

**WASTEWATER**
**CENTRAL INTERCEPTOR**

Stage:	Commencing	Update:	81
Est.Start Date:	Aug 2019	Project ID:	E8314
Our Estimate:	\$1,200,000,000	Date:	02/06/2021
Location:	Western Springs, Mt Roskill, Mangere, Auckland		

- Specification:
- The Central Interceptor main works project includes: Grey Lynn Tunnel - 4.5m dia x 1.6km gravity tunnel between 15-60m deep; Main Tunnel - nominally 4.5m internal dia, approx 13km long, installed by Earth Pressure Balanced (EPB) Tunnel Boring Machine (TBM) lined with a single pass concrete segmental lining; Link sewer B - nominally 2.4m internal dia, 1.1km long, using concrete or Fibre Reinforced Plastic (FRP) pipe installed by micro-tunnelling machine (MTBM); Link sewer C - nominally 2.1m internal diameter, 3.2km long, using concrete, or FRP pipe installed by MTBM; 16 deep shafts along the tunnel & link sewers, of which 10 are constructed as cascade drop shafts & 2 are fitted with vortex drop pipes; Mangere pump station constructed by slurry wall, dual cell construction together with building, mechanical & electrical fitout; works in public parks, Watercare operational sites & under private property; numerous connection pipelines, chambers & gates; air treatment facilities; system wide controls & telemetry integration.
  - Construction of new sewer tunnel between Western Springs & the Mangere Wastewater Treatment Plant.
  - The main tunnel (4.5m dia) will be about 13km in length & will lie between 15 & 110m below ground level.
  - It will cross the Manukau Harbour at a depth of about 15m below the seabed.
  - The tunnel provides a total storage capacity of about 200,000 CM.
  - There will be 4.04km Link sewers (up to 2.4m dia) to collect wastewater flow from parts of central Auckland & Waitakere City & transfer them to the existing Mangere wastewater treatment plant.
  - The 3 main construction sites are expected to be at Western Springs, May Road in Mt Roskill & the Mangere Wastewater Treatment Plant.
  - Work will also be done at 16 deep shaft sites in areas including Mt Albert, Blockhouse Bay, Mt Roskill, Hillsborough and Sandringham.
  - Also includes a large pumping station, control gates, connection works & associated control, communications & M&E systems.

- Description:
- Contract awarded Mar 2019, for the Central Interceptor deep tunnel sewerage system & associated works.
  - Project also includes the Grey Lynn wastewater tunnel which is a 2km extension of the Central Interceptor from Tawariki Street, Grey Lynn, to Western Springs - tunnel will connect to the existing Tawariki Local Sewer & Orakei Main Sewer (a drop shaft & connection works are required at 44-48 Tawariki Street, Grey Lynn & a secondary shaft at the site is proposed to enable further collector sewer connections).
  - Grey Lynn Tunnel design commenced mid 2020.
  - Business Case expected to be completed between Jan-Jun 2021.
  - Work to start early 2023, shaft construction will take approx 8 months, with total construction expected to take 2 1/2 years to complete.
  - (BUN60334952, LUC60334953, WAT60334954 & DIS60338392) Resource Consent granted.
  - (Auckland BCO10302056) Building Consent issued end Feb 2020 to install a temporary noise

- fence along the western boundary of the Mt Roskill site (\$120K).
- (Auckland BCO10326647) Building Consent issued mid May 2021 for TBM Gantry shed, spoil shed required for tunnelling associated with the central interceptor project, 776 SM (\$900K).
- Mt Roskill site shaft excavation commenced Sep 2020 for tunneling of link sewer via micro TBM.
- Demolition of old storage tanks at Mangere WWTP underway Nov 2019 in preparation for construction of new pump station to pump wastewater from the tunnel to the plant.
- Excavation at Mangere site completed Oct 2020.
- Assembly of 165m long tunnel boring machine (TBM, named Hiwa-i-te-Rangi) completed, factory acceptance completed at the Herrenknecht factory in Schwanau, Germany.
- Disassembled TBM arrived in NZ via cargo ship (Parsifal) Nov 2020, next stage is reassembly in the shaft.
- Indicative timeline: Stage 1 (Southern Tunnel - Mt Roskill) 2019-late 2024; Stage 2 (Northern Tunnel - Western Springs) mid 2022-mid 2024; Stage 3 (Grey Lynn Tunnel) early 2023-mid 2025.
- Southern tunnel work programme: Site set up activities Aug 2019-Mar 2020; Construction of shaft structure Apr-Jul 2020; Excavation of shafts Aug-Oct 2020; Assembly of TBM end 2020; Tunnelling Apr/May 2021-early 2023; Construction of pump station late 2021-late 2023; Site reinstatement late 2023-mid 2024; Commissioning mid 2024.
- Recycled Water Plant [AF3198](#).
- Contractor/Subcontractor added: gas monitoring, pumps, scaffolding, portable buildings, structural steel fabrication, re-inforcing steel, formwork.
- Supplier added: heavy lift machine.

Developer: [Watercare Services Ltd](#) Private Bag 92521, Wellesley Street, Auckland, 1141, Phone: 09 539 7300, Email: [info@water.co.nz](mailto:info@water.co.nz)

Project Manager: [Jacobs NZ Ltd \[AKL\] \(was Sinclair Knight Merz\)](#) PO Box 9806, Newmarket, Auckland, 1149, Phone: 09 928 5500

Architect (Landscape): [Isthmus Group Ltd \[AKL\]](#) PO Box 90366, Victoria Street West, Auckland, 1142, Phone: 09 309 9442, Website: [isthmus.co.nz](http://isthmus.co.nz), Email: [akl@isthmus.co.nz](mailto:akl@isthmus.co.nz)

Designer: [Arup New Zealand Ltd \(was Arup & Partners\)](#) (Tender Design Support/Detailed Design Services) PO Box 5600, Wellesley Street, Auckland, 1141, Phone: 09 301 7000, Email: [auckland@arup.com](mailto:auckland@arup.com)

Designer: [Beca Ltd \[AKL\]](#) PO Box 6345, Wellesley Street, Auckland, 1141, Phone: 09 300 9000 or 09 300 9300, Website: [beca.com](http://beca.com), Email: [info@beca.com](mailto:info@beca.com)

Designer (Landscape): [GreensceneNZ Ltd](#) (Grey Lynn Tunnel - Arboricultural Assessment) PO Box 56551, Dominion Road, Auckland, 1446, Phone: 09 623 3514, Website: [greenscenenz.com](http://greenscenenz.com), Email: [info@greenscenenz.com](mailto:info@greenscenenz.com)

Consulting Engineers: [AECOM New Zealand Ltd \[AKL\]](#) (Concept) PO Box 4241, Shortland Street, Auckland, 1140, Phone: 09 967 9200, Email: [auckland.reception@aecom.com](mailto:auckland.reception@aecom.com)

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Consulting Engineers: [Jacobs NZ Ltd \[AKL\] \(was Sinclair Knight Merz\)](#) (PEA Detailed Design) PO Box 9806, Newmarket, Auckland, 1149, Phone: 09 928 5500, Website: [jacobs.com](http://jacobs.com)

Consulting Engineers: [Stantec \(was MWH\) \[AKL\]](#) PO Box 13052, Armagh, Christchurch, 8141, Phone: 09 580 4500, Website: [stantec.com](http://stantec.com)

- Consulting Engineers: [Tonkin & Taylor \[AKL\]](#) (Concept) PO Box 5271, Wellesley Street, Auckland, 1141, Phone: 09 355 6000, Website: [tonkin.co.nz](http://tonkin.co.nz), Email: [akl@tonkin.co.nz](mailto:akl@tonkin.co.nz)
- Engineer (Acoustic): [Marshall Day Acoustics Ltd \[AKL\]](#) PO Box 5811, Wellesley Street, Auckland, 1141, Phone: 09 379 7822, Email: [auckland@marshallday.co.nz](mailto:auckland@marshallday.co.nz)
- Engineer (Civil): [Envivo Ltd \[AKL\]](#) (Building & Asset Dilapidation Surveys) PO Box 109207, Newmarket, Auckland, 1149, Phone: 09 630 9512, Email: [info@envivo.co.nz](mailto:info@envivo.co.nz)
- Engineer (Geotech): [Beca Ltd \[AKL\]](#) PO Box 6345, Wellesley Street, Auckland, 1141, Phone: 09 300 9000, Website: [beca.com](http://beca.com), Email: [info@beca.com](mailto:info@beca.com)
- Engineer (Traffic): [Commute Transportation Traffic Consultants](#) (Grey Lynn Tunnel) PO Box 128259, Remuera, Auckland, 1541, Phone: 09 869 2825, Email: [info@commute.kiwi](mailto:info@commute.kiwi)
- Consultant: [4Sight Consulting Ltd \[AKL\]](#) (Contamination) PO Box 911310, Victoria Street West, Auckland, 1142, Phone: 09 303 0311, Website: [4sight.consulting](http://4sight.consulting), Email: [info@4sight.co.nz](mailto:info@4sight.co.nz)
- Consultant: [Boffa Miskell Ltd \[AKL\]](#) (Ecological Effects Assessment) PO Box 91250, Victoria Street West, Auckland, 1142, Phone: 09 358 2526, Website: [boffamiskell.co.nz](http://boffamiskell.co.nz), Email: [info@boffamiskell.co.nz](mailto:info@boffamiskell.co.nz)
- Consultant: [Clough & Associates Ltd](#) (Archaeological Assessment) 321 Forest Hill Road, Waitarua, Auckland, 0612, Phone: 09 814 1946, Website: [clough.co.nz](http://clough.co.nz), Email: [heritage@clough.co.nz](mailto:heritage@clough.co.nz)
- Consultant: [Stellar Projects Ltd \[AKL\]](#) (Strategic Procurement Expertise) PO Box 33915, Takapuna, Auckland, 0740, Website: [stellarprojects.co.nz](http://stellarprojects.co.nz), Email: [info@stellarprojects.co.nz](mailto:info@stellarprojects.co.nz)
- Consultant: [The Property Group Ltd \[AKL\]](#) (Specialist Property Expertise) PO Box 104, Shortland Street, Auckland, 1010, Phone: 09 309 8526, Website: [propertygroup.co.nz](http://propertygroup.co.nz), Email: [enquiries@propertygroup.co.nz](mailto:enquiries@propertygroup.co.nz)
- Consultant (Landscape): [Boffa Miskell Ltd \[AKL\]](#) PO Box 91250, Victoria Street West, Auckland, 1142, Phone: 09 358 2526, Website: [boffamiskell.co.nz](http://boffamiskell.co.nz), Email: [info@boffamiskell.co.nz](mailto:info@boffamiskell.co.nz)
- Consultant (Legal): [Simpson Grierson](#) Private Bag 92518, Wellesley Street, Auckland, 1141, Phone: 09 358 2222
- Cost Management: [Rider Levett Bucknall \(RLB\) \[AKL\]](#) Level 16, 48 Shortland Street, Auckland, 1141, Phone: 09 309 1074, Website: [rlb.com](http://rlb.com)
- Resource Management: [Jacobs NZ Ltd \[AKL\] \(was Sinclair Knight Merz\)](#) (Grey Lynn Tunnel), PO Box 9806, Newmarket, Auckland, 1149, Phone: 09 928 5500
- Surveyor: [Lands & Survey \[AKL\]](#) PO Box 33917, Takapuna, Auckland, 0740, Mobile: 027 650 3027, Website: [landsandsurvey.co.nz](http://landsandsurvey.co.nz), Email: [limin@landsandsurvey.co.nz](mailto:limin@landsandsurvey.co.nz)
- Contractor: [Abergeldie Harker Ltd](#) (JV - Senior Project Engineer) PO Box 9888, Newmarket, Auckland, 1149, Phone: 09 295 2570, Email: [info@abergeldieharker.co.nz](mailto:info@abergeldieharker.co.nz)
- Contractor (Civil): [Ghella Ltd](#) (JV - Project Director) PO Box 363, Shortland Street, Auckland, 1140, Phone: 09 218 8652, Website: [ghella.com](http://ghella.com), Email: [auckland@ghella.com](mailto:auckland@ghella.com)
- Contractor (Civil): [McMillan Drilling Ltd \(was McMillan Water Wells/Drilling Ltd\)](#) 120 High Street, Southbridge, 7602, Phone: 03 324 2571, Email: [admin@drilling.co.nz](mailto:admin@drilling.co.nz)
- Contractor (Demolition): [Ward Demolition Ltd](#) (Storage tank demolition) PO Box 12720, Penrose, Auckland, 1642, Phone: 09 622 3111, Email: [demo@ward-demolition.co.nz](mailto:demo@ward-demolition.co.nz)
- Contractor (Services): [Becker Mining Australia Pty Ltd](#) (Delivery of Underground Safety Systems), 46 Glenwood Drive, Thornton, Newcastle, NSW, Australia, 2322, Phone: +61 2 4941 3333, Website: [becker-mining.com](http://becker-mining.com), Email: [sales@au.becker-mining.com](mailto:sales@au.becker-mining.com)
- Contractor (Supplier): [APS Equipment Ltd](#) (Heavy Lift Machinery) PO Box 4361, Kamo, Whangarei, 0141, Phone: 09 437 9037 or 0800 001 495, Website: [apsequipment.co.nz](http://apsequipment.co.nz), Email: [sales@apsequipment.co.nz](mailto:sales@apsequipment.co.nz)

- Contractor (Supplier): [Castle Portable Buildings](#) PO Box 104062, Lincoln North, Auckland, 0654,  
Phone: 0800 780 900, Website: [castleportablebuildings.co.nz](http://castleportablebuildings.co.nz), Email: [sales@castlepb.co.nz](mailto:sales@castlepb.co.nz)
- Contractor (Supplier): [PERI New Zealand](#) (Peri Formwork) PO Box 12298, Penrose, Auckland, 1642,  
Phone: 0800 473 7469, Website: [peri.co.nz](http://peri.co.nz), Email: [akl@peri.co.nz](mailto:akl@peri.co.nz)
- Subcontractor: [Accurate Instruments \(NZ\) Ltd](#) (MSA Altair 4XR & 5X Gas Monitors), PO Box 25586,  
St Heliers, Auckland, 1740, Phone: 09 579 1777, Website: [accurate.kiwi](http://accurate.kiwi),  
Email: [sales@accurate.kiwi](mailto:sales@accurate.kiwi)
- Subcontractor: [Prime Pump Ltd](#) PO Box 412, Greymouth, 7840, Contact Info: Message via web site,  
Website: [primepump.co.nz](http://primepump.co.nz)
- Subcontractor (Earthworks): [CLL Service & Solutions \(CLL\)](#) (Secant bored piling) PO Box 577, Kumeu, Auckland, 0841,  
Phone: 09 412 7048, Website: [cll.net.nz](http://cll.net.nz), Email: [sean@cll.net.nz](mailto:sean@cll.net.nz)
- Subcontractor (Structural Steel): [Complete Reinforcing Ltd](#) 37 Firth Street, Drury, Auckland, 2113, Mobile: 027 474 1553
- Subcontractor (Structural Steel): [Genweld Ltd](#) PO Box 204020, Highbrook, Auckland, 2161, Phone: 09 272 3674 or  
0800 748 393, Website: [genweld.co.nz](http://genweld.co.nz)
- Subcontractor (Scaffolding): [All Safe Scaffolding](#) 18 Cowley Place, Rosedale, Auckland, 0632, Phone: 09 448 2179,  
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