Development Services

From Concept to Construction

Phone: 503-823-7300 Email: bds@portlandoregon.gov 1900 SW 4th Ave, Portland, OR 97201
More Contact Info (http://www.portlandoregon.gov//bds/article/519984)

APPEAL SUMMARY

Status: Decision Rendered - Held over from ID 20280 (4/24/19) for additional information

Appeal ID: 20421	**Project Address:** 2510 NE Sandy Blvd
Hearing Date: 5/22/19	**Appellant Name:** Shea Gilligan
Case No.: B-008	**Appellant Phone:** 6462630186
Appeal Type: Building	**Plans Examiner/Inspector:** Geoffrey Harker
Project Type: commercial	**Stories:** 5 **Occupancy:** R-2, M **Construction Type:** III-B
Building/Business Name: Atomic Orchard	**Fire Sprinklers:** Yes - throughout
Appeal Involves: Reconsideration of appeal	**LUR or Permit Application No.:**
Plan Submitted Option: pdf [File 1] [File 2] [File 3] [File 4] [File 5] [File 6]	**Proposed use:** Mixed Use

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	705.8.6.2
Requires	When a new building is to be erected adjacent to an existing building, all openings in the exterior wall of the new building are required to be not less than 3/4 hour when these openings are less than 15 feet vertically above the roof of the existing building or structure. The opening protectives are required where the distance between the building or structures is less than 15 feet. When the roof of the new building is at lower elevation from the existing building, the roof construction of the new building shall have a fire-resistance rating of not less than 1 hour for a minimum of 10 feet from the exterior wall facing the new building. The entire length and span of the supporting elements for the fire-resistance-rated roof assembly shall also have a fire-resistance rating of not less than 1 hour. The roof protections are required where the distance between the buildings or structures is less than 15 feet.
Proposed Design	The west elevation of this site, 2510 NE Sandy, shows exterior exit stair, Stair A, of which a 9'-0" wide x 15'-0" high portion is located within 15' vertically above the roof of the existing building. There are 2 overhead doors also within this zone. (see Exhibit 1 for the west elevation and Exhibit 2 for a partial site plan showing the two adjacent properties).

There is an existing one story building at 2500 NE Sandy Blvd., which is built to the property line in all directions. Appellant proposes that 2500 NE Sandy is treated as the "new" building, since it is owned by the same owner as 2510 NE Sandy and therefore can be modified to be code compliant. Appellant proposes that all of the roof area which is within 15' of 2510 NE Sandy Blvd. be modified to have a 1 hour roof construction (see Exhibit 3 for the one hour detail and Exhibit 4 for the roof plan for 2500 NE Sandy Blvd). This roof area on the 2500 NE Sandy Blvd. project includes an area 42"(north-south) x 10'-0" (east west) from the 2510 NE Sandy Blvd. north property line. Heavy timber beams and columns, and concrete pilasters in the 2500 NE Sandy Blvd. site meet 1 hour rating equivalency per char calculations for this area of the roof. (Exhibit 5)

Reconsideration Text: A survey has been added showing the two adjacent site plans, with the 1 hour roof portion of the 2500 NE Sandy Blvd. site identified.

Reason for alternative Treating the existing building as the new building provides equivalent fire and life safety regardless of the order in which the buildings are constructed. Additional information including a 1 hour rated roof ceiling assembly is provided, in addition to the roof framing plan for 2500 NE Sandy Blvd. Appeal ID 15124 is a similar appeal which has been granted.

Reconsideration Text: A survey has been added showing the two adjacent site plans, with the 1 hour roof portion of the 2500 NE Sandy Blvd. site identified.

Appeal item 2

Code Section 1026.5 Exterior Exit Stairways and Ramps, Location

Requires Exterior exit stairways and ramps shall have a minimum fire separation distance of 10 feet measured from the exterior edge of the stairway or ramp, including landings, to adjacent lot lines and from other buildings on the same lot unless the adjacent building exterior walls and openings are protected in accordance with Section 705 based on fire separation distance.

Proposed Design The west stair (Stair A) is located within 10' of the property line, however the adjacent lot is owned by the same owner as this site. The adjacent property to the west, 2500 NE Sandy Blvd, is a one story building with an existing two hour wall next to Stair A. This 2 hour concrete wall will provide protection for the exterior stair below the roof line of the adjacent building. A no-build easement is proposed above the roof of the adjacent building to provide the required 10 foot separation above the roof of 2500 NE Sandy Blvd. (see Exhibit 2). Stair A is additionally protected by the 1 hour roof assembly proposed in Appeal Item 1.

Reconsideration Text: A survey has been added showing the two adjacent site plans, with the 1 hour roof portion of the 2500 NE Sandy Blvd. site identified.

Reason for alternative The two hour concrete wall provides an equivalent level of fire and life safety for the area below the parapet of 2500 NE Sandy Blvd. for occupants of both buildings and the no-build easement above the existing roof will provide the required clearance for the occupants using Stair A above the roof of the adjacent building. Since both sites are owned by the same owner, it is possible to make both designs safe and compliant for occupants of both buildings.

Reconsideration Text: A survey has been added showing the two adjacent site plans, with the 1 hour roof portion of the 2500 NE Sandy Blvd. site identified.

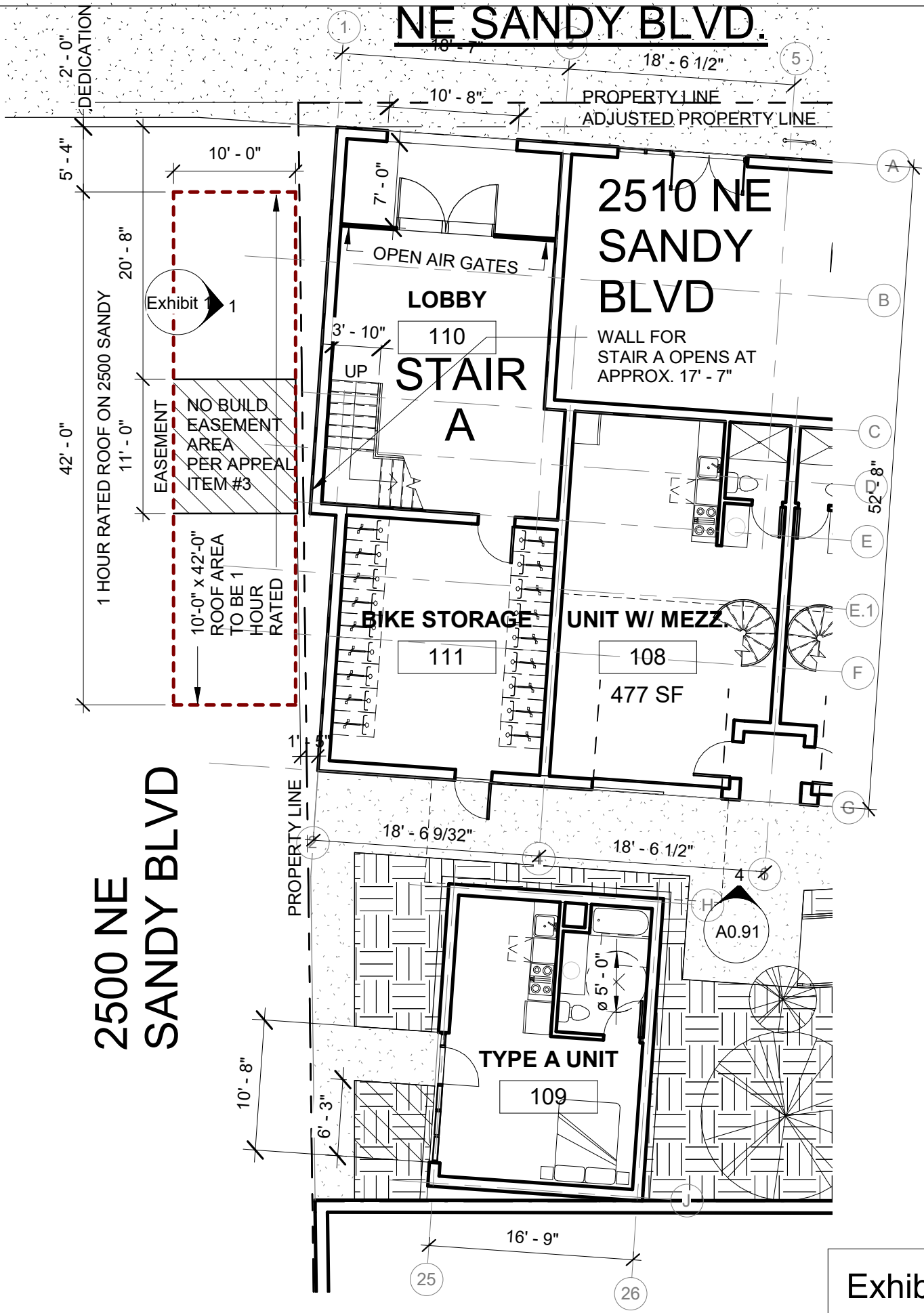
APPEAL DECISION

1. One hour fire rated roof construction of existing lower building in buildings with vertical exposure on separate lots: Granted provided the building permit for the 1 hour fire resistance rating of the roof structure is finaled prior to the issuance of the Certificate of Occupancy for the proposed building.
Note: The submitted char calculations were not reviewed as part of this appeal. They will be reviewed during structural review of the building permit submittal documents.
Appellant may contact John Butler (503 823-7339) with questions.

2. Exterior exit stair with less than 10 feet of fire separation distance and no build easement: Granted provided the easement is a minimum of 10 feet wide.
Appellant must contact Nancy Thorington (503-823-7023) for more information prior to writing the no build easement.
The easement must include language that establishes the edge of the easement on the adjacent lot as the implied property line for the purpose of determining fire separation distance for future development on the adjacent lot.
The unrecorded easement must be reviewed and approved by BDS prior to recording. A copy of the recorded easement must then be provided to BDS prior to plan review approval.

The Administrative Appeal Board finds with the conditions noted, that the information submitted by the appellant demonstrates that the approved modifications or alternate methods are consistent with the intent of the code; do not lessen health, safety, accessibility, life, fire safety or structural requirements; and that special conditions unique to this project make strict application of those code sections impractical.

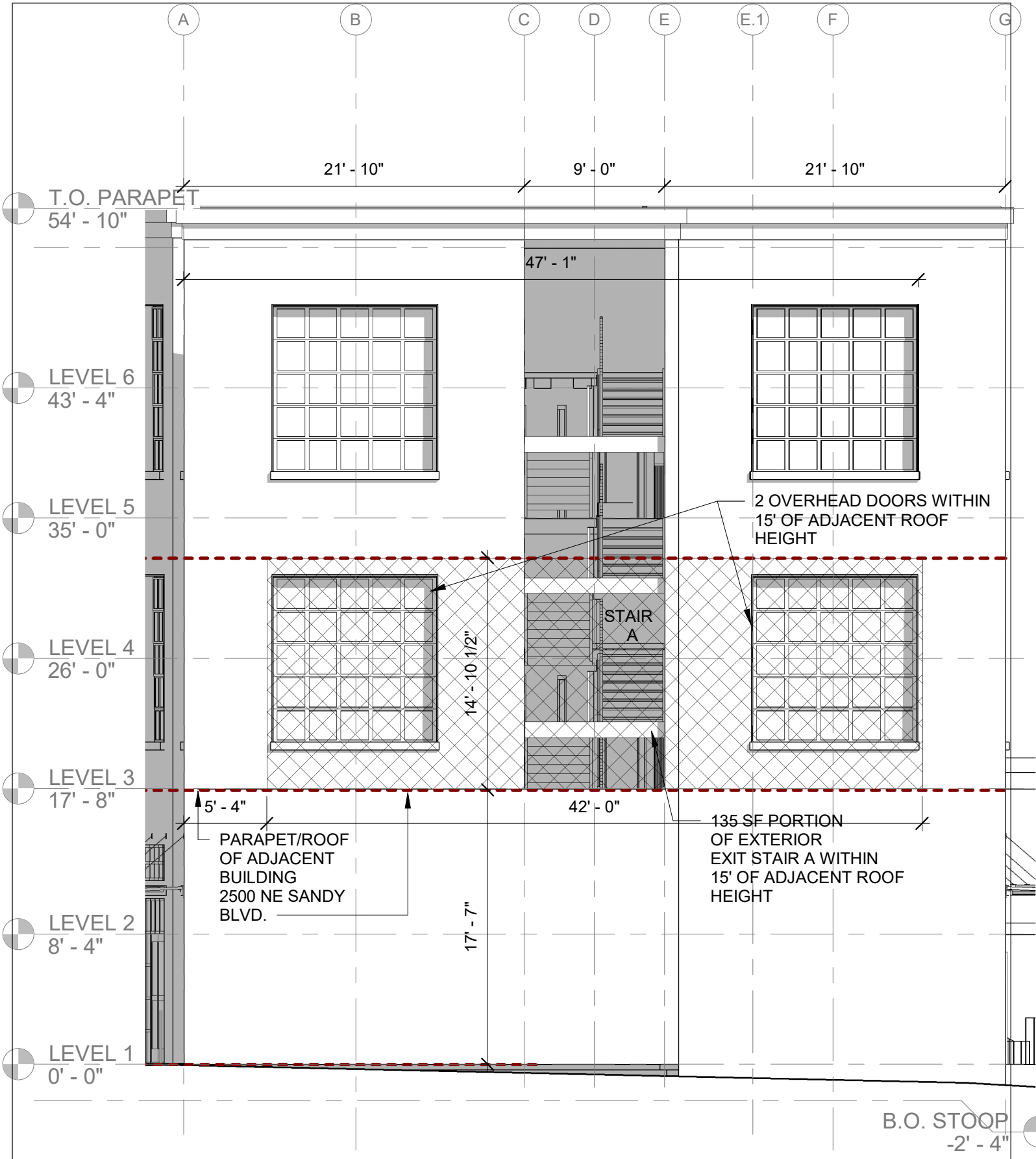
Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 180 calendar days of the date this decision is published. For information on the appeals process and costs, including forms, appeal fee, payment methods and fee waivers, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.



1 PARTIAL FIRST FLOOR/SITE PLAN

Exhibit 2

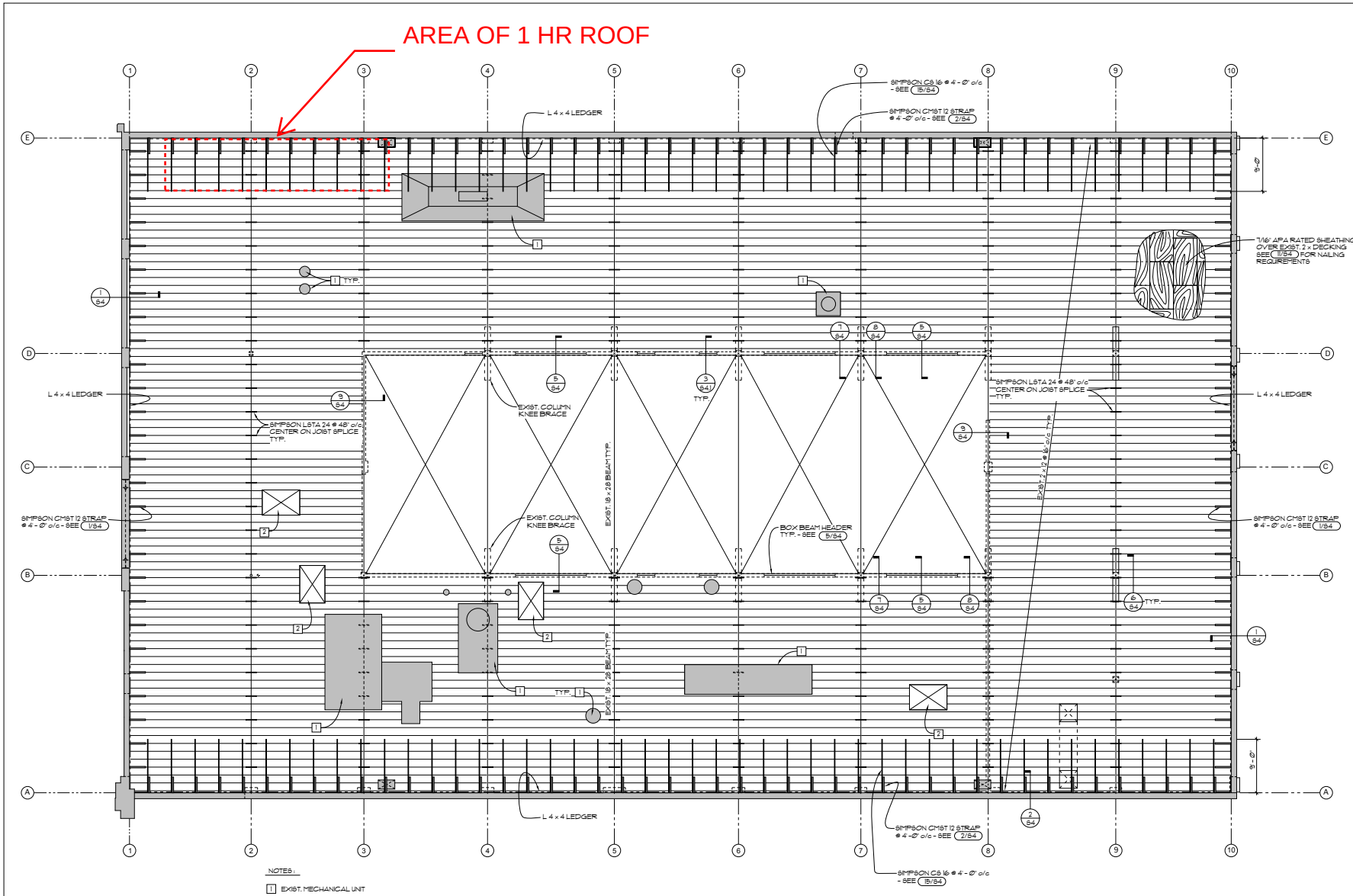
Scale 3/32" = 1'-0"



1 WEST ELEVATION Appeal

Exhibit 1

Scale 1/8" = 1'-0"



ROOF FRAMING PLAN

1/8" = 1'-0"

Exhibit #4

Brett Schulz
architect
2222 NE Oregon St. # 203
Portland, Oregon 97232
www.brettschulz.com
T: 503.222.9099

REGISTERED PROFESSIONAL ENGINEER 70,735 OREGON JULY 09, 1982 MATTHEW L. VANDERHAEGEN
EXPIRES: 06/30/2016

BKE INC.
STRUCTURAL ENGINEERS
2700 SE HARRISON ST. STE B
MILWAUKIE OR, 97222 ,
503-607-0481, FAX 503-607-0486

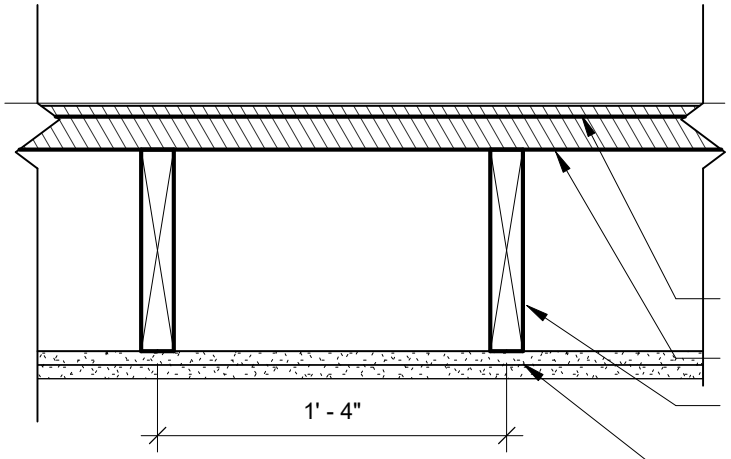
NEW CRUSHER COURT
2500 NE SANDY BLVD
PORTLAND, OR 97209

PERMIT:

ISSUE: SPACE PLAN
ISSUE DATE: 12/29/15
DRAWN: CN
APPROVED: MV
REVISIONS:

SCALE: AS NOTED

S2



EXISTING 1/2" PLYWOOD

EXISTING 2X WOOD DECKING

EXISTING 2X10 WOOD STUDS
16" O.C.

NEW TWO LAYERS 5/8" GWB

1 HR RATING: GA #RC 2601

BASE LAYER 5/8" GYP APPLIED
AT RIGHT ANGLES TO 2 X 10 WOOD JOISTS
WITH 1 1/4" TYPE W OR S DRYWALL SCREWS 24" O.C.

FACE LAYER APPLIED AT RIGHT ANGLES TO JOISTS
WITH 1 7/8" TYPE W OR S DRYWELL SCREWS 12" O.C.
AT JOINTS AND INTERMEDIATE JOISTS

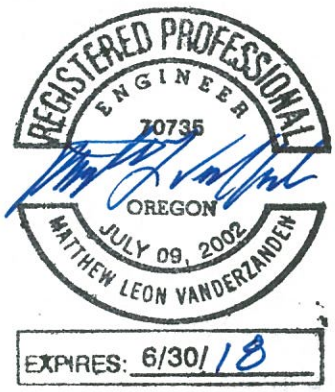
1 1 HR ROOF CEILING ASSEMBLY
1 1/2" = 1'-0"

Exhibit #3

SUPPLEMENTAL STRUCTURAL CALCULATIONS

FOR

Char Calculations
New Crusher Court
2500 NE Sandy Blvd.
Portland, OR



BKE INC.
STRUCTURAL ENGINEERS

2700 SE HARRISON ST. STE. B. MILWAUKIE OR. 97222. 503-607-0481. FAX 503-607-0486. matt@bkengineers.com

Project: CHAR CALC. @ New New Crusher Court
Client: Brett Schulz Architect Proj. No.: 15-440
Date: 05/2017 By: MLV Sheet No.:

DESIGN SUMMARY

THESE CALCULATIONS ARE TO DETERMINE THE ADEQUACY OF THE EXISTING HEAVY TIMBER BEAMS AND COLUMNS TO RESIST A 1 HR FIRE. CHAPTER 16 OF THE 2012 NDS WAS USED FOR THESE CALCULATIONS.

2700 SE HARRISON ST. STE. B, MILWAUKIE OR, 97222, 503-607-0481, FAX 503-607-0486. matt@bkengineers.com

BEAMS (NDS CH. 16)

$b = 11''$

$h = 27''$

$B_{eff} = 1.8$

$a_{char} = 1.8$

$b_{char} = 11 - 2(1.8) = 7.4\ in$

$h_{char} = 27 - 1.8 = 25.2\ in$

$$S_{char} = \frac{7.4(25.2)^2}{6} = 783.2\ in^3$$

$F_b = 1000\ PSI$

$C_F = 1.0$

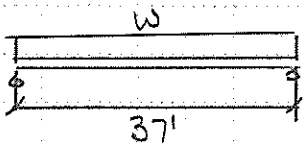
$C_V = .929(.922)(.94) = 0.8$

$C_L = 1.0$

$C_d = 1.15$

$$F'_{b\ CHAR} = 1000(2.85)(.8)(1.15)$$
$$= \underline{2622\ PSI}$$

$w = 21.5(15+25)$
$= 860\ PLF$



$m = 147168$

$$f_b = \frac{m}{S_{char}} = \frac{147168(12)}{783.2} = 2254.8$$

$f_{b\,char} < F'_{b\,CHAR}$ ∴ ok

COLUMNS

$b = 11''$

$d = 11''$

$B_{eff} = 1.8$

$a_{char} = 1.8$

$b = d = 11 - 2(1.8) = 7.4''$

$P_{DL} = 21.5(37)(15) = 11932$

$P_{SL} = 21.5(37)(25) = 19888$

11x11 OK SEE OUTPUT

BK INC. STRUCTURAL ENGINEERS

2700 SE HARRISON ST. STE. B, MILWAUKIE OR, 97222, 503-607-0481, FAX 503-607-0486. matt@bkengineers.com

Project: CHAR CALC @ New New Crusher Court

Client: Brett Schulz Architect Proj. No.: 15-440

Date: 05/2017 By: MLV Sheet No.: 1

Wood Column

File = C:\Users\MATTVA~1.BKE\DOCUME~1\ENERCA~1
ENERCALC, INC. 1983-2017, Build:6.17.2.28, Ver:6.17.2.28
Lic. # : KW-06007984 Licensee : BK ENGINEERS INC

Description : --None--

Code References

Calculations per
Load Combinations Used : ASCE 7-10

General Information

Analysis Method : Allowable Stress Design
End Fixities : Top & Bottom Pinned
Overall Column Height : 14.666 ft
(Used for non-slender calculations)

Wood Species : Douglas Fir - Larch
Wood Grade : No.1

Fb - Tension	1200 psi	Fv	170 psi
Fb - Compr	1200 psi	Ft	825 psi
Fc - Prll	1000 psi	Density	31.2 pcf
Fc - Perp	625 psi		

E : Modulus of Elasticity . . .	x-x Bending	y-y Bending	Axial
Basic	1600	1600	1600 ksi
Minimum	580	580	

Wood Section Name : 11x11 char
Wood Grading/Manuf. : Graded Lumber
Wood Member Type : Sawn

Exact Width	7.40	in
Exact Depth	7.40	in
Area	54.760	in^2
Ix	249.888	in^4
Iy	249.888	in^4

Allow Stress Modification Factors

Cf or Cv for Bending	1.0
Cf or Cv for Compression	1.0
Cf or Cv for Tension	1.0
Cm : Wet Use Factor	1.150
Ct : Temperature Factor	1.0
Cfu : Flat Use Factor	1.0
Kf : Built-up columns	1.0 NDS 15.3.2
Use Cr : Repetitive ?	No

Brace condition for deflection (buckling) along columns :
X-X (width) axis : Unbraced Length for X-X Axis buckling = 14.666 ft, K = 1.0
Y-Y (depth) axis : Unbraced Length for X-X Axis buckling = 14.666 ft, K = 1.0

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 174.007 lbs * Dead Load Factor
AXIAL LOADS . . .
Axial Load at 14.666 ft, D = 11.933, S = 19.888 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = 0.8817 : 1

Load Combination	+D+S+H
Governing NDS Forumla	Comp Only, fc/Fc'
Location of max.above base	0.0 ft
At maximum location values are . . .	
Applied Axial	31.995 k
Applied Mx	0.0 k-ft
Applied My	0.0 k-ft
Fc : Allowable	662.68 psi

PASS Maximum Shear Stress Ratio = 0.0 : 1

Load Combination	+0.60D+0.70E+0.60H
Location of max.above base	14.666 ft
Applied Design Shear	0.0 psi
Allowable Shear	272.0 psi

Maximum SERVICE Lateral Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	0.0 k

Maximum SERVICE Load Lateral Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination : n/a

Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors used to calculate allowable stresses . . .

	Bending	Compression	Tension

Load Combination Results

Load Combination	C_D	C_P	Maximum Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Maximum Shear Ratios: Stress Ratio	Status	Location
+D+H	0.900	0.668	0.3678	PASS	0.0 ft	0.0	PASS	14.666 ft
+D+L+H	1.000	0.629	0.3513	PASS	0.0 ft	0.0	PASS	14.666 ft
+D+Lr+H	1.250	0.544	0.3250	PASS	0.0 ft	0.0	PASS	14.666 ft
+D+S+H	1.150	0.576	0.8817	PASS	0.0 ft	0.0	PASS	14.666 ft
+D+0.750Lr+0.750L+H	1.250	0.544	0.3250	PASS	0.0 ft	0.0	PASS	14.666 ft
+D+0.750L+0.750S+H	1.150	0.576	0.7447	PASS	0.0 ft	0.0	PASS	14.666 ft
+D+0.60W+H	1.600	0.452	0.3056	PASS	0.0 ft	0.0	PASS	14.666 ft
+D+0.70E+H	1.600	0.452	0.3056	PASS	0.0 ft	0.0	PASS	14.666 ft
+D+0.750Lr+0.750L+0.450W+H	1.600	0.452	0.3056	PASS	0.0 ft	0.0	PASS	14.666 ft
+D+0.750L+0.750S+0.450W+H	1.600	0.452	0.6821	PASS	0.0 ft	0.0	PASS	14.666 ft
+D+0.750L+0.750S+0.5250E+H	1.600	0.452	0.6821	PASS	0.0 ft	0.0	PASS	14.666 ft
+0.60D+0.60W+0.60H	1.600	0.452	0.1834	PASS	0.0 ft	0.0	PASS	14.666 ft

Wood Column

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ENERCALC, INC. 1983-2017, Build:6.17.2.28, Ver:6.17.2.28
Lic. # : KW-06007984
Licensee : BK ENGINEERS INC

Description : --None--

Load Combination Results

Load Combination	C_D	C_P	Maximum Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Maximum Shear Ratios: Stress Ratio	Status	Location
+0.60D+0.70E+0.60H	1.600	0.452	0.1834	PASS	0.0 ft	0.0	PASS	14.666 ft

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction @ Base	X-X Axis Reaction @ Top	Y-Y Axis Reaction @ Base	Y-Y Axis Reaction @ Top	Axial Reaction @ Base
+D+H		k		k	12.107 k
+D+L+H		k		k	12.107 k
+D+Lr+H		k		k	12.107 k
+D+S+H		k		k	31.995 k
+D+0.750Lr+0.750L+H		k		k	12.107 k
+D+0.750L+0.750S+H		k		k	27.023 k
+D+0.60W+H		k		k	12.107 k
+D+0.70E+H		k		k	12.107 k
+D+0.750Lr+0.750L+0.450W+H		k		k	12.107 k
+D+0.750L+0.750S+0.450W+H		k		k	27.023 k
+D+0.750L+0.750S+0.5250E+H		k		k	27.023 k
+0.60D+0.60W+0.60H		k		k	7.264 k
+0.60D+0.70E+0.60H		k		k	7.264 k
D Only		k		k	12.107 k
Lr Only		k		k	k
L Only		k		k	k
S Only		k		k	19.888 k
W Only		k		k	k
E Only		k		k	k
H Only		k		k	k

Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
+D+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+L+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+Lr+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+S+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750Lr+0.750L+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L+0.750S+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.60W+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.70E+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750Lr+0.750L+0.450W+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L+0.750S+0.450W+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L+0.750S+0.5250E+H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D+0.60W+0.60H	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D+0.70E+0.60H	0.0000 in	0.000 ft	0.000 in	0.000 ft
D Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
Lr Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
L Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
S Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
W Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
E Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
H Only	0.0000 in	0.000 ft	0.000 in	0.000 ft

Wood Column

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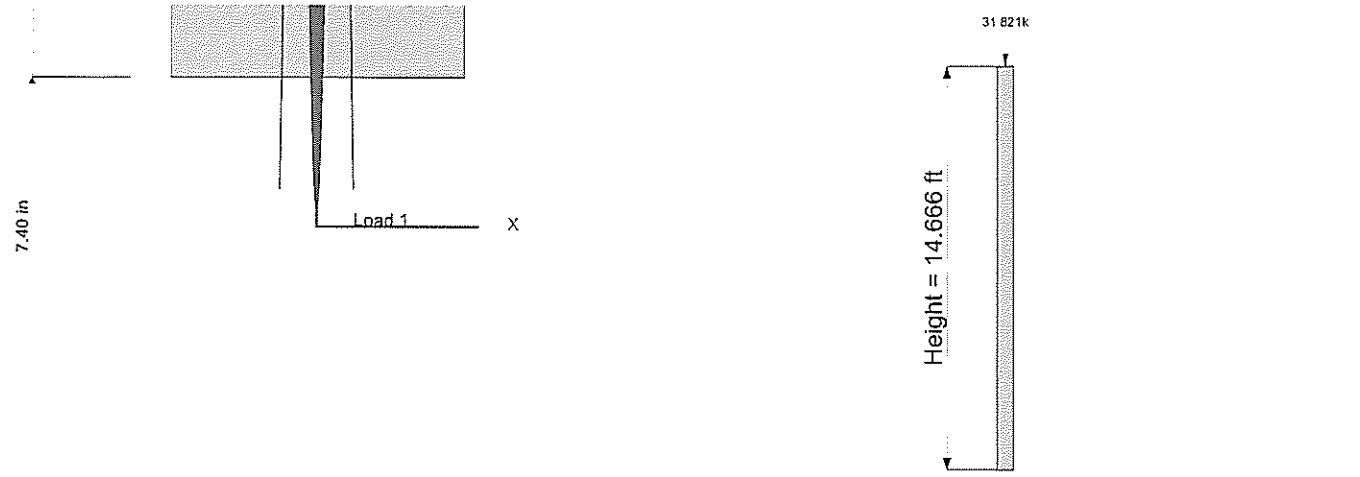
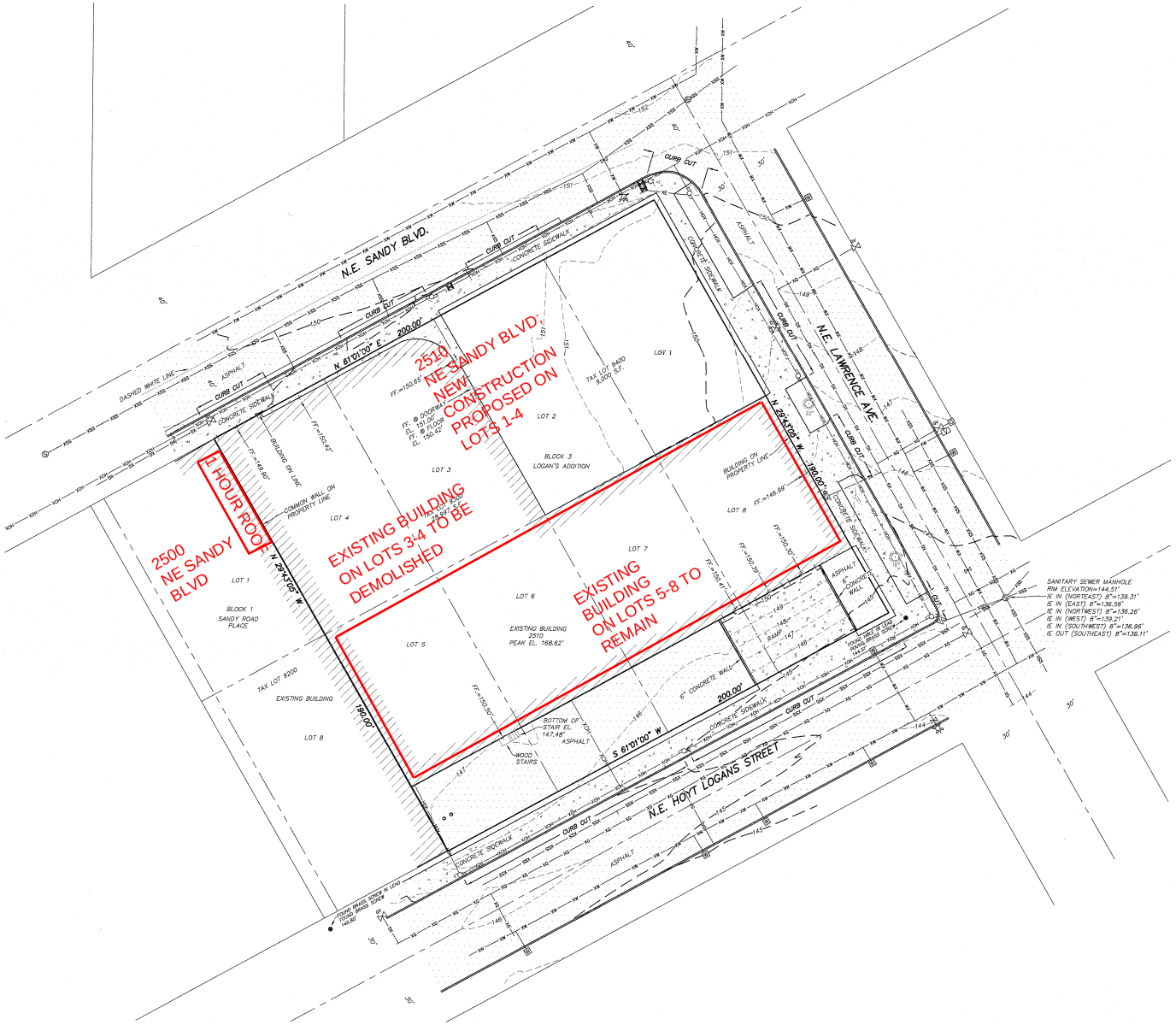
ENERCALC, INC. 1983-2017, Build:6.17.2.28, Ver:6.17.2.28
Lic. # : KW-06007984
Licensee : BK ENGINEERS INC

Description : --None--

Sketches



Loads are total entered value. Arrows do not reflect absolute direction.



EXISTING CONDITIONS MAP

TAX LOTS 9400 AND 9300, CONTAINING A TOTAL OF 37,997 S.F
LOTS 1–8, BLOCK 3, "LOGAN'S ADDITION"
LOCATED IN THE N.W. 1/4 SECTION 36, T.1N., R.1E., W.M.,
CITY OF PORTLAND, MULTNOMAH COUNTY, OREGON
JUNE 6, 2016 SCALE 1"=20'

SURVEY NOTES:

THE VERTICAL DATUM FOR THIS SURVEY IS BASED UPON CITY OF PORTLAND BENCHMARK NUMBER 3348, BEING A BRASS DISC AT THE SOUTHWEST CORNER OF NE 24TH AVENUE AND NE OREGON STREET. ELEVATION = 145.87', COP DATUM.

A TRIMBLE 56-SERIES ROBOTIC INSTRUMENT WAS USED TO COMPLETE A CLOSED LOOP FIELD TRAVERSE.

THE BASIS OF BEARINGS FOR THIS SURVEY IS PER MONUMENTS FOUND AND HELD PER RECORD OF SURVEYS RECORDED UNDER PRIVATE SURVEY NUMBERS 60569 AND 45341, RECORDS OF MULTNOMAH COUNTY.

THE PURPOSE OF THIS SURVEY IS TO RESOLVE AND DETERMINE THE PERIMETER BOUNDARY OF THE SUBJECT PROPERTY, TO SHOW ALL PERTINENT BOUNDARY ISSUES AND ENCROACHMENTS. NO PROPERTY CORNERS WERE SET IN THIS SURVEY.

NO WARRANTIES ARE MADE AS TO MATTERS OF UNWRITTEN TITLE, SUCH AS ADVERSE POSSESSION, ESTOPPEL, ACQUIESCENCE, ETC.

NO TITLE REPORT WAS SUPPLIED OR USED IN THE PREPARATION OF THIS MAP.

THE UNDERGROUND UTILITIES AS SHOWN ON THIS MAP HAVE BEEN LOCATED FROM FIELD SURVEY OF ABOVE GROUND STRUCTURES AND AS MARKED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SURVEYOR.

LEGEND:

Some Symbols shown may not be used on map

- DECIDUOUS TREE
- EVERGREEN TREE
- STORM SEWER MANHOLE
- CATCH BASIN
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- GAS VALVE
- GAS METER
- BOLLARD
- SIGN
- MAILBOX
- COMMUNICATIONS PEDESTAL
- COMMUNICATIONS MANHOLE
- COMMUNICATIONS BOX
- STORM OUTFALL
- FOUND MONUMENT
- DOWN SPOUT TO STORM SYSTEM
- UTILITY AND LIGHT POLE
- UTILITY POLE
- LIGHT POLE
- GUY WIRE
- ELECTRIC BOX
- ELECTRIC METER
- ELECTRICAL POWER PEDESTAL
- ELECTRIC RISER
- HEAT PUMP
- OVERHEAD LINE
- GAS LINE
- ELECTRICAL LINE
- COMMUNICATIONS LINE
- SANITARY SEWER LINE
- STORM DRAIN LINE
- WATER LINE
- FENCELINE
- UTILITY RISER
- DOWN SPOUT TO SPLASH GUARD/GROUND

SIGNED ON: 07/07/16

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 13, 2004
TOBY Q. BOLDEN
60371LS
RENEWS: DECEMBER 31, 2017

N

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

CENTERLINE CONCEPTS
LAND SURVEYING, INC.
19376 MOLALLA AVE., SUITE 120
OREGON CITY, OREGON 97045
PHONE 503.650.0188 FAX 503.650.0189

Plotted: M:\PROJECTS\CAVENAUGH-SANDY BLVD-NE-2510\dwg\EXIST.dwg