

I 2.01 Monterrey Iron & Metal Z-Box

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Problem Statement

- ❖ The facility shreds recyclable material and extracts 30%-40% more fluff into the Z-Box.
- ❖ The increase of fluff upstream means the current Traffic Control Plan will need to be reevaluated for its efficiency and effectiveness.

Project Purpose

- ❖ To deliver a Traffic Control Plan for trucks transporting "fluff" out of the facility.
- ❖ Determination of dimensions of a new storage shed which will hold fluff removed by the Z-Box.

Project Objectives

- ❖ Create a Traffic Control Pattern for Semi-Trucks
- ❖ Determine the dimensions of the "fluff" storage shed.

Net Present Worth

- ❖ Create a Net Present worth calculation for the current trucking solution verses purchasing a truck, trailer, and driver
- ❖ Purchasing a truck, trailer, and driver saves \$357,188 annually

Background Information

Recyclable material

Available space for Traffic Control Plan

Actual Z-Box

Valuable metal

Z-Box

Fluff

Human Factors

- ❖ Health of the employees
- ❖ Insufficient traffic control plan causes accidents and potential injury
- ❖ Transportation of fluff causes emissions

Storage Shed

- ❖ The current storage shed is a 22ft x 18ft x 20ft which holds one days' worth of fluff hauled
- ❖ A proposed storage shed would hold two days' worth of fluff would be 32ft x 22ft x 20ft

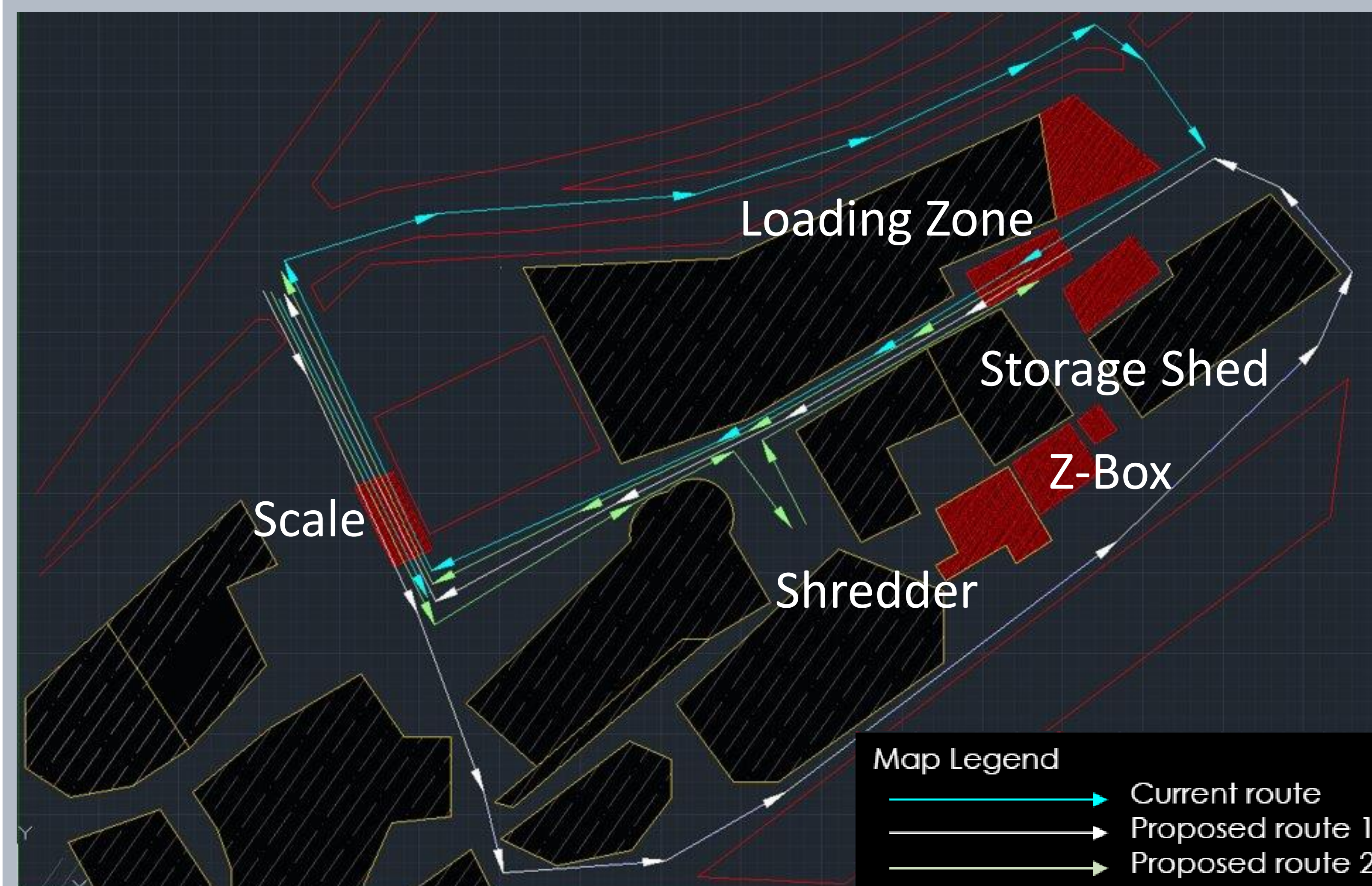
Metrics

Criteria	Weight	Phase 1			Phase 2	
		Current	Proposed 1	Proposed 2	Proposed 1	Proposed 2
Safety	5	1	4	3	5	5
Distance	3	1	3	4	3	5
Cost	1	5	5	5	1	1
Efficiency	5	1	4	1	5	5
Manuverability	3	4	3	1	4	4
Total weighted score		30	63	40	72	78

Metric: Storage Shed

Pass/ Fail	Score
Pass	1
Fail	0

Phase 1 Traffic Control Plan



Phase 2 Traffic Control Plan



Team Members



From left to right: Mauricio Vazquez, Jaret Beaver, Cesar Cedillo

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