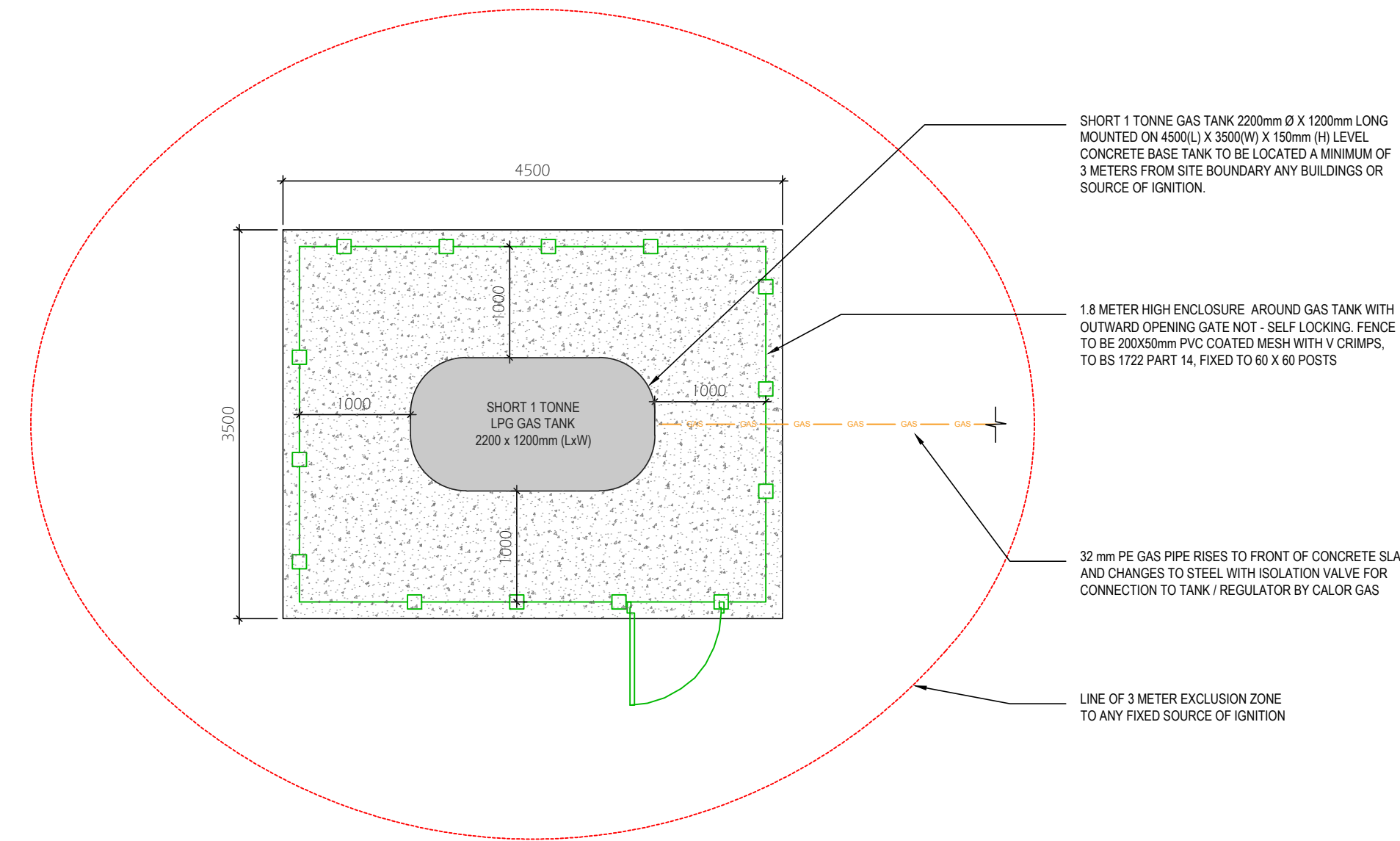


GENERAL NOTES

1. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE ENERJ SPECIFICATION TOGETHER WITH THE REQUIREMENTS AND BUILDING REGULATIONS OF ALL STATUTORY AUTHORITIES, STANDARDS AND CODES RELEVANT TO THE WORKS.
2. THE MECHANICAL CONTRACTOR SHALL CO-ORDINATE ALL SERVICES FULLY WITH ALL TRADES BEFORE COMMENCING WORK.
3. DO NOT SCALE THIS DRAWING. ALL DIMENSIONS SHALL BE TAKEN ON SITE.
4. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY INFORMATION TO ALLOW PROPER CO-ORDINATION OF ALL SERVICES.
5. EXTRA COSTS INCURRED DUE TO THE CO-ORDINATION EXERCISE NOT BEING COMPLETED WILL NOT BE ACCEPTED BY THE ENGINEER.
6. EXACT LOCATION OF ALL SERVICES SHALL BE AGREED WITH THE EMPLOYERS REPRESENTATIVE PRIOR TO COMMENCEMENT ON SITE.
7. ALL SERVICES AS SHOWN ON THIS DRAWING SHALL BE INCLUDED IN THE FINAL TENDER PRICE.
8. SAMPLE OF ALL EQUIPMENT SHALL BE APPROVED BY CLIENT, ARCHITECT AND BUILDING SERVICES ENGINEER PRIOR TO ORDERING.
9. ALL DIMENSIONS IN MILLIMETERS, UNLESS STATED OTHERWISE.

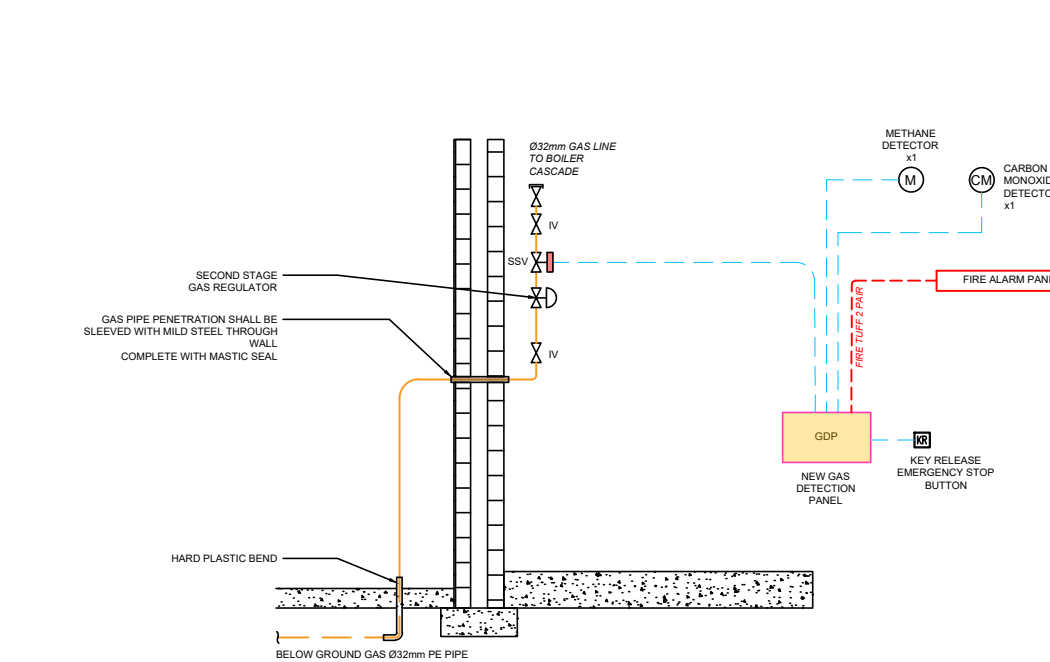
HEATING SERVICES NOTES

1. THE CONTRACTOR SHALL SUPPLY AND INSTALL THE HEATING SYSTEM COMPLETE WITH ALL VALVES, CONTROLS MAGNETIC FILTRATION AND SYSTEM EXPANSION VESSEL TO FORM A COMPLETE SYSTEM.
2. LOCATIONS OF EQUIPMENT AND PIPEWORK SHOWN ARE DIAGRAMMATIC ONLY AND SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS, EXISTING SERVICES, AND BUILDING WORK.
3. UNLESS OTHERWISE STATED ALL ITEMS OF PLANT PIPEWORK, VALVES ETC, SHALL BE SUPPLIED & INSTALLED UNDER THE MECHANICAL CONTRACT.
4. THE CONTRACTOR MUST ATTEND SITE TO VERIFY THE EXISTING INSTALLATIONS, TIE INS, DRAIN DOWNS ETC. LACK OF KNOWLEDGE OF EXISTING INSTALLATION WILL NOT BE ACCEPTED FOR ANY COST IMPLICATIONS.
5. MECHANICAL CONTRACTOR WILL VERIFY BY ON SITE INSPECTION AND WITH ASSISTANCE OF CONTROL SPECIALIST. THE EXISTING CONTROLS POINTS LIST SERVED FROM EXISTING MCC PANEL SHALL BE RETAINED.
6. THE MECHANICAL CONTRACTOR SHALL VERIFY THE ACTUAL WORKING PRESSURE OF THE SYSTEM. THE NEW INSTALLATION SHALL NOT EXCEED THIS OPERATIONAL PRESSURE.
7. ALL MECHANICAL AND ELECTRICAL MODIFICATIONS TO BE AGREED WITH ENGINEER AND IBTS FACILITIES TECHNICAL SERVICES PRIOR TO COMMENCING ON SITE.
8. ALL SHUT DOWNS, TIE INS AT WILL REQUIRED RAMS TWO WEEKS IN ADVANCE TO FACILITATE APPROVALS PRIOR TO WORK COMMENCING ON SITE.
9. ALL PIPEWORK WITHIN THE BOILER PLANTROOM SHALL BE INSULATED & CLADDED IN STUCCO ALUMINUM TO MATCH EXISTING.
10. ALL AUTOMATIC AIR VENTS TO BE SUPPLIED COMPLETE WITH INLINE LEVER ACTION ISOLATION.
11. MECHANICAL CONTRACTOR TO VISIT SITE AND ASCERTAIN EXACT SYSTEM PRESSURE FOR LPHW HEATING SYSTEM.
12. NEW HEATING SYSTEM TO OPERATE WITHIN SAME PRESSURE PROFILE.
13. ALL VALVES ABOVE 320 MUST BE INSULATED WITH PROPRIETARY JACKETS WITH VELCRO FIXINGS.
14. ALL PIPEWORK SIZES NOTED ARE INTERNAL PIPE DIAMETER.
15. TESTING, COMMISSIONING AND BALANCING OF THE INSTALLATION IN ACCORDANCE WITH STANDARD SPECIFICATION 'TESTING AND COMMISSIONING'.
16. PROVIDE LABELS ON EQUIPMENT INCLUDING CONTROLLERS, PUSH BUTTONS, TEMPERATURE SENSORS AND SIMILAR EQUIPMENT. THE LABEL SHALL BE A NON TARNISHABLE CAST OR ENGRAVED LABEL OF APPROVED SIZE, WORDING AND DESIGN, CLEARLY INDICATING THE FUNCTION AND/OR CIRCUIT DESIGNATION OF THE COMPONENT CONCERNED AND SECURELY FIXED.
17. PROVIDE AUTOMATIC AIR VENTS ON ALL HIGH POINTS ON PIPEWORK SYSTEMS



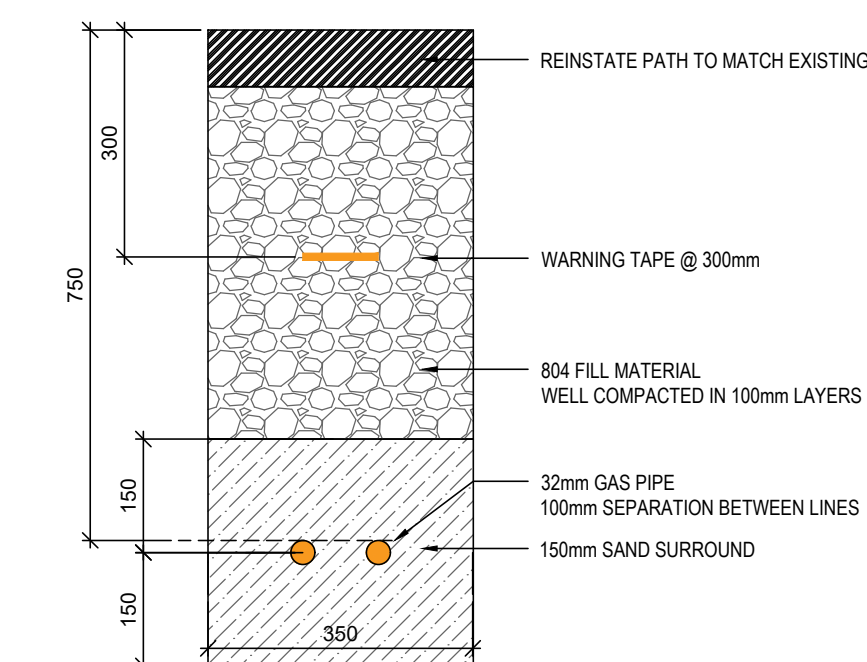
GAS TANK COMPOUND DETAILS

1:50 @ A1



GAS PIPEWORK POP UP DETAILS & GAS DETECTION SYSTEM

1:50 @ A1



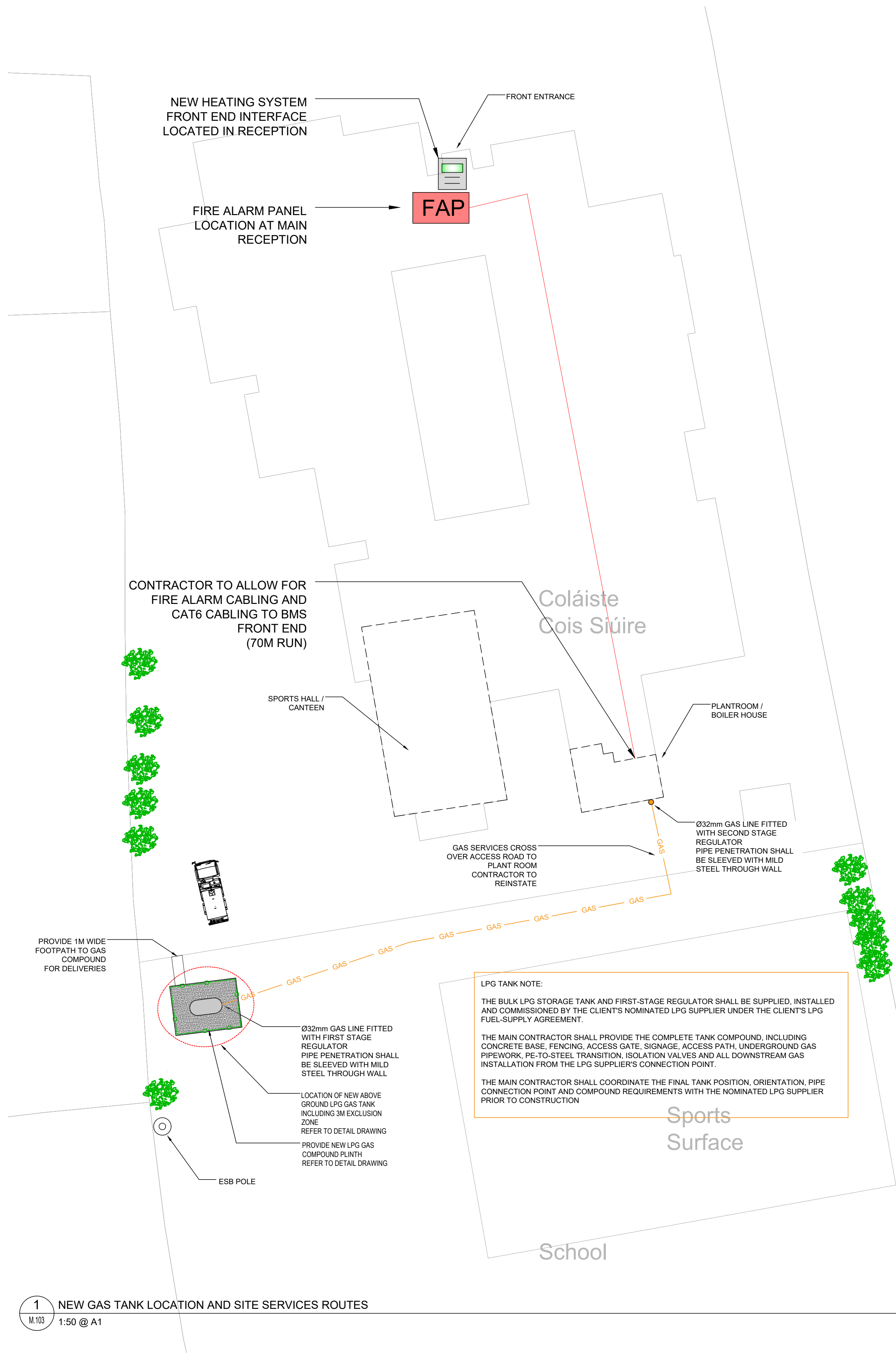
BELOW GOUND GAS PIPEWORK DETAILS

1:50 @ A1

SCOPE OF WORKS - NEW GAS SYSTEM

CONTRACTOR SHALL ALLOW FOR THE FOLLOWING:

- PROVIDE COMPLETE NEW LPG GAS INSTALLATION INCLUDING TANK COMPOUND, PIPEWORK, REGULATORS, ISOLATION VALVES, GAS SAFETY CONTROLS, TESTING AND COMMISSIONING.
- PROVIDE NOMINAL 1 TONNE ABOVE-GROUND LPG STORAGE TANK AT LOCATION INDICATED, COORDINATED WITH LPG SUPPLIER. PROVIDE NEW 4.5m x 3.5m x 150mm CONCRETE BASE TO LPG TANK COMPOUND.
- PROVIDE 1.8m HIGH SECURE MESH ENCLOSURE COMPLETE WITH OUTWARD OPENING ACCESS GATE AND LPG WARNING SIGNAGE.
- MAINTAIN MINIMUM 3.0m EXCLUSION ZONE FROM BUILDINGS, BOUNDARIES AND SOURCES OF IGNITION, SUBJECT TO FINAL LPG SUPPLIER REQUIREMENTS.
- PROVIDE 1.0m WIDE ACCESS PATH TO LPG COMPOUND FOR DELIVERY AND MAINTENANCE ACCESS.
- PROVIDE NEW 32mm PE UNDERGROUND LPG GAS MAIN FROM TANK COMPOUND TO BOILER HOUSE.
- UNDERGROUND GAS PIPEWORK TO BE INSTALLED WITH SAND SURROUND, COMPACTED BACKFILL, WARNING TAPE AND REQUIRED SEPARATION FROM OTHER SERVICES.
- PROVIDE SUITABLE PROTECTION AND FULL REINSTATEMENT WHERE GAS PIPEWORK CROSSES EXISTING ROADWAYS, PATHS OR HARDSTANDING. PROVIDE APPROVED PE-TO-STEEL TRANSITIONS AT ABOVE-GROUND SECTIONS.
- PROVIDE FIRST-STAGE LPG REGULATOR AT TANK COMPOUND AND SECOND-STAGE REGULATOR AT BOILER HOUSE, COORDINATED WITH LPG SUPPLIER AND BOILER MANUFACTURER.
- PROVIDE EXTERNAL GAS ISOLATION VALVES AT TANK COMPOUND AND BOILER HOUSE ENTRY.
- ALL GAS PIPE PENETRATIONS THROUGH BUILDING FABRIC SHALL BE SLEEVED IN MILD STEEL AND SEALED WITH APPROVED GAS-TIGHT / WEATHERPROOF SEALANT.
- PROVIDE COMPLETE INTERNAL STEEL GAS PIPEWORK TO NEW BOILER CASCADE, INCLUDING INDIVIDUAL BOILER ISOLATION VALVES, TEST POINTS, SUPPORTS AND IDENTIFICATION.
- PROVIDE EMERGENCY GAS SHUT-OFF SYSTEM COMPLETE WITH GAS SAFETY SHUT-OFF VALVE, EMERGENCY STOP AND MANUAL RESET.
- PROVIDE GAS DETECTION PANEL COMPLETE WITH LPG/PROPANE DETECTOR, CARBON MONOXIDE DETECTOR AND ASSOCIATED SAFETY INTERLOCKS. GAS SAFETY SHUTDOWN SHALL OPERATE INDEPENDENTLY OF THE BMS; BMS TO MONITOR ALARM/FAULT STATUS ONLY.
- ALL GAS PIPEWORK SHALL BE SIZED AND INSTALLED TO MAINTAIN THE REQUIRED INLET PRESSURE AT THE BOILERS UNDER MAXIMUM LOAD CONDITIONS.
- ALL GAS WORKS SHALL BE UNDERTAKEN BY SUITABLY QUALIFIED AND REGISTERED PERSONNEL AND SHALL COMPLY WITH CURRENT APPLICABLE STATUTORY REQUIREMENTS, STANDARDS AND LPG SUPPLIER REQUIREMENTS.
- CONTRACTOR SHALL INCLUDE FOR ALL TESTING, TIGHTNESS TESTING, PURGING, REGULATOR SETTING, COMMISSIONING, CERTIFICATION, AS-INSTALLED DRAWINGS AND HANDOVER DOCUMENTATION.



LPG TANK NOTE:
THE BULK LPG STORAGE TANK AND FIRST-STAGE REGULATOR SHALL BE SUPPLIED, INSTALLED AND COMMISSIONED BY THE CLIENT'S NOMINATED LPG SUPPLIER UNDER THE CLIENT'S LPG FUEL-SUPPLY AGREEMENT.
THE MAIN CONTRACTOR SHALL PROVIDE THE COMPLETE TANK COMPOUND, INCLUDING CONCRETE BASE, FENCING, ACCESS GATE, SIGNAGE, ACCESS PATH, UNDERGROUND GAS PIPEWORK, PE-TO-STEEL TRANSITION, ISOLATION VALVES AND ALL DOWNSTREAM GAS INSTALLATION FROM THE LPG SUPPLIER'S CONNECTION POINT.
THE MAIN CONTRACTOR SHALL COORDINATE THE FINAL TANK POSITION, ORIENTATION, PIPE CONNECTION POINT AND COMPOUND REQUIREMENTS WITH THE NOMINATED LPG SUPPLIER PRIOR TO CONSTRUCTION

1 NEW GAS TANK LOCATION AND SITE SERVICES ROUTES

M.103 1:50 @ A1

T1	ISSUED FOR TENDER	JH	JH	JH	19.08.26
REV	DESCRIPTION	DRN	ENG	APP	DATE



PROJECT
COLÁISTE COIS SIÚIRE MOONCOIN
BOILER UPGRADE EMERGENCY WORKS

CLIENT
KILKENNY AND CARLOW
EDUCATION AND TRAINING BOARD



DRAWING TITLE
MECHANICAL SERVICES
NEW GAS TANK LOCATION AND SITE DUCTING

SCALE	SHEET SIZE	PROJECT No.	DRAWING No.	REV.
1:50	A1	26-021	M-103	T1