

building code analysis

Date: 01 JUNE 2010

PROJECT: GARFIELD STORAGE GARAGE
PROJECT #: OT-1034PW&U
LOCATION: 520 Garfield Avenue – DULUTH, MN
PREPARED BY: Terry L. Groshong, AIA, NCARB, CID City Architects Office

2000 International Building Code

OCCUPANCY AND CONSTRUCTION TYPE CLASSIFICATION (Chapter 3 & Chapter 6)

Description	Occupancy Class	Construction Type	Actual SF	Floor Level
Cold Storage Garage	S-2	Type V - B	1,500 GSF	1 Story

OCCUPANCY SEPARATIONS REQUIRED (Table 302.3.3) NA = Not Applicable

Occupancy Class	Occupancy Class	Separation Req'd (hours)
ADDITION	EXISTING	
NA	NA	2 Hours
X	X	NA

FIRE EXTINGUISHING SYSTEMS (Chapter 903.2.1.3)

a)	Is the building (or part of building) Sprinkled	No
b)	Is building being sprinkled for 1 Hr Construction Substitution	No
c)	Is building required to be Sprinkled	No
	Note:	

BASIC ALLOWABLE FLOOR AREA (Table 503)

Occupancy Class	Construction Type	Basic Allowable SF
S-2	Type V-B	13,500 SF

AREA INCREASES (Chapter 5)

a)	Area Separation Walls (Section 302.3.3)	NA
b)	Multi Story (Table 503)	Yes – 2 Allowed
c)	Separation on four sides	Yes

FRONTAGE INCREASE (Section 506.2)

Occupancy	Const. Type	Allowable SF	% Increase	Adjusted SF
S – 2	V – B	13,500 SF	75%	23,625

ACTUAL / TOTAL ALLOWABLE FLOOR AREA RATIO

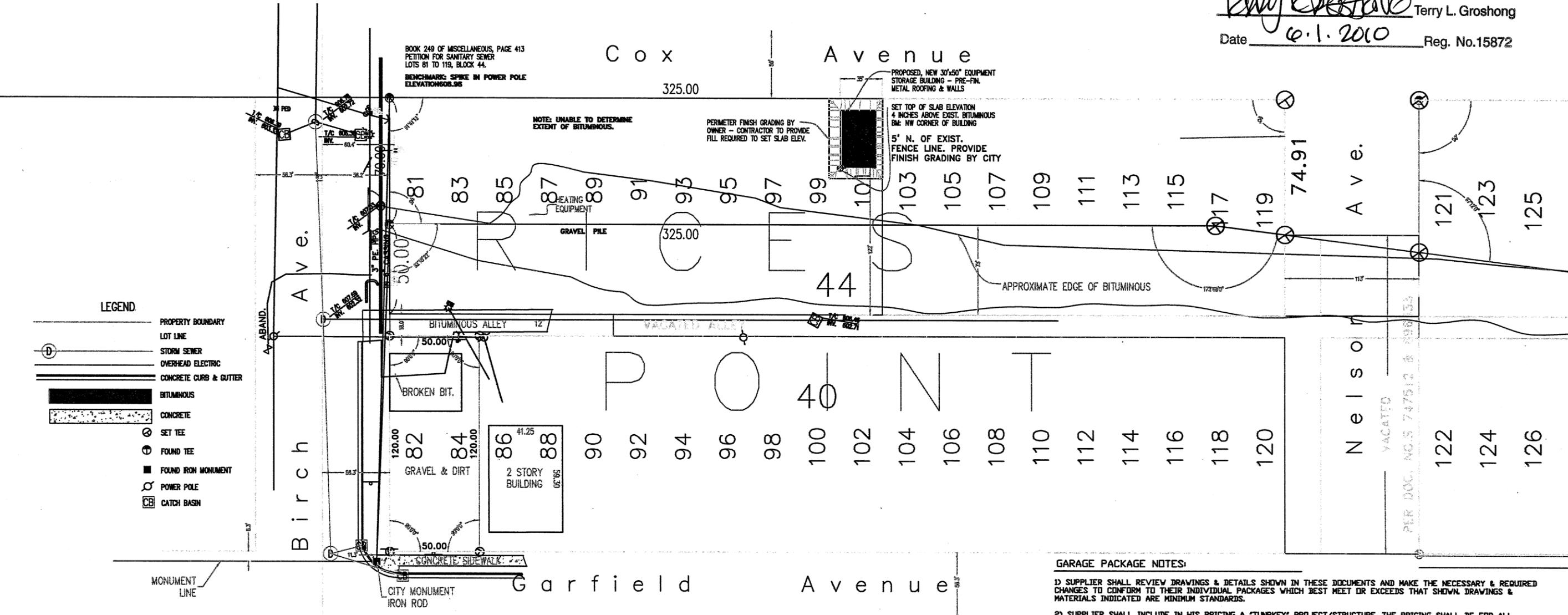
Occupancy	Const. Type	Allowable SF	Actual SF	Ratio
S – 2	V – B	23,625 SF	1,500 SF	.063



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Terry L. Groshong
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Date 6.1.2010 Reg. No.15872



GARAGE PACKAGE NOTES:

- 1) SUPPLIER SHALL REVIEW DRAWINGS & DETAILS SHOWN IN THESE DOCUMENTS AND MAKE THE NECESSARY & REQUIRED CHANGES TO CONFORM TO THEIR INDIVIDUAL PACKAGES WHICH BEST MEET OR EXCEEDS THAT SHOWN DRAWINGS & MATERIALS INDICATED ARE MINIMUM STANDARDS.
- 2) SUPPLIER SHALL INCLUDE IN HIS PRICING A "TURNKEY" PROJECT/STRUCTURE. THE PRICING SHALL BE FOR ALL MATERIALS, LABOR, TAXES & INSURANCES TO FURNISH & INSTALL THE INDICATED 30'x50'EQUIPMENT STORAGE GARAGE ON A REINFORCED CONCRETE SLAB.
- 3) PRICING SHALL INCLUDE ALL GROUND PREPARATION NECESSARY & REQUIRED TO INSTALL THE CONCRETE SLAB IN THE AREA INDICATED. FINISH GRADING & ACCESS APPROACHES WILL BE BY THE CITY OF DULUTH.
- 4) STORAGE GARAGE PACKAGE SHALL CONFORM TO ALL STATE & LOCAL BUILDING CODES. SUPPLIER IS SOLELY RESPONSIBLE TO OBTAIN ALL NECESSARY CONSTRUCTION PERMITS AND APPROVALS.
- 5) GARAGE PACKET SHALL HAVE MATERIALS & CONSTRUCTION DETAILING SIMILAR AS INDICATED ON THE FOLLOWING PAGES. THESE DRAWINGS ARE PROVIDED TO THE SUPPLIER AS REFERENCE MATERIAL TO INDICATE MINIMUM REQUIREMENTS. SUCCESSFUL BUILDER SHALL PROVIDE ANY & ALL NECESSARY DOCUMENTATION TO SECURE A BUILDING PERMIT AND MEET/EXCEED ALL APPLICABLE CODES LISTED IN SECTION 4.

SITE PLAN: GARFIELD PW&U SITE - NEW 30'x50' COLD STORAGE GARAGE
520 GARFIELD AVENUE
SCALE: 1"=20'



Dept. of Administration
Office of City Architect
1532 W. MICHIGAN STREET

EQUIPMENT STORAGE BUILDING
Public Works & Utilities
520 GARFIELD AVENUE
Minnesota
Duluth,

Revised

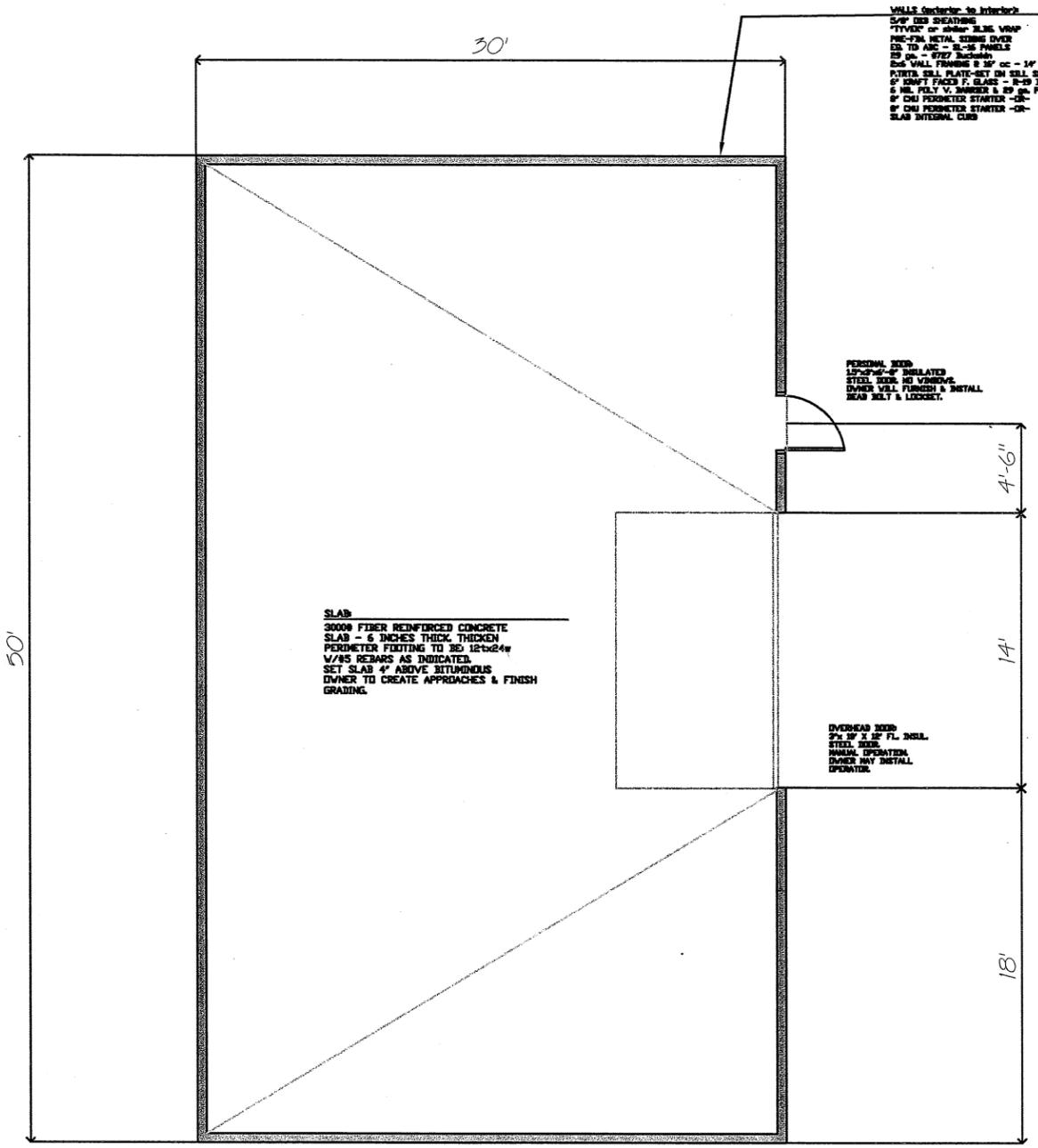
job number:
DT-1034 PWU
date: 5/28/2010
drawn by: TG
checked by: TLG
sheet number:

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Terry L. Groshong
Registration No: 15872
Date:

City of Duluth
COLD STORAGE BUILDING
P.V. & U GARFIELD AVENUE
520 GARFIELD AVENUE

Revised
Job number: 204 P.V.U.
Date: 5/17/2010
Drawn by: T.L.G.
Checked by: T.L.G.
Drawing Number:
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of 2 sheets

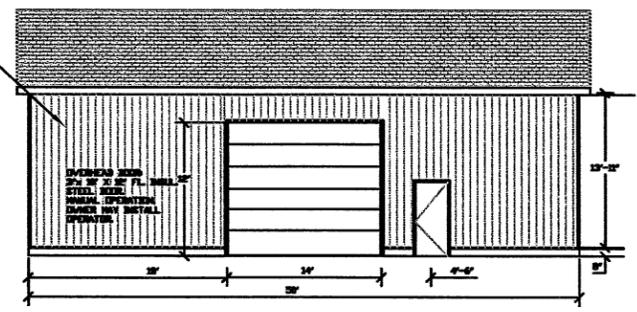


SLAB
3000# FIBER REINFORCED CONCRETE
SLAB - 6 INCHES THICK THICKEN
PERIMETER FOOTING TO BE 12"x24"
W/RS REBARS AS INDICATED.
SET SLAB 4" ABOVE BITUMINOUS
OWNER TO CREATE APPROACHES & FINISH
GRADING.

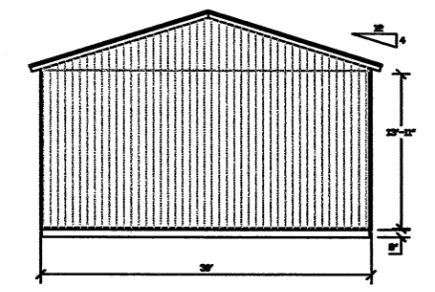
PERIMETER WOOD
1 1/2" OSB SHEATHING
STEEL STUDS NO VIBRATION
OWNER WILL FURNISH & INSTALL
SEAL BELT & LOCKSET.

OVERHEAD DOOR
2 1/2" x 2" x 2" FL. INSUL.
STEEL WELD
MANUAL OPERATION
OWNER MUST INSTALL
OPERATOR.

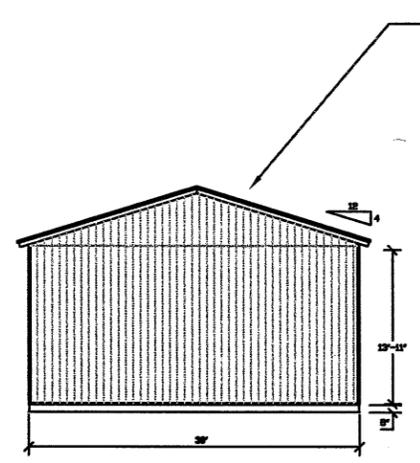
WALLS (exterior to interior)
5/8" OSB SHEATHING
"TYVEK" or similar BLDG WRAP
PRE-FIN METAL SIDING OVER
EQ TO ABC - SL-16 PANELS
EQ OR - 9/27" Buckskin
2x6 WALL FRAMING @ 16" oc - 14" EAVES
P.TRIB. SILL PLATE-SET ON SILL SEAL INSUL.
6" KRAFT FACED F. GLASS - R-19 INSUL.
6 MIL. PLY V. BARRIER & EQ OR PFM LINER
8" CMU PERIMETER STARTER -OR-
SLAB INTEGRAL CURB



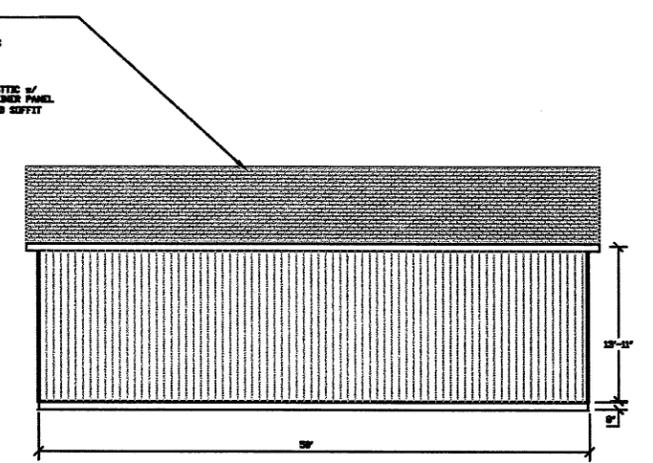
ELEVATION 1
SCALE 1/8" = 1'



ELEVATION 2
SCALE 1/8" = 1'



ELEVATION 3
SCALE 1/8" = 1'



ELEVATION 4
SCALE 1/8" = 1'

ROOF:
50# FIBER GLASS SHINGLES
15# ASPHALT FELT
1/2" OSB ROOF SHEATHINGS & CLIPS
PRE-ENGINEERED 4/12 PITCH ROOF
TRUSSES @ 24" oc + BRACING
12" EAVES ALL ELEVATIONS
3" MEMBRANE STARTER @ EAVES
12" R-40 F. GLASS INSULATION IN ATTIC w/
POLY V. BARRIER PRE-FIN METAL LINER PANEL
PRE-FINISHED METAL FASCIA/VENTED SOFFIT
3" MEMBRANE STARTER @ EAVES

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FLOOR PLAN

SCALE 1/8" = 1'

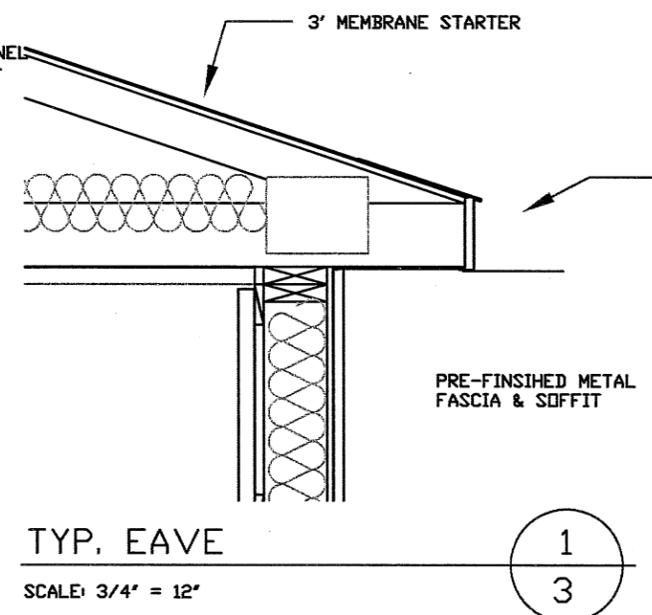
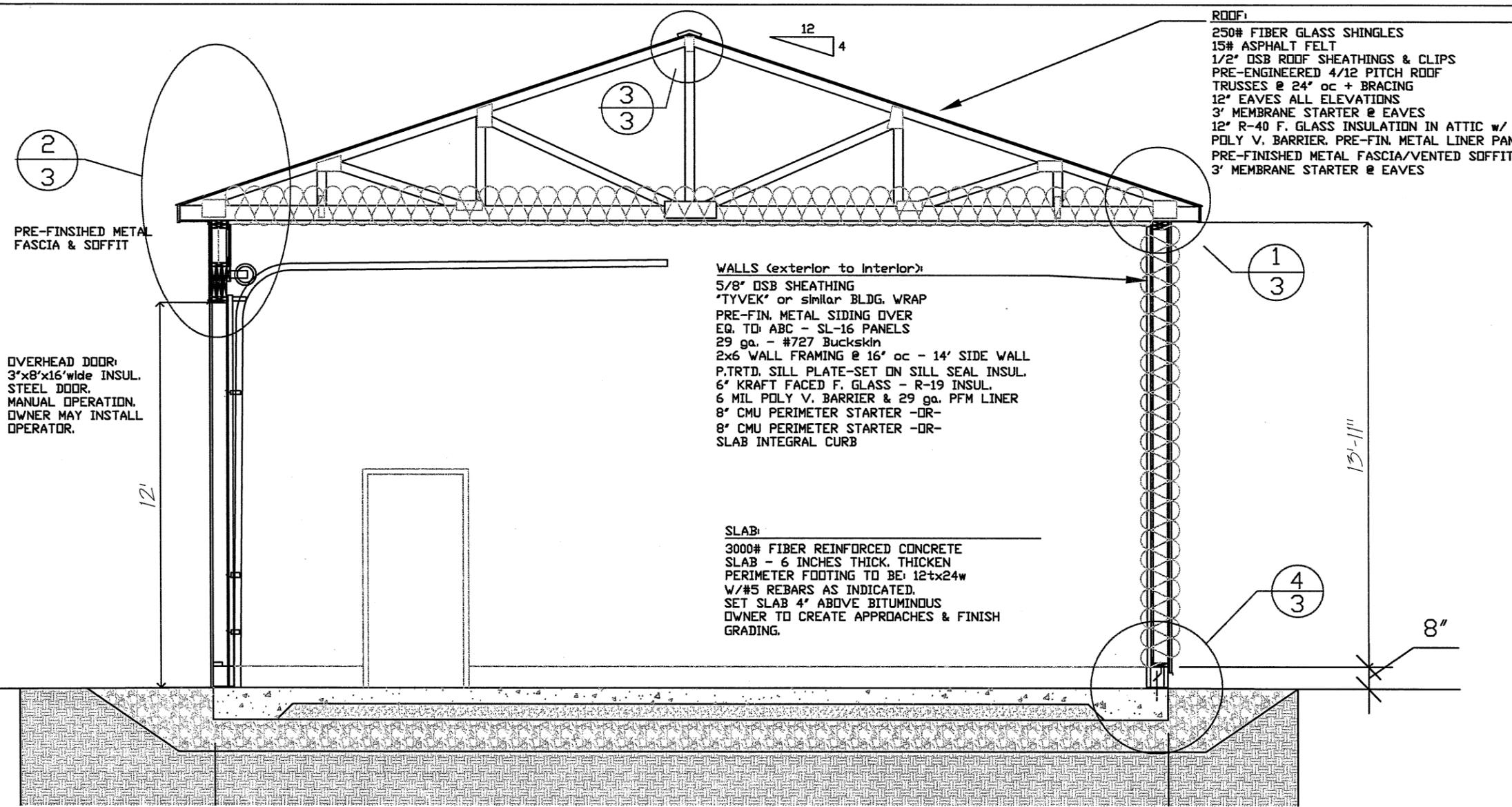


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COLD STORAGE BUILDING
LUND TOOLHOUSE
2407 COMMONWEALTH AV.
Duluth, Minnesota

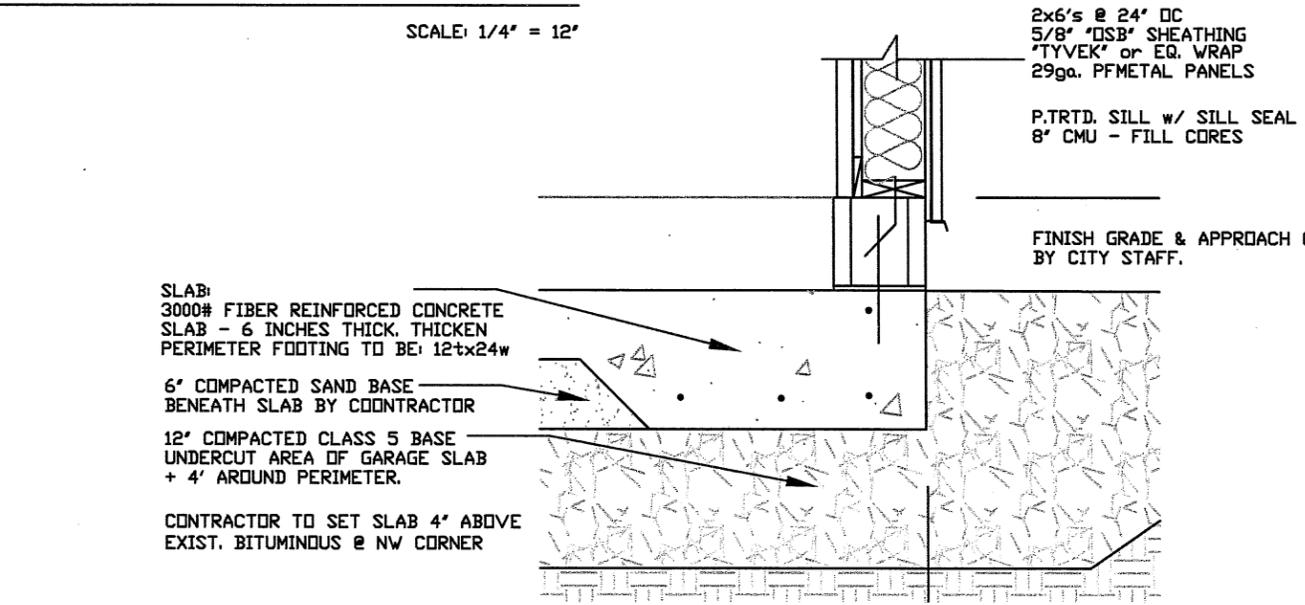
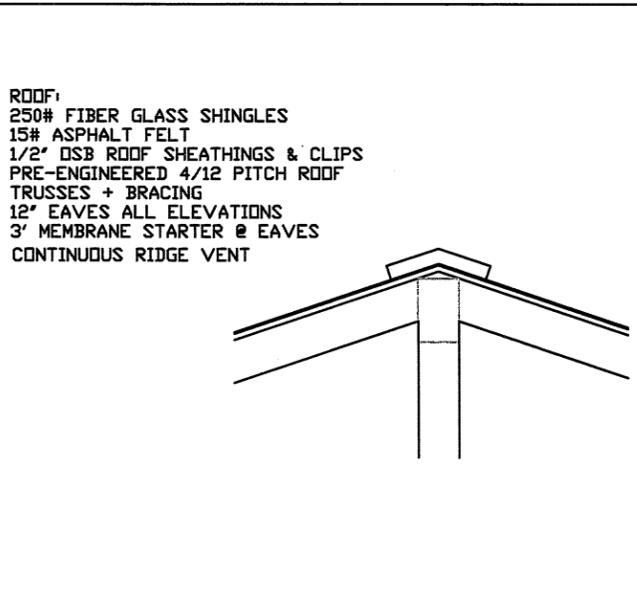
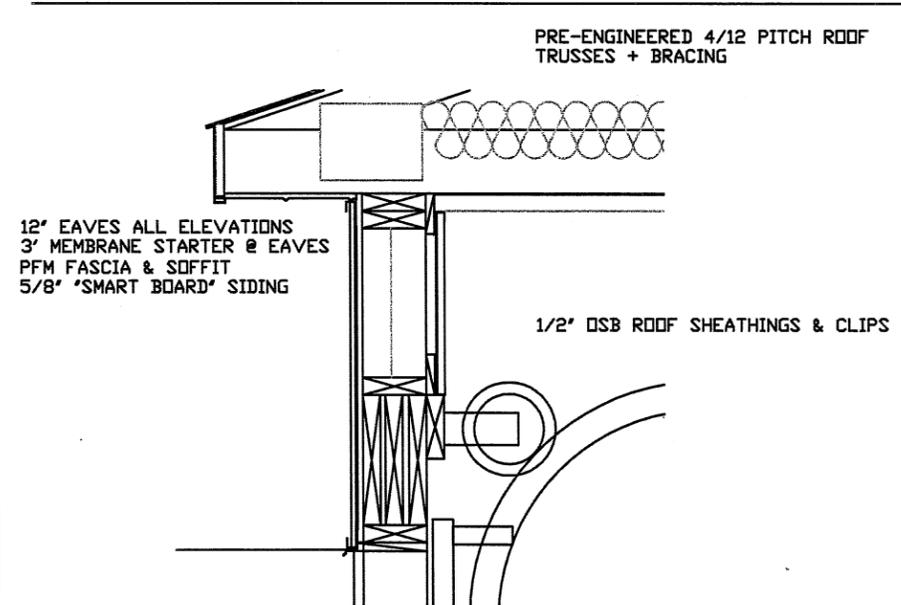
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3 of 3 sheets



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