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9 December 2022

Brad Millward
Technitrades Architecture Limited
12 Ben Lomond Crescent,
Pakuranga,
Auckland 2010

Dear Brad,

HAZARDOUS SUBSTANCE COMPLIANCE – BP CONNECT WAIPU GATEWAY

I have checked the plans and documentation and confirm I approve in principle that the proposed installation complies with the requirements of the Health and Safety at Work (Hazardous Substances) Regulations in principle. Plans and documents supplied include the following:

Document Title	Reference	Date
WAIPU GATEWAY 47 Millbrook Road, Waipu, Whangarei District	PROJECT: PROPOSED SERVICE CENTRE DRAWING: BP Explosive Atmosphere Areas Plan DRAWING NO: 3096-HAZ-1 REVISION: A DRAWN: B MILLWARD	09.12.22

The installation of the fuel tanks, associated pipework and equipment will need to comply with the UPSS Code of Practice and Part 17 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazardous Atmosphere Zones are identified in accordance with AS/NZS 60079.10.1;2007. All electrical equipment within those zones will need to comply with the requirements of AS/NZS 60079 series.

LPG cylinder swap cabinets are to be located against fire resistant cladding, extending a minimum of 2m in either direction. There are to be no open drains located within 1m of the cylinders.

If you require any further assistance, please do not hesitate to contact me.

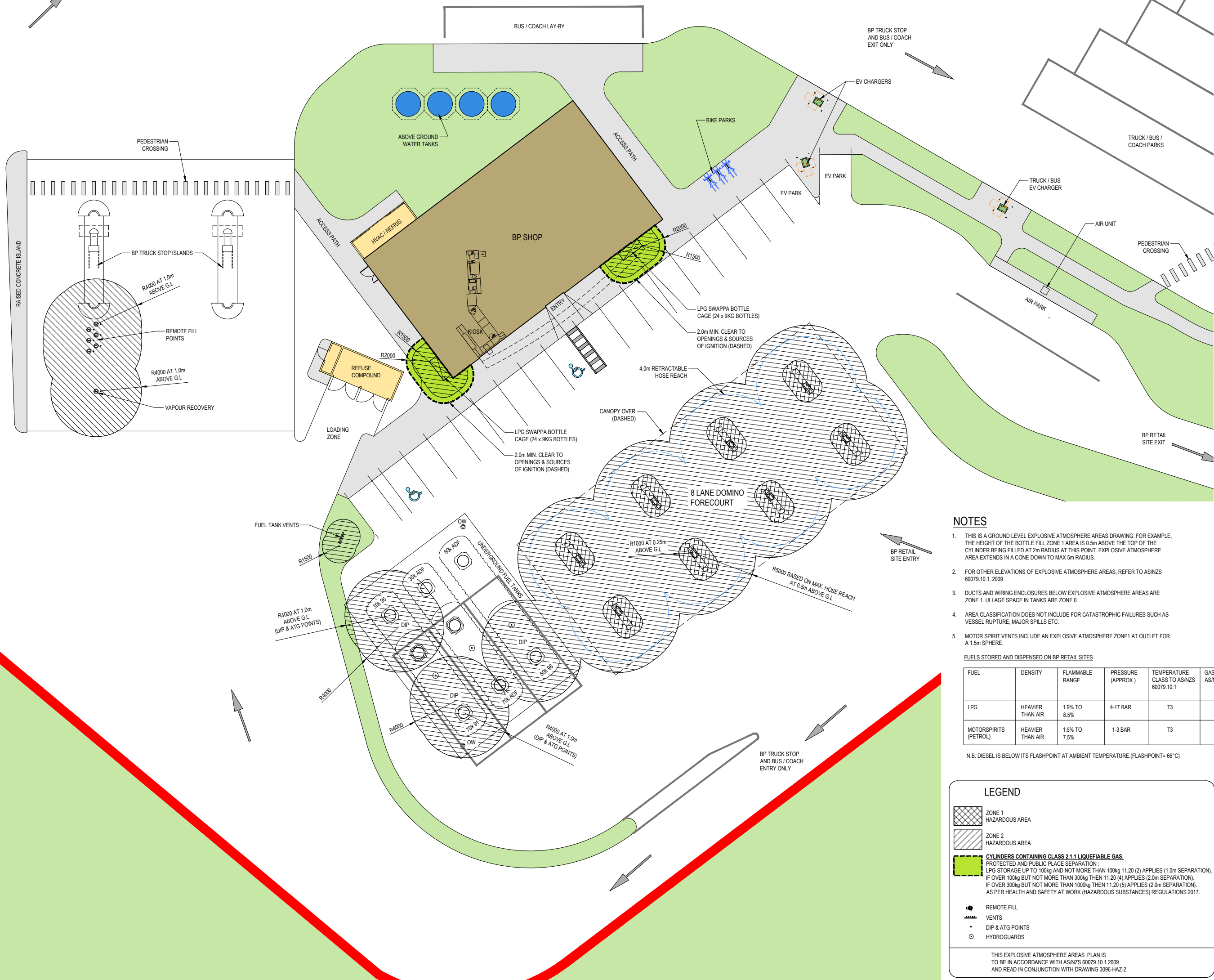
Yours faithfully

Cameron Neilson
Approved Compliance Certifier TST 100246
EnviroHaz Limited

©	A1 Scale:	1:150
	A3 Scale:	1:300
THIS DOCUMENT IS CONFIDENTIAL. COPYRIGHT IS VESTED IN TECHNITRADES ARCHITECTURE LTD. WRITTEN CONSENT IS REQUIRED PRIOR TO REPRODUCTION.	Designed:	L.MEIKLEJOHN
	Drawn:	B.MILLWARD
	A1 Plot Scale:	1:1
	A3 Plot Scale:	1:2

NOTES
 DO NOT SCALE.
 DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
 IF IN DOUBT ON ANY ISSUE SEEK VERIFICATION PRIOR TO PROCEEDING.
 READ THESE DRAWINGS IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS.

A	ISSUE FOR HSNO APPROVAL IN PRINCIPLE	BM	09-12-22
REV.	DESCRIPTION	BY	DATE



NOTES

- THIS IS A GROUND LEVEL EXPLOSIVE ATMOSPHERE AREAS DRAWING. FOR EXAMPLE, THE HEIGHT OF THE BOTTLE FILL ZONE 1 AREA IS 0.5m ABOVE THE TOP OF THE CYLINDER BEING FILLED AT 2m RADIUS AT THIS POINT. EXPLOSIVE ATMOSPHERE AREA EXTENDS IN A CONE DOWN TO MAX 5m RADIUS.
- FOR OTHER ELEVATIONS OF EXPLOSIVE ATMOSPHERE AREAS, REFER TO AS/NZS 60079.10.1:2009
- DUCTS AND WIRING ENCLOSURES BELOW EXPLOSIVE ATMOSPHERE AREAS ARE ZONE 1. ULLAGE SPACE IN TANKS ARE ZONE 0.
- AREA CLASSIFICATION DOES NOT INCLUDE FOR CATASTROPHIC FAILURES SUCH AS VESSEL RUPTURE, MAJOR SPILLS ETC.
- MOTOR SPIRITS VENTS INCLUDE AN EXPLOSIVE ATMOSPHERE ZONE1 AT OUTLET FOR A 1.5m SPHERE.

FUELS STORED AND DISPENSED ON BP RETAIL SITES

FUEL	DENSITY	FLAMMABLE RANGE	PRESSURE (APPROX.)	TEMPERATURE CLASS TO AS/NZS 60079.10.1	GAS GROUP TO AS/NZS 60079.10.1
LPG	HEAVIER THAN AIR	1.9% TO 8.5%	4-17 BAR	T3	IIA
MOTORSPIRITS (PETROL)	HEAVIER THAN AIR	1.5% TO 7.5%	1-3 BAR	T3	IIA

N.B. DIESEL IS BELOW ITS FLASHPOINT AT AMBIENT TEMPERATURE.(FLASHPOINT= 66°C)

LEGEND

- ZONE 1 HAZARDOUS AREA
- ZONE 2 HAZARDOUS AREA
- CYLINDERS CONTAINING CLASS 2.1.1 LIQUEFIABLE GAS. PROTECTED AND PUBLIC PLACE SEPARATION: LPG STORAGE UP TO 100kg AND NOT MORE THAN 100kg 11.20 (2) APPLIES (1.0m SEPARATION). IF OVER 100kg BUT NOT MORE THAN 300kg THEN 11.20 (4) APPLIES (2.0m SEPARATION). IF OVER 300kg BUT NOT MORE THAN 1000kg THEN 11.20 (5) APPLIES (2.0m SEPARATION). AS PER HEALTH AND SAFETY AT WORK (HAZARDOUS SUBSTANCES) REGULATIONS 2017.
- REMOTE FILL
- VENTS
- DIP & ATG POINTS
- HYDROGUARDS

THIS EXPLOSIVE ATMOSPHERE AREAS PLAN IS TO BE IN ACCORDANCE WITH AS/NZS 60079.10.1:2009 AND READ IN CONJUNCTION WITH DRAWING 3096-HAZ-2

Client: **WAIPU GATEWAY**
 47 Millbrook Road, Waipu, Whangarei District

Project: **PROPOSED SERVICE CENTRE**

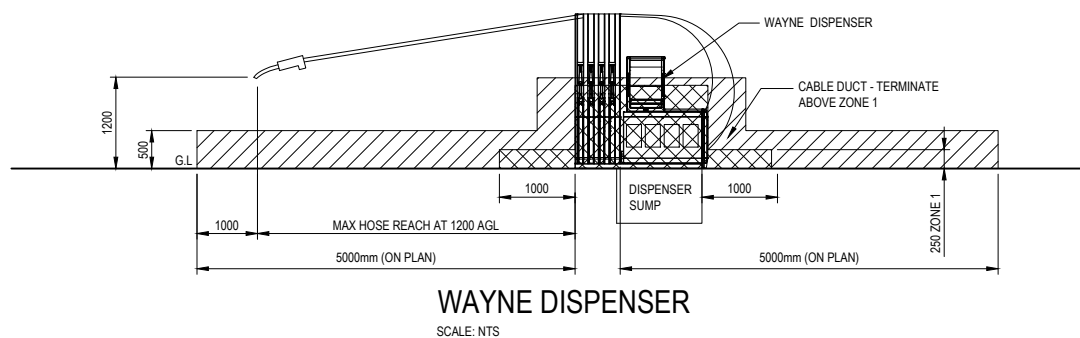
Drawing: **BP Explosive Atmosphere Areas Plan**

Drawing No. **3096-HAZ-1** Revision: **A**

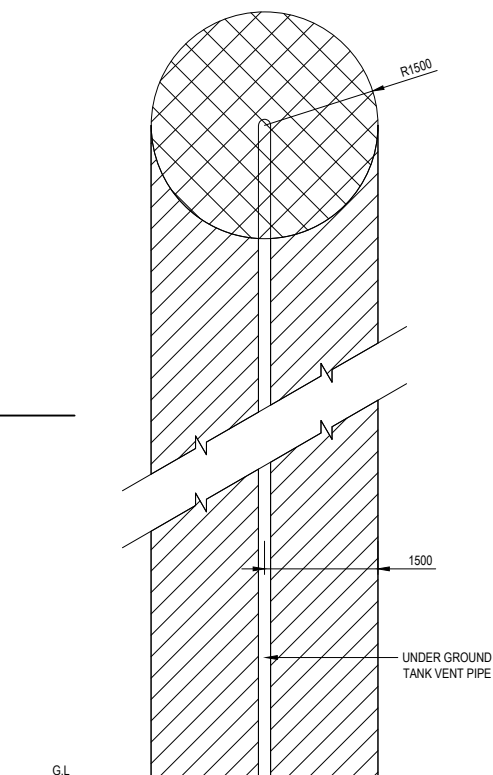
©	A1 Scale.	NTS
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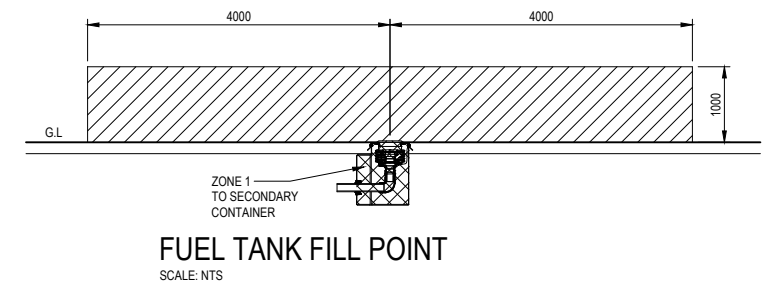
A	ISSUE FOR HSNO APPROVAL IN PRINCIPLE	BM	09-12-22
REV.	DESCRIPTION	BY	DATE



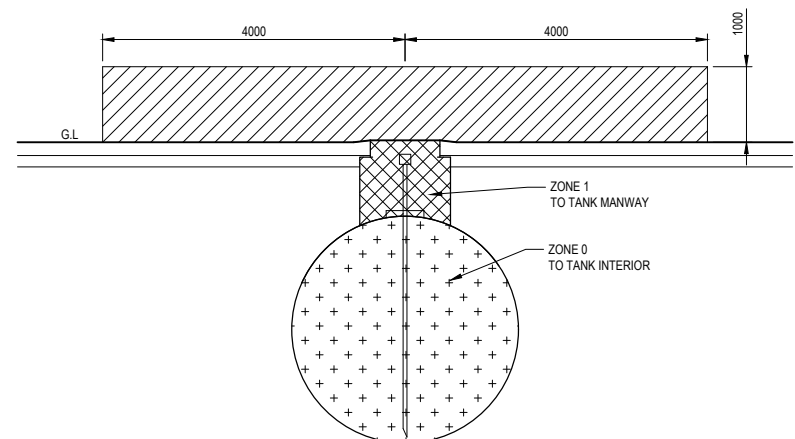
WAYNE DISPENSER
SCALE: NTS



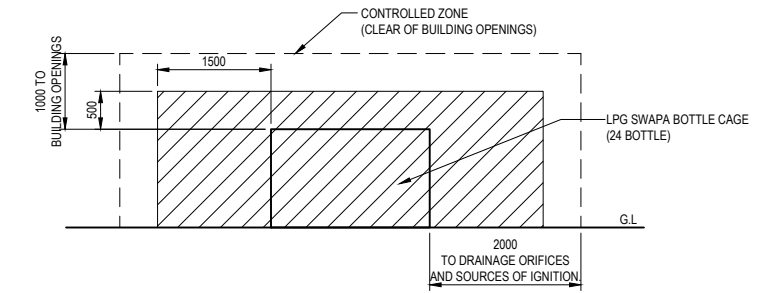
FUEL TANK VENT PIPE
SCALE: NTS



FUEL TANK FILL POINT
SCALE: NTS



FUEL TANK DIP AND ATG POINTS
SCALE: NTS



LPG SWAPA BOTTLE CAGE - ELEVATION (24 BOTTLE)
SCALE: NTS

LEGEND

	ZONE 0 HAZARDOUS AREA
	ZONE 1 HAZARDOUS AREA
	ZONE 2 HAZARDOUS AREA

THE EXPLOSIVE ATMOSPHERE AREAS ELEVATIONS ARE TO BE IN ACCORDANCE WITH AS/NZS 60079.10.1 2009 AND IS TO BE READ IN CONJUNCTION WITH THE PLAN DRAWING 3096-HAZ-1

Client: **WAIPU GATEWAY**
 47 Millbrook Road, Waipu,
 Whangarei District

Project: **PROPOSED SERVICE CENTRE**

Drawing: **BP Explosive Atmosphere Areas Elevations**

Drawing No.	Revision.
3096-HAZ-2	A