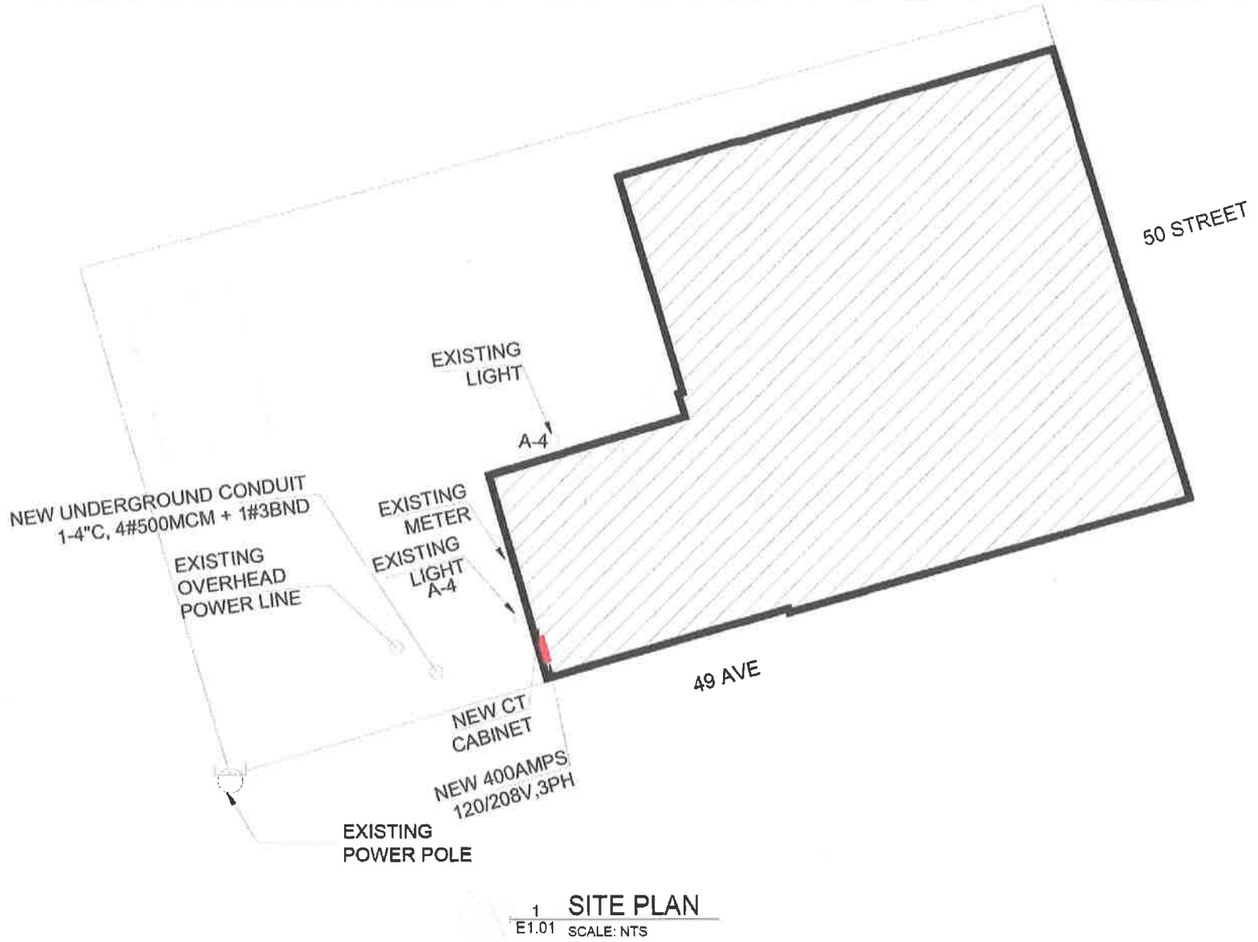


1 SITE PLAN
E1.01 SCALE: NTS

SYMBOL LEGEND

LIGHTING	
	CEILING OR WALL MTD. LUMINAIRE
	CEILING OR WALL RECESSED LUMINAIRE
	STRIP LIGHT LUMINAIRE
	CEILING SURFACE/SUSPENDED LUMINAIRE
	WALL MOUNTED LUMINAIRE
	RECESSED LUMINAIRE
	TRACK LIGHTING (NUMBER OF HEADS AS SHOWN)
	SITE LIGHT LUMINAIRE (NUMBER OF HEADS AS SHOWN)
101	DENOTES LUMINAIRE TYPE (101)

SWITCHES	
	SINGLE POLE SWITCH, SINGLE GANGED
	SINGLE POLE SWITCH, MULTI-GANGED
	THREE WAY SWITCH
	FOUR WAY SWITCH
	DIMMER SWITCH

POWER / RECEPTACLE	
	DUPLEX RECEPTACLE
	DUPLEX T-SLOT RECEPTACLE/ 20AMP
	GFI T-SLOT RECEPTACLE/ 20AMP
	WEATHERPROOF GFI RECEPTACLE
	GFI RECEPTACLE
	DEVICE MOUNT 6"(150mm) ABOVE COUNTERTOP
	FLUSH FLOOR BOX (P-POWER, D-DATA, T-TELEPHONE)
	2 POLE / 3POLE SPECIAL RECEPTACLE
WP	CAR POST

AUXILIARY	
M	MAGNETIC STARTER
J T H	J=JUNCTION BOX / T=THERMOSTAT / H=HUMIDISTAT
M	MOTOR
D	DISCONNECT
M D	MOTOR WITH DISCONNECT
	UP / STOP / DOWN

LOW VOLTAGE	
T	TELEPHONE OUTLET / ABOVE COUNTERTOP
TV	TELEVISION OUTLET / ABOVE COUNTERTOP
D	DATA OUTLET/ ABOVE COUNTERTOP
T D	COMBO OUTLET / ABOVE COUNTERTOP 4" SQUARE J.B. C/W SINGLE GANG PLASTER RING
S	SPEAKER ALARM
M	MICROPHONE
S M	CEILING SPEAKER / WALL SPEAKER

DISTRIBUTION / MISCELLANEOUS	
	TRANSFORMER WITH RAILS
	SINGLE OR DOUBLE ELECTRICAL PANEL
	TELEPHONE BACKBOARD
E	EXISTING
RL	RELOCATED
R	EXISTING TO BE REMOVED

EGRESS LIGHTING SYMBOL LEGEND	
EXIT	PICTOGRAM EXIT SIGN, SINGLE FACE, WALL OR CEILING MOUNTED, SELF POWERED, AUTO TEST.
EXIT	COMBINATION PICTOGRAM EXIT SIGN c/w 12V 50W OR 100W BATTERY & EMERGENCY LIGHTS (6W LED) SINGLE FACE, WALL OR CEILING MOUNTED, SELF POWERED, AUTO TEST.
EXIT	PICTOGRAM EXIT SIGN, SINGLE FACE,DIRECTIONAL, WALL OR CEILING MOUNTED, SELF POWERED, AUTO TEST.
	EMERGENCY LIGHT w/ 12V BATTERY (36,72,100,144,216W CAPACITY), TWO (2) 4W MR16 LED LAMPS.
	EMERGENCY LIGHT, TWO (2) REMOTE 12V 6W MR16 LED LAMPS.
	EMERGENCY LIGHT, ONE (1) REMOTE 12V 6W MR16 LED LAMP.
NOTES	WIRE AND CONNECT ALL REMOTE HEADS AND DC SOCKET OF EXIT LIGHTS TO RESPECTIVE BATTERY PACK

BUILDING LOCATION

LEGAL DESCRIPTION:
PLAN 6288 BZ; BLOCK 1; LOT 8+9

CIVIC ADDRESS:
4904-50ST
ONOWAY, ALBERTA, T0E 1V0

DRAWING LIST

LEXUS ENGINEERING

UNIT #208 8716 - 48 AVENUE NW
EDMONTON, ALBERTA,T6E 5L1
BUS (780) 435-4544

PERMIT TO PRACTICE
LEXUS ENGINEERING LTD
Date 2021-03-12
PERMIT NUMBER: 11367
The Association of Professional Engineers, Geoscientists of Alberta

stamp / permit

PROFESSIONAL ENGINEER GERRY GOMEZ ALBERTA
2021-03-12

NO.	Description	Date (Y/M/D)
2	Issued for BP	2021-03-12
1	Issued for Review	2021-02-02

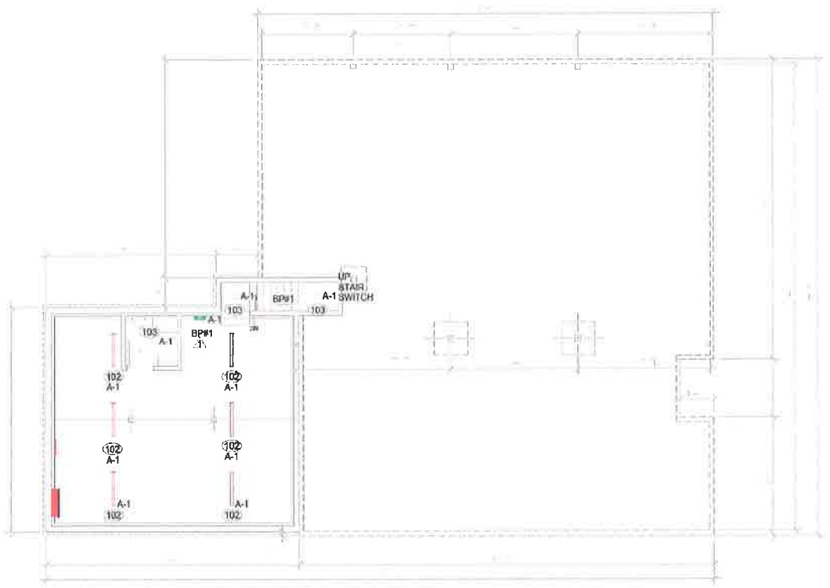
Revisions

PROJECT TITLE
ONOWAY YOUTH CENTRE

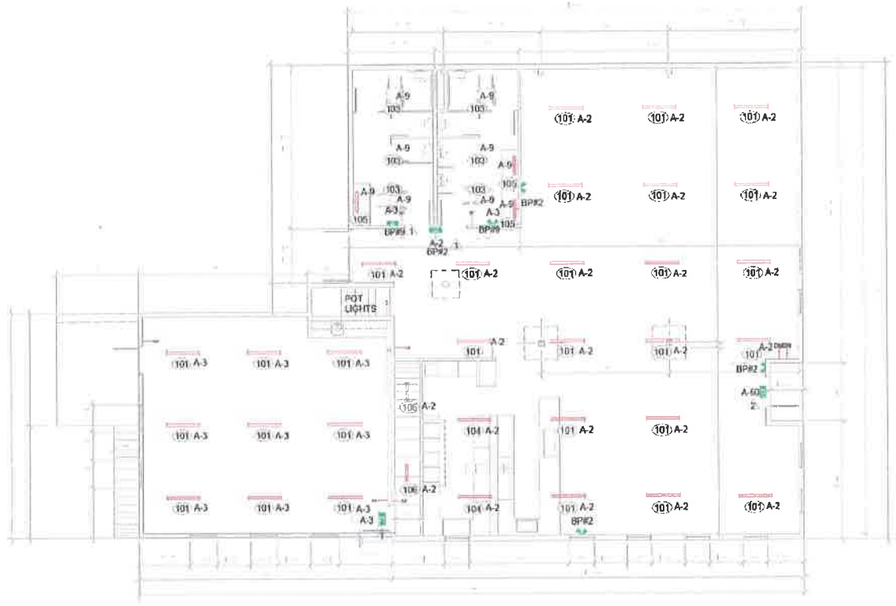
PROJECT ADDRESS
4904 50 ST Onoway, AB.
T0E 1V0

DRAWING TITLE
COVER PAGE

DRAWN MC	PROJECT NUMBER C395
CHECKED GG	SCALE AS NOTED
DATE SEP 18, 2020	SHEET NO. E1.01



1 BASEMENT LIGHTING PLAN
E2.01 SCALE: 1/8"=1'-0"



2 MAIN FLOOR LIGHTING PLAN
E2.01 SCALE: 1/8"=1'-0"

LUMINAIRE SCHEDULE				
TYPE	MANUFACTURE	CATALOGUE NO.	LAMPS	MOUNTING AND REMARK
101	COOPER LIGHTING	4SLSTP2040DD	23.8 WATT LED	SUSPENDED 4' LUMINAIRE, 80CRI,4000K, 2829 LUMENS,120V, MH-8FT
102	COOPER LIGHTING	4SNLED-LDS-41SL-LW-UNV-L840-CD1	35 WATT LED	SUSPENDED 4' LUMINAIRE, 80CRI,4000K, 4214 LUMENS,120V, MH-8FT
103	COOPER LIGHTING	LCR4089FSE010MW	10 WATT LED	RECESSED 4" ROUND LUMINAIRE , 80CRI,4000K, 800 LUMENS,WHITE TRIM, 120V, MH-8FT
104	COOPER LIGHTING	4SLSTP4040DD	41.8 WATT LED	SUSPENDED 4' LUMINAIRE, 80CRI,4000K, 4978 LUMENS,120V, MH-8FT
105	RUSSELL	750-503/CHR	30 WATT LED	SURFACE DRYWALL, 1917 LUMENS, 3000K, 120V, MH-8FT
106	COOPER LIGHTING	2SLSTP2040DD	22.2 WATT LED	SUSPENDED 4' LUMINAIRE, 80CRI,4000K, 2679 LUMENS,120V, MH-8FT
COMBO EXIT/EMERGENCY	LUMACELL	LSC44W2MT9	44	SUSPENDED/WALL
EMGY LIGHT W/BATTERY PACK	LUMACELL	RGC442MT9WZD	44	SUSPENDED/WALL
EXIT SIGN	LUMACELL	LP3WS	3	SUSPENDED/WALL

3 LUMINAIRE SCHEDULE
E2.01 SCALE: 1/8"=1'-0"

#	ELECTRICAL KEY NOTES
1	CONNECT TO LOCAL LIGHTING CIRCUIT.
2	EXIT RUNNING MAN SIGN -CONNECT TO UNSWITCHED LED OF SEPARATE CIRCUIT.

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LEXUS ENGINEERING LTD
Date 2021-03-12
PERMIT NUMBER: 11367
The Association of Professional Engineers, Geoscientists of Alberta

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PROFESSIONAL ENGINEER GURJIT GOMEZ ALBERTA
2021-03-12

NO.	Description	Date (Y/M/D)
2	Issued for BP	2021-03-12
1	Issued for Review	2021-02-02

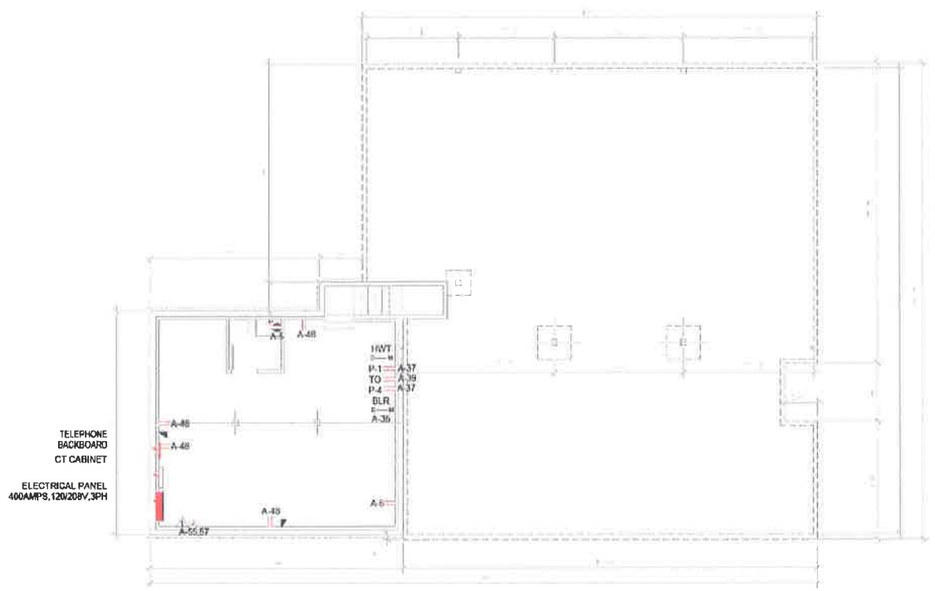
Revisions

PROJECT TITLE
ONOWAY YOUTH CENTRE

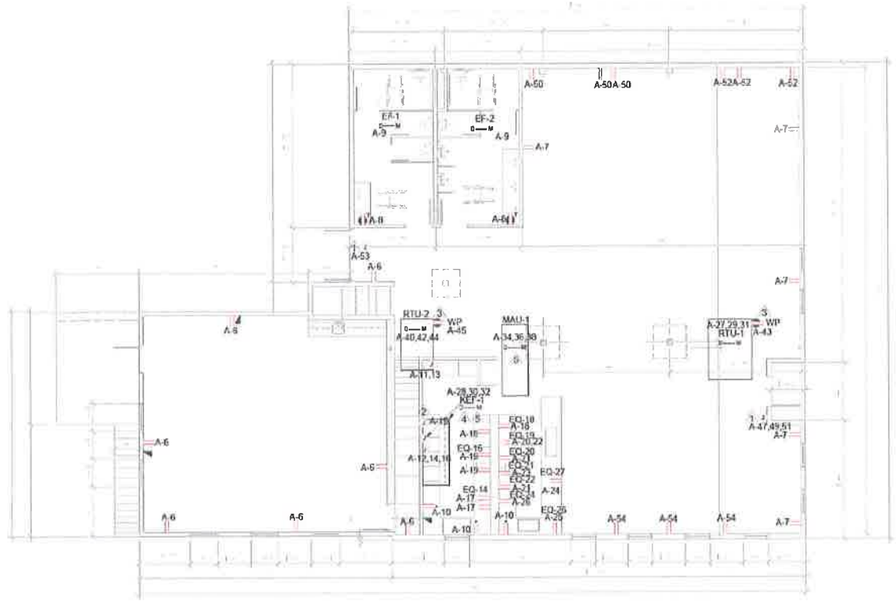
PROJECT ADDRESS
4904 50 ST Onoway, AB.
T0E 1V0

DRAWING TITLE
BASEMENT, MAIN FLOOR LIGHTING PLAN AND LUMINAIRE SCHEDULE

DRAWN MC	PROJECT NUMBER C395
CHECKED GG	SCALE AS NOTED
DATE SEP 18, 2020	SHEET NO. E2.01



1 BASEMENT POWER PLAN
E3.01 SCALE: 1/8"=1'-0"



2 MAIN FLOOR POWER PLAN
E3.01 SCALE: 1/8"=1'-0"

LOCATION: BASEMENT		PANEL A					AMPS: 400
MOUNTING:SURFACE							VOLTS:120/208 VAC, 3PH , 4W
CIRCUIT: 60							SUPPLY FROM: POLE MOUNT TRANSFORMER
EQUIPMENT	TRIP	NO	A	B	C	NO	TRIP	EQUIPMENT
BASEMENT LIGHTING	15	1	ϕ			2	15	ASSEMBLY AREA#1 LIGHTING
ASSEMBLY AREA#2 LIGHTING	15	3		ϕ		4	15	EXTERIOR LIGHTING
BASEMENT BATHROOM RECEPTACLE	15	5			ϕ	6	15	ASSEMBLY AREA#1 RECEPTACLES
ASSEMBLY AREA#2 RECEPTACLES	20	7	ϕ			8	20	BATHROOM RECEPTACLES
BATHROOM LIGHTING AND EF	15	9		ϕ		10	20	KITCHEN RECEPTACLES
DISHWASHER	40	11			ϕ	12		
		13	ϕ			14	100	COMBI OVEN
HOOD JUNCTION BOX	15	15		ϕ		16		
EQ-14	15	17			ϕ	18	15	KITCHEN RECEPTACLES
EQ-15		19	ϕ			20		
EQ-20,22	15	21		ϕ		22	40	EQ-19
EQ-21	15	23			ϕ	24	15	EQ-27
EQ-26	15	25	ϕ			26	15	EQ-24
RTU-1	50	27		ϕ		28		
		29			ϕ	30	15	KEF
		31	ϕ			32		
AIR CURTAIN 4FT	15	33		ϕ		34		
BLR	15	35			ϕ	36	15	MAU-1
P-1, P-2	15	37	ϕ			38		
P-3, P-4	15	39		ϕ		40		
BLR	15	41			ϕ	42	40	RTU-2
RTU-1 RECEPTACLE @ ROOF	20	43	ϕ			44		
RTU-2 RECEPTACLE @ ROOF	20	45		ϕ		46	30	EXTERIOR POWER
EUH-1	30	47			ϕ	48	15	BASEMENT RECEPTACLES
		49	ϕ			50	15	STAGE RECEPTACLES
		51		ϕ		52	15	STAGE RECEPTACLES
EUH-3	15	53			ϕ	54	15	RECEPTACLES
EUH-2 @BASEMENT	25	55	ϕ			56	15	SPARE
		57		ϕ		58	15	SPARE
SPARE	15	59			ϕ	60	15	EXIT LIGHTS

3 PANEL SCHEDULE
E3.01 SCALE: 1/8"=1'-0"

#	ELECTRICAL KEY NOTES
1	JB FOR AIR CURTAIN AND UNIT HEATER
2	JUNCTION BOX FOR KITCHEN EXHAUST HOOD AND FIRE SUPPRESSION CONTROL PANEL. COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN
3	MOUNT RECEPTACLE ON UNIT (MINIMUM 750MM ABOVE ROOF) COMPLETE WITH WATERPROOF, WHITE IN-USE COVER. GFCI MAINTENANCE RECEPTACLE AS PER CANADIAN ELECTRICAL CODE, CSA 2K-704 REQUIREMENTS. CONNECT TO PANEL ON DEDICATED BRANCH CIRCUIT. PROVIDE CIRCUIT BREAKER (20A-1P)
4	JUNCTION BOX FOR ROOF KITCHEN EXHAUST FAN MOTOR. COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
5	INTERLOCK MAU-1 WITH KITCHEN EXHAUST FAN KEF-1

LEXUS ENGINEERING

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Date 2021-03-12
PERMIT NUMBER: 11367
The Association of Professional Engineers, Geoscientists of Alberta

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PROFESSIONAL ENGINEER GEORGY DOBRE ALBERTA
2021-03-12

NO.	Description	Date (Y/M/D)
2	Issued for BP	2021-03-12
1	Issued for Review	2021-02-02
	Revisions	

PROJECT TITLE
ONOWAY YOUTH CENTRE

PROJECT ADDRESS
4904 50 ST Onoway, AB.
T0E 1V0

DRAWING TITLE
BASEMENT, MAIN FLOOR POWER PLAN AND PANEL SCHEDULE

DRAWN MC	PROJECT NUMBER C395
CHECKED GG	SCALE AS NOTED
DATE SEP 18, 2020	SHEET NO. E3.01

ELECTRICAL SPECIFICATION

1. GENERAL

1.1. All clauses in the General Conditions of Contract and any Supplementary General Conditions shall apply to this trade.

1.2. This specification covers the supply and installation of all electrical equipment. All equipment shall be new, unless specifically indicated on drawings, and be CSA approved. The entire installation shall be in conformance to the applicable regional building code, and the Canadian Electrical Code, Part 1 (CEC).

1.3. Installation of all equipment shall be performed by skilled craftspeople holding current certificate of proficiency issued pursuant to the Tradesmen's Qualifications Act in respect to the applicable trade.

1.4. This Contract includes all apparatus, tool service, materials and labour to complete all work specified. Contractor shall be responsible for the procurement and delivery of all equipment and material for the satisfactory completion of the work. Handle, store and install equipment in such a manner that no damage occurs to the equipment or structure. The Contractor shall replace, repair or relocate any equipment or property which is improperly installed or damaged during installation, at no additional cost to the Owner.

1.5. It shall be the Contractor's responsibility to examine all other drawings and specifications that may have an effect on the electrical installation and verify in the field all connections to and locations of all existing structures and equipment. The locations & details of various items shown on the contract drawings may be approximate, and are subject to revision to accommodate construction and unforeseen details. Any inconsistency or error discovered in the drawings or specifications shall be reported immediately to the Engineer.

1.6. The Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order for the work to be carried out. All necessary certificates shall be furnished as evidence that the installation conforms to the laws and regulations of all authorities having jurisdiction before final certificates are issued.

1.7. The Electrical Contractor shall coordinate with the other Contractors to avoid conflict or interference with other trades. Contractor shall promptly perform their work so as not to delay other trades.

1.8. The Electrical Contractor shall be responsible for all excavation and backfill required for the electrical installations.

1.9. Submit one (1) copy of shop drawings of all proposed equipment for review by the Engineer. The appropriate number of copies of shop drawings are to be made by the Contractor after the Engineer's review for inclusion in the Operation & Maintenance Manual. No equipment shall be installed until such approval is obtained.

1.10. Provide three (3) copies of the Operation & Maintenance Manual for all new electrical equipment and systems to the Owner. Documentation is to be submitted through the General Contractor. These manuals shall be clearly labelled in heavy-duty binders, and include at a minimum:

1.10.1. Table of contents & tabulated sections arranged in systematic order, following the specification format where applicable.

1.10.2. Product data including only information pertinent to the installed product.

1.10.3. Subcontractor and Supplier names including the responsible principal, mailing addresses, telephone numbers and email addresses.

1.10.4. Complete operating and maintenance instructions for all mechanical equipment.

1.10.5. Voltage balancing reports.

2. PRODUCT OPTIONS & SUBSTITUTIONS

2.1. For products specified by non-proprietary specification, select any product which meets requirements of Contract Documents, by any manufacturer.

2.2. For products specified by proprietary specification and accompanied by words indicating that substitutions will not be accepted, select any product or manufacturer named. Substitutions are not permitted.

2.3. Except where substitutions are not permitted, when a product is specified by proprietary specification, other unnamed products will be accepted, subject to such substitutions being the same generic type as, being capable of performing the same functions as, and meeting or exceeding the standards of quality and performance of the named product. Substitutions shall not require revisions to Contract Documents.

2.4. In making a substitution Contractor represents that:

2.4.1. Contractor has investigated substitute product and/or manufacturer and has determined that it meets the criteria specified in 2.3,

2.4.2. Contractor will make any changes to the Work necessitated by the substitution as required for the Work to be complete in all respects.

3. GROUNDING

3.1. Grounding shall be as required by CEC. Ground all mechanical metallic pipe systems. Refer to Mechanical project drawings, if applicable.

4. POWER DISTRIBUTION

4.1. Provide power distribution to meet the requirement of the single line diagram and loads listed.

4.2. Make adjustments to the circuit breaker ratings to suit changes in the final loads.

4.3. Balance all circuit connections at the panel to maintain a phase current variation of ±15%

4.4. Panels shall be copper bus with bolt-on style breakers.

4.5. All electrical enclosures shall be NEMA Type 4, weatherproof rated, unless otherwise noted.

5. WIRE AND CONDUIT

5.1. All wire shall be a minimum 600V XLPE.

5.2. All power and lighting wiring shall be armoured flexible (TECK) cable and rated for high humidity & wet environments.

5.3. Route raceways in a neat manner and coordinate with mechanical systems. Wiring shall be concealed wherever possible. Surface runs must be parallel with building lines. Raceways shall not be supported from T-bar hangers. Use CSA approved supports.

6. OUTLET BOXES

6.1. All outlet boxes shall be metal gangable type w/ NMD90 cable clamps.

6.2. All outlet boxes shall be installed flush where possible. Use 4" square boxes complete with trim rings to suit devices. Attach boxes to two (2) studs minimum where steel studs are used.

6.3. Provide polyethylene vapour barrier boots on all electrical boxes which penetrate a vapour barrier.

7. SWITCHES

7.1. All shall be matching colour, Decora style, specification grade (unless otherwise noted.) Do not substitute specified product.

7.2. Dimmer switch model shall be as shown on drawing. No substitutions permitted. Provide control wiring as required by manufacturer.

7.3. Switches may be relocated from locations shown on drawings due to site conditions or Owner preference, before installation, up to 3m without charge.

8. RECEPTACLES

8.1. Unless specified otherwise on drawings, top of receptacles shall be mounted 18" above finished floor. Matching colour, specification grade.

8.2. Confirm all mounting heights and location with Owner prior to rough-in. Coordinate with the millwork trade all counter tops and equipment located in the millwork.

8.3. Provide wall plates for all outlets.

8.4. Receptacles may be relocated from locations shown on drawings due to site conditions or Owner preference, before installation, up to 3m without charge.

9. MECHANICAL EQUIPMENT

9.1. Provide disconnect switches at all motor locations.

9.2. Supply and install all control wiring. Coordinate with Mechanical Contractor.

9.3. Co-ordinate all equipment requirements and locations prior to rough-in.

9.4. Supply and install power and connect all equipment shown on mechanical drawings. Provide dedicated circuits for control transformers.

10. GENERAL EQUIPMENT

10.1. Confirm all requirements and locations prior to rough-in.

10.2. Provide all cords, caps, and disconnects (e.g., ranges and dryers) unless otherwise noted.

10.3. Provide outlets and branch circuit wiring for printers, refrigerators, microwaves, security equipment and door hardware as indicated on drawings.

11. CABLE, TELEPHONE, DATA/VOIP

11.1. Provide all Cable/Telephone conduit, wiring, outlet boxes and termination to locations shown.

11.2. Provide all Data/VOIP ethernet wiring and termination to locations shown.

11.3. Provide 3/4"-thick plywood backboard, 48" x 48", mounted on wall 36" A.F.F. at each location reserved for telecom panel.

11.4. Provide conduit from telecom panel locations and outlet boxes at locations shown on drawings.

12. LABELS

12.1. Provide 1/2" high phenolic (lamicoid) or laser-engraved nameplates, mechanically fastened to all new panels and other major pieces of equipment. Black lettering on white background.

12.2. Provide panel/circuit number wire tags on all power conductors c/w self-adhesive labels (e.g. Brother P-Touch) affixed to corresponding power receptacle wall plates.

12.3. Provide data switch port number tags at each end of all ethernet data cables c/w self-adhesive labels (e.g. Brother P-Touch) affixed to corresponding data jack wall plates.

13. LUMINAIRES (LIGHTING FIXTURES)

13.1. Provide all luminaires as shown on drawings and schedules c/w accessories and lamps as required for a complete operational installation. Equivalent may be considered.

13.2. Contractor to allow for relocation of luminaires up to 1-metre from locations shown on drawing without additional costs.

13.3. Coordinate installation of luminaires with Mechanical or any other systems in ceiling space. Adjust locations as required to avoid conflicts.

13.4. Align and clean all fixtures upon completion of construction.

14. EMERGENCY & EXIT LIGHTING

14.1. Emergency lights shall be LED w/ battery packs rated for minimum 30-minute capacity for connected load. Do not substitute specified product.

14.2. Exit signs shall be fed from dedicated circuit c/w self-powered battery backup rated for minimum 30-minute capacity, auto-test feature, ste or aluminium body.

15. TESTING

15.1. Test all receptacles.
15.2. Test and inspect all existing wiring re-used under this contract.
15.3. Torque all existing feeder and bus bar connections.
15.4. Insert test results in a maintenance manual.

16. CLEAN-UP

16.1. During the course of the work, all surplus material and debris shall be removed, and at job completion the premises shall be left broom clean.

16.2. All electrical equipment shall be left free of dust and paint.

17. WARRANTY

17.1. Neither the final payment, nor any provision in the Contract Documents shall relieve Contractor from responsibility for faulty materials or workmanship which appear within a period of one (1) ye from the date of acceptance of the Work, or such other periods as may be specified for parts of the Work, and Contractor shall remedy any defects due thereto and pay for any damage to other work resulting therefrom which appear within such periods.

18. AS-BUILT DRAWINGS

18.1. The Contractor shall keep a neat and accurate record of the installation, including variations from the specification and drawings, and provide the Engineer with a set of "As-built" drawings at the completion of the Work.

1 / E4.01 ELECTRICAL SPECIFICATION
SCALE: NTS

LEXUS ENGINEERING

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1	Issued for Review	2021-02-02

Revisions

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ONOWAY YOUTH CENTRE

PROJECT ADDRESS
4904 50 ST Onoway, AB.
T0E 1V0

DRAWING TITLE
ELECTRICAL SPECIFICATION

DRAWN MC	PROJECT NUMBER C395
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DATE SEP 16, 2020	SHEET NO. E4.01