

Camp Floor Plan
 Slave Lake
 Tiger Calcium Services Inc.

38405 [126']



Camp Floor Plan
 Slave Lake
 Tiger Calcium Services Inc.

ZONE MAP	
ZONE	DESCRIPTION
Z1	KITCHEN/DINER/RECREATION CORE
Z2	KITCHEN FIRE SUPPRESSION SYSTEM
Z3	SLEEPER 1
Z4	SLEEPER 2

PRELIMINARY
 DO NOT USE FOR CONSTRUCTION
 Last Saved: November 2, 2015

Relumen
 Engineering

REVISIONS		
REV	Date	Description
A	2015-11-02	ISSUED FOR REVIEW



Project & Drawing Title
**TIGER CALCIUM
 SLAVE LAKE CAMP
 FIRE ALARM
 ZONE MAP**

Rev Project #	C363-R17	Sheet Size	A4SI B (11" x 17")
Project Mgr	CONRAD A.	Drawn By	COLIN FAIR
Designed By	CONRAD A.		
Checked By	CONRAD A.	Drawing Number	F2



1. FIRE ALARM SPECIFICATION

1.1. GENERAL

- 1.1.1. Reference Documents
 - 1.1.1.1. Alberta Building Code 2014 - Section 3.2.4
 - 1.1.1.2. Canadian Electrical Code 2012 - Section 32
 - 1.1.1.3. Fire Alarm Installation Standard CAN/ULC-S524-06
- 1.1.2. DESCRIPTION OF SYSTEM
 - New fire alarm system to be single-stage and consist of four (4) conventional Class B circuit(s) and three (3) Class B notification circuit(s).

1.1.2. All clauses in the general conditions of contract and supplementary general conditions shall apply to this trade.

1.1.3. This specification covers the supply and installation of all electrical equipment. All equipment shall be new and be CSA approved. Do not substitute specified material unless approved by the Engineer.

1.1.4. Installation of all equipment shall be performed by skilled craftspersons holding current certificate of proficiency issued pursuant to the tradesmen's qualifications act in respect to the applicable trade. This shall include certification to install fire alarm systems.

1.1.5. The 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 will be done to the equipment or structure, all damaged equipment shall be replaced at no cost to the Owner.

1.1.6. If 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 of various items are approximately correct and are subject to slight revision as the work is installed in order to accommodate construction and architectural details. Any inconsistency or error in the drawings and/or specifications shall be reported immediately to the Engineer. Co-ordinate with all other trades.

1.1.7. All utility charges, permits, and fees for the execution of this are the responsibility of the Owner. Submit documents to inspection department and pay all charges.

1.1.8. The electrical contractor shall coordinate with the other contractors and lay out his work in such a way that there is no conflict or interference with other trades. Contractor shall promptly install his equipment so that he does not delay other trades.

1.1.9. The use of trade names in specifications and on drawings shall constitute a basis upon which equals shall be established. Substitution will be allowed but only by permission from the engineer. Work shall be executed in accordance with the manufacturer's instructions. Substituted equipment shall not require redesign of structural, architectural, electrical or mechanical components. Any additional provisions or changes required for the equipment shall be the responsibility of the Contractor.

1.1.10. This Contractor shall keep a neat and accurate record of the installation and, at the completion of the job, provide the Engineer with a set of as-built record drawings.

1.1.11. Provide polyvapour hats on all boxes that penetrate a vapour barrier.

1.1.12. SHOP DRAWINGS

1.1.12.1. 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. No equipment shall be installed until such approval is obtained.

2. DEVICE INSTALLATION

2.1. FIRE ALARM PANELS

2.1.1. ADDRESSABLE PANEL

2.1.1.1. Four (4) conventional initiating device circuit(s)

2.1.1.2. Four (4) conventional notification device circuit(s)

2.1.2. INSTALLATION

2.1.2.1. Top of panel shall be not more than 2400mm A.F.F. Operating controls shall not be more than 1800mm A.F.F. per ULC S524, 4.4.3.

2.2. FIELD DEVICES

2.2.1. HORN STROBE

2.2.1.1. Where ceiling heights allow, top of audible devices shall be not less than 2300mm A.F.F. Strobe lens shall be between 2100mm A.F.F. and 2400mm A.F.F. Wall mounted audible devices shall be at least 150mm below ceiling, measured from the edge of the device. Two or more visual signal devices in the same field of view shall have signals flash in synchronization, per S524, 5.4.

2.2.1.2. Set all horns to LOW volume.

2.2.2. MANUAL PULL STATION

2.2.2.1. Mount between 1200mm and 1400mm A.F.F. measured to the centre of the device. Install on the latch side of the door at a maximum lateral distance of 1500mm from door. Shall be clearly visible at all times, per S524, 5.3.

2.2.3. SMOKE DETECTOR - PHOTOELECTRIC DETECTOR BASE

2.2.3.1. Clear spacing of minimum 450mm shall be maintained between detector and any obstructions. Obstruction not exceeding 100mm from the ceiling need not be considered impinging on this clear space. When smoke detectors are mounted on ceiling, shall be between 100mm to 300mm from edge of device to wall. Shall not be located in a direct airflow.

2.2.4. 120V CARBON MONOXIDE ALARM

2.2.4.1. Local sounder, install no less than five (5) feet from fuel burning appliances.

2.2.5. END-OF-LINE RESISTOR

2.2.5.1. Located in separate enclosure installed less than 1800mm A.F.F.

2.3. CABLE & WIRING

2.3.1. All cable to have ground wire, non-shielded, copper conductors, strapped, min 300V insulation, min 60C, and shall be mechanically protected. All cable in return air plenums shall be FT-4 flame rated. Refer to ULC S524, 3.4 and CEC 32.

2.3.2. Minimum wire sizes:

- 2.3.2.1. Notification Appliance Circuits: 14AWG Solid FAS
- 2.3.2.2. Auxiliary Control Circuits: 14AWG Solid FAS
- 2.3.2.3. Addressable Circuits: 18AWG Solid FAS
- 2.3.2.4. Conventional Initiating Device Circuits: 18AWG Solid FAS
- 2.3.2.5. 120V Power: 12AWG Solid RW90 or NMD90

3. EXECUTION

3.1. Contractor to provide complete new system in new Kitchen, Diner & Rec (Core). Two existing sleeper buildings shall have wiring run back to new Core fire alarm control panel (FACP) and sleeper panels abandoned. Details of sleeper fire alarm system not known at time of release of these drawings. Contractor to investigate and confirm that these systems meet code, including but not limited to 75dB in bedrooms, air handling shutdown, door release, adequate detection, etc.

3.2. Provide separate, lockable, red breaker(s), clearly marked Fire Alarm System in 208V panel.

3.3. Make conductor terminations in panels and devices with separate terminal for each conductor. Never twist wires together under terminal.

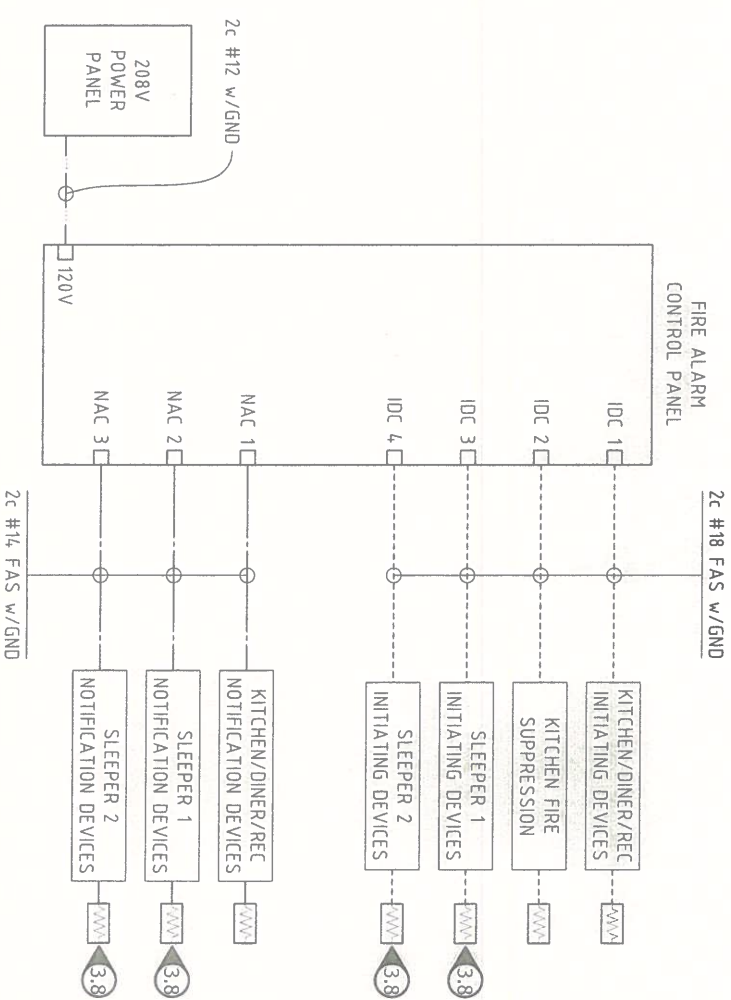
3.4. Identify all wires within panels with circuit type & number, positive or negative, send or receive.

3.5. Ensure that ground wire is terminated on the grounding screw in all boxes.

3.6. Affix P-Touch labels indicating circuit type and number on every end of line resistor cover plate.

3.7. Affix P-Touch labels indicating circuit on all detectors & pull stations.

3.8. Replace existing end-of-line (EOL) resistors in sleepers with compatible type.



1. BLOCK DIAGRAM

PRELIMINARY
DO NOT USE FOR CONSTRUCTION
Last Saved: November 2, 2015

Relumen Engineering

REV	DATE	DESCRIPTION	BY
A	2015-11-02	ISSUED FOR REVIEW	CHG

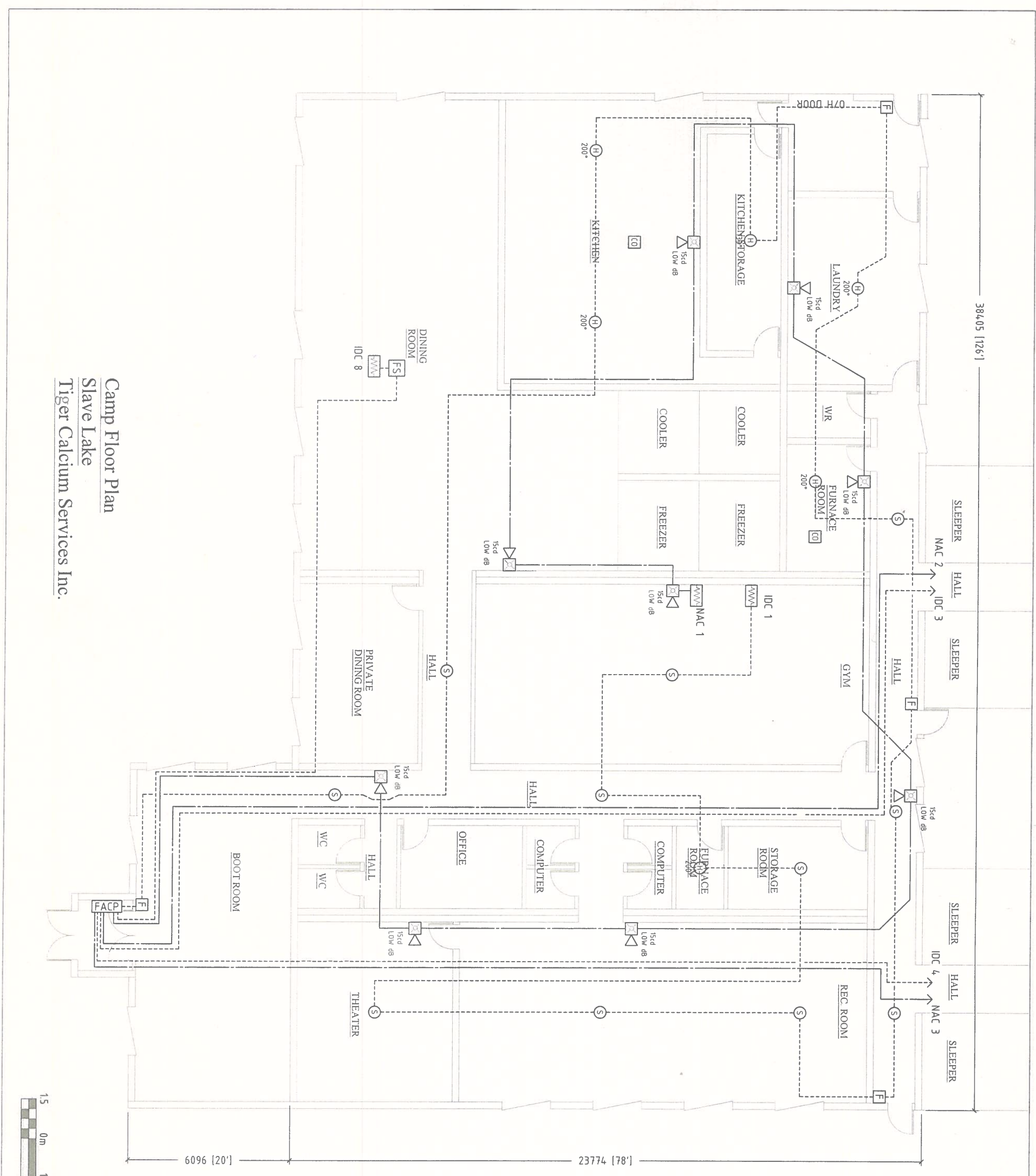
Chubb Edwards

Project & Drawing Title
TIGER CALCIUM SLAVE LAKE CAMP FIRE ALARM SPECIFICATION & BLOCK DIAGRAM

Rev Project #	C363-R17	Sheet Size	A318 (11" x 17")
Project Mgr	CORRAD A	Drawn By	COLIN FAIR
Designed By	CORRAD A	Checked By	CORRAD A
Drawing Number	F3		



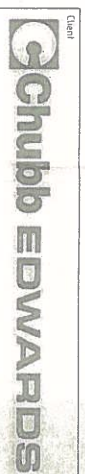
FIRE ALARM LEGEND	
[FACP]	FIRE ALARM CONTROL PANEL
[F]	HANDUAL PULL STATION
[H]	DETECTOR - HEAT (135°F or 200°F)
[S]	DETECTOR - SMOKE
[C]	ALARM - CARBON MONOXIDE
[HORN]	HORN/STROBE (WALL MOUNT)
[RES]	END-OF-LINE RESISTOR



PRELIMINARY
DO NOT USE FOR CONSTRUCTION
Last Saved: November 30, 2015

Relumen
Engineering

REVISIONS			
REV	DATE	DESCRIPTION	BY
A	2015-11-02	ISSUED FOR REVIEW	CH
B	2015-11-30	ISSUED FOR REVIEW	HNS



Client
Chubb EDWARDS

Project & Drawing Title
**TIGER CALCIUM
SLAVE LAKE CAMP
FIRE ALARM
DEVICE PLAN**

REI Project #	C363-R17	Sheet Size	ANSI B (11" x 17")
Project Mgr.	CONRAD A	Drawn By	COLIN FAIR
Designed By	CONRAD A	Checked By	CONRAD A
Drawing Number	F1		

Camp Floor Plan
Slave Lake
Tiger Calcium Services Inc.