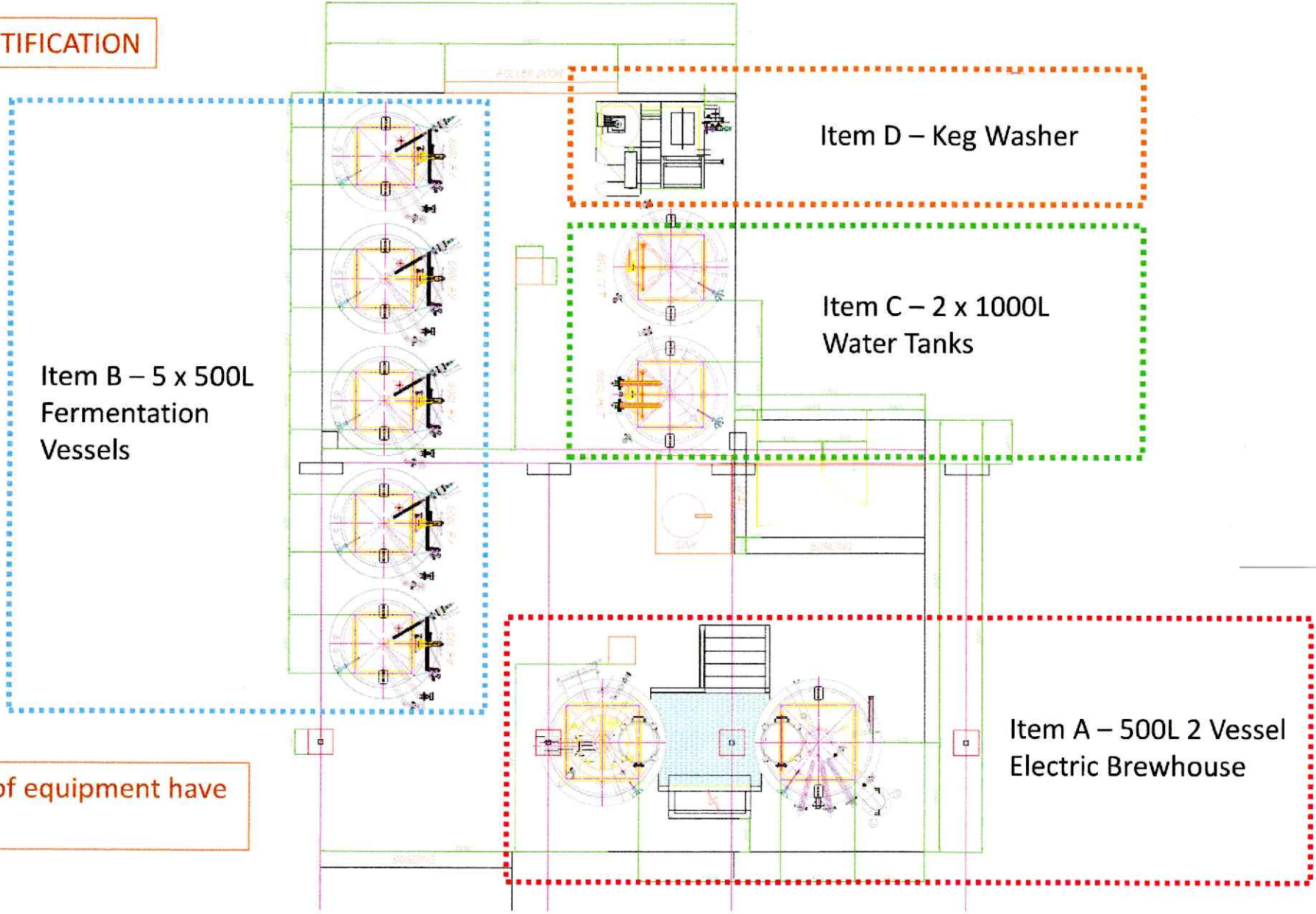


EQUIPMENT IDENTIFICATION



Example photos of equipment have been included.

INPUTS

- All deliveries to the brewery will be made via the existing loading dock.
- Brewery deliveries will only increase the total site deliveries by approximately 5%
- The majority of required raw materials, will be sourced from two key ingredient suppliers, each requiring approximately one pallet per month.
- An additional 2 to 3 small deliveries are expected each month from minor suppliers.
- Palletised deliveries will be made via rear access flat bed / tilt lift rigid trucks, similar to current hotel stock.
- A small truck or utility van will facilitate smaller deliveries, which will be unloaded by hand.
- An existing manual pallet jack will be utilized onsite to move brewing ingredients and kegs between the storage areas and the brewery as needed.

INPUT	FREQUENCY
Malted Barley	1/2 Pallets / Month
Hops & Yeast	4-5 Boxes / Month
Auxiliaries	1 Box / Month
Carbon Dioxide	Combined with Hotel

STORAGE

- All brewery materials will be stored within the existing allocated storage areas of the hotel.
- Dry goods will be stored on pallets in the adjacent storage area at the end of the loading dock.
- Refrigerated goods will be stored in the adjacent keg cool room on a small shelf
- Full kegs will be stored in the adjacent keg cool room.
- Empty Kegs will be stored in the Loading bay alcove,
- The quantity of empty kegs on site is not expected to significantly change given hotel sale volumes are likely to remain stable.






CATEGORY	LOCATION
Dry Goods	Dry Storage Area
Cold Goods	Keg Cool Room
Empty Kegs	Loading Bay Alcove
Full Kegs	Keg Cool Room
Administration	Existing Offices

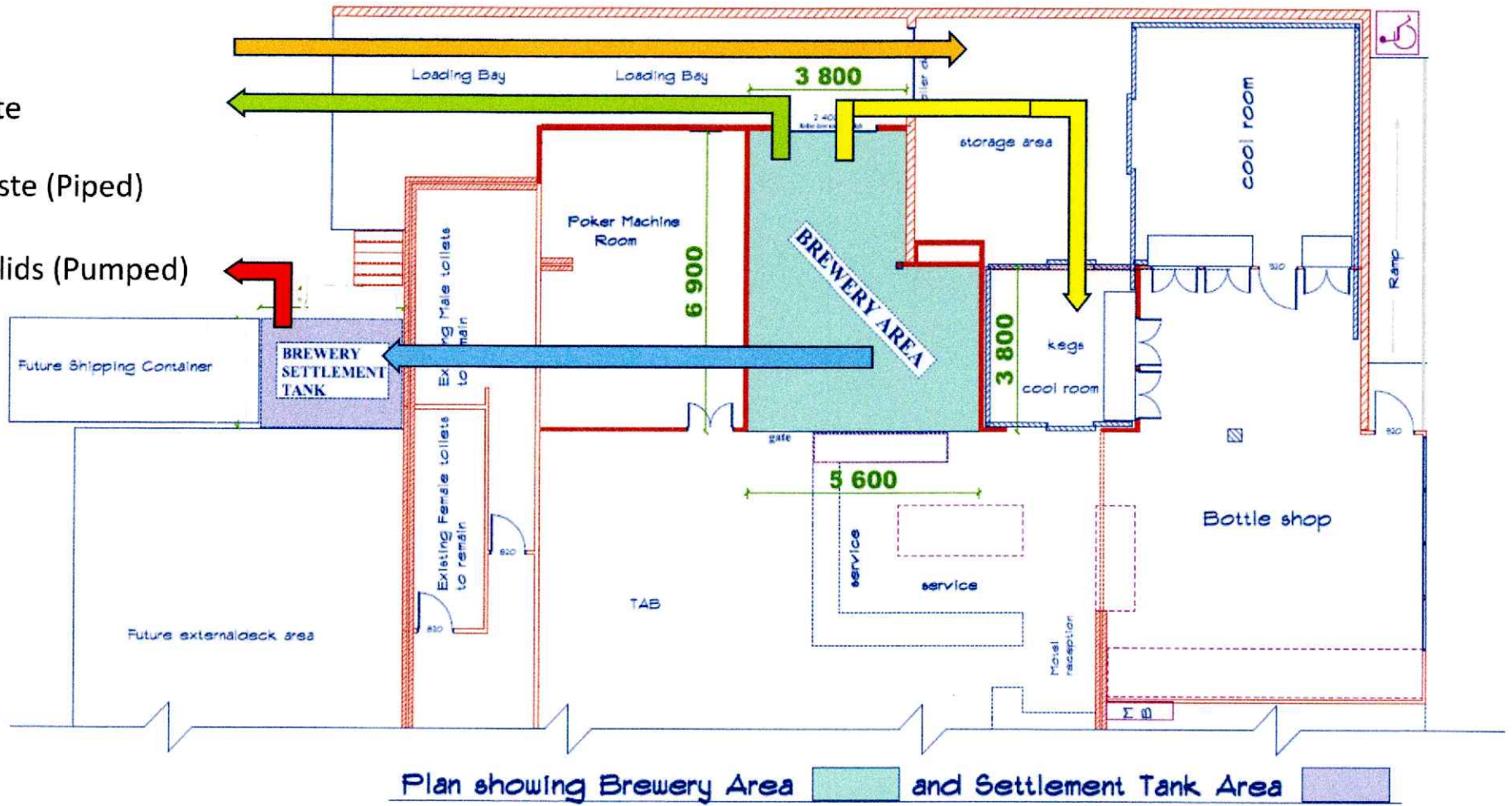
OUTPUTS

- A summary of waste stream flows is shown in supporting documents.
- Solid waste from brewing process is screened by various methods to prevent discharge to liquid treatment system.
- Organic solid wastes (grain, hops, yeast) will be collected by local farmers for reuse as stock feed, or via waste contractor if required.
- Non-organic solid wastes (ingredient packaging etc) will be collected by a commercial waste contractor along side hotel waste streams.
- Liquid waste will be held in a settling tank to separate any remaining solids.
- Liquid waste will be treated for pH and temperature correction and discharged to sewer as per trade waste guidelines.






OUTPUT	FREQUENCY
Solid Waste	2 bins per week Collected M/W/F
Settling Tank – Solids Removal	Suctioned Quarterly, or earlier if req.
<i>Kegs (Finished Goods)</i>	<i>No Input/Output – internal fleet for hotel consumption</i>

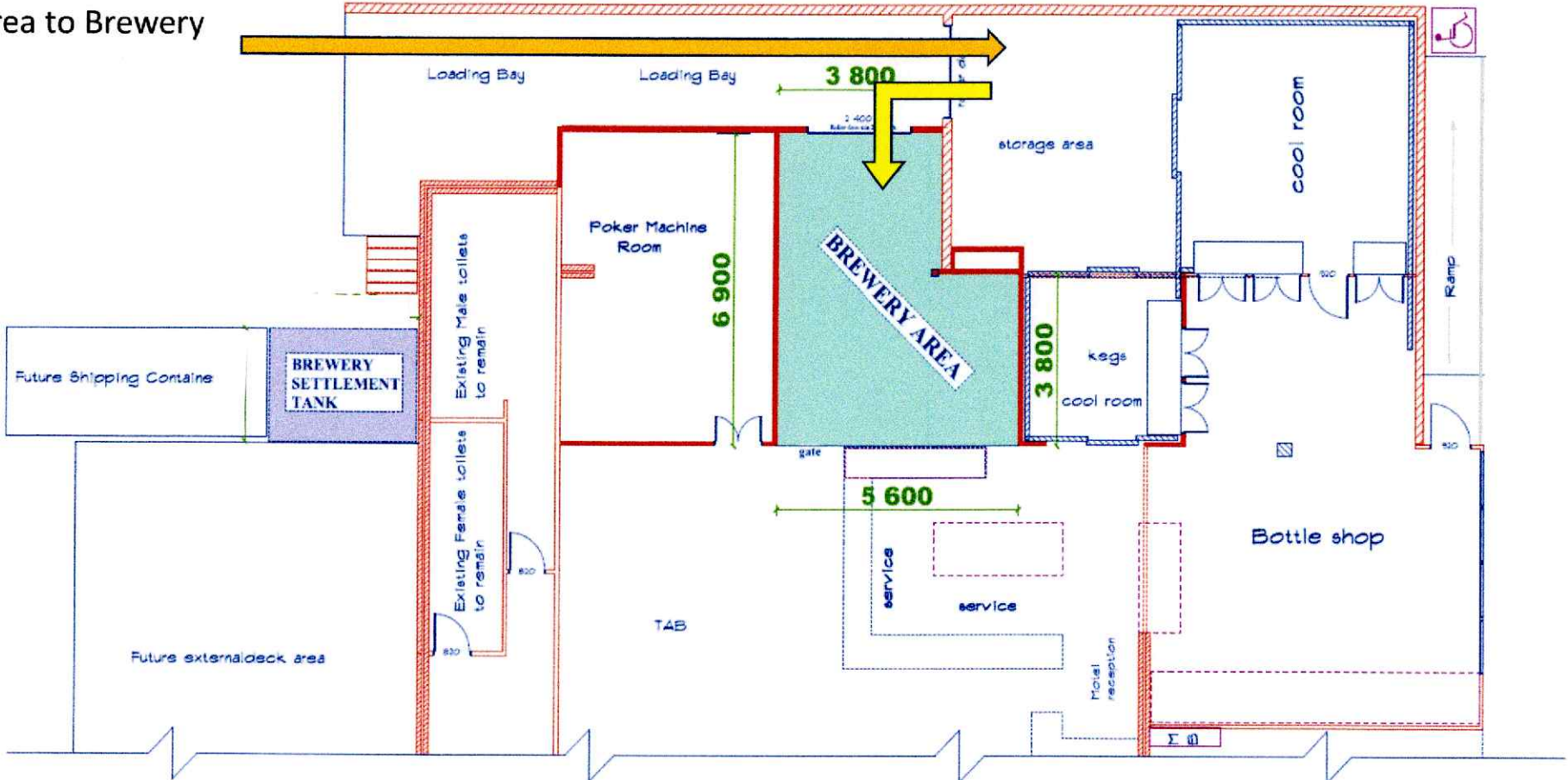
SITE FLOW MAP - SUMMARY


-  Raw Materials
-  Full Kegs
-  Solid Waste
-  Liquid Waste (Piped)
-  Settled Solids (Pumped)



SITE FLOW MAP – DRY GOODS

-  Reival to Storage Area
-  Storage Area to Brewery
-  C
-  D
-  E



Plan showing Brewery Area  and Settlement Tank Area 

Trade Waste Treatment – Further Detail

Internal wastewater drainage: An overlay layout of the tradewaste system is provided on the following page.

Location of sampling points: Access to sample the waste system will be provided at three locations. Prior to settling tank, prior to balance tank, and prior to discharge to sewer.

Proposed connection point to the sewerage system: The treated waste will be connected to the existing sewerage system in close proximity to the treatment tank area. This is likely to be just under the building, where the existing toilets connect to sewer. The connection will have easy access for inspection as required.

Details of pipes, floor drainage used to convey the effluent:

Drains – 200mm square 316 Stainless, with 2mm Strainer Basket.

Flooring – SikafloorHB-22 PurChem 6mm Polyurethane / Concrete flooring

Piping – HDPE throughout.

Location of flow measurement point: The flow will be measured on exit from the balancing tank, prior to connection to the sewer network.

A stormwater drainage plan: The existing storm water network will not be impacted.

Type and detail of the Catchment sump with pump (e.g. model):

Sump = 600x600mm 182L - Australian Standard AS/NZS 35000-2003

Pump = Model TBC, Stainless Steel Sump Pump, rated to 100 degrees Celsius

Type and detail of the Settling tank:

Industrial 2500l conical settling tank (45 degree cone).

Constructed via rotational moulding polyethylene plastic.

Conical tank is plastic welded to base, as are all penetrations and fittings

Type and detail of the Balance tank:

Custom Industrial 1500l rectangular tank.

Detail of Bunding/containment for the Balancing Tank: Bunding holding capacity of approx. 3000l (Internal dimensions 2500mm x 4200mm x 280mm)

Trade Waste Tanks

Example imagery of tanks from supplier.

Tall tank at rear is the settling tank

Box at front is neutralising tank






Grill lower left is sump pump





Equipment on wall is chemical dosing for pH correction

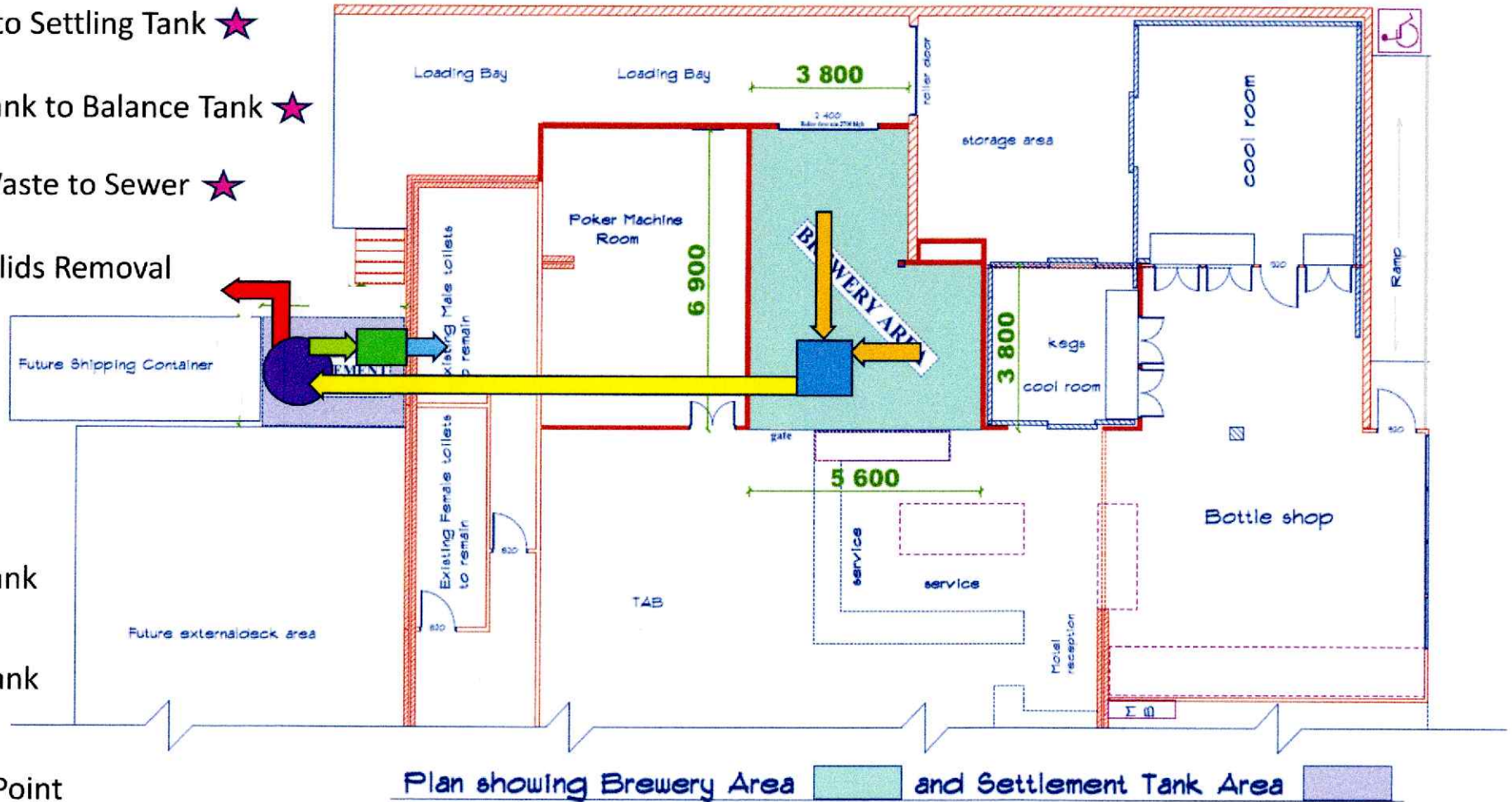
Note: Sizes and dimensions will differ slightly from this installation.



SITE FLOW MAP – WASTE WATER

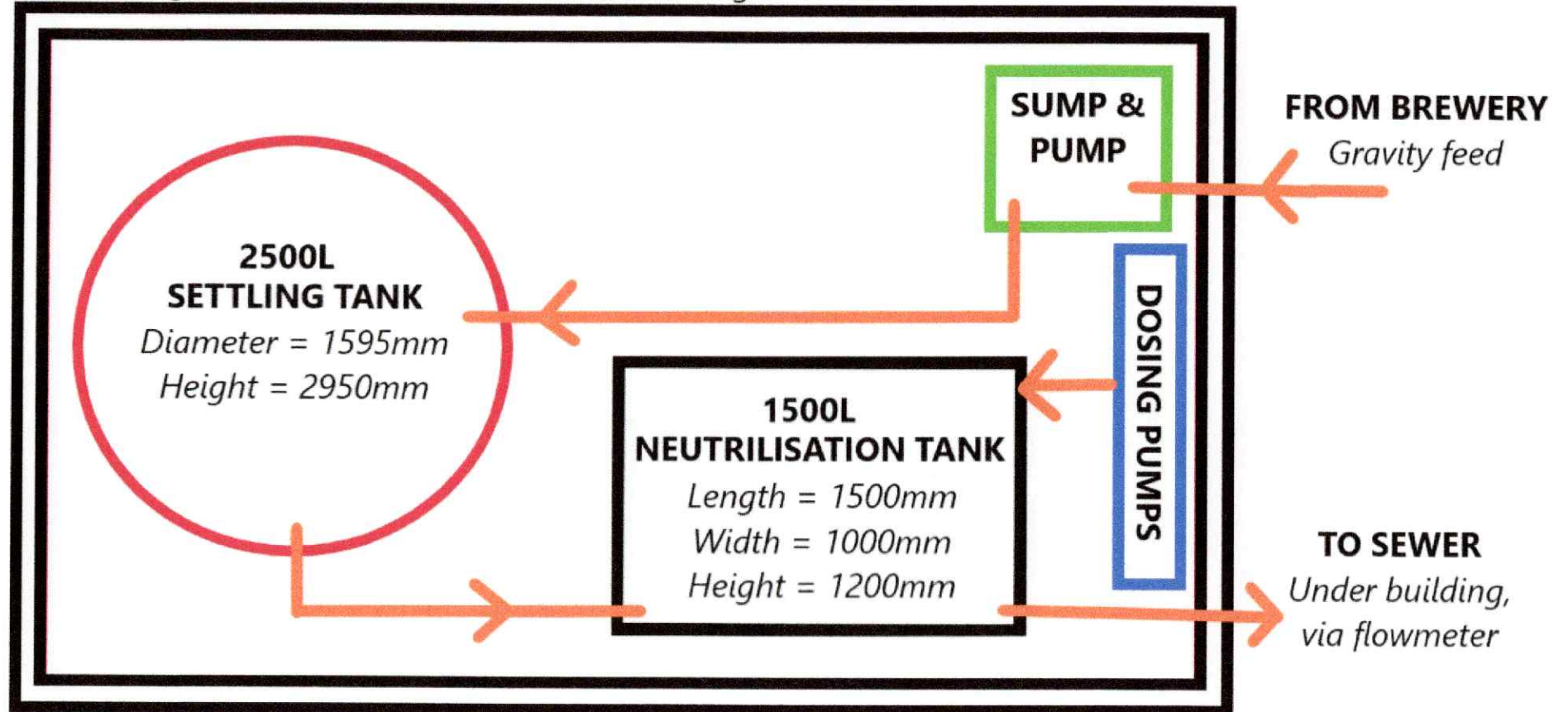
-  Floor Waste to Sump Pit
-  Sump Pit to Settling Tank ★
-  Settling Tank to Balance Tank ★
-  Treated Waste to Sewer ★
-  Settled Solids Removal

-  Sump Pit
-  Settling Tank
-  Balance Tank
-  Sampling Point



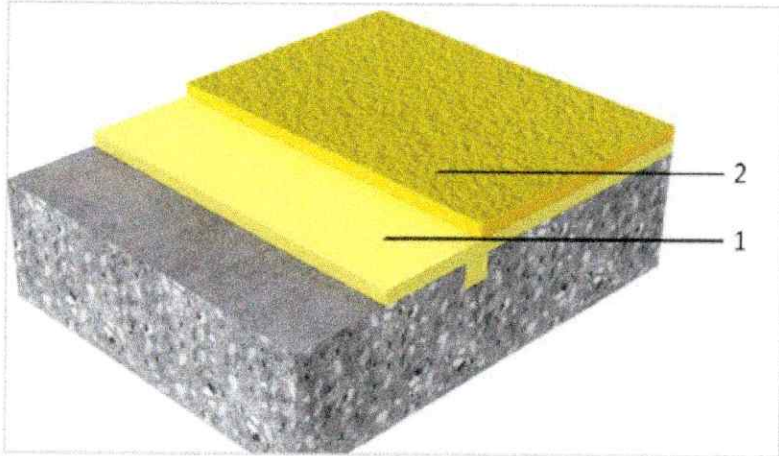
PROPOSED LAYOUT – TRADE WASTE TREATMENT – BUNDED AREA

BUND Length = 4300mm Width = 2500mm, Height = 280mm



FLOORING AND DRAINAGE – SUPPORTING IMAGERY

Sikafloor® PurCem® HB-22



Layer	Product
Scratch coat (optional)	Sikafloor®-21/-22/-24 PurCem®
1. Base coat	Sikafloor®-21 PurCem® + Aggregate broadcast 0.5–1.4 mm
2. Top coat	Sikafloor®-31 or 33 PurCem®

