

SKYCATCH SOLUTION

HIGH PRECISION PACKAGE

ALL-IN-ONE Full Stack Solution

Skycatch's solution is a turnkey data engine that provides substantial ROI for customers by delivering fast, accurate and reliable visualizations and understanding of the physical world for **construction** and **inspection** use cases

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THE VERGE

[DJI's biggest order of commercial drones is headed straight to Japan's construction industry](#)





COMPANY

- **Product** - Full stack solution for construction/inspection, data capture and industrial inspection
- **Sales** - 1,000 unit purchase order, and ramping demand with the top 100 global general contractors to nearly 10,000 units in the next 3 years. MOU for 5k units / 40M ARR.
- **Market** - 15M active construction job sites every year, \$20B obtainable market in.

Skycatch was founded in 2013 and employs 60+, mostly engineers.

We are Series B funded, with \$50M raised.

Our core strengths are software, machine learning and data-centric hardware products.



INDUSTRY LEADING CUSTOMERS & PARTNERS

Customers choose Skycatch for our unique experience and capabilities to work with large companies with vast and complex deployments. We have the only custom All-in-One solution that enables customers to achieve the most accurate, reliable, and consistent data of any solution on the market.

KOMATSU

TURNER

NTT

AUTODESK

AECOM

DISNEY

BECHTEL



DPR
CONSTRUCTION

TRUEBECK
CONSTRUCTION

enel

GOLDWIND

Mortenson
construction

Teck

Google

facebook

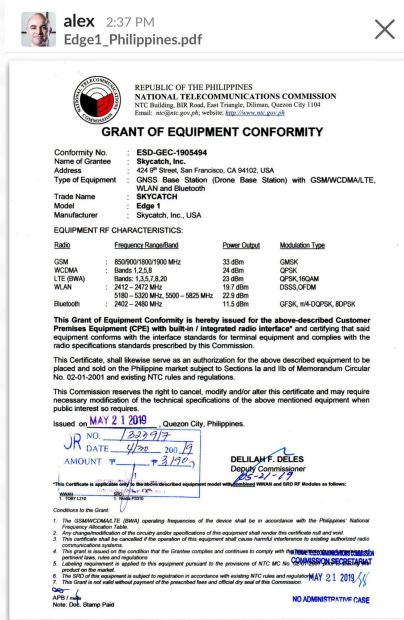
BOUYGUES

zipline

HENSEL PHELPS

MONSANTO

ASEAN: HIGH POTENTIAL REGION FOR SKYCATCH



Deployed in Singapore, Thailand, Malaysia, etc

Just received product licenses for distributing in the Philippines. Shipping units next months.

Team of 9 in Manila for global and local support

Indonesia, Vietnam, etc. work in progress



In construction, you are constantly working against time.

1 extra day in construction could equal \$3-\$5M dollars

Construction process efficiency powered by 3D and BIM data is now the key competitive advantage to win new business



INSIDE OUR SOLUTION

- 2D aerial maps and 3D models
- Enterprise-grade < 5cm accuracy
- Auto mission plan and pilot
- Time savings: minutes vs. days
- Edge compute
 - No network connection needed
 - On-site machine vision and AI platform
- Enables smart construction and site automation



EXPLORE 1

Ultra reliable with RTK technology

- 3D data with < 5cm accuracy in local coordinates with no GCPs
- Manufactured by DJI with Skycatch propriety RTK technology
- Fast mechanical shutter for rapid mapping missions
- Thermal camera, stabilized video, and zoom attachments are available





EDGE 1

Reliable survey-grade base station and data processing unit

- Replaces traditional expensive and hard-to-use GPS base stations
- Automatically generate 3D data and analysis reports
- Provides a platform for deploying custom AI models per customer use case
- Rugged hardware for industrial work sites



MOBILE APPS



Flight App

- Flight planning
- Mission control



Edge App

- Processing control for Edge1
- Analysis report viewing like cut-and-fill

DATA PROCESSING ON-SITE OR IN THE CLOUD

Scalable Data Processing Platform

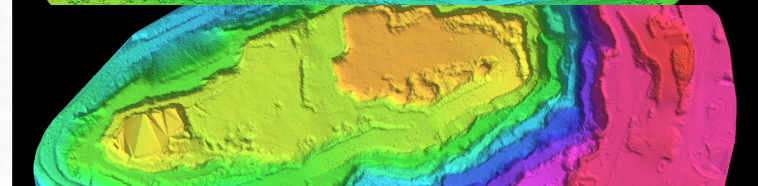
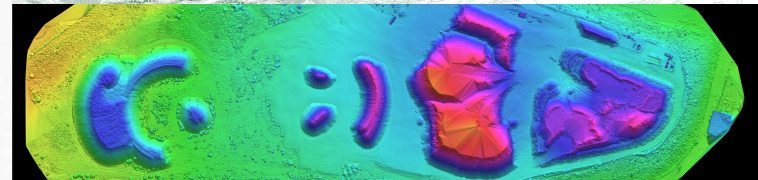
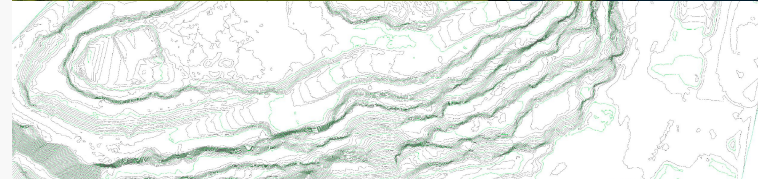
- Industry standard file types
 - 2D Orthomosaic, 3D Point Cloud, 3D Mesh
 - Contours, Digital Surface Model, Digital Terrain Model
- Machine learning algorithms for tree counting, object removal, target identification and more run in the cloud or on in-field edge device



TOOL INTEGRATION

Automated Generation of Data Sets

- Files delivered in any coordinate system for design and construction coordination seamlessly integrated with:



VALUE

About half a million in savings a year.

Skycatch platform delivers value to multiple stakeholders during every phase of construction

	Traditional job site cost	Skycatch job site
Survey <i>(Surveyor)</i>	\$3K / each	INCLUDED
Mapping <i>(Entire crew)</i>	\$10K/ each	INCLUDED
Site logistics <i>(Superintendent)</i>	5 - 30 FTE	INCLUDED
Progress checks <i>(BIM/VDC Managers, Owner)</i>	1 - 5 FTE	INCLUDED
Early detection <i>(Superintendent, BIM/VDC Managers)</i>	\$500K +	INCLUDED
		\$22K / total cost per year

Medium size project lasting 24 months





CUSTOMER ONBOARDING

New customers are up and running in less than 30 minutes



SIGN UP

2 Weeks

- Webinars
- Instruction Videos
- Bite-size How-to articles



DELIVERY

4 Mins.

- Quick Start Guide
- Intuitive mobile UX
- Enterprise Grade 24-hr SLA



FIRST FLIGHT

25 Mins.

- No Internet Connection Required
- Automatic processing
- Enterprise Grade 24-hr SLA



FIRST ANALYSIS

KOMATSU PARTNERSHIP

- Skycatch's key construction equipment partner
- Aligned vision on digitizing all job sites is future of construction
- Our teams are deeply collaborating globally
 - Deploying globally in Japan, Australia, Mexico, US, UK, Europe, Philippines, Thailand, and more

KOMATSU



CUSTOMER TESTIMONIALS



Apple Campus 2, Beck, DPR
(pw: skycatch)





Precision Data Solutions

Improving Safety, Productivity, and Profitability
in Mining Applications

Mining Success Stories

- **Teck** uses the HPP to withstand high winds and drastic temperature changes at their remote mines. Using a cost-effective and safe approach to surveying provides many benefits including sub-5 centimeter georeferenced topographic maps and the ability to perform on-the-fly volume calculations while sharing data efficiently.
- **Komatsu Australia** team members surveyed 6 quarries in 5 days for different customers, post-processed in the cloud, and received data back the next day. Using the HPP at the start of a project to collect whole site information allows managers to make accurate, data-driven decisions.
- **Aura Minerals** uses the Edge1 to reduce survey time from 20 hours to 4 hours and to improve the accuracy of volume measurements. Improving the margin of error in volume calculations by 1% results in \$300K of annual savings per site. ([Case Study Video](#))





Use Cases & Applications

SAFETY FIRST

Skycatch **substantially reduces risk**
for surveyors

- Near-zero walking and surveying in the mining area
- Reduces **light vehicle/heavy vehicle interaction**
- **No placing and retrieving GCPs**



Advantages Over Other Solutions

- Time to data: **fastest in the market**
- Operates in **harsh environments and heavy winds**
- **Greater stability and faster capture speed**
 - Phantom 4 RTK: 2m/s
 - **Explore1: 12m/s**
- **No shadowing** from equipment, piles

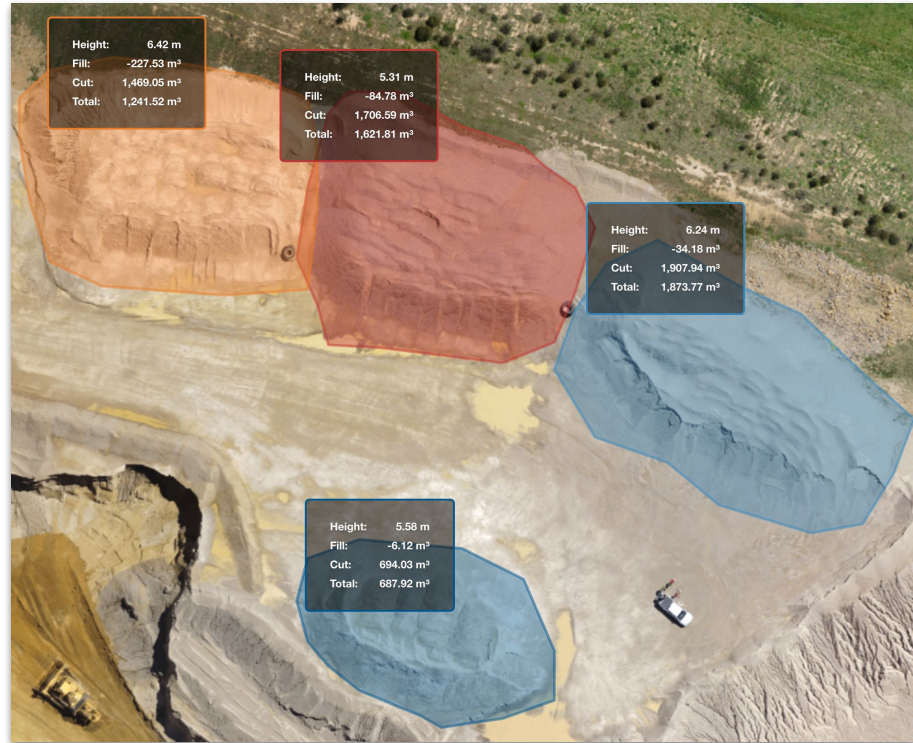


Skycatch at Teck Resources Line Creek operation in BC, Canada.



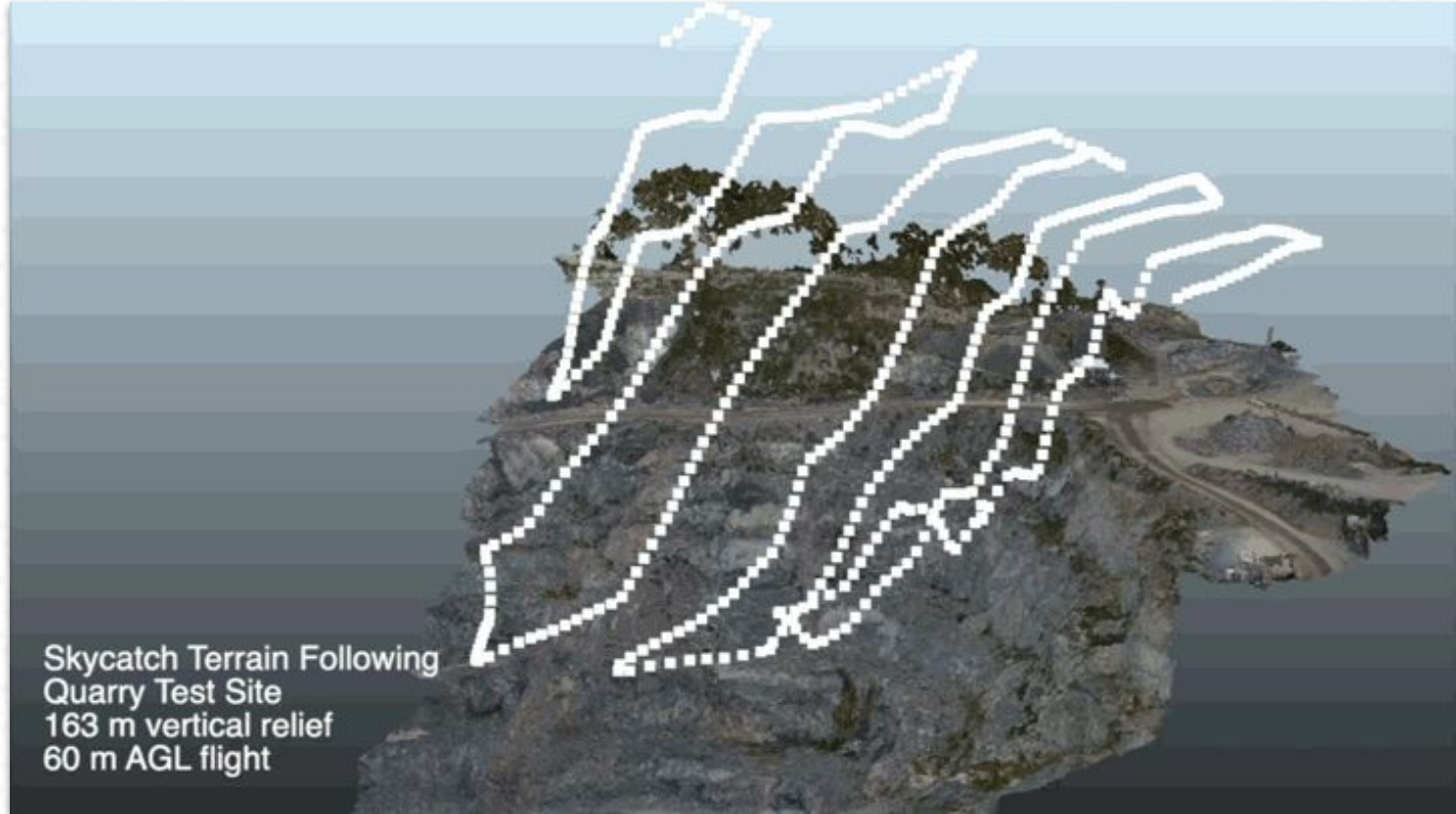
Application: Quantities on Demand

- Deliver accurate volume measurements **the same day**
- Visual representation of quantities
- Access **historical archive** at any time to verify production records





Application: Terrain Following/High Wall Mapping





Customer Testimonials





Customer Testimonials - Komatsu Australia



Using the HPP, Komatsu Australia surveyed 6 quarries in 5 days, delivering data within 24 hrs.

"Compared to a traditional survey, this is 100% more productive and efficient."

Aaron Marsh, National Technology Solution Expert
Manager, **Komatsu Australia**



Customer Testimonials - Aura Minerals



Using Skycatch to manage billing,
Aura Minerals could save
1% of operating costs,
per year, per mine

Drone survey **accelerated data**
turnaround time by 75%

Fabio Ribeiro, Technology Strategist, **Aura Minerals**



CONSTRUCTION USE CASES



PROJECT MANAGER

- Stakeholder reporting and visualization
- Progress and schedule Tracking
- Team Coordination
- Site Balance tracking (earthworks)



BIM/VDC/CIVIL ENGINEER

- As built QA/QC of 2D and 3D data
- Concrete slab verification (for billing)
- Cut and fill calculations and verification (for billing)



SUPERINTENDENT

- Execution on drawings vs. real world
- Briefing and coordination



PROJECT ENGINEER

- 2D/3D measurements and validation
- Logistics and equipment assignments on site
- RFI visual references
- Subcontractors work validation



SAFETY COORDINATOR

- Updated Emergency routes
- Heavy machinery assignment



BULLDOZER

- Site navigation and orientation
- Precise blade control

DJI MANUFACTURING PARTNERSHIP

- DJI is the dominant drone manufacturer with \$2.7B revenue and 50% market share and rising
- Skycatch is DJI's only manufacturing partner.
- Significantly lower risks and costs on hardware development
- Access to best quality, supply chain, and scalability
- Wave of new deals with industry leaders like our historic 1,000-unit order from Komatsu





GOLDWIND PARTNERSHIP - ENERGY

- Biggest and most advanced wind turbine maker
- Multiple large scale deployments
 - Inspection
 - Large site topographical scanning
 - Forrest removal
 - AI and machine learning for smart equipment defect identification



PRICING

The increase of aerial data integration on job sites continues to expand our unit demand beyond 4 HPP per site

\$1,799 / month (per unit)

2 Year Subscription

6 months cash upfront, auto renewal

80% profit margin

Typically customers use 2-4 HPPs per job site, resulting in annualized recurring revenue of \$43,000-\$86,000 per job site.





BOARD OF DIRECTORS



Christian Sanz

CEO

Christian is a Navy Veteran, entrepreneur, and team leader with a strong business background, and over 20 years of experience in software, hardware and technical leadership. Lecturer at Oxford Business School.



Ram Shriram

Sherpalo Ventures

Ram started Sherpalo Ventures in 2000 and was the founding board member at Google and 247-inc.com. He also serves on the boards of PaperlessPost.com and Zazzle.com. Ram is vice-chair of the Stanford Board of Trustees.



Rich Levandov

Avalon Ventures

Rich was the co-founder and creator of the largest bios company in the world which launched the PC revolution. He served as an early Vice President of America Online, Inc. that he started his venture capital career.



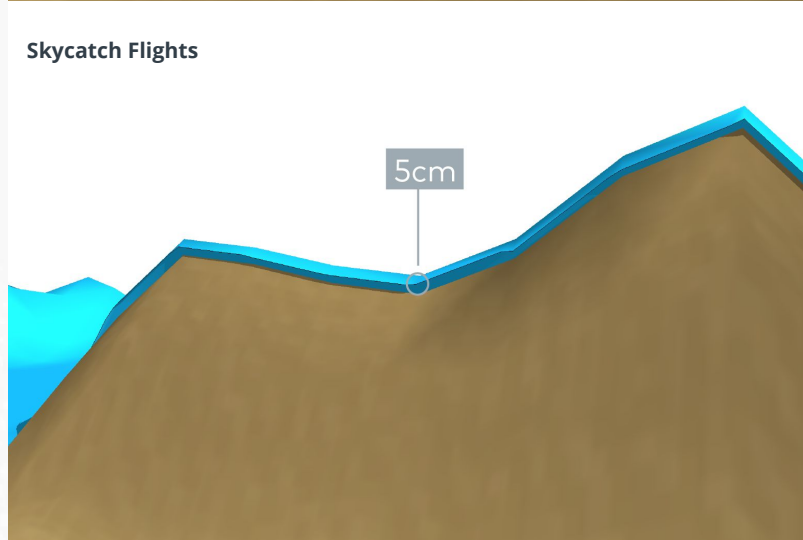
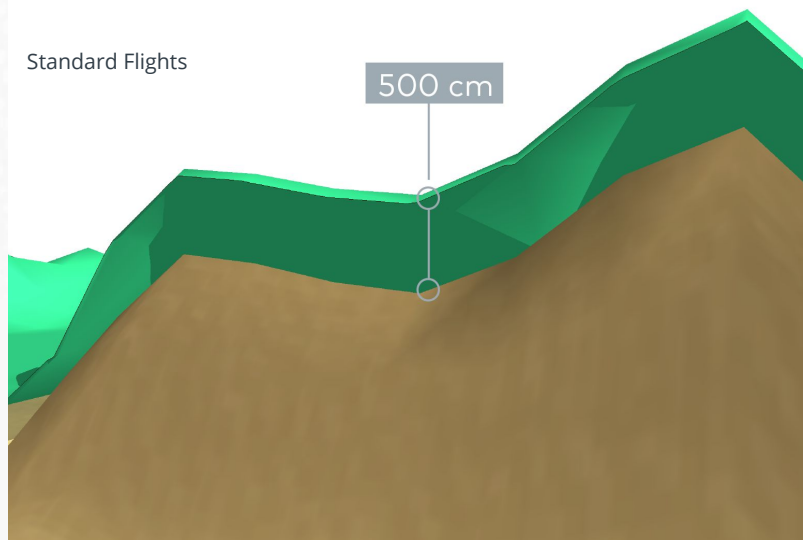
THANK YOU



The Accuracy Difference

Get a 10x global accuracy improvement (compared to standard GPS flights)

- Fly with repeatable precision
- Build with confidence





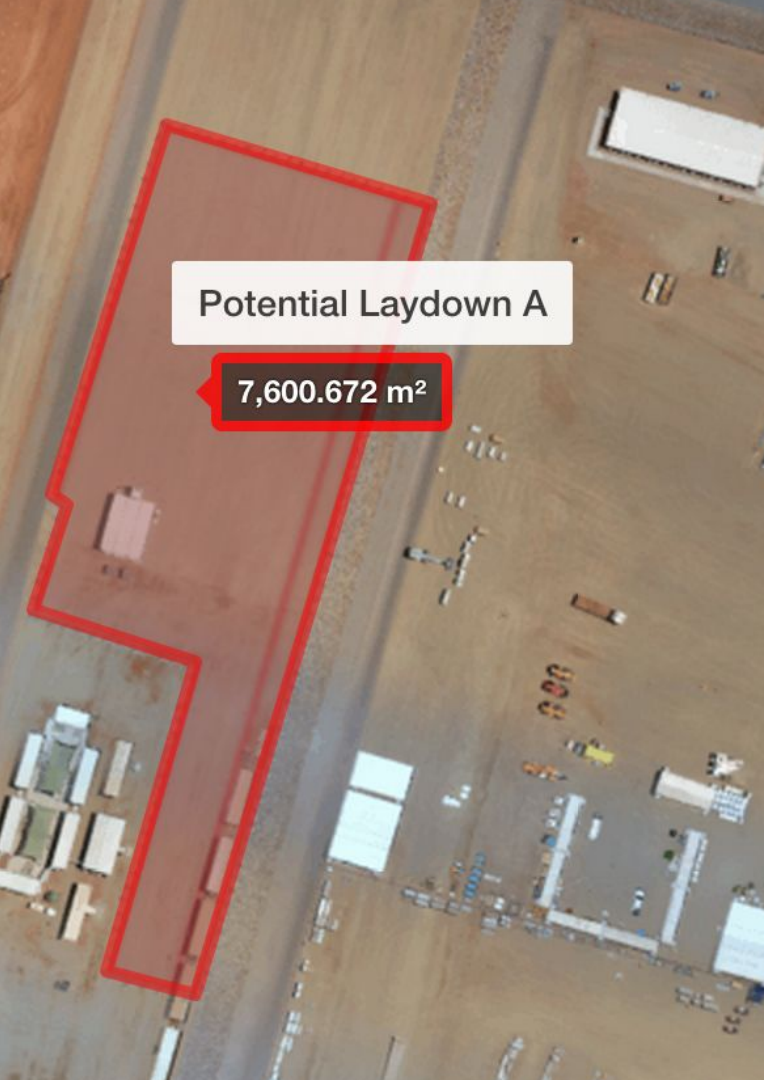
Progress Tracking & Site Logistics

- Billing verification and work-in-place tracking
- Site logistics overlay and site constraint analysis
- Using the CAD Plan Overlays feature, Skycatch customer discovered initial site surveys were inaccurate by 8 inches and stopped a concrete slab pour in the wrong location and avoided significant potential rework and change orders

Site Survey & Stockpile Volume Calculations

- Measuring quantities allows you to confirm cut and fill estimates
- Identify potential delays and verify truckload estimates
- Doing this same work with a laser scanner or GPS would cost 5-10x more





Online Collaboration & Communication

- Frequent map updates streamline site orientation for new workers and improves safety coordination with outside agencies
- Use shared annotations and file export to communicate logistics and laydown locations
- Sharing features makes it easy to communicate site with shareholders inside or outside web viewer

BIM Coordination

- Project engineers can import their plan into Skycatch with the overlay feature to precisely communicate where, when, and work needs to be done
- Embed maps and models in progress emails for stakeholders to experience the site
- Combine the most recent Skycatch point cloud with the BIM model of the site in Navisworks to make a detailed assessment and note if anything will impact schedule or quality.

“We’re only paid to build the building once. The correct interpretation, having all these visual aids, allows everyone to be on the same page. To have the same internal image in their mind as to what it should look like. The sooner we can do that, the better off we’ll be.”

- Beck Construction

