 10 \times 0.877 \times 77$   
1000  
= 3.0 V.D.



**LEGEND OF SYMBOLS**

- CEILING MOUNTED FLUORESCENT FIXTURE. INSCRIBED LETTER DENOTES TYPE AS PER SCHEDULE.
- CEILING OR WALL MOUNTED INCANDESCENT OR H.I.D. FIXTURE. INSCRIBED LETTER DENOTES TYPE AS PER SCHEDULE.
- AS ABOVE BUT ON NIGHT LIGHT CIRCUIT.
- CEILING OR WALL MOUNTED EXIT STENCIL FACE LIGHT FIXTURE, LED SERIES. SHADED AREA DENOTES REQUIRED FACE. LUMACELL OR EQUAL. CONNECTED TO NORMAL POWER AND 12V DC EMERGENCY POWER.
- WALL MOUNTED EXIT LIGHT SIMILAR TO ABOVE EXCEPT C/W SELF-CONTAINED BY DC EMERGENCY BATTERY PACK AND 2-20W QUARTZ LAMPHEADS LUMACELL OR EQUAL.
- EMERGENCY LIGHTING UNIT 12VOLT DC SEE DRAWINGS FOR WATTAGE, LUMACELL OR EQUAL.
- SINGLE OR DOUBLE REMOTE EMERGENCY LAMPHEADS WALL MOUNTED MICRO QUARTZ 12V DC LAMPS, SEE DRAWINGS FOR WATTAGE WATTAGE INDICATED REPRESENT WATTAGE FOR EACH HEAD.
- 15A 120V DUPLEX U-GROUND RECEPTACLE C/W MATCHING COVERPLATE. MH 12" AFF. (20A DENOTES 20A RATING). (I/G DENOTES ISOLATED GROUND).
- SAME AS ABOVE EXCEPT MH 3'-6" AFF OR 6" ABOVE COUNTER.
- 15A 120V SPLIT CIRCUIT DUPLEX U-GROUND RECEPTACLE C/W MATCHING COVERPLATE. MOUNTING HEIGHT 3'-6" AFF OR 6" ABOVE COUNTER.
- 20A1P DUPLEX GFI T-SLOT RECEPTACLE WEATHERPROOF 125V RATING.
- 50A - 250V 3P - 4W GROUNDED SINGLE RECEPTACLE WALL MOUNTED (HUBBELL #8450 EEMAC 15-50R) 42" A.F.F.
- FLUSH FLOOR MOUNTED RECEPTACLE
- SINGLE POLE 3-WAY OR 4-WAY TOGGLE SWITCH C/W MATCHING COVERPLATE MH 4'-0" AFF. "PL" DENOTES C/W PILOT LIGHT.
- TELEPHONE OUTLET - WALL MOUNTED (PROVIDE 3/4" C FROM EACH OUTLET TO CEILING SPACE).
- WALL MOUNTED TEL./DATA OUTLET. 12" A.F.F. EXTEND 3/4" UP TO CEILING SPACE (F-INDICATES FLUSH FLOOR MOUNTED)
- 120V MOTOR OR POWER OUTLET AS INDICATED ON DRAWINGS.
- 208V 1 PHASE MOTOR OR POWER OUTLET AS INDICATED ON DRAWINGS.
- 208V 3 PHASE MOTOR OR POWER OUTLET AS INDICATED ON DRAWINGS.
- 600V 3 PHASE MOTOR OR POWER OUTLET AS INDICATED ON DRAWINGS.
- DISCONNECT SWITCH SIZED AS INDICATED ON DRAWINGS OR TO SUIT.
- JUNCTION BOX CEILING MOUNTED C/W CIRCUIT AS NOTED FOR FUTURE POWER CONNECTIONS OR AS NOTED ON DRAWINGS.
- STARTER SUPPLIED BY MECHANICAL CONTRACTOR BUT INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
- ELECTRIC BASEBOARD HEATER C/W BUILT-IN THERMOSTAT UNLESS INDICATED OTHERWISE. STELPRO. WATTAGE & VOLTAGE OF UNITS AS INDICATED ON DRAWINGS.
- ELECTRIC FORCE FLOW HEATER C/W BUILT-IN THERMOSTAT TAMPERPROOF. STELPRO. WATTAGE & VOLTAGE OF UNITS AS INDICATED ON DRAWINGS.
- DENOTES "WEATHERPROOF"
- LINE VOLTAGE THERMOSTAT SUPPLIED BY MECHANICAL CONTRACTOR WIRED & INSTALLED BY ELECTRICAL CONTRACTOR.
- MANUAL FIRE ALARM PULL STATION (MOUNT @ 1350MM AFF)
- HORN WITH STROBE
- 135° RATE OF RISE HEAT DETECTOR
- 200° FIXED TEMP HEAT DETECTOR
- SMOKE DETECTOR
- \*ALL FIRE ALARM DEVICES TO BE INSTALLED AS PER CAN-ULC-S524-06 STANDARD FOR INSTALLATION OF FIRE ALARM

**GENERAL NOTES:**

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO:
1. USE PROPER DIMENSIONS IN PREFERENCE TO SCALING.
2. VERIFY AND CHECK ALL DIMENSIONS PRIOR TO AND DURING CONSTRUCTION.
3. DETERMINE LOCATIONS OF ALL EXISTING SERVICES.
4. PLANS ARE IN CONFORMANCE WITH THE ONTARIO BUILDING CODE.

ANY CHANGES, DISCREPANCIES, OR SUBSTITUTIONS SHALL BE REPORTED TO AND APPROVED BY THE ARCHITECT BEFORE PROCEEDING.

**TRINSTAR ENGINEERING**  
Division of 1041549 Ontario Limited  
30 West Beaver Creek Road, Unit #118  
Concord, L4B-3K1  
(905) 882-1332  
(905) 882-0736

| NO. | DATE      | BY   | DESCRIPTION                |
|-----|-----------|------|----------------------------|
| 1   | 01 MAR 10 | J.Y. | ISSUED FOR PERMIT & TENDER |
| 2   | 01 MAR 10 | J.Y. | ISSUED FOR PERMIT & TENDER |
| 3   | 01 MAR 10 | J.Y. | ISSUED FOR PERMIT & TENDER |
| 4   | 01 MAR 10 | J.Y. | ISSUED FOR PERMIT & TENDER |
| 5   | 01 MAR 10 | J.Y. | ISSUED FOR PERMIT & TENDER |
| 6   | 01 MAR 10 | J.Y. | ISSUED FOR PERMIT & TENDER |
| 7   | 01 MAR 10 | J.Y. | ISSUED FOR PERMIT & TENDER |
| 8   | 01 MAR 10 | J.Y. | ISSUED FOR PERMIT & TENDER |
| 9   | 01 MAR 10 | J.Y. | ISSUED FOR PERMIT & TENDER |
| 10  | 01 MAR 10 | J.Y. | ISSUED FOR PERMIT & TENDER |

**PROFESSIONAL ENGINEER**  
A. SEDIK  
JUN/10  
PROVINCE OF ONTARIO

**PROJECT OWNER:**  
**GLENN ATTRIDGE**

**PROJECT NAME:**  
**ATTRIDGE TRANSPORTATION**  
4159 (4130) HARVESTER RD/BURLINGTON

**DRAWN BY:** J.Y.  
**DATE:** 23 MAR 2010  
**PROJECT NO.:** 210-073

**CHECKED BY:** J.P.  
**SCALE:** 1:500  
**SET NO.:**

**DRAWING NO.:**  
**E1**