

# Subdivisions

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**PAUL SMITH**  
*Earthmoving*

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*Laying the  
groundwork  
for a better  
tomorrow*

***As we have evolved, we continue to expand our expertise, management and systems to successfully complete large earthmoving and civil construction projects, advancing from subcontractor to main contractor and a leading player throughout the South Island.***



# Who we are

Paul Smith Earthmoving was established over 35 years ago and is a major force in the earthmoving and civil industry within the South Island.

We have built a strong reputation by working closely with clients to successfully deliver projects. We pride ourselves on the strength of our relationships and our ability to deliver quality and value to our clients. We have delivered numerous projects in all types of ground conditions and in challenging and diverse circumstances. We believe that we have the experience and proven track record to deliver. We are innovative, skilled and efficient at what we do.

Our company has a strong commitment to developing and maintaining long term relationships with our existing and potential clients.

The achievement of this is underpinned with our key five values:

- By being Customer Focused we understand what we need to deliver.
- Through Teamwork we do this efficiently.
- With Innovative and Creative solutions, we treat each client and job as an individual to give a tailored outcome.
- We Deliver on what we say we will do thereby ensuring long-term trust, respect and integrity is not only gained but also maintained.
- By operating in a Safe and Environmentally Responsible manner we enhance the wellbeing of our clients, staff and community.

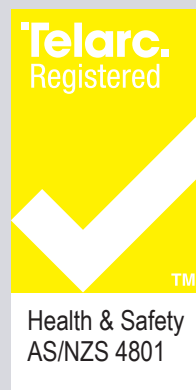
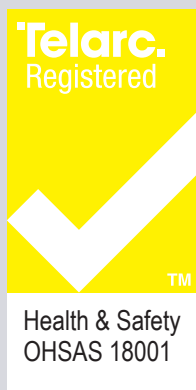
These values combined ensure management and staff take pride in producing high quality, well managed work on every project.

Management and staff take pride in producing high quality, well managed contracts. We take a collaborative approach to ensure client contract objectives are met. From the beginning of a project until the completion you can be assured that any project will be well managed to achieve your objectives of time, cost, safety, quality, and environmental management.

Paul Smith Earthmoving like to be involved early in the design phase, where an "Early Contractor Involvement" approach allows us to pass on our experience and contribute to value engineering from the outset. We believe this allows cost savings to be delivered in the early stages of a project which can offer the most effective whole of life benefits and long-term practical value.

Paul Smith Earthmoving has branches in Christchurch, Timaru, Central Otago, Ashburton, Greymouth and Twizel and is a preferred contractor for a number of high-profile clients and organisations throughout New Zealand.

# Certifications & Memberships



# Specialising in Subdivision Construction

To successfully deliver a subdivision development it requires extensive experience in successful subdivision construction in challenging urban/rural environments; proven quality assurance, testing and commissioning processes; and effective Health & Safety and traffic management.

Paul Smith Earthmoving provides that experience.

We have been a major part of supplying new subdivisions in the Canterbury, Otago & Mackenzie

Region markets, joining thriving communities and towns, connected by efficient and sustainable infrastructure.

Our highly experienced team, full equipped with in-house plant and resources, and proven supplier partnerships has delivered these projects on time, on-spec, to quality and within budget.

We will bring our insights, know-how and experience to successfully deliver your project.



# Services

- Demolition
- Bulk Earthworks
- Building Platform Construction
- Gravel Raft Construction
- Removing Contaminated Materials
- Supply & Installation of all Underground Services
- Construction of Drainage Systems – Soakage Pits, Retention Basins, Swales, Ponds
- Road Construction & Surfacing
- Engagement and/or liaison with Energy & Utility Contractors
- Kerbing
- Rock Retaining Walls
- Line Marking
- Footpaths
- Soft & Hard Landscaping
- Fencing
- Testing & Commissioning

We have a proven track record for delivering large residential and commercial developments on time, to budget and with the highest quality. Our experienced team, from plant operators to project managers, intricately understand the processes involved in developing a subdivision.

We strive to build strong working relationships with stakeholders such as local council and utility providers

to allow us to work through issues quickly and effectively.

Our large resource of plant and labour, along with our integrated service offering, allows us to effectively become a single-point solution for our clients. All water and sewer installation, landscaping, concrete work, pipe laying, concrete supply, gravel supply is typically supplied and/or delivered by Paul Smith Earthmoving.

# Projects







***Our mission is to deliver innovative earthworks solutions through customer driven staff and technically advanced plant.***

***Woods Ltd***

# **BEACH GROVE DEVELOPMENT PROJECT STAGES 2, 3 & 4**



Location

***Kaiapoi***

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Contract Value

***Stage 2 - \$1.4M***  
***Stage 3 - \$2.6M***  
***Stage 4 - \$900k***

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Type of Construction Project

***Residential***  
***Subdivision***

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Stage 2 Civil & Earthworks

***Sep 2020 -***  
***Apr 2021***

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Stage 3 Civil & Earthworks

***Feb 2021 -***  
***June 2021***

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Stage 4 Earthworks

***July 2021 -***  
***Jan 2022***

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Referee

***Rob Howe***  
***E: rob.howe@woods.co.nz***

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## Scope

This project is for the civil works undertaken for the Beach Grove Residential Development project in Kaiapoi. The project is part of an overall master-planned development to deliver 150 affordable homes close to schools and the Kaiapoi town centre. The scope of works includes site preparation, relocation of the haul road and construction of sealed residential roads and associated works.

The site has multiple trades working in a confined space, limited accessways, and the presence of pedestrians and children crossing to access the local school, Paul Smith Earthmoving developed a traffic management plan and environmental management plan to enhance safety. Traffic management controlled the site entrance off Beach Road. The TMP caters to students entering and exiting the premises, in high foot and vehicle traffic volumes. The Site STMS set up and maintained the TTM to ensure that the site is maintained to a high level keeping both the public and workers safe. The TTM ensures, so far as reasonably practicable, the provision and maintenance of safe systems of work for on-road activities for road users and road workers. PSE's resources are competent in the design of traffic management plans and the subsequent set-out following strict safety around sequencing and monitoring to meet contingent aspects of the TTM management process. The site STMS will also be on-site throughout the removal of the TTM and complete the appropriate documentation as set out in the CoPTTM manual.

### ***More than 16,500m<sup>2</sup> of topsoil has been stripped and 83,000m<sup>3</sup> of hard fill material imported and placed to geotechnical requirements.***

Paul Smith Earthmoving is completing the works, including as-built drainage, water, lot connections and utility service locations to the Engineer on time and to requirements.

Earthworks, stormwater drainage and sewer (between 100mm dia to 300mm dia uPVC stormwater drains), water and other utility networks are also being installed.



1. 17km of pipework was laid, and its associated fittings
2. 100,000m<sup>3</sup> of imported bulk fill material
3. 77,500m<sup>2</sup> of geo cloth supplied and installed
4. 23,000m<sup>2</sup> of topsoil excavation.

Overall, the project is currently being delivered on time, on budget and to spec, achieving all HSEQ conformances and zero lost time injuries.

## Key Challenges

- Working on delicate subgrade using tip head techniques to install the gravel on the subgrade
- Working to tight timeframes of bulk import and working within civil teams to achieve programme milestones and methodology requirements
- High water table being incurred whilst installing drainage and services
- School zones and high trafficable areas being used as truck routes meant planning with school and specialised TMP requirements around school times



*Fletcher Living Ltd / Ōtākaro*

**THE EAST FRAME  
RESIDENTIAL  
DEVELOPMENT  
(SUPERLOTS 3, 5, 6C & 7)**

Location

**Christchurch**

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Commenced

**2019**

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Contract Value

**\$3.1 million**

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Completed

**Ongoing**

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Referee

**Brent Hawes**

**E: [BHawes@frl.co.nz](mailto:BHawes@frl.co.nz)**

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## Scope

Paul Smith Earthmoving, so far, has delivered the following, for all 4 Lots combined:

- Cut to Waste – 3,348m<sup>3</sup>
- Cut to Fill – 1,080m<sup>3</sup>
- Import & Place Engineered Fill for Gravel Raft Construction, Site Levelling & Pavement Prep – 3,679m<sup>3</sup>
- Excavated, supplied, and backfilled 3980 lm of stormwater, wastewater & water mains & associated fittings, ranging in pipe size from DN 100 uPVC to DN600 RRJRC Class 4
- Supply & install all Drainage Systems – Manholes, Stormwater 360 filtration devices, sumps, gully traps, downpipe connections, water meters, backflow preventers etc
- 802 lm of Electrical / Communications / Data trenching
- Soak-pit, Catchment Pond, Earth Bunds & Emergency Overflow Weir Construction
- Prep and placement of 4,724 m<sup>2</sup> of 30mm & 50mm Asphalt Pavements
- Prep & placement of 1,608m<sup>2</sup> of two-coat Chipseal
- Supply & installation of 594 lm of Kerbing (Kerb Only to Heavy Duty Kerb & Channels)

The East Frame Residential Development spans five city blocks and will take around nine years to complete, completed in stages. Overall, the development will consist of 900 homes and retail facilities. The development balances a mix of apartment types and townhouse typologies and recently won the "2021 Canterbury Architecture 'Multi-Unit' Award".

The development is being completed over multiple stages with multiple contractors, which has required a certain level of coordination with surrounding developing construction and trades. This emphasises Paul Smith Earthmovings ability to work collaboratively with the developer and separate contractors.

The construction works are being completed in the Central Business District in Christchurch, near the Innovation & Justice and Emergency Precinct as well as the inner-city residential community living in the construction vicinity. Specific planning and management are required to complete these works due the high pedestrian and vehicle trafficable area. Paul Smith Earthmoving has developed specific and specialised Traffic Management Plans to reduce the public interface in the area and allowed production to continue without risk of third-party access to the work front.





***Fletcher Living Residential Ltd***

**GREENSTEAD  
SUBDIVISION  
STAGES 1 - 3**



Location

***Lincoln***

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Commenced

***April 2021***

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Contract Value

***\$4.5 million***

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Anticipated Completion

***April 2022***

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Type of Construction Project

***Residential  
Subdivision***

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Referee

***Jamie  
Verstappen***  
*E: [Jamie.Verstappen@dls.co.nz](mailto:Jamie.Verstappen@dls.co.nz)*

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Greenstead is a 240 multi-lot subdivision development in Lincoln, in the Selwyn District Council. Paul Smith Earthmoving is providing a turn-key service, from bare land to foundation levelling, including demolition, earthworks, retaining, drainage and services, roading & building foundations.

***The development is part of an overall urban development plan to the Canterbury district, which is experiencing rapid residential expansion.***

## Scope

Paul Smith Earthmoving's scope is to deliver:

- Determine position and protect existing services
- Prepare and supply QA and as-built documents for all works to SDC standards
- Traffic Management, including Approved TMP
- Erosion, Sediment and Dust Control in accordance with the ESCMP and Ecan requirements
- 111,580m<sup>2</sup> Strip topsoil to stockpile & compaction of stripped subgrade over lot areas
- Cut to Fill 22,556m<sup>3</sup> including compaction to NZS 4431 standards
- Cut to stockpile 4,500m<sup>3</sup> for future stages use as fill
- Groom soil and grass swales and reserve areas to council standards Incl establishment and maintenance through defects period
- Form 2m stone channels in basins, including wrapped boulders - 305 lm
- Import and lay 300mm of crushed concrete along future road for haul route to stockpile area, including A39 filter fabric
- Prep, import, and lay 10,691m<sup>2</sup> of 35mm DG10 on full prime coat
- 3,056 lm of Kerb only to SD601, Mountable Median Kerb to SD602, Concrete Separating to SD634 and Kerb & Channel
- Prep and place 2,603m<sup>2</sup> of Asphaltic Concrete footpath to CCC SD607 1.5-2.5m width
- Excavate, supply and place 2,827lm of uPVC Sanitary Sewer pipework ranging from 100-225dia. and associated sanitary systems, including but not limited to, 16 Sanitary Sewer Manholes & Flushing tanks
- Excavate, supply and place 2,238lm of uPVC Stormwater pipework ranging from 100uPvc to 600mm RCRRJ Concrete Pipe and associated soakage systems
- Excavate, supply and place 2,575lm of water mains ranging from 63mm OD MDPE80 poly blue line pipework to 300mm uPVC PN12 pipework.
- 3,400lm of Common Services trenching
- 13,224m<sup>2</sup> topsoil respread to reserves and landscape areas including soil conditioning and sowing of grass seed

To date, Paul Smith Earthmoving is delivering the project on time and to budget. Even experiencing the exceptional weather event of the recent Canterbury Floods and State of Emergency, Paul Smith assigned additional resources to help mitigate the impact the weather event had on the project and is still currently on track to deliver the project as per programme requirements.

## Key Challenges

1. Doing major earthworks on a clay-based subgrade during the winter months
2. Completing works within the vicinity of a residential neighbourhood
3. Completing works with strict regulations on dewatering and dust control in an open area which prone to strong wind conditions
4. Completing drainage system installations in trenches up to 1.8m deep
5. Working within the vicinity of overhead powerlines and Orion assets which heavy machinery
6. Remediation of contaminated land
7. The Site & PSE have multiple work fronts operational at the same time - Bulk Excavation / Demolition / Drainage are all being completed simultaneously





***Mackenzie Properties Ltd***

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**MACKENZIE PARK  
STAGES 2 - 5**

Location

***Twizel***

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Commenced

***2017***

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Contract Value

***\$3.7 million***

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Completed

***Ongoing***

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Type of Construction Project

***Residential  
Construction***

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Referee

***Andrew Hocking***  
*Developer*  
*E: [andrew@mackenzieproperties.co.nz](mailto:andrew@mackenzieproperties.co.nz)*

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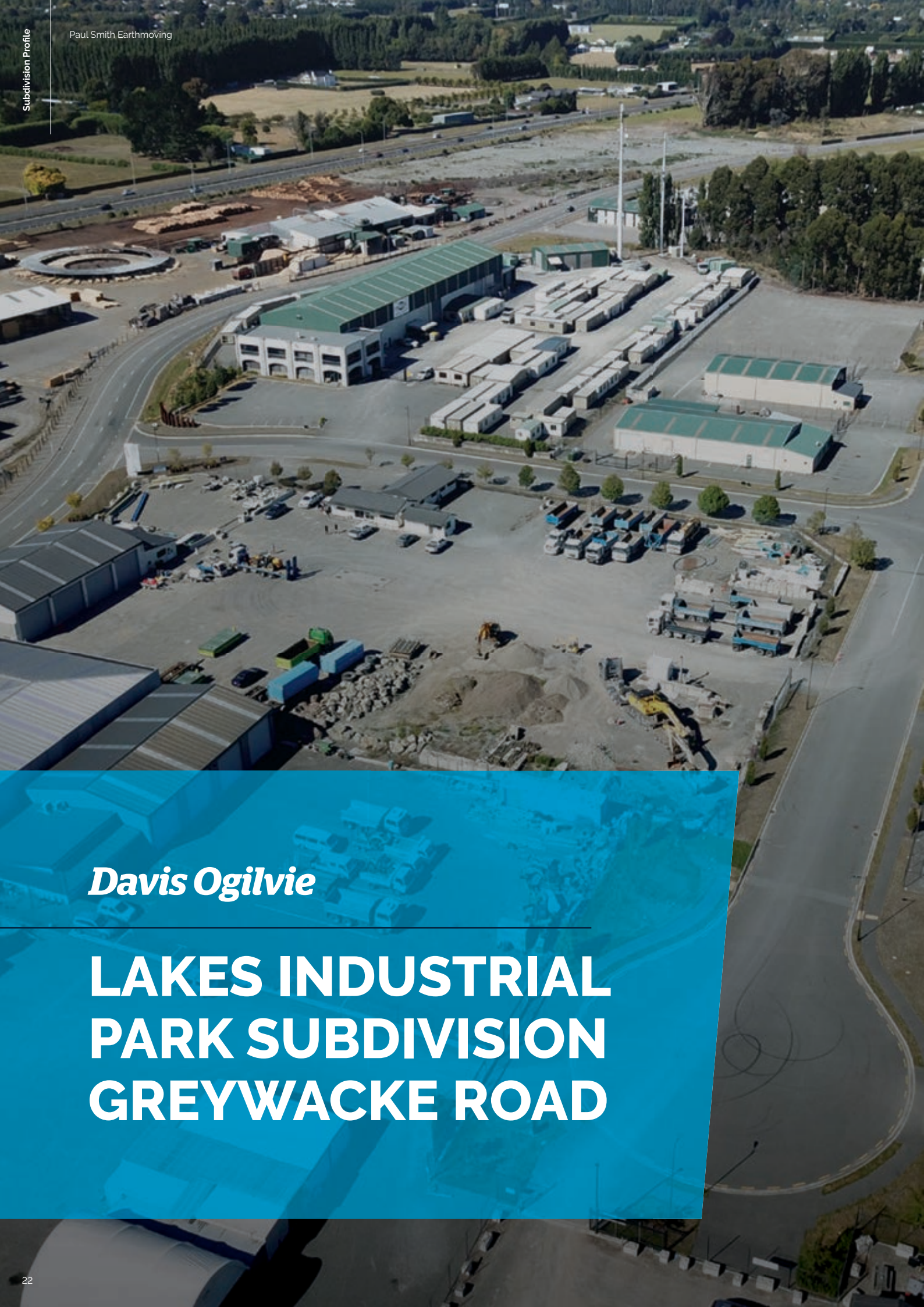
Mackenzie Park is an upmarket 174 lot residential subdivision which provides the perfect opportunity for individuals, groups, and families to benefit from a modern development and enjoy the surrounding landscapes and outdoor activities available within a peaceful, tranquil setting. This new subdivision benefits from uninterrupted views of Aoraki / Mt Cook along with stunning views of the closer Ben Ohau Range.

## Scope

Paul Smith Earthmoving was tasked with:

- Establishing and maintaining site safety and environmental management systems for the duration of the works, which include but not limited to constructing, maintaining, and disestablishing environmental controls in accordance with the ESCP
- Record and supply as-built information as required by the Specification and requirements of NZS 4404:2010
- Provide engineering set-out from survey control information
- Regrade topsoil to achieve design finished level in lot areas
- Strip Site of vegetations & organic matter – 98,810m<sup>2</sup>
- Cut to Stockpile 20,195 m<sup>3</sup> – all cut retained for further stages of the development
- Cut to Fill – 12,675m<sup>3</sup>
- Sow topsoil in lot areas and establish grass – 50,170m<sup>2</sup>
- Spread screened stockpiled topsoil – 13,350m<sup>3</sup>
- Excavate Tree Pits – 42 no.
- Prep & place two-coat (grade 5 on 3) chip seal to carriageways – 11,648m<sup>2</sup>
- Prep & place 25mm depth DG7 asphaltic concrete on full prime coat to rights of way – 588m<sup>2</sup>
- Installation of Kerbing – 2,664 lm
- Residential Crossing Construction
- Prep & place Black Concrete Footpaths – 2,773m<sup>2</sup>
- Supply and install tactile pavers in accordance with NZTA RTS 14
- Sanitary Sewer Pipework Installation – 2,356 lm
- Stormwater Pipework Installation – 355 lm
- Water Supply Pipework Installation – 2,798 lm
- Supply and place section connections. Acuflo CM2000 manifold unit and Sensus 640MC 20mm meter and associated fittings - 79
- Supply & installation of all associated fittings and drainage systems associated with a residential subdivision in accordance with the Mackenzie District Councils requirements
- Construction of Rock Armoured Stormwater Outlets & Soak-pits
- Common Services Trenching – 3,119 lm
- Place Chorus ducting in accordance with the Chorus Specifications – 3,119 lm





*Davis Ogilvie*

# LAKES INDUSTRIAL PARK SUBDIVISION GREYWACKE ROAD

Location

***Harewood***

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Start

***February 2016***

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Contract Value

***\$2.1 million***

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Completion

***June 2016***

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Type of Construction Project

***Industrial  
Subdivision***

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Referee

***Clement Maloney***

***P: 027 464 6788***

***E: clement@do.co.nz***

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This 19-lot industrial land development project is located on Greywacke Road, by State Highway 1, with direct transport links to Christchurch. The site is located next to the Lake Roto Kohatu Reserve, and because of prior land uses, environmental management was a key focus for the project.

Paul Smith Earthmoving was tasked with site establishment and erosion and sediment controls (ESC). ESCs were maintained throughout the construction phase, with temporary sediment control ponds established. Other measures included silt fences, construction of dirty water conveyance, and clean water conveyances, which were subsequently removed and filled on project completion.

Paul Smith Earthmoving was also tasked with site establishment, 25,000m<sup>2</sup> of earthworks including stripping, cutting and placement, and a further 74,000m<sup>2</sup> of grading to design plan levels.

***The project was delivered on time and to budget, in full compliance with the project's HSEQ requirements.***

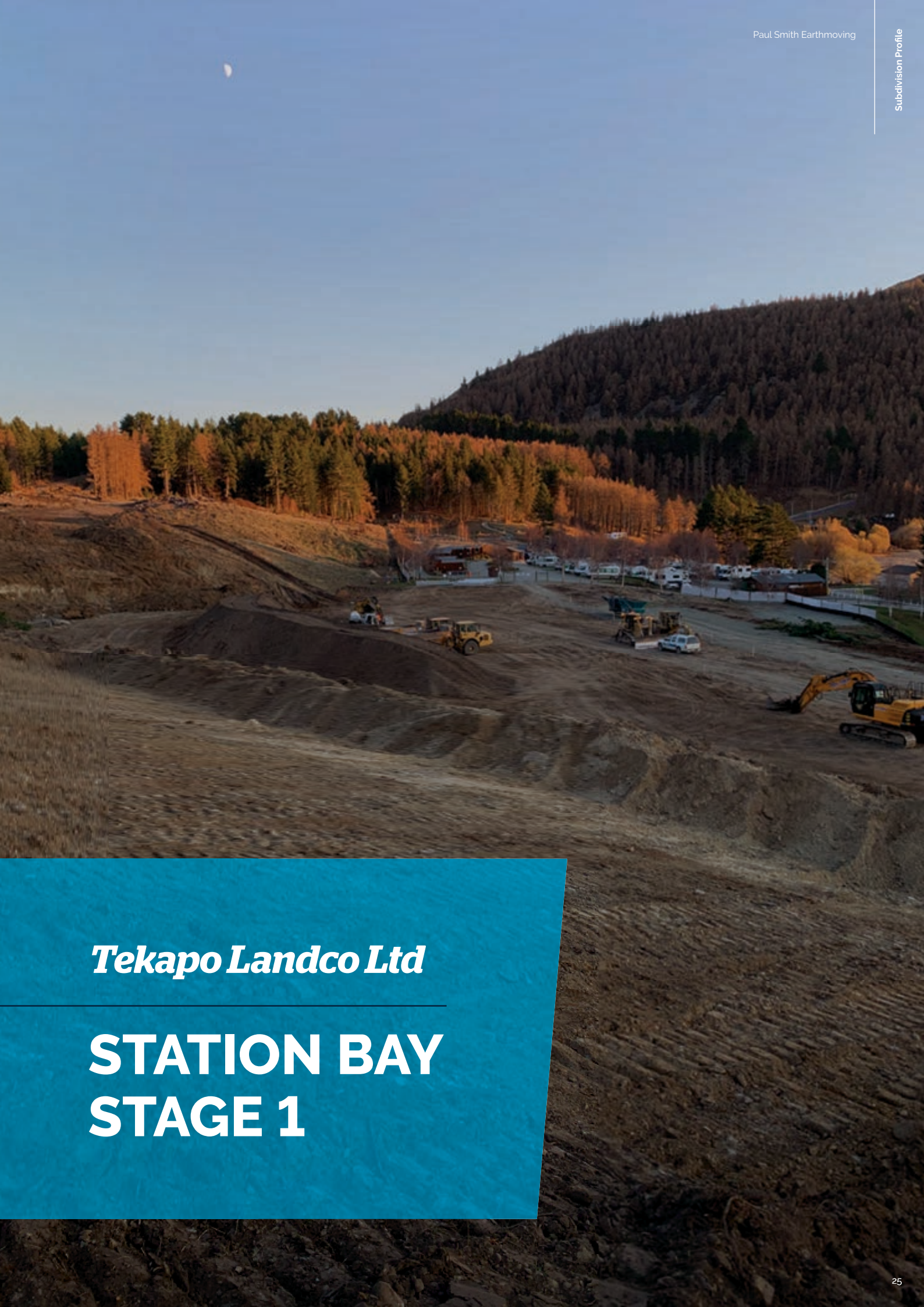
Delivered:

- 5,810m<sup>2</sup> of AP65 sub-base, AP40 base course and full prime coat for roads
- 25,000m<sup>3</sup> of earthworks
- 74,000m<sup>3</sup> of grading to design plan levels
- 985m of silt fencing
- 360m of sewer pipe and 200m of the sewer boundary box connection pipes
- 300m of stormwater pipe, ranging from 150mm to 450mm
- Connections into the existing sewer main on Greywacke Road
- Stormwater pond and soakage pond.

Traffic Management was only required on this project to allow the connections of the new services to existing council laterals. PSE's TMP met all compliance and CoPPTM regulation requirements. The TMP reduced the public interface in the area and allowed production to continue without risk of third party access to the work front. Before this happened, PSE carried out all necessary notifications and gained the relevant approvals.







***Tekapo Landco Ltd***

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**STATION BAY  
STAGE 1**

## Location

# Lake Tekapo

## Contract Value

## Stage 1 - \$3.2M

## Type of Construction Project

## Residential Subdivision

Station Bay is a new boutique residential development, positioned on the shores of Lake Tekapo, within the Makenzie District. A place where considered architecture perfectly embraces nature's surrounding beauty for a lake-front lifestyle like no other.

The Subdivision will be completed over multiple stages. Paul Smith Earthmoving has completed Stage 1, which included earthworks, drainage, roading, services and civil infrastructure.

### Delivered

- Cut 19,000m<sup>3</sup> to Waste
- Imported 11,000m<sup>3</sup> of Engineered Fill (AP65)
- Install 67 lm Gabion Retaining Wall
- Excavated, supplied, and backfilled 3,727 lm of stormwater, wastewater & water mains & associated fittings, ranging in pipe size from DN 100 uPVC to DN525 RRJRC Class 3 in road corridors
- DN300 Culvert Installation
- 1,720lm Kerbing
- 3,650m<sup>2</sup> Roothing Carriage Way with Two Coat Chip Seal
- 1,080 lm of Asphaltic Concrete Footpaths
- Biofilter Installation
- Infiltration Gallery
- Construction of Reserve footpaths
- Supply & installation of street signs and road markings
- Common services trenching
- Import & placed 800m<sup>3</sup> screened topsoil

## Commenced

# September 2020

## Completion date

## June 2021

## Referee

## Campbell Wheeler

E: [campbell@covington.co.nz](mailto:campbell@covington.co.nz)

Paul Smith Earthmoving made all necessary arrangements to obtain approvals for the use of additional or neighbouring land, outside of the agreed contract working area, if we needed to do so. We also made arrangements for water, power and phone supplies along with appropriate sewage disposal if required as part of the establishment.

### Key Challenges

PSE had to cease operations for the School Holidays Periods and Public Holiday Durations so as not to disturb tourist experiences in the area. We were more than happy to programme the works in accordance with this requirement. However, as we had multiple projects on in that region, we diverted our resources elsewhere during these periods.

We have just been awarded stage 2 of this development.





*Paterson Pitts Group*

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**FOUR LAKES  
SUBDIVISION**

## Location

**Twizel**

## Contract Value

**\$5 million**

## Type of Construction Project

**Residential  
Subdivision**

## Commenced

**2017**

## Completion date

**Ongoing**

## Referee

**Grant Payne**  
**Developer**  
**E: [grant.payne@hussmann.com](mailto:grant.payne@hussmann.com)**

Paul Smith Earthmoving was responsible for the construction of earthworks, roading and associated utility services for all 5 stages of the Four Lakes Subdivision.

Works included site clearance, stripping topsoil, excavation, supply and placement of stormwater, sewer drainage and water reticulation, as well as associated fittings, and roadworks, while managing the adverse climate presented in the Mackenzie Country.

**Delivered**

- 33,204m<sup>3</sup> bulk earthworks
- 4,431lm of drainage systems supplied and installed

- 11,817m<sup>2</sup> of roading installed, along with associated kerbing
- 2,675m<sup>2</sup> footpaths install
- 7,544m<sup>2</sup> berms installation

Paul Smith Earthmoving continues to provide a high quality product which is evident by its continual award of further stages of the development.

**Outcome**

Successful zero harm project that was completed on time and budget, and to the Contract Specifications.





*Jolly Earthworks*

**THE HEIGHTS  
RESIDENTIAL  
DEVELOPMENT**

## Location

**Wanaka**

## Contract Value

**\$600k**

## Type of Construction Project

**Residential  
Subdivision**

## Commenced

**2017**

## Completed

**2017**

## Referee

**Craig Jolly**  
**P: 027 492 6252**

This project was for the civil works undertaken for the The Heights Residential Development project in Wanaka. The 160-lot subdivision is located on an elevated site on the foot of the alps in Wanaka.

Paul Smith Earthmovings scope consisted of site clearance, bulk excavations – site clearance, topsoil stripping, excavation of all cuts and construction of earth fills to the base of subgrade for building platforms.

**Delivered**

- 25,125m<sup>3</sup> of topsoil strip
- 92,000m<sup>3</sup> cut to certified ll site wide
- 5,025m<sup>3</sup> cut to waste
- 5,500m<sup>3</sup> imported engineered fill
- 79,000m<sup>2</sup> topsoil reinstatement

Paul Smith Earthmoving was tasked with site establishment and erosion and sediment controls (ESC). ESCs were maintained throughout the construction phase, with temporary sediment controls established. Other measures included silt fences, construction of dirty water conveyance, and clean water conveyances, which were subsequently removed and filled on project completion.

**Outcome**

Successful zero harm project that was completed on time and budget, and to the Contract Specifications.





## ***Additional Subdivision Projects***

<b><i>Subdivision</i></b>	<b><i>Location</i></b>	<b><i>Year Completed</i></b>	<b><i>Contract Value</i></b>
Tussock Bend	Twizel	2018-2019	\$4.5M
Merino Downs	Twizel	2018	\$1.9M
Gordon Estate	Wanaka	2018	\$200k
Apline Estate	Lakes District	2018	\$600k

# Resources







*By operating in a safe and environmentally responsible manner we enhance the wellbeing of our clients, staff and community.*

## Aggregates

Paul Smith Earthmoving operate a number of quarries in the South Island which supplies quality aggregates for the construction of our projects. Our range includes aggregates and road bases, specialty sand, railway ballast and gabion rock, as well as bulk fills.

We also have a Memorandum of Understanding with Ecan which allows us to apply for a permit to extract

river metals from any river site in the South Canterbury. We own all the required plant & equipment to extract, screen and crush, if necessary, the aggregates. Our team and equipment can extract the materials and produce aggregates that meet any quality requirements.

## Plant list

All the listed machinery and equipment is 100% owned by PSE and additional plant is available on hire if required. PSE prides itself on all plant and equipment

being in excellent condition and has a fully serviced workshop to complete all planned and required maintenance.

Item	Capacity	No.
Grader Caterpillar 12H	Large	4
Grader Caterpillar 14G	Large	1
Grader Komatsu GD305A	Large	1
Grader Caterpillar 130H	Large	1
Grader Caterpillar 140H	Large	1
Excavator Caterpillar 320D	23T	6
Excavator Caterpillar 325DL	25T	1
Excavator Caterpillar 320 C	20T	2
Excavator Sumitomo SH210-5	21T	1
Excavator Caterpillar 320DL	24T	3
Excavator Komatsu PC200-8	20T	5
Excavator Komatsu PC 300-8 LC	35T	4
Excavator Hyundai 140LC-7	14T	1
Excavator Komatsu PC 130-8	14T	2
Excavator Komatsu PC 120-6	12T	1
Excavator Komatsu PC88MR-8	8.8T	2
Excavator Doosan DX80	8T	1
Excavator Doosan DX60	6T	2
Excavator Bobcat E63	6T	1
Excavator Hyundai 55-7	6T	2
Excavator Hyundai 60CR-9	6T	1
Wheeled Excavator Hyundai R55 W-9	5T	1
Wheeled Excavator Hyundai R55 W-7	5T	1
Excavator Komatsu PC30MR-2	3T	1
Excavator Bobcat E26	2.6T	1
Excavator Bobcat 18	1.8T	3
Scraper 627G (with GPS)	45T	2
Bulldozer Caterpillar D6T	25T	1
JCB (1 with GPS)	14T	2

Item	Capacity	No.
Komatsu 240 with GPS		1
Truck 6m2 Isuzu (3 axle)	6m3	13
Water Cart Trucks	14000L 10000L	1 2
Truck & Trailer units	26ton	9
Trailer Unit 5m2-8m2	8m3	21
Tipulator	10m3	5
Bottom Dumpers	12m3	2
Loader Komatsu 380	3.5m3	2
Loader Komatsu 350	3.5m3	2
Loader Komatsu 320	2.5m	1
Loader Hyundai 770	4.5m3	1
Roller Dynapac Construction Roller	14T	6
Roller Dynapac CC-2200 Tandem Drum	9T	1
Roller Pacific Towable	11T	1
Roller Rubber Tyre	11T	3
Roller Vibracom Construction Roller	10T	1
Roller Cat CB-34 Tandem Drum	5T	2
Roller Sakai SW 350 Tandem Drum	3.5T	1
30T		
Roller Pedestrian		1
Plate Compactors	Various	60
Transporter Heavy Haulage 4 Axle	34T	2
Transporter Heavy Haulage 3/8 Rows	44T	2
Transporter Heavy Haulage 3 Axle	29T	1
Tractor and Broom	4T	1
Signs & Safety Equipment	Full Resources	
Grader Cat (with GPS)	12H	1

# Work Safe Methodologies

## Pre-construction Activities

The following details activities/contract requirements that need to be completed before construction starts:

- Pre-Construction meeting to take place between Paul Smith Earthmoving, engineers' representatives, and other parties as appropriate to establish safety practices and protocols which are appropriate for this project to ensure a collaborative safety approach
- Confirmation of Inspection Test Plan
- Confirmation of Insurance
- Confirmation of Site-Specific Safety Plan
- Confirmation of Construction Programme
- Confirmation of Traffic Management Plan - Preliminary TMP appended

## Site Induction

Before carrying out any activity on the site, all personnel are to attend a Project Site Induction. These inductions will be carried out by senior management, who will maintain records of everyone who has participated. The content of the induction will include:

- Welcome to the project
- Project Description and Scope of Works
- Project Management Team
- Emergency Response
- Site Communication and Consultation Site

### Safety, Risk and Environmental Controls including:

- Site Safety Rules
- Personal Protective Equipment
- Drug and Alcohol Policy
- Incident Reporting
- Quality Controls
- Plant and Equipment
- Responsibilities and Accountabilities

## Environmental Management

Environmental management methods to manage silt, sedimentation, spills, noise, dust and the protection of trees and vegetation during construction. The tenderer shall demonstrate familiarity with any attached consents and indicate key inspection points in their submitted programme. This is to include the mitigation of tracking sediment and waste out of the site into public areas.

PSE holds the Environmental ISO 14001:2015 qualification and recognises environmental management as one of its company imperatives and has established policies, programmes, and practices for conducting operations in an environmentally sound manner. We are committed to integrating such policies, programmes, and procedures into our daily business.

When undertaking activities, the company's goal is that all adverse effects on the environment will be avoided, remedied, or mitigated to an appropriate degree.

PSE recognise the need to protect the biosphere. Consequently, we will take all practical steps to minimise and strive to eliminate any pollutant release that may cause environmental damage to the air, water, or earth or its inhabitants. PSE dispose of all wastes through safe and responsible methods. We favour disposal to recycling facilities where such exist.

PSE will make every reasonable effort to use environmentally safe and sustainable energy sources to meet our needs. We will conduct activities considering the efficient use of energy and materials, the sustainable use of resources, that minimisation of waste generation, the safe and responsible disposal of residual wastes and the need to avoid, remedy or mitigate adverse effects on the environment. We will modify our services and the activities we conduct by scientific and technical understanding to prevent serious or irreversible environmental degradation.

Any sediment discharge as part of dewatering activities needed in the trenches will be treated using appropriate control measures like turkeys' nest before discharging into the grass berm. A silt fence will be installed for works near all waterways to control sediment runoff.

In terms of Compliance and Reporting, we measure environmental performance; conduct regular environmental assessments of compliance with company requirements, legal requirements, and these principles; and periodically provide appropriate information to employees, the authorities and the public. We have not been the subject of any cautions, fines, or prosecutions about environmental issues.

Paul Smith Earthmoving 2002 Ltd shall ensure that any development activity disturbing the soil is carried out in a way to prevent soil erosion and to stop silt and sediment from entering the stormwater system or watercourses. We extensively educate, train, and motivate employees to conduct their activities in accordance with the Company's Environmental Policy. Concrete washings, water blasting, equipment washing, concrete – these works can all pollute waterways unless care is taken. These products cause problems as they can be highly alkaline or contain oxides, heavy metals, or petroleum products. A wash pit bund will be constructed to capture the discharge from concrete and equipment washings. This will be carried out offsite at a location prearranged and approved. The utilisation of a silt fence, a temporary barrier of filter cloth (woven geotextile fabric), will be used to intercept sediment-laden runoff from small areas of soil disturbance where required. The filter cloth is anchored to the slope firmly by burying it or using large rocks to secure it. Plastic or wire mesh, or similar can be used to reinforce silt fence cloth. This will be installed in any vulnerable areas.

Decanting earth bunds will also be constructed from topsoil or clay. They can be assembled quickly and can be in any shape. For this reason, we'll have the ability to assemble and disassemble quickly as work progress and are then completed.

Another easy, effective method we will adopt is the Hay Bale Barrier. These will be used to intercept sediment. Again, they can be assembled quickly and easily. Stocks of all sediment controls will be located at the Laydown area to access them quickly should something unexpected come up.

## **Noise control, including provision for noise monitoring and noise controls (elimination/isolation and minimisation)**

Noise shall be limited to comply with the requirements of NZS 6803 "Acoustics – Construction Noise". We will adopt the Best Practice option to minimise the effects of noise generation and comply with NZS 6803 by including, in the planning of the work, factors such as plant placement, programming the sequence of operations and other management functions, noise insulation and silencers.

Machinery will be maintained to a high standard, and preference will be given to using equipment that is new and well maintained to minimise noise.

Where there is the possibility of a significant work sequence where noise will be a factor over an extended period, neighbours will be notified in advance and regularly updated.

NZS 6803 provides the following guideline noise limits for construction and maintenance works.

PSE acknowledges the best practice restrictions for staff working on construction sites there 85 Decibels (dB) - the "Action Level" where hearing protection is required. 90 dB - the OSHA, 8-hour average exposure limit. 100 dB - exposures longer than 15 minutes are not recommended. 110 dB - regular exposure of more than 1-minute risks permanent hearing loss.

All Staff will wear the appropriate PPE, including Ear protection, to meet Best Practice Standards to a minimum of Class 5 tested to AS/NZS 1270.

## **Quality assurance plan**

We are ISO 9001:2015 certified. ISO 9001:2015 is our overarching management system. This system is built upon our Quality Assurance Manual and Work Procedures.

The Quality Assurance Manual provides overarching procedures for each aspect of our business. These are defined under Quality Planning and Control, Contract Management and Review, and Cost Management and Control. Each procedure references relevant legislation, regulations, by-laws, and internal company documents to ensure relevant standards are understood. The Quality Assurance Manual specifies records management processes that occur through our online directory and Vault, both backed-up daily. Company Work Procedures provide the processes required for field operations to ensure consistency of on-site delivery. Employees are trained and signed-off

in these processes. Regarding identifying, controlling, and rectifying non-conforming work, 'QA022 Disputed, Rejected, Returned and Non-Conforming Work, Product or Services Procedure' will be followed to ensure a satisfactory client outcome,

To ensure the requirements of our system are met, we conduct regular internal audits of our operations. These include formal on-site audits, formal systems audit, and informal job observations. These measure contract performances against the requirements of the contract. Results are verified through a six-monthly external review of the system through the ISO 9001:2008 re-accreditation process. We utilise the Vault software system for recording audits from which we run reports to monitor and evaluate systems. This occurs through formal management meetings and board reports.

## **Means of recording, reporting, and invoicing from commencement to completion/handover**

Paul Smith Earthmoving has extensive and proven financial operational and project management systems. Our financial systems ensure we closely manage all relevant claim and variation information to assist client budgeting through a 'no surprises' approach. We use Workbench Project Management software specifically designed to capture, record, and report financial information and produce claims. Claims can be forwarded monthly and backed up with detailed information supporting claim quantities.

Daily logs also record on site matters such as staff and equipment on-site, operations are undertaken. These can be forwarded weekly, if required, along with a weekly report. In addition to this, the Contractor's Representative, Ryan Tinnelly, will maintain an up to date project file of all documentation required by the approved quality plan. As a result, accurate monthly claims are produced and substantiated, and accurate cost to complete reports are readily available. All variations will be sent to the client for approval by the Contractor Documents. Before our monthly claim submission, this ensures that the client has sufficient time to allocate budgets towards variation works. By submitting regular updates regarding financial information, ensures that the client is kept up to date with all current and future financial information for forecasting and budgeting purposes. Paul Smith Earthmoving can produce a weekly claim if necessary or required as our records are kept up to date using a daily recording of employees and plant hours and supplier cost. Paul Smith Earthmoving has a proven track record in financially managing contracts to the highest level.

Paul Smith Earthmoving runs several operational and plant system solutions to enable our Supervisors and Managers to keep on top of a project in real-time. These include:

- Leica™ icon GPS - A GPS Smart Antenna for on-site positioning projects that provides precise and reliable measurements using GNSS technology and other communication functions.
- Leica™ Geosystems iControl 3D Grading solution - Provides automatic blade control of both slope and elevation, dramatically increasing machine utilisation and ensuring smooth, highly accurate grading to 3D project design.
- ERoad™ - A secure, approved vehicle hardware device that allows us to manage and track our plant movements and utilisation and improves safety outcomes. This ensures an efficient project that is run to the appropriate quality and timeframe requirement.
- Workbench™ - Workbench provides a comprehensive job management software solution enabling us to tightly monitor Labour, Plant, Materials and Sub Contractors against detailed Budgets.
- Microsoft Project Professional™ - This allows us to efficiently plan projects, track status, and collaborate with others involved virtually to keep our projects, resources, and teams organised and on track.

## **Health & Safety Leadership**

In line with our Health and Safety Policy Statement, we are committed to Health and Safety as a business imperative that underpins the operational efficiency and effectiveness of our business. We have a comprehensive Health and Safety management system that works hand in glove with our Quality Management system, and this is backed up by the VAULT™ end to end Environmental and Health and Safety computer and smart mobile system that we use to record, review, monitor and audit Health and Safety across the organisation.

We have a systematic Health and Safety approach across the company, which has been updated to reflect the new provisions of the Health and Safety at Work Act 2015 (HSAW Act) and the new regulations.

Management provides leadership and commitment to our Health and Safety approach, understand the policies and procedures and are acutely aware of the company's responsibilities. They have their performance reviewed against these provisions through regular performance reviews. Appropriate procedures are in place. The appropriate resources are provided to take, as far as reasonably practicable, steps to effectively control risks through proactive hazard identification of new and existing hazards. Risk assessment and monitoring is applied to ensure continuing effectiveness.

We hold the OHSAS 18001 and ASNZS 4801 qualifications. We are prequalified by NZTA for physical works, hold Site-safe Green status for the company and run Site-safe accreditation for most staff across the company.

All employees are appropriately trained and supervised in their designated roles and functions and hold the appropriate licenses and certifications, which are

reviewed annually. Staff on this contract will hold Safe Site cards. They are aware of their responsibilities under the HSAW Act and the policies and procedures that we have to make these imperatives function accordingly. All employees have the opportunity to be fully involved in health and safety management and are consulted and represented by qualified (NZQA) Health and Safety representatives.

We have procedures in place to report all incidents, accidents and near misses promptly and accurately and to investigate the same with immediate causation analysis and corresponding identification of corrective measures. These are regularly disseminated to all staff so that all learnings are appropriately integrated to correct and safe actions. In relation to the safety plan requirements detailed in the specification document we will produce a comprehensive SSSP that reflects this contract's individual aspects.

All trench excavations will be gated off with orange 1m high gates and tied to keep the public from entering the job site. Stands will be fitted to the bottom of the gates for stability. Gates will be kept to a minimum as the trenches will be backfilled as the job is completed, and only joins. Service connection will be kept open until pressure testing, sterilisation and commissioning have been completed.

As part of the safety procedures, PSE has a strict process of ensuring capability and compatibility with all workers, subcontractors and stakeholders on-site with our Induction process.

This Project Site induction will be carried out by the on-site Manager of Paul Smith Earthmoving, and records of the inductions, daily start-up briefings and all safety documentation will be held on-site.

## Quality Assurance Philosophy

Paul Smith Earthmoving 2002 Limited recognizes its responsibility as a provider of quality products and services.

To this end, PSE has developed and documented a Quality & Environmental Management Manual (QEMM).

The QEMM provides an overall consistent approach to all PSE operations and has been developed to enable an integrated business approach. The purpose is to provide a set of processes and procedures that are simple, practical and workable that meet internal requirements as well as leading to certification under the ISO 9001:2015 standard and the ISO 14001:2015 standard with any upgrades, as appropriate, across all PSE operations.

The QEMM provides comprehensive evidence to all customers, suppliers, and employees of what specific controls are implemented to ensure product and service quality.

While PSE's goal is to consistently provide both our internal and external customers with the products and services that meet their requirements, we also want to make the most of every opportunity to improve and grow our business.

This Manual defines the requirements of the PSE Quality and Environmental Management System (QEMM) and includes the:

- Quality and Environmental Policies
- Quality and Environmental Objectives
- Responsibilities in relation to the environment and quality
- Procedures and processes to address quality and environmental risks, opportunities, and legal responsibilities
- Guidance on the successful implementation, operation, and continuous improvement of the QEMM
- The QEMM is verified annually by an external third-party auditor (Telarc) to confirm compliance with ISO9001:2015 – Quality Management Systems and ISO14001:2015 – Environmental Management Systems.

## System Processes

All the processes begin with the customer and the establishment and documentation of what the customer requires. Defining customer requirements is essential to the process. Guidelines have been prepared detailing best practice work methods that must be followed to ensure consistency and reliability in the product we produce.

Having delivered our product or service to the customer, processes have been established to gauge the level of customer satisfaction. This is achieved through on-going project meetings with clients which provides feedback. This information is analysed and reviewed providing vital feedback on our performance as well as identifying opportunities for improvement.

It is the responsibility of management to study the results of customer feedback, along with, internal and external audits, management reviews and project meetings to ensure potential improvements are investigated and appropriately implemented.

The management of resources (people, materials, equipment, and time) is the responsibility of management and these are continually evaluated to ensure the quality of our products and services.



## Quality Management Principle

Under ISO9001:2015, PSE's quality management system demonstrates that it consistently meets customer expectations with the products and services it provides and aims to enhance customer satisfaction.

The PSE QEMM is based on the quality management principles of:

- Customer focus - achieving sustained success by meeting customer requirements and exceeding expectation.
- Leadership - leaders at all levels create a unity of purpose and engage staff to achieve the quality objectives of PSE.
- Engagement of people - competent, engaged, and empowered staff are critical to the success of PSE in achieving quality objectives.
- Process approach - consistent and predictable results are achieved more effectively and efficiently when activities are understood and managed as interrelated processes within the QEMM.
- Improvement - continuous improvement is necessary to maintain existing performance levels, react to changes in internal and external conditions and create new opportunities.
- Evidence based decision making - ensuring decisions are based on the review and analysis of data and information and understanding cause and effect relationships and potential unintended consequences.
- Relationship management - relationships with clients, suppliers and other interested parties will influence the performance of PSE.

This QEMM demonstrates PSE's commitment to productivity, quality, environmental management, cost control, customer satisfaction and managing risk in all facets of the business.



# PAUL SMITH

*Earthmoving*

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