Reweigh Project Document

Revision 1

April 1st 2020 -

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Project Introduction

Introducing a data-driven approach to customer conflicts allows us to retain both our reputation and revenue during weight disputes.

Innovation in the space of reweigh requires multiple applications and partnerships to accomplish the goals required for this project. Systems aims to provide operations with a technical solution in this space which introduces technology critical in supporting our company's position during customer disputes.

This project is done in cooperation with Freight Logics and Weigh Point Inc.

Opportunities

1. Reweighing unloaded freight to determine actual weight
2. Knowing actual weight leads to better safety and higher revenue
3. Reweighing provides a better position during billing disputes

Desired Outcomes

1. Difference of 15-20% between stated weight and actual weight where the actual weights result in a higher revenue.
2. Be able to analyze whether the reweigh value matches a BoL's stated weight in Truckmate automatically.
3. New Reweigh Ticket Document type added to Synergize and used to document reweighs.
4. Reporting for Reweigh Analytics.

Cost vs. Benefit

1. Monetary cost of Rent-to-own program for the reweigh forks.
2. Monetary cost of engaging in a contract with Freight Logics for development work.
3. Monetary benefit of revenue captured from loads with higher actual weight than stated.

Glossary

Swing load / Crossdock – Freight movement from one trailer directly to another trailer without it going to a dock location

Freight – General term for skids in any shipment irrespective of order / bill

Order – Total skids to be accounted for on a freight bill

Docked – Procedure of adding dimensions, scanning freight label and scanning dock barcode

Moving to the floor – The act of moving freight to our dock floor in no particular location

Dock Control – Paper summarizing the order and how many pallets / skids that the order contains

Item – A unit of measurement that represents a single barcode on an order, typically represents a pallet. Each order will have a minimum of one item with a potential of n items.

Lane – Location on the Dock identifying Freight moving to a specific location

DMM – Data Management Module is the computer on the forklift that is used to record the weight from the load cells in the forks of the forklift and send the data off to the FreightLogix API.

Dock Plate – The metal plate that connects the dock to the trailer, allowing the forklift to travel on and off.

SOP for Dock Current State

There are two conventional ways of handling freight once the trailers have arrived at our dock. These are as follows:

1. Moving the Freight to the correct Dock Location
    a. Rush Scenario
    b. Typical Scenario
2. Swinging The Load directly to another Trailer

Moving Freight to Correct Dock Location

There are two scenarios when to account for when moving Freight to the Dock:

1. Rush Scenario
2. Typical Scenario

Rush Scenario

While working alone, once the trailer is backed into the door the forklift driver will begin to offloading the trailer. The forklift driver(s) will first completely strip the trailer's freight to the floor, they will then walk the freight, labelling, cubing and docking the freight. Once everything is labeled, cubed and docked they will begin to move the freight to the correct dock locations. This method allows for quick emptying of the trailer and is usually applicable when the load is a live load, the trailer is needed for loading, or the door is urgently needed of something else.

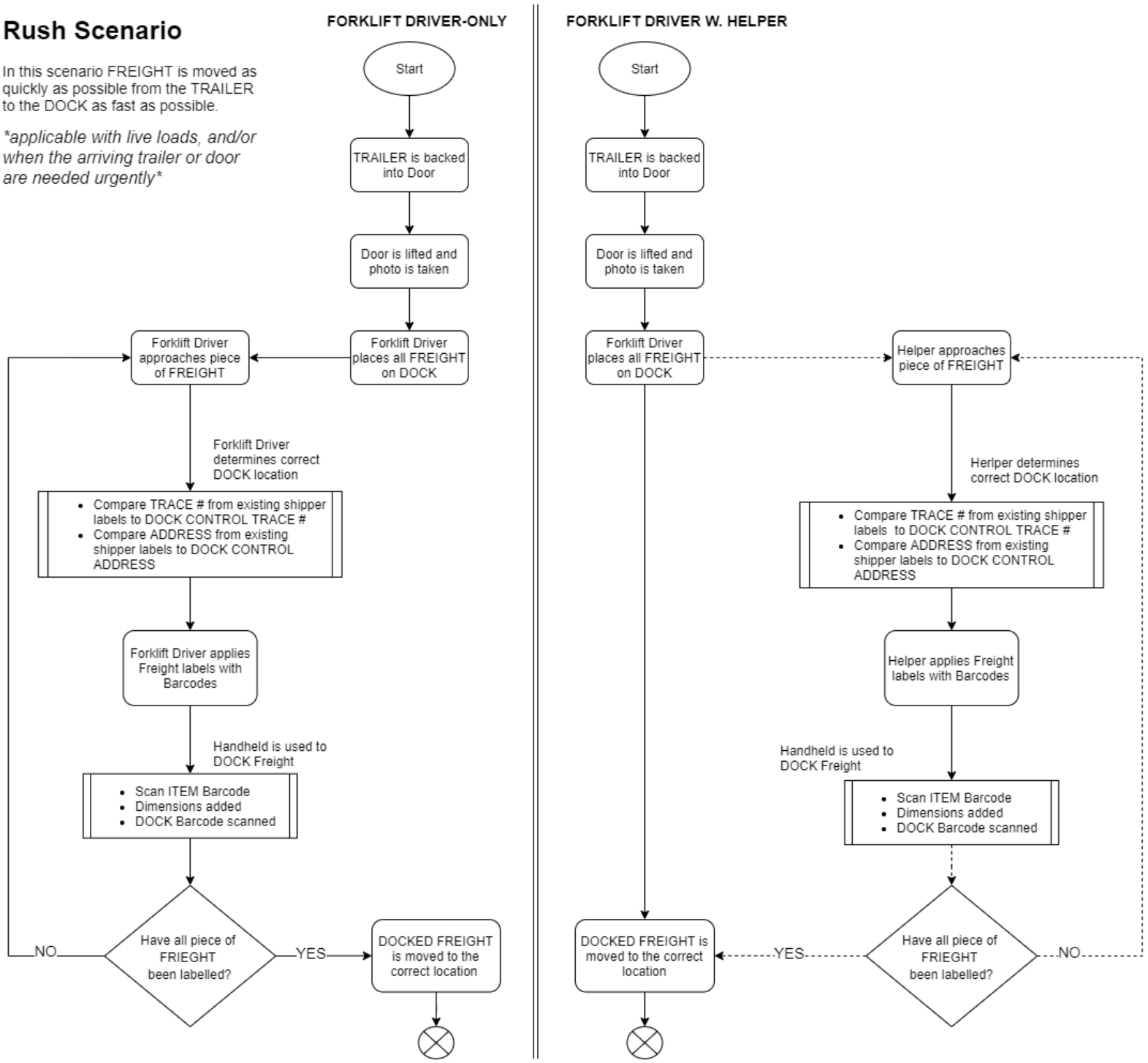
a. While working with a Helper is almost the same method except the helper will begin to label, cube and dock the freight as the forklift driver offloads the freight to the floor. Once the freight is all labelled, cubed and docked the forklift driver will move the freight to the correct dock location.

See image on following page.

Rush Scenario

In this scenario FREIGHT is moved as quickly as possible from the TRAILER to the DOCK as fast as possible.

applicable with live loads, and/or when the arriving trailer or door are needed urgently



Typical Scenario

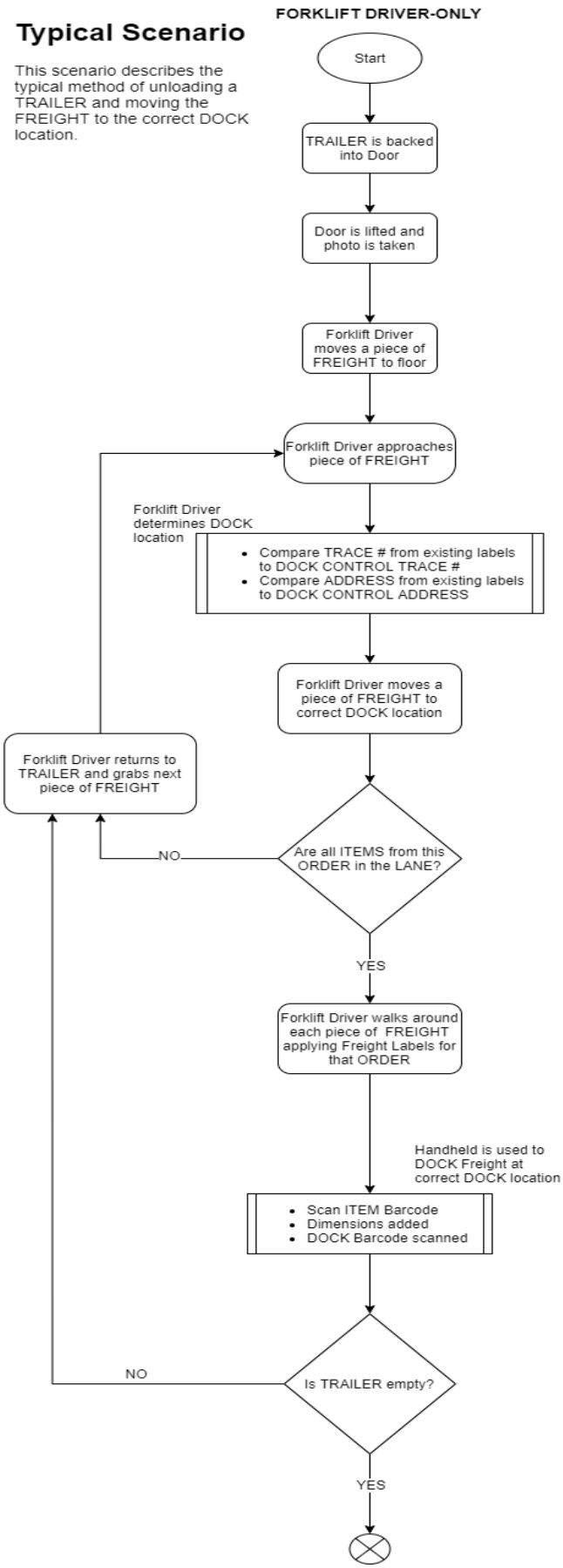
Once the trailer is back into the door the forklift driver will start offloading the trailer. They will identify the freight and its correct dock location and move it there immediately. Once all of the items of that order are physically docked in their correct dock location the forklift driver will stop and label, cube and dock (on the TC8000 handheld) the freight, regardless of if the rest of the trailer is empty or not. They will continue this method until the trailer is empty. This method is usually used when the forklift driver has more time to work with his trailer or much larger orders to move while unloading.

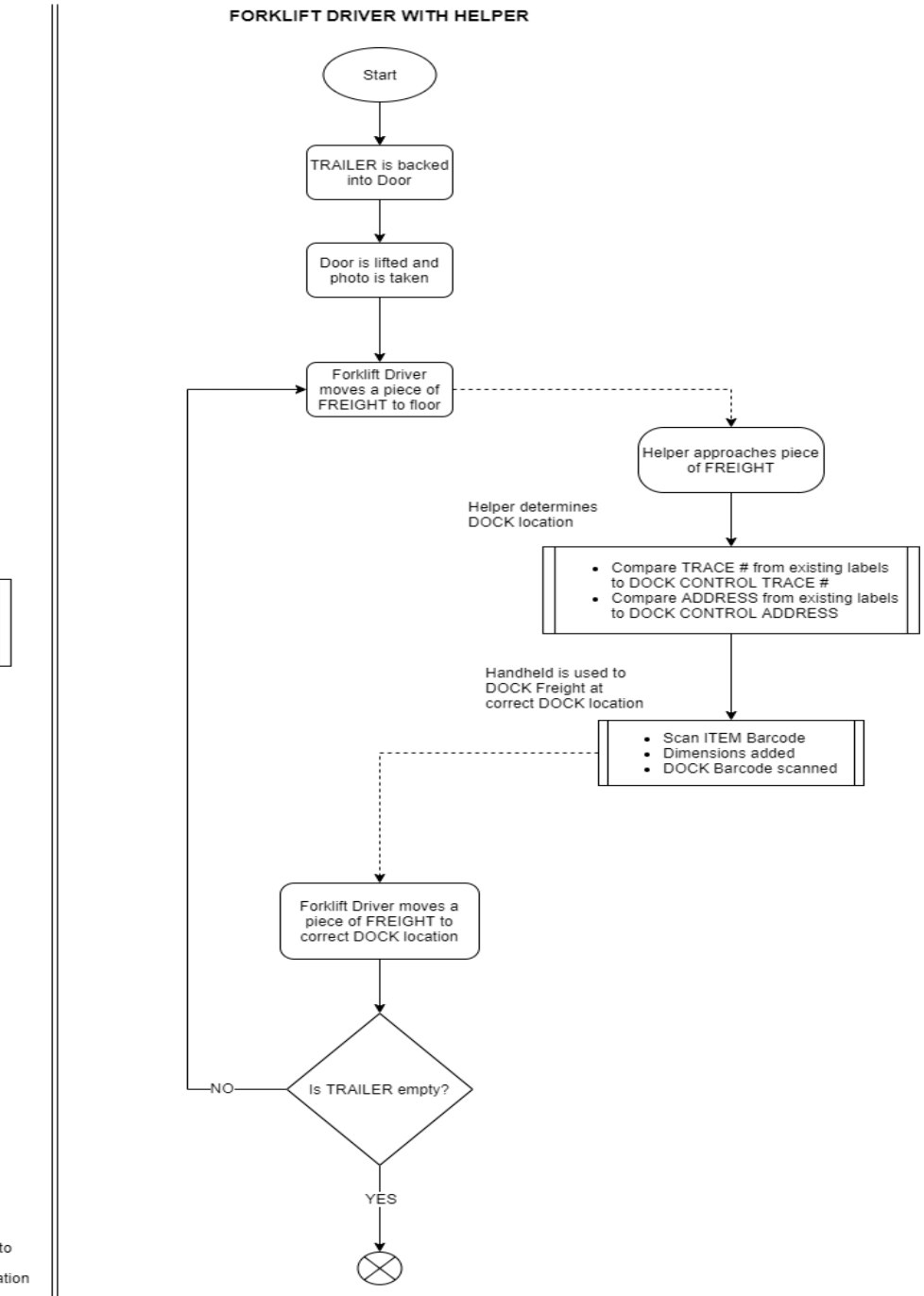
b. While working with a Helper is almost the same method except the Helper with label, cube and dock the freight before the forklift driver moves the freight to its correct dock location.

See image on following page.

Typical Scenario

This scenario describes the typical method of unloading a TRAILER and moving the FREIGHT to the correct DOCK location.





Swinging the Load directly onto another Trailer

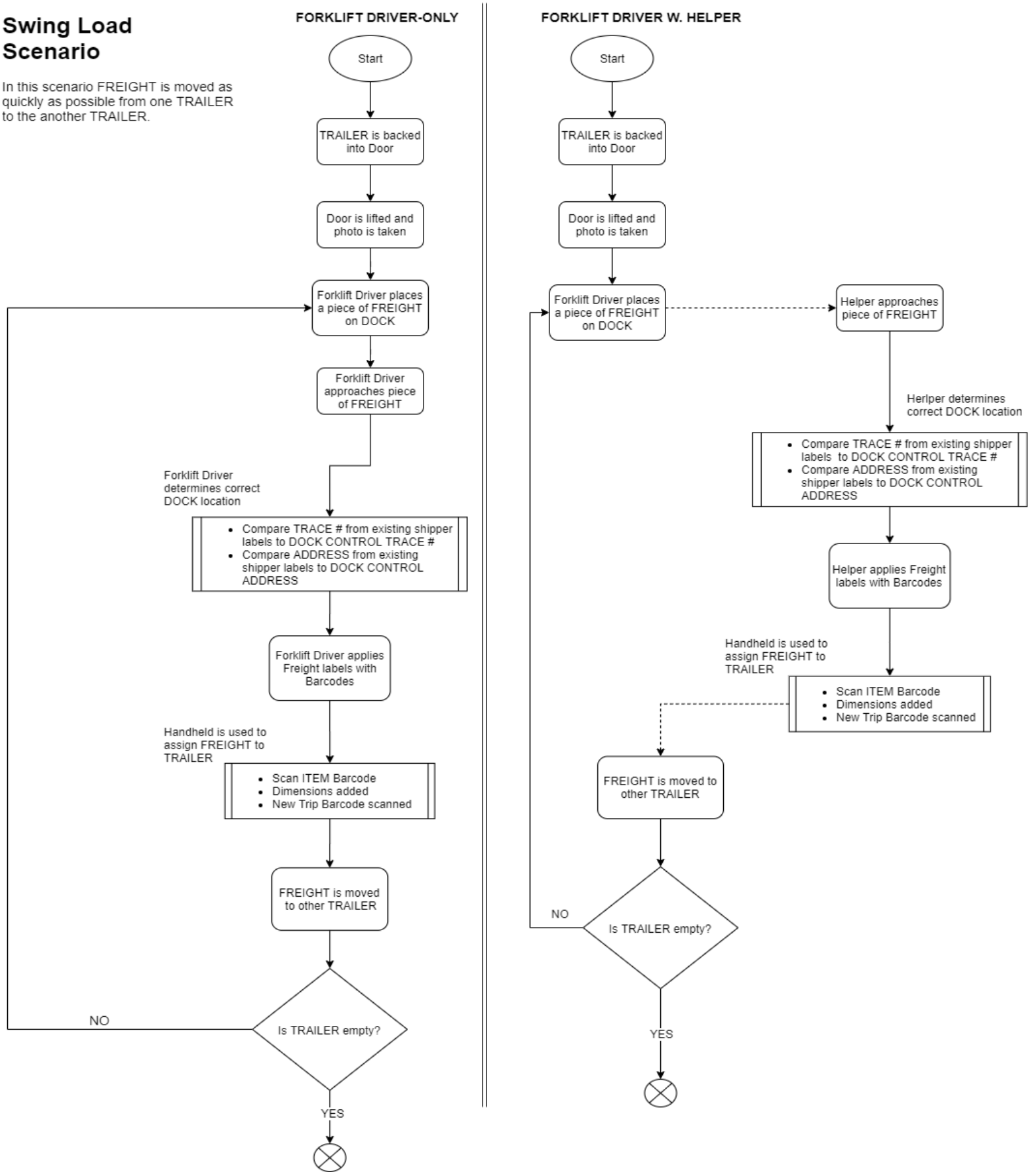
When the forklift driver is tasked with swinging a full load of freight from 1 trailer to another, they will usually get a helper. The helper will label, cube, and directly load the freight onto the other trailer with the TC8000 Handheld, the forklift driver will then physically load the freight onto the new trailer, the forklift driver will then return to the trailer and repeat the process until the trailer is empty.

When Swinging a trailer alone, the forklift driver will grab a skid from the trailer and assess its order and location (for full loads that are made up of multiple orders) they will label the freight with the correct corresponding Freight label and then cube, and load that skid right onto the new trailer with the TC8000 Handheld. The forklift driver will then return to the trailer and repeat the process until the trailer is empty.

See image on following page.

Swing Load Scenario

In this scenario FREIGHT is moved as quickly as possible from one TRAILER to the another TRAILER.



SOP for Dock Proposed State

The addition of forklift scales changes our current process for moving freight in the following ways:

1) Moving freight will require more time
2) Lifts will have to be determined for reweighing multiple pieces of freight
3) Freight moving scenarios will have to be changed to represent new process
4) *Pieces of Freight will need to be marked to identify freight that needs reweighed
   see written process in section "Identifying Reweigh Freight" below

Identifying Reweigh Freight

1) A property will need to be added to Truckmate vendors indicating they are "Reweigh Customer"
2) A DAWG will be sent to Mike F. daily to indicate new customers added the previous day
3) Mike F. will flag new customers as "Reweigh Customer" based on his review of the DAWG
4) Klaudia will add a check to the DOCK LABEL and DOCK CONTROL reports indicating a shipment belongs to a "Reweigh Customer"
5) DOCK staff will be responsible for identifying a shipment as Reweigh by looking at the DOCK label and DOCK control

Preventing Multiple Freight Bills in a Single Lift

In order to prevent skids from two freight bills being on a single lift, the following functionality is proposed for the DMM.

When two pieces of freight from different Freight Bills are scanned consecutively, the DMM should check that they are not of the same weight. If they are, an error should be presented to the Forklift Driver who will then split the Lift and reweigh each piece of Freight separately.

This functionality should in no way obligate the Forklift Driver to reweigh all pieces of Freight for a single Freight Bill. Instead, the Forklift Driver should be able to scan Freight from any Freight Bill, provided they do so on separate lifts.

Freight Movements that contain a Reweigh Step

The conventional ways of handling freight once the trailers have arrived at our dock changes with the introduction of the reweigh program. The changes to each of the aforementioned scenarios are represented in the following:

1. Moving the Freight to the correct Dock Location
    a. Proposed Reweigh Rush Scenario
    b. Proposed Reweigh Typical Scenario
2. Proposed Reweigh Scenario for Swinging the Load directly to another Trailer

Proposed Changes to Rush Scenario

While working alone, once the trailer is backed into the door the forklift driver will begin to offloading the trailer. The forklift driver(s) will first completely strip the trailer's freight to the floor, they will then walk the freight, labelling, cubing and docking the freight. Once everything is labeled, cubed and docked they will then identify if the Freight Bill they are moving is to be reweighed, this will be outlined on the Freight Label. If it is a reweigh order, the forklift driver will then scan the Freight Label barcode (ITEM Barcode on Diagram) with the WeighPoint Bluetooth scanner, which will record the new weight. Once done scanning for reweigh the forklift driver will then move the freight to the correct dock locations. This method allows for quick emptying of the trailer and is applicable when the load is a live load, the trailer is needed for loading, or the door is urgently needed of something else.

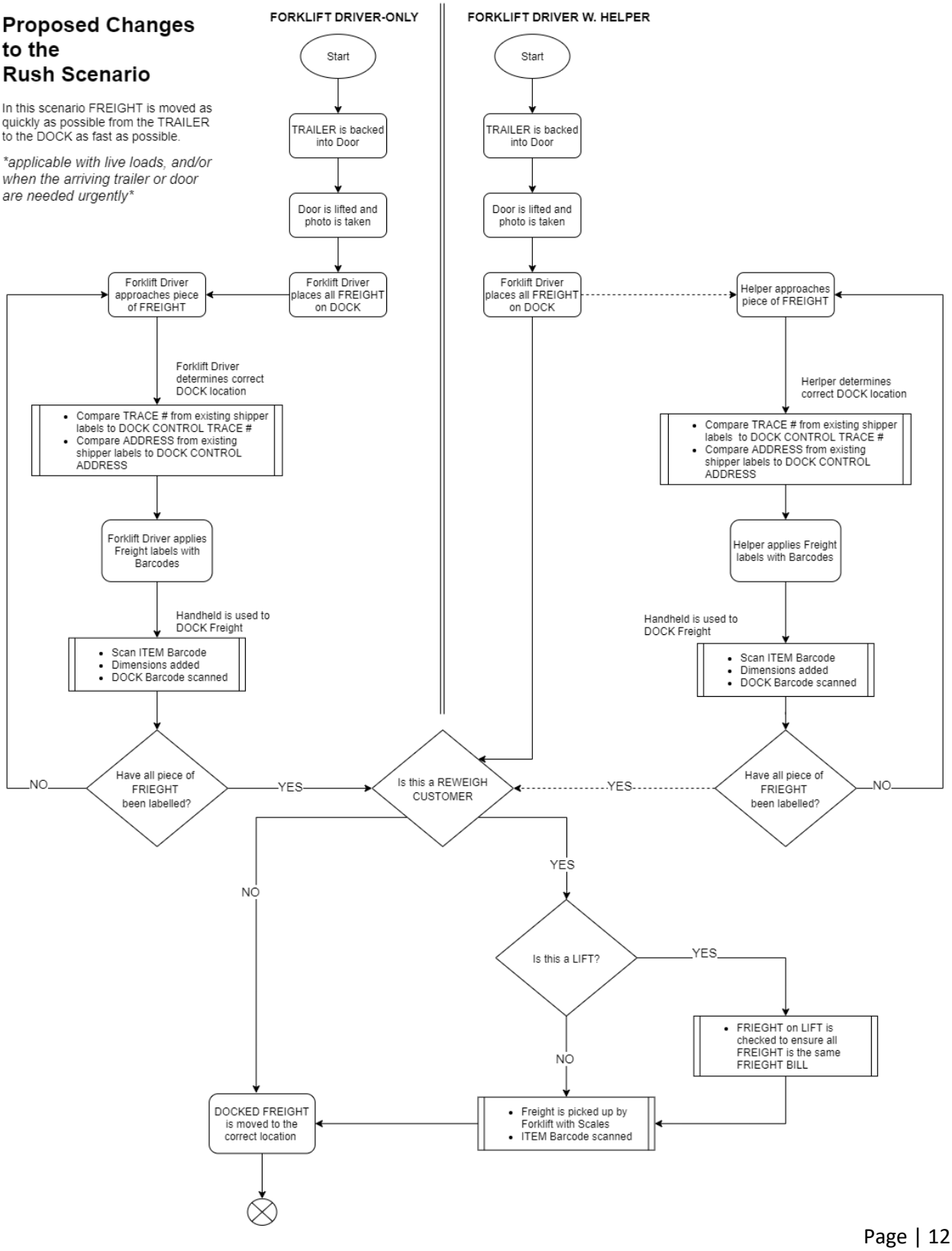
a. While working with a Helper this process is almost the same except that the helper will begin to label, cube and dock the freight as the forklift driver offloads the freight to the floor. Once everything is labeled, cubed and docked, the helper will then let the forklift driver know which are to be scanned for reweight, identified by the Freight Label. The forklift driver will hold the freight still while the helper scans the Freight Label barcode with the WeighPoint Bluetooth scanner, which will record the new weight. Once done scanning for reweigh, the forklift driver will then move the freight to the correct dock locations.

See image on following page.

Proposed Changes to the Rush Scenario

In this scenario FREIGHT is moved as quickly as possible from the TRAILER to the DOCK as fast as possible.

applicable with live loads, and/or when the arriving trailer or door are needed urgently

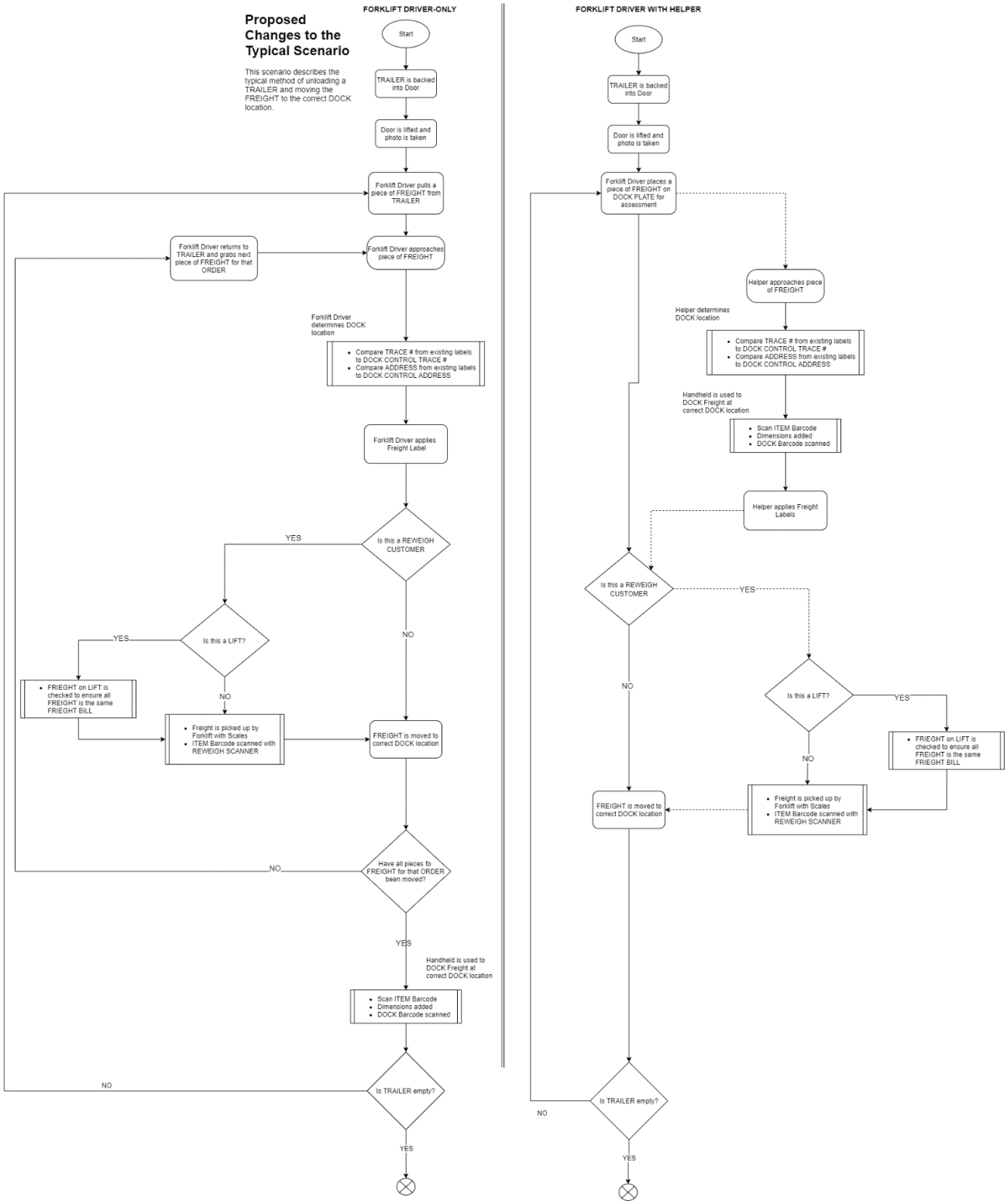


Proposed Changes to Typical Scenario

While working alone, once the trailer is backed into the door the forklift driver will start offloading the trailer. The Forklift Driver will identify and label the freight. Once labelled the Forklift Driver will identify if the item needs to be reweighed, this will be outlined on the Freight Label, and will scan the Freight Label Barcode (ITEM Barcode on Diagram) with the WeighPoint Bluetooth scanner. The forklift driver will then move the freight to it's correct dock location immediately. Once all of the items of that order are physically docked in their correct dock location the forklift driver will stop and cube and dock (on the TC8000 handheld) the freight, regardless of if the rest of the trailer is empty or not. They will continue this method until the trailer is empty. This method is usually used when the forklift driver has more time to work with his trailer or much larger orders to move while unloading.

a. While working with a Helper is almost the same method except the Helper with label, cube and dock the freight before the forklift driver moves the freight to its correct dock location, they will also alert the driver if that item needs to be reweighed, if so the driver will hold the item still while the help scans the Freight Label with the WeighPoint Bluetooth scanner to record the new weight.

See image on following page.


Proposed Changes to the Typical Scenario
This scenario describes the typical method of unloading a TRAILER and moving the FREIGHT to the correct DOCK location.
FORKLIFT DRIVER-ONLY
Start
TRAILER is backed into Door
Door is lifted and photo is taken
Forklift Driver pulls a piece of FREIGHT from TRAILER
Forklift Driver approaches piece of FREIGHT
Forklift Driver returns to TRAILER and grabs next piece of FREIGHT for that ORDER
Forklift Driver determines DOCK location
Compare TRACE # from existing labels to DOCK CONTROL TRACE #
Compare ADDRESS from existing labels to DOCK CONTROL ADDRESS
Forklift Driver applies Freight Label
Is this a REWEIGH CUSTOMER
YES
NO
Is this a LIFT?
YES
NO
FRIEGHT on LIFT is checked to ensure all FREIGHT is the same FRIEGHT BILL
Freight is picked up by Forklift with Scales
ITEM Barcode scanned with REWEIGH SCANNER
FREIGHT is moved to correct DOCK location
Have all pieces fo FREIGHT for that ORDER been moved?
NO
YES
Handheld is used to DOCK Freight at correct DOCK location
Scan ITEM Barcode
Dimensions added
DOCK Barcode scanned
Is TRAILER empty?
NO
YES
FORKLIFT DRIVER WITH HELPER
Start
TRAILER is backed into Door
Door is lifted and photo is taken
Forklift Driver places a piece of FREIGHT on DOCK PLATE for assessment
Helper approaches piece of FREIGHT
Helper determines DOCK location
Compare TRACE # from existing labels to DOCK CONTROL TRACE #
Compare ADDRESS from existing labels to DOCK CONTROL ADDRESS
Handheld is used to DOCK Freight at correct DOCK location
Scan ITEM Barcode
Dimensions added
DOCK Barcode scanned
Helper applies Freight Labels
Is this a REWEIGH CUSTOMER
YES
NO
Is this a LIFT?
YES
NO
FRIEGHT on LIFT is checked to ensure all FREIGHT is the same FRIEGHT BILL
Freight is picked up by Forklift with Scales
ITEM Barcode scanned with REWEIGH SCANNER
FREIGHT is moved to correct DOCK location
Is TRAILER empty?
NO
YES

Proposed Changes to Swinging the Load directly onto another Trailer

When the forklift driver is tasked with swinging a full load of freight from 1 trailer to another, they will usually get a helper. The helper will label, cube, and directly load the freight onto the other trailer with the TC8000 Handheld, they will identify if the item is needed to be reweighed, if so they will then scan the Freight Label (ITEM Barcode on Diagram) using the WeighPoint Bluetooth scanner. The forklift driver will then load the freight onto the new trailer, the forklift driver will then return to the original trailer and repeat the process until the original trailer is empty.

When Swinging a trailer alone, the forklift driver will grab a piece of freight from the trailer. They will then assess the Freight and determine its correct dock location. For full loads that are made up of multiple order, they will label the freight with the correct Freight label and then cube, and load that skid onto the new trailer with the TC8000 Handheld. The forklift driver will then identify if the item needs to be reweighed. If a reweigh is necessary, they will scan the Freight Label with the WeighPoint Bluetooth scanner. The forklift driver will then physically load the freight onto the new trailer, and return to the original trailer, repeating the process until the trailer is empty.

See image on following page.

Proposed Changes to the Swing Load Scenario

In this scenario FREIGHT is moved as quickly as possible from one TRAILER to the another TRAILER.