**Warehouse Redesign Project**

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**Introduction**

As our local distribution centre’s one-third part has been declared unsafe by the Engineering Department of the city. As a result, they have ordered to close the area until it gets repaired. So, we have decided to find a third-party warehouse where we can shift our warehouse one-third workload to the other warehouse. After research we have secured a warehouse in the same city which fits our requirements, and the warehouse authority are also ready to rent out there space for 3 months.

This warehouse has a total area of 300,000 square feet and can fit a total number of 60 trailers for outbound and inbound purpose. Due to this warehouse the management has decided if we succeed in this transfer, we can plan for the expansion of distribution centre in future in the same city and can agree on terms with the third-party warehouse management.

Transportation in this new warehouse is easily commutable as it near the 401 highway and can avoid the city traffic.

Right Now, we have a Total work force as follows: -

Operations Manager- 6

Team Leaders - 12

Total no. of associates – 400

QA – 11

Security – 25

Centre Riders – 80

Reach – 40

Pacer – 40

We have created a excel sheet of our weekly schedule of our total work force.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
|  | Operations Manager | | Team Leader | | |  |  |  |  |
|  | Day | Night | Days | Afternoon | Night |  |  |  |  |
| Monday | OM1 | OM4 | TL1/TL2/TL5 | TL11 | TL6/TL7/T10 |  |  |  |  |
| Tuesday | OM1 | OM4 | TL1/TL2/TL3 | TL11/TL12 | TL6/TL7/TL8 |  |  |  |  |
| Wednesday | OM1/OM2/OM3 | OM4/OM5/OM6 | TL1/TL2/TL3/TL4 | TL11/TL12 | TL6/TL7/TL8/TL9 |  |  |  |  |
| Thursday | OM1/OM2/OM3 | OM4/OM5/OM6 | TL1/TL2/TL3/TL4 | TL11/TL12 | TL6/TL7/TL8/TL9 |  |  |  |  |
| Friday | OM2/OM3 | OM5/OM6 | TL3/TL4/TL5 | TL11/TL12 | TL8/TL9/TL10 |  |  |  |  |
| Saturday | OM2/OM3 | OM5/OM6 | TL4/TL5 | TL12 | TL9/TL10 |  |  |  |  |
| Sunday |  |  | TL5 | CLOSED | TL10 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | Associates | | | Security | | | QA | | |
|  | Days | Afternoons | Night | Day | Afternoon | Night | Day | Afternoon | Night |
| Monday | 80+30 | 40 | 80+30 | 6+2 | 3 | 6+2 | 3 | 2 | 3 |
| Tuesday | 80 | 40+40 | 80 | 6+2 | 3 | 6+2 | 3 | 2 | 3 |
| Wednesday | 80+40 | 40+40 | 80+40 | 6+2 | 3 | 6+2 | 3 | 2+1 | 3 |
| Thursday | 80+40 | 40+40 | 80+40 | 6+2 | 3+2 | 6+2 | 3+1 | 2+1 | 3+1 |
| Friday | 40+30 | 40+40 | 40+30 | 2 | 2 | 2 | 1 | 1 | 1 |
| Saturday | 40+30+10 | 40 | 40+30+10 | 2+2 | 2 | 2+2 | 1 | 1 | 1 |
| Sunday | 30+10 |  | 30+10 | 2 | 2 | 2 | 1 | Closed | 1 |
| Work Force | |  |  |  |  |  |  |  |  |
| OM: - | 6 |  |  |  |  |  |  |  |  |
| TL: - | 12 |  |  |  |  |  |  |  |  |
| Associates: - | 400 |  |  |  |  |  |  |  |  |
| QA: - | 11 |  |  |  |  |  |  |  |  |
| Security: - | 25 |  |  |  |  |  |  |  |  |
| Total Work Force: - | 454 |  |  |  |  |  |  |  |  |
| Machinery | |  |  |  |  |  |  |  |  |
| Centre Rider | 80 |  |  |  |  |  |  |  |  |
| Reach | 40 |  |  |  |  |  |  |  |  |
| Pacer | 40 |  |  |  |  |  |  |  |  |

So, due to the closure of our one-third part we have decided to transfer our afternoon shift to the third-party warehouse and the entire operation of the afternoon shift will be carried out in the new space acquired. Where it will be divided into 2- Shifts respectively.

Due to this we will be able to tackle the seasonal demand which is on our way and the management don’t have to make huge changes in the work schedule.

Currently, Clothing items, household appliances, electronics, some furniture, food, office and school supplies, pet food and pet products, toys, household cleaners, paper products are being in operations in the current warehouse. Whereas the seasonal products such as Christmas trees, decorations and wrapping paper will be added due to the Christmas season.

So, the management has decided to transfer the seasonal items and some items from the existing freight such as paper products which will accommodated in the new acquired warehouse.

In this new location we have decided to focus maximum on the cross docking and will convert the inbound freight into pallets and then delivery it to the respective stores. Due to this, the workload of picking can be reduced at some extent and the operations can be managed at minimum obstacles.

Now for the machineries we have decided to transport some of the machineries to the new location through our own fleet.

Following are numbers of machineries that will be transferred to the new location: -

Centre Rider: - 25

Reach: - 10

Pacer: - 15

In the new location we will be needing more pacers as compared to the reach machines as our maximum focus will be on the cross docking in the new warehouse.

Also, we have requested the stores to manage excess stocks for the Christmas season as we have a huge workload coming on the way.

The new working structure in the new location will be as follows: -

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Third Party Location | | | | | | | | |  |  |
|  | Team Leader | | Associates | | Security | | QA | |  |  |
|  | Days | Afternoon | Days | Afternoon | Days | Afternoon | Days | Afternoon |  |  |
| Monday | TL11 | TL12 | 40 | 40 | 3 | 2 | 2 | 2 |  |  |
| Tuesday | TL11 | TL12 | 40 | 40 | 3 | 2 | 2 | 2 |  |  |
| Wednesday | TL11 | TL12 | 40 | 40 | 3 | 2 | 2 | 2 |  |  |
| Thursday | TL11 | TL12 | 40 | 40 | 3 | 2 | 2 | 2 |  |  |
| Friday | TL11 | TL12 | 40 | 40 | 3 | 2 | 2 | 2 |  |  |
| Saturday | CLOSED | | | | | | | |  |  |
| Sunday |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| New Schedule for existing Warehouse | | | | | | | | | | |
|  | Operations Manager | | Team Leader | | Associates | | Security | | QA | |
|  | Day | Night | Days | Night | Days | Night | Day | Night | Day | Night |
| Monday | OM1 | OM4 | TL1/TL2/TL5 | TL6/TL7/T10 | 80+30 | 80+30 | 6+2 | 6+2 | 3 | 2 |
| Tuesday | OM1 | OM4 | TL1/TL2/TL3 | TL6/TL7/TL8 | 80 | 80 | 6+2 | 6+2 | 3 | 2 |
| Wednesday | OM1/OM2/OM3 | OM4/OM5/OM6 | TL1/TL2/TL3/TL4 | TL6/TL7/TL8/TL9 | 80+40 | 80+40 | 6+2 | 6+2 | 3 | 2 |
| Thursday | OM1/OM2/OM3 | OM4/OM5/OM6 | TL1/TL2/TL3/TL4 | TL6/TL7/TL8/TL9 | 80+40 | 80+40 | 6+2 | 6+2 | 3+1 | 2+1 |
| Friday | OM2/OM3 | OM5/OM6 | TL3/TL4/TL5 | TL8/TL9/TL10 | 40+30 | 40+30 | 2 | 2 | 1 | 1 |
| Saturday | OM2/OM3 | OM5/OM6 | TL4/TL5 | TL9/TL10 | 40+30+10 | 40+30+10 | 2+2 | 2+2 | 1 | 1 |
| Sunday |  |  | TL5 | TL10 | 30+10 | 30+10 | 2 | 2 | 1 | 1 |
|  |  |  |  |  |  |  |  |  |  |  |

Here’s the new warehouse which has a 5-day shift, and it will be closed on Saturday and Sunday. Also, to keep the workers satisfied and for co-operating with the new schedule we have decided to give them a bonus for their valuable support to the company. We have transferred a QA associate from night shift in the new warehouse to cover the workload on existing associates.

Any maintenance needed for the machineries will be provided on-site by the vendors.

**OLD DESIGN OF WAREHOUSE**

**A picture containing diagram, text, plan, technical drawing

Description automatically generated**

NEW DESIGN OF WAREHOUSE

A picture containing text, crossword puzzle, receipt

Description automatically generated