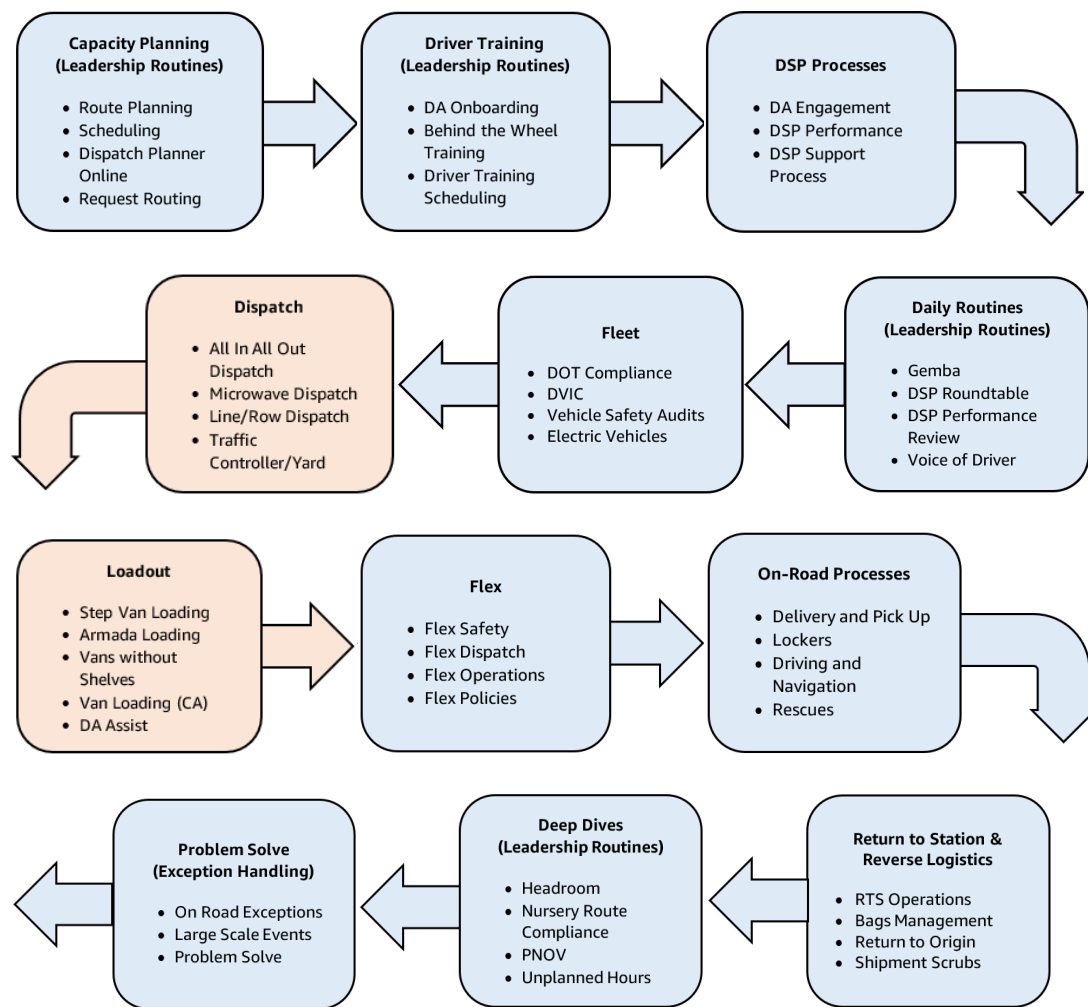


On-Road Process Flow



Overview

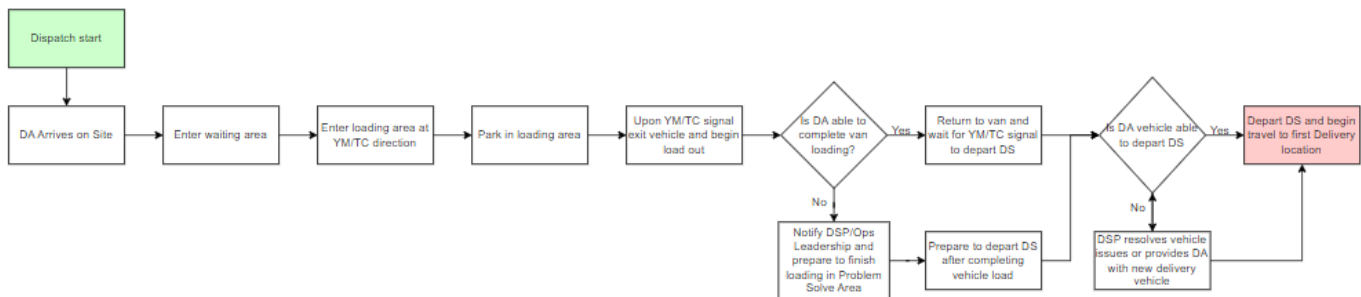
Dispatch begins once all shipments have been staged to the correct granular staging location and ends once all shipments are loaded onto the vehicles and left the station for delivery to customers.

Effective Dispatch ensures that the correct packages and bags are picked efficiently, safely organized in the correct sequence into carts and staged in the assigned granular staging location in the optimal order for Delivery Associates to collect for Load Out. Compliance to Standard is assessed through Audit questions and Dispatch performance contributes to key metrics in the [AMZL WW Scorecard](#) such as, Parcel Not on Van DPMO, OTD, UTR Safety and IAQ Driver Questions.

This Document outlines the Dispatch Process for AMZL Load-Out, Dispatch and Return To Station leadership such as Dispatch Process Assistant / Traffic Controllers *(NA)*, Yard/Van Marshal (YM/VM) *EU* to carry out for Delivery Associates and DSPs to enter, park, and exit the Delivery Station safely in order to prevent accidents between Pedestrian, vehicles, and Amazon Logistics property. This SOP ensures waiting areas and Launch pads are utilized according to safety, operational, and Yard Flow rules. On-Road Leadership teams have to coordinate DS operations, DSP managers, Delivery Associates, and Flex Delivery Associate to ensure smooth Flow of traffic through the Launch pads, safe Operations, and On-Time Dispatch performance.

Success Criteria

- Dispatch Operations are staffed to meet the volume and departure times for the planned routes.
- The Dispatch [Area Readiness Audit](#) is complete at least 30 minutes before dispatch and gaps escalated to L4/5 for correction before Start of Shift. [Area Readiness Checklist \(Inform\) SOP](#)
- DS Staff and DSP Delivery Associates have the required materials to conduct Dispatch Operations.
- All routes are picked and staged prior to wave start time.
- Delivery Associates access to Site and all Delivery Associate movements are safe and controlled by Dispatch Process Assistant, Traffic Controller, or Yard Marshal.
- Delivery Associates collect and load their full route, with any exceptions verified and approved by problem solver.



Dispatch Process Map

For additional details on the Load-Out & Dispatch process flow, refer to the [Load-Out & Dispatch Process Map](#).

Key Definitions

- **Parking Lot Entrance**– entrance point from Delivery Service Provider (DSP) vehicles parking to queuing area
- **Queue Pad (QP) (NA)/Waiting Area (WA) (EU)**– group of delivery vehicle spaces staged before station Load-Out designed to ensure organized and preparation for incoming Load-Out procedure
- **Queuing Area (QA)**– collection of queueing pads that share the same by-pass lane, while maintaining enough separation for entry and exit to individual pads
- **Launchpad (LP) (NA/EU)**– group of load spaces designated to carry out the Load-Out procedure while maintaining enough separation to support entry and exit to individual pads that are separated by 40’ from all other loading areas. Drive lanes inside legacy buildings are considered launchpads.
- **Launch Area (LA) (NA)/Loading Area (LA) (EU)**– collection of launchpads that share the same by-pass lane.
- **By-Pass Lane**– designated drive lane adjacent to queuing pads and launchpads used for Delivery Associate to travel from entry to exit while maintaining safe space

Metrics - Quality & Productivity

Metrics	Standards	Definition	Formula	Link
<i>On time Dispatch (OTD)</i>	>95%	The proportion of Delivery Service Provider routes which depart within Scheduled Wave Interval of scheduled wave start	(Routes dispatched within scheduled wave interval of schedule) / Total Routes	North America (NA) line 1.1

				Europe (EU) line 1.1 JP line 1.1
Loading Area Turnover (LAT)	NA DSP Multi-Cycle Operations Cycle 1: < 20-30 minutes EU DSP: < 15 minutes	The time spent by <i>Delivery Associate</i> (Delivery Associate) inside the Loading Area, measure by Bluetooth Beacon.	Time from first Delivery Associate crossing entry Bluetooth beacon signal inside loading area to last Delivery Associate crossing exit Bluetooth beacon signal; excludes routes with no Bluetooth data and routes with LAT <3 or >60 minutes.	NA line 4.1 EU line4.1 JP line 4.1

Physical Setup

LAYOUT

Layout standards are defined to provide an unobstructed Flow through Outbound Ops, and to maximize the throughput of the Loading Area. Each Site's layout will vary based on their building, yard, or access constraints. Layout standards are defined by Process Engineering, and any change to Site layout must be approved by PE.

EU PE Standards are defined [here](#), including standards on [Delivery Vehicle Yard Flow](#), and [Van Loading Standard Operating Procedures-Armada Sprinter](#).

NA PE Standards are defined [here](#), including standards on [Load & Dispatch](#), [NA Parking Design Standard](#), and [NA Traffic Flow Design Standard](#).

All-in All-out Microwave Dispatch Van Flow

Each individual launchpad performs an all-in van entry, loading and an all-out van exit sequence once the loading process is complete for that specific launchpad. The subsequent launchpads perform the same all-in all-out van flow but at staggered times to ensure that launchpads are not in conflict with each other with vans entering and exiting the launchpads. [All-In All-Out Dispatch SOP](#) and this [simulation](#) explain this process of van Flow between queuing pads and launchpads.

Vans enter the launchpads in a single file as depicted in Figure 3 below. Each drive lane (single file) exit from the queuing pad should continuously flow (bumper-to-bumper) into the launchpad and enter the launchpad in single files.

NA Only: Where Delivery Stations meet the defined requirements, vehicles may enter empty rows within the launchpad whilst other rows are departing. See [AIAO: Simultaneous Fill & Exit SOP](#)

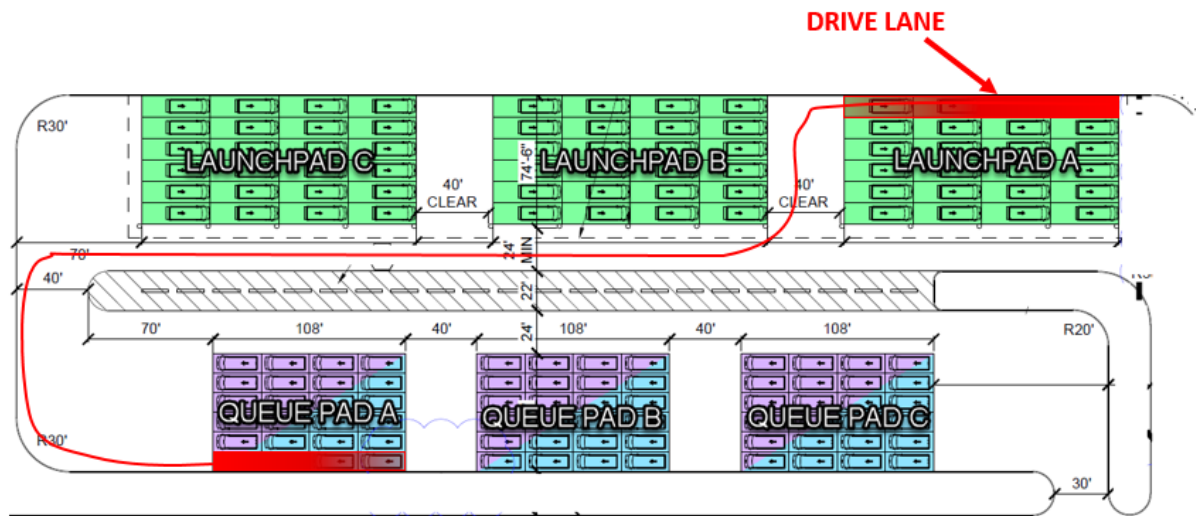


Figure 3: Single File Drive Lane Entry from Queuing to Launchpads

Line or Row Dispatch Van Flow (EU)

Waiting pads are designed to be long and thin to optimize traffic flow by reducing the number of turns as shown in Figure 4. All waiting pads are preferred to be separated via bypass lane horizontally in the direction of the flow, if this is not possible red line marking is applied at the boundary of each waiting pad. All lanes of the waiting pads have access to the loading area, and all lanes of the launchpad have access to the exit. the gap between the waiting pads and launchpads is at least 7.5m to allow 90° turn of the delivery vehicle (For the legacy sites that use SWB dimensions, gap between the launchpads is 6.5m). Bypass lane is not mandatory in the waiting pad or launchpad for DSs that have a single launchpad.

Delivery vehicle flow is always one-way from the Entry Area, Waiting Area, Loading Area and to the Exit Area where no reversing is required throughout the flow. Delivery Vehicle entry/exit flow is uninterrupted and exit/entrance of Loading and Waiting Areas are separated from all other traffic flows.

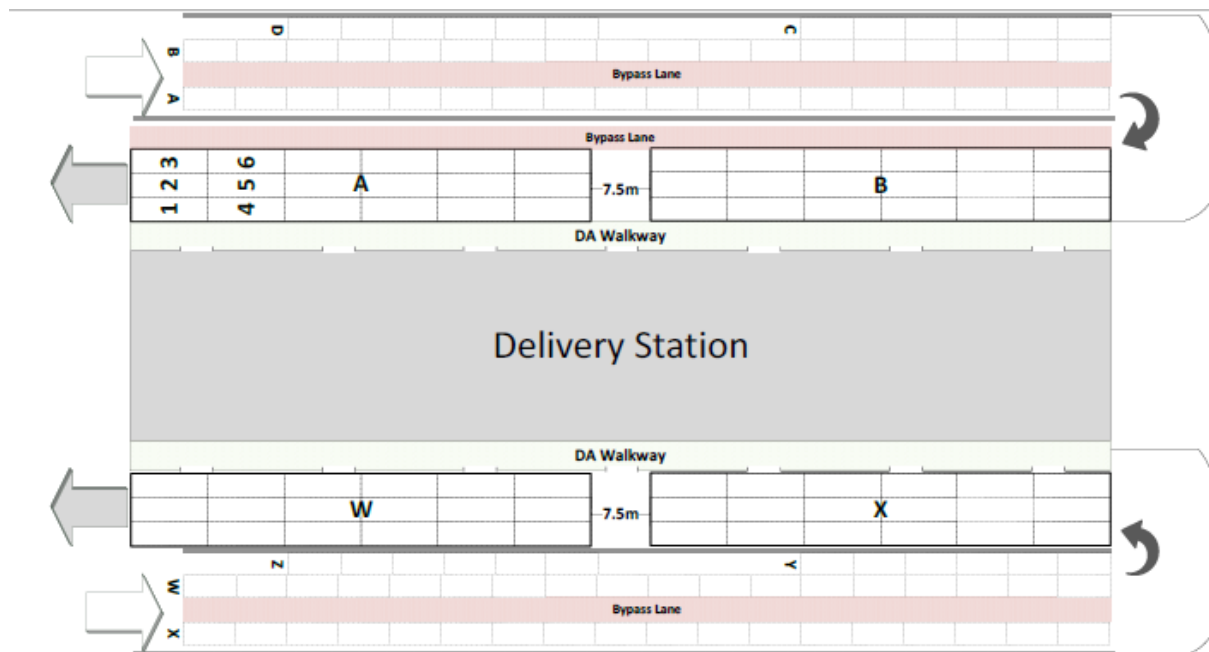


Figure 4: EU Queuing to Loading Area with Bypass Lane

LP and QP Label Format

Each queuing and loading pad follow a standard naming convention. The first QP or LP (receiving letter A) is the first pad vans arrive into when following the design Flow and arriving into the Launch Area or Queuing Area.

- Queuing Pad utilizes QP
- Launch Pad utilizes LP
- First character: The letter designates between Pads within each queuing and loading area. Beginning with letter A for the first pad vans arrive to then proceeding (A, B, C, D).
- Second character: The number (1 or 2) designates which queuing or load side, and is necessitated by some Amazon Logistics having Dual Sided loading. (e.g. "A2" would only be used if a Amazon Logistics was Dual Sided).



Figure 5: Launch Pad and Queue Pad Labeling Format

Loading Spot Configuration

Loading spot dimensions are measured from inside of the marking lines, with loading area space designed to provide space for carts to be parked behind vehicle while still allowing egress for cart movement between loading space behind the working zone of parked carts.

- NA loading spot dimensions are always 38'6"L x 12'W
- EU loading spot dimensions are always 9.6m L x 3m W

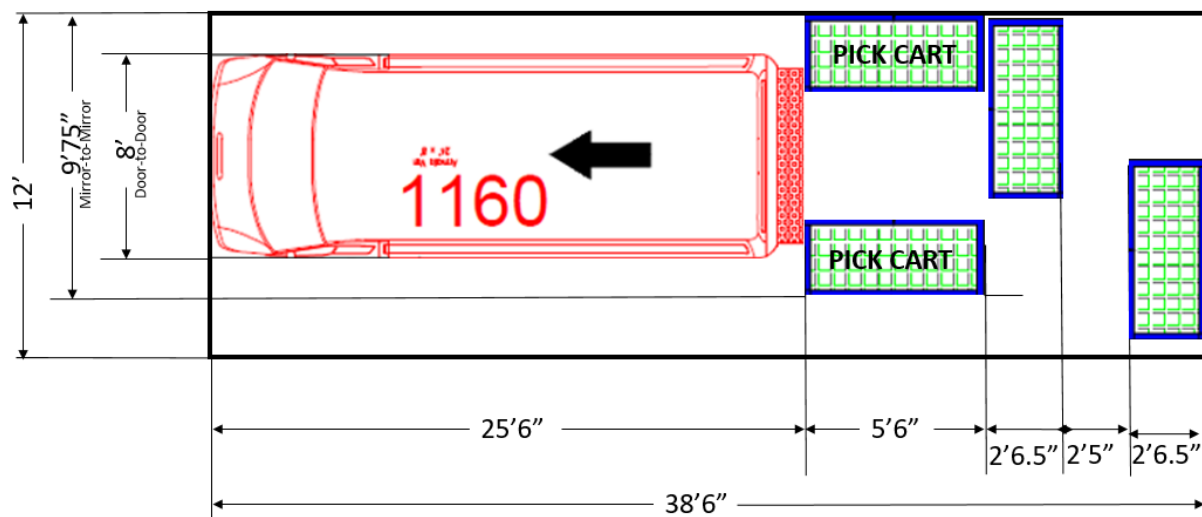


Figure 6: NA Loading Spot Layout

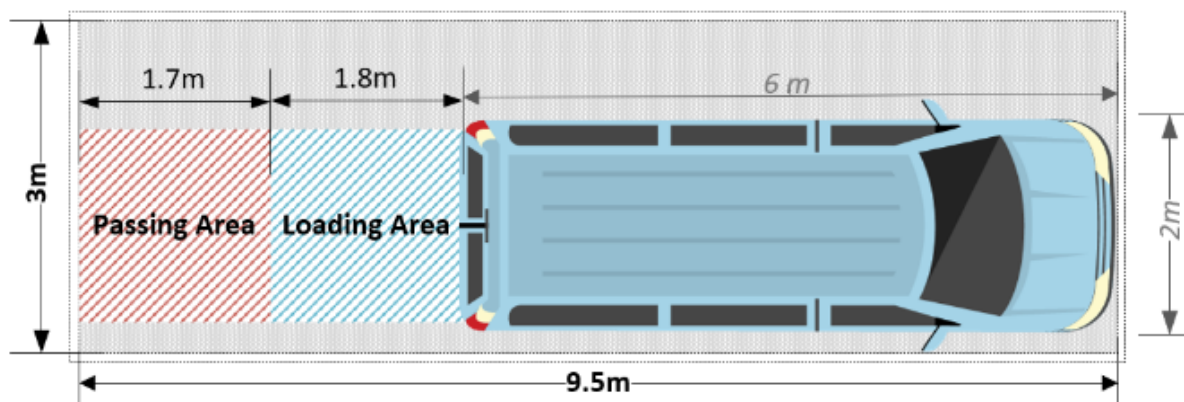


Figure 7: EU Loading Spot Layout

MATERIALS

The following materials are required to effectively conduct Load-Out and Dispatch Operations at an AMZL Delivery Station.

Role/Section	Materials (1 per associate + spares, unless specified)
Dispatch Process Assistant	<ul style="list-style-type: none"> Laptop, tablet, or other handheld device Scanner Mobile cart (if not in a fixed location) Cold weather gear (hat, jacket, gloves, etc.) or hot weather gear (umbrella, fan, etc.) if needed Radio Cover from the elements as necessary (tent/canopy etc.)
Traffic Controller *NA* / Yard Marshal	<ul style="list-style-type: none"> Dispatch Signals - Each Site will choose one option and have one standard across all Shifts. <ul style="list-style-type: none"> Light Signal

EU	<ul style="list-style-type: none"> ○ Hand/Flag signal ○ Whistle ○ PA System • Traffic baton • Cold weather gear (hat, jacket, gloves, etc.) or hot weather gear (hat, fan, etc.) if needed • Radio • Each Traffic Controller must have a position behind a safety approved barrier to stand while vehicles are in motion
Leader/Problem Solver	<ul style="list-style-type: none"> • 1 Computer on Wheels Cart per problem solver • 1 Wireless Barcode Scanner per COW cart • 20 package containers per 4 finger Mech Lite • 2 Spill Kits per 4 finger Mech Lite • 1 pair of Hazmat Solvex Gloves per associate managing hazmat • 1 pair of Clear Safety Glasses per associate managing hazmat • 1 PVC Chemical Resistant Apron per associate managing hazmat • Laptop
Driver Materials	<ul style="list-style-type: none"> • Rabbit device: 1 per driver. Device control varies by DSP, either (a) using Delivery Associate's personal device, (b) device permanently issued to driver, or (c) devices distributed by DSP dispatcher before <i>Start of Shift</i> (SOS) • Delivery attempt "We missed you" cards <ul style="list-style-type: none"> ○ <i>Note: On the Road (OTR) leaders can order more WMY cards by follow this Standard Operating Procedures</i> • Gas card (NA, and for EU Armada vehicles)
Load-Out Start Up Meeting Area	<ul style="list-style-type: none"> • Device Storage • Staffing Assignment Board
Other	<ul style="list-style-type: none"> • Alcohol check equipment (JP only)

Pre-Shift Planning

- Review Opportunities and Actions from Prior Day OTD Tracker
- Sort Recap
- Indirect Staffing Needs and Placement
- Any risk to routing being completed/Pick starting on time
- Designate POCs for Key Responsibilities
- Throughout Pick/Stage, monitor routes in progress and sync with UTR AMs/SAs regarding any routes at risk.
- Once routing is complete, follow up on any additional recognized barriers (i.e. unplanned routes)

Area Readiness Audit

The T3 Shift Assistant is responsible for completing the Load-Out Audit within [Area Readiness Tool](#) at least 30 minutes prior to Dispatch Start each day. This check includes different materials (Radio, cleaning supplies, ergonomic mat, First Aid kit, etc). Any issues must be escalated to L4/5 and rectified before Start of Shift.

Staffing & Resource Allocation

Roles and responsibilities

Refer to [AMZL Leadership Routines supporting document](#) for standard role (e.g. *Shift Assistant/Shift Manager*) checklists and responsibilities. The following are Load out and Dispatch specific key roles:

Role		Staffing Ratio	Responsibilities
Dispatch Process Assistant or OTR Supervisor/Shift Assistant (OTRDSP)		1 per day	<ul style="list-style-type: none">• Oversee traffic controller execution• Ensure dispatch/queuing Area Readiness• Check in Delivery Partner
Traffic Controller *(NA)* (OBTRAF) / Yard Marshal *(EU)*		1 per Launch pad and 1 per queuing/waiting area where applicable	<ul style="list-style-type: none">• Manage Flow of vehicles, directing Delivery Associate to enter/exit loading area• Ensure vehicle safety
Load-Out Problem Solver		Problem Solve Staffing SOP	<ul style="list-style-type: none">• Resolve issues raised by Delivery Associate, including cube outs, damages, and Miss sorts• Consolidate left behind packages
Delivery Associate Assist/ Yard Assist and Cart Handling (DISPPA) <i>(Where applicable)</i>	Load-Out	Delivery Associate Assist Calculator	See Delivery Associate Assist with Van Loading SOP <ul style="list-style-type: none">• Transport full carts from staging area to Delivery Associate in Loading Area; return empty carts.• Loading assist *US ONLY*
	Ramps	1 per ramp where ramp requires 2 people on each cart	<ul style="list-style-type: none">• Assist Delivery Associates to safely move carts up/down steep ramps

Process

Process

1. Yard Area Readiness

While routing is being run (approx. 10 mins):

- Prior to the wave times, the [Area Readiness](#) in the yard should be verified 30 minutes before the beginning of dispatch Process.

2. Pre-Loadout and Dispatch Sync with Pick & Stage-See Resources for Sync Template

While routing is being run (approx. 10 mins):

- Attendees
 - UTR Manager(s)
 - OTR Manager(s)
 - UTR Process Assistant(s)
 - Dispatch Process Assistant(s)
 - Traffic Controllers(NA)/Yard Marshalls(EU)
- Discuss
 - Review Opportunities and Actions from Prior Day OTD Tracker
 - Sort Recap
 - Indirect Staffing Needs and Placement
 - Any risk to routing being completed/Pick starting on time
 - Designate POCs for Key Responsibilities
 - Once routing is complete, follow up on any additional recognized barriers (i.e. unplanned routes)

3. Yard Staffing

- The Standard Staffing Model (SSM) is in NA 1x TC per Launch Pad + 1x TC per Queuing Area (QA) to manage the Flow of vehicles.
- SSM staffing model in the EU is: 1 Yard Manager (YM) / Van Manager (VM) per Launch Pad, 1 YM/VM per Waiting Area, and additional Head Count based on up to 30 vehicles per YM/VM in the Waiting Area and 1 YM per Launch Pad when managing 30 or more vans at the same time.
 - the SSM in EU noted above does NOT include SWA hours. For SWA Operations, please calculate separately and add to the SSM output before submitting the yard staffing hours into the labor plan.
- Other staffing models on a by exception basis is governed by WHS risk Assessments. WHS must approve YM staffing models that do not follow the standard. Escalate through Regional ACES and Regional WHS to begin the exception Process.

4. Arrival of Vehicles

- Traffic controller *NA*/ Yard/Van Marshal (YM/VM) *EU* greets and confirms that Delivery Associate is entering only at their scheduled wave start time, and know which drive lane and staging location they will be going to. Delivery Associate have to be directed to the correct Launch pad for parking, only after first ensuring the Launch pad is clear of prior wave traffic.
- Vehicles will fill by lane starting with the lane closest to the building moving out to the bypass lane. Once this is confirmed the TC/YM/VM will Direct Delivery Associate from the holding area to the loading area following the station's Micro Wave dispatch sequence with the standard TC (NA) / YM/VM (EU) hand signals.
- Following the decision tree (figure 8), the TC/YM/VM signals Delivery Associates to leave their vehicle, maximizing safety and minimizing noise disturbance to our neighbors. To eliminate confusion, each Site will choose one option and have one standard across all *Shifts*. This is critical for a positive driver Experience and prevention of safety incidents.

* PA Systems have variable volume; use the MVL (minimal volume level) for the environment during dispatch.

* PA Systems are not used to play music on the launchpad.

* Bullhorns are not an approved dispatch signal.

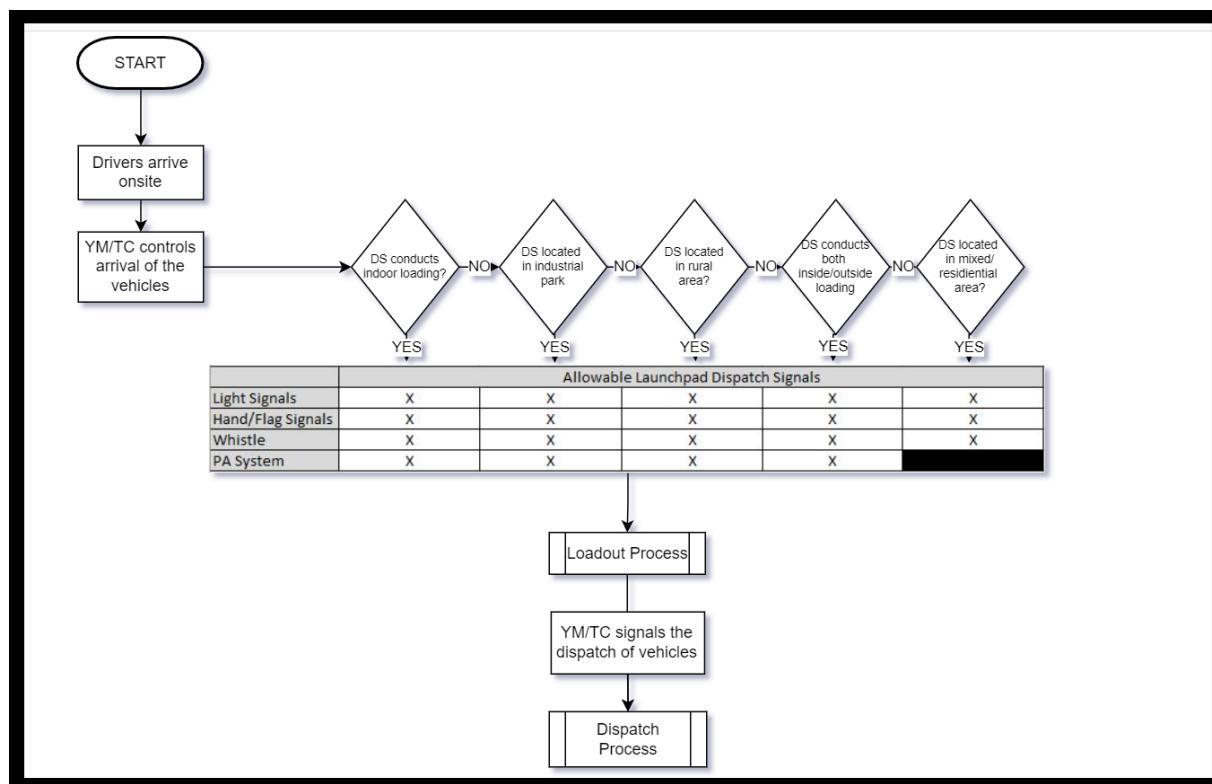


Figure 8: Dispatch Signal Decision Tree

5. Route Loading Process

- Vans with Shelves: [Van Loading - Armada Sprinter](#), [Van Loading \(CA\)](#), [Van Loading - Step Van and CDV](#)
- Vans without Shelves: [Van Loading - Vans Without Shelves](#), [Van Loading - Vans Without Shelves \(EU\)](#)

6. All-In All-Out Microwave and Line or Row Dispatch Processes

[All-In All-Out Microwave Dispatch \(EU/NA\):](#)

- Benchmark Standard for vehicle dispatch requires the whole launchpad to exit together when all are ready to depart - **All In All Out**. This maximizes safety, encourages Delivery Associates to help one another, and concentrates efforts of problem solvers, yard marshals and DSP/OTR managers on assisting the slower vehicles, rather than speeding up those which load faster. Where legacy sites operate drive lanes (e.g. Big Iron), each drive lane is treated as a single launchpad and all the vehicles of each lane must exit together. As an addition to this process, Microwave Dispatch permits launchpads or queue pads to act independently from one another with the support of by-pass lanes. Microwave Dispatch allows sites to dispatch in 5-minute staggered cycles.
 - NA Only: Where Delivery Stations meet the defined requirements, vehicles may enter empty rows within the launchpad whilst other rows are departing. See [AIAO: Simultaneous Fill & Exit SOP](#)

[Line or Row Dispatch \(EU\):](#)

- Benchmark Standards guides large wave plan EU Sites to adopt “Line” and/or “Row” dispatch, where groups of vehicles on the outer edge of the Launchpad are dispatched once this group has finished loading. YM will observe the loading Process and identify the outer edge line Delivery Associate have loaded their routes and the area is clear of empty carts. YM will have eye contact with all Delivery Associate in that row/line who must confirm to the YM with a thumbs up that they are ready to depart. As soon as YM receives thumbs up from all Delivery Associate in that line or row, YM will blow the whistle **5 fast sharp** times (subject to Site Risk Assessment), clearly pointing at the row/line to exit and appropriate hand signal to the selected row/line to initiate movement. Delivery Associate will then proceed to exit the loading area.

7. Pre-Dispatch Verifications

- TC/YM/VM must verify Delivery Associate are wearing a seat belt and should not permit Delivery Associates to pull away unless wearing them.
- TC/YM/VM must verify that all vehicles have their hazard lights flashing when in motion to provide a visual signal of their presence.
- TC/YM/VM must check that there are no parcels visible in the front seat, foot well or vehicle dashboard. No unsecured items are allowed in the cabin area while the vehicle is in motion. Packages must be stored in the cargo area of the vehicle.

8. Signal Delivery Associate to Exit

- Once all pre-dispatch verifications completed, TC/YM/VM will signal Delivery Associate following the dispatch decision tree recommendation in Step 4 and allow Delivery Associates in the first drive lane to dispatch single file from the Launch pad. Each drive lane will be dispatched single file always following TC/YM/VM signals.
- TC/YM/VM must have eye contact with the first row of Delivery Associate leaving the Launch pad and Delivery Associate will then be allowed to initiate movement and exit the loading area. Delivery Associate should not honk their horns when exiting the launchpad.
- TC/YM/VM must ensure vehicles are not exceeding speed limit when exiting the yard.

9. Auto-evaluation/Best Practice of Dispatch Process

- If Delivery Associates are observed waiting for other Delivery Associate after they have finished loading their own vehicle, dispatch leadership should focus on solving the root-cause of the slower loading for the other Delivery Associate, rather than finding ways to get the first vehicles out on road.

10. Problem Solve

- Where an individual vehicle is not able to dispatch on time and risks delaying the rest of the Launch pad, the TC/YM/VM will Direct the Delivery Associate to cease loading, exit the loading area with the rest of the Launch pad, and then park in a designated Problem Solve area to continue loading.
- Note: The Problem Solve area is not to be treated as overflow space for Load-Out.

11. Safety

- TC/YM/VM have to (i) report near misses or events that occur on the yard and assist in investigations and preservation of scene; (ii) escalate safety breaches to manager; (iii) communicate immediate and on-going OTD/LAT risks to DSP teams and to the DSP Manager.
- In accordance with Global/NA Safety Standards of Conduct no Amazon employee should be operating third party equipment or assisting with resolving third party equipment issues. Third party equipment issues should be escalated to and resolved by the impacted contractor or DSP.

Systems Setup

Pre-Shift Planning and Area Readiness

- Complete hand off with Sort Team to align with previous Shift
- Conduct pre-shift meeting with Dispatch Area Manager (review Area Readiness, break times, etc.). Obtain radio & other needed supplies.
- Review Route Plans, Check for excessive Headroom or over-planning, ensure any cuts (pre or from routing) are input before auto-assign, make sure all routes are allocated to DSP run auto-assign. [SCC Outbound SOP](#)
- Verify [Area Readiness checklist](#) with Process Assistant
- Determine with DSP's any positive or negative deviations from planned route count: [Scheduling UI](#)

Start of Shift

- Validate that all planned Delivery Associate Assist Associates (DAA) have checked in at labor board. Follow up with In-Station Leadership to address and fill any staffing gaps prior to beginning of Load Out.
- Conduct *Start Up Meeting* (SUM) with DAA. Refer to [DA Assist with Van Loading](#) for questions regarding associate responsibilities.

During Shift

- Partner with Pick and Stage leadership to monitor P&S progress to ensure all routes are picked before wave start time: See [SCC Outbound SOP](#)
- Monitor Delivery Associate Assist to ensure that full carts are brought to Delivery Associates in a timely manner, and empty carts removed before wave end time: [Delivery Associate Assist Standard Operating Procedures](#)
- Ensure that all Cube Out/ Miss Sort/ Left Behind / Driver Rejected packages are resolved by a Problem Solver: [Problem Solve Dispatch SOP](#)
- Monitor entry times for all waves, ensuring that Delivery Associate loading and building departure are conducted inside the planned wave cycle times.
- Conduct the required Safety Observations and Audits: [Austin](#)
- Confirm the Dispatch Assistant is checking every driver arriving in a DOT Regulated vehicle for a DOT Qualified status, an original non-expired Driver License, and an original non-expired Medical Certificate (US only)

End of Shift

- Move all shippable but Not Dispatched shipments to the dock for adhoc sort: [Adhoc Sort Containerization Process SOP](#)
- Move all damaged or leaking shipments to repack / hazmat area for Problem Solve: [Problem Solve Induct & Repack](#)
- Before 1800, validate next day Shift Plan is completed (including validating DSP rostering in Scheduling UI): [OTR SPT Standard Operating Procedures](#)
- Conduct Post-Dispatch Sync with OTR Ops, AMs, & PAs.