

Ref. No.	Appendix 2.1 Project Demarcation Document regarding the Project of Wageningen District Heating X: Responsible within the interface (X): Participant in the performance: The role is stated in the text	Lot A Heating central	Lot D DH Network	Lot H Building	Project Owner	Other actors
Interconnection & Distribution						
ID3	<p>The interface between Lot A and Lot D consists of the pumps and valves located inside the technical building. Lot D shall supply and install the pipes to the building inlet.</p> <p>Lot A shall connect the pumps and valves to the building entry inside the technical building.</p> <p>The Project Owner (PO) shall determine the location of the building entry.</p> <p>Lot H is responsible for constructing the building inlet, including all associated works required at the point of entry into the technical building.</p> <p>Lot A is responsible for executing the internal installation and shall connect the internal systems to the building inlet</p>	X	X	(X)	(X)	
ID4	<p>The interfaces between building and installation hence between Lot H and the connections to Lot A shall be coordinated by Lot A and the Project Owner (PO).</p>	X		(X)	(X)	
Tank Thermal Energy Storage/buffer						
TTES9	<p>buffer foundations, concrete slab & asphalt powder</p> <p>Lot H is responsible for the design and construction of the foundations and if applicable the concrete slab for the buffer. The foundations must be designed in accordance with the tank's technical characteristics, applicable local regulations, and the requirements of EN 14015.</p> <p>The buffer slab shall comply with the flatness tolerances specified in EN 14015. The slab diameter will be defined by Lot A. The design must also take into account potential ground settlement (sinking) resulting from the load; this settlement behaviour shall be monitored and taken into account by Lot A.</p> <p>Lot A shall provide all necessary documentation and data related to the buffer characteristics to enable Lot H to design the foundations and slab correctly. This includes, but is not limited to the static load, seismic resistance calculation notes, and anchoring requirements.</p> <p>If buffer anchoring is required, Lot A shall design and supply the anchors in accordance with EN 14015. Lot H is responsible for drilling the holes in the slab for the anchor rods and installing the anchors.</p>	(X)		X	(X)	
TTES10	<p>Earth connection</p> <p>Within the technical building two earth connection points are installed.</p>			X		
Technical Building & Building Installations						
TB1	<p>Water supply (external):</p> <p>The waterworks will establish a water supply to the technical building, including a meter arrangement with a stopcock in the technical building. Lot H must coordinate with the waterworks regarding water supply, connection and location thereof.</p>			X		
TB2	<p>Water installation (internal):</p> <p>Two filling taps will be installed in the technical room with a flow rate of 0.5L/s. This includes internal piping of these water connections.</p>			x		
TB3	<p>Monitoring of building installations:</p> <p>Lot A establishes monitoring of building installations with, among other things, fire alarm (if applicable), door contacts, operation of eyewash (if applicable) and emergency shower (if applicable).</p> <p>Alarms are handled in SCADA (Lot A). Lot H must provide information to Lot A regarding necessary signals and installations.</p>	X		(X)		(X)

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TB4	Datanet (external): PO brings forward a network cable (fiber), which PO terminates with a switch in the switch room. The location of the switch is coordinated with Lot A. Lot A provides power supply for the switch (Full network access incl. UPS). Lot A connects to this switch. The interface for the data network is the connector in the switch. Responsibility for data communication into the connector lies with Lot A, who connects the data cable.	X			X	
TB5	Datanet (internal): Lot A shall be responsible for ensuring that the data cable from the switch located in the electrical switchgear room is routed to all network outlets specified within the Technical Building (Lot H). The final positioning of all network outlets shall be subject to approval by the Project Owner (PO). It is noted that, the Technical Building shall be provided with two internet access points. These access points are to be supplied and established by the Project Owner (PO) / WOW, and are therefore outside the scope of Lot A.	X		(X)	(X)	
TB6	Grounding and potential equalization: Lot H are responsible for the establishment and testing of the potential equalization rail, including the grounding system for the complete installation, comprising the ring earth, to which Lots A shall connect. Lots A, shall be responsible for the potential equalization, connection, and testing related to their respective scopes of work. The interface is defined as the potential equalization rail located in the electrical switchgear room. Lots A, shall provide all necessary information required for the dimensioning of the grounding system.	(X)		X		
TB7	Access Roads, Paved Areas and Terrain Lot D shall establish all internal roads, both temporary and permanent, as well as paved areas and terrain works within the site boundary. Lot D shall establish the temporary construction site area required for the installation of site huts and facilities. Lots A, shall provide Lot D with all necessary information regarding the required area for the temporary construction site, temporary access roads, and temporary paved areas.		X			
TB8	Sewer and Drainage Installations Inside the Building Lot H shall, carry out all sewer and drainage installations inside the building, including any required safety measures related to potential NH ₃ (ammonia) release. In accordance with the requirements for Lot H, the internal sewerage system shall include the following: Two (2) sumps (1.5 L/s) installed in the concrete floor of the room where the heat pump is located, including all associated drain pipes. One (1) prefabricated concrete sump in the basement floor with a fixed connection to the external sewer via drain pipes. The supply and installation of the pump and safety valves for this sump shall be carried out by third parties and is therefore outside the scope of Lot H. All new internal sewerage pipes shall be constructed using KOMO-certified plastic pipes of adequate diameter and capable of withstanding temperatures up to 90°C. The entire system, including fittings, dimensioning and assembly, shall be executed in accordance with the manufacturer's or supplier's instructions, and delivered fully odor-free. Upon completion, Lot H shall flush the entire installation with water and perform a leak test to verify system integrity. The placement of all floor drains shall be determined based on the machine layout drawings provided by Lot A.	(X)		X		
TB9	Sewer Connection:			X		

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TB10	Rainwater: The discharge of rainwater shall be handled by Lot H. The discharge of condens water from the aircoolers shall be handled by Lot A	x		X	(X)	
TB11	Fire Safety and Emergency Preparedness: Lot H shall be responsible for ensuring that the overall fire protection of the building complies with all applicable regulations.			X		
TB12	Lighting and Electrical Outlets: Lot H shall carry out the building electrical installations, including lighting outlets and light switching in all rooms. Lot H shall supply the lighting fixtures for all rooms, as agreed with Lot A. Lot A shall install the lighting fixtures in the heat pump room, taking the machine layout into account. Lot H shall install the lighting fixtures in all other rooms.	(X)		X		
TB13	Noise: Lots A shall provide information to Lot H regarding the noise levels of machine components, ventilation systems, and other relevant equipment, enabling Lot H to design the necessary noise-mitigation measures to ensure compliance with the applicable regulatory noise limits. Lot H shall execute the building constructions and shall be responsible for ensuring that the building's noise-attenuation performance complies with all applicable regulations.	(X)		X		
TB14	Ventilation: Lot A shall be responsible for providing mechanical ventilation with heat recovery for the heat pump room, the electrical switchgear room, and the high-voltage/transformer room. This includes all associated sound attenuation, required connections, and control functions necessary for the removal of excess heat, as well as full compliance with the requirements of the Nederlandse Arbeidsinspectie (including, but not limited to, emergency ventilation and detection equipment). <i>Ventilation for all other rooms shall be provided by Lot H.</i>	X		X		
TB15	Openings, Recesses, and Conduits: Lot A shall carry out all required core drilling, openings, and recesses for its own penetrations, including subsequent closing and finishing works of the building. These activities shall be coordinated with Lot H.	X		(X)		
TB16	Chimney from Gas Boiler: The placement of the chimney for the gas boiler shall be determined by Lot A. Lot H shall carry out the roof penetration and perform the installation of the chimney from the inside of the ceiling and upwards. Lot A shall be responsible for connecting the gas boiler to the chimney installed by Lot H.	(X)		X		
Electrical Installation & SRO System						
ES1	Power Supply, Signal Interface, and Cabling Responsibilities: Lot A shall carry out all power supply works (400 V and signal exchange). Lot A shall establish the connection from the terminal box to the electrical switchboard in the technical building. Lot A shall integrate all signals into the SCADA system. Lot A shall install the conduits leading to the buffer.	X				
ES2	Signal Handling from the Local Grid Operator (Liander): Lot A shall be responsible for processing all signals received from the local electrical grid operator (Liander). The interface point shall be the switch established by Lot A.	X				(X)

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ES3	Signal Handling from the District Heating Network (Lot D): Lot A shall be responsible for processing all signals received from the district heating network (Lot D). The interface point shall be the switch established by Lot A.	X				

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Main Supply & Main Connection (Electricity & Gas)						
EG1	Power Supply Cables (external): The power supply cables, including protective earth, shall be routed by lot A from the outdoor kiosk to the transformer room of the technical building. The cables shall be connected by Lot A to a switching assembly supplied under Lot A's contract.	X				
EG2	Power Supply Cable (internal): The power supply cable from the switching assembly shall be routed by Lot A and shall be connected by Lot A to the main switchboard, which is supplied under Lot A's scope. The routing and placement of electrical cables and switchboards shall be coordinated with Lot H.	X		(X)		
EG3	Gas Supply pipe: The gas supply pipe shall be routed and terminated in a small external box by the gascompany. The connection to the gas supply shall be carried out by Lot A. The interface point shall be the safety valve located inside the box	X				(X)
Authority Processing						
AP1	Permits, Including Building Permits: The Project Owner (PO) shall submit the applications for all required permits, including the building permit. Lots A and H shall comply with all conditions and requirements set forth in the permits received.	(X)		(X)	X	(X)
AP2	Fire and Emergency Response: Lot A shall be responsible for the regulatory process and the subsequent approval of the complete heating central by the competent authorities.	x			(X)	(X)
AP3	Documentation Regarding the Construction Project: The Project Owner (PO) are responsible for collecting and submitting all documentation required under the building permit and the fire safety strategy in order to obtain the occupancy permit from the municipality. The PO shall ensure coordination with the municipality and with the PO's own activities and the other lots within the building.	(X)		(X)	X	(X)
Construction Site						
CS1	Construction Site Layout and Operation: The construction site layout, operation, and safety coordination shall be carried out in accordance with the V&G Plan (Veiligheids- en Gezondheidsplan). Each lot has its own responsibility to have a V&G plan It shall be assumed that Lot H will establish the temporary paved construction site roads and arrange the areas for material storage and site huts for Lot A. It shall further be assumed that this responsibility will be handed over to Lot A at an appropriate stage, when Lot H withdraws from the construction site.	X	x	X		
CS2	Safety Coordination: Safety coordination shall be carried out in accordance with the V&G Plan (Veiligheids- en Gezondheidsplan). It shall be assumed that this responsibility will be transferred to Lot A at an appropriate stage, when Lot H withdraws from the construction site.	X		X		
CS3	Connection of Electricity, Water and Sewage: Lot H shall establish a common connection point for electricity, water, and sewage for the site hut area and shall bear all associated costs. It shall be assumed that this responsibility will be transferred to Lot A at an appropriate stage, when Lot H withdraws from the construction site.			X		
CS4	Site Huts and Welfare Facilities: Lot H shall establish the temporary construction site area for all contractors. It shall be assumed that this responsibility will be transferred to Lot A at an appropriate stage, when Lot H withdraws from the construction site. All contractors shall establish their own site hut areas and welfare facilities in accordance with the instructions provided by Lot H in cooperation with the Project Owner (PO). All contractors shall connect their respective site hut areas to electricity, water, and sewage, including sub-meters, as instructed by Lot H in cooperation with the PO. The PO shall pay for the consumption of electricity and water for the site hut areas and welfare facilities, based on the readings from the sub-meters for each contractor. All Lots shall perform meter readings on a monthly basis and submit the readings to the PO no later than the 5th day of each month.	X	X	X	X	

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CS5	Meeting Facilities: It is possible to hold meetings in the existing building, where meeting space and toilet facilities are already available for use				X	
CS6	Construction Power and Construction Site Lighting: Lot H shall establish and maintain the construction power supply and construction site lighting, both indoors and outdoors, including any sub-distribution boards required for Lot A. The Project Owner (PO) shall bear all associated costs. Lot A shall indicate the required connection points and load demands. It shall be assumed that this responsibility will be transferred to Lot A at an appropriate stage, when Lot H withdraws from the construction site.	X		(X)		
CS7	Construction Site Sign: Lot H shall establish the mandatory common construction site sign, subject to alignment with the Project Owner (PO). Lots A shall coordinate and settle their respective share of the cost for the common construction site sign with Lot H. Lots A, shall provide all necessary information and logos for the sign to Lot H. It shall be assumed that this responsibility will be transferred to Lot A at an appropriate stage, when Lot H withdraws from the construction site.	X	(X)	(X)		
CS8	Waste Sorting and Disposal: Each contractor shall be responsible for arranging waste sorting and disposal for the waste generated by its own scope of work. Waste shall be sorted in accordance with the waste management instructions provided by the Municipality. Each contractor shall ensure that the required waste containers are provided and emptied as needed. All associated costs — including supply of containers, rental, and emptying — shall be borne individually by each contractor. As Lot H and Lot D have already included waste handling in their respective offers, the same principle shall apply to all contractors: Each contractor shall manage and finance the waste handling for its own works. All other contractors shall provide the necessary number of containers to ensure proper sorting and disposal of waste generated by their respective works. All associated costs, including containers and emptying, shall be borne by each respective contractor.	X	x	x		x