

<u>Lamp Standard Base Detail</u>

127mm (5") dia. 4.6m (15') High Round

Street Light Standard Powder Coated Same Colour As Luminarie

—— 19x600 Anchor Bolts

Shall Be Sulfate Resistant

Type 50 Having A 28 Day

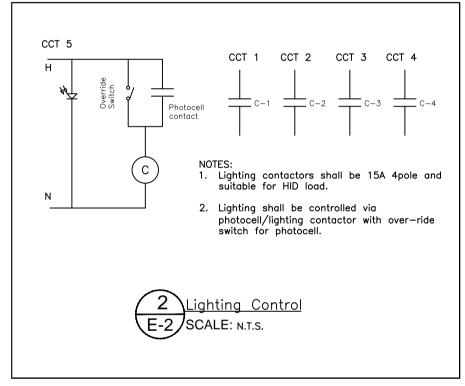
Min. 38mm Dia. Rigid PV

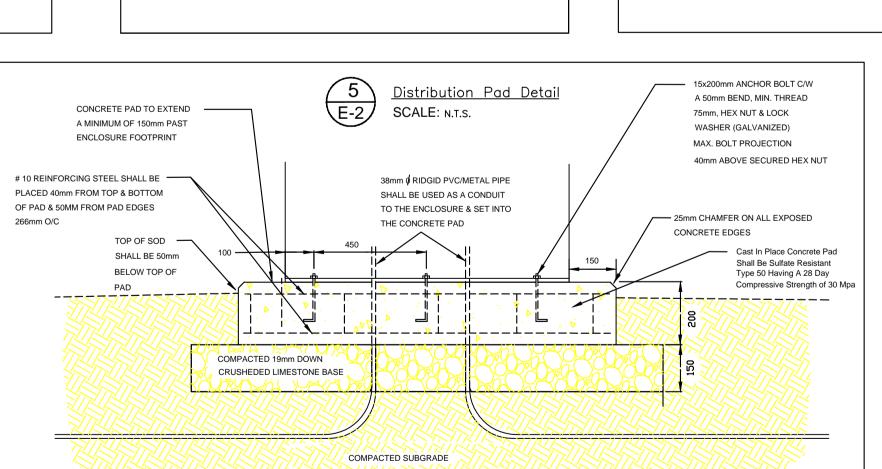
10M Rings @ 300mm O.C.

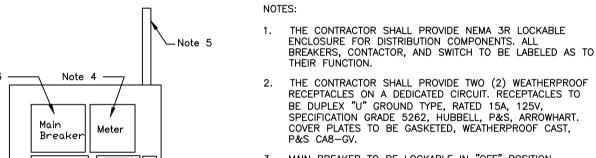
Compressive Strength of 30 Mp

SCALE: N.T.S.

Finished







3. MAIN BREAKER TO BE LOCKABLE IN "OFF" POSITION. 4. PROVIDE 100A METER SOCKET FOR UTILITY METERING

E-2 SCALE: N.T.S.

WHOLE NUMBERS INDICATE MILLIMETRES DECIMALIZED NUMBERS INDICATE METRES

PROVIDE 1.2 METER LENGTH OF 41MM RIGID STEEL CONDUIT AND ATTACH TO ENCLOSURE. INSTALL PHOTOCELL AT TOP OF CONDUIT COMPLETE WITH WIRE GUARD.

3 Distribution Enclosure Layout

. THE CONTRACTOR SHALL PROVIDE LAMACOID NAMEPLATES FOR ALL ELECTRICAL DISTRIBUTION EQUIPMENT/DEVICES AND MOUNT NAME PLATES ON ALL EQUIPMENT TO INDICATE FUNCTION VOLTAGE AND

POWER OF DEVICES. THIS SPECIFICATION IS NOT INTENDED TO RESTATE THE APPLICABLE CODES. THE CONTRACTOR WILL BE RESPONSIBLE

THE CONTRACTOR SHALL EXAMINE THE CONDITIONS OF THE SITE AND SHALL BE RESPONSIBLE FOR ALL

10. PRIOR TO SCHEDULING FINAL INSPECTION THE CONTRACTOR SHALL ENSURE THAT ALL WORK IS
COMPLETED AND IN PARTICULAR THAT OPERATION AND MAINTENANCE MANUALS ARE COMPLETED, ALL NAMEPLATES INSTALLED, VERIFICATION TESTS HAVE BEEN DONE AND CERTIFICATES HAVE BEEN RECEIVED THAT NDICATE WORK INSTALLED CONFORMS TO ALL

11. ALL TREES WITHIN THE CONSTRUCTION AREA MUST BE PROTECTED FOR THE DURATION OF THE CONSTRUCTION PERIOD IN ACCORDANCE WITH SECTION 3.19(CW 1130 SITE REQUIREMENTS) CITY OF WINNIPEG STANDARD

DELIVERABLES

DEVIATIONS FROM THE CONTRACT DOCUMENT AS THE JOB AS-BUILT DRAWINGS TO THE CONTRACT ADMINISTRATOR ON COMPLETION OF THE JOB.

SUMMARY OF ELECTRICAL WORK

PATHWAY AND DECORATIVE LIGHTING IS TO BE INSTALLED FOR LA VERENDRYE PARK. THE LIGHTING WILL CONSIST OF $11 \times 100 \text{W}$ HPS POST TOP LUMINAIRES INSTALLED ADJACENT TO THE PATHWAY AND 3×39 W CMH SPOTLIGHTS TO ILLUMINATE THE STATUE. ALL LIGHTING TO BE CONTROLLED VIA AN OUTDOOR DISTRIBUTION CABINET C/W PHOTOCELL. CONTRACTOR SHALL BE RESPONSIBLE FOR LIAISING WITH MANITOBA HYDRO FOR THE INSTALLATION OF A CUSTOMER SERVICE POINT AT THE EAST SIDE OF THE PARK. MANITOBA HYDRO CONTACT TOD GORMAN 235-4370

DSP5-U-PAR30-35/39MH-120-BPR-CH OR APPROVED EQUAL. SPOTLIGHTS TO BE INSTALLED IN POURED CONCRETE BLOCK. BLOCK TO BE RECESSED FLUSH WITH GRADE 30mm x 30mm x 30mm MINIMUM COMPLETE WITH LOCKABLE GALVANIZED WIRE

CAGE AND ANCHORED INTO CONCRETE, CONTACT HUNTER WIRE FOR CAGE. ARROWS THRU SYMBOL INDICATE AIMING ANGLE. 2. POST TOP LUMINARIES TO BE VANDAL-RESISTANT SDL LIGHTING VP80-LR2-100S-120/240-H11-PC/8G, LUMINAIRES TO BE MOUNTED

3. CONTRACTOR TO PROVIDE NEMA 3R LOCKABLE OUTDOOR ENCLOSURE TO HOUSE ALL ELECTRICAL COMPONENTS, REFER TO

DUTDOOR ENCLOSURE TO INSTALLED ON STRUCTURAL CONCRETE REINFORCED PAD TO EXTEND A MINIMUM OF 150mm PAST ENCLOSURE FOOTPRINT. SEE DETAIL 5 E-2. CONFIRM EXACT LOCATION OF PAD WITH CONTRACT ADMINISTRATOR PRIOR TO COMMENCING WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND PROVIDE ALL REQUIREMENTS OF MANITOBA HYDRO TO PROVIDE A 120/240V 100A CUSTOMER SERVICE POINT AT DISTRIBUTION ENCLOSURE AS INDICATED, THE CONTRACTOR MUST CARRY ALL COSTS ASSOCIATED WITH THE REMOVAL OF 2 HYDRO PARK LIGHTS AND POLES. ONE EXISTING POLE WILL REMAIN TO FACILITATE THE FEED TO THE BUS SHELTER AT THE SOUTH WEST CORNER OF THE PARK.

ALL LUMINAIRE LOCATIONS TO BE CONFIRMED BY CONTRACT ADMINISTRATOR (TONNI BUUS 986-3781 OR CELL 803-3351) PRIOR TO COMMENCING WORK.

THE CONTRACTOR SHALL INFORM THE CONTRACT ADMINISTRATOR AT LEAST FIVE DAYS IN ADVANCE OF POURING THE BASES TO ALLOW THE CONTRACT ADMINISTRATOR TO VERIFY LOCATIONS AND WITNESS PROCESSES. THE CONTRACTOR TO ALSO INFORM THE CONTRACT ADMINISTRATOR AT LEAST FIVE DAYS IN ADVANCE OF HE TRENCHING TO ALLOW THE CONTRACT ADMINISTRATOR TO WITNESS THE PROCESS

ALL DIMENSIONS IN METERS UNLESS INDICATED

9. THE CONTRACTOR UPON COMPLETION OF THE JOB MEET THE CONTRACT ADMINISTRATOR ON SITE DURING THE EVENING FOR THE PURPOSE OF AIMING THE LIGHTS. THE CONTRACTOR TO PROVIDE MANPOWER AND EQUIPMENT TO ROTATE THE LUMINAIRES TO ENSURE THAT LIGHTING DISTRIBUTION IS APPROPRIATELY AIMED WITH RESPECT TO PATHWAY.

TRENCHING

CONTRACTOR TO PROVIDE TRENCHING REQUIRED TO POWER ALL LUMINAIRES, DEPTH TO BE MINIMUM 600mm AS PER ELECTRICAL CODE. WIRING TO BE DIRECT-BURY RWU, PROVIDE MINIMUM 150mm SAND ABOVE AND BELOW WIRING, MAINTAIN ACCURATE LOCATIONS OF TRENCHING FOR INCLUSION ON AS-BUILT DRAWINGS. CONTRACTOR TO COORDINATE TRENCHING WITH CONTRACT ADMINISTRATOR AND OTHER ON SITE CONTRACTORS COMPLETING LANDSCAPE WORK. CONTRACTOR TO PROVIDE SOIL COMPACTION TO 95% PROCTOR DENSITY, RE-SOD AS REQUIRED IN ACCORDANCE WITH THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS CW 3510 TO RETURN AREA TO ORIGINAL CONDITION.

THE ELECTRICAL SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE (CEC) AND WITH ALL PROVINCIAL AND MUNICIPAL LAWS, RULES AND ORDINANCES.

2. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOUR AND EQUIPMENT NECESSARY FOR INSTALLING, TESTING AND PLACING IN INITIAL OPERATION THE COMPLETE ELECTRICAL SYSTEM.

EXAMINE ALL PLANS AND SPECIFICATIONS PERTAINING TO THIS CONTRACT. NOTIFY CONTRACT ADMINISTRATOR OF ERRORS OR OMISSIONS BEFORE SUBMITTING THE PRICE. FAILING SUCH NOTIFICATION, THIS CONTRACTOR SHALL MEET ALL SUCH REQUIREMENTS WITHOUT EXTRA COST TO THE CITY

4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, PAY ALL NECESSARY FEES AND GIVE ALL

NECESSARY NOTICES. 5. ALL EQUIPMENT SUPPLIED UNDER THIS CONTRACT

SHALL BE NEW AND SHALL BE CSA AND LOCALLY APPROVED.

 ALL WORK SHALL BE LAID OUT IN ITS MECHANICAL APPEARANCE. IT SHALL BE LOGICALLY ARRANGED FOR SIMPLICITY OF ACCESSIBILITY AND ELECTRICAL

FOR PROVIDING ALL GROUNDING, ETC. AND FOLLOWING ALL WIRING METHODS.

EQUIPMENT, MATERIAL, AND LABOUR NECESSARY FOR THE WORK REQUIRED FOR THIS PROJECT.

REQUIREMENTS.

CONSTRUCTION SPECIFICATIONS.

1. THE CONTRACTOR SHALL MAINTAIN ONE SET OF PLANS AT JOB SITE WHICH HE SHALL CLEARLY NOTE ALL CHANGES OR PROGRESSES. THE CONTRACTOR SHALL SUBMIT THREE SETS OF

3. THE CONTRACTOR SHALL PROVIDE THREE COPIES OF OPERATIONS & MAINTENANCE(O&M)MANUALS. THE O&M MANUALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF TECHNICAL BULLETIN #15 ISSUED BY THE JOINT MAA/WCA COMMITTEE AND THE CONTRACT GENERAL CONDITIONS THE CONTRACTOR SHALL SUBMIT ONE PRELIMINARY COPY PRIOR TO THE COMPLETION OF WORK, REVISE AS DIRECTED AND SUBMIT FINAL COPIES

LAYOUT

 THE CONTRACTOR SHALL LAYOUT ALL WORK, ESTABLISHING ALL LINES, LEVELS AND CENTRES AND SHALL ASSUME RESPONSIBILITY FOR ANY ERRORS RESULTING FROM FAILURE TO USE

TO THE CONTRACT ADMINISTRATOR.

APPROVED BY THE CONTRACT ADMINISTRATOR

. POLES TO BE 6.1 METERS (20') HIGH, STEEL, AND TO BE PRIMED AND H11 TEXTURED BLUE.

2. BASES TO BE POURED CONCRETE AS PER

CUSTOMER SERVICE POINT

 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND PROVIDE ALL REQUIREMENTS OF MANITOBA HYDRO TO PROVIDE A 120/240V 100A CUSTOMER SERVICE POINT

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND PROVIDE ALL REQUIREMENTS FOR THE REMOVAL OF ALL EXISTING WOOD POLES AND EXISTING LIGHTING IN THE PARK. EXISTING NON—HYDRO LIGHTING TO BE TURNED OVER TO THE CITY. ONE HYDRO POLE WILL REMAIN TO FACILITATE THE ELECTRICAL FEED TO THE EXISTING BUS SHELTER. LIGHTING

. PATHWAY LIGHTING SHALL CONSIST OF ELEVEN (11)
100W 120V POST TOP LUMINAIRES MOUNTED ON 6.1
METER STEEL POLES. PATHWAY LIGHTING TO MEET HE FOLLOWING LIGHTING CRITERIA:

(A) ≥ 5.0 LUX AVERAGE ILLUMINANCE (B) \leq 2.5 AVERAGE/MIN (C) \leq 6.5 MAX/MIN (D) LIGHT LOSS FACTOR = 0.7(E) VANDAL-PROOF LUMINAIRES

2. POST TOP LUMINAIRES SHALL MEET THE FOLLOWING CRITERIA: (A) CSA APPROVED OR ULC LISTED (B) SUITABLE FOR WET LOCATION (C) HEAVY-DUTY SPUN ALUMINUM HOUSING (D) CORROSION RESISTANT HARDWARE (E) HEAT AND SHOCK RESISTANT POLYCARBONATE

(F) LAMP SHALL BE 100W HPS (G) APPROVED POST TOP LUMINAIRE: (I) VP80 LR2 100S 120/240 H11 PC 8G SDL (II) OR APPROVED EQUAL.

CRITERIA: (A) CSA APPROVED OR ULC LISTED (B) SUITABLE FOR WET LOCATION, IP65 RATING (C) HEAVY-DUTY DIE-CAST ALUMINUM HOUSING (D) CORROSION RESISTANT HARDWARE

3. SPOTLIGHT LUMINAIRES SHALL MEET THE FOLLOWING

(E) HEAT AND SHOCK RESISTANT TEMPERED CLEAR CONVEX GLASS LENS (F) LAMP SHALL BE PAR 30 35W MH (G) APPROVED SPOTLIGHT LUMINAIRE:

(I) GARDCO DSP5 U PAR30 35/39MH 120 BRP

AIMING AND ACCEPTANCE TESTING

(II) OR APPROVED EQUAL.

1. THE CONTRACTOR SHALL MEET THE CONTRACT ADMINISTRATOR ON SITE TO VERIFY/AIM SPOTLIGHTS/POST TOP LIGHTS AND TO MEASURE LIGHTING LEVELS ON COMPLETION OF THE WORK. NOTE THAT SITE VISIT WILL BE REQUIRED AFTER DARK.

GROUNDING

1. THE ENTIRE INSTALLATION SHALL BE GROUNDED IN CONFORMANCE WITH LATEST EDITION OF THE CEC

DISTRIBUTION AND PANEL

1. DISTRIBUTION SHALL BE 120/240V SINGLE PHASE, 60A, 3W.

2. DISTRIBUTION SHALL BE INSTALLED IN A WEATHERPROOF, LOCKABLE, NEMA 3R RATED ENCLOSURE. DISTRIBUTION TO BE INSTALLED ON A STRUCTURAL CONCRETE REINFORCED PAD THAT EXTENDS A MINIMUM OF 150mm PAST ENCLOSURE FOOTPRINT.

3. THE CONTRACTOR TO COORDINATE ALL LOCKS WITH THE PARKS & OPEN SPACE DIVISION ELECTRICIAN. PROVIDE THREE (3) SETS OF KEYS FOR THE LOCKABLE DEVICES.

4. MAIN BREAKER SHALL BE: (A) LOCKABLE IN "OFF" POSITION;

(B) 240V, 60A, WITH NEUTRAL. 5. PANELBOARD/BREAKERS SHALL MEET THE FOLLOWING

(A) PANELBOARDS TO CSA C22.2 NO. 29 - 1989

(B) MINIMUM OF SEVEN (7) 15A-1P BREAKERS WHICH INCLUDES ONE SPARÈ (C) MAINS SHALL BE SUITABLE FOR BOLT-ON WITH

THERMAL AND MAGNETIC TRIPPING. EACH BREAKER SHALL BE IDENTIFIED WITH PERMANENT NUMBER IDENTIFICATION AS TO CIRCUIT NUMBER: (D) TUBS CODE GAUGE GALVANIZED STEEL, REVERSIBLE TOP AND BOTTOM, SOLDERLESS CONNECTIONS, COPPER BUS WITH NEUTRAL OF

SAME AMPERE RATING AS MAINS, ADJUSTABLE MOLDED INSULATOR ASSEMBLIES INTEGRAL WITH (E) NAMEPLATE SHALL INDICATE PANEL DESIGNATION AND VOLTAGE:

(F) COMPLETE CIRCUIT DIRECTORY WITH TYPEWRITTEN LEGEND SHOWING LOCATION AND LOAD OF EACH CIRCUIT;

WARNING

FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR 1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION. 2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED

SEE PROVINCIAL REGULATION 210/72 FOR DETAILS THE CITY OF WINNIPEG

200 . WM	WATERMAIN	200 . WM		SL , HYDRO	<u>1</u> 5 <u>0</u> 1	<u>₩</u>	WATERMAIN	150 WM	LOCATION APPROVED	B.M.	FIELD BOOK #:		וריוני	y of			LANDSCAPE ARCHITE ENGINEER'S SEAL
~	HYDRANT	+		MTS	t	·	HYDRANT	t		B.M.	·V.						ENGINEER O' SENE
8	VALVE	⊗		TRAFFIC SIGNALS		X I	VALVE	X	UNDERGROUND STRUCTURES	PDS	TED TO LBIS		PAR	rks wate	RWAYS AN		
525_ LDS_	LAND DRAINAGE SEWER	525 LDS	50_GAS	GAS		<u>l</u> <u>D</u> S_ LA	AND DRAINAGE SEWER	300 LDS	T					COMMUN	ITY INITIA	TIVES	
<u>375</u> <u>WWS</u>	WASTEWATER SEWER	375 WWS	+	SURVEY BAR	<u>-25</u> 0	VVV	WASTEWATER SEWER	250 WWS	SUPV. U/G STRUCTURES DATE COMMITTEE								
0	MANHOLE	•	POLE T	TOP LUMINARES		x	TOP OF ASPHALT	(00.00)	NOTE:			DE	SIGNED		CHECKED		
	CATCH BASIN		\rightarrow	EXIST.POLE TOP LUMINARE	S -///	TOF	IP OF LIMESTONE BASE	[00.000]	LOCATION OF UNDERGROUND STRUCTURES AS					ТВ		RZ	
∇	CURB INLET	▼	→	PROP. POLE & LUMINARE					SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN			DR RY	AWN	TD	APPROVED RY	D.7	
◁	REDUCER	•	─◆	PROP. BASE, POLE & LUMINARE					THAT ALL EXISTING UTILITIES ARE SHOWN OR					I B		<u> </u>	
χ	COUPLER	χ		BURIED LIGHT CABLE					THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT			HC	IR. SCALE	1:400	RELEASED FO	JR N	BID OPPORTUNITY
₽.	AN□DE	7	*	TREE					LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES			VI	ERTICAL				FILENAME :
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED EXI	STING	LEGEND-PROFILE	PROPOSED	BEFORE PROCEEDING WITH CONSTRUCTION.	ND.	REVISIONS DATE I	BY DA	TE JUL	Y 20,2011	DATE JUN	E 20,2010	PLOT DATE:



Planning, Property and Development Depart. Parks Waterways and Community Initiatives Unit 15-30 Fort Street

LA VERENDRYE PARK PATHWAY LIGHTING

SHEE	^т 1	OF
CITY	DRAWING	NUMBER

L,37-E