Predict & Reduce Traffic Congestion in Plant Premises

Client's Challenge

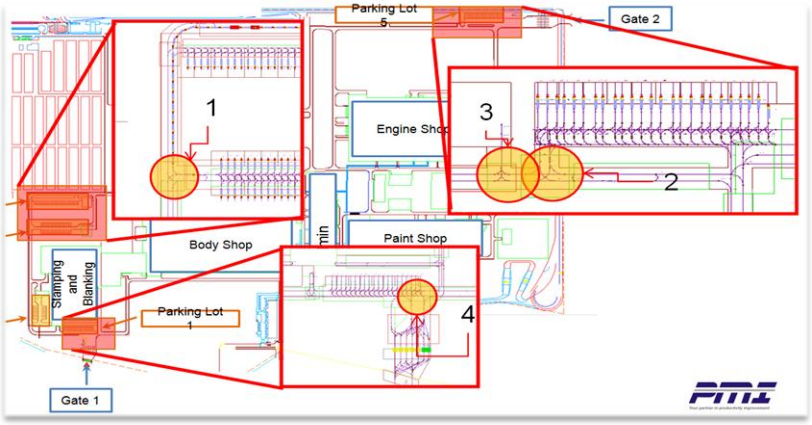
-To be certain that the new Facility Layout would be able to cater to heavy truck traffic inside plant with shortest lead-time possible and maximum truck deliveries.

PMI's Approach

-Analysis of Data and Verification of Baseline Model
-Deep Dive study on available parking space in Plant
-Analysis of load/unload time at various shops
-Sensitivity Analysis of number of Shutter at TCF
-Analysis of in-Plant/Canteen shuttle travel time, etc.

Findings & Recommendations

-Study showed insufficient parking space for arriving Trucks
-Expand truck parking space by 20
-Analysis revealed congestions at TCF Shutter Area
-Ensure unloading time less then 15 mins (mainly at TCF)
-Signalling systems to eliminate waiting time at shutters
-Assign dedicated route for TCF to reduce overall congestion
-Prioritize parking to reduce overall truck lead time



Key Points

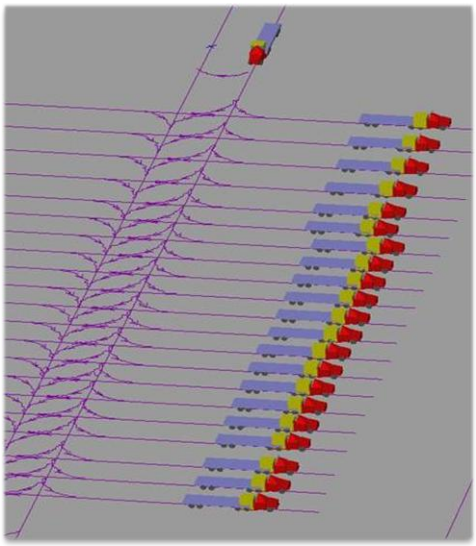
-GreenField Facility - Traffic Congestion Prediction

-Number of Docks, Parking Space required per shop, with preference at arrival gate

-People and Canteen Shuttle schedule integration

Shop	Type	Deliveries in 30 days (the)	Theo. Cal	Model	% Age Completion
Body	A	60.00	7170	7146	99.67%
	B	3870.00			
	C	0.00			
	D	3240.00			
TCF	A	204.95	18010	17025	94.53%
	B	5160.00			
	C	8775.00			
	D	3870.00			
Paint	A	0.00	180	178	98.89%
	B	90.00			
	C	0.00			
	D	90.00			

Parking Lot 6 Size (units)	Comments
5	Model did not run through
10	Model did not run through
15	Model ran with 93.03% delivery completion
20	**Model ran with 93.78% delivery completion**
25	Model ran with 93.80% delivery completion



***Data shown here has been modified to protect client confidentiality**

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