



**City of Anacortes**  
 904 6th Street  
 P.O.Box 547  
 Anacortes, WA 98221-0547  
 (360) 293-1901

**Permit #:** BLD-2012-0244  
**Issue date:** 07/11/2012  
**Expire date:** 01/07/2014

**Job Address:** 1015 12TH ST  
 ANACORTES WA 98221-2101

**Permit Type:** Mechanical Permit  
**Project:**

**APN:**

**Remarks:** Install unit heater in shop.

**Owner:** PROSPERITY INVESTMENTS FLP  
**Address:** 1582 SCENIC HEIGHTS RD  
 OAK HARBOR WA 98277-8415

**Contractor:** TRICO HEATING INC.  
**Address:** 2780 NE GOLDIE ST  
 B  
 OAK HARBOR WA 98277

**Phone:** **Phone:** (360) 675-2700  
**License #:** TRICOPH076J1

**General Information:**

# of Wall Heaters 1  
 # of Gas Piping 1

**Fees:**

Mechanical Permit Fees	43.05
Total Calculated:	43.05
Deposits/Receipts:	0.00
Total Due:	<u>43.05</u>

THIS PERMIT BECOMES NULL AND VOID IF WORK OR CONSTRUCTION AUTHORIZED IS NOT COMMENCED WITHIN 180 DAYS, OR CONSTRUCTION OR WORK IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AT ANY TIME AFTER WORK IS COMMENCED. HEREBY CERTIFY THAT I HAVE READ AND EXAMINED THIS APPLICATION AND KNOW THE SAME TO BE TRUE AND CORRECT. ALL PROVISIONS OF LAWS AND ORDINANCES GOVERNING THIS TYPE OF WORK WILL BE COMPLIED WITH WHETHER SPECIFIED HEREIN OR NOT, THE GRANTING OF A PERMIT DOES NOT PRESUME TO GIVE AUTHORITY TO VIOLATE OR CANCEL THE PROVISIONS OF ANY OTHER STATE OR LOCAL LAW REGULATING CONSTRUCTION OR THE PERFORMANCE OF CONSTRUCTION.

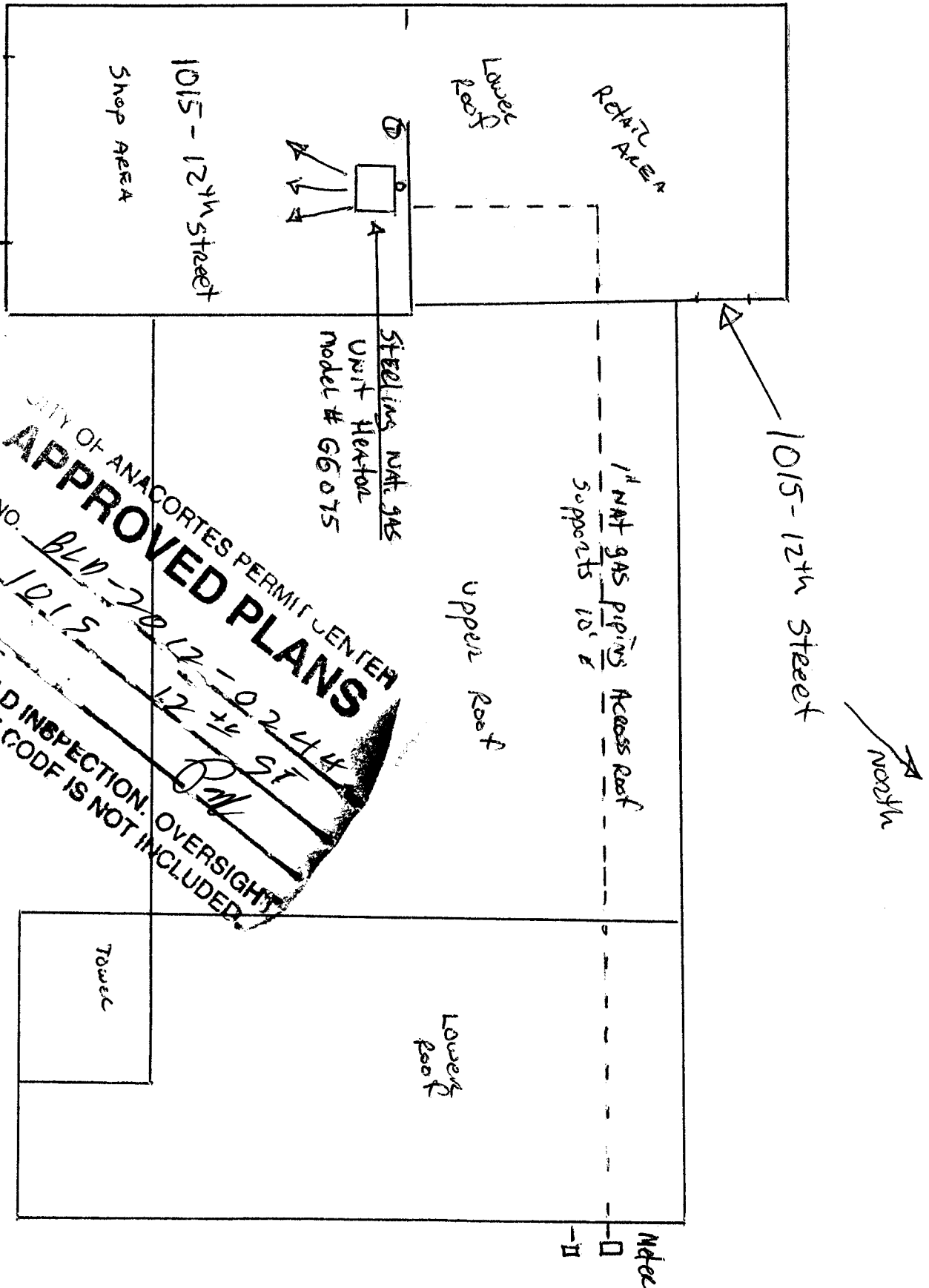
*BO [Signature]*

SIGNATURE OF OWNER OR AUTHORIZED AGENT

*[Signature]*

ISSUED BY

1219303-2 0012 07/11/2012 001 9  
 Permit Fees 009422 \$43.05



CITY OF ANACORTES PERMIT CENTER  
**APPROVED PLANS**  
PERMIT NO. BLD-2012-0244  
ADDRESS 1015 12<sup>th</sup> ST  
APPROVED BY PM  
SUBJECT TO FIELD INSPECTION. OVERSIGHT  
OR VIOLATION OF CODE IS NOT INCLUDED.

**TRICO** Heating, Inc.

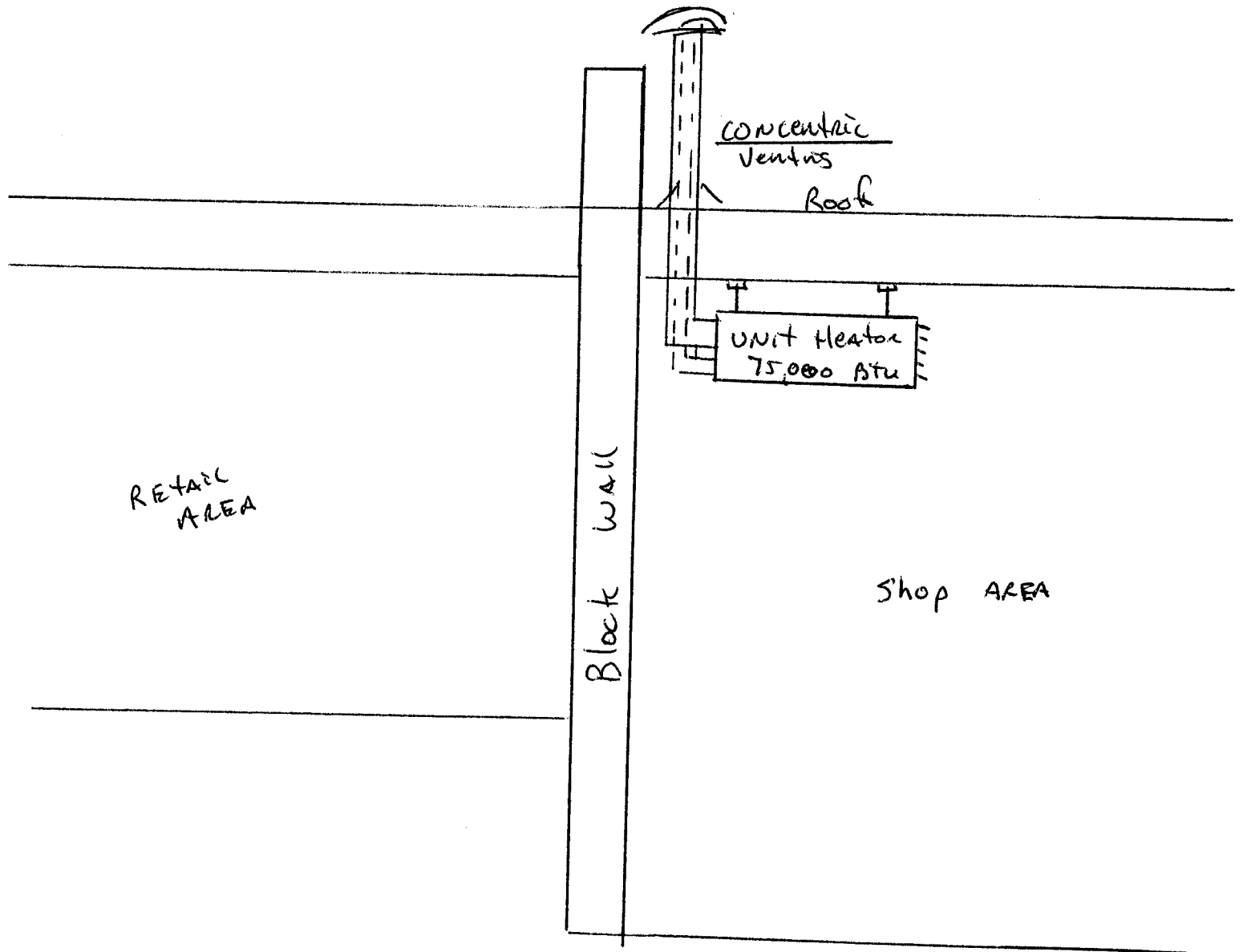
2780 NE Goldie Street-Suite B

Oak Harbor, WA 98277

(360) 675-2700 Fax (360) 675-4655

E-mail tricoheat@msn.com

1015 - 12<sup>th</sup> street



# STERLING MODEL "GG" LOW PROFILE TUBULAR DESIGN GAS FIRED UNIT HEATER



ENERGY  
PERFORMANCE  
VERIFIED  
RENDREMENT  
ENERGETIQUE  
VERIFIE

GGs-3

## DESCRIPTION

The Sterling Model "GG" Low Profile gas-fired unit heater is a highly efficient, extremely versatile product. These propeller units combine the latest tubular heat exchanger technology with a unique single-orifice burner system. Units are available in sizes ranging from 30 to 120 MBH in a compact, low profile design.

## RESIDENTIAL AND COMMERCIAL CERTIFICATIONS

The Sterling Model "GG" unit heater conforms with the latest ETL certification standards. Design certified under ANSI Z83.8 for Industrial/Commercial use and the more demanding requirements of CSA .10.96 U.S. (2nd ed.) "Unit Heaters for Residential Installation", make this low profile unit heater the ideal selection.

## TUBULAR HEAT EXCHANGER

The Sterling tubular heat exchanger has been designed to provide maximum and uniform heat transfer. The low pressure drop associated with the design enables heated air to be evenly distributed to the conditioned space. The curved, non-welded serpentine design experiences low thermal stress making it highly durable for significantly longer service life.

## SINGLE ORIFICE BURNER

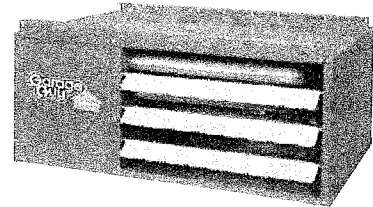
Sterling Model "GG" units are built with a proprietary, single orifice burner system: one burner to service and one orifice to change for gas conversion. The stainless steel burner box provides even heat distribution to all heat exchanger tubes.

## DIRECT SPARK IGNITION SYSTEM

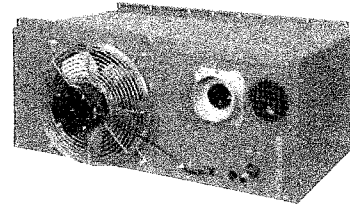
Sterling Model "GG" units utilize a direct spark pilotless ignition of the burner, providing fast heat delivery. This highly reliable and efficient ignition system incorporates an integrated electronic control board to regulate the system sequence of operation, including an onboard LED indicator for simple troubleshooting.

## DUAL VENTING

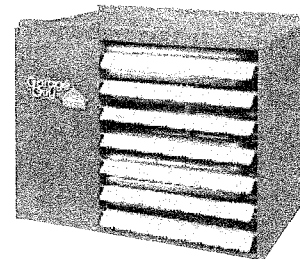
Sterling "GG" units are agency certified for both standard and separated combustion venting. Units are shipped to accommodate either category I or category III horizontal or vertical venting. With the addition of a Sterling concentric vent kit, the unit can be installed as a separated combustion unit.



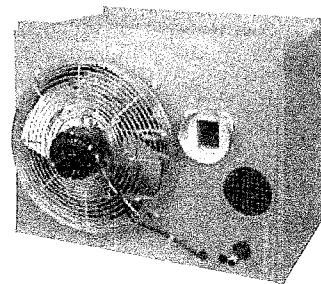
Model GG045



Model GG045



Model GG120



Model GG120



03/09

260 North Elm St., Westfield, MA 01085  
(413) 564-5540 Fax: (413) 562-5311  
www.sterlinghvac.com

PROJECT: \_\_\_\_\_

UNIT TAG: \_\_\_\_\_

# GG LOW PROFILE TUBULAR DESIGN PERFORMANCE AND DIMENSIONAL DATA



Unit Size	30	45	60	75	90	105	120
<b>PERFORMANCE DATA†</b>							
Input - BTU/Hr.	30,000	45,000	60,000	75,000	90,000	105,000	120,000
(kW)	(8.8)	(13.2)	(17.6)	(22.0)	(26.4)	(30.8)	(35.2)
Output - BTU/Hr.	24,900	37,350	49,800	61,500	73,800	86,100	98,400
(kW)	(7.2)	(10.9)	(14.5)	(18.0)	(21.6)	(25.2)	(28.8)
Thermal Efficiency (%)	83	83	83	82	82	82	82
Free Air Delivery - CFM	370	550	740	920	1,100	1,300	1,475
(cu. m/s)	(.175)	(.260)	(.349)	(.434)	(.519)	(.614)	(.696)
Air Temperature Rise - Deg. F	60	60	60	60	60	60	60
(Deg. C)	(15)	(15)	(15)	(15)	(15)	(15)	(15)
Full Load Amps at 120V	3.0	3.0	4.1	4.1	6.4	6.4	6.4
Maximum Circuit Ampacity	3.5	3.5	4.8	4.8	7.5	7.5	7.5
<b>MOTOR DATA:</b>							
Motor HP	1/20	1/20	1/12	1/12	1/10	1/10	1/10
Motor (kW)	(0.04)	(0.04)	(0.06)	(0.06)	(0.075)	(0.075)	(0.075)
Motor Type	SP	SP	SP	SP	SP	SP	SP
R.P.M.	1650	1650	1050	1050	1050	1050	1050
Motor Amps @ 115V	1.9	1.9	2.6	2.6	4.2	4.2	4.2
<b>DIMENSIONAL DATA - inches (mm)</b>							
"A" Jacket Height	12-3/8 (314)	12-3/8 (314)	15-7/8 (403)	15-7/8 (403)	22-5/8 (574)	22-5/8 (574)	22-5/8 (574)
"B" Overall Height	13-1/4 (337)	13-1/4 (337)	16-13/16 (427)	16-13/16 (427)	23-9/16 (598)	23-9/16 (598)	23-9/16 (598)
"C" Overall Depth	25-7/8 (632)	25-7/8 (632)	26-3/16 (665)	26-3/16 (665)	26-3/8 (670)	26-3/8 (670)	26-3/8 (670)
"D1" Center Line Height of Flue*	8-1/2 (216)	8-1/2 (216)	10-3/8 (263)	10-3/8 (263)	13-5/8 (346)	13-5/8 (346)	13-5/8 (346)
"D2" Center Line Height of Air Intake	8-1/2 (216)	8-1/2 (216)	8 (203)	8 (203)	8-5/8 (219)	8-5/8 (219)	8-5/8 (219)
"E" Fan Diameter	10 (254)	10 (254)	14 (356)	14 (356)	16 (406)	16 (406)	16 (406)
"F" Discharge Opening Height	10-13/16 (275)	10-13/16 (275)	14-7/16 (367)	14-7/16 (367)	21-3/16 (538)	21-3/16 (538)	21-3/16 (538)
"G" Vent Connection Diameter	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)
"H1" Center Line of Flue Connection From Side	7-1/4 (184)	7-1/4 (184)	7-1/4 (184)	7-1/4 (184)	7-3/4 (197)	7-3/4 (197)	7-3/4 (197)
"H2" Center Line of Air Intake From Side	2-3/4 (70)	2-3/4 (70)	2-3/4 (70)	2-3/4 (70)	3-1/2 (89)	3-1/2 (89)	3-1/2 (89)
<b>Vent Size Requirements - Standard Combustion</b>							
Category I Horizontal**	4 (102)	4 (102)	4 (102)	5 (127)	5 (127)	5 (127)	5 (127)
Category III Horizontal	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)
Category I & III Vertical	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)
<b>Vent Size Requirements - Separated Combustion</b>							
Exhaust Diameter**	4 (102)	4 (102)	4 (102)	4 (102)	5 (127)	5 (127)	5 (127)
Intake Air Diameter	4 (102)	4 (102)	4 (102)	4 (102)	5 (127)	5 (127)	5 (127)
Unit Weight - lbs.	60	65	80	85	95	105	110
(kgs)	(27)	(29)	(36)	(39)	(43)	(48)	(50)
Shipping Weight - lbs.	70	75	90	95	110	115	120
(kgs)	(32)	(34)	(41)	(43)	(50)	(52)	(54)

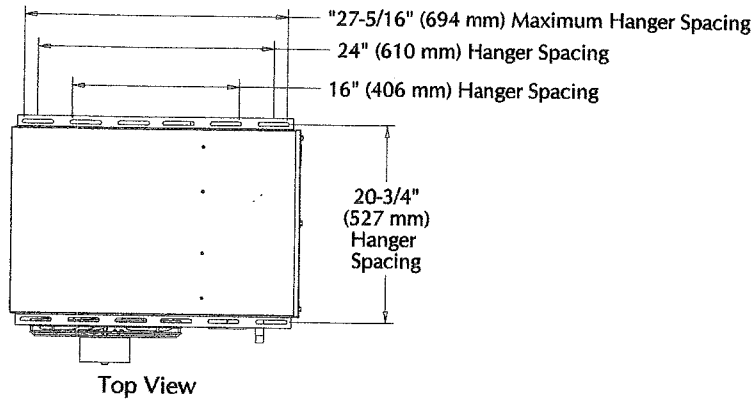
\*For all installations, the flue collar is included with the unit and should be field installed per the instructions included with the unit.

\*\*4-5" reducer supplied where required.

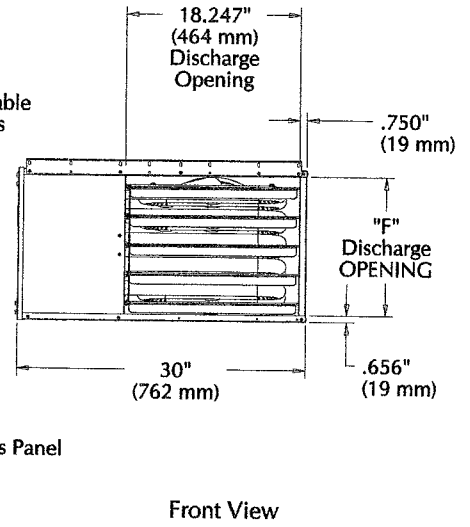
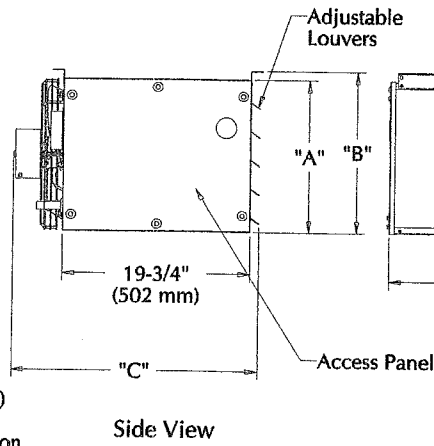
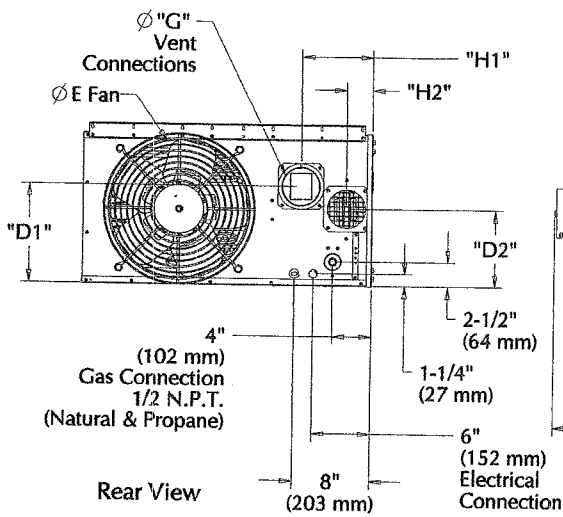
† Ratings shown are for unit installations at elevations between 0 and 2,000 ft (0 to 610m). For unit installations in U.S.A. above 2,000 ft. (610m), the unit input must be derated 4% for each 1,000 ft. (305m) above sea level; refer to local codes, or in absence of local codes, refer to the latest edition of the National Fuel Gas Code, ANSI Standard Z223.1 (N.F.P.A. No. 54).

For installations in Canada, any reference to deration at altitudes in excess of 2,000 ft. (610m) are to be ignored. At altitudes of 2,000 ft. to 4,500 ft. (610 to 1372m), the unit must be derated to 90% of the normal altitude rating, and be so marked in accordance with the ETL certification.

# GG LOW PROFILE TUBULAR DESIGN DIMENSIONAL DATA



D8597



DIMENSIONS .XXX STANDARD UNITS  
 DIMENSIONS IN PARENTHESIS (XXX) MILLIMETERS

**STERLING MODEL "GG"  
LOW PROFILE TUBULAR DESIGN  
GAS FIRED UNIT HEATER**

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**STANDARD FEATURES**

- Up to 83% Thermal Efficiency
- Redundant Single Stage Gas Valve
- Residential Certification
- 20GA Aluminized Heat Exchanger
- 120/24V Control Transformer
- 115/1/60 Fan Motor with Internal Overload Protection
- Power Vented
- Direct Spark Ignition
- 20GA Baked Enamel Cabinet
- 10 Year Heat Exchanger Warranty
- OSHA Fan Guard
- Right Hand Control Access
  - Field Convertible to Left Hand
- High Limit Switch
- Air Pressure Switch
- Natural or Propane Gas
- Gas Conversion Kit Included
- Field Convertible to Separated Combustion
- Easy Access Control Panel
- 321 Stainless Steel Burner Box

**OPTIONAL EQUIPMENT**

- 409 Stainless Steel Heat Exchanger
- Two Stage Gas Control (Sizes 60-120 Only)
- Supply Voltage (Field Mounted Transformers):
  - o 208/1/60
  - o 230/1/60
  - o 208/3/60
  - o 230/3/60
  - o 460/3/60
  - o 575/3/60
- Totally Enclosed Motors (Sizes 60-120 Only)
- Stainless Steel Flue Collector
- Pressure Regulator (1/2 – 2 psi)
- Single & Two Stage Mercury Free Thermostats
- Line Volt Thermostat
- Locking Thermostat Cover
- 24V SPST Relay
- Vent Caps
- Concentric Vent Kits  
(For All Separated Combustion Installations)



260 North Elm St., Westfield, MA 01085  
(413) 564-5540 Fax: (413) 562-5311  
[www.sterlinghvac.com](http://www.sterlinghvac.com)



**City of Anacortes**  
904 6th Street  
P.O.Box 547  
Anacortes, WA 98221-0547  
(360) 293-1901

**Permit #:** BLD-2007-0092  
**Issue date:** 02/01/2007  
**Expire date:** 02/01/2008

**Job Address:** 1015 12TH ST  
ANACORTES WA 98221-2101

**Permit Type:** Commercial Repair/Alter Permit  
**Project:**

**APN:**

**Remarks:** Interior alterations for motorcycle repair shop including mechanical ventilation per plans.

**Owner:** ROBERT WESTERGARD

**Contractor:**

**Address:** 1302 31ST ST

**Address:**

ANACORTES WA 98221-3824

**Phone:**

**Phone:**

**License #:**

**General Information:**

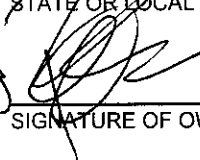
Building Valuation 4000

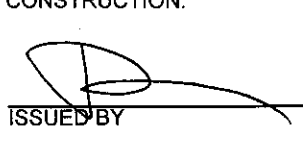
**Fees:**

Building Permit Fee 78.75  
State Building Code Fee 4.50  
Plan Review Fee 51.19

Total Calculated: 134.44  
Deposits/Receipts: 0.00  
Total Due: 134.44

THIS PERMIT BECOMES NULL AND VOID IF WORK OR CONSTRUCTION AUTHORIZED IS NOT COMMENCED WITHIN 180 DAYS, OR IF CONSTRUCTION OR WORK IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AT ANY TIME AFTER WORK IS COMMENCED. I HEREBY CERTIFY THAT I HAVE READ AND EXAMINED THIS APPLICATION AND KNOW THE SAME TO BE TRUE AND CORRECT. ALL PROVISIONS OF LAWS AND ORDINANCES GOVERNING THIS TYPE OF WORK WILL BE COMPLIED WITH WHETHER SPECIFIED HEREIN OR NOT. THE GRANTING OF A PERMIT DOES NOT PRESUME TO GIVE AUTHORITY TO VIOLATE OR CANCEL THE PROVISIONS OF ANY OTHER STATE OR LOCAL LAW REGULATING CONSTRUCTION OR THE PERFORMANCE OF CONSTRUCTION.

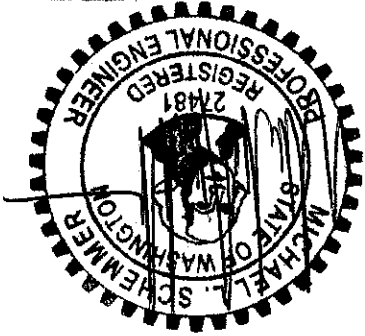
  
SIGNATURE OF OWNER OR AUTHORIZED AGENT

  
ISSUED BY



EXPIRES: 04/16/07

REGISTERED  
JAN 10 2007  
DEPARTMENT



NO SCALE

OPENING @ FUTURE STAIR

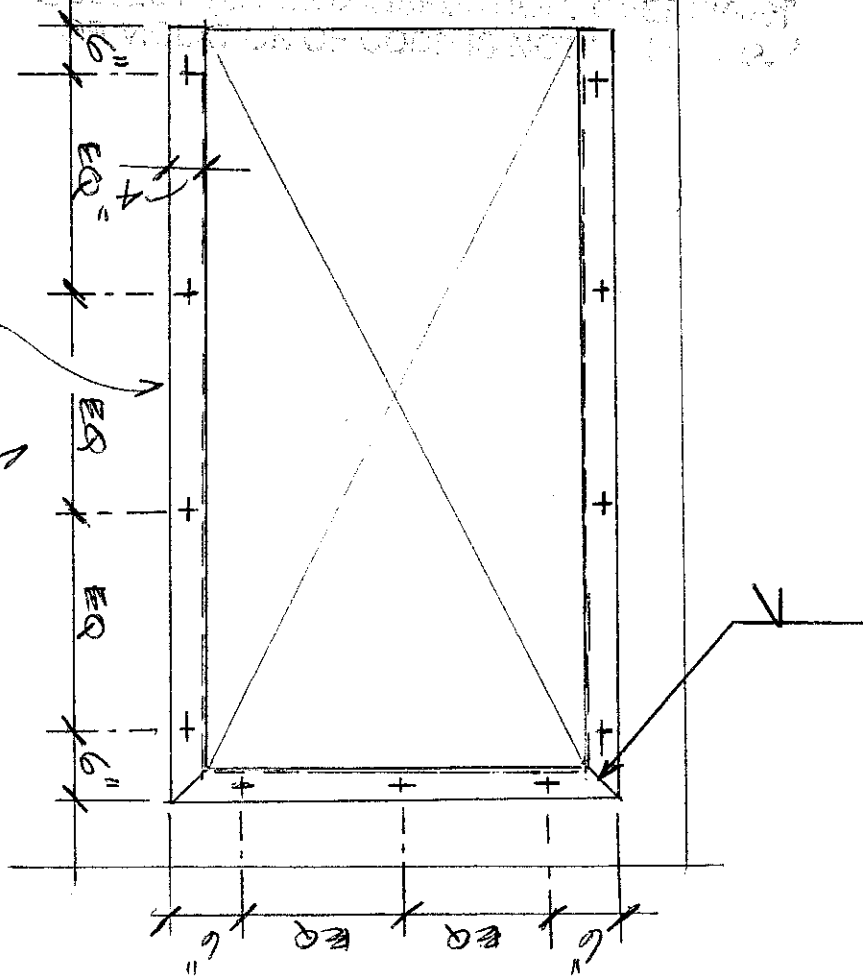
APPROVED PLANS

PERMIT NO BLD 2007-0092

ADDRESS 1015 12<sup>TH</sup>

APPROVED BY [Signature]

SUBJECT: [Faded text]

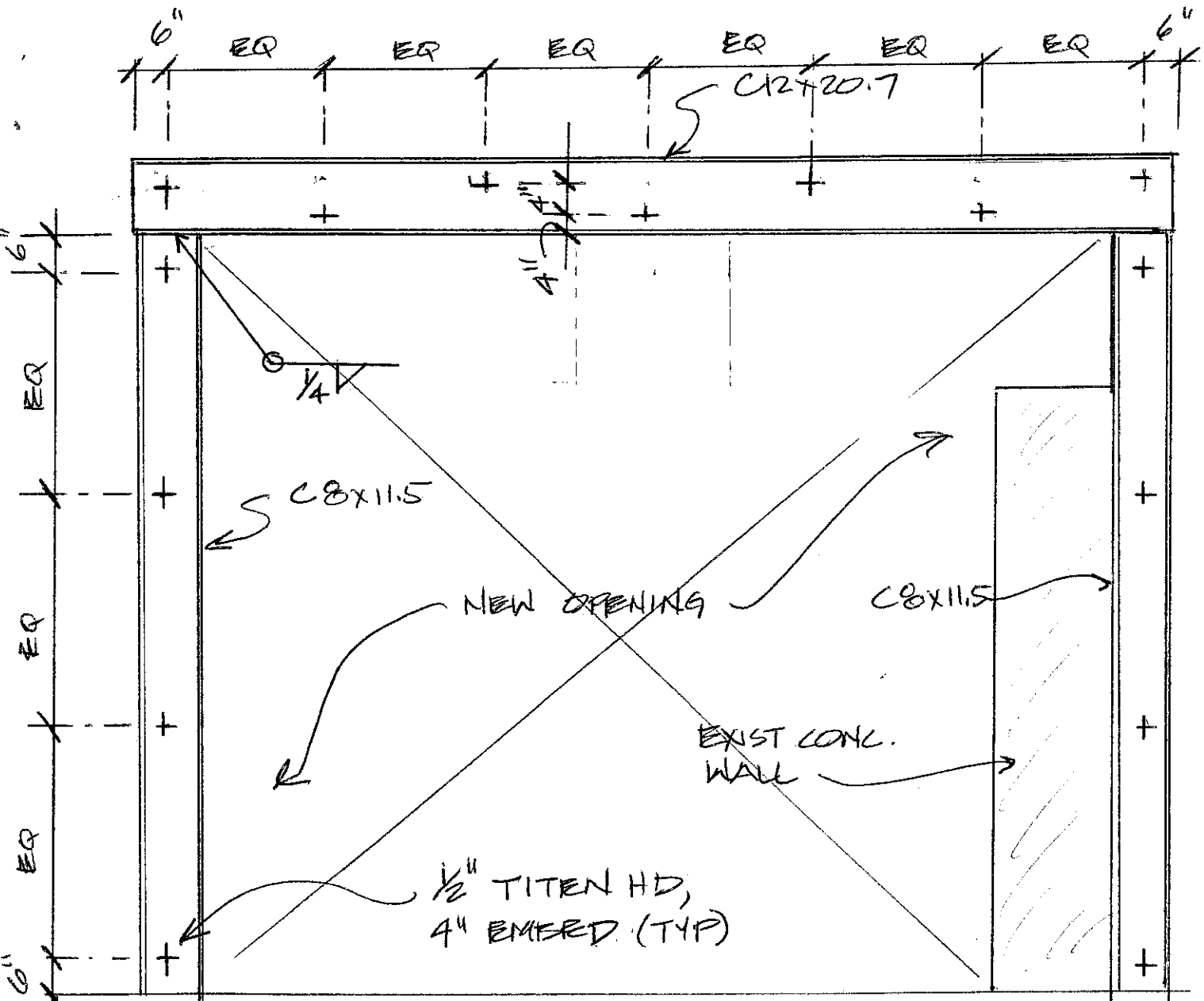


L 6x4 x 3/8 (TYP)  
W/ 1/2" Ø TIE BAR HD  
ANCHORS 4" EMBED  
IN GROUTED CELL

EXIST CMU WALL

WEST EDGE CYCLE  
1015-12<sup>TH</sup>

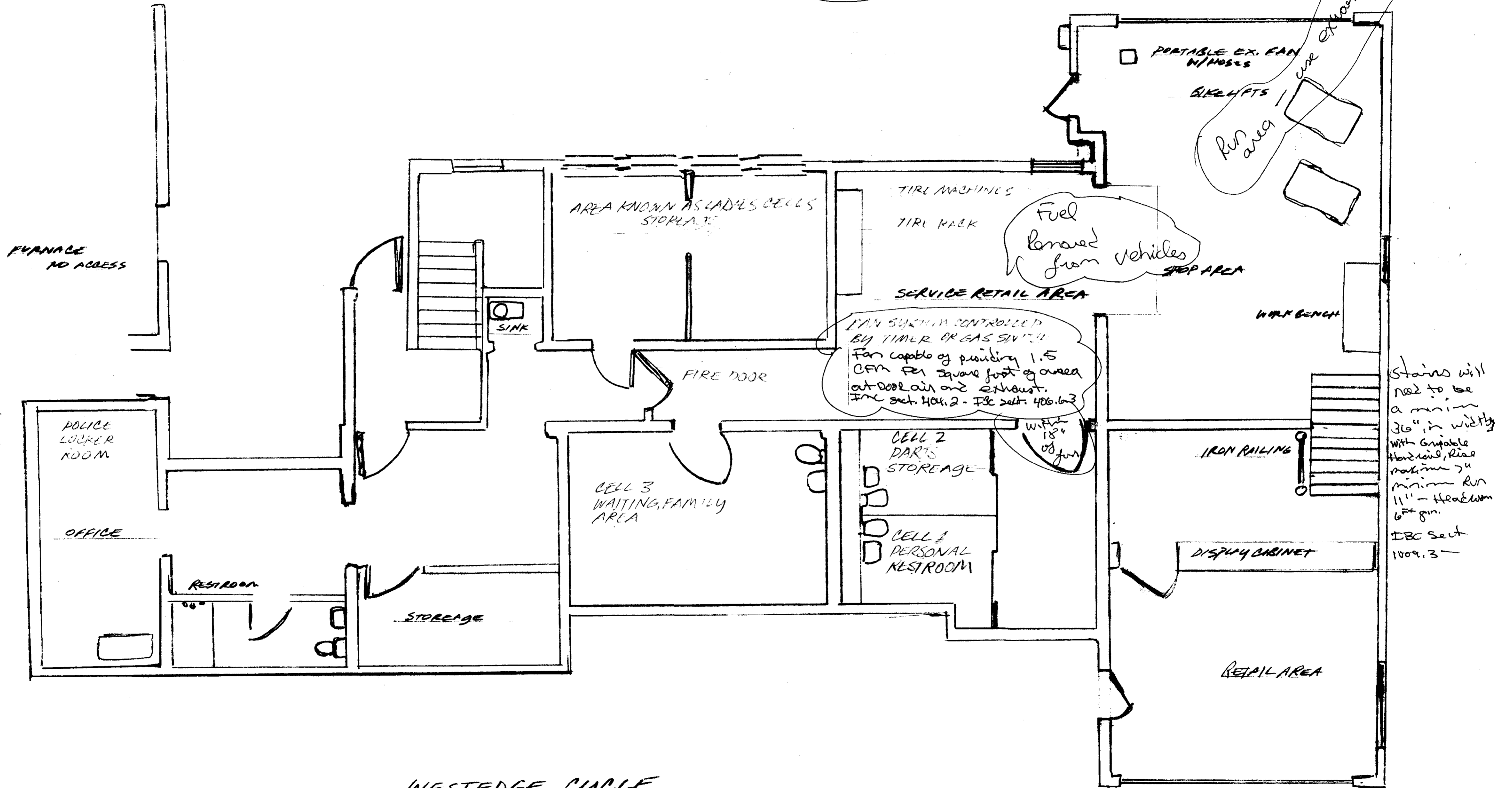
WEST EDGE CYCLE



LARGE OPENING @ LOWER LEVEL  
NO SCALE

Group S-1 - Repair Shop Lower Floor  
 Group B-m upper floor

3 hour fire resistant separation  
 required at floor ceiling - Seal all  
 Hds in concrete with 3 hr rated assembly



WESTEDGE CYCLE

11" TREAD 7" RISE STAIRWAY  
W RAIL TO CODE  
(FOR EMPLOYEE USE ONLY)

RAIL ON STAIRWAY OPEN SIDE

RETAIL AREA

2" ANGLE - STEEL PLATE  
PERIMETER FRAME FOR  
SUPPORT

FOUR STEPS  
(IN CONCRETE  
W/ RAILS)

SHOP  
AREA

WILL FOLLOW  
ENGINEER'S  
RECOMMENDATIONS  
REGARDING SUPPORT

FOUR STEPS  
IN WOOD W RAIL  
ON OPEN SIDE

4'

REMOVE 4' OF FLOOR TO CREATE  
7' DOORWAY. SHALLOW RAMP TO  
JAIL ROOM. FILL 3" DEPRESSION  
IN JAIL ROOM

STORAGE/FAMILY AREA  
FUTURE POSSIBLE SHOWROOM

USE EXISTING FAN SYSTEM IN JAIL  
COMMON ROOM

FIRE DOOR IN HALLWAY  
WHERE EXISTING STEEL DOOR  
NOW STANDS

