



UTAH OFFICES

Sandy
Layton
St. George

Project Number: L0133-001-171

March 17, 2017

Brighton Land Holdings
1275 East Fort Union Blvd. Ste 210
Cottonwood Heights, UT 84047

ATTENTION: Thomas Godfrey

REFERENCE: **Brighton Recovery Campus, Building C (4905 S 900 E, SLC, UT)
Interior Demolition & New Wall Openings**

Mr. Godfrey:

Per your request, we have reviewed the architectural drawings for the above-referenced project. We also visited the above-referenced site on December 20, 2016. Please be advised as follows:

- 1) From our observation, the roof structure appeared to be manufactured wood roof trusses, bearing at the exterior perimeter walls and/or exterior overhang beams. In addition, there is an interior beam running the length of the building, supporting the roof trusses at or near their mid-span. See the enclosed "Demolition Plan," for approximate location of existing beams and posts. Interior partitions are non-bearing non-shear walls and can, therefore, be removed without adversely affecting the structure.
- 2) Three new openings may be constructed at exterior walls, as shown in the enclosed "Demolition Plan." The new headers, trimmers, and king studs are also specified on sheet 2. Supporting calculations are provided on sheets 3 and 4, enclosed. The contractor is responsible for shoring the existing roof framing during construction.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

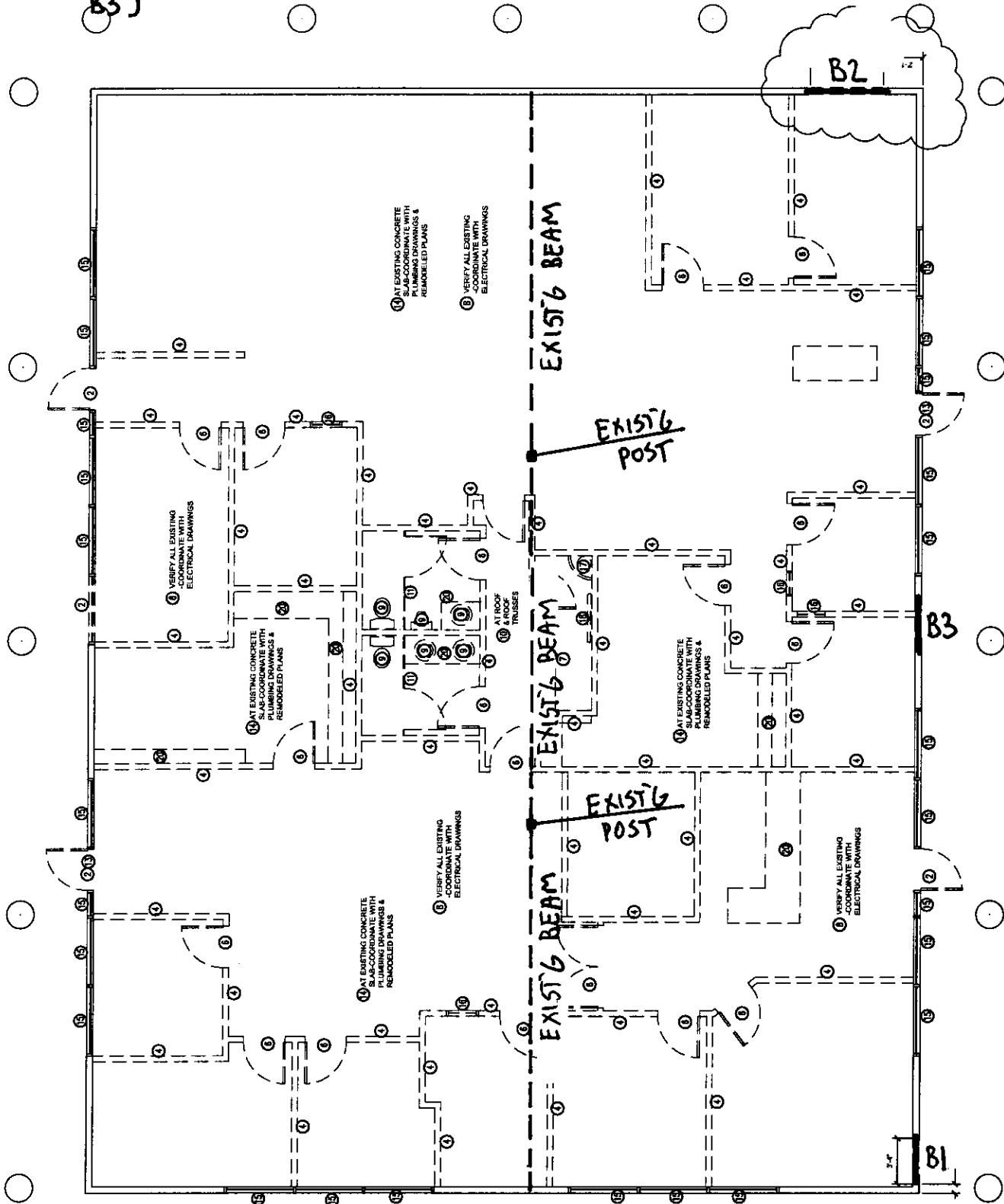
Very truly yours,
VECTOR STRUCTURAL ENGINEERS



David H. Fotheringham, S.E.
Principal

Enclosures

B1 } (3) 2x6 HDR w/ 2x6 TRIMM & 2x6 KING STUD EA- END
B2 }
B3 }



DEMOLITION PLAN

$$3/32'' = 1-0''$$



JOB NO.: L0133-001-171

DATE: 3/17/2017

SHEET 3

DESIGNED: DHF

CHECKED: DHF

PROJECT: BRIGHTON RECOVERY CAMPUS

SUBJECT: GRAVITY LOADS

		Increase due to pitch	Original loading
ROOF			
ROOF PITCH/12	4		
ASPHALT SHINGLES	4.22	1.05	4.00
1/2" PLYWOOD	1.58	1.05	1.50
FRAMING	3.00		
INSULATION	2.00		
1/2" GYPSUM CLG.	2.20		
M, E & MISC	2.00		
DL	15.00		
LL	20.00		
SNOW	30.00		
SNOW INCLUDED IN LATERAL	0.0		

2ND FLOOR (WHERE OCCURS)

FLOOR COVERING	1.00
3/4" T&G PLYWOOD	2.30
MFG TRUSSES / FRAMING	2.00
INSULATION	1.00
1/2" GYPSUM CEILING	2.20
PARTITION	2.00
M, E & MISC.	1.50
OTHER	0.00
DL	12.00
LL	40.00

EXTERIOR WALLS

STUCCO/SIDING	3.50
2x FRAMING W/3 PLATES	1.30
INSULATION	1.00
1/2" GYPSUM	2.20
1/2" PLYWOOD	1.50
OTHER	0.50
DL	10.00

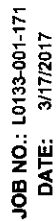
OVERFILL

ASPHALT SHINGLES	4.00
1/2" PLYWOOD	1.50
RAFTERS & MISC	3.50
OTHER	0.00
DL	9.00
LL	20.00

TYPICAL ROOF OVERBUILD MAX SPAN TABLE

Grade	Size	Spacing (ft)	L _{max} (ft)
DFL#2	2X4	2	5.80
DFL#2	2X6	2	8.80
DFL#2	2X8	2	10.80
DFL#2	2X10	2	13.20

C _r	C _D	C _{F,V}	M _{allow} (ft-lb)	V _{allow} (lb)	Ctrl'g factor
1.15	1.00	1.50	385	382	Moment
1.15	1.00	1.40	888	601	Moment
1.15	1.00	1.20	1322	792	Moment
1.15	1.00	1.10	1973	1011	Moment

DESIGNED: DHF
CHECKED: DHF

PROJECT: BRIGHTON RECOVERY CAMPUS

SUBJECT: BEAMS

CRITERIA (L)	D _{TL}	D _{LL}	D _{DL}
A ₁ (BLANK)	240	360	
B	240	480	
C	600		800

Add $.2 \cdot S_{DS}$ to dead load? Yes $0.2267 = .2 \cdot S_{DS}$
 is than or equal to $L/2$

is than or equal to 'L/2'

SHEET 4