

ARUP

By Hand and Email (tpbsubmission@pland.gov.hk)
22 September 2026

The Secretary
Town Planning Board
15/F, North Point Government Offices
333 Java Road
North Point
Hong Kong

arup.com

Our ref 312796/00/WLL/ PLML/YVL/05883

Dear Sir/ Madam,

**Application for Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Temporary Educational Institution (Teaching Farm) and Associated Excavation of Land for a Period of Three Years at Various Lots in D.D. 16, Wo Tong Pui, Tai Po, New Territories
(Planning Application No. A/NE-LT/794)**

Submission of Further Information

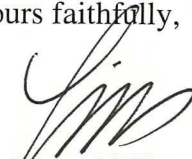
We refer to the comments received from the Environmental Protection Department and Water Supplies Department dated 21 September 2026 regarding the captioned s.16 Planning Application.

We are pleased to submit our Responses to Comments table (**Appendix A**) and supplementary information (**Appendix B**) for your consideration. Softcopy of the Further Information will be uploaded to the hyperlink provided by the Town Planning Board.

The further information submitted involves only editorial changes, minor change in the proposed scheme and technical clarification without any material change, and thus should be exempted from the recounting requirement.

We sincerely seek favourable consideration from the Town Planning Board to agree to this s.16 Application. Should you have any queries, please contact the undersigned or our Ms. Minnie LAW at [REDACTED] or Ms. Vienne LUNG at [REDACTED].

Yours faithfully,


Wai-Lam LEE
Director of Planning

d
e

- Enc - Appendices A-B
cc - Client
- Sha Tin, Tai Po and North District Planning Office – Mr. Kevin LAU (Senior Town Planner/Tai Po 1) (Email: kkwlau@pland.gov.hk)
- Sha Tin, Tai Po and North District Planning Office – Mr. Nicol YU (Town Planner/Tai Po 1) (Email: nwkyu@pland.gov.hk)
- Sha Tin, Tai Po and North District Planning Office – Mr. Jackson CHAN (Town Planning Grad/North 3) (Email: jcschan1@pland.gov.hk)

Appendix A

Responses-to-Comments table

Comments from Related Departments Page No.

COMMENTS FROM RELATED DEPARTMENTS	2
1. Environmental Protection Department, Environmental Assessment Division, Territory North Group, Sheung Shui, Fanling, Tai Po, dated 21 September 2026	2
2. Water Supplies Department, dated 21 September 2026	5

COMMENTS FROM RELATED DEPARTMENTS

No.	Comments	Responses
1.	Environmental Protection Department, Environmental Assessment Division, Territory North Group, Sheung Shui, Fanling, Tai Po, dated 21 September 2026 While EPD has no objection to the subject application, to ensure the mitigation measures for odour impacts (e.g. micro-nano deodorization system) will be properly implemented, EPD suggests imposing approval conditions regarding the submission of a revised Air Quality Impact Assessment (AQIA) and the implementation of the mitigation measures identified in the revised AQIA. Please find EPD's remaining comments on the AQIA for the applicant's representative's follow up and incorporation into the future submission below: <u>Air Quality</u> - The applicant shall ensure that the proposed deodouriser is suitable for a dairy farm, given that the proposed system was originally designed for pig farms. Furthermore, the design parameters of the deodouriser, including, but not limited to, the dosage and concentration of ozone, droplet size, contact time, and flow rate, must be carefully configured to ensure the odorous exhaust is properly treated. The deodouriser shall also safely handle excess ozone at the exhaust to minimise any nuisance to the surrounding area. Finally, the deodouriser should demonstrate reasonable reliability to prevent prolonged downtime previously experienced in Farm1.0. - Table 2.2: Please provide the notes for (3). - Section 3: Please revise the title to "Air Quality Impact Assessment". - Table 3.4 and 3.5: Please delete "Proposed" in the title of the 3rd column. Please specify the level of the data.	Noted. Please refer to the responses below and Appendix B for the replacement pages of the updated Environmental Assessment Report. Noted. Performance of the deodouriser would be further reviewed by the on-site staff to endure the odour removal rate so that there would be no adverse odour nuisance to nearby ASRs. Supplemented in Section 3.5.14. Noted, it has been rectified and the note has been removed. Noted, it has been rectified accordingly. Noted, it has been updated accordingly.

No.	Comments	Responses
	5. Table 3.6 and Figure 3.1: The ASR ID in Table 3.6 and Figure 3.1 are not consistent. Please check. 6. Section 3.4.5: We note that some ASRs are in proximity to the proposed development (<10m), please consider the following enhanced mitigation measures: – adopt site hoarding at sufficient height close to those concerned ASRs; – locate the haul road away from those concerned ASRs; – avoid dusty works or placing stockpiles near to those concerned ASRs; and – minimization of unpaved, exposed earth by immediate covering/ permanent paving as 7. Section 3.5.1: The road types for both roads, along with Transport Department’s confirmation regarding their classification, should be documented in the Environmental Assessment. 8. Figure 3.2: Please shade the buffer distance requirements of the local roads and state that no openable windows or fresh air intake or open space for recreational uses fall within the shaded area. 9. Section 3.5 – B Odour Emission: – please indicate the odourous facilities on the layout plan and present the distances to the nearby ASRs; – please clarify which facilities e.g. Block 1, 2, 12, 13, 15, 16, 18 etc. are being referred to when discussing the odour impact from domestic sewage, manure and barns; and – please review whether there is any odour impact from the uncovered Pre-treatment Facilities in Block 16.	Noted, it has been rectified. Noted, they have been supplemented. Supplemented in Appendix 3.1. Noted, the figure has been updated and the statement has been supplemented in Section 3.5.1. It has been supplemented as Table 3.7. Supplemented in Section 3.5. The pre-treatment facility for animal wastewater, located downstream of the dry-wet separator, is designed as an integrated treatment unit with a watertight enclosure. The equalisation tank, anaerobic tank and

No.	Comments	Responses
	10. Section 3.5.4: Please explain why the odour impact from an uncovered overground sewage holding tank would be negligible. 11. Section 3.5.11: Please clarify whether the micro-nano deodourisation system is represented by Block 14 in Figure 2.2. 12. Please supplement the responses to our previous comment and update the report accordingly: Please check with regional office of EPD to see if there are any odour complaints against the existing Farm 1.0 in recent years. Please clarify whether odour patrol has been conducted to confirm the odour from the existing facilities.	composite moving-bed biofilm reactor are all housed within the unit and fully enclosed by the watertight cover of the pre-treatment facility. As such, no adverse odour impact is anticipated from the operation of the animal wastewater pre-treatment system. It should be "underground sewage holding tank" and refers to the existing arrangement at Farm 1.0. Under the proposed Farm 2.0 development, domestic sewage will be discharged directly to the public sewerage system and, therefore, any associated odour emission is expected to be negligible. The micro-nano deodourisation system is a new facility to be installed in Block 15. During the operation of Farm 1.0, odour mitigation measures included ventilation systems fitted with activated carbon filters and the application of biochar produced at EcoPark in Tuen Mun. However, disruptions to the biochar supply in 2024 and 2025 coincided with the receipt of odour complaints. After the biochar supply resumed, CityUHK Farm increased the application rate of biochar to the floor areas, particularly during wet weather. Good housekeeping practices were also implemented, including operator collection of manure and storage in underground manure scrape pits with stainless steel covers. These measures were effective in preventing odour, and no further complaints were received thereafter. The farm operator kept continuing to review the effectiveness of the existing odour control measures to minimize potential odour impacts as far as practicable. There will be improvement in the odour emissions from the facilities after this Project, such as new deodorization system for the new barn, dry-wet system and public sewer collection will be adopted to reduce

No.	Comments	Responses
		the amount of storage and transportations, as shown in Section 3.5 of the EA. Moreover, no odour nuisance was observed at the boundaries of the Farm during our site visits conducted between September 2025 and September 2026. Supplemented in Section 3.5.11.
2.	Water Supplies Department, dated 21 September 2026 After review, the Information enclosed in the Further Information is considered insufficient to prove and demonstrate that the proposed development would cause no material increase in pollution effect to the Water Gathering Ground (WGG). Specific concerns are provided as follows from the perspective of water resources protection: 1) Regarding the management of wastewater generated from the barns, the design of "enclosed container" is removed and the provision of watertight pipework for livestock sludge is noted. However, details about the operation and management of wastewater and the associated pipework, including but not limited to the mechanism of sewage collection and delivery to the dry-wet separation and pre-treatment facilities, layout design of the pipework and coverage area have not been mentioned in the submission.	Wastewater generated from the Beef Cattle Barn (Block 1), Young Stock Barn (Block 2), Dairy Barn (Block 15) and Isolation Space (Block 21), including cattle urine, manure washdown water and livestock wastewater, will be collected through a dedicated on-site sewerage system and conveyed to the dry-wet separation and pre-treatment facilities prior to discharge to the public sewer. The collection system will serve all livestock housing facilities within Farm 1.0 and Farm 2.0. The proposed sewerage layout and drainage coverage area are shown in the updated sewerage layout plans. Within each barn, the floor will be graded towards dedicated drainage channels and collection points. During routine operation, slurry will be directed to the drainage channels by mechanical farm cleaning equipment. The collected slurry will gravitate to designated slurry pits, where agitators will be provided to maintain a homogeneous slurry suitable for transfer through watertight pipework. The slurry will then be conveyed via enclosed watertight

No.	Comments	Responses
	2) The involvement of chemicals including coagulants and disinfectants for pre-treatment facilities is noted. However, the proposed pre-treatment facilities	uPVC/HDPE pipework to the nearest dry-wet separation facilities. As currently envisaged, slurry from the Dairy Barn (Block 15) and Young Stock Barn (Block 2) will be conveyed to the separator serving Block 2, while slurry generated from the Beef Cattle Barn (Block 1) will be separated within Block 1. The final arrangement will be confirmed during detailed design. Following dry-wet separation, the liquid fraction will be transferred through enclosed pipework to the pre-treatment facility (Block 16), comprising an equalization tank, anaerobic tank and composite moving-bed biofilm reactor (C-MBBR), prior to discharge to the existing public sewer along Hang Kai Lane. The solid fraction will be collected in leak-proof containers for off-site disposal by licensed waste collectors. All wastewater conveyed to the pre-treatment facility will be treated prior to discharge to the public sewer in accordance with the requirements of the wastewater discharge licence. The entire collection, conveyance, separation and treatment system will operate as a closed and watertight system, with no discharge to WSD's pipe system, the surrounding environment or the Water Gathering Ground. Cattle will remain within designated barns and will not graze or roam on grassed areas. Routine inspection and maintenance of the drainage channels, slurry pits, separators, pipework and pre-treatment facilities will be carried out by trained farm personnel. In the event of equipment failure or treatment interruption, wastewater will be temporarily retained within the treatment system and removed off-site by tanker. Should any disinfectants be required, none of the chemicals or sewerage will enter into the WSD network, and will have no contact with soil, as all systems take place within an

No.	Comments	Responses
	including equalization tank, anaerobic tank and composite moving-bed biofilm reactor (C-MBBR) are biological purification process. In this regard, the Applicant shall review and elaborate the reasons of using coagulants and disinfectants, dosing location(s), and clarify whether additional facilities will be introduced for such dosing.	enclosed container. Additionally, there will be an extra concrete base with separate drainage directly to the public sewer for additional protection against leakages from pipe joints. No coagulants or disinfectants will be introduced into the C-MBBR system. A limited amount of coagulant, such as polyaluminium chloride (PAC), may be applied as a polishing treatment after the C-MBBR process when necessary to enhance phosphorus removal and improve suspended solids settling performance. The purpose of such dosing is not biological treatment, but to provide additional assurance that the treated effluent consistently complies with the discharge requirements under varying operating conditions. The coagulant dosing point will be located at the inlet of the integrated sedimentation unit downstream of the C-MBBR system. The dosing arrangement is completely separate from the biological treatment process and will not affect the biological activity or treatment performance of the equalization tank, anaerobic tank or C-MBBR unit. No additional treatment structures or tanks are required. The dosing procedure will also take place inside one of the CMBBR tanks which is enclosed and leak proof. None of the chemicals will be exposed to external area, or be in contact with soil or within WSD network. To minimize environmental risks, the chemical storage and dosing facilities will be provided with appropriate containment and management measures, including enclosed chemical storage inside a building, impermeable flooring, secondary containment where appropriate, routine inspection and maintenance of dosing equipment and pipework, and implementation of emergency response

No.	Comments	Responses
	3) The provision of Block 13 (sewage treatment unit) and Block 14 (micro-filtration unit) is noted. The Applicant shall clarify whether these two facilities will be operated during the proposed development. If it is not affirmative, details about the operation and maintenance of these facilities shall be provided in the submission. 4) The provision of automated robotic cleaning system is noted. The Applicant shall elaborate the working mechanism of the system, and clarify whether it involves any chemicals/ detergents and generation of foul water during the cleaning.	procedures in the unlikely event of accidental leakage or spillage. Block 13 and Block 14 will not be used for routine wastewater treatment under the proposed development and will not form part of the proposed wastewater management strategy. The facilities will not be relied upon in the sewerage impact assessment, wastewater treatment calculations or discharge arrangements. Automated robotic cleaning system forms part of the routine manure management arrangement within the livestock barns. The system operates by mechanically scraping and directing manure and residual organic matter towards designated collection points connected to the dedicated livestock wastewater collection system. No chemicals, detergents, disinfectants, or other cleaning agents are used during the operation of the system. The cleaning process relies solely on mechanical scraping and collection. The proposed automated robotic cleaning system is a mechanical manure removal system that operates through an intelligent control unit, motor-driven scraper blades, and chain transmission. The scraper blades move along the manure alleys to collect and push manure and urine to a designated collection trench for solid-liquid separation and subsequent treatment. The operation of the system does not generate foul water or wastewater. During operation, the system does not connect to external water source for flushing or cleaning. Any liquid conveyed by the system comprises only the urine and inherent moisture content already present in the livestock manure, which are collected together with the manure for subsequent treatment.

(Last updated 21 September 2026)

Appendix B

Replacement pages of the updated
Environmental Assessment

	4	Changing Room Block
	5	Laboratory & Pharmacy ⁽¹⁾
	6A	Machine Store
	7	Feed Store Block
	9	Transformer & Generator Room Block
	10	Fire Service, Sprinkler System & Pump Room Block
	11	Fire Service, Sprinkler System & Pump Room Block
	12	Store
	13	Sewage Treatment Unit
	14	Micro-Filtration Unit
Proposed new building blocks/structures in Farm2.0	15	Dairy Barn
	16	Pre-Treatment Facilities ⁽²⁾
	17	Accommodation Block
	18	Holding Tank (Underground or uncovered overground)
	19	Stormwater Pump Pit (Underground)
	20	Storage Shed
	21	Isolation Space

Remarks:

- (1) The existing Caretaker Quarter in Block 5 will be re-provided in the new Block 17 Accommodation Block.
(2) The proposed Block 16 will be uncovered structures on ground floor.

2.2.6 The proposed development parameters of the Application Site are summarised in the table below.

Table 2.3 Key Development Parameters of the Application Site

Key Development Uses		Parameters
Application Site Area (Approximately)		15,444m ²
Total Gross Floor Area (GFA) (Approximately) ⁽¹⁾		4,461m ²
• Non-domestic GFA (Approximately)		3,992m ²
• Domestic GFA (Approximately)		469m ²
Building Height		
Non-domestic	Block of Storeys	About 1 storey
	Building Height	About 3.4- 9.5m ⁽³⁾
Domestic	Block of Storeys	Not more than 3 storeys
	Building Height	Not more than 9.5m
Block of Blocks		20
• Non-domestic		19
• Domestic		1
Site Coverage		27%

Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Temporary Educational Institution (Teaching Farm) for a Period of Three Years and Excavation of Land at Various Lots in D.D. 16, Wo Tong Pui, Tai Po, New Territories

3. AIR QUALITY **IMPACT** ASSESSMENT

3.1 Legislation, Standards and Guidelines

A. General

3.1.1 The relevant legislations, standards and guidelines applicable to the present study for the assessment of air quality impacts include:

- Air Pollution Control Ordinance (APCO) (Cap. 311);
- Air Pollution Control (Construction Dust) Regulation (Cap. 311R);
- Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (Cap 311Z);
- Air Pollution Control (Fuel Restriction) Regulations (Cap 311I);
- Recommended Pollution Control Clauses for Construction Contracts; and
- Hong Kong Planning Standards and Guidelines (HKPSG).

B. Air Pollution Control Ordinance (APCO) (Cap. 311)

3.1.2 The principal legislation for controlling air pollutants is the Air Pollution Control Ordinance (APCO) (Cap. 311) which provides a statutory framework for establishing the Air Quality Objectives (AQOs). The AQOs stipulate limits on concentrations for 7 pollutants including Sulphur Dioxide (SO₂), Respirable Suspended Particulates (RSP), Fine Suspended Particulates (FSP), Nitrogen Dioxide (NO₂), Photochemical Oxidants (Ozone (O₃)), Carbon Monoxide (CO), and Lead (Pb). The current AQOs which took effect in 2025 are listed in the below table.

Table 3.1 Hong Kong Air Quality Objectives 2025

Pollutants	Limits on Concentration, µg/m ³ ^[1] (The Number of Exceedance per calendar year allowed is shown in brackets)					
	Peak season	10-min	1-hr	8-hr	24-hr	Annual
NO ₂			200 (18)		120 (9)	40
RSP (PM ₁₀) [2]					75 (9)	30
FSP (PM _{2.5}) [3]					37.5 (18)	15
SO ₂		500 (3)			40 (3)	
O ₃	100			160 (9)		
CO			30,000 (0)	10,000 (0)	4,000 (0)	
Pb						0.5

Notes:

- [1] All measurements of the concentration of gaseous air pollutants, i.e. sulphur dioxide, nitrogen dioxide, ozone and carbon monoxide, are to be adjusted to a reference temperature of 293 Kelvin and a reference pressure of 101.325 kilopascal.
- [2] Respirable suspended particulates (RSP) mean suspended particles in air with a nominal aerodynamic diameter of 10 µm or less (i.e. PM₁₀).

Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Temporary Educational Institution (Teaching Farm) for a Period of Three Years and Excavation of Land at Various Lots in D.D. 16, Wo Tong Pui, Tai Po, New Territories

volatile organic compounds (VOCs) under sunlight. As it takes several hours for these photochemical reactions to take place, O₃ recorded in one place could be attributed to VOC and NO_x emissions from places afar. Hence, O₃ is more a regional air pollution problem.

B. Future Ambient Air Quality

3.2.4 The construction phase of the Application Site is anticipated to commence in Year 2027 tentatively, while the operation is anticipated in Year 2028. The future ambient air quality in Year 2027 and 2028 is predicted by a regional air quality model named “Pollutants in the Atmosphere and their Transport over Hong Kong” (i.e. PATH v3.0). NO₂, RSP and FSP are generally considered as the key concerned pollutants for development. The committed and planned control measures to be implemented by the Hong Kong Government and Pearl River Delta Economic Zone (PRDEZ) are accounted for in PATH. The PATH grids within the 500m assessment area are shown in **Figure 3.1**. The future ambient air quality within each PATH grid in Year 2027 and 2028 is shown in the table below.

Table 3.4 Future Ambient Air Quality for Concerned PATH Grids (Year 2027)

Pollutant	Averaging Time	AQO	Data Summary	PATH v3.0 Grid in Year 2027			
				37,49	37,48	36,48	36,49
RSP	24-hour	75 (9)	10th	59.32	61.32	61.58	59.73
			Exceedance	0	0	2	1
	Annual	30	-	22.78	23.58	23.51	22.56
FSP	24-hour	37.5 (18)	19th	37.36	38.29	37.71	36.61
			Exceedance	17	20	19	16
	Annual	15	-	14.72	15.4	15.28	14.42
NO ₂	1-hour	200 (18)	19th	56.4	51.98	44.88	44.12
			Exceedance	0	0	0	0
	24-hour	120 (9)	10th	22.65	21.91	18.88	17.66
			Exceedance	0	0	0	0
	Annual	40	-	15.83	15.11	12.38	11.93
SO ₂	10-Min	500 (3)	4th	26.27	25.57	25.76	26.58
			Exceedance	0	0	0	0
	24-hour	40 (3)	4th	7.36	7.34	7.32	7.28
			Exceedance	0	0	0	0
O ₃	8-Hour	160 (9)	10th	171.96	174.31	177.57	178.68
			Exceedance	23	23	26	27
	Peak Season	100	-	119.88	119.83	122.34	122.84
CO	1-Hour	30000 (0)	1st	618.2	617.68	613.62	616.34
			Exceedance	0	0	0	0
	8-Hour	10000 (0)	1st	587.19	589.17	571.71	577.32
			Exceedance	0	0	0	0
	24-Hour	4000 (0)	1st	538.52	536.81	526.86	527.53
			Exceedance	0	0	0	0

Notes:

[1] Reference: EPD's SAMP v2.1.

[2] Concentrations exceeding the AQO are in bold.

[3] L1 is referring to Level L1 (i.e. 0m to 17m) of PATH v3.0.

Table 3.5 Future Ambient Air Quality for Concerned PATH Grids (Year 2028)

Pollutant	Averaging Time	AQO	Data Summary	PATH v3.0 Grid in Year 2028			
				37,49	37,48	36,48	36,49
RSP	24-hour	75 (9)	10th	59.26	61.28	61.55	59.7
			Exceedance	0	0	2	1
	Annual	30	-	22.74	23.54	23.47	22.53
FSP	24-hour	37.5 (18)	19th	37.28	38.24	37.67	36.57
			Exceedance	17	19	19	16
	Annual	15	-	14.68	15.36	15.25	14.4
NO ₂	1-hour	200 (18)	19th	54.85	51.14	43.75	42.74
			Exceedance	0	0	0	0
	24-hour	120 (9)	10th	21.9	21.36	18.45	17.17
			Exceedance	0	0	0	0
	Annual	40	-	15.38	14.71	12.1	11.66
SO ₂	10-Min	500 (3)	4th	26.27	25.57	25.76	26.58
			Exceedance	0	0	0	0
	24-hour	40 (3)	4th	7.36	7.34	7.31	7.28
			Exceedance	0	0	0	0
O ₃	8-Hour	160 (9)	10th	172.21	174.3	177.64	178.54
			Exceedance	23	23	26	27
	Peak Season	100	-	120.18	120.09	122.52	123.02
CO	1-Hour	30000 (0)	1st	618.16	617.62	613.61	616.32
			Exceedance	0	0	0	0
	8-Hour	10000 (0)	1st	586.93	588.82	571.64	577.28
			Exceedance	0	0	0	0
	24-Hour	4000 (0)	1st	538.14	536.44	526.71	527.43
			Exceedance	0	0	0	0

Notes:

[1] Reference: EPD's SAMP v2.1.

[2] Concentrations exceeding the AQO are in bold.

[3] L1 is referring to Level L1 (i.e. 0m to 17m) of PATH v3.0.

3.2.5 As seen from the table above, except of FSP and O₃, no exceedance for other parameters for both 2027 and 2028 future ambient air quality. The annual FSP levels were in the range of 14.4 to 15.4 µg/m³, with exceedances recorded in Grid (36, 48), Grid (37, 48) in Years 2027 and 2028. The 19th highest daily FSP levels were at a level of 36.57 to 38.29 µg/m³, and exceedance are found in Grid (36, 48) and Grid (37, 48) in Years 2027 and 2028. Exceedances of 10th highest 8-hr O₃ and the peak season O₃ concentrations are predicted in Years 2027 and 2028. As discussed in **Section 3.2.3**, O₃ is a regional air pollution problem.

3.3 Air Sensitive Receivers

3.3.1 In accordance with Annex 12 of the EIAO-TM, Air Sensitive Receivers (ASRs) include domestic premises, hotel, hostel, hospital, clinic, nursery, temporary housing

Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Temporary Educational Institution (Teaching Farm) for a Period of Three Years and Excavation of Land at Various Lots in D.D. 16, Wo Tong Pui, Tai Po, New Territories

accommodation, school, educational institution, office, factory, shop, shopping centre, place of public worship, library, court of law, sports stadium or performing arts centre. Any other premises or places with which, in terms of duration or number of people affected, has a similar sensitivity to the air pollutants as the afforested premises and places would also be considered as a sensitive receiver.

3.3.2 Representative ASRs within the Assessment Area (i.e. 500m from the boundary of the Application Site) have been identified in the table below and shown in **Figure 3.1**. The existing ASRs are identified by means of topographic maps, aerial photos, land status plans and site inspections. No planned ASRs within the assessment area are identified according to the Approved Lam Tsuen OZP No. S/NE-LT/11.

Table 3.6 Representative Air Sensitive Receivers (ASRs)

ASR ID	Description	Uses	No. of Storeys	Approximate Distance from Application Site (m)
Existing ASRs				
A01	198 Hang Ha Po	Residential	G/F	7m
A02	13D Ngau Kwu Leng	Residential	G/F	23m
A03	210 Kau Liu Ha	Residential	2/F	27m
A04	198 Kau Liu Ha	Residential	2/F	22m
A05	201 Kau Liu Ha	Residential	2/F	40m
A06	56 Kau Liu Ha	Residential	2/F	143m
A07	52 Kau Liu Ha	Residential	2/F	162m
A08	32 Kau Liu Ha	Residential	2/F	207m
A09	18 Kau Liu Ha	Residential	2/F	159m
A10	139 Han Ha Po	Residential	2/F	140m
A11	141 Hang Ha Po	Residential	2/F	114m
A12	155 Hang Ha Po	Residential	2/F	92m
A13	159 Hang Ha Po	Residential	2/F	75m
A14	165 Hang Ha Po	Residential	2/F	68m
A15	166 Hang Ha Po	Residential	2/F	66m
A16	41 Hang Ha Po	Residential	2/F	37m
A17	HKAYP JC Duke of Edinburgh Training Camp	Office	2/F	35m
A18	ZANZI	Open Space	G/F	20m
Planned ASRs				
PA01	Office	Office	1/F	Within Application Site boundary
PA02	Accommodation	Residential	2/F	Within Application Site boundary

Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Temporary Educational Institution (Teaching Farm) for a Period of Three Years and Excavation of Land at Various Lots in D.D. 16, Wo Tong Pui, Tai Po, New Territories

- Any skip hoist for material transport should be totally enclosed by impervious sheeting;
- Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;
- Cement delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;
- Loading, unloading, transfer, handling or storage of bulk cement should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system;
- Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilisers within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies;
- For ASRs located in close proximity to the Application Site, site hoardings of sufficient height should be provided adjacent to the concerned ASRs, where practicable;
- Haul roads and vehicle movement areas should be located as far away from the concerned ASRs as practicable;
- Dusty construction activities and stockpiling of dusty materials should be avoided in the vicinity of the concerned ASRs as far as practicable; and
- The extent and duration of unpaved exposed earth should be minimised through immediate covering and permanent paving or reinstatement as soon as practicable upon completion of the relevant works.

3.4.6 To minimise air quality impact from fuel combustion, PME used in the construction site should be registered under Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation with the NRMM label displayed at a conspicuous position of the registered item. Exempted NRMMs shall be avoided to be used as far as practicable.

3.4.7 With the implementation of these mitigation measures during construction phase of the Application Site, no insurmountable air quality impact during construction phase is anticipated.

D. Cumulative Impacts

3.4.8 According to **Section 2**, there are no concurrent projects within the 500m assessment area. Hence, there would not be adverse cumulative impacts during the construction phase.

3.5 Operational Phase Impact Evaluation and Mitigation Measures

A. General

3.5.1 The Application Site is located at Wo Tong Pui, where the surrounding area is predominantly residential, with nearby nursery compounds as observed from site visit on 24th October 2025. The nearest major roads are Lam Kam Road and Tolo Highway, located at approximately 250 m and 350 m away, respectively. Neither industrial zones nor industrial chimneys were observed within the 500 m assessment area. Although local roads such as Hang Kai Lane and Ngau Kwu Leng Path were adjacent to the project boundary, there are sufficient setback of over 5 m from the roads to the air sensitive receivers (buildings), no openable windows or fresh air intake or open space for recreational uses fall within the buffer area as shown in the figure below. The e-mail to seek Transport Department on the road types are endorsed in **Appendix 3.1**. Accordingly, the buffer distances for roads/highways and industrial areas/chimneys recommended in the HKPSG, as listed in **Table 3.2**, are satisfied.



Figure 3.2 Buffer Distance from Road to Buildings with Air Sensitive Uses³

³ Subject to detailed design, the location of Block 18, which is shown underground on the plan above, may be further reviewed and located overground as an uncovered structure.

3.5.2 According to the latest design, no chimneys are proposed within the Application Site. Farm operations will involve the use of scissor platforms and tractors, similar to the current operations at Farm 1.0. The scissor platform is electrically powered. Hence, tractor operation would be the only potential emission source. The tractor would be used to transport feed from the feed store barn to the cattle barns at a frequency of fewer than five trips per day. As a result, such emissions would be negligible.

3.5.3 As discussed in **Section 2.2**, all wastewater and sewage generated from Farm 1.0 and Farm 2.0 will be collected and discharged to the public sewer. Compared with the existing arrangement at Farm 1.0, this will reduce traffic associated with regular off-site tanker away. In addition, visits to the farm will be by invitation only for biosecurity reason. Consequently, restrictions on visitor numbers, together with the provision of only 17 parking spaces, indicate that any increase in traffic during future operation will be negligible. As a result, induced traffic emissions from the Application Site would be insignificant.

B. Odour Emission

3.5.4 The potential odour facilities are identified and listed in the table below:

Table 3.7 Distance of Potential Odourous Facilities to Nearest ASR

Odourous Facilities ID	Description	Nearest ASR	Approximate Distance from Facilities (m)
1	Beef Cattle Barn	A01	53m
2	Young Stock Barn	A01	73m
13	Sewage Treatment Unit	A15	87m
15	Dairy Barn	A02	43m
16	Pre-Treatment Facilities ^[1]	A01	95m

Notes:

[1] The pre-treatment facility is designed as an integrated treatment unit with a watertight enclosure.

Odour emission from Domestic Sewerage

3.5.5 Toilet facilities are provided within the buildings of Farm 1.0 (Block 4), but the generated sewage is diverted to and stored in an underground sewage holding tank (in Block 4). This holding tank may constitute a potential source of odour emissions during sewage collection and tanker loading operations. Under the latest design, all domestic sewage generated by the Application Site will be discharged directly to the public sewer. As a result, odour impacts associated with domestic operations are expected to be negligible.

Odour emission from Manure

3.5.6 Odour emissions may arise from the day-to-day operation of the barns (Block 1 and Block 2). Under the current operation of Farm 1.0, manure generated by cattle and calves is collected and transported off site by tanker on a daily basis. The primary sources of odour

include manure generated by cattle and calves, manure storage areas within the farm, as well as potential odour emissions during manure collection and tanker loading operations.

- 3.5.7 According to the latest design, manure generated by cattle and calves will be properly collected via the on-site sewerage system and ultimately discharged to the public sewerage system. Prior to discharge, a dry-wet separation process (see **Figure 2.3**) will be implemented, which significantly reduces odour arising from bacterial decomposition of manure during storage. The whole process including the separator, receiving pit, and solid collection points are all situated within the plants with watertight covers. The potential odour emissions generated from the separation process would be effectively controlled.
- 3.5.8 Following removal of solid waste, the wastewater will undergo pre-treatment via a pre-treatment facility located at Block 16 to meet the relevant discharge requirements before entering the public sewerage system. The solid waste and slurry generated from the pre-treatment process will be properly stored prior to off-site collection and handling. The pre-treatment facility is designed as an integrated treatment unit with a watertight enclosure. The equalization tank, anaerobic tank and composite moving-bed biofilm reactor are housed within the unit and fully enclosed by the watertight cover of the pre-treatment facility. As the pre-treatment processes will be conducted within enclosed conditions, and the slurry will be placed directly into airtight transportable leakproof plastic containers, no adverse odour impact is anticipated. Moreover, the transportation of solid waste and slurry would be handled by licensed waste collectors as detailed in **Section 5**.
- 3.5.9 The proposed arrangement eliminates the need for regular manure collection by tanker, thereby reducing potential odour emissions associated with manure handling and tanker loading operations.

Odour emission from Barns

- 3.5.10 Under the current operation of Farm 1.0, cattle and calves are housed within barns (Block 1 and Block 2) rather than being allowed to graze on open farmland. The barns are equipped with mechanical ventilation systems and activated carbon filters to mitigate odour emissions. However, as the barns are semi-enclosed, not all exhaust air passes through the carbon filters.
- 3.5.11 As an additional measure to reduce odour emissions, the operator has increased the application rate of biochar to the barn floors, particularly during wet weather conditions. Biochar is highly absorbent, with properties comparable to activated charcoal, and is effective in absorbing odour gases from manure at source when applied to floor surfaces. Based on site visits conducted in September 2025, December 2025, and September 2026, no odour nuisance was observed at the Farm boundary. In addition, no odour complaints were received during the past year.

New Deodorization System for the New Barn

- 3.5.12 A micro-nano deodorization system, as illustrated in the accompanying schematic diagram (see **Figures 3.3 and 3.4**), is proposed to the third barn under Farm 2.0 (Block 15 in **Figure 2.2**). The entire system is configured on the exhaust side of the exhaust fans,

Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Temporary Educational Institution (Teaching Farm) for a Period of Three Years and Excavation of Land at Various Lots in D.D. 16, Wo Tong Pui, Tai Po, New Territories

incorporating a deodorization chamber adjacent to the fan exhaust and a primary equipment room situated outside the deodorization area. The system comprises several key components: a water filtration unit, air compressor, oxygen generator, ozone generation system, gas-liquid mixing apparatus, micro-nano generation system, and controller.

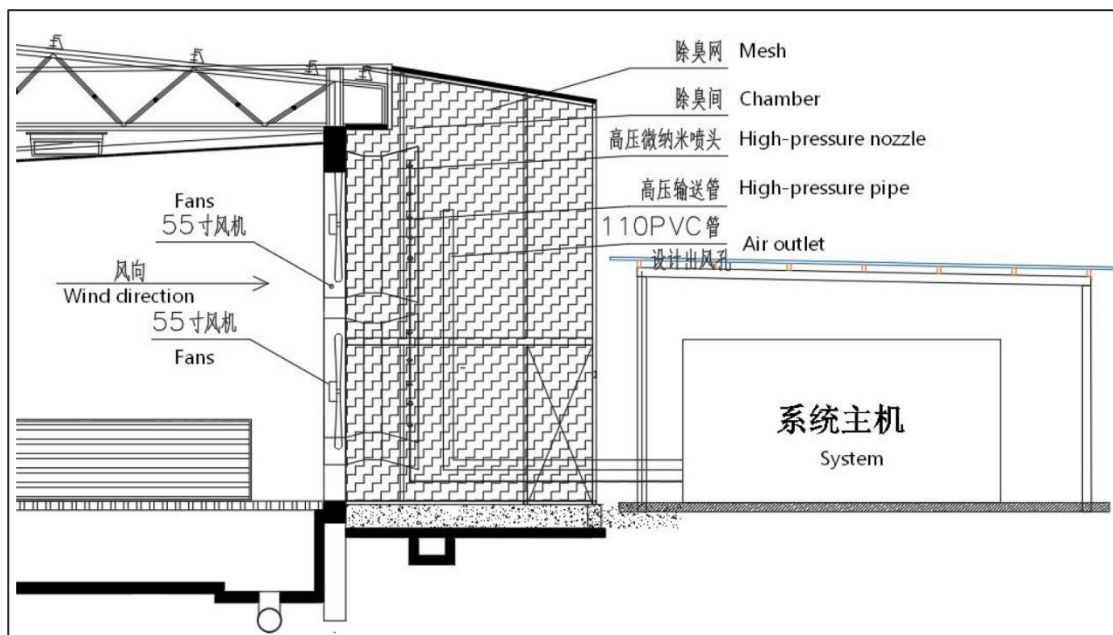


Figure 3.3 Schematic diagram of Deodorization System

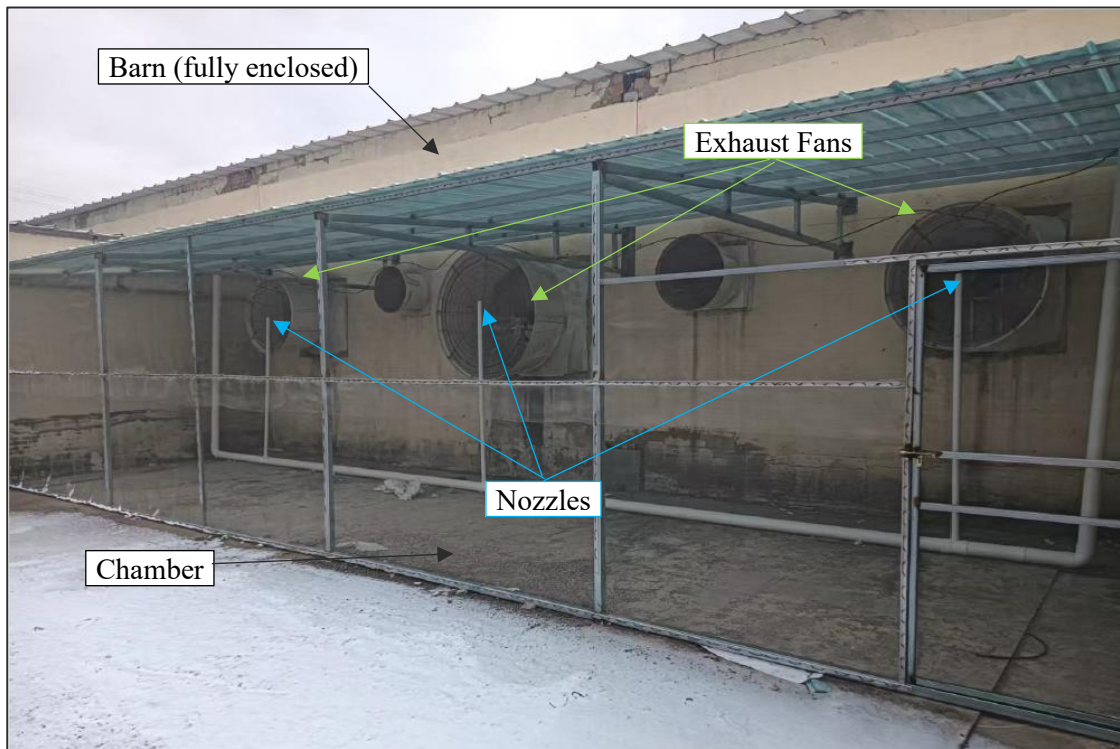


Figure 3.4 Photo of Micro-Nano Deodorization Chamber extracted from another Project⁴

- 3.5.13 The proposed deodorisation system uses a combination of nano-molecular water and ozone generated from fresh water and atmospheric air. Fresh water is treated by a nano-molecular water generator and stored in a water tank. At the same time, air is drawn in and processed to produce high-purity oxygen, which is then converted into ozone.
- 3.5.14 The nano-molecular water and ozone are mixed and sprayed through nozzles at the fan exhaust outlets (as shown in **Figure 3.3**), allowing direct contact with the odorous air stream prior to discharge. This treatment process facilitates odour reduction before release to the surrounding environment. Based on operational experience from similar agricultural facilities, barn odours are mainly associated with ammonia, which is highly soluble in water. Measurements obtained from comparable installations indicate that the system can achieve an ammonia removal efficiency in the range of approximately 75% to 90%.
- 3.5.15 There will be designated farm management personnel to oversee odour management during the daily operation of the barns. The designated farm management personnel will be responsible for reviewing the performance and odour removal efficiency of the proposed deodorisation system, including, but not limited to, the dosage and concentration of ozone, droplet size, contact time, and flow rate, to ensure that no odour nuisance is caused to the ambient environment at and beyond the boundary of the Application Site. The deodorisation system shall also incorporate appropriate measures for the safe handling and treatment of excess ozone in the exhaust stream to minimise any potential nuisance to the surrounding environment. Routine inspections and maintenance of the deodorisation

⁴ Exacted from the report of micro-nano deodorization system which is provided by the designated farm management personnel.

system, including the cleanliness and condition of the deodorisation chambers and exhaust fans, shall be carried out to ensure the system operates effectively and as intended, and to minimise the prolonged downtime.

Other Odour Mitigation Measures

- 3.5.16 Additional measures for odour control are recommended as follows in order to prevent odour nuisance during the operation: Manure handling and storage facilities, including the manure store and pre-treatment plant, shall be fully enclosed to minimise odour emissions;
- Slurry generated shall be stored in odour-proof containers prior to disposal;
 - Feed spillage shall be cleaned up promptly, and spoiled feed shall be removed on a daily basis to avoid the generation of additional odour sources; and
 - Good housekeeping practices shall be maintained across the farm, including regular cleaning and prompt repair of leaks from waterers and pipelines.

C. Cumulative Impacts

- 3.5.17 According to **Section 2**, there are no concurrent projects within the 500m assessment area. Hence, there would not be adverse cumulative impacts during the operational phase.

3.6 Environmental Monitoring and Audit

A. Construction Phase

- 3.6.1 With the implementation of the control measures and regular audit programme, no adverse environmental impact is anticipated during the construction phase. However, regular site audit for potential air quality impact is recommended to be conducted during the construction phase of the Application Site to ensure the air quality mitigation measures and the mitigation measures stipulated in Air Pollution Control (Construction Dust) Regulation are implemented.

B. Operational Phase

- 3.6.2 There would be no adverse air quality impact during operational phase. Hence, no environmental monitoring and site inspections are required.
- 3.6.3 With respect to odour impacts during the operation phase, as discussed in **Section 3.5**, the designated farm management personnel will continue to review the effectiveness of the odour control measures and refine relevant management arrangements where appropriate, with a view to minimizing potential impacts on the surrounding environment as far as practicable.

3.7 Conclusion

- 3.7.1 Construction works have been minimised under the latest design, such that no slope works, and only minor demolition works to the existing buildings in Farm 1.0 are proposed. In addition, given the restricted building height and the absence of basement construction,

Appendix 3.1

Confirmation email from Transport Department on Road Type Classification

From: Hiu Fung PANG <hiufungpang@td.gov.hk>
Sent: Wednesday, September 2, 2026 3:35 PM
To: [REDACTED]
Cc: Yanny OY LI <oiyinli@td.gov.hk>; [REDACTED]
Subject: Re: Fw: S16 Planning Application No. A/NE-LT/794

Some people who received this message don't often get email from hiufungpang@td.gov.hk. [Learn why this is important](#)

Dear Tony,

No comment please.

Regards,

Jacky Pang
E/TP3, TE/NTE, TD
Tel.: 2399 2731

----- Forwarded by Yanny OY LI/TD/HKSARG on 02/09/2026 03:15 PM -----

From: [REDACTED]
To: "oiyinli@td.gov.hk" <oiyinli@td.gov.hk>
Cc: [REDACTED]
Date: 27/08/2026 03:36 PM
Subject: S16 Planning Application No. A/NE-LT/794

Dear Ms. LI,

We refer to the captioned project in Wo Tong Pui, Tai Po. For the purpose of the Environmental Impact Assessment preparation, we would like to seek your confirmation on the road type classification of the concerned roads as listed below, as they are not indicated in the ATC.

Road Name	Road Type / Hierarchy
Hang Kai Lane	Local Distributor or below
Ngau Kwu Leng Path	Local Distributor or below

We would be most grateful if we could have your reply at your earliest convenience. Should you have any queries, please feel free to contact the undersigned.

Thank you very much.

Best Regards,

Tony Yip

Engineer | Transports Consulting

Arup

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

arup.com

Electronic mail messages entering and leaving Arup business systems are scanned for viruses and acceptability of content.