

J Series

“Point Person” Station Upgrades

Machine/s included: J6, J8, J9, J10, J11, RW12 (center cabs)

Machine/s not included: LM31 (rear cab w/controls installed)

Scope: The proposed project includes upgrading the machines “Point Person Stations” with the following safety features.

- 1.) Install fixed position color travel cameras at both ends of the machine. The travel camera field of view (F.O.V.) will overlap the sequence camera F.O.V. An additional monitor will be installed at the operator console dedicated to the travel cameras.
- 2.) Install an “Alert” horn button. This will be tied into the machine travel horn circuit in series with the units mounted at the 4 corner ladders.
- 3.) Install a “Machine Stop” button. This feature will give the point person the ability to “kill” the engine at these stations. (Tests have shown 100’ stopping distance at 10 MPH and 12 feet at 3 MPH with carriages down.)

J Series “Point Person” Station Upgrades



Locations:

The point person stations will be configured on the same side of the machine as the operator. This will allow visual contact between the operator and the point person.

Two new point person buttons will be added to these stations. Both the “Alert” horn button and the “Machine Stop” buttons will be mounted on the hand rail in weather proof housings.

J Series “Point Person” Station Upgrades

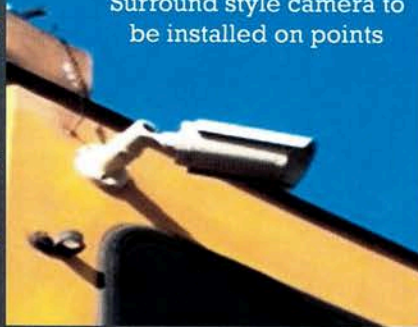
1.) Travel Cameras:

The travel camera systems will differ between RW12 and the standard “J” configured machines. We will utilize the existing travel camera system on the RW12 machine and install solid state color cameras on the other machines. This style camera is currently utilized on our surround/side view camera system.

RW12 cameras



Surround style camera to be installed on points



J Series “Point Person” Station Upgrades

1.) Travel Cameras (continued):

The field of view between the sequence cameras and the new travel cameras will overlap in the monitors. The field of view will cover a 110 degree line of site to the sides and will have high resolution color images $\frac{3}{4}$ miles down track during daylight hours. Night time visibility will be dependent on the machine lights and general weather conditions.

(insert picture of monitors)

J Series “Point Person” Station Upgrades

2.) Alert horn button:

In addition to the “Alert” horn buttons located at the corners ladders, we will be adding one to the point person stations. We’ll be utilizing the existing electrical circuitry. The weather proof button will be mounted on the hand rail atop a flat steel welded plate.



Mounting plate

Alert Horn Button



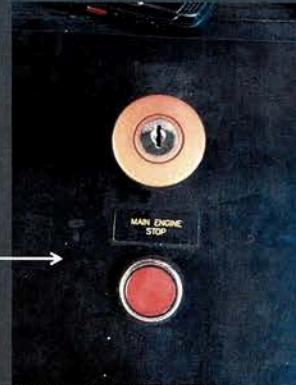
J Series "Point Person" Station Upgrades

3.) Engine Shut Down:

With the exception of RW12, the J series machines have one "Machine Stop" button located on the counsel in front of the operator. The RW12 also has them at the 4 corner ladders. We will be adding the "Machine Stop" buttons to both point person stations on the "J" machines.



RW12
ladder controls



Operator Counsel
"Machine Stop"

J Series "Point Person" Station Upgrades

Cost per machine and Implementation time

1.) Travel camera system (J6, J8, J9, J10, J11)	\$1500.00 2 days
2.) "Alert" horn system at point person stations	\$250.00 1 day
3.) "Machine stop" system at point person Stations	\$750.00 2 days
<u>Totals per machine</u>	\$2500.00 5 days