

EXAMPLE ONLY



COMPETITOR NUMBER: _____

2023 Skills Ontario Provincial Competition
Architectural Technology & Design Post-Secondary Exam

LAZY DOG BREWERY

RENOVATION & ADDITION



EXISTING FRONT ELEVATION

TUESDAY, MAY 2ND 2023
Toronto Congress Centre
Committee Chair: Joel Foster & Brock Wardell

Time: (6 hours)

60 Total Points

PROJECT DESCRIPTION:

Lazy Dog Brewery is a small start-up microbrewery. They have hired you to prepare a set of architectural working drawings. They have purchased a unit in a commercial plaza near downtown Toronto. The plaza was constructed in the 1990's, and the City has requested that the unit be renovated to accommodate all new regulations from the current Ontario Building Code. (OBC)

Attached, you will find the existing drawings for the unit that Lazy Dog Breweries has purchased. It is a one (1) level unit with a mezzanine in the back corner. There is an existing washroom on the main level that will need to be demolished and reconstructed to meet all requirements from the current OBC. Lazy Dog breweries will also require a loading dock with an overhead shipping and receiving door/area to be built as an addition at the back of their unit.(refer to appendix). The main entrance of the unit is south facing, the client has requested the existing front facade be demolished and a new curtain wall system mixed with Masonry & Siding be designed to allow for natural light and solar heat gain in the winter. The mezzanine is only accessible by a ladder. They have requested a new "U" shape stair constructed to access the mezzanine.

Lazy Dog Breweries has noted they would like the design of the space to be "*Industrial Modern*" with exposed steel and brick, mixed with modern trends. The brewery prides itself as being an organic brewery, the client would like to incorporate two (2) sustainable features to help reduce the amount of non-potable water they will use when flushing toilets, and offset the amount/cost of energy they are using.

The client has listed their requirements they will need for day-to- day operations:

Main Level:

- Barrier Free Entrance & Vestibule
- Barrier Free Public Washrooms. (2 toilets & 2 sinks in each) and Barrier Free Staff Washroom. (Unisex)
- Reception Desk and Staff Lunch Room c/w kitchen, and seating for 6 people
- Gift Shop and Beer Sampling Room/Seating Area.
- Shipping and Receiving area - to be in new addition. (refer to appendix)
- Brewing area visible from the front entry, and large enough to fit three (3) 2400mm dia. x 4200mm high tanks.

Lazy Dog Breweries has requested the design be an open concept where you can see all operations from the Sampling Room.

Mezzanine:

- Three (3) administrative offices.
- One (1) boardroom - large enough for ten (10) people.
- Small unisex washroom.
- Small self-serve coffee bar located near the boardroom.
- New "U" shape stair for access from the main level.

Lazy Dog Breweries has requested the boardroom and one office have a glazed wall that looks out over the brewery.

MORE REQUIREMENTS ON NEXT PAGE

Addition:

- Shipping and Receiving complete with a loading dock & overhead door
- Small walk-in cooler to store products before shipping
- Exterior entrance and stairs for delivery drivers to enter building

DOCUMENTATION PROVIDED:

- Existing drawings of the unit, schematic building section and site plan. (Refer to appendix).
- Batt insulation R-value = R4 per inch
- Rigid insulation R-value = R5 per inch

EXISTING BUILDING DETAILS

Existing Wall Structure

- 200mm Steel HSS columns and 250mm W beams with 200mm structural steel stud infill.

Existing Exterior Wall Construction

- 90mm brown clay brick
- 25mm air space
- Self-adhering air barrier
- 16mm exterior grade sheathing
- 200mm structural steel stud filled with batt insulation
- Vapour barrier
- 13mm gypsum board

Existing Party Wall Construction – 1 Hour Fire Resistant Rating

- 190mm concrete block (CMU)

Existing Mezzanine Construction

- 16mm plywood sheathing
- 235mm wood joist
- 200mm HSS steel structure

Existing Foundation and Slab on Grade Construction

- 250mm concrete foundation wall with a 450mm x 200mm thick concrete footing
- 100mm concrete slab on grade

Existing Roof Construction

- Low-Sloped Roof: “Conventional Roof System” using single-ply membrane and sloped insulation on metal deck and 450mm OWSJ bearing on structural steel frame.

PROPOSED CONSTRUCTION DETAILS (Addition & Front Façade)

Addition & Proposed Exterior Walls

- “Rainscreen Principle” cavity wall to match existing wall construction. However, the client has asked for R24 insulation in the stud + R10 continuous insulation.
- Aluminum Curtain Wall

Interior Partitions:

- The Client has asked for you to recommend the partition that best suits their requirements

Floor Construction:

- 100mm Concrete Slab with R10 Insulation

Roof Construction

- Low-Sloped Roof: “Conventional Roof System” using single-ply membrane and sloped insulation on metal deck and 750mm OWSJ bearing on structural steel frame.

Stair Construction

- Steel structure with steel pan treads with concrete fill

WORKING DRAWINGS SHALL INCLUDE:

(All drawings to be in metric)

1. Ground Floor Plan:

(Value: 10)

- Scale 1:50
- Design structural layout (Girders/beams and columns) including new addition.
- Determine interior wall and room locations based on client requirements
- Design **BARRIER FREE** washroom layouts based on client requirements
 - Female: 2 water closets and 2 sinks
 - Male: 1 water closet, 1 urinal and 2 sinks
 - Universal Washroom with all applicable turning circles, clear transfer spaces and change table requirements.

2. Mezzanine Floor Plan:

(Value: 10)

- Scale 1:50
- Determine interior wall and room locations based on client requirements

Include on plans:

- Grid lines
- Dimensions
- Assemblies legend and Tags/Annotation
- Room names
- Building and Wall Section cross references (Refer to Appendix)

3. Building Section: (Refer to appendix for location)

(Value: 5)

- Scale 1:50
- Building section **must** go through mezzanine and new addition

4. Wall Section:

(Value: 15)

(Refer to Building Section appendix for locations)

- Scale 1:20
- Wall section to include any and all existing and new construction

Include on sections:

- Walls, floors, and roof constructions accurately shown
- Grid lines
- Dimensions
- Assembly construction callouts
- Room names
- Any additional information you feel is required

5. Exterior Elevation: (True South/Front ONLY)

(Value: 10)

The Client has requested the south elevation to be unique to create interest and has requested the brewing tanks be visible from the exterior. Consider ways to draw attention to the main entry with canopies and signage.

- Scale 1:25
- Include on elevations:**
- Material callouts
 - Grid lines
 - Dimensions
 - Building signage, lighting, and barrier free requirements (as required)

6. Stair Plan & Section: (Draw U-Shaped stair ONLY)

(Value: 10)

- Stair Plan Scale:1:20
- Stair Section Scale: 1:20

Draw section through the lower stair segment including landing and show upper stair in elevation.

HAND-IN INSTRUCTIONS:

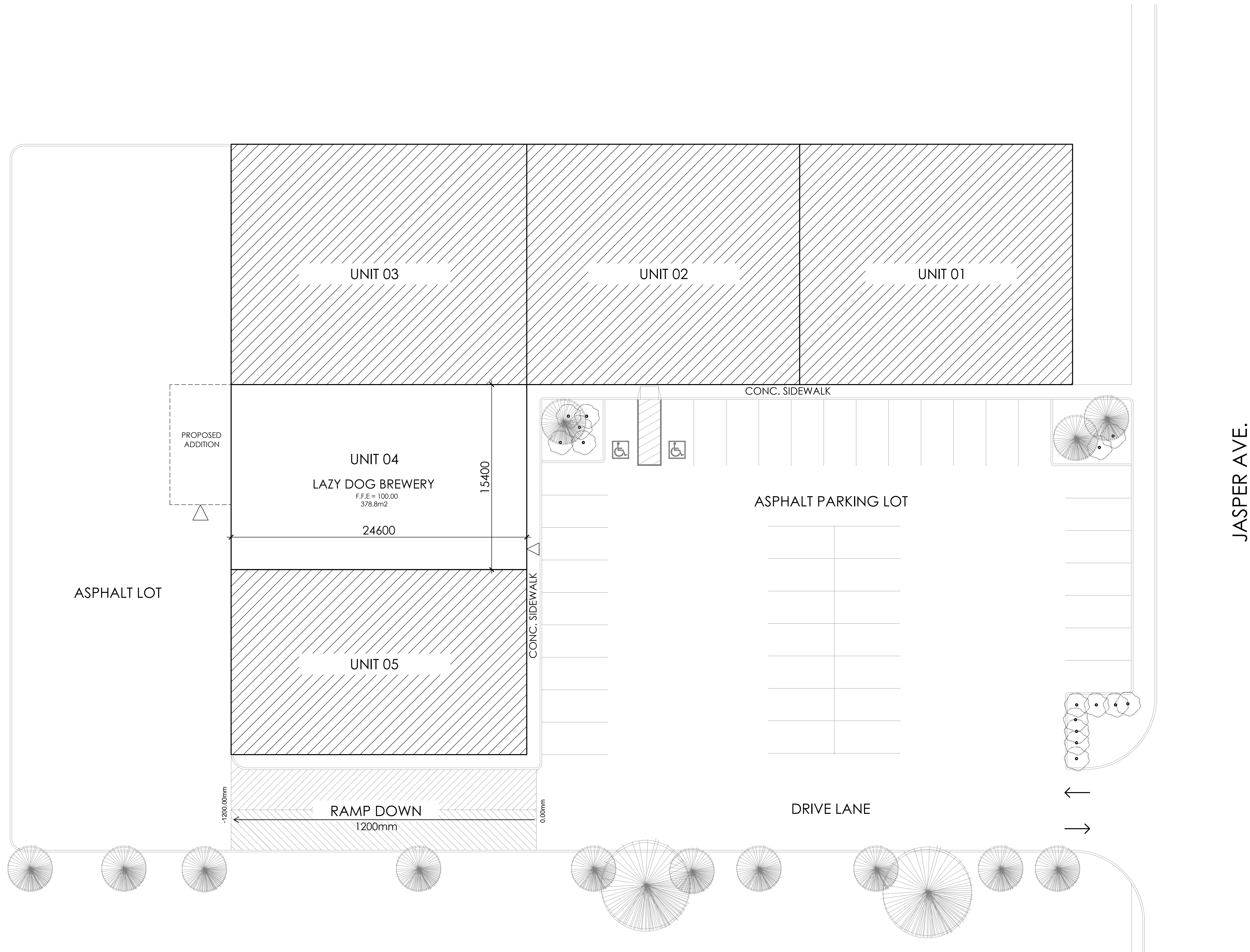
Layout:

- Use "D" size paper. For sheet layout, use your best judgment when laying out the drawings on your sheet. (Arch D 24x36)

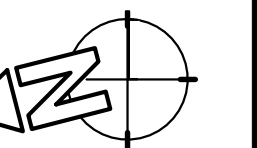
Hand-in Instructions:

- Make PDF Files of your drawings.
- Save PDF Files and Drawing Files to Provided USB
- Submit your USB (confirm all documents are on USB) to a Skills Committee Member
- Leave all test paper at your station.

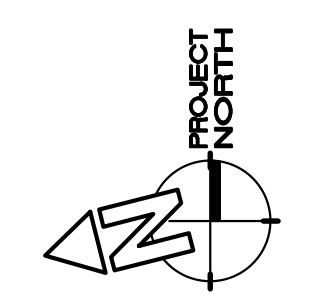
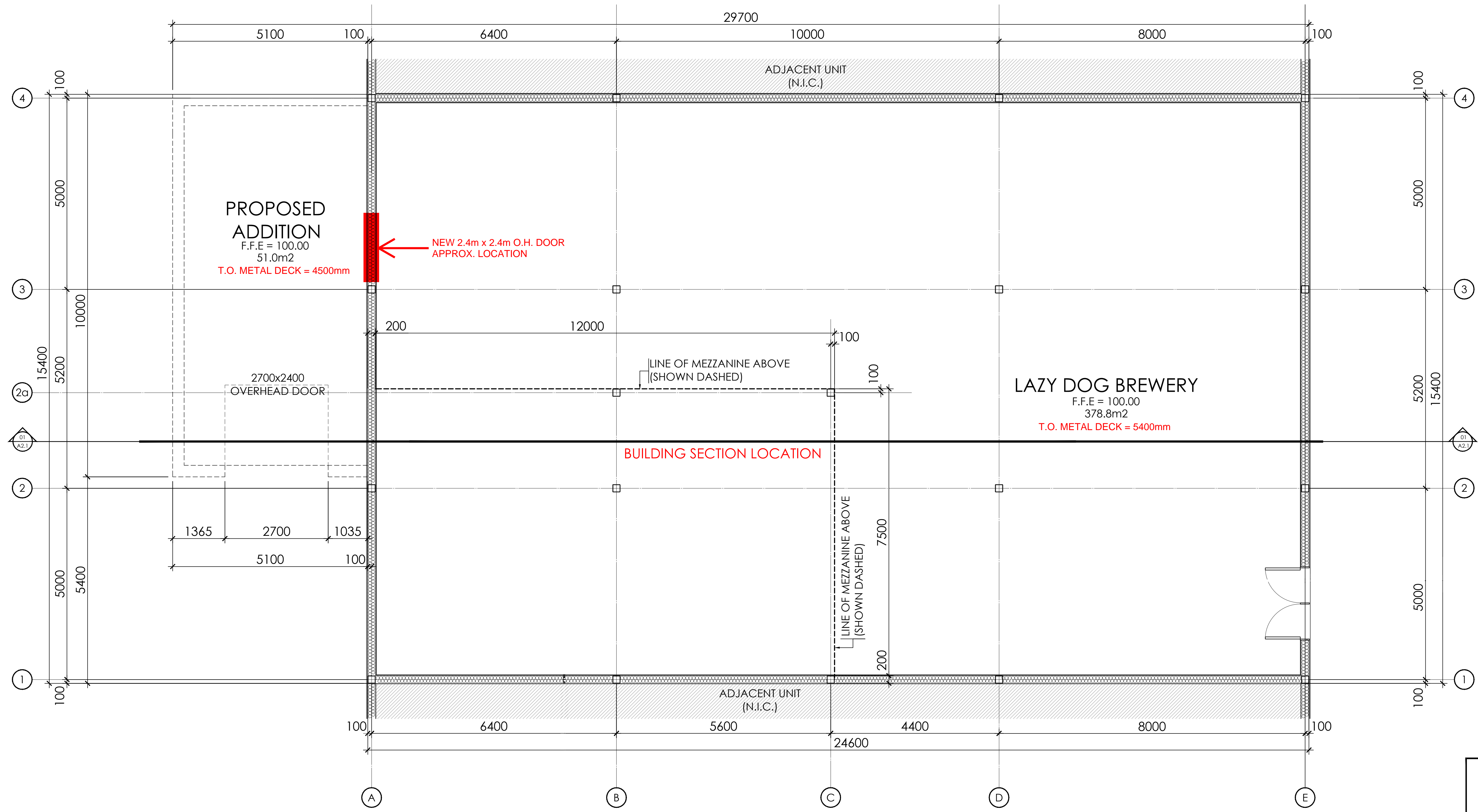
~ SAVE YOUR WORK OFTEN ~



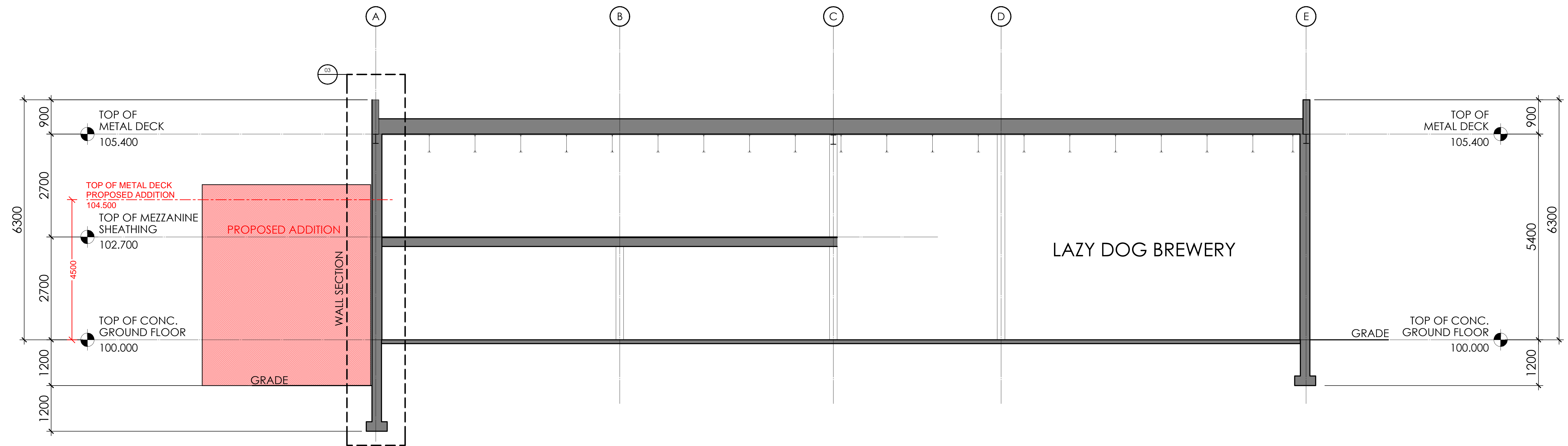
JASPER AVE.



SCHEMATIC SITE PLAN	
SCALE 1:50	DRAWING NUMBER
SHEET SIZE 610x915	SP1.1
PROJECT NUMBER SCNC	



LEVEL 1 FLOOR PLAN	
SCALE 1:50	DRAWING NUMBER A1.1
SHEET SIZE 610x915	PROJECT NUMBER SCNC



SCHEMATIC
BUILDING SECTION

SCALE	1:50	DRAWING NUMBER	A2.1
SHEET SIZE	610x915	PROJECT NUMBER	
PROJECT NUMBER	SCNC		