BIG FLOOR PLANS · COLLEGE & TRADES TRACK · 50 MINUTES

The Site Logistics Plan: teacher script

Construction-management students tape a job-site logistics plan at reduced or full scale, check the fire lane, the crane's reach to the laydown yard and the trailer's position under the swing, and fix the plan before mobilization.

Prep: Tape the lot, the 120 ft x 80 ft building, the crane at its mark, the trailer and the laydown at their as-drawn positions. Cut a string to the crane radius at your scale and tie it at the crane. Print one check sheet per team.

Min	Step and what to do	Ask	Listen for
0-5	**Hook** "Trucks arrive Monday. What can go wrong with where we put things?"	Who has to approve this plan?	The fire marshal, the crane operator, the owner.
5-15	**Fire lane** Measure the clear width along the south side.	Does the lane pass?	No: 18 ft clear; needs 20.
15-25	**Crane reach** Swing the string from the crane to each laydown corner.	Can the crane reach all of the laydown?	No: the far corner is 118 ft; reach is 90.
25-33	**Under the swing** Measure from the crane to the trailer's nearest point.	Is the trailer under the swing?	Yes: 82 ft, inside 90 ft.
33-46	**Fix** Move the trailer and the laydown and re-check all three.	What passes?	Laydown far corner 71 ft; trailer 94 ft from the crane; lane clear.
46-50	**Exit ticket** Individual exit ticket.		

Common misconceptions

- **Learners may think:** The crane reaches anything it can see. **Address it:** Reach is a radius; material outside it must be moved twice.
- **Learners may think:** The fire lane can be used for parking during the day. **Address it:** It must stay clear at all times.

Supports

- Give a distance-formula card and a worked example.
- Multilingual learners: label lane, laydown, trailer and crane on the floor with pictures.
- Mobility: the string test works from a seat on a tabletop print.

References

- **International Fire Code (IFC)**: 503.2.1 fire apparatus access roads: 20 ft unobstructed width (check the edition your jurisdiction adopted)
- **Perkins V (CTE)**: postsecondary and secondary CTE program context

Scenario sheet

Lot 200 ft (east-west) x 150 ft (north-south), origin at the southwest corner, feet. Building 120 x 80 ft at (40, 35) to (160, 115). Tower crane at (100, 110), working radius 90 ft. As drawn: office trailer (50, 18) to (100, 28); laydown yard (165, 40) to (195, 80).

Rules: fire apparatus access along the south side at least 20 ft clear width (IFC 503.2.1, as quoted); every laydown corner within the crane radius; the occupied trailer entirely outside the crane radius (scenario rule: no one sits under the swing).

LEARNER SHEET · THE SITE LOGISTICS PLAN

Name _____ Date _____

Check	Measured / computed	Needs	Pass / fail
Fire lane clear width (ft)		20	
Farthest laydown corner from the crane (ft)		90 or less	
Nearest trailer point to the crane (ft)		more than 90	

New positions

Element	From (x, y)	To (x, y)	Re-check
Trailer			
Laydown			

Exit ticket

1. A crane at (0, 0) reaches 80 ft. Is a corner at (60, 50) in reach?

2. A trailer is 15 ft from the lot line along the fire lane. Does the lane pass at 20 ft?

3. Name one other thing a logistics plan shows.

Answer key

Check	As drawn	Fixed
Fire lane	18 ft (trailer in the lane): fails	trailer moved out; lane 20 ft clear: passes
Laydown far corner	118.0 ft: fails	(40, 118) to (80, 148): 71.0 ft: passes
Trailer nearest point	82.0 ft: under the swing	(185, 20) to (195, 70): 93.9 ft: passes

Exit ticket

1. A crane at (0, 0) reaches 80 ft. Is a corner at (60, 50) in reach?
   Answer: Yes: 78.1 ft.
2. A trailer is 15 ft from the lot line along the fire lane. Does the lane pass at 20 ft?
   Answer: No: 5 ft short.
3. Name one other thing a logistics plan shows.
   Answer: Gates, haul routes, parking, dumpsters, washout, toilets or fencing.

Scoring: 1 point each, plus 1 for a fixed plan with distances. 3 or more = secure.

Free to copy for teaching. Big Floor Plans, The Site Logistics Plan, 2026. Codes and standards change: use the edition your jurisdiction or program adopted. Full-size prints: bigfloorplans.com/get-a-quote