



December 12, 2024

ADDENDUM No. 1

**Invitation to Tender PS-24-08
NEW INSULATION FOR WALLS IN NESS LAKE VOLUNTEER FIRE DEPARTMENT**

*The addendum is being issued prior to the closing of the Invitation to Tender (ITT) to provide further information, make changes to, or to clarify the ITT Documents and is to be read, interpreted and coordinated with all other parts of the ITT Documents. In the case of a conflict with the balance of the documents, this Addendum shall govern. **Proponents shall attach a signed copy of this addendum to their tender submission, failure to do so may result in a non-compliant tender. This addendum shall form part of the Contract Documents.***

This addendum is being provided in clarification to ITT PS-24-08 released November 28, 2024.

Question 1: Can you please confirm the insulation thickness?

Answer 1: 4"–5" of ccSPF for an LTTR of R28

Clarification 1: Please find attached to this document the building drawings.

I/We hereby verify that we have considered this addendum in our proposal submission.

Proponent's Signature

Date

All inquiries relating to ITT PS-24-08 must be emailed to:
Bonnie Seitz, Community Services Leader,
bseitz@rdffg.bc.ca

SHEET INDEX

A0	TITLE SHEET
A1	ELEVATION
A2	ELEVATION
A3	SITE PLAN
A4.1	DEMOLITION
A4.2	DEMOLITION-CS + SCHEDULES
A5	MAIN FLOOR PLAN
A6	SECTION A
A7	SECTION B
A8	SECTION C
A9	SECTION D
A10	ROOF PLAN
ST1	FOUNDATION AND DETAIL
E1	ELECTRICAL LAYOUT
P1	PLUMBING PLAN
SPEC 1	SPECIFICATIONS
SPEC 2	SPECIFICATIONS
SPEC 3	SPECIFICATIONS
SPEC 4	SPECIFICATIONS

LEGAL DESCRIPTION: LOT 4 PLAN 24578 D.L. 2721
CIVIC ADDRESS: 9770 LAKESIDE RD. PRINCE GEORGE, BC

ZONING: P1
OCCUPANCY F3/A2

THIS BUILDING CONFORMS TO BRITISH COLUMBIA BUILDING CODE, 2012

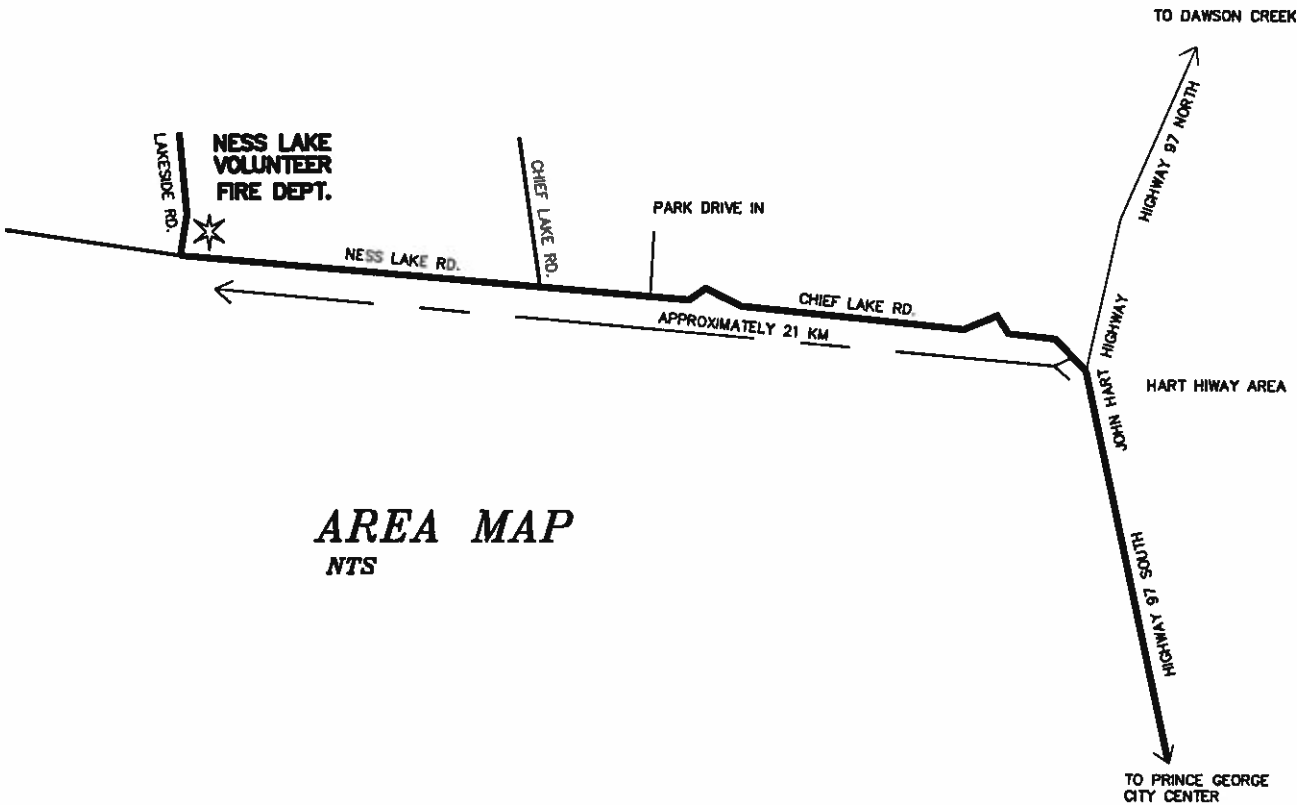
BUILDING DESIGNED UNDER: SECTIONS 3.2.2.28 AND 3.2.2.83

EXISTING
FIREHALL 4144 SQ. FT.
COMMUNITY HALL 1856 SQ. FT.
TOTAL 6000 SQ. FT.

OCCUPANT LOAD 150

USE FIREHALL (F3) & COMMUNITY HALL (A2)
NO. OF STREETS 3
SITE AREA 25999 SQ. FT.
COVERAGE 15.3%
F.S.R. .153
NO. OF STORIES 1
COMBUSTIBLE YES NO. OF EXITS 6
NON-COMBUSTIBLE NO NO. OF WC's 8
SPRINKLER SYSTEM REQUIRED YES ☐ NO ☒
STANDPIPE REQUIRED YES ☐ NO ☒
FIRE ALARM SYSTEM REQUIRED YES ☐ NO ☒
FIRE RESISTANCE RATINGS:
MEZZANINE ROOF N/A
WALLS FLOOR N/A
ROOF LOADS:
G.S.L. 81 PSF D.S.L. 69 PSF
FLOOR LOADS: 100 PSF

	NORTH	EAST	SOUTH	WEST
WALL AREA	840	1120	1184	784
WALL DIST.	56'	68'	88'	56'
OPEN ALL	100%	100%	100%	100%
ACT. OPEN	3%	45%	4%	10%
WALL CON.	COMB	COMB	COMB	COMB



AREA MAP
NTS

NESS LAKE FIRE HALL
RDFFG



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207-1527 3rd. Avenue PRINCE GEORGE, B. C.
V2L 3G3
TEL: 562-9345
FAX: 563-4878

SHEET INDEX AND AREA MAP
NESS LAKE FIRE HALL-FUNG REMOVAL + RENOVATIONS

RDFFG

ENGINEERING DESIGN FERGUS FOLEY, P.ENG
CO-DESIGNER checked FF

DATE AUGUST 27, 2013
SCALE AS SHOWN
DRAWN BY DM/JM

DWG. NO. 13050
ACAD FILE 13050-13-08-27-IT

ACCESS

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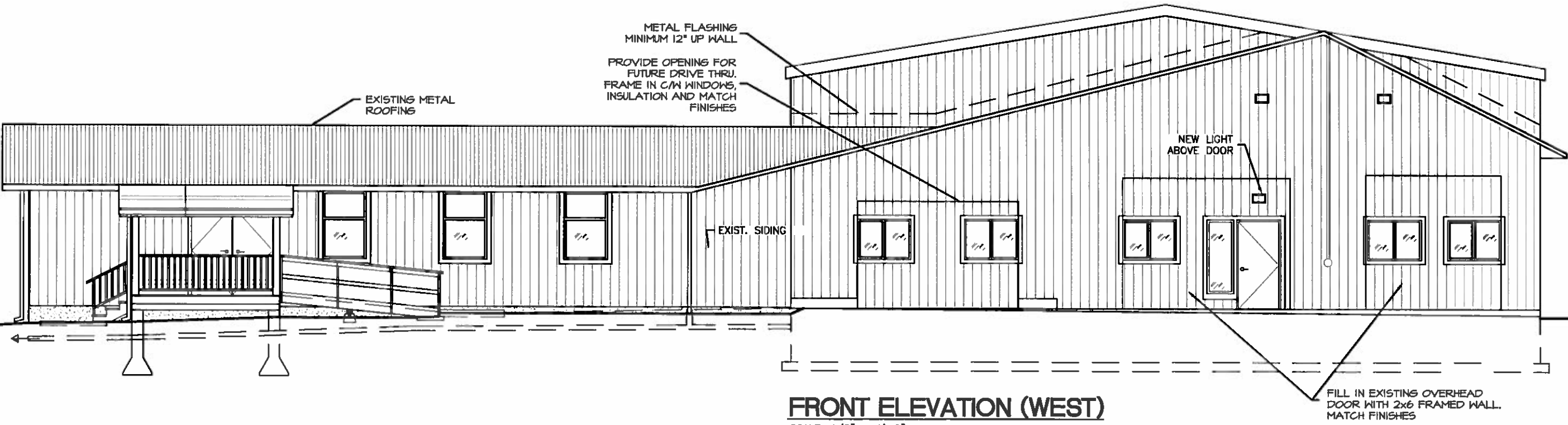
207-1527 3rd. Avenue

PRINCE GEORGE, B. C.

V2L 3G3

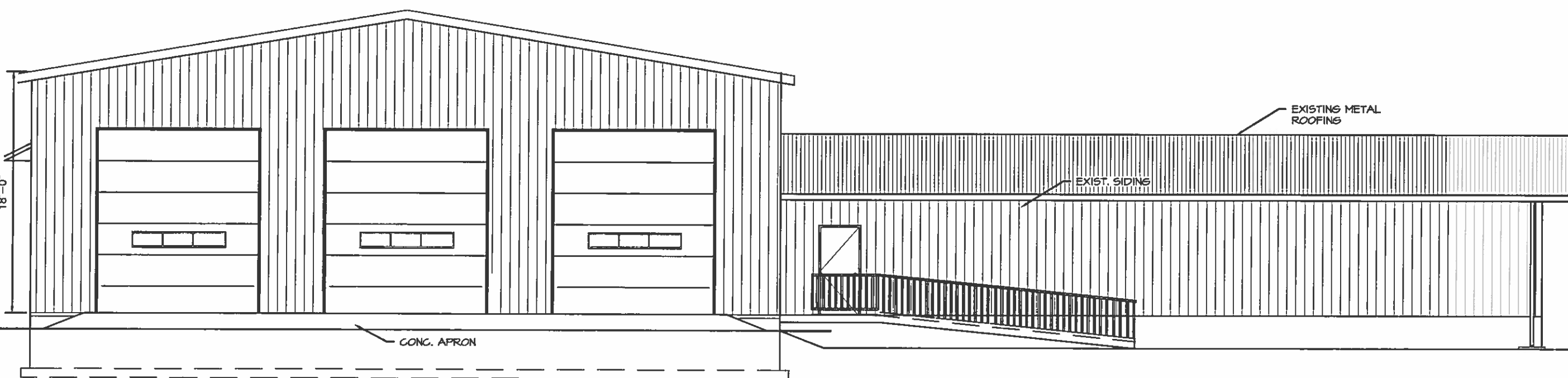
TEL: 562-9345

FAX: 563-4878



FRONT ELEVATION (WEST)

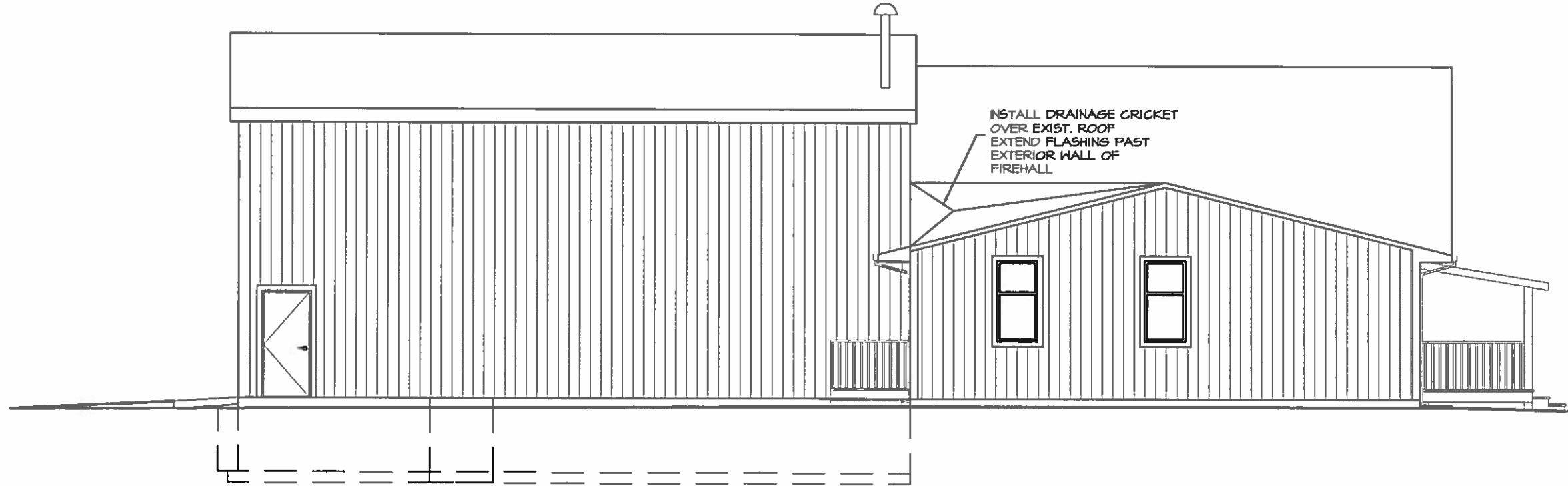
SCALE: 1/8" = 1'-0"



REAR ELEVATION (EAST)

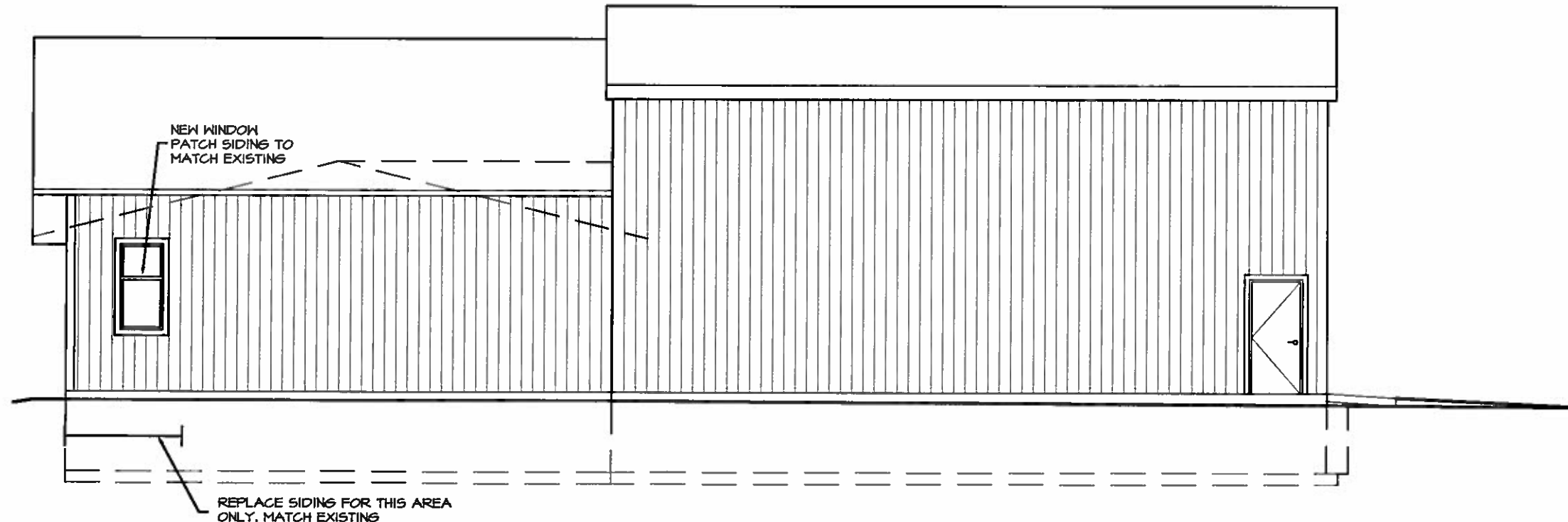
SCALE: 1/8" = 1'-0"

ELEVATION		NESS LAKE FIRE HALL - FUNGUS REMOVAL + RENOVATIONS	
DWG TITLE	PROJECT	CLIENT	RDFFG
DATE	AUGUST 27, 2013	ENGINEERING DESIGN	FERGUS FOLEY, P.ENG
SCALE	AS SHOWN	CO-DESIGNER	checked PF
DRAWN BY	DM/ JM	DWG NO.	A1
PROJ. NO.	13050	ACAD FILE	13050-13-08-27-IT



LEFT ELEVATION (NORTH)

SCALE: 1/8" = 1'-0"



RIGHT ELEVATION (SOUTH)

SCALE: 1/8" = 1'-0"

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FAX: 563-4878

DWG TITLE	ELEVATION		
PROJECT	NESS LAKE FIRE HALL-FUNG REMOVAL + RENOVATIONS		
CLIENT	RDFFG		
DATE	AUGUST 27, 2013	ENGINEERING DESIGN	FERGUS FOLEY, P.ENG
SCALE	AS SHOWN	CO-DESIGNER	checked FF
DRAWN BY	DM/JM	DWG NO.	A2
PROJ. NO.	13050	ACAD FILE	13050-13-08-27-IFT

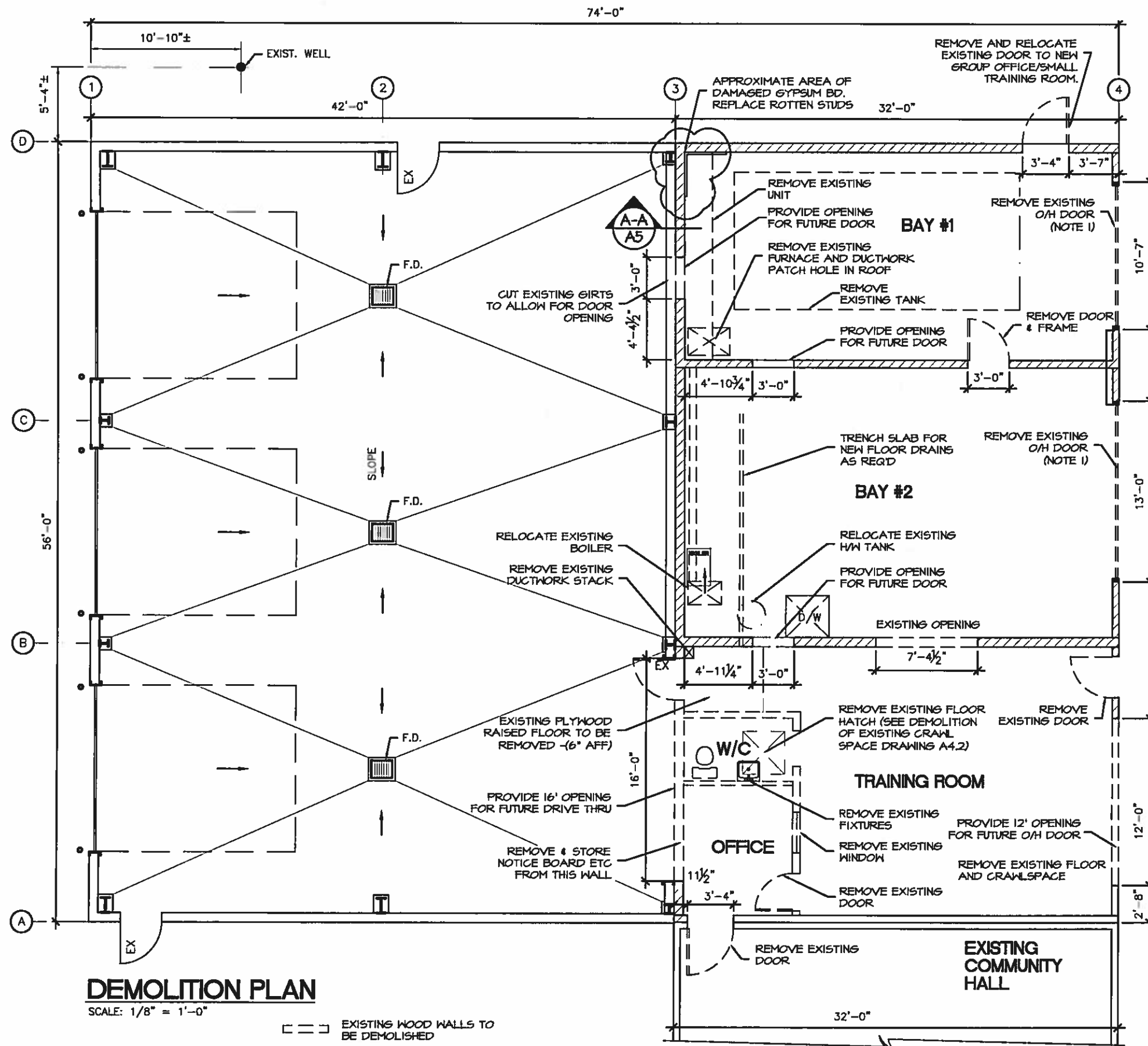
Lot 4
PLAN 24578
D.L. 2721

DWG TITLE	SITE PLAN AND KEY PLAN		
PROJECT	NESS LAKE FIRE HALL - FUNGI REMOVAL + RENOVATIONS		
CLIENT	RDFFFG		
DATE SCALE DRAWN BY	AUGUST 27, 2013 AS SHOWN DW / JM	ENGINEERING DESIGN CO-DESIGNER checked FF	FERGUS FOLEY, P.ENG
PROJ. NO.	13050	DWG NO.	A3
		ACAD FILE 13050-13-08-27-1FT	

ACCESS
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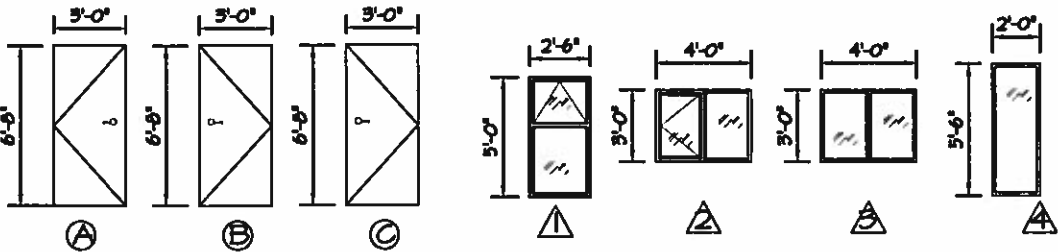
207-1527 3rd. Avenue PRINCE GEORGE, B. C.
V2L 3G3
TEL: 562-9345
FAX: 563-4878

DWG TITLE	DEMOLITION
PROJECT	NESS LAKE FIRE HALL-FUNG REMOVAL + RENOVATIONS
CLIENT	RDFFG
DATE	AUGUST 27, 2013
SCALE	AS SHOWN
DRAWN BY	DM/JM
PROJ. NO.	13050
DWG NO.	A4.1
ACAD FILE	13050-13-08-27-IFT



ROOM FINISH SCHEDULE													
ROOM	FLOOR		BASE	WALLS			CEILING		SPECIAL NOTES				
	VINYL PLANK	RESILIENT FLOORING	CONCRETE	4" BASE			5/8" GYPSUM BD	CERAMIC TILE	PAINTED	T BAR	5/8" GYPSUM BD	PAINTED	COLOURED CONCRETE TO BE DETERMINED BY FIRE CHIEF INTERIOR PAINT COLOUR TO BE DETERMINED BY FIRE CHIEF
SCBA ROOM			○	○			○		○		○	○	PATCH GYPSUM & WALL WHERE REQUIRED, PAINT CONCRETE FLR
OFFICE		○		○			○		○		○	○	PATCH GYPSUM CEILING WHERE REQUIRED
SMALL TRAINING ROOM		○		○			○		○		○	○	COLOURED CONCRETE/ HARDENER ADDED
TRAINING ROOM			○	○			○		○		○	○	COLOURED CONC/ HARDENER ADDED; PATCH GYP WALL
WASHROOMS		○		○			○		○		○	○	
MECHANICAL RM			○	○			○		○		○	○	

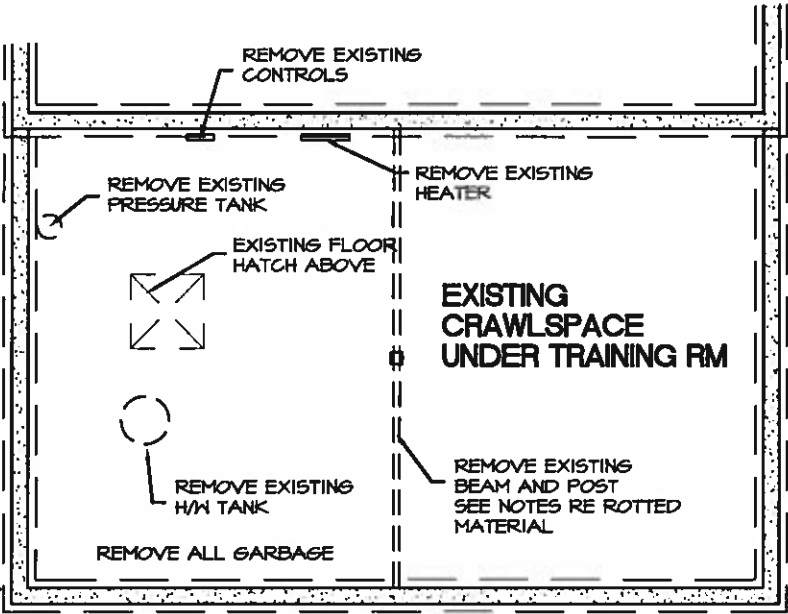
DOOR SCHEDULE																				
SYMBOL		SIZE		TYPE		MATERIAL		FRAME		HARDWARE								SPECIAL NOTES		
		WIDTH	HEIGHT	THK	PASSAGE	OVERHEAD	METAL INSUL	HOLLOW CORE	WOOD	METAL INSULATED	LEVER PRIVACY SET	LEVER PASSAGE SET	LEVER LOCK SET	DEAD BOLT	THRESHOLD	WEATHERSTRIP	5 BUTT HINGES	KICK PLATES BOTH SIDES	STOPS	
(A)	3'0"	6'8"	1 7/8"	○			○			○			○	○	○	○	○	○	○	PAINT RED
(B)	3'0"	6'8"	1 7/8"	○			○			○			○				○	○	○	PAINT RED
(C)	3'0"	6'8"	1 7/8"	○			○			○		○			○		○	○	○	45 MIN. RATED DOOR, PAINT RED



ALL NEW DOORS HANDLES TO BE LEVER STYLE.
ALL EXISTING DOORS TO BE RETROFITTED TO LEVER STYLE HANDLES.
ALL HARDWARE BY SCHLAGE
ALL DOORS TO BE PAINTED FIREMAN RED.

NOTES RE ROTTED MATERIAL:

1. REMOVE ALL ROTTED MATERIAL
2. REPLACE ANY STUDS THAT ARE ROTTED
3. REPLACE BOTTOM PLATES WITH PRESSURE TREATED MATERIAL
4. ANY SURFACES NOT ROTTED BUT CONTAMINATED WITH FUNGAL MATERIAL SHALL BE CLEANED WITH BRUSHING OR SANDING, VACUUMED WITH A HEPA FILTER VACUUM, WASHED WITH SOAPY WATER AND HEPA VACUUMED AGAIN.
5. ANY INSULATION EXPOSED BY THIS REMOVAL WORK SHALL BE DISPOSED OF.
6. REMOVE AND DISPOSE OF ALL MATERIAL IN CRAWLSPACE INCLUDING OLD BUILDING MATERIALS, PRESSURE TANK, HOT WATER TANK, ETC. ALL MATERIAL COVERED IN FUNGUS.
7. THE ABOVE REMEDIATION WORK SHOULD BE CONDUCTED FOLLOWING APPROPRIATE WORK PROCEDURES. THESE PROCEDURES SHOULD INCLUDE WORKER USE OF PERSONAL PROTECTIVE EQUIPMENT SUCH AS FULL FACE RESPIRATORS EQUIPPED WITH P100/CHEMICAL CARTRIDGES, DISPOSAL COVERALLS WITH INTEGRAL HEAD AND FOOT COVERINGS, EYE PROTECTION AND WORK GLOVES.
TO ENSURE THAT ADJACENT AREAS ARE NOT ADVERSELY AFFECTED BY FUNGAL CONTAMINATION, THE WORK AREAS SHOULD BE ISOLATED FROM ADJACENT AREAS THROUGH THE CONSTRUCTION OF POLYETHYLENE (PLASTIC) CRITICAL BARRIERS. TO CONTROL AIRBORNE CONTAMINATES, THE WORK AREA SHOULD BE MAINTAINED UNDER NEGATIVE AIR PRESSURE WITH HEPA FILTER EQUIPPED NEGATIVE AIR UNITS. RETURN AND SUPPLY GRILLES SHOULD BE SEALED, VACUUMED AGAIN.



PARTIAL DEMOLITION OF EXISTING CRAWLSPACE
SCALE: 1/8" = 1'-0"

Access

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V2L 3G3

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FAX: 563-4878

DWG TITLE
PROJECT
CLIENT
DATE
SCALE
DRAWN BY

DEMOLITION - CRAWL SPACE
NESS LAKE FIRE HALL-FUNGUS REMOVAL + RENOVATIONS
RDFFG
AUGUST 27, 2013
AS SHOWN
DW/ JM

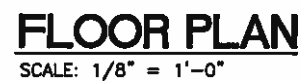
PROJ. NO. 13050

ENGINEERING DESIGN
CO-DESIGNER
checked FF

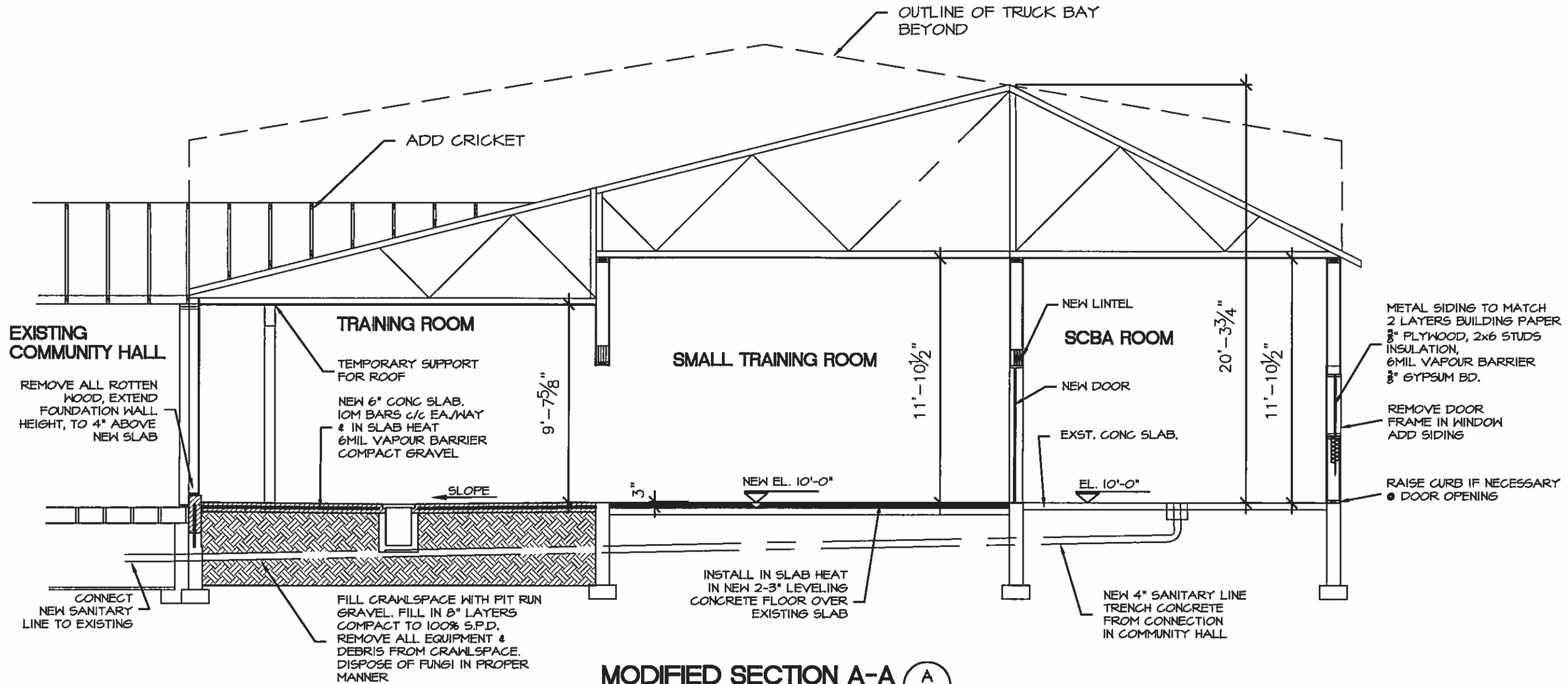
FERGUS FOLEY, P.ENG

DWG NO. A42

ACAD FILE 13050-13-08-27-IFT



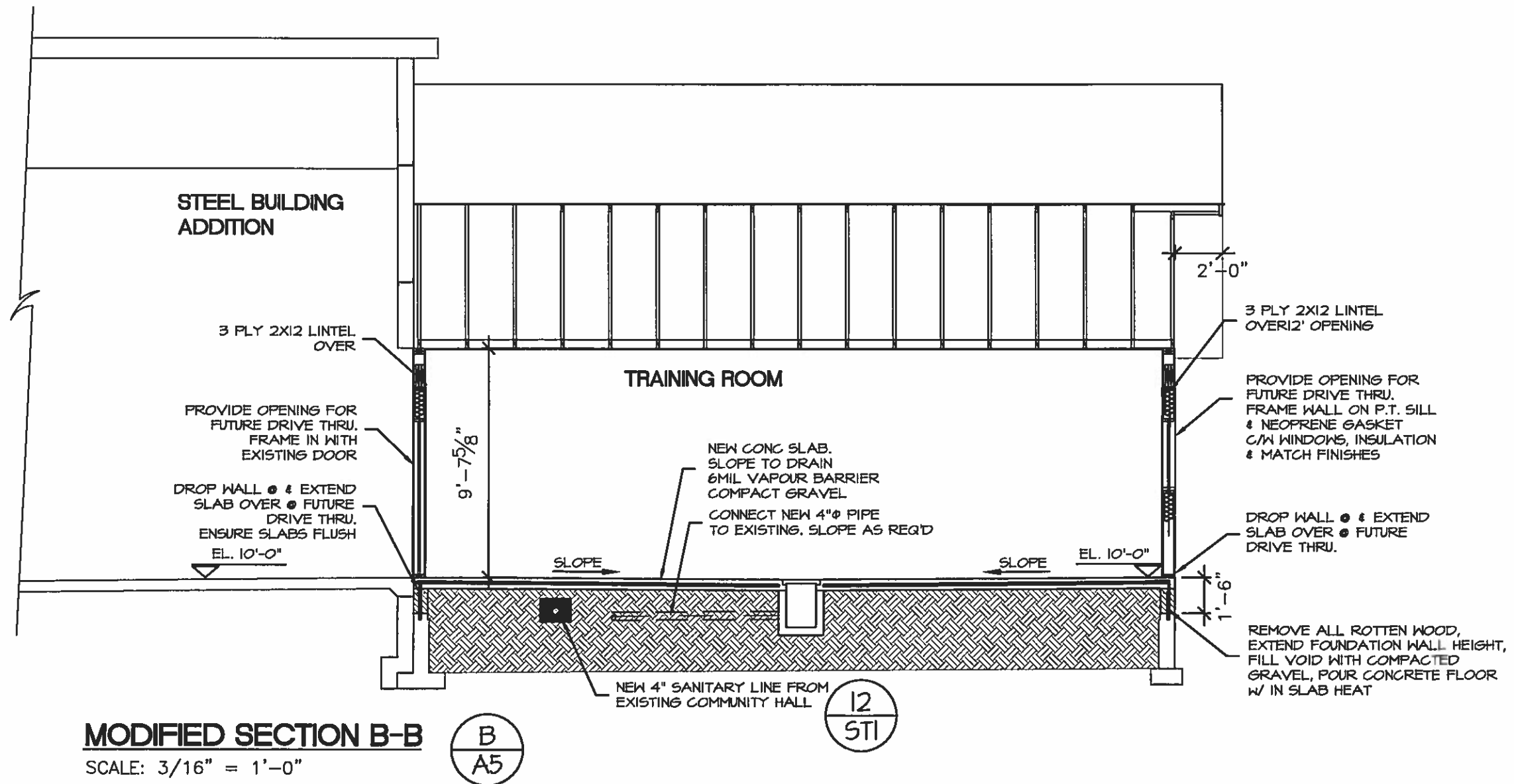
DWG TITLE	FLOOR PLAN		
PROJECT	NESS LAKE FIRE HALL - FUNGUS REMOVAL + RENOVATIONS		
CLIENT	RDFFFG		
DATE	AUGUST 27, 2013	ENGINEERING DESIGN	FERGUS FOLEY, P.ENG
SCALE	AS SHOWN	CO-DRAWER	checked FF
DRAWN BY	DM/ JM		
PROJ. NO.	13050	DWG NO.	A5
			ACAD FILE 13050-13-08-27-IFT



MODIFIED SECTION A-A A
A5
SCALE: 3/16" = 1'-0"

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DWG TITLE	SECTION A-A	DWG NO.	A6	ACAD FILE	13050-13-08-27-IFT
PROJECT	NESS LAKE FIRE HALL-FUNGI REMOVAL + RENOVATIONS	CLIENT	RDFFG	ENGINEERING DESIGN	FERGUS FOLEY, P.ENG
DATE	AUGUST 27, 2013	SCALE	AS SHOWN	CO-DESIGNER	checked FF
DRAWN BY	DM/JM	PROJ. NO.	13050		

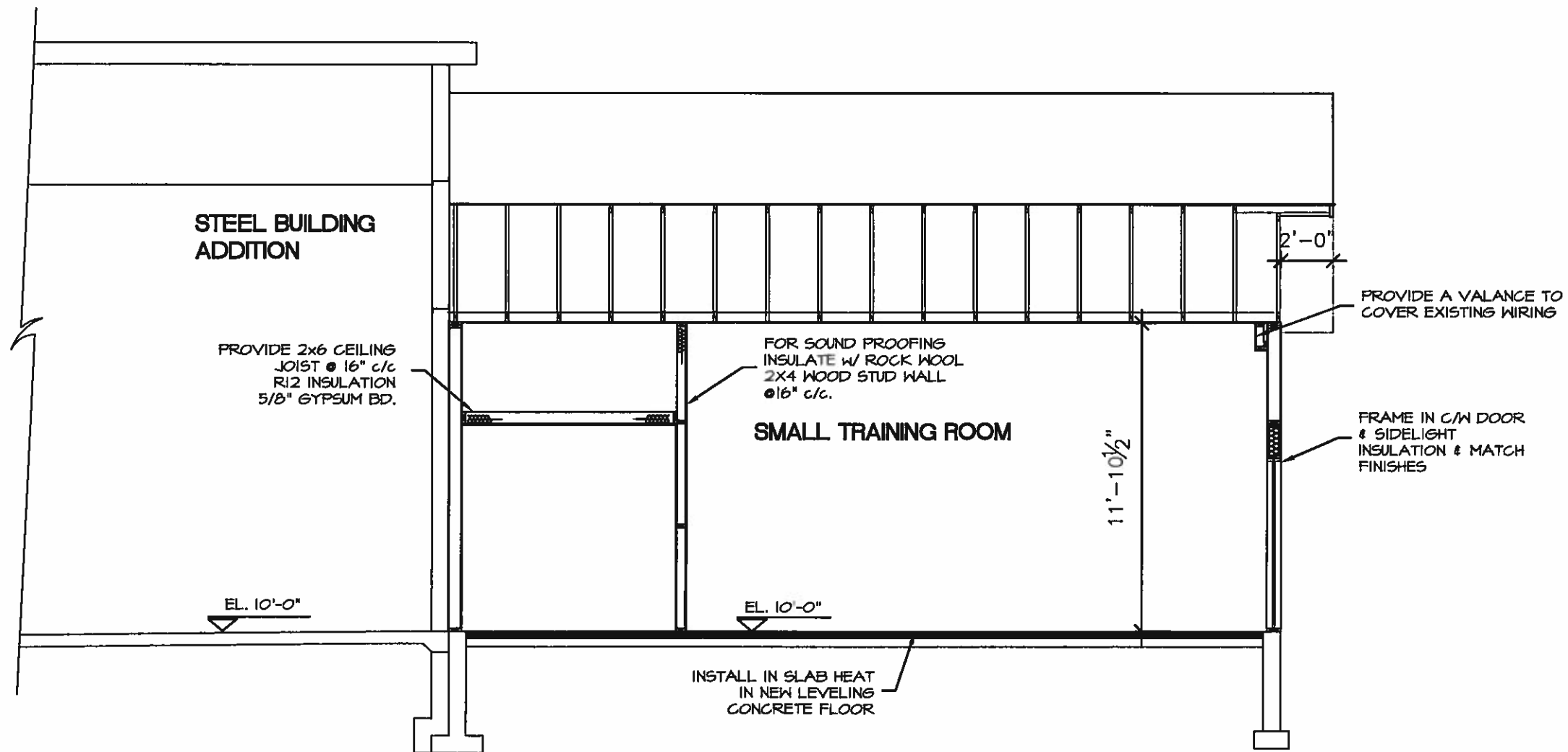


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ENGINEERING CONSULTANTS LTD.

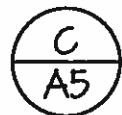
207-1527 3rd. Avenue
V2L 3G3

PRINCE GEORGE, B. C.
TEL: 562-9345
FAX: 563-4878

DWG TITLE	SECTION B-B		
PROJECT	NESS LAKE FIRE HALL-FUNG REMOVAL + RENOVATIONS		
CLIENT	RDFFG		
DATE	AUGUST 27, 2013	ENGINEERING DESIGN	FERGUS FOLEY, P.ENG
SCALE	AS SHOWN	CO-DESIGNER	checked FF
DRAWN BY	DM/ JM	DWG NO.	A7
PROJ. NO.	13050	ACAD FILE	13050-13-08-27-IFT

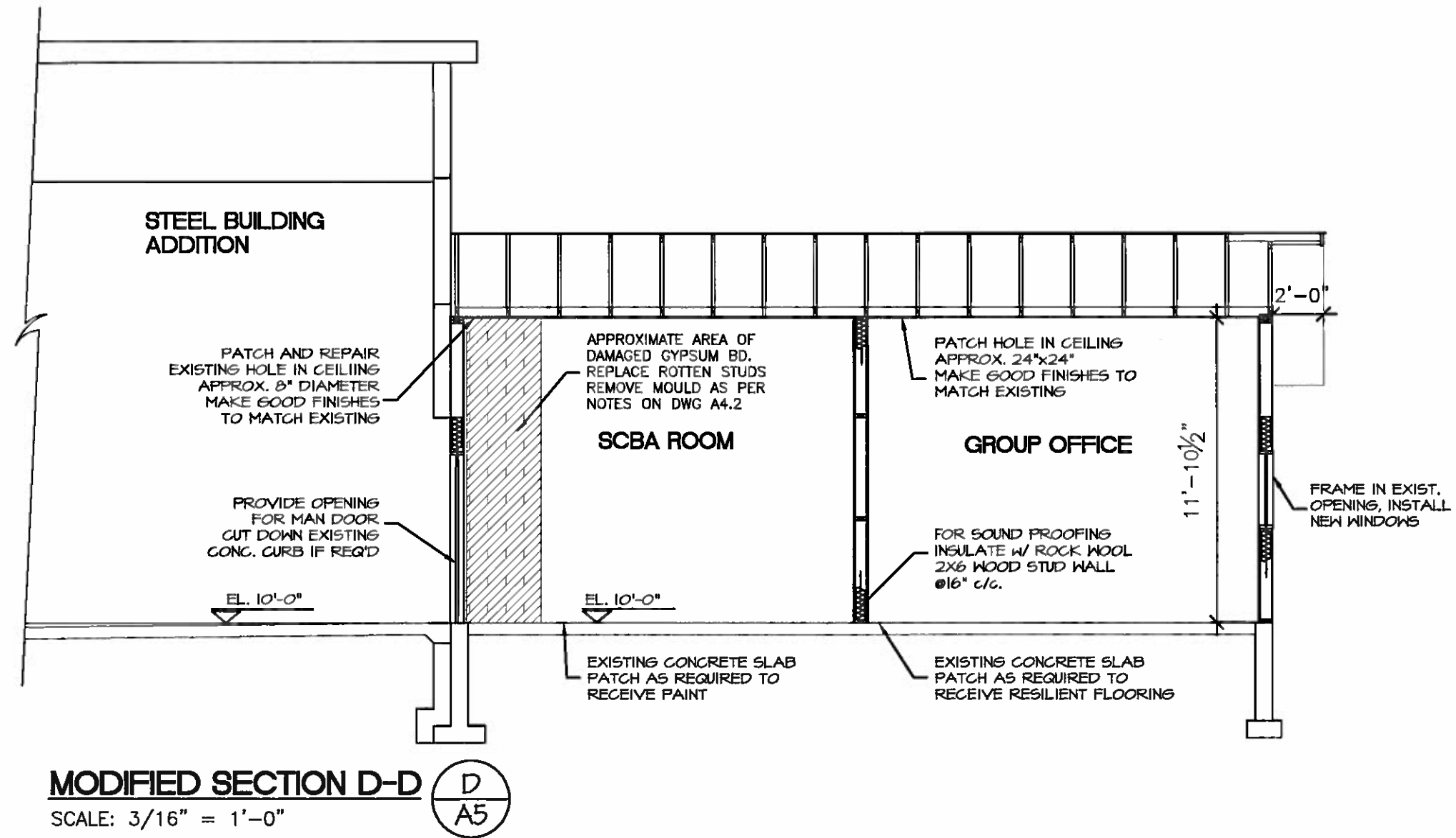


MODIFIED SECTION C-C
SCALE: 3/16" = 1'-0"



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FAX: 563-4878


DWG TITLE	SECTION C-C		
PROJECT	NESS LAKE FIRE HALL - FUNDI REMOVAL + RENOVATIONS		
CLIENT	RDFFG		
DATE	AUGUST 27, 2013	ENGINEERING DESIGN	FERGUS FOLEY, P.ENG
SCALE	AS SHOWN	CO-DRAWN	checked FF
DRAWN BY	DM/ JM	DWG NO.	A8
PROJ. NO.	13050	ACAD FILE	13050-13-08-27-IFT



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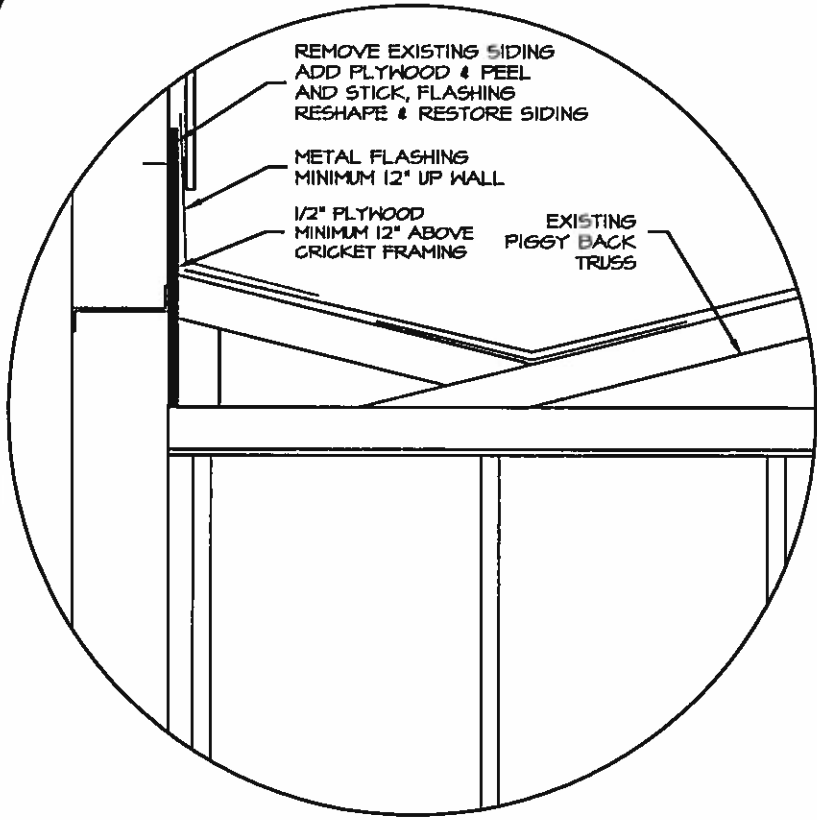
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PROJECT	NESS LAKE FIRE HALL-FUNG REMOVAL + RENOVATIONS		
CLIENT	RDFFG		
DATE	AUGUST 27, 2013	ENGINEERING DESIGN	FERGUS FOLEY, P.ENG
SCALE	AS SHOWN	CO-DESIGNER	checked FF
DRAWN BY	DM/JM	DWG NO.	A9
PROJ. NO.	13050	ACAD FILE	13050-13-08-27-1T



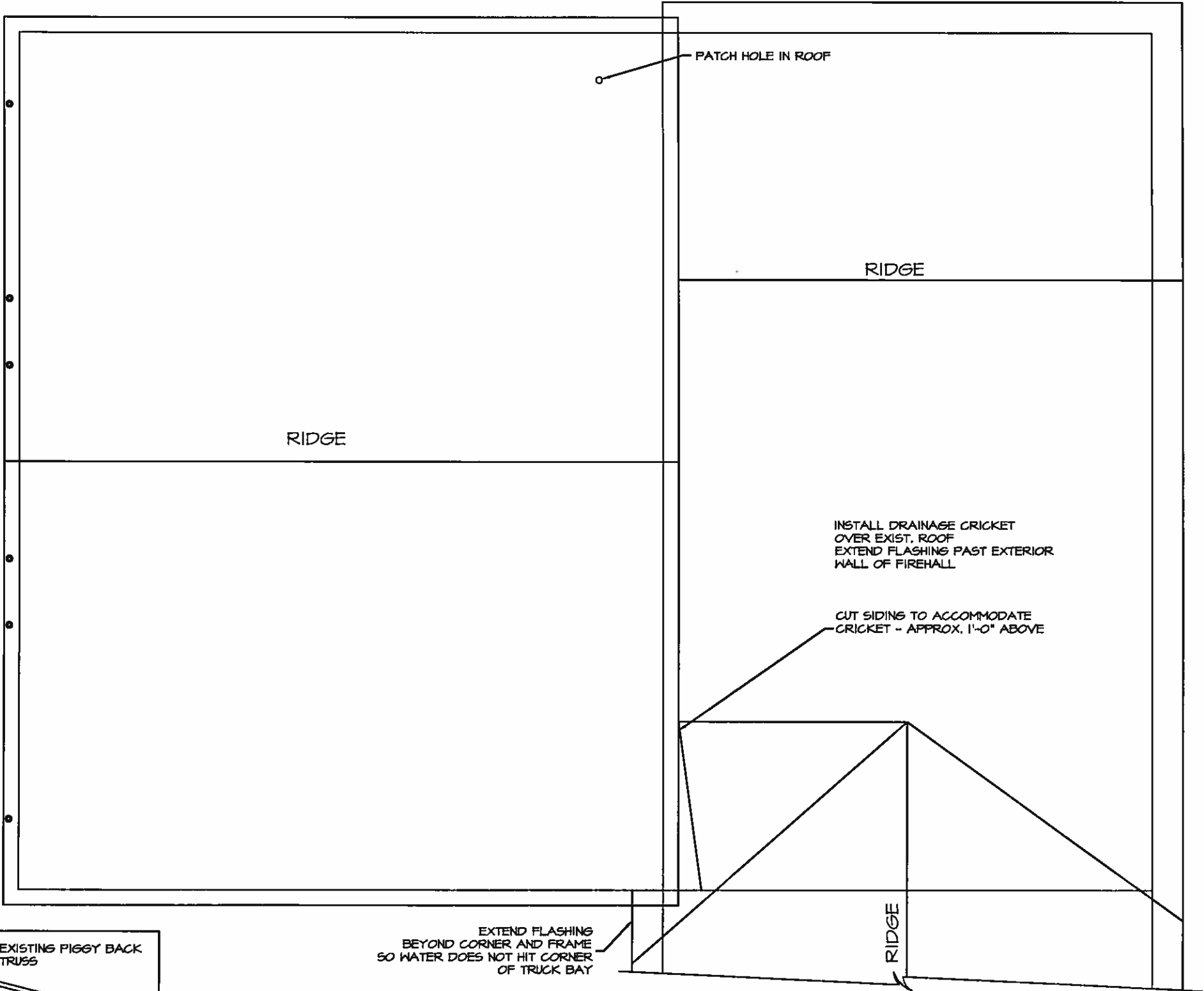
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V2L 3G3
TEL: 562-9345
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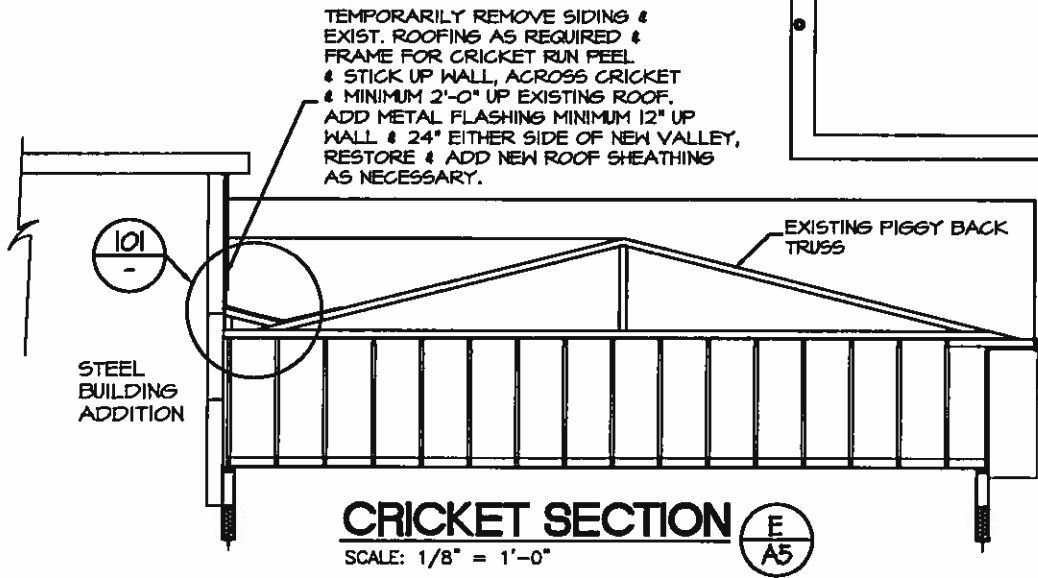
DWG TITLE	ROOF PLAN		
PROJECT	NESS LAKE FIRE HALL - FUNGI REMOVAL + RENOVATIONS		
CLIENT	RDFFG		
DATE	AUGUST 27, 2013	ENGINEERING DESIGN	FERGUS FOLEY, P.ENG
SCALE	AS SHOWN	CO-DRAWN	CHECKED FF
DRAWN BY	DM/AM		
PROJ. NO.	13050	DWG NO.	A10
		ACAD FILE	13050-13-08-27-IFT



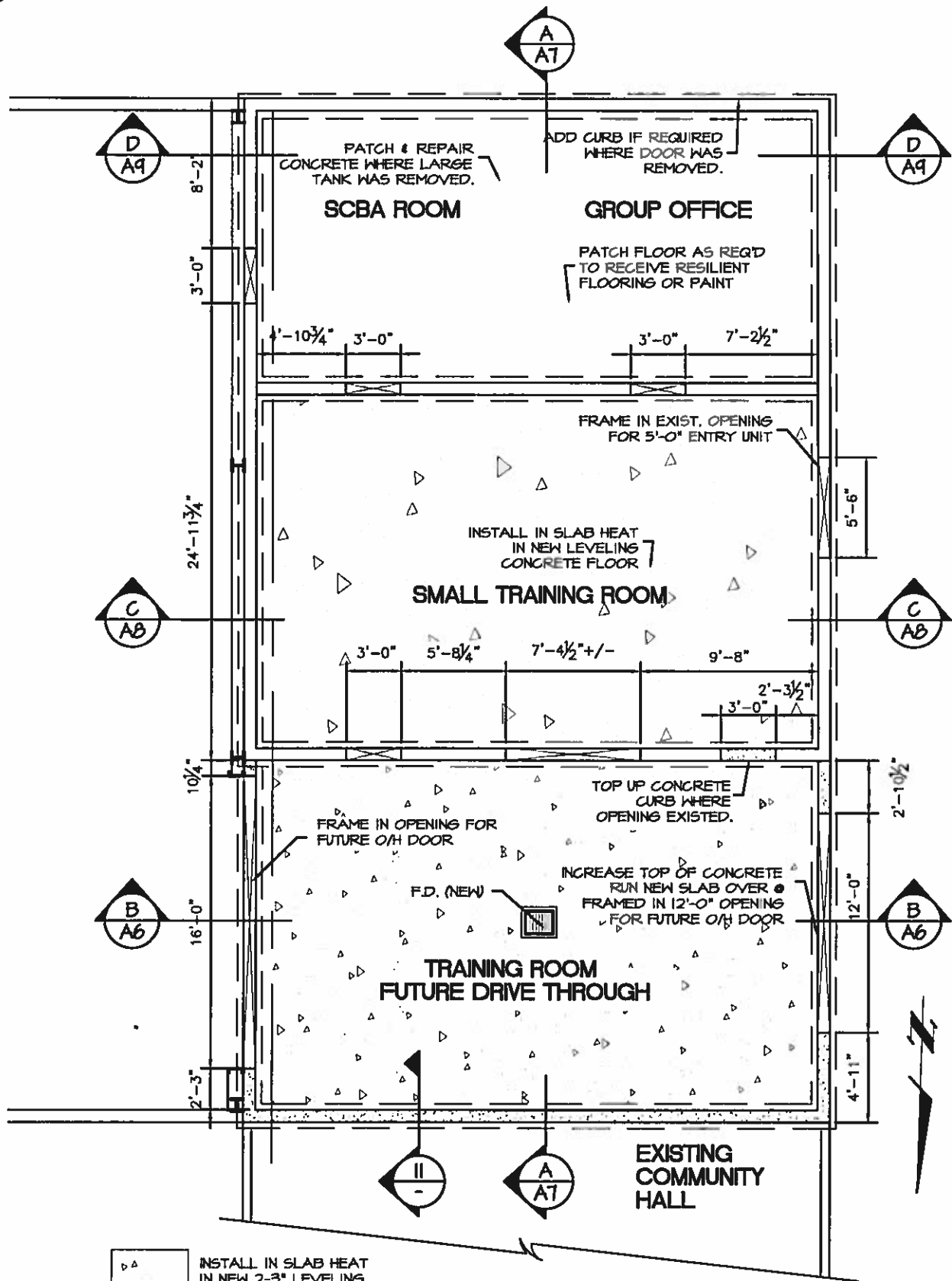
CRICKET DETAIL 101
SCALE: 3/4" = 1'-0"



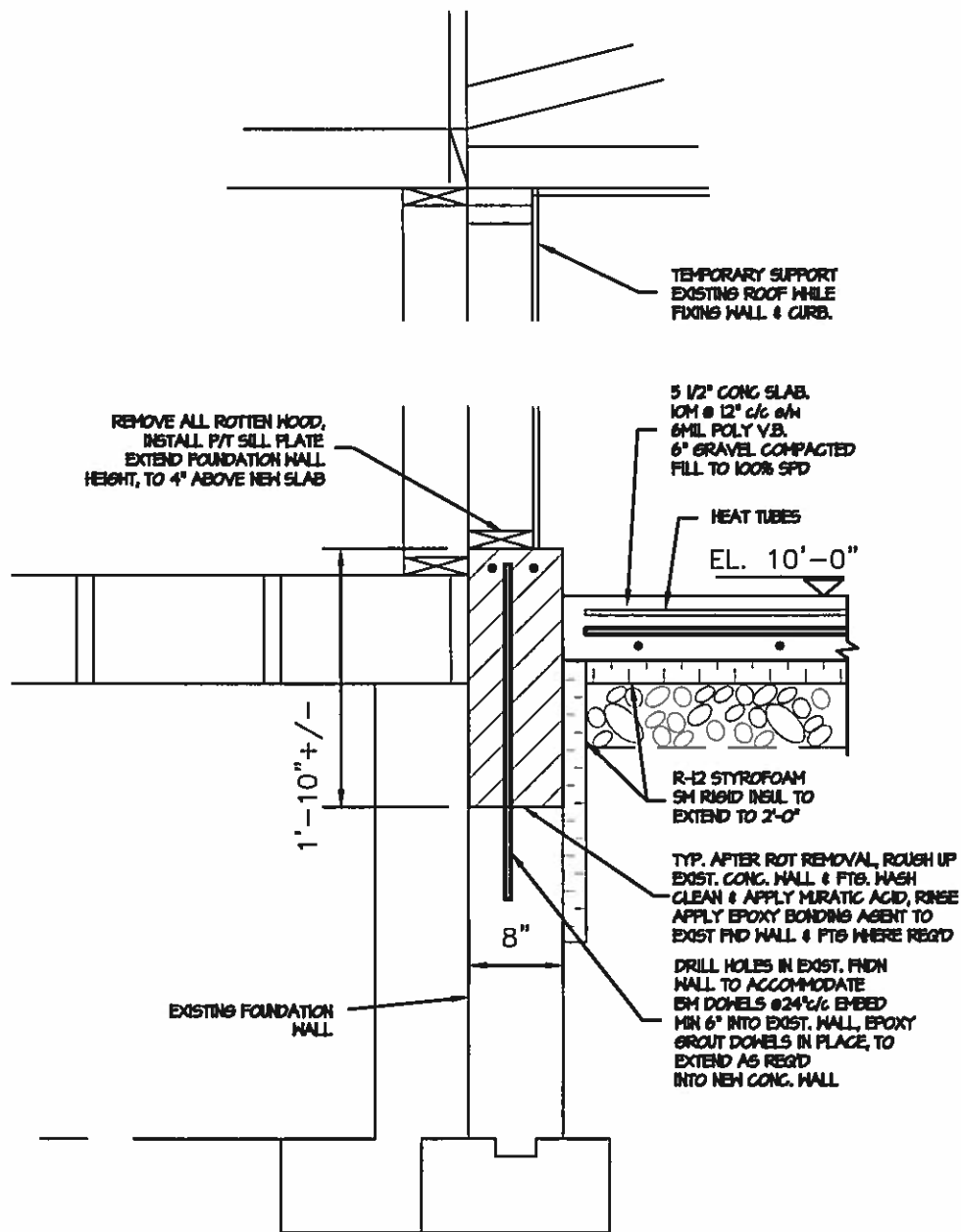
PARTIAL ROOF PLAN
SCALE: 1/8" = 1'-0"



CRICKET SECTION E
A5
SCALE: 1/8" = 1'-0"

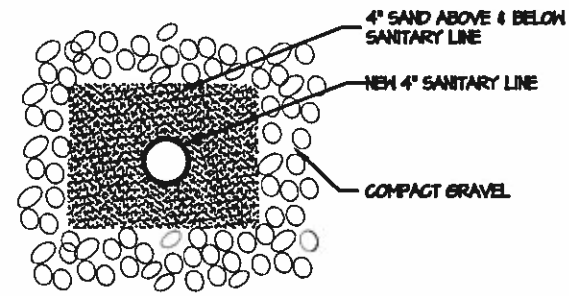


REVISED FOUNDATION PLAN



REVISED FD DETAIL

3/4" = 1'-0"



NEW SAN LINE

3/4" = 1'-0"

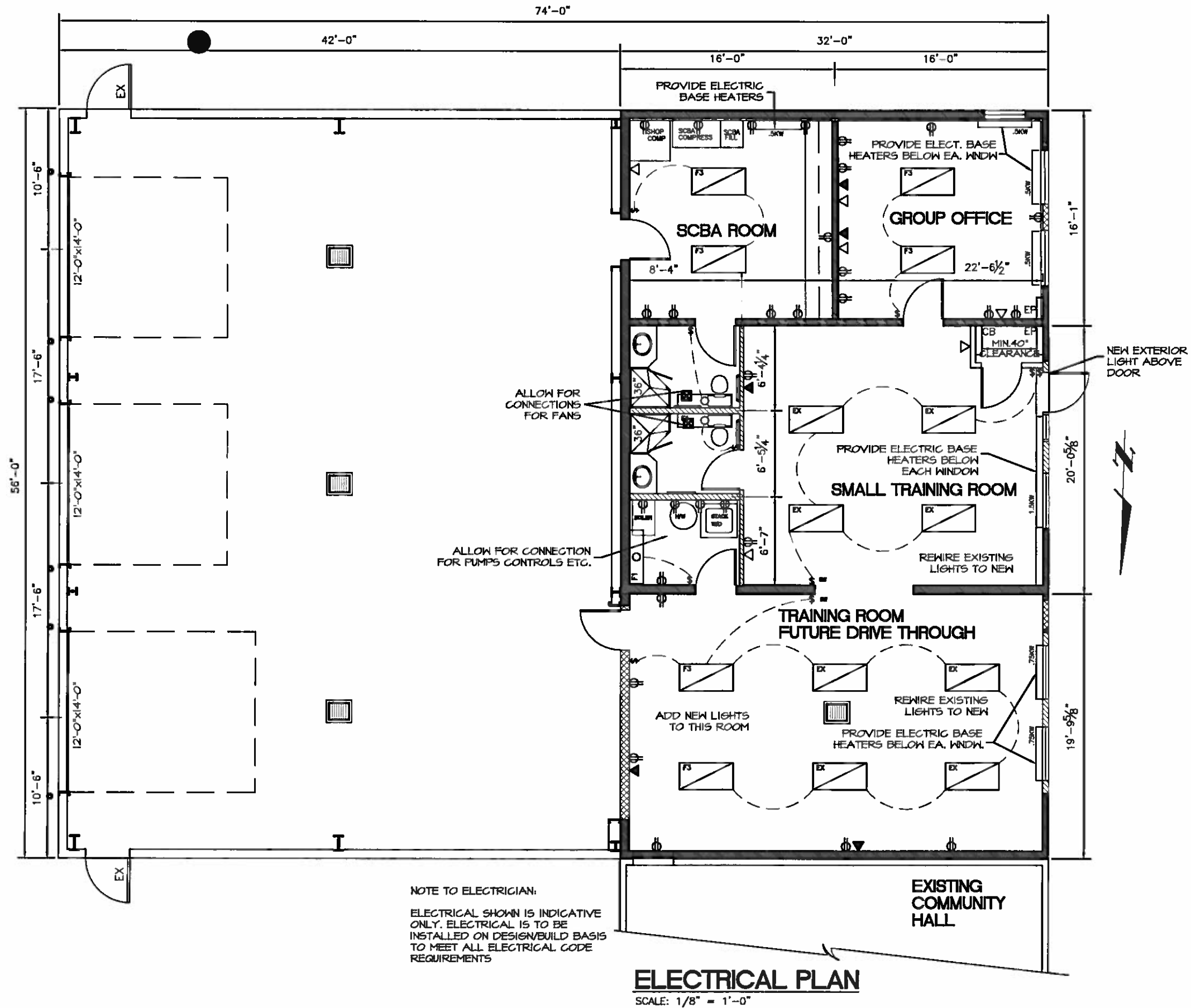
FACCESS
ENGINEERING CONSULTANTS LTD.

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V2L 3G3
TEL: 562-9345
FAX: 563-4878

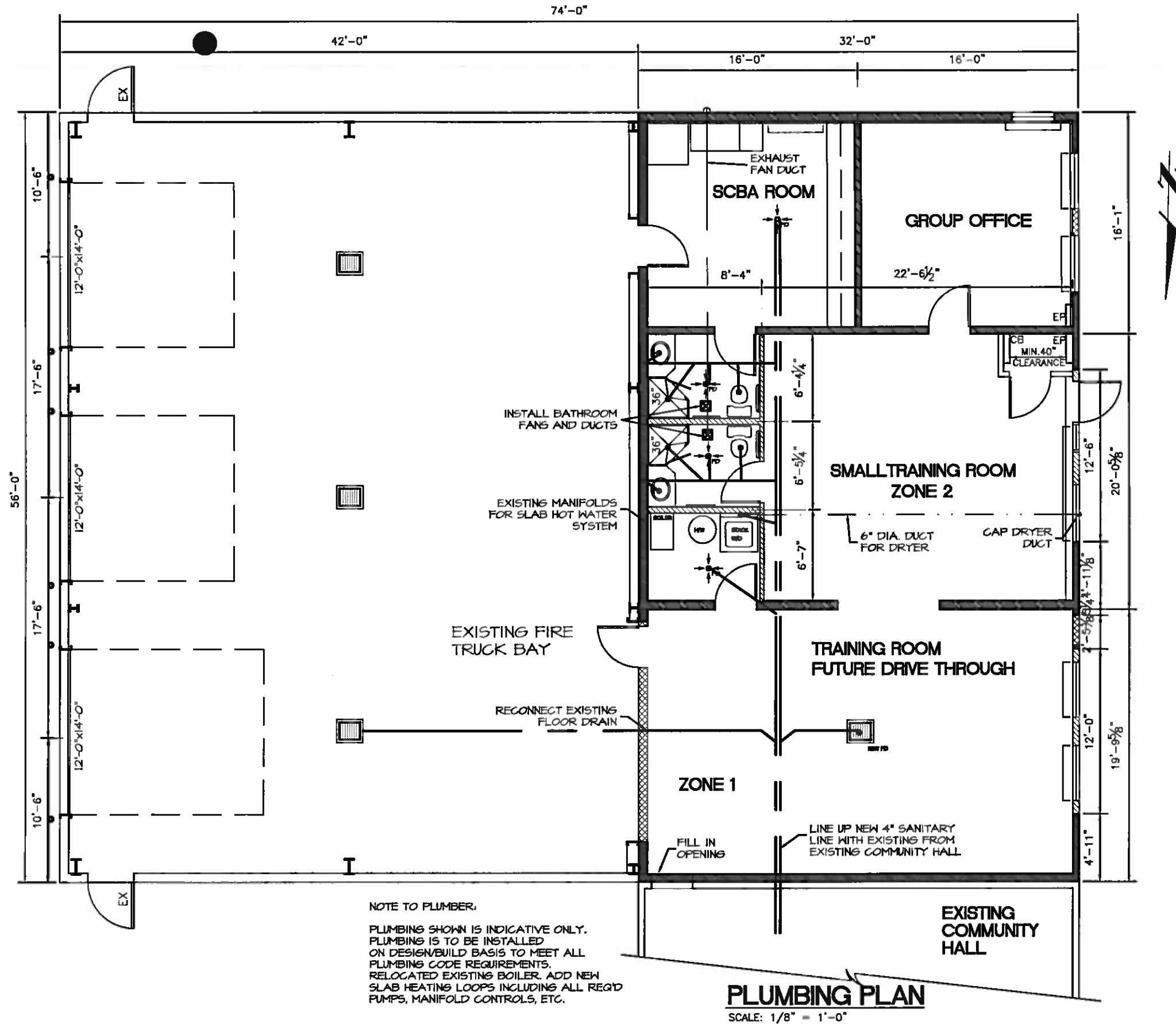
FOUNDATION PLAN AND DETAIL NESS LAKE FIRE HALL-FUNGI REMOVAL + RENOVATIONS

DWG TITLE	FOUNDATION PLAN AND DETAIL
PROJECT	NESS LAKE FIRE HALL-FUNGI REMOVAL + RENOVATIONS
CLIENT	RDFFG
DATE	AUGUST 27, 2013
SCALE	AS SHOWN
DRAWN BY	DM/JM
PROJ. NO.	13050
DWG NO.	811
ACAD FILE	13050-13-08-27-1FT

ENGINEERING DESIGN FERGIS FOLEY, P.ENG
CO-DESIGNER
checked FF



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PRINCE GEORGE, B. C. TEL: 562-9345 FAX: 563-4878			
ELECTRICAL PLAN NESS LAKE FIRE HALL-FUNG REMOVAL + RENOVATIONS CLIENT: RDFFG			
DWG TITLE PROJECT CLIENT	DATE: AUGUST 27, 2013 SCALE: AS SHOWN DRAWN BY: DM/JM	ENGINEERING DESIGN: FERGIUS FOLEY, P.ENG CO-DESIGNER: checked FF	DWG NO. EI PROJ. NO. 13050
		ACAD FILE 13050-13-08-27-FT	



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FAX: 563-4878

DWG TITLE	PLUMBING PLAN		
PROJECT	NESS LAKE FIRE HALL-FUNG REMOVAL + RENOVATIONS		
CLIENT	RDFFG		
DATE	AUGUST 27, 2013	ENGINEERING DESIGN	FERGUS FOLEY, P.ENG
SCALE	AS SHOWN	CO-DESIGNER	checked FF
DRAWN BY	DM/AM		
PROJ. NO.	13050	DWG NO.	P1
		ACAD FILE	13050-13-08-27-1F

SPECIFICATIONS

FOR
CONSTRUCTION OF A RENOVATION TO EXISTING FIRE HALL
FOR
THE NESS LAKE FIRE PROTECTION DISTRICT
AND
THE REGIONAL DISTRICT OF FRASER FORT GEORGE

INDEX**DIVISION 1 - GENERAL****1. GENERAL****DIVISION 2 - SITEMARK****1. SITEMARK****DIVISION 3 - CONCRETE****1. CONCRETE****DIVISION 6 - WOOD & PLASTIC PRODUCTS**

1. ROUGH CARPENTRY
2. FINISH CARPENTRY

DIVISION 7 - THERMAL & MOISTURE PROTECTION

1. DAMP PROOFING
2. INSULATION
3. FLASHING & TRIM
4. DOORS WINDOWS & HARDWARE

DIVISION 9 - FINISHES

1. GYPSUM BOARD
2. PAINTING

DIVISION 15 - MECHANICAL

1. PLUMBING SYSTEM
2. HEATING SYSTEM
3. GAS SYSTEM

DIVISION 16 - ELECTRICAL

1. ELECTRICAL

DIVISION 1 - GENERAL**1. GENERAL****1.1 DESCRIPTION OF WORK**

SUPPLY AND INSTALL ALL LABOUR AND MATERIALS FOR THE CONSTRUCTION OF THE RENOVATION TO THE NESS LAKE FIRE HALL.

SCHEDULE

- 1.2** WITHIN ONE WEEK OF CONTRACT BEING AWARDED, PROVIDE TO THE RDFFG A COPY OF PROPOSED SCHEDULE. SHOW CLEARLY WHEN EACH STAGE OF CONSTRUCTION WILL BE COMPLETED WITHIN TIME PERIOD REQUIRED BY CONTRACT.

1.3 COST BREAKDOWN

BEFORE SUBMITTING FIRST PROGRESS CLAIM THE CONTRACTOR MUST SUBMIT TO THE RDFFG A DETAILED COST BREAKDOWN. USE INDEX OF SPECIFICATIONS AS GUIDE TO BREAKDOWN REQUIRED.

1.4 CODE AND SPECIFICATIONS

1. THESE SPECIFICATIONS ARE TO BE READ IN CONJUNCTION WITH THE B.C. BUILDING CODE AND ALL RELATED DOCUMENTS AND SPECIFICATIONS.
2. UNLESS OTHERWISE EXPRESSLY PROVIDED IN THE SPECIFICATIONS ALL GOODS AND MATERIALS SUPPLIED SHALL CONFORM TO THE SPECIFICATIONS OF THE CANADIAN STANDARDS ASSOCIATION.

1.5 DOCUMENTS REQUIRED

CONTRACTOR TO RETAIN ON SITE ONE COPY OF EACH OF THE FOLLOWING:

1. CONTRACT DOCUMENTS INCLUDING DRAWING SPECIFICATIONS AND ADDENDA.
2. SHOP DRAWINGS.
3. BUILDING CODE.
4. BUILDING PERMIT.
5. REVIEWED SHOP DRAWINGS.
6. MANUFACTURER'S INSTALLATION AND APPLICATION INSTRUCTIONS.

1.6 DISCREPANCIES AND OMISSIONS

IF THE CONTRACTOR FINDS ANY DISCREPANCY IN OR DIVERGENCE BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS OR OMISSION THEREFROM HE SHALL IMMEDIATELY REFER THE SAME IN WRITING TO THE ENGINEER IN RELATION THERETO. ANY DISCREPANCIES NOT REPORTED TO THE RDFFG WILL BECOME THE CONTRACTOR'S RESPONSIBILITY TO MAKE RIGHT AT HIS COST.

1.7 ORAL INSTRUCTIONS

NEITHER THE ENGINEER NOR THE RDFFG WILL BE RESPONSIBLE FOR ORAL INSTRUCTIONS EITHER BEFORE OR AFTER THE LETTING OF THE CONTRACT.

DIVISION 1 - GENERAL CONTD.**1.8 EXAMINATION OF SITE**

VISIT AND EXAMINE THE SITE AND NOTE ALL CHARACTERISTICS AND FEATURES AFFECTING THE WORK OF THIS SECTION. NO ALLOWANCES WILL BE MADE FOR ANY DIFFICULTIES ENCOUNTERED OR ANY EXPENSES INCURRED ON ACCOUNT OF ANY CONDITIONS OF THE SITE OR ANY SUCH GROWTH OR ITEM EXISTING THEREON, WHICH IS VISIBLE OR KNOWN TO EXIST AT THE TENDER FOR THIS WORK IS SUBMITTED.

1.9 EXAMINATION OF SURFACE

IT SHALL BE THE RESPONSIBILITY OF EACH SUB-CONTRACTOR OR TRADE TO MAKE A THOROUGH EXAMINATION OF ALL SURFACES THAT ARE TO RECEIVE HIS WORK AND TO NOTIFY THE GENERAL CONTRACTOR AND THE RDFFG IN WRITING OF ANY DEFECTS THAT WOULD PREVENT HIM MAKING A FIRST CLASS INSTALLATION. COMMENCEMENT OF THE WORK SHALL INDICATE ACCEPTANCE OF SURFACE.

1.10 TESTING

THE CONTRACTOR WILL ENGAGE AND PAY FOR THE SERVICES OF A TESTING LABORATORY TO REPORT ON THE STRENGTH AND PROPERTIES OF THE CONCRETE. THE LABORATORY WILL REPORT DIRECTLY TO THE ENGINEER. THE CONTRACTOR WILL GIVE THE LABORATORY AND ENGINEER 48 HOURS NOTICE BEFORE EACH POUR.

1.11 SHOP DRAWINGS

1. SUBMIT TO THE RDFFG ALL SHOP DRAWINGS, SAMPLES, COLOUR SAMPLES AND PRODUCT DATA REQUIRED. DO NOT PROCEED WITH INSTALLATION UNTIL APPROVAL IS OBTAINED.
2. CONTRACTOR IS TO REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMISSION. CHECK ALL DIMENSIONS ON THE DRAWINGS AND IN THE FIELD PRIOR TO SUBMISSION. CHECK THAT ALL RELATED DRAWINGS ARE SUBMITTED AT THE SAME TIME. THE SUBMISSION ARE TO BE CERTIFIED BY THE CONTRACTOR AS CHECKED AND SUBMITTED AT LEAST 14 DAYS PRIOR TO DATES APPROVAL IS REQUIRED.
3. APPROVAL APPLICATIONS TO BE ACCOMPANIED BY TRANSMITTAL CONTAINING FOLLOWING INFORMATION. NAME OF PROJECT, CONTRACTOR, SUBCONTRACTOR, MANUFACTURE, SUPPLIER AND DETAILED.
4. THE CONTRACTOR'S RESPONSIBILITY FOR ERRORS AND OMISSIONS IS NOT RELIEVED BY THE ENGINEER'S OR RDFFG REVIEW OF SUBMITTALS.
5. PROVIDE 3 HARD COPIES OF EACH SUBMITTAL. FAXES OR EMAILS ARE NOT ACCEPTABLE.

1.12 MATERIALS

1. ALL GOODS AND MATERIALS USED IN THE WORK SHALL BE NEW AND EXACTLY AS HEREINAFTER SPECIFIED IN BRANCH AND QUALITY UNLESS OTHERWISE APPROVED BY THE RDFFG. IN THE EVENT THAT THE GRADE OR CLASS OF MATERIAL WHICH MAY BE CALLED FOR IN THE PLANS AND SPECIFICATIONS, OR BOTH, IS NOT DEFINITELY SPECIFIED IT SHALL BE ASSUMED BY THE CONTRACTOR THAT FIRST CLASS MATERIAL IS TO BE USED UNLESS WRITTEN INSTRUCTION TO THE CONTRARY ARE RECEIVED FROM THE RDFFG.
2. NO CLAIM BY THE CONTRACTOR AS TO THE UNSUITABILITY OR UNAVAILABILITY OF ANY MATERIAL SPECIFIED, OR HIS UNWILLINGNESS TO USE SAME, WILL BE ENTERTAINED UNLESS SUCH CLAIMS ARE MADE IN WRITING AND SUBMITTED WITH HIS BID.
3. ALL PACKAGED AND BRANDED MATERIALS SHALL BE DELIVERED TO THE JOB IN ORIGINAL CONTAINERS, WITH SEALS UNBROKEN AND LABELS INTACT. ALL BRANDED MATERIALS SHALL BE USED OR APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS UNLESS OTHERWISE DIRECTED.

1.13 STORAGE

1. PROVIDE COVERED PLATFORMS AND STORAGE SHEDS WITH ELEVATED WOOD FLOORS WHERE REQUIRED TO PROTECT MATERIALS AND EQUIPMENT STORED ON SITE.
2. ENSURE THAT ALL FLOOR AND ROOF STRUCTURES ARE NOT LOADED WITH PILES OF MATERIAL IN EXCESS OF ALLOWABLE LOADING.
3. ALL PAINT MATERIALS ARE TO BE STORED IN A SINGLE, VENTILATED ROOM WHICH SHALL BE KEPT CLEAN AND NEAT, AND ALL OILY RAGS, WASTE, ETC., REMOVED EACH NIGHT AND OTHER PRECAUTIONS AGAINST FIRE BE TAKEN.

1.14 ACCESS TO SITE

PROVIDE AND MAINTAIN ACCESS TO SITE.

1.15 SITE OFFICE

PROVIDE AND MAINTAIN SITE OFFICE, PROVIDED WITH TABLE FOR DRAWINGS, AND ADEQUATE LIGHTING.

DIVISION 1 - GENERAL CONTD.**1.16 TEMPORARY UTILITIES**

SUPPLY AND INSTALL ALL TEMPORARY POWER, LIGHTING, TELEPHONE CONNECTIONS AND AS REQUIRED AND IF NOT PREARRANGED USE OF EXISTING WITH OWNER. ADEQUATE TOILET FACILITIES AND DRINKING WATER SHALL BE PROVIDED TO SATISFACTION OF THE WCB AND SHALL BE MAINTAINED IN A CLEAN ORDERLY CONDITION UNTIL COMPLETION OF THE WORK.

1.17 TEMPORARY HEAT

THE CONTRACTOR SHALL SUPPLY ALL TEMPORARY HEAT REQUIRED FOR PROPER EXECUTION OF THE WORK. OPEN TYPE OIL BURNERS WILL NOT BE PERMITTED. THE CONTRACTOR MAY USE THE HEATING EQUIPMENT INSTALLED IN THE ADDITION UNDER THIS CONTRACT FOR THE PURPOSES OF TEMPORARY HEAT. THE MINIMUM HEAT REQUIREMENTS SHALL BE AS FOLLOWS: FOR PAINTING 50°F. FOR DRYWALL 40°F, UNTIL ALL MATERIALS ARE COMPLETELY DRY.

1.18 PROTECTION

ERECT AND MAINTAIN ALL GUARDS, RAILS, NIGHT LIGHTS ETC., IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING AUTHORITIES AND COMPLY IN ALL RESPECTS WITH ALL REGULATIONS OF ALL AUTHORITIES GOVERNING THE PROTECTION OF PUBLIC PROPERTY.

1.19 CLEANUP

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP, REMOVAL OF DEBRIS, ETC., OF HIS OWN TRADESMEN AS WORK PROGRESSES AND ON COMPLETION AND SHALL ENSURE THAT THE JOB SITE IS KEPT NEAT AND TIDY AT ALL TIMES. EACH SUB-TRADE SHALL BE RESPONSIBLE FOR CLEANING UP AND REMOVAL OF HIS OWN DEBRIS, ETC., AS WORK PROCEEDS. ON COMPLETION AND BEFORE FORMAL ACCEPTANCE OF THE BUILDING BY THE OWNER, THOROUGHLY CLEAN THE SITE AND ALL BUILDING SURFACES AS FOLLOWS:

1. HOSE DOWN PAVING; FINISH GRADE AND/OR NEATLY RAKE SOIL AND GRAVEL OVER AREA DISTURBED UNDER THIS CONTRACT
2. WASH GLASS BOTH SIDES, REMOVE PAINT STAINS, DIRT AND SCUFF MARKS FROM ALL SURFACES, REPAIR BLEMISHES.
3. CLEAN ALL FIXTURES, HARDWARE AND EQUIPMENT.

DIVISION 2 - EXCAVATION**2.1 EXCAVATION**

THE CONTRACTOR SHALL EXCAVATE MATERIAL TO DEPTHS SHOWN ON THE DRAWING. BOTTOM OF ALL EXCAVATIONS SHALL BE LEVEL AND CLEAN OF ALL LOOSE MATERIAL DEBRIS. EXCAVATIONS SHALL BE OF SUFFICIENT WIDTH TO PERMIT THE WORK TO BE PROPERLY PERFORMED. TRENCHES IN WHICH UTILITIES ARE TO BE PLACED SHALL BE EXCAVATED ON THE LINES AND TO DEPTHS AND GRADIENT AS SHOWN ON THE DRAWINGS OR REQUIRED BY CODE. UTILITIES SHALL BE PLACED ON FIRM UNDISTURBED GROUND. EXCAVATED MATERIAL WILL BE SUITABLE FOR TRENCH BACKFILLING.

2.2 SHORING AND BRACING

THE CONTRACTOR SHALL PROVIDE AND SET ALL SHORING AND BRACING NECESSARY TO PREVENT THE CAVE-IN OF EXCAVATIONS. SHORING AND BRACING SHALL BE PLACED SO AS TO BE INDEPENDENT OF ALL STRUCTURES AND UTILITIES AND SHALL REMAIN IN POSITION AT LEAST UNTIL FORMS HAVE BEEN REMOVED OR AT LEAST UNTIL THE UTILITY HAS BEEN TESTED AND BACKFILLED.

2.3 BACKFILL

1. ALL SPACES EXCAVATED AND NOT OCCUPIED BY FOOTINGS, WALLS, SLABS OR OTHER PERMANENT WORK SHALL BE BACKFILLED. ON THE EXTERIOR OF STRUCTURES, THE BACKFILLING SHALL BE PLACED WITH SUFFICIENT ALLOWANCE FOR SETTLEMENT AND IN GENERAL ITS TOP SURFACES SHALL BE NEATLY GRADED.
2. EXISTING FILL FOR THE SLAB ON GRADE SHALL BE GRADED TO THE DESIRED ELEVATION AND COMPACTED AT OPTIMUM MOISTURE CONTENT TO OBTAIN 100% STANDARD PROCTOR DENSITY AS DEFINED BY ASTM SPECIFICATION D698.
3. ALL BACKFILL AROUND STRUCTURES AND IN DESIGNATED FILL SECTIONS SHALL BE COMPACTED USING MECHANICAL EQUIPMENT ON LAYERS OF EARTH WHICH SHALL NOT EXCEED SIX INCHES IN DEPTH. EACH LAYER SHALL BE FULLY COMPACTED BEFORE THE SUCCEEDING LAYER IS PLACED, AND THE MOISTURE CONTENT OF THE SOIL SHALL BE ADJUSTED TO OPTIMUM IF NECESSARY TO OBTAIN 100% STANDARD PROCTOR DENSITY.
4. BACKFILL IN THE VICINITY OF CONCRETE WORK, PIPES, DUCTS, OR OTHER BURIED CONDUCTORS SHALL BE PLACED IN SIX INCH LAYERS AND EACH LAYER COMPACTED BY MECHANICAL HAND TAMPING EQUIPMENT. WHERE BACKFILL IS CALLED FOR ON BOTH SIDES OF FOUNDATION WALLS, IT SHALL BE CARRIED UP AND TAMPED SIMULTANEOUSLY ON EITHER SIDE OF THE WALL.



207-1527 3rd. Avenue
V2L 3G3
PRINCE GEORGE, B. C.
TEL: 562-9345
FAX: 563-4878

SPECIFICATION 1
NESS LAKE FIRE HALL - FUND REMOVAL + RENOVATIONS

DWG TITLE

PROJECT

CLIENT

DATE

SCALE

DRAWN BY

PROJ. NO.

DWG NO.

ACAD FILE

RDFFG

AUGUST 27, 2013

AS SHOWN

BY DM/ JM

13050

SPEC 1

13050-13-08-27-1FT

ENGINEERING DESIGN FERGUS FOLEY, P.ENG

CO-DESIGNER

checked FF

DIVISION 2 - SITE WORK CONT'D.

2.3 BACKFILL

- 5. FOLLOWING THE BEDDING OF PIPE, THE REMAINDER OF THE PIPE SHALL BE ENTIRELY SURROUNDED TO A HEIGHT OF AT LEAST ONE FOOT ABOVE THE TOP OF THE PIPE WITH THOROUGHLY TAMPED SAND OR THERE APPROVED MATERIAL. AND ON EACH SIDE OF THE PIPE IN LAYERS NOT EXCEEDING SIX INCHES IN THICKNESS, TO ASSURE THAT ALL SPACES UNDER AND ADJACENT TO THE PIPE ARE COMPLETELY FILLED AND WELL TAMPED. ABOVE THE ZONE, BACKFILLING MAY BE DONE BY MACHINE; HOWEVER EARTH SHALL BE ROLLED, NOT DROPPED, INTO THE TRENCHES.
- 6. BACKFILLING SHOULD NOT TAKE PLACE AROUND THE BUILDING UNTIL THE CONCRETE HAS REACHED SUFFICIENT STRENGTH.

2.4 INSPECTION

AFTER EACH EXCAVATION IS COMPLETED, THE CONTRACTOR SHALL OBTAIN FROM THE OWNER APPROVAL TO PROCEED WITH SUBSEQUENT WORK.

2.5 CLEANUP

WHEN THE WORK IS COMPLETE, THE CONTRACTOR SHALL REMOVE ALL SURPLUS MATERIALS AND DEBRIS OF ALL TRADES, AND LEAVE THE WORK CLEAN AND IN GOOD ORDER. ALL SLOPES SHALL BE NEATLY TRIMMED, RAKED AND LEFT IN WORKMANLIKE FASHION.

2.6 TESTING OF COMPACTED GRAVEL

A TOTAL OF 4 TESTS OF THE COMPACTED MATERIAL SHALL BE CARRIED OUT BY A RECOMMENDED SOIL TESTING LABORATORY. THE LOCATION OF THE TESTS SHALL BE COORDINATED WITH THE ENGINEER. NO CONCRETE SLABS SHALL BE PLACED BEFORE THE TEST RESULTS ARE RECEIVED.

DIVISION 3 - CONCRETE

3.1 GENERAL

THE CANADIAN STANDARDS ASSOCIATION SPECIFICATION A23.3 DESIGN OF CONCRETE STRUCTURES (HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATION) SHALL GOVERN ALL WORK UNDER THIS SECTION EXCEPT AS NOTED OTHERWISE ON THE DRAWINGS OR IN THIS SPECIFICATION.

3.2 MATERIALS

1. CONCRETE

CONCRETE FOR FOUNDATIONS TO HAVE A COMPRESSIVE STRENGTH OF 21 MPA (3,000 PSI) @ 28 DAYS. CEMENT UNLESS OTHERWISE STATED SHALL BE NORMAL PORTLAND CEMENT TO C.S.A. A5. COARSE AGGREGATE SHALL HAVE A MAXIMUM SIZE OF 1 1/2" (EXCEPT FOR FLOOR SLABS 3/4") AND 3/4" MINIMUM AND BE WELL GRADED. FINE AGGREGATES SHALL CONSIST OF CLEAN, UNCOATED, DURABLE GRAINS FREE OF DELETERIOUS SUBSTANCES.

2. CONCRETE FOR SLABS TO BE 32 MPA (4600 PSI) 7% AIR ENTRAINMENT BRUSH FINISH ON EXTERIOR SLABS.

3. REINFORCING STEEL

REINFORCING STEEL TO BE ROUND DEFORMED STEEL BARS TO C.S.A.B.-30. 12M GRADE 400. WELDED WIRE FABRIC TO C.S.A.G30.5.

3.3 QUALITY

ULTIMATE CONCRETE COMPRESSIVE STRENGTH TO BE 21 MPA (3,000 PSI) MIN. @ 28 DAYS. 32 MPA (4600 PSI) FOR SLABS FOR TEST SPECIMENS CURED UNDER STANDARD LABORATORY CONDITIONS. MAXIMUM SLUMP SHALL BE 3" OR LESS. NO WATER SHALL BE ADDED AFTER THE CONCRETE IS REMOVED FROM THE READY MIXER (OR BATCHING PLANT).

3.4 COMPACTION

ALL CONCRETE WILL BE VIBRATED AND COMPACTED BY INTERNAL VIBRATORS. THE ENGINEER WILL NOT GIVE APPROVAL TO POUR UNLESS THERE ARE WORKING VIBRATORS ON SITE.

FORMWORK

- 1. FORMS SHALL CONFORM TO THE SHAPE, LINES AND DIMENSIONS OF THE MEMBER CALLED FOR ON THE PLANS. FORMS SHALL BE SUBSTANTIAL AND SUFFICIENTLY TIGHT TO PREVENT THE LEAKAGE AND PROPERTY BRACED AND TIED SO AS TO MAINTAIN THEIR POSITION AND SHAPE.
- 2. UNLESS OTHERWISE CALLED FOR, OR UNLESS WRITTEN INSTRUCTIONS TO THE CONTRARY ARE GIVEN BY THE ENGINEER, EARTH SURFACES SHALL NOT BE USED TO FORM CONCRETE.
- 3. BEFORE POURING THE FORMS SHALL BE PROPERLY CLEANED OF ALL FOREIGN MATERIALS, WETTED DOWN IN WARM WEATHER OR OILED IN COLD WEATHER, AND INSPECTED BY THE ENGINEER.
- 4. ALL SUBCONTRACTORS SHALL BE CONSULTED WITH REGARD TO INSERTS BUILT INTO THE CONCRETE.
- 5. PLYWOOD OR METAL FORMS SHALL BE USED ON ALL WALLS & SLAB FORMS
- 6. FORMS AND FALSE WORK SHALL NOT BE REMOVED UNTIL THE CONCRETE HAS GAINED SUFFICIENT STRENGTH TO CARRY SAFELY ITS OWN WEIGHT TOGETHER WITH ANY SUPERIMPOSED LOAD WHICH MAY COME UPON IT. MINIMUM TIME IS 7 DAYS.
- 7. MEMBERS FROM WHICH FORMING AND FALSE WORK HAVE BEEN REMOVED, AND WHICH ARE SUBJECT TO ADDITIONAL LOADS DURING CONSTRUCTION, SHALL BE ADEQUATELY SHORED OR RESHORED TO SUPPORT SAFELY BOTH THEIR OWN WEIGHT AND SUCH CONSTRUCTION LOADS.

DIVISION 3 - CONCRETE CONT'D

3.5 PLACING OF CONCRETE

- 1. BEFORE PLACING OF CONCRETE, REINFORCEMENT SHALL BE CHECKED AND APPROVED BY THE ENGINEER.
- 2. CONCRETE SHALL NOT BE PLACED THAT HAS BEEN IN THE MIXING TRUCK FOR MORE THAN 1 1/2 HOURS AFTER THE INTRODUCTION OF WATER TO THE CEMENT AND AGGREGATE, OR CEMENT TO THE AGGREGATE.
- 3. CONCRETE SHALL BE PLACED SO AS TO AVOID SEGREGATION OF THE MATERIALS AND THE PLACEMENT OF REINFORCING STEEL. OPEN TROUGHS OR CHUTES AND THEIR METHOD OF USE IN PLACING CONCRETE MUST BE APPROVED BY THE ENGINEER.
- 4. ALL TROUGHS, CHUTES AND PIPES USED FOR PLACING CONCRETE SHALL BE KEPT CLEAN AND FREE FROM COATINGS OF HARD CONCRETE.
- 5. THE CONCRETE SHALL NOT BE DROPPED FREELY MORE THAN SIX FEET.
- 6. AS FAR AS PRACTICABLE, THE PIPES WHERE USED SHALL BE KEPT FULL OF CONCRETE AND THEIR LOWER ENDS SHALL BE KEPT BURIED IN NEWLY PLACED CONCRETE.

3.6 PLACING REINFORCEMENT

REINFORCING OF THE SIZES AND SHAPES SHOWN ON THE DRAWING SHALL BE PLACED AT THE DESIGNATED LOCATIONS. WHERE SPLICE POINTS ARE NOT GIVEN, OR WHERE THE CONTRACTOR PROPOSES SPLICES OTHER THAN THOSE GIVEN, THE ENGINEER'S APPROVAL AS TO LOCATION SHALL BE OBTAINED. SPLICES OF REINFORCEMENT AT POINTS OF MAXIMUM STRESS SHALL GENERALLY BE AVOIDED, SPLICES SHALL PROVIDE SUFFICIENT LAP TO TRANSFER THE STRESSES BETWEEN THE BARS BY BOND AND SHEAR. LAPS SHOULD BE AT LEAST 36 TIMES THE BARS DIAMETER.

3.7 ANCHOR BOLTS AND DOWELS SETTING

ANCHOR BOLTS OF THE SIZES SHOWN SHALL BE ACCURATELY SET AT THE POSITIONS DESIGNATED AND SECURELY HELD IN POSITION BY MEANS OF WOODEN TEMPLATES AND WIRE TIES SO AS TO PREVENT SHIFTING DURING CONCRETE PLACING IS CARRIED OUT. ANCHOR BOLTS AND DOWELS SHALL BE SET BEFORE CONCRETE PLACEMENT. ANCHOR BOLTS AND DOWELS SHALL NOT BE INSERTED INTO PLACED CONCRETE.

3.8 CONSTRUCTION JOINTS

CONSTRUCTION JOINTS SHALL BE LOCATED AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURES BUT SUFFICIENT IN NUMBER AND LOCATION TO CONTROL THE SHRINKAGE AND CREEP OF CONCRETE MEMBERS. ANY ALTERNATE LOCATION OF THE CONSTRUCTION AND /OR CONTROL JOINTS SHALL BE SHOWN ON A DRAWING AND SUBMITTED TO THE ENGINEER FOR APPROVAL. JOINTS IN FLOOR SLAB SHALL BE MADE BY USING EZY-STRIP PLASTIC T'S. ALTERNATIVELY SAW CUT SLAB AT LEAST 1/3 DEEP WITHIN 16 HOURS OF CONCRETE POUR.

3.9 OPENINGS IN SLABS

OPENINGS THAT ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE MADE WITHOUT THE APPROVAL OF THE ENGINEER. REINFORCING AT OPENINGS SHALL NOT BE CUT NOR BENT, BUT SHALL BE FANNED WHERE POSSIBLE OR CROWDED TO EITHER SIDE OF THE OPENING TO BYPASS THE OPENING. PROVIDE 1 #5 BAR 4'-0" LONG DIAGONALLY ACROSS EACH CORNER OF THE OPENING OVER 2'-0" WIDE.

3.10 CURING

AFTER CONCRETE HAS SUFFICIENTLY SET ITS EXPOSED SURFACE SHALL BE KEPT CONTINUOUSLY MOIST FOR A PERIOD OF AT LEAST 7 DAYS AFTER DEPOSITING. IT SHALL BE PROTECTED FROM THE HARMFUL EFFECTS OF SUNSHINE, DRYING WINDS, COLD, RUNNING OR SURFACE WATER, AND MECHANICAL SHOCK. IN ORDER THAT CURING WATER MAY REACH BOTH SURFACES OF WALL AND SHAFTS, THE FORMS SHALL BE LOOSENEED SLIGHTLY AND WATER POURED OVER THE TOP OF THE WALLS AND ALLOWED TO RUN DOWN BETWEEN THE CONCRETE AND THE FORMS

3.11 HOT WEATHER CONCRETING

HOT WEATHER PROTECTION OF CONCRETE SHALL BE BY METHODS, EQUIPMENT AND FOR A DURATION SATISFACTORY TO THE ENGINEER. HOT WEATHER CONCRETING PROCEDURE SHALL APPLY WHEN THE EFFECTIVE AIR TEMPERATURE IS OR COULD RISE TO 75 °F OR HIGHER; FORMS AND SURFACES ON WHICH CONCRETE WILL BE PLACED SHALL BE THOROUGHLY WETTED DOWN PRIOR TO, AND IF NECESSARY, DURING PLACING OPERATIONS. TEMPERATURE OF CONCRETE SHALL BE KEPT BELOW 80 °F FOR THE FIRST 3 DAYS AND BELOW 110 °F FOR THE REMAINING 4 DAYS OF THE CURED PERIOD

3.12 COLD WEATHER CONCRETING

COLD WEATHER PROTECTION OF CONCRETE SHALL BE BY METHODS, EQUIPMENT AND FOR A DURATION SATISFACTORY TO THE ENGINEER. COLD WEATHER CONCRETING PROCEDURE SHALL APPLY WHEN THE EFFECTIVE AIR TEMPERATURE IS AT OR BELOW 40°F, 5°C. IF NECESSARY THE MIXING WATER AND AGGREGATE SHALL BE HEATED AND HAVE A TEMPERATURE NOT LESS THAN 70°F OR MORE THAN 150°F AND BE FREE FROM ALL FROZEN MATERIAL. CONCRETE WHEN POURED IN FORMS SHALL HAVE A TEMPERATURE OF NOT LESS THAN 60°F NOR MORE THAN 90°F. UNDER NO CIRCUMSTANCES SHALL WATER COME IN CONTACT WITH THE CEMENT BEFORE THE LATTER IS MIXED WITH THE AGGREGATE. EFFECTIVE MEANS SHALL BE PROVIDED FOR MAINTAINING A CONCRETE SURFACE TEMPERATURE OF NOT LESS THEN 70°F FOR THE FIRST 3 DAYS OR NOT LESS THAN 50°F FOR 5 DAYS AFTER PLACING. THE CONCRETE SHALL BE KEPT ABOVE FREEZING TEMPERATURE FOR A PERIOD OF 7 DAYS.

DIVISION 3 - CONCRETE CONT'D

3.13 CONCRETE SLABS AND FLOOR FINISHES

- 1. EXTERIOR PADS AND WALKS
FLOAT TO A FINE ROUGHNESS, USE A BURLAP DRAG OR EQUIVALENT COARSE NONSKID SINGLE PASS WITH CORN BROOM. FINISH PERIMETER WITH AN EDGING TOOL.
- 2. INTERIOR FLOOR SLABS
COMPACT SURFACE OF SLAB THOROUGHLY USING POWER DRIVEN FLOOR FINISHING MACHINE. FINISH SURFACE WITH POWER DRIVEN STEEL TROWELS. FLOOR SHALL BE FINISHED SMOOTH, LEVEL, AND SHALL SLOPE EVENLY TO DRAINS OR TRENCHES WHERE INDICATED ON DRAWINGS.

3.14 FLOOR COLOUR SEALER & HARDNER

- 1. TRAINING ROOMS FROM CEMETEC INDUSTRIES INC.
USE HARD CEM INTEGRAL CONCRETE HARDNER MIXED IN WITH CONCRETE PRIOR TO POURING.
USE DAVIS COLOURS MIX IN COLOURS FOR CONCRETE. CHOOSE FROM STANDARD RANGE, CONSULT WITH NESS LAKE FIRE CHIEF FOR EXACT COLOUR.
- 2. ALL OTHER CONCRETE SURFACES
AS DESIGNATED SHALL BE CURED AND SEALED WITH STERNSON FLOOR SEAL OR EQUIVALENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. THE MATERIAL SHALL BE APPLIED IN SUFFICIENT QUANTITY TO PRODUCE A CONTINUOUS FILM ON THE CONCRETE SURFACE.

DIVISION 6 - WOOD

SECTION 6.1 - ROUGH CARPENTRY

- 1. GENERAL
ALL WORK TO BE DONE IN CONFORMANCE TO THE B.C. BUILDING CODE AND C.S.A. 086-01 CODE FOR ENGINEERED DESIGN IN WOOD.
- 2. MATERIALS
ALL LUMBER GRADES REFERRED TO ARE FROM NLGA "STANDARD GRADING RULES" FOR CANADIAN LUMBER & THE CANADIAN LUMBER STANDARD ADMINISTRATION BOARD.
 - 1. STUDS, PLATES, SILLS, STRAPPING, CANTS, LOOKOUTS, JOISTS TO BE #2 SPRUCE STRUCTURAL GRADE UNLESS OTHERWISE NOTED.
 - 2. WOOD CANTS/SILLS TO BE PRESSURE TREATED WITH A.C.A.
 - 3. ALL NAILS AND STAPLES SHALL CONFORM TO CSA B11.
 - 4. ALL EXTERIOR FINISHED NAILING SHALL BE DONE WITH GALVANIZED NAILS.
 - 5. DFR PLYWOOD SHEATHING TO C.S.A. 0121.
 - 6. SPRUCE PLYWOOD SHEATHING TO CSA 0151-SOFTWOOD PLYWOOD.
- 3. FRAMING CARPENTRY
ALL MEMBERS SHALL BE FRAMED, ANCHORED, FASTENED, TIED AND BRACED TOGETHER TO PROVIDE THE STRENGTH AND RIGIDITY NECESSARY FOR THE PURPOSE FOR WHICH THEY ARE USED. ALL NAILS OR STAPLES SHALL BE LONG ENOUGH SO THAT AT LEAST HALF THEIR LENGTH PENETRATED INTO THE SECOND MEMBER. SPLITTING OF WOOD MEMBERS SHALL BE MINIMIZED BY STAGGERING NAILS OR STAPLES IN THE DIRECTION OF THE GRAIN AND BY KEEPING THEM WELL IN FROM THE EDGES. ALL MEMBERS SHALL BE ARRANGED TRUE TO LINES, LEVELS AND ELEVATIONS, PLUMB AND UNIFORMLY SPACED AS REQUIRED.
- 4. STORAGE AND SEASONING
ALL LUMBER AND SHEETING SHALL BE STORED SO THAT IT IS PROTECTED FROM THE WEATHER AND HANDLED SO THEY ARE NOT DAMAGED. ALL LUMBER TO BE WELL SEASONED AND TO HAVE MAXIMUM MOISTURE CONTENT OF 19%.
- 5. SILLS
ANCHORED SILLS ON FOUNDATION WALLS SHALL BE AT LEAST 6" ABOVE THE FINISHED GRADE. SILLS SHALL BE SET LEVEL ON A MORTAR BED AND ANCHORED TO THE FOUNDATION WALLS BY 5/8" BOLTS. MAXIMUM SPACING FOR ANCHOR BOLTS IS 4 FEET, THE STANDARD IS 4 FEET. SILLS SHALL BE TREATED AS PER C.S.A. 080.
- 6. WALLS
WALLS SHOULD BE SET PLUMB. MULTIPLE STUD POSTS OF AT LEAST 3 STUDS SHOULD BE PLACED AT EACH CORNER. STUDS SHOULD BE DOUBLED AT SIDES OF OPENINGS. FOR LARGE OPENINGS WHERE MORE THAN 3 STUDS ARE DISPLACED, THE STUDS SHOULD BE TRIPLED (O.N.O.). THE INNER STUDS SHOULD BE CUT AT THE TOP TO SUPPORT THE LINTELS. LINTELS SHOULD BE 2" LUMBER WITH A PLYWOOD SPACER BETWEEN THEM RUNNING THE FULL LENGTH OF THE LINTEL AND GLUED AND NAILED TO THE TIMBER IN ORDER TO MAKE THE LINTEL THE SAME WIDTH AS THE WALL STUDS. THE DEPTH OF THE LINTEL WILL BE AS SHOWN ON THE DRAWINGS. GIRTS SHALL BE PLACED IN ALL LOAD BEARING WALLS AND CALLED FOR ON THE DRAWINGS.
- 7. DRILLING AND NOTCHING
STUDS IN LOAD BEARING WALLS MAY BE NOTCHED TO A MAXIMUM DEPTH OF 1/3 THE DEPTH OF THE STUD. STUDS IN NON LOAD BEARING WALLS MAY BE NOTCHED SO THAT AT LEAST 1/3 OF MATERIAL IS LEFT. STUDS MAY BE DRILLED SO THAT AT LEAST 1" OF MATERIAL IS LEFT AT EITHER SIDE OF THE HOLE. THE ENGINEER MAY AT HIS DISCRETION REJECT ANY STUD THAT VIOLATES THESE CONDITIONS. THESE MEMBERS SHALL BE REPLACED OR REINFORCED AS ENGINEER DIRECTS. UNDER NO CIRCUMSTANCES CAN ANY PART OF THE ENGINEERED TRUSSES BE NOTCH, CUT OR DRILLED. CHAIN SAWS ARE NOT TO BE USED TO NOTCH STUDS. IT IS THE CONTRACTORS DUTY TO BRING THIS CLAUSE TO THE ATTENTION OF THE ELECTRICAL AND MECHANICAL SUBTRADES.

W

ACCESS

ENGINEERING CONSULTANTS LTD.

207-1527 3rd. Avenue
V2L 3G3

PRINCE GEORGE, B. C.
TEL: 562-9345
FAX: 563-4878

DWG TITLE	SPECIFICATION 2		
PROJECT	NESS LAKE FIRE HALL-FUNG REMOVAL + RENOVATIONS		
CLIENT	RDFFG		
DATE	AUGUST 27, 2013	ENGINEERING DESIGN	FERGUS FOLEY, P.ENG
SCALE	AS SHOWN	CO-DESIGNER	checked FF
DRAWN BY	DM/ JM		
PROJ. NO.	13050	DWG NO.	SPEC 2
		ACAD FILE	13050-13-08-27-1FT

DIVISION 6 - WOOD CONTD.**SECTION 6.1 - ROUGH CARPENTRY CONTD.****8. TREATMENT**

WHERE THE DRAWINGS CALL FOR TREATED LUMBER, SUCH MATERIAL SHALL BE PRESSURE TREATED AS PER "C.S.A. 080-08 WOOD PRESERVATION". WHERE TREATED LUMBER IS TO BE CUT, BRUSH NO THE CUT AREA PRESERVATIVE WITH A CONCENTRATION OF 2-5 TIMES GREATER THAN INITIAL TREATING SOLUTION.

SECTION 6.2 - FINISHING CARPENTRY**1. GENERAL**

THE GENERAL CONDITIONS AND INSTRUCTIONS TO TENDERS' FORM AN INTEGRAL PART OF THIS DIVISION OF THE SPECIFICATION.

2. SCOPE

THIS SPECIFICATION SHALL INCLUDE BUT IS NOT LIMITED TO THE SUPPLY OF ALL LABOUR, PLANT AND MATERIALS AND DOING EVERYTHING NECESSARY TO COMPLETE THE FOLLOWING:

- THE INSTALLATION OF INTERIOR PLYWOOD, TRIM, MILLWORK, FINISH HARDWARE, HANDRAILS, SHELVING, GARAGE DOORS, ACCESS DOORS AND HATCHES, DOOR FRAMES AND WEATHER-STRIPPING.

3. MATERIALS

1. FINISH LUMBER SHALL BE OAK OR EQUAL, DRY AND SEASONED, FREE OF KNOTS, PITCH POCKETS, WARP STAIN OR OTHER IMPERFECTION.
2. DOOR CASING TO BE CLEAR OAK OR EQUAL.
3. WOOD DOORS SHALL BE PAINT GRADE FLUSH FACE OAK VENEER OR TO MATCH EXISTING.
4. INTERIOR PLYWOOD SHALL BE FIR G.I.S. UNLESS EXPOSED BOTH SIDES. IT SHALL THEN BE G.2.5.
5. TRIM TO BE PRESSED OAK VENEER PARTICLE BOARD OR TO MATCH EXISTING.
6. ENTRANCE DOORS TO MATCH EXISTING.
7. GARAGE DOORS TO BE METAL INSULATED, WITH VIEW WINDOWS EQUIPPED WITH OPENING CHAINS AND OVERHEAD OPENING MOTOR AND REQUIRED SAFETY EQUIPMENT.

4. WORKMANSHIP

1. THE WHOLE OF THIS WORK SHALL BE DONE BY SKILLED LABOUR IN A THOROUGH AND WORKMANLIKE MANNER. SURFACES TO BE PAINTED OR STAINED SHALL BE LEFT CLEAN AND SANDED. SET NAILS IN FINISHED WOODWORK AND FILL AS REQUIRED. PROVIDE BEVELED JOINTS FOR TRIM. NO CHIPS, ROUGH GRAIN, SPLITS, HAMMER MARKS SHALL BE ACCEPTED.
2. GALVANIZED NAILS SHALL BE ON EXTERIOR INSTALLATIONS.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION**1. DAMPROOFING**

INSTALL ONE SPRAY COAT OF NON-FIBRATED FOUNDATION COATING, OF THE ASPHALT CUTBACK TYPE, ON THE EXTERIOR WALLS BELOW GRADE OR MATERIAL MAY BE APPLIED BY FIBRE BRUSH TWO COATS REQUIRED. ALL VOIDS ARE TO BE COVERED.

2. RIGID INSULATION**1. MATERIALS**

MATERIAL TO BE OF A TYPE AND SPECIFICATION SUITABLE FOR SUB-GRADE INSTALLATION.

2. HANDLING

BEFORE AND AFTER INSTALLATION, DO NOT LEAVE MATERIAL EXPOSED TO SUNLIGHT. COVER TO PROTECT FROM MOISTURE, SUNLIGHT, ICE AND SNOW.

3. BATT INSULATION**1. MATERIALS**

INSULATION SHALL BE FIBERGLASS, FRICTION FIT BATT AND SHALL CONFORM TO C.S.A. A-101 TYPE IC.

2. INSTALLATION

DO NOT PROCEED WITH INSTALLATION OF INSULATION UNTIL SUBSEQUENT WORK WHICH CONCEALS THE INSULATION IS READY TO BE PERFORMED. EXTEND INSULATION FULL THICKNESS OVER FULL AREA TO BE INSULATED. CUT AND FIT TIGHTLY AROUND OBSTRUCTIONS AND FILL VOIDS WITH INSULATION.

4. FLASHING AND TRIM**1. MATERIALS**

ALL METAL FLASHING TO BE INSTALLED IN ACCORDANCE WITH R.C.A.B.C. SPECIFICATIONS. SUPPLY AND SECURE ALL WOOD CANTS, NAILING STRIPS, BLOCKING, CURBS, REGLETS, ETC. COMPLETE ALL WALL AND CURB SURFACES AND ROOF DECK EDGES BEFORE APPLICATIONS OF MEMBRANE.

2. METAL FLASHING

TOP PRIME WITH A COMPATIBLE PRIMER ALL METAL FLANGES BUILT INTO THE ROOF. USE METAL FASTENERS COMPATIBLE WITH METAL OF FLASHING. NAILS OR SCREWS TO PENETRATE AT LEAST 1" INTO NAILER STRIPS. SECURE SECTIONS OF METAL WITH SHOCK JOINTS TO ALLOW CONTRACTION AND EXPANSION. OTHER FLASHING IS TO BE 26 G.A. GALVANIZED FLASHING.

3. CORROSION

SEPARATE DISSIMILAR METAL WITH A 15 ML. COAT OF BITUMINOUS MASTIC.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION CONTD.**5. METAL ROOFING****5.1 MATERIALS**

1. METAL SHEATHING TO HAVE MINIMUM THICKNESS OF 33mm
2. PROFILE AND FINISH TO MATCH EXISTING
3. SHEATHING PAPER TO CAN/C65B-5132.
4. PLASTIC CEMENT TO C65B 31-CB-5MA.

5.2 APPLICATION

1. MINIMUM SLOPE 3/12

6. METAL SIDING**1. REFERENCE STANDARDS**

DO PREFORMED METAL SIDING WORK TO CAN/C65B 43.1-M05, C65B 43-6P-2Ma, C65B 43-6P-4M AND C65B 43-6P-5MAmdt-SEP-70, EXCEPT WHERE SPECIFIED OTHERWISE.

SAMPLES

SUBMIT DUPLICATE 300 x 300 mm (1'-0" x 1'-0") SIZE SAMPLES OF SIDING MATERIAL, OF COLOUR AND PROFILE SPECIFIED.

2. MATERIALS

1. PREFINISHED 24 Ga. TO MATCH EXISTING
2. SEALANTS: APPROVED BY CLADDING MANUFACTURER, COLOUR TO MATCH CLADDING
3. CONTACT CEMENT: PURPOSE MADE, WATERPROOF ALL-WEATHER TYPE, CURED RESILIENT WITHOUT FINAL SET.
4. BACKING MATERIAL: AS INDICATED
5. ACCESSORIES: EXPOSED TRIM, CLOSURES, CAP PIECES, ETC. OF SAME MATERIAL AND COLOUR AS SIDING, UNLESS OTHERWISE INDICATED ON DRAWINGS.
6. FASTENERS: STEEL PREFINISHED TO MATCH SELECTED COLOUR AS PER DRAWINGS AND MANUFACTURER'S SPECIFICATIONS.

3. INSTALLATION

1. INSTALL WALL SHEATHING PAPER HORIZONTALLY BY NAILING EDGES 150mm (6"), ONE LAYER.
2. INSTALL STARTER STRIPS, INSIDE CORNERS, CONTINUOUS OUTSIDE CORNERS, EDGINGS, SOFFITS AND DRIP, CAP AND SILL FLASHINGS.
3. INSTALL SIDING AND ATTACHMENTS SEQUENTIALLY FROM STARTER STRIPS UP, TO MANUFACTURER'S INSTRUCTIONS.
4. INSTALL FACING ON SOFFIT AND FASCIA WHERE INDICATED.
5. INSTALL EXTERIOR CORNERS, FILLERS AND CLOSURE STRIPS WITH INDIVIDUALLY FORMED AND PROFILED WORK USING CONCEALED FASTENERS.
6. MAINTAIN JOINTS IN EXTERIOR SHEETS, TRUE TO LINE, TIGHT FITTING.
7. SEAL IN ACCORDANCE WITH C65B 43-6P-5MAmdt-SEP-70.

DIVISION 8 - DOORS, WINDOWS AND HARDWARE**8.1 DOORS AND WINDOWS****1. STORAGE AND DELIVERY**

ALL DOORS, WINDOWS AND HARDWARE SHOULD BE DELIVERED TO THE SITE IN ORIGINAL PACKAGES AND STORED IN A CLEAN DRY PLACE. HARDWARE PACKAGES SHOULD INDICATE WHICH ROOM AND WHICH DOOR CONTENTS ARE INTENDED FOR.

DIVISION 8 - DOORS, WINDOWS AND HARDWARE CONTD.**8.1 DOORS AND WINDOWS CONTD.****2. MATERIALS**

1. PROVIDE DOORS FROM LOCAL SUPPLIES AND/OR MANUFACTURER. ALL HARDWARE IS TO BE SUPPLIED INCLUDING HINGES, PIVOTS, LOCKS, LATCHES, BOLTS, STRIKES, PUSH/PULL UNITS, CLOSER STOPS, BUMPERS, ETC.
2. PROVIDE WINDOWS FROM LOCAL SUPPLIES AND/OR MANUFACTURER. ALL HARDWARE IS TO BE SUPPLIED INCLUDING TAMPER PROOF FASTENERS, INSECT SCREENING, DIE CAST ZINC SASH LOCK, ETC. INTERIOR, EXTERIOR VINYL SILLS. OF TYPE AND SIZE AS DETAILED. COMPLETE WITH JOINT COVERS, JAMB DRIP DEFLECTOR, CHAIRS, ANCHORS AND ANCHORING DEVICES.

3. INSTALLATION**DOOR INSTALLATION**

1. INSTALL WITH 5 mm CLEARANCE BETWEEN DOOR AND FRAME. FORM A SQUARE FRAME WITH JAMB AND STOP.
2. INSTALL DOORS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. WHEN FINISHED INSTALLATION, DOORS SHALL NOT BIND, STICK, OR CAUSE FUTURE HARDWARE DIFFICULTIES.
3. DO NOT IMPAIR UTILITIES OR STRUCTURAL STRENGTH OF DOOR IN FITTING APPLYING HARDWARE, OR BY CUTTING AND ALTERING DOOR'S SPECIAL DETAILS.
4. INSTALL HARDWARE TO MANUFACTURER'S INSTRUCTIONS.
5. USE HARDWARE MANUFACTURER'S TEMPLATE WHEN MOUNTING HARDWARE.
6. MOUNT DOOR LATCHES HIGH IN STRIKE PLATE OPENING SO WHEN DOOR LATER SETTLES, LATCH WILL NOT BIND.
7. MOUNT CLOSERS ON STOP SIDE OF DOOR (PARALLEL ARM) WHERE POSSIBLE.
8. GLAZED UNITS TO HAVE WAVES RUNNING HORIZONTALLY
9. GLASS SHALL BE THOROUGHLY CLEANED @ THE COMPLETION OF THE JOB.
10. FRAMES SHALL BE INSTALLED PLUMB AND TRUE BY MECHANICS SKILLED IN THIS TRADE.
11. NO JOINTS IN LENGTH OF PERIMETER FRAMES AND MULLIONS
12. CLEARANCE AROUND FRAME AND GLASS TO BE 3mm.
13. USE NEOPRENE BLOCKS AND SPACERS LOCATED $\frac{1}{4}$ " IN FROM EACH END.
14. INSTALL HARDWARE TO THE FOLLOWING MEASUREMENTS FROM FINISHED FLOOR TO THE CENTRE LINE OF COMPONENT. DOOR PULL 1145mm, PUSH PLATE 1145mm, DOOR BAR 1165mm, DOOR KNOB 1025mm, DEAD LOCK 1525mm, PANIC BOLT 1025mm.

WINDOW INSTALLATION

1. INSTALL IN ACCORDANCE WITH CAN5-A440-00.
2. INSTALL WINDOW AFTER FLASHING AT WINDOW HEAD IS IN PLACE.
3. ENSURE BUILDING PAPER IS WRAPPED AROUND OPENING OF WINDOW.
4. PROVIDE FLASHINGS OR ANCHORS REQUIRED TO BE BUILT UNDER WORK OF OTHER SECTIONS.
5. USE ONLY CONCEALED FASTENINGS.
6. SECURELY INSTALL COMPONENTS SO THAT THEY LINE UP SQUARE AND TRUE, STRAIGHT FLAT AND/OR FLUSH PLANES, PLUMB AND LEVEL, FREE FROM DISTORTION.
7. MAKE JOINTS NEAT AND FINE AS PRACTICABLE ALLOW FOR EXPANSION AND CONTRACTION AND TAKE INTO CONSIDERATION CLIMATIC CONDITIONS PREVAILING AT TIME OF INSTALLATION.
8. FASTEN GALVANIZED STEEL SUPPORTS AND CLIPS WITH GALVANIZED BOLTS AND FASTEN ALUMINUM MEMBERS WITH STAINLESS STEEL SCREWS AND BOLTS.
9. WRAP VAPOUR MEMBRANE POLYETHYLENE AT CORNERS AND PERIMETER OF ROUGH OPENING OF WINDOWS AND CAULK EDGE OF POLYETHYLENE TO WINDOW FRAME.
10. LAP AND SEAL MOISTURE BARRIER AT CORNERS OF PERIMETER OF WINDOW TO BUILDING MOISTURE BARRIER (2 LAYERS OF BUILDING PAPER).
11. INSTALL FLASHING AT SILL WITH WINDOW.
4. **CAULKING**
CAULKING SHALL BE PROVIDED BETWEEN DOOR AND WINDOW FRAMES AND ADJACENT SIDING OR UNLESS SUCH LOCATIONS ARE COMPLETELY PROTECTED FROM ENTRY OF RAIN. SUCH CAULKING SHALL BE NON STAINING, ELASTIC, WATERPROOF AND NON CORROSIVE. WHEN SET IT SHALL BE FIRM BUT NOT HARD OR BRITTLE. JOINTS SHALL BE FILLED WITH OAKUM AND OR PRIMER AS REQUIRED.
6. **KEYING**
ALL DOOR LOCKS ARE TO BE KEYED TO OWNER'S REQUIREMENTS. SUPPLY 2 KEYS FOR EACH KEYED GROUP. ALLOW FOR MASTER AND GRAND MASTER KEYING.



207-1527 3rd. Avenue
V2L 3G3
PRINCE GEORGE, B. C.
TEL: 562-9345
FAX: 563-4878

SPECIFICATION 3
NESS LAKE FIRE HALL - FUND REMOVAL + RENOVATIONS

RDFFG

ENGINEERING DESIGN FERGUS FOLEY, P.ENG
CO-DESIGNER checked FF

DATE AUGUST 27, 2013
SCALE AS SHOWN
DRAWN BY DM/ JM

ACAD FILE 13050-13-08-27-1FT

DWG NO. **SPEC 3**

PROJ. NO. **13050**

DIVISION 9 - FINISHES**SECTION 9.3 - GYPSUM BOARD****MATERIALS**

1. STANDARD GYPSUM BOARD, CONFORMING TO REQUIREMENTS OF C.S.A. A82.21-M11, 13mm THICK, MAXIMUM PERMISSIBLE LENGTH, ENDS SQUARE CUT, TAPERED EDGES AND PAPER/PAPER FACES.
2. FIRE RATED GYPSUM BOARD, CONFORMING TO REQUIREMENTS OF C.S.A. A82.21, 16mm THICK, MAXIMUM PERMISSIBLE LENGTH, ENDS SQUARE CUT, TAPERED EDGES AND PAPER/PAPER FACES.
3. JOINT TAPE, 50mm WIDE PERFORATED TYPE RECOMMENDED FOR GYPSUM BOARD FINISHING.
4. JOINT COMPOUNDS, BEDDING AND FINISHING TYPES RECOMMENDED FOR GYPSUM BOARD FINISHING, CASEIN, VINYL OR LATEX BASE.
5. CORNER BEADS AND CASING BEADS, MINIMUM 0.4mm THICK GALVANIZED STEEL TYPE WITH PERFORATED FLANGES, OF A TYPE RECOMMENDED FOR GYPSUM BOARD APPLICATION. CASING BEADS TO BE A TYPE THAT PROVIDES FILLER FINISH.
6. CONTROL JOINTS, BACK TO BACK CASING BEADS WITH 0.1mm THICK CLEAR POLYETHYLENE AIR SEAL.
7. ADHESIVE, TYPE RECOMMENDED BY BOARD MANUFACTURER FOR THE PURPOSE INTENDED AND TO U.L.C. REQUIREMENTS FOR RATED PARTITIONS.
8. FASTENERS, STANDARD DRYWALL SCREWS, RUST RESISTANT, OF SIZE TO SUIT APPLICATION AND TO RIGIDLY SECURE GYPSUM BOARD AND RELATED ACCESSORIES IN PLACE.

9.3.2 EXECUTION

1. ERECT GYPSUM BOARD IN ACCORDANCE WITH GOOD TRADE PRACTICE, AS REQUIRED BY C.S.A. A82.31, AND TO U.L.C. FOR FIRE RATED ASSEMBLIES.
2. ERECT SINGLE LAYER FIRE RATED GYPSUM BOARD HORIZONTALLY, WITH ALL EDGES AND ENDS OCCURRING OVER FIRM BEARING.
3. PROVIDE CONTROL JOINTS IN GYPSUM BOARD CEILINGS AND PARTITIONS AT MAXIMUM 1.5m ON CENTRE TO BREAK UP LARGE AREAS.
4. TAPE, FILL AND SAND ALL EXPOSED JOINTS, EDGES, CORNERS, OPENINGS AND FIXINGS TO PRODUCE AN ACCEPTABLE SURFACE READY TO RECEIVE SURFACE FINISHES. FILL WITH MINIMUM 3 COATS. FEATHER COATS ONTO ADJOINING SURFACES SO THAT CAMBER IS MAXIMUM 1mm.

SECTION 9.4 - PAINTING

1. **COLOUR**
PAINT COLOUR TO BE SELECTED BY OWNER
2. **STORAGE**
PROVIDE ADEQUATE STORAGE FACILITIES; STORE PAINT MATERIALS AT A MINIMUM AMBIENT TEMPERATURE OF 7°C IN A WELL VENTILATED AREA. TAKE ALL PRECAUTIONARY MEASURES TO PREVENT FIRE AND SPONTANEOUS COMBUSTION HAZARDS.
3. **ENVIRONMENTAL CONDITIONS**
DO NOT APPLY FINISHES UNLESS THE MOISTURE CONTENT OF SURFACES ARE BELOW THE FOLLOWING MAXIMUMS:
GYPSUM BOARD 12%, CONCRETE 12% AND WOOD 7%.
ENSURE SURFACE AND SURROUNDING AIR TEMPERATURES ARE ABOVE 5°C BEFORE APPLYING FINISHES. MINIMUM APPLICATION TEMPERATURES FOR LATEX PAINTS; FOR INTERIOR IS 7°C AND 10°C FOR EXTERIOR WORK. PROVIDE ADEQUATE CONTINUOUS VENTILATION AND SUFFICIENT HEATING FACILITIES TO MAINTAIN TEMPERATURES ABOVE 7°C FOR 24 HOURS BEFORE, DURING AND 48 HOURS AFTER APPLICATION OF FINISHES.
4. **PROTECTION**
ADEQUATELY PROTECT OTHER SURFACES FROM PAINT AND DAMAGE. MAKE GOOD ANY DAMAGE RESULTING FROM INADEQUATE PROTECTION. REMOVE ALL ELECTRICAL PLATES, SURFACE HARDWARE, FITTINGS AND FASTENINGS, PRIOR TO PAINTING. DO NOT USE SOLVENT TO CLEAN HARDWARE THAT MAY PERMANENTLY REMOVE LACQUER FINISH.
5. **MATERIAL**
PROVED PAINT, VARNISH, STAIN AND FILLER, OF A TYPE AND BRAND LISTED UNDER "PAINT PRODUCT RECOMMENDATIONS" INDICATED IN THE CPCA SPECIFICATION MANUAL. PAINT ACCESSORY MATERIALS REQUIRED TO ACHIEVE THE FINISHES SPECIFIED ARE TO BE OF HIGH QUALITY. FINISH PRODUCTS ARE TO HAVE GOOD FLOWING AND BRUSHING PROPERTIES AND BE CAPABLE OF DRYING OR CURING FREE OF STEAKS OR RUNS.
6. **CONDITIONS OF SURFACES**
THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE CONDITION OF ALL NEW SURFACES OR FOR CORRECTING DEFECTS AND DEFICIENCIES IN THE SURFACE WHICH MAY ADVERSELY AFFECT WORK OF THIS SECTION.
7. **PREPARATION OF SURFACES**
PREPARE SURFACES AND APPLY PAINT AND OTHER FINISHES IN ACCORDANCE WITH REQUIREMENTS OF CPCA "ARCHITECTURAL PAINTING SPECIFICATION MANUAL" SAND LIGHTLY BETWEEN COATS TO ACHIEVE REQUIRED FINISH. DON'T APPLY FINISHES ON WET SURFACES. WHERE CLEAR FINISHES ARE REQUIRED, ENSURE TINT FILLERS MATCH WOOD. PAINT ALL EXPOSED MECHANICAL AND ELECTRICAL ITEMS WHICH OCCUR IN EXTERIOR AND PUBLIC AREAS, EXCEPT THOSE WITH FACTORY APPLIED FINISHES. PROVIDE A 2 COAT PAINT FINISH ON ALL OTHER EXPOSED AND SEMI-EXPOSED SURFACES.

DIVISION 9 - FINISHES**SECTION 9.4 - PAINT CONT'D****8. CLEANING**

AS WORK PROCEEDS AND UPON COMPLETION, PROMPTLY REMOVE ALL PAINT WHERE SPILLED, SLASHED OR SPLATTERED. UPON COMPLETION LEAVE PREMISES NEAT AND CLEAN, TO THE SATISFACTION OF THE OWNER.

DIVISION 15 - MECHANICAL**SECTION 15.1 - PLUMBING SYSTEMS****1. GENERAL CONDITIONS**

THE GENERAL CONDITIONS OF THE CONTRACT SHALL FORM AN INTEGRAL PART OF THIS DIVISION OF THE SPECIFICATIONS.

2. SCOPE

WORK INCLUDED IN THIS DIVISION OF THE SPECIFICATIONS SHALL CONSIST OF SUPPLYING ALL MATERIAL AND LABOUR NECESSARY FOR THE ALTERATIONS AND INSTALLATION OF ADDITIONAL FIXTURES TO THE EXISTING PLUMBING SYSTEM AS CALLED FOR ON THE DRAWINGS AND AS SPECIFIED HEREINAFTER.

3. TESTING AND INSPECTIONS

1. FURNISH ALL MATERIALS, LABOUR AND INSTRUMENTS, ETC. NECESSARY FOR ALL NECESSARY TESTS BY THE PLUMBING INSPECTOR HAVING JURISDICTION. GIVE AT LEAST 48 HOURS NOTICE PRIOR TO PROPOSED TESTS.
2. SUBMIT ALL NEWLY INSTALLED OR ALTERED WATER PIPES TO MINIMUM 150 P.S.I. COLD WATER TEST FOR 8 HOURS.
3. REPLACE ALL LEAKING JOINTS AND DEFECTIVE PLUMBING FIXTURES. DON'T COVER ANY PORTION OF THE PLUMBING SYSTEM UNTIL IT HAS BEEN INSPECTED AND APPROVED

SECTION 15.2 - GAS SYSTEMS**1. GENERAL CONDITIONS**

THE GENERAL CONDITIONS OF THE CONTRACT SHALL FORM AN INTEGRAL PART OF THIS DIVISION OF THE SPECIFICATIONS.

2. SCOPE

WORK INCLUDED IN THIS DIVISION OF THE SPECIFICATIONS SHALL CONSIST OF SUPPLYING ALL MATERIAL AND LABOUR NECESSARY FOR THE ALTERATIONS AND INSTALLATION OF ADDITIONAL FIXTURES TO THE EXISTING NATURAL GAS PIPING SYSTEM AS CALLED FOR ON THE DRAWINGS AND AS SPECIFIED HEREINAFTER.

3. STANDARD

WHERE THERE IS A GAS SYSTEM, GAS PIPES SHALL BE INSTALLED IN COMPLETE ACCORDANCE WITH THE REQUIREMENTS OF THE REGULATIONS GOVERNING THE INSTALLATION OF GAS PIPING, APPLIANCES AND VENTING, LATEST EDITION WITH AMENDMENTS AS ISSUED BY THE REGIONAL GAS INSPECTION DIVISION.

4. MATERIAL

GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH MALLEABLE IRON FITTINGS WITHIN BUILDING.

SECTION 15.3 - HEATING SYSTEM**1. GENERAL CONDITIONS**

THE GENERAL CONDITIONS OF THE CONTRACT SHALL FORM AN INTEGRAL PART OF THIS DIVISION OF THE SPECIFICATIONS.

2. SCOPE

SUPPLY ALL MATERIAL, LABOUR AND EQUIPMENT NECESSARY TO ALTER AND INSTALL ADDITIONAL GAS FIRED FIXTURES TO THE EXISTING NATURAL GAS HEATING SYSTEM AS CALLED FOR ON THE DRAWINGS AND AS SPECIFIED HEREINAFTER. PROVIDE THERMOSTAT TO BE INSTALLED UNDER SECTION 16.

3. STANDARD

STANDARDS TO MEET CGA REGULATIONS AND TO BE INSTALLED AS PER REGULATIONS OF THE REGIONAL GAS INSPECTOR.

4. GAS VENTS

PROVIDE AND INSTALL METALBESROS TYPE B COMBINED GAS VENT.

DIVISION 16 - ELECTRICAL**SECTION 16.1 - ELECTRICAL SERVICE****1. GENERAL CONDITIONS**

THE GENERAL CONDITIONS OF THE CONTRACT SHALL FORM AN INTEGRAL PART OF THIS DIVISION OF THE SPECIFICATIONS.

2. SCOPE

WORK INCLUDED IN THIS DIVISION OF THE SPECIFICATIONS SHALL CONSIST OF SUPPLYING ALL MATERIAL, LABOUR, TOOLS, AND COST OF ALL PERMITS, FEES, TELEPHONE, AND HYDRO UTILITY CHARGES NECESSARY FOR THE ALTERATIONS AND INSTALLATION OF ADDITIONAL FIXTURES TO THE EXISTING ELECTRICAL SYSTEM AS CALLED FOR ON THE DRAWINGS AND AS SPECIFIED HEREINAFTER.

3. LOCATION OF EQUIPMENT

EQUIPMENT LOCATIONS SHOWN ON THE ELECTRICAL DRAWINGS ARE APPROXIMATE ONLY AND EQUIPMENT SHALL BE LOCATED WITH REGARD TO THE BEST INSTALLATION PLACEMENT TO SUIT SITE CONDITION AND AS DETERMINED IN CONJUNCTION WITH THE ELECTRICAL AND GENERAL CONTRACTORS AND OWNER. NO EXTRAS WILL BE ALLOWED FOR FAILURE BY THE ELECTRICAL CONTRACTOR TO CO-ORDINATE HIS WORK WITH OTHER TRADES.

4. LAWS, RULES, ORDINANCES AND INSPECTION

THE ENTIRE ELECTRICAL INSTALLATION SHALL COMPLY WITH THE RULES AND REGULATIONS FOR THE INSTALLATION AND MAINTENANCE OF ELECTRICAL AS DOCUMENTED IN THE CURRENT EDITION OF C.S.A. STANDARD C22.1, CANADIAN ELECTRICAL CODE PART I, AND AS AMENDED BY THE SAFETY ENGINEERING SERVICES DIVISION, PROVINCE OF BRITISH COLUMBIA AND WITH ALL LOCAL LAWS, RULES AND ORDINANCES APPLICABLE TO THE INSTALLATION.

WHERE THERE IS A CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS, AND THE ABOVE NOTED CODE BYLAWS, RULES AND ORDINANCES THE LATTER SHALL GOVERN.

UPON COMPLETION AND BEFORE FINAL PAYMENT WILL BE MADE, PRESENT TO RDFFG A CERTIFICATE OF APPROVAL FOR ALL ELECTRICAL WORK FROM THE INSPECTION DEPARTMENT HAVING JURISDICTION.

5. INSPECTION OF PLANS

ELECTRICAL PLANS AND SPECIFICATION SHALL BE SUBMITTED TO THE LOCAL ELECTRICAL INSPECTOR AND FIRE MARSHALL FOR THEIR APPROVAL. THE ELECTRICAL CONTRACTOR SHALL PAY ALL INSPECTION FEES.

6. CONDUIT

CONDUIT SHALL BE EMT OR RIGID GALVANIZED IN DRY LOCATIONS. CONDUIT INSTALLED BELOW GRADE SHALL BE "PVC RIGID OR C6E" GENELCOTE® RIGID CONDUIT.

7. WIRE AND CABLE

GENERALLY BRANCH CIRCUIT WIRING SHALL BE NON-METALLIC SHEATHED CABLE WITH COPPER WIRE OF A TEMPERATURE RATING AS REQUIRED BY THE C.E.C. BRANCH CIRCUITS WHICH ARE REQUIRED, AND TO BE RUN IN CONDUIT SHALL CONTAIN 14 AWG CSA TYPE R90 X-LINK POLYETHYLENE, WHERE REQUIRED BY CODE.

8. LIGHT FIXTURES

LIGHT FIXTURES, CALL FOR ON THE DRAWINGS SHALL BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. PROVIDE AND INSTALL NEW LAMPS FOR ALL LIGHT FIXTURES INSTALLED.

9. IF REQUIRED BY AUTHORITY HAVING JURISDICTION

REGISTERED PROFESSIONAL ENGINEER - TO SUPERVISE DESIGN AND SIGN SCHEDULES



ENGINEERING CONSULTANTS LTD.

207-1527 3rd. Avenue PRINCE GEORGE, B. C.

TEL: 562-9345

FAX: 563-4878

V2L 3G3

SPECIFICATION 4**NESS LAKE FIRE HALL-FUNGI REMOVAL + RENOVATIONS****RDFFG**

DATE: AUGUST 27, 2013
SCALE: AS SHOWN
DRAWN BY: DM/ JM

ENGINEERING DESIGN: FERGUS FOLEY, P.ENG
CO-DESIGNER: checked FF

PROJ. NO. **13050**DWG NO. **SPEC 4**

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