

## SUMMARY OF PROJECT COMPONENTS

Location	Description of components	District
PK 39872 – PK 32+50	<p>Existing Kazybek Bek Station, facilities and infrastructure will be modernised/expanded.</p> <p><b>Project footprint</b></p> <ul style="list-style-type: none"> <li>• Total site area: 54,800 m<sup>2</sup></li> <li>• Site area: 5,446 m<sup>2</sup></li> <li>• Road and sidewalk pavements: 20,238 m<sup>2</sup></li> <li>• Landscaping area: 3,050 m<sup>2</sup></li> <li>• Other areas: 26,066 m<sup>2</sup></li> </ul> <p><b>Railway tracks</b></p> <ul style="list-style-type: none"> <li>• Located on the existing Almaty-Otar railway line and will be for overtaking, receiving, departing and passing trains and servicing local trains</li> <li>• Connects to the existing Almaty-Shu railway line</li> <li>• Connects to the existing Kazybek Bek station main track no. 1 at PK 39908+13.02 / PK 0+00</li> <li>• 5 new arrival and departure tracks. 2 tracks at the existing Kazybek Bek station with existing tracks no. 5 and 6 to be lengthened</li> <li>• 200 m shunting track for diesel shunting operations</li> </ul> <p><b>Station facilities and infrastructure</b></p> <ul style="list-style-type: none"> <li>• 380 m long passenger platform and building</li> <li>• Safety island platform for train car inspections</li> <li>• Signalling and communication facility</li> <li>• Electrical centralisation post and equipment for automatic monitoring of rolling stock</li> <li>• Service and technical building</li> <li>• Control post</li> <li>• Switch cleaner station</li> <li>• Railway tool storeroom</li> <li>• Boiler house BMK 2x400G with capacity of 800kW</li> <li>• 1x5 m<sup>3</sup> and 1x10 m<sup>3</sup> diesel storage tanks</li> <li>• Liquefied petroleum gas (LPG) storage tank and LPG pipelines</li> <li>• APP-20 transformer station</li> <li>• Improvement works for the existing railway electrical substation 220/2x25/27.5/10 kV</li> <li>• 15 m<sup>3</sup> drinking water storage tank with absorber filters; Water intake tower with water piping system</li> <li>• Sewage pumping station</li> <li>• 1x200 m<sup>3</sup>, 1x300 m<sup>3</sup> and 1x1,000 m<sup>3</sup> firewater tanks; underground firewater pumping station</li> <li>• Biological treatment plant with a capacity of 10 m<sup>3</sup>/day; wastewater storage pond (volume 1783.25 m<sup>3</sup>); 10 m<sup>3</sup> storage tank for emergency wastewater discharge</li> <li>• 2 semi-detached residential houses for employees</li> <li>• Security post</li> <li>• Container module for checkpoint</li> <li>• Block-module container</li> <li>• Optix OSN180V fibre optic transmission system</li> <li>• 10 kV overhead power transmission lines</li> </ul> <p><b>Railway crossings/bridges/overpasses</b></p> <ul style="list-style-type: none"> <li>• Metal bridges</li> <li>• 80 m in length at PK 16+38.82 across the Uzyn-Kargaly river</li> <li>• 101.5 m in length at PK 18+01.89 across the Uzyn-Kargaly river</li> <li>• Railway crossing at PK 3+54.41 with length 293.79 m for existing road to TOO «Платформа А»</li> <li>• Railway overpass 101.5 m in length at PK 30+56.79 across the existing Shu-Almaty Railway</li> </ul>	Karasay and Zhambyl
PK 32+50 – 178+00	<p>Railway line and facilities between Kazybek Bek Station and Sorbulak Station will be newly constructed.</p> <ul style="list-style-type: none"> <li>• Heated resting room for workers</li> </ul>	Karasay, Zhambyl and Ili

Location	Description of components	District
	<ul style="list-style-type: none"> <li>Control post for technical monitoring of rolling stock</li> <li>Toilet</li> <li>LPG pipelines</li> <li>Optix OSN180V Fibre optic transmission system</li> <li>10 kV overhead power transmission lines</li> <li>Reinforced concrete bridges (cattle run) <ul style="list-style-type: none"> <li>37.34 m in length at PK 82+30.09 and PK 173+95.90</li> </ul> </li> <li>Railway crossing at PK 47+20.00 with length 100.00 m for a field road to sheep farms</li> <li>Construction water supply</li> <li>At an abandoned groundwater well with water level -8 m (no well design available) at PK 63+400 (left)</li> <li>At wells on small non-commercial farms (no well design and water level available) at PK 75+100 (right), PK 100+3700 (left) and PK 155+800 (right)</li> <li>Culverts</li> </ul>	
PK 178+00 – 199+00	<p>Sorbulak Station, facilities and infrastructure will be newly constructed.</p> <p><b>Project footprint</b></p> <ul style="list-style-type: none"> <li>Total site area: 40,800 m<sup>2</sup></li> <li>Site area: 4,613 m<sup>2</sup></li> <li>Road and sidewalk pavements: 5,148 m<sup>2</sup></li> <li>Landscaping area: 3,100 m<sup>2</sup></li> <li>Other areas: 27,938 m<sup>2</sup></li> </ul> <p><b>Railway tracks</b></p> <ul style="list-style-type: none"> <li>Only for passing and crossing trains</li> <li>3 new arrival and departure tracks</li> </ul> <p><b>Station facilities and infrastructure</b></p> <ul style="list-style-type: none"> <li>380 m long passenger platform</li> <li>Electrical centralisation post combined with road master's service room</li> <li>2 switch cleaner stations</li> <li>Signalling and communication post</li> <li>LPG storage facility and LPG pipelines</li> <li>2 compartmented sheds</li> <li>2 toilets</li> <li>Imported water supply with drinking water storage tank of 25 m<sup>3</sup> capacity; Underground water pumping station</li> <li>Underground firewater pumping station; 200 m<sup>3</sup> firewater storage</li> <li>Sewage pumping station; Wastewater storage pond (volume 527.95 m<sup>3</sup>); Biological treatment plant with a capacity of 3 m<sup>3</sup>/day; 5 m<sup>3</sup> storage tank for emergency wastewater discharge</li> <li>10 kV overhead power transmission lines</li> <li>Optix OSN180V Fibre optic transmission system</li> <li>2 semi-detached residential houses for employees</li> <li>Railway crossing at PK 198+61.42 with length 363.24 m for a field road to an autodrome and sheep farms</li> </ul> <p><b>Construction infrastructure</b></p> <ul style="list-style-type: none"> <li>Construction water supply at a well on a small non-commercial farm (no well design and water level available) at PK 180+400 (right)</li> <li>Construction labour camp 4.6 km east of the station</li> </ul>	Ili
PK 199+00 – 386+00	<p>Railway line and facilities between Sorbulak Station and Moyinkum Station will be newly constructed.</p> <ul style="list-style-type: none"> <li>Heated resting room for workers</li> <li>Control post for technical monitoring of rolling stock</li> <li>Toilet</li> <li>LPG pipelines</li> <li>Metal bridges</li> <li>64.8 m in length at PK 377+29.65 across the Sorbulak canal</li> <li>Highway overpasses</li> </ul>	Ili

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	<ul style="list-style-type: none"> <li>○ 89.84 m in length at PK 226+33.14 at the intersection with Almaty-Astana highway</li> <li>• 68.76 m in length at PK 340+48.23 at the intersection with the Karaoy-Sorbulak highway</li> <li>• Reinforced concrete bridges (cattle run) 37.34 m in length at PK 279+34.68</li> <li>• Temporary roads</li> <li>• At PK 226+33.14 with length 361.58 m</li> <li>• At PK 340+48.23 with length 360.65 m</li> <li>• Railway crossings</li> <li>• At PK 268+50.00 with length 751.74 m for a field road to sheep farms</li> <li>• At PK 313+94.17 with length 800.12 m as a technical crossing to gas pipeline servicing</li> <li>• At PK 364.15.00 with length 331.56 m for a field road to sheep farms and drainage channels along the alignment</li> <li>• Construction water supply</li> <li>• At wells on small non-commercial farms (no well design and water level available) at PK 230+900 (left), PK 275+100 (left) and PK 300+1400 (left)</li> <li>• At a Sorbulak discharge channel at Zhamankyul River</li> <li>• Culverts</li> </ul>	
PK 386+00 – 404+00	<p>Moyinkum Station, facilities and infrastructure will be newly constructed.</p> <p><b>Project footprint</b></p> <ul style="list-style-type: none"> <li>• Total site area: 30,300 m<sup>2</sup></li> <li>• Site area: 4,445 m<sup>2</sup></li> <li>• Road and sidewalk pavements: 5,370 m<sup>2</sup></li> <li>• Landscaping area: 2,600 m<sup>2</sup></li> <li>• Other areas: 17,885 m<sup>2</sup></li> </ul> <p><b>Railway tracks</b></p> <ul style="list-style-type: none"> <li>• Only for passing and crossing trains</li> <li>• May function as a freight station that receives/dispatches trains and handles transit cargo trains in future developments</li> <li>• 2 new arrival and departure tracks in addition to the main track</li> </ul> <p><b>Station facilities and infrastructure</b></p> <ul style="list-style-type: none"> <li>• 380 m long passenger platform</li> <li>• Electrical centralisation post combined with road master's service room</li> <li>• Control post</li> <li>• Sectioning post for the 27.5 kV communication network system</li> <li>• Safety island platform for train car inspections</li> <li>• 2 compartmented sheds</li> <li>• 2 switch cleaner stations</li> <li>• 2 toilets</li> <li>• Above ground shelter</li> <li>• Imported water supply with drinking water storage tank of 5 m<sup>3</sup> capacity; Underground water pumping station</li> <li>• Sewage pumping station</li> <li>• Underground firewater pumping station</li> <li>• 2x200 m<sup>3</sup> firewater storage tank</li> <li>• Biological treatment plant with a capacity of 3 m<sup>3</sup>/day; Wastewater storage pond (volume 764.61 m<sup>3</sup>); 5 m<sup>3</sup> storage tank for emergency wastewater discharge</li> <li>• 1 semi-detached residential buildings for employees</li> <li>• Optix OSN180V Fibre optic transmission system</li> <li>• 10 kV overhead power transmission lines</li> <li>• LPG pipelines</li> </ul>	Ili
PK 404+00 – 542+00	<p>Railway line and facilities between Moyinkum Station and Zhana Arna Station will be newly constructed.</p> <ul style="list-style-type: none"> <li>• Heated resting room for workers</li> </ul>	Ili

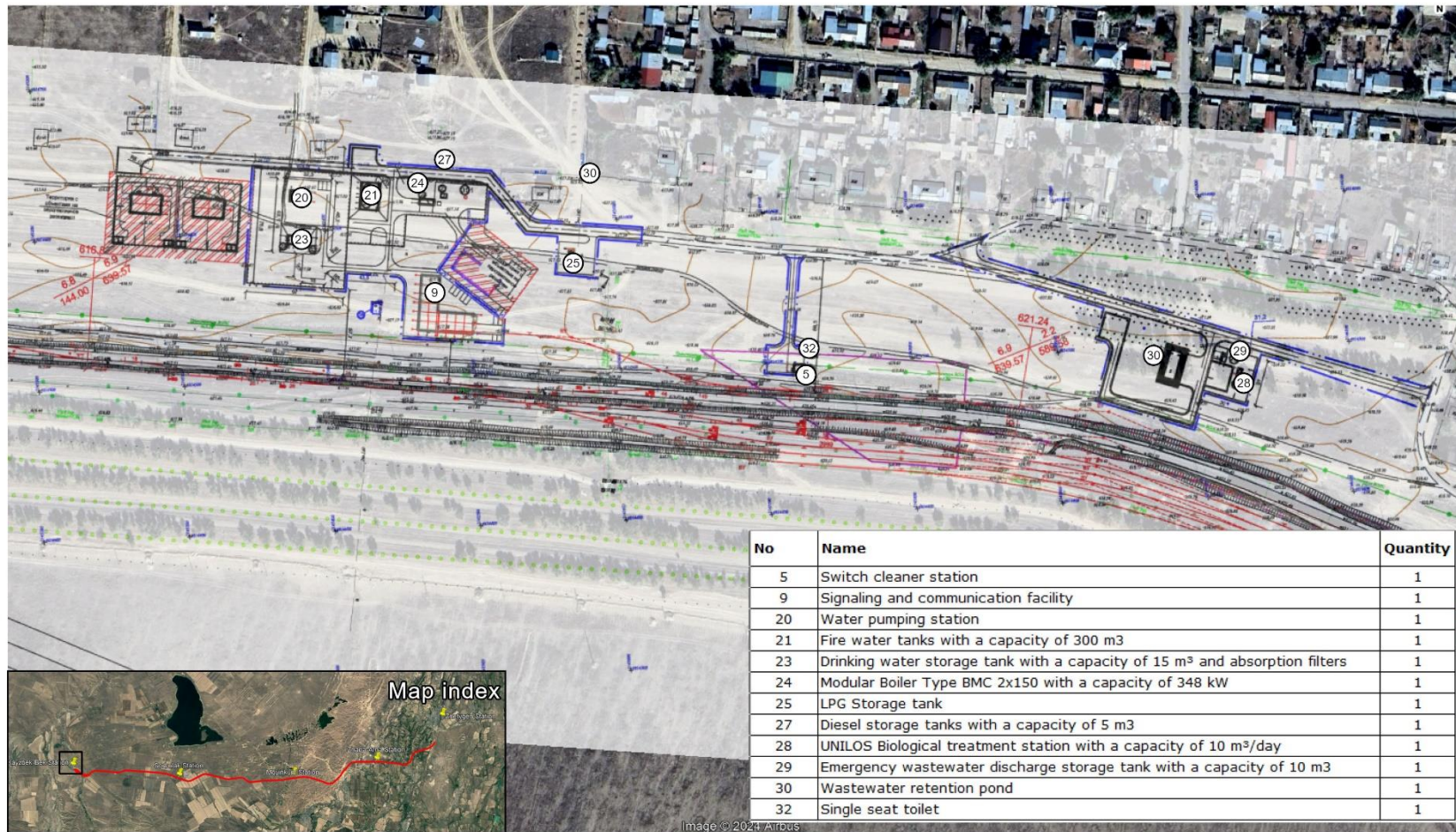
Location	Description of components	District
	<ul style="list-style-type: none"> <li>Control post for technical monitoring of rolling stock</li> <li>Toilet</li> <li>LPG pipelines</li> <li>Optix OSN180V Fibre optic transmission system</li> <li>10 kV overhead power transmission lines</li> <li>Metal bridges <ul style="list-style-type: none"> <li>99.3 m in length at PK 487+91.04 across an irrigation drain</li> </ul> </li> <li>94.5 m in length at PK 525+55.87 across the Kaskelen river</li> <li>Reinforced concrete bridges (cattle run) <ul style="list-style-type: none"> <li>37.34 m in length at PK 510+28.83 for a field road and driving livestock</li> <li>57.54 m in length at PK 480+69.42 for a field road and driving livestock</li> </ul> </li> <li>Railway crossings</li> <li>At PK 405+15.00 with length 370.38 m for a field road to sheep farms and 220 kV overhead line</li> <li>At PK 535+81.24 with length 103.32 m for a field road to sheep farms and 500 kV overhead line</li> <li>Car access at PK 510+28.83 with length 938.40 m for a technological service road for servicing gas pipelines</li> <li>Culverts</li> </ul>	
PK 542+00 – 570+00	<p>Zhana Arna Station, facilities and infrastructure will be newly constructed.</p> <p><b>Project footprint</b></p> <ul style="list-style-type: none"> <li>Total site area: 47,000 m<sup>2</sup></li> <li>Site area: 10,425 m<sup>2</sup></li> <li>Road and sidewalk pavements: 19,916 m<sup>2</sup></li> <li>Landscaping area: 7,000 m<sup>2</sup></li> <li>Other areas: 9,658 m<sup>2</sup></li> </ul> <p><b>Railway tracks</b></p> <ul style="list-style-type: none"> <li>Only for passing and crossing trains</li> <li>3 new arrival and departure tracks</li> </ul> <p><b>Station facilities and infrastructure</b></p> <ul style="list-style-type: none"> <li>380 m long passenger platform</li> <li>Electrical centralisation post</li> <li>Monitoring station for electrical and network systems</li> <li>Racks for storing contact network supports</li> <li>Storage areas for removable isolation towers</li> <li>Railway repair and maintenance station</li> <li>2 compartmented sheds</li> <li>2 toilets</li> <li>Garage for two cars</li> <li>2 switch cleaner stations</li> <li>Mobile boiler with a capacity of 0.6 MW</li> <li>Fuel and lubricant warehouse with a capacity of 5 tons</li> <li>Material warehouse for equipment and materials</li> <li>5 m<sup>3</sup> diesel tank</li> <li>LPG storage facility</li> <li>2 underground water pumping stations; 2x35 m<sup>3</sup> drinking water storage tanks</li> <li>Underground firewater pumping station; 2x300 m<sup>3</sup> firewater storage tanks</li> <li>Eco Prom 80 biological treatment plant; Wastewater storage pond (volume 1712.36 m<sup>3</sup>); 50 m<sup>3</sup> storage tank for emergency wastewater discharge; 3 sewage pumping stations</li> <li>1 semi-detached residential buildings for employees</li> <li>New 220/27.5/10 kV railway electrical substation</li> <li>Cold and hot water supply and sewerage systems</li> <li>LPG pipelines</li> <li>Optix OSN180V Fibre optic transmission system</li> <li>10 kV overhead power transmission lines</li> </ul>	Ili

Location	Description of components	District
	<b>Construction infrastructure</b> <ul style="list-style-type: none"> <li>One construction labour camp</li> </ul>	
PK 570+00 – 16414+00	<p>Railway line and facilities between Zhana Arna Station and Zhetygen Station will be newly constructed.</p> <ul style="list-style-type: none"> <li>Heated resting room for workers</li> <li>Control post for technical monitoring of rolling stock</li> <li>Toilet</li> <li>LPG pipelines</li> <li>Optix OSN180V Fibre optic transmission system</li> <li>10 kV overhead power transmission lines</li> <li>Metal bridges</li> <li>92.4 m in length at PK 614+20.29 across the Malaya Almatinka river</li> <li>92.4 m in length at PK 669+18.59 across the Karasu-Baiserke pond</li> <li>Highway overpasses <ul style="list-style-type: none"> <li>94.48 m in length at PK 586+14.17 at the intersection with the Almaty-Ust-Kamenogorsk highway</li> </ul> </li> <li>73.06 m in length at PK 645+77.85 at the intersection with the Almaty-Zhetygen highway</li> <li>Reinforced concrete bridge (cattle run) 73.76 m in length at PK 600+46.65 for an irrigation ditch, a field road and driving livestock</li> <li>Railway crossing at PK 629+41.44 with length 107.72 m for a field road</li> <li>Temporary roads</li> <li>At PK 586+14.17 with length 741.85 m near railway alignment</li> <li>At PK 645+77.85 with length 425.25 m near railway alignment</li> <li>Culverts</li> </ul>	Ili and Talgar
KM 16,366+22	<p>Existing Zhetygen Station and facilities will be modernised/expanded.</p> <p><b>Project footprint<sup>1</sup></b></p> <ul style="list-style-type: none"> <li>Total site area: 90,000 m<sup>2</sup></li> <li>Site area: 27,265 m<sup>2</sup></li> <li>Road and sidewalk pavements: 48,740 m<sup>2</sup></li> <li>Landscaping area: 5,000 m<sup>2</sup></li> <li>Other areas: 8,995 m<sup>2</sup></li> </ul> <p><b>Railway tracks</b></p> <ul style="list-style-type: none"> <li>New Zhetygen B Station connects to the existing Almaty-Aktogay line</li> <li>New Zhetygen B Station is adjacent to the existing Zhetygen-Kairat line</li> <li>8 new arrival and departure tracks to be constructed at Zhetygen B Station, estimated length is 1,050 m</li> <li>Extension of the existing tracks no. 5 and 6 to 1,050 m</li> <li>6 arrival and departure tracks at the existing Zhetygen A Station</li> <li>Shunting operations track of unknown length</li> </ul> <p><b>Station facilities and infrastructure</b></p> <ul style="list-style-type: none"> <li>Village road to Zhetygen B station</li> <li>380 m long passenger platform</li> <li>Safety island platform for train car inspections</li> <li>Rolling stock car inspection and technical control station</li> <li>48 m by 18 m locomotive equipment and inspection depot on 2 tracks with service and amenity rooms</li> <li>Electrical centralisation post</li> <li>Diesel generator set; Diesel fuel tanks: 1 unit 5 m<sup>3</sup>; 1 unit 10 m<sup>3</sup></li> <li>Administrative office building (ABK) for the operational depot</li> <li>Container module with crossing signalling systems</li> <li>2 switch cleaner stations</li> <li>Combined heating station</li> <li>Sectioning post for the 27.5 kV communication network system</li> <li>Garage for 4 cars</li> </ul>	Ili

<sup>1</sup> Based on the latest consultations with KTZ on 04 December 2024, this amount is yet to be finalised and more land is likely to be acquired at this location.

Location	Description of components	District
	<ul style="list-style-type: none"> <li>• LPG storage facilities and LPG pipelines</li> <li>• Fuel depot of TEK Zhetygen LLP with 2,000 m<sup>3</sup> diesel fuel storage capacity</li> <li>• Compressor stations: 1 unit BKK-7,6/7-2; 1 unit BKK-20/8-2</li> <li>• Sand and air supply pipelines</li> <li>• Dry sand tower warehouse with 2x850 m<sup>3</sup> capacity; Raw sand warehouse with a capacity of 650 m<sup>3</sup>; Sand drying plant with a capacity of 20 m<sup>3</sup>/day</li> <li>• Rest house for locomotive staff with 20 bed capacity, with laundry, shower and bathroom facilities and heating unit</li> <li>• Imported water supply facilities with 2x72 m<sup>3</sup> drinking water storage tank with a capacity; Underground water pumping station</li> <li>• Underground firewater pumping station; 2x1,000 m<sup>3</sup> firewater storage tanks</li> <li>• NVK-R-50S biological treatment plant; 2 wastewater storage ponds (total volume 6163.25 m<sup>3</sup>); 50 m<sup>3</sup> storage tank for emergency wastewater discharge; 3 sewage pumping stations</li> <li>• Mobile boilers <ul style="list-style-type: none"> <li>◦ 1 unit with a capacity of 1.1 MW</li> <li>◦ 1 unit with a capacity of 0.1 MW</li> <li>◦ 1 unit with a capacity of 1.0 MW</li> </ul> </li> <li>• Railway attendant building</li> <li>• Toilet</li> <li>• 2 compartmented sheds</li> <li>• 4 semi-detached residential houses for employees</li> <li>• Optix OSN180V Fibre optic transmission system</li> <li>• 10 kV overhead power transmission lines</li> </ul> <p><b>Railway crossings/bridges/overpasses</b></p> <ul style="list-style-type: none"> <li>• Road overbridge at the existing Zhetygen A Station 82.10 m in length at PK 16366+22.0 at the Zhetygen station (Zhetygenskaya Street)</li> <li>• Guarded railway crossing at PK 16400+50.94 between Zhetygen B Station and locomotive depot area with length 116.55 m</li> <li>• Transport interchange between Zhetygen Street and Otegen Batyr Street at PK 16366+32.56 with length 753.10 m</li> </ul>	





KAZYBEK-BEK STATION PLAN (1)		
SCALE:	Not to scale	
ORIENTATION:	SPATIAL REFERENCES:	
	Datum	World Geodetic System 1984
	Projection	Universal Transverse Mercator

1. Designed buildings and structures
2. Area for prospective development
3. Designed highways and overpasses
4. Designed fencing
5. Existing railway tracks and infrastructure
6. Projected boundary

DATA SOURCE(S):		
745189-2022-1-0-ГП_РД(20.05.2023) 1-1-0-ГП Station Kazybek Bek.pdf		
	Drawn	: CE
	Checked	: SR
	Date	: NOV 2024

LOCATION AND PLAN OF KAZYBEK BEK STATION (1)

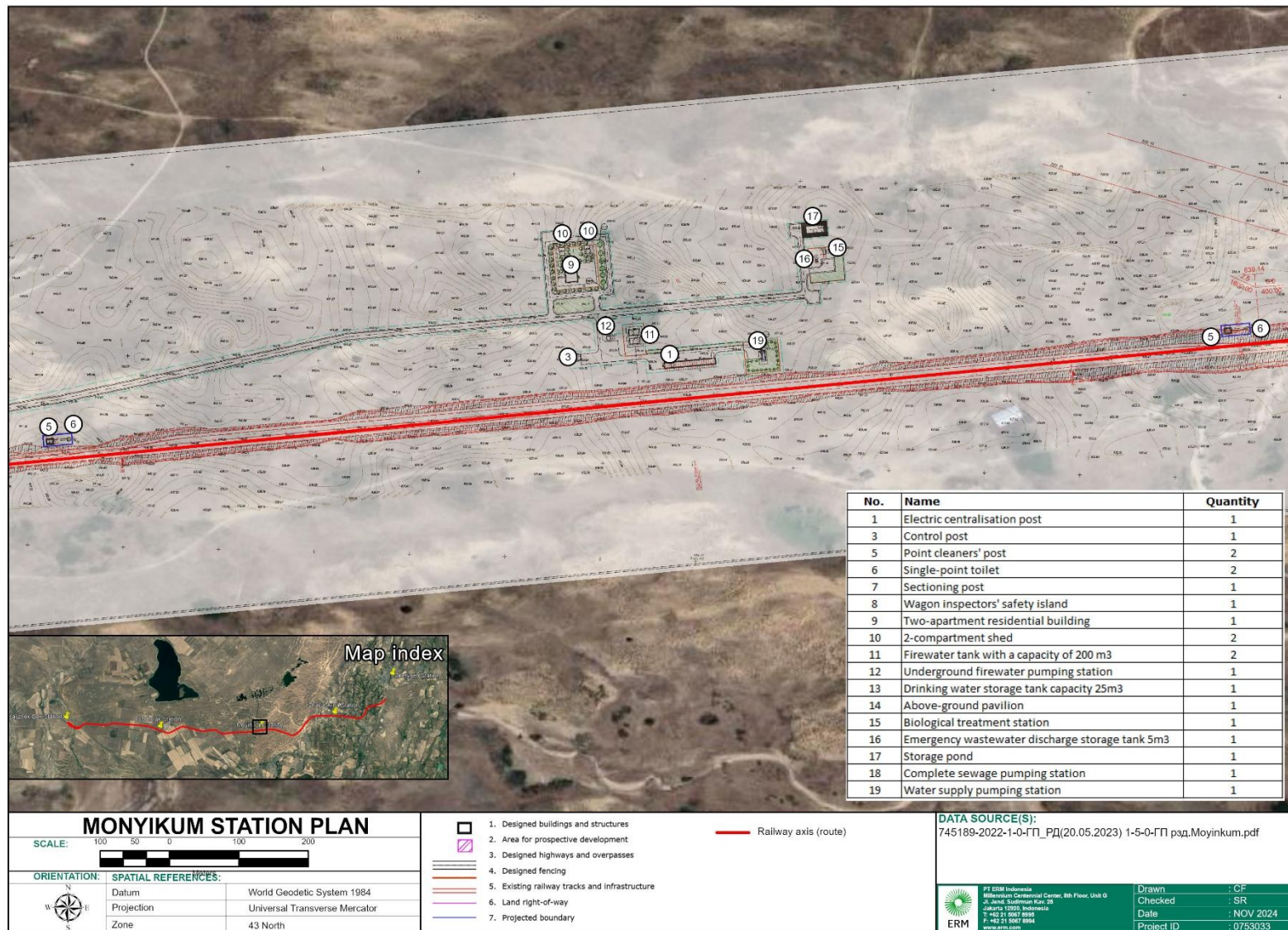




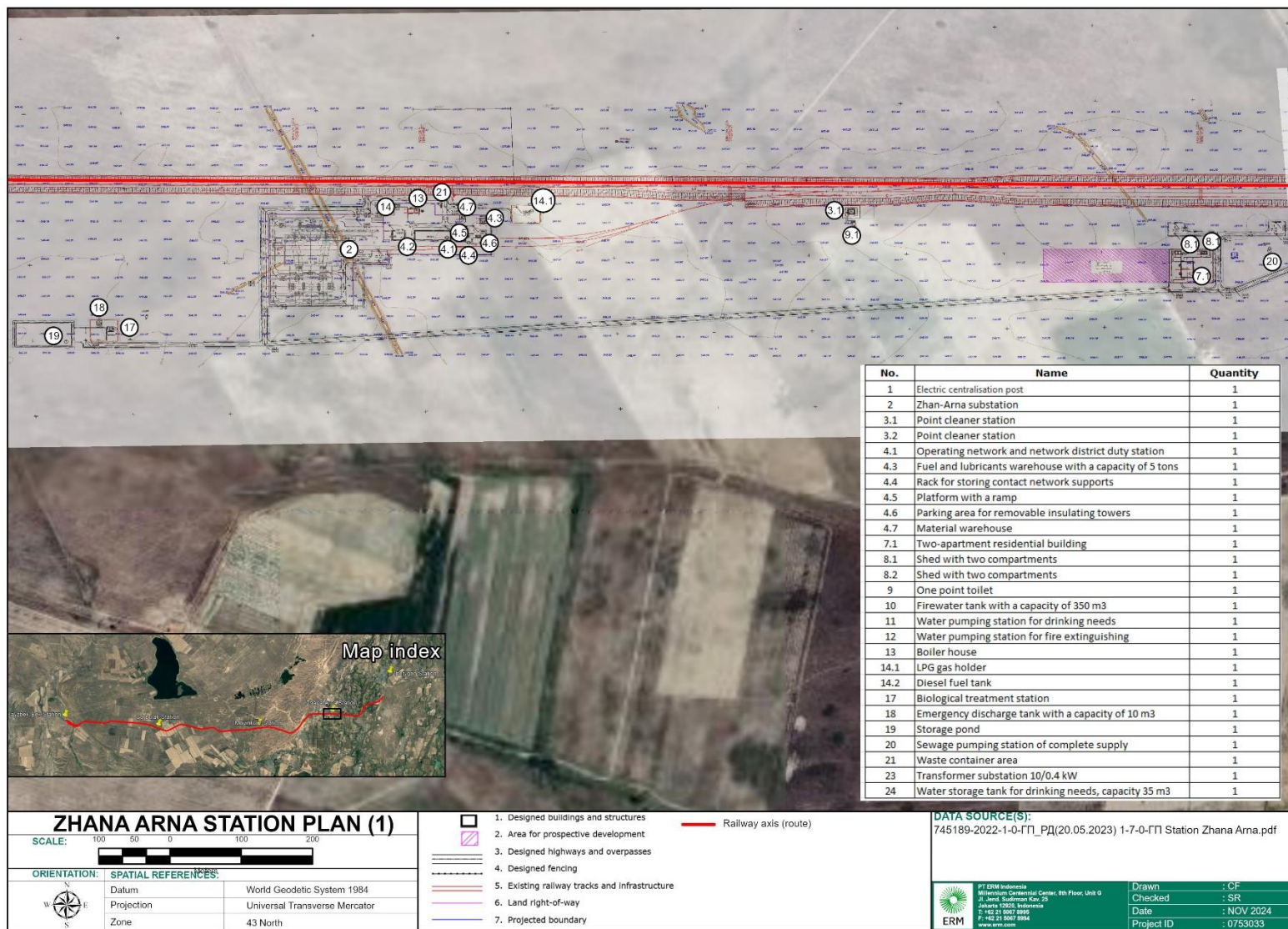






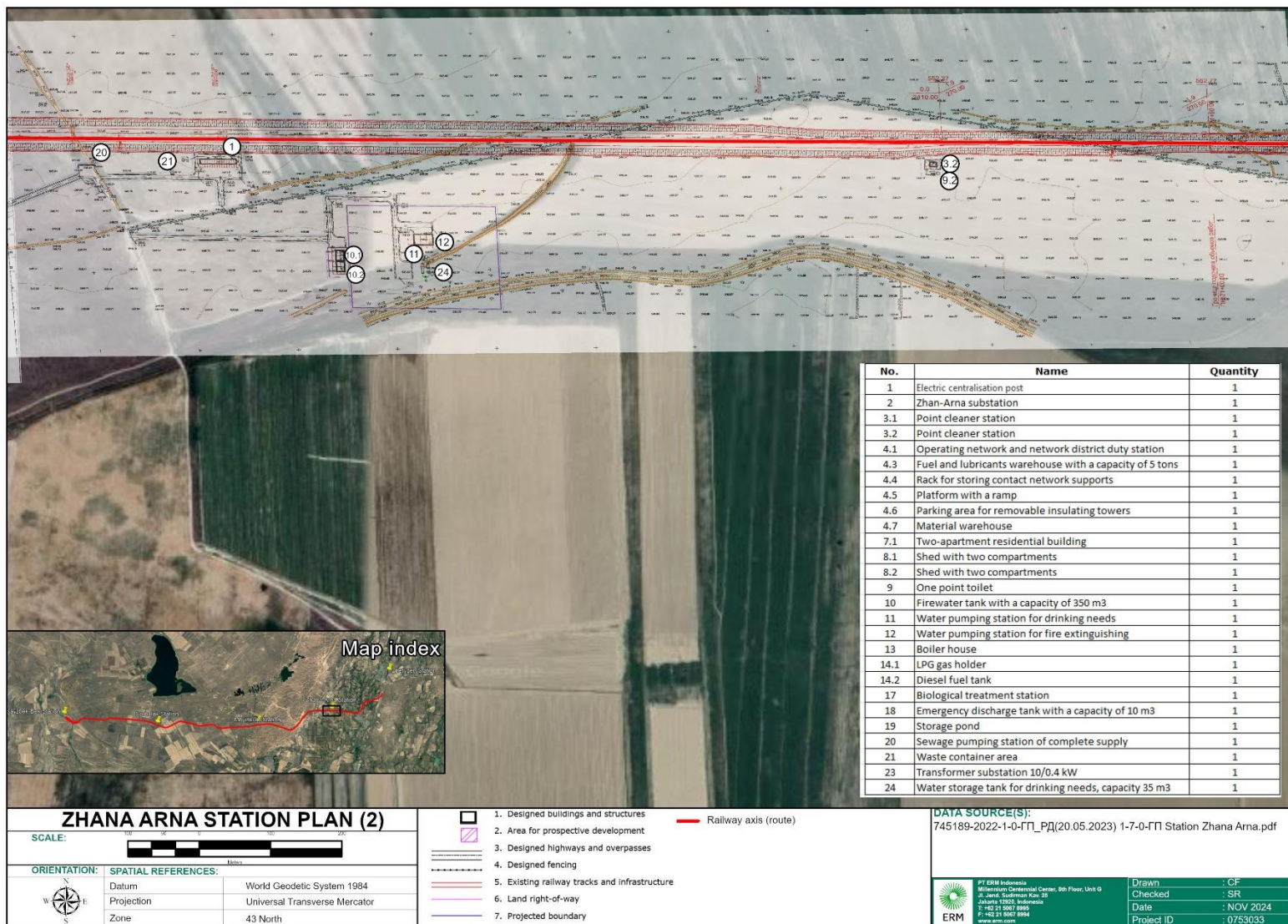


LOCATION AND PLAN OF MOYINKUM STATION



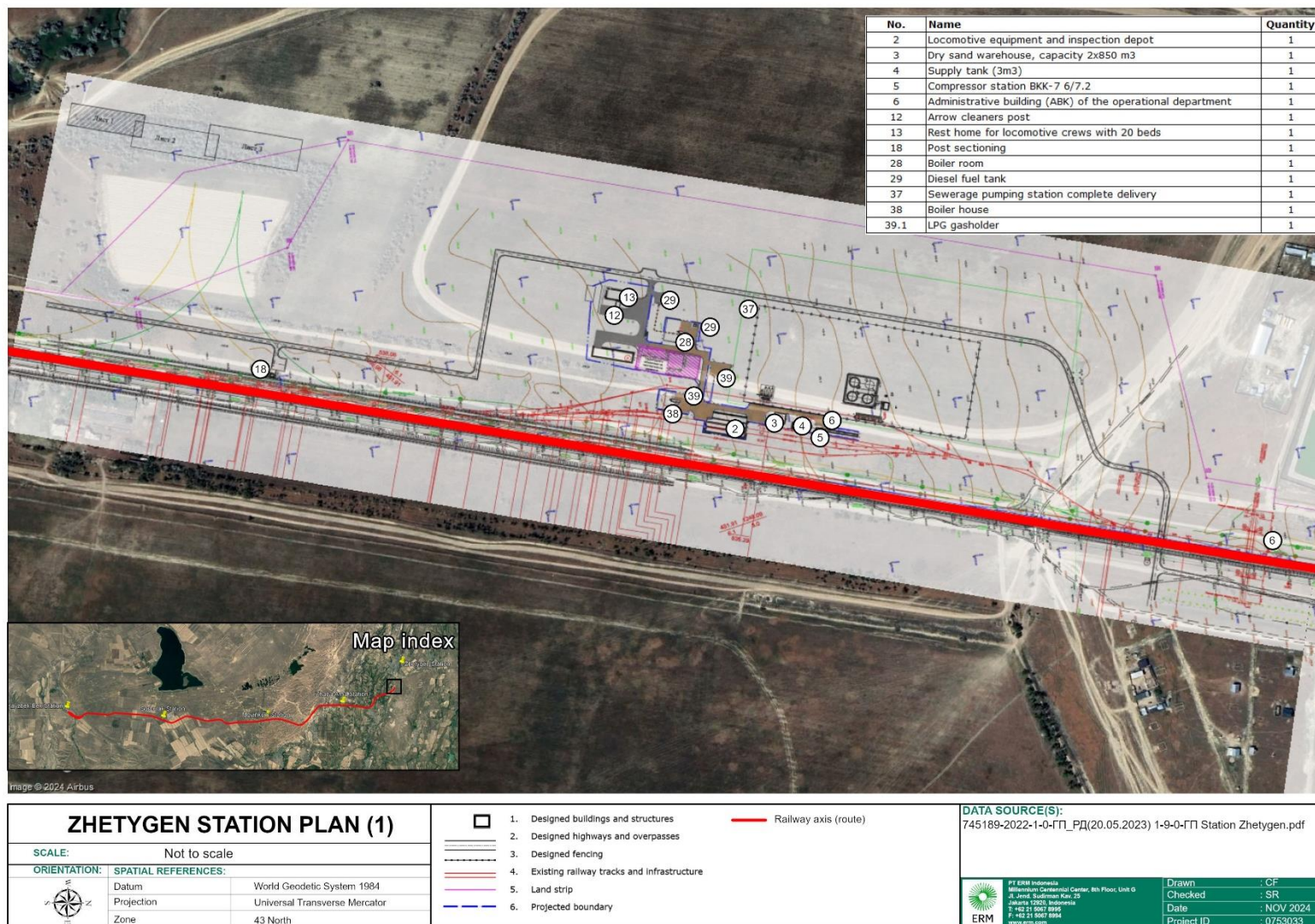
LOCATION AND PLAN OF ZHANA ARNA STATION (1)





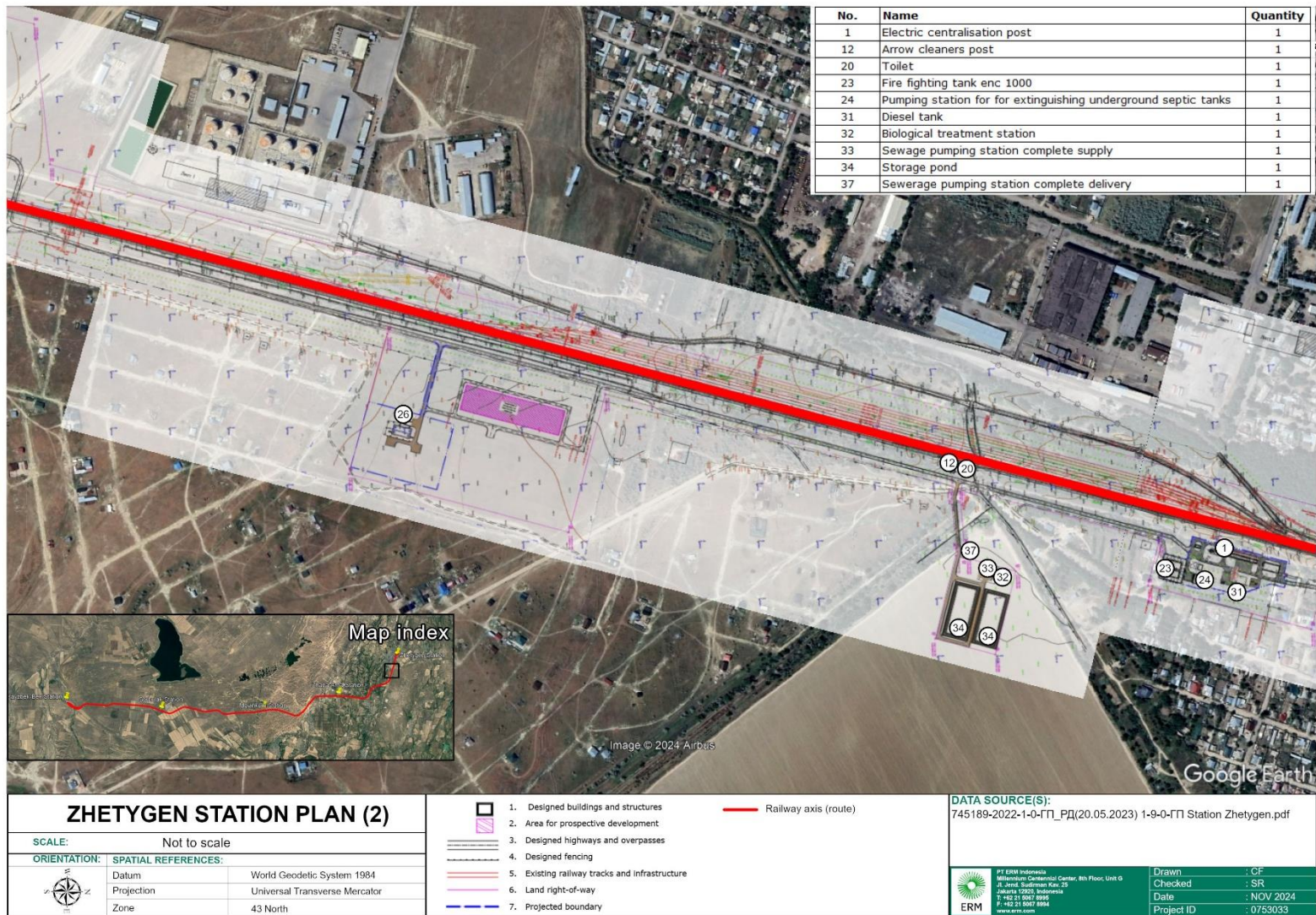
LOCATION AND PLAN OF ZHANA ARNA STATION (2)





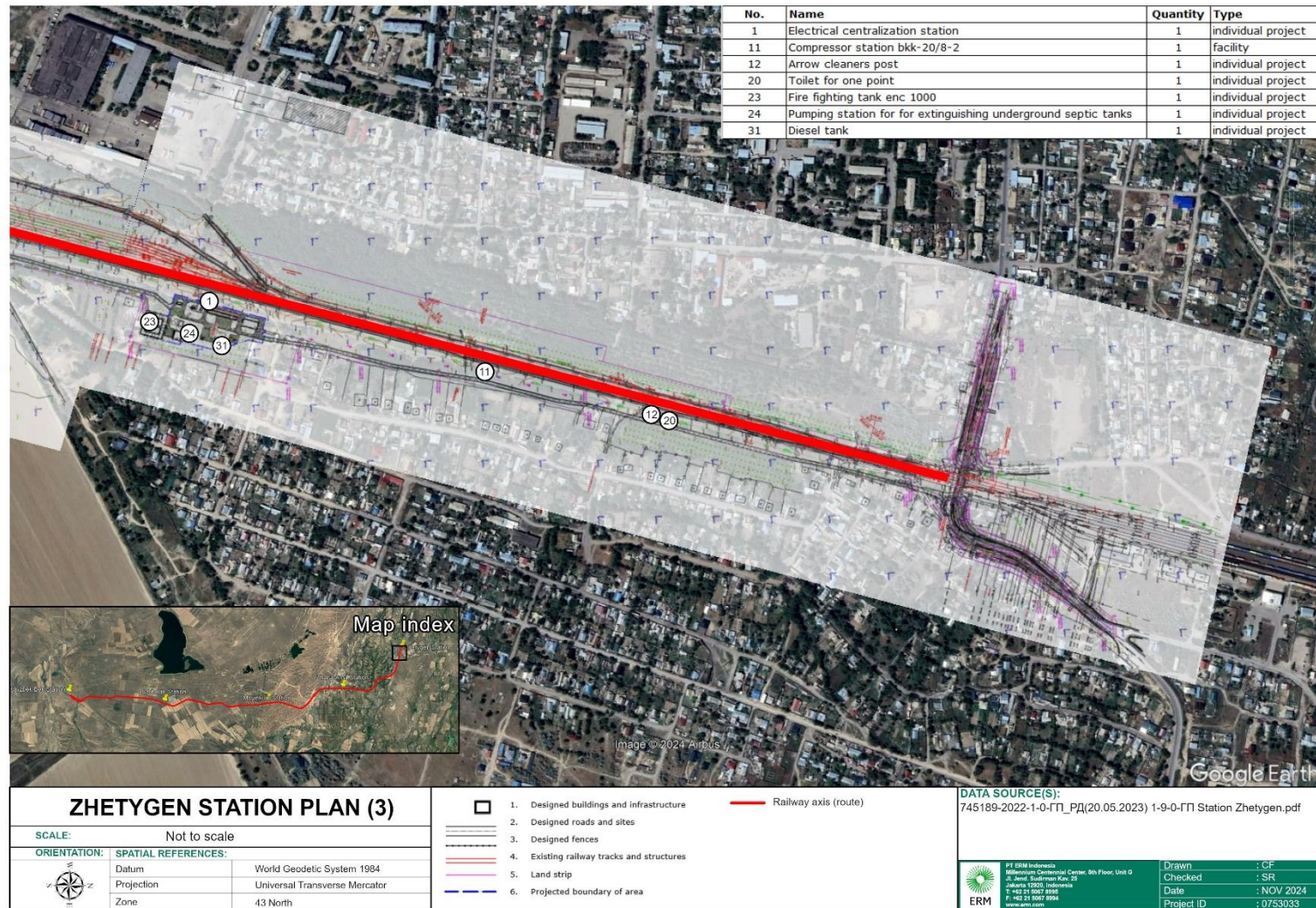
LOCATION AND PLAN OF ZHETYGEN STATION (1)





LOCATION AND PLAN OF ZHETYGEN STATION (2)





LOCATION AND PLAN OF ZHETYGEN STATION (3)