



Utility Permit Process Instructions

How to apply:

In an effort to effectively facilitate the permit process, The Kansas City Southern Railway Company (“KCS”) has partnered with JLL who is committed to provide professional permitting services. This form is intended to provide you with all the information you should need to apply for a permit with KCS through JLL.

Complete the application, print and mail with the following:

- \$2,000 (if parallel installation call Sylvia Schmidt) non-refundable processing fee, payable to JLL. KCS requires the processing fee be sent with the application or it will be returned. The processing fee covers a standard application review. If an additional review is needed to analyze any out-of-the-ordinary conditions such as structural, electrical, railroad signal wiring/equipment, geotechnical, environmental, etc., additional processing fees may be warranted and charged. KCS will notify the applicant in advance of such additional review prior to assessing any additional processing fees.
- This processing fee does not include any fees for rents, insurance, construction observation, flagging or mobilization. Payment of all additional fees is due prior to construction.
- Drawing of the area to be occupied pursuant to Section G of the Specific Requirements.
- Aerial of the area to be occupied showing at least one (1) adjacent crossing (aerial image must match what it says about the nearest crossing on the application).

TO: Sylvia Schmidt
Senior Permit Manager
JLL - Rail Practice Group
4300 Amon Carter Blvd., Suite 100
Fort Worth, TX 76155
Phone: (817) 230-2688 or Melissa Leal at (817) 230-2614
Email: sylvia.schmidt@am.jll.com or melissa.leal@am.jll.com

Permit Process & Time:

1. Before review can begin on this application, if there are any discrepancies in the application or plans, your application will be returned to you to correct, which will hold up and delay processing your application. **Specifications identified in your plans must match the application.**
2. Once received by JLL, application and drawing will be forwarded to the engineering firm to perform the engineering specification review, prepare the Exhibit “A” drawing for the agreement, and obtain KCS approval. Please ensure all information provided is accurate as it will be used to prepare the exhibit. This process takes approximately 6 weeks. An additional processing fee up to \$1,200 may be charged for each modification to the exhibit. However, the additional fee could exceed \$1,200 in circumstances where the change requires additional engineering or signaling investigation beyond those considered standard.
3. When the exhibit is completed, provided KCS approves the application, an agreement will be prepared and emailed to applicant for original signature. If application is not approved, applicant will be notified in writing with reasons for disapproval.
4. Once agreement is received by applicant, applicant will forward two (2) copies with original signatures, along with the appropriate agreement payment, and insurance documents to JLL.
5. Pursuant to Section 13 of the application, applicant **must** contact the engineering firm, Bartlett & West, a minimum of 10 days in advance notice of construction and sign their contract for construction observation, flagging and mobilization. The agreement **will not** be executed by KCS or forwarded to applicant until evidence has been



provided that applicant has contracted with the engineering firm for construction observation, flagging and mobilization.

6. Final agreements with original signatures are presented to KCS for execution, provided fees have been received, construction observation, flagging and mobilization have been contracted for, and insurance is compliant.
7. Once the agreement is executed, a copy will be emailed and one (1) original will be returned for applicant files.
8. The average time period for completion of this process is 6 to 8 weeks from the time application is received. Every effort will be made to complete this process in a timely manner.
9. Installation of utility will **not** begin until all documents (signed agreement, insurance and fees) have been received and agreement has been fully executed by KCS. If the installation has not occurred within 150 days from the date an agreement is sent to applicant for signature, a second review and processing fee of \$2,000 will required to confirm track or other conditions have not changed.

Insurance Requirements:

Show The Kansas City Southern Railway Company and its Affiliates, 427 W. 12th St., Kansas City, MO 64105-1403 as a Certificate Holder for the following:

- Comprehensive General Liability & Contractual Liability Insurance. \$2,000,000 per occurrence and an aggregate of \$4,000,000 minimum limits;
- Automobile Liability Insurance. \$1,000,000 combined single limit;
- Workers Compensation Insurance. Minimum statutory worker's compensation coverage for all covered employees who are on Licensor's property;
- Policy will be endorsed to give 30 day's written notice of its intent to cancel or materially alter to KCS and its Affiliates;
- Commercial General Liability naming KCS and its Affiliates as additional insured;
- Waiver of subrogation in favor of KCS and its Affiliates;
- All policies will be primary to any insurance or self-insurance KCS and its Affiliates may maintain for acts or omissions of Licensee or anyone for whom Licensee is responsible.

Show The Kansas City Southern Railway Company and its Affiliates, 427 W. 12th St., Kansas City, MO 64105-1403 as an Insured for the following:

- Railroad Protective Liability Insurance naming KCS and its Affiliates as insured with \$2,000,000 per occurrence and \$6,000,000 aggregate. Visit www.railroadprotectivesolutions.com to obtain.

These limits are subject to change at any time without notice. An agreement will be provided to you, which contains details concerning insurance requirements.



Application for License to Install Pipeline or Wire Line Encroaching Over, Under or Parallel to KCS Tracks

**Crossing - \$2,000 Processing Fee
 Parallel – Call Sylvia Schmidt**

Submit with non-refundable payable to:

JLL
 Attn.: Sylvia Schmidt
 4300 Amon Carter Blvd., Suite 100
 Fort Worth, Texas 76155
 Phone: (817) 230-2688 or Melissa Leal at (817) 230-2614
 Email: sylvia.schmidt@am.jll.com or melissa.leal@am.jll.com

1. Applicant Information:

Legal Name of the Owner of the Utility: _____

Attn.: _____

Mailing Address: _____ City, State, Zip: _____

Phone: _____ Cell: _____

Email to whom agreement is to be sent: _____

Check One: Individual Company Partnership
 Corporation Municipality Other (Specify) _____

Who to contact in the event of engineering questions: _____

Phone: _____ Cell: _____

Email: _____

Proposed Installation Date(s): _____

If not constructed within one (1) year, an additional review fee may be charged.

2. Type of Encroachment (Crossing):

Check All That Apply: Overhead Underground Parallel

If Overhead, vertical clearance is _____ (in feet and inches) a 28' minimum is required from top of rail to bottom of overhead crossing point (maximum sag at 212°).

Existing Poles Yes No Distance between poles/Distance from edge of nearest track: _____ / _____.

If Underground Crossing, depth of casing/carrier pipe: _____ feet below base of rail and _____ feet below ground surface or bottom of ditches, whichever is deeper (if (a) casing is used: minimum 10' below base of rail and minimum 6' from natural ground surface or from bottom of ditches; (b) if casing is not used: minimum 10' below base of rail and minimum 10' from natural ground surface or from bottom of ditches).

If Underground Parallel, distance _____ measured at right angle from centerline of tracks to encroachment (parallel and minimum 25' feet away, then minimum 72") ground cover; parallel and greater than 25' away, then minimum ground cover of 60". If the request is within 50' of KCS right-of-way, utility line shall be at least 10' below the ground for the entire KCS right-of-way.

If an existing crossing is to be abandoned, see Section D – Abandonment on the Specific Requirements sheet.



3. Location: (provide all the information you can and identify two (2) markers of location information that can independently allow for verification of the wire line location in Section 3 and Section 4).

If crossing, relation to centerline of KCS Tracks at KCS Mile Post _____ + _____ feet

If parallel, beginning KCS Mile Post _____ + _____, ending KCS Mile Post _____ + _____

Railroad Subdivision _____

If spur, distance from point of switch _____ feet

In or near City/Town/Village _____, Parish/County _____, State _____

Section _____ Township _____ Range _____

4. Other Distances:

If install is near a KCS bridge or culvert, distance from inside face of back wall on nearest KCS

Bridge: _____ Bridge MP: _____

Distance from centerline of nearest road crossing measured perpendicular to the rail line: _____

DOTD#: _____ (<http://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing/Crossing.aspx>)

Street Name: _____

5. Angle of Crossing:

_____ ° - _____ ' - _____ " (if crossing track, not less than 45 degrees).

6. Wire Line Commodity:

Telephone Power Line (Voltage _____) Other (Specify) _____

Fiber Optic – **If underground, number of Innerducts within casing pipe** _____

If an innerduct will be left spare or empty, clearly identify type of facility that will be installed within each innerduct.

See Section A – General on the Specific Requirements sheet for standards used.

If encroachment is an overhead wire line, proceed to the end of this application and provide signature.

7. Pipeline Commodity:

Commodity to be transmitted in the pipeline: _____

Transmitted by: Gravity Force Liquid
 Gas Steam Other (Please Specify _____)

Type of Commodity: Flammable Non-Flammable Corrosive Toxic
 Environmental Hazard

If hazardous, toxic or corrosive material, give details: _____

See Section A – General on the Specific Requirements sheet for standards used.



8. Pipe/Wire Information:	<u>Carrier Pipe</u>	<u>Casing Pipe</u>
Inside Diameter (nominal):	_____	_____
Wall Thickness:	_____	_____
Material:	_____	_____
Minimum Yield Point of Material:	_____	_____
Type of Joint:	_____	_____
Maximum Operating Pressure in Pipeline:	_____	_____
Hydrostatic pressure at which carrier pipe will be tested before using:	_____	
Will carrier pipe have protective coating? <input type="checkbox"/> Yes <input type="checkbox"/> No	If so, please provide type: _____	
Will carrier pipe be cathodically protected? <input type="checkbox"/> Yes <input type="checkbox"/> No		
<i>Cathodic protection must meet standards set by the current Report of Correlating Committee of Cathodic Protection.</i>		

9. Casing Information:

Length of casing pipe _____ (if casing pipe is vented, casing shall extend to right-of-way lines; if not vented, casing shall be a minimum 25' each side as measured at right angles to centerline of track).

Will casing pipe have protective coating? Yes No

If so, please provide type: _____

Will casing pipe be cathodically protected? Yes No

Cathodic protection must meet standards set by the current Report of Correlating Committee of Cathodic Protection.

See Section B – Casing and Section E – Signage on the Specific Requirements sheet for additional requirements.

10. Method of Installing Pipe/Wire: _____

*Dry Bore and Jack, Conventional Dry Bore or Directional Drill up to 10". Wet boring or open cut trenching across tracks **WILL NOT** be permitted.*

See **Section C – Boring** and **Section F – Shoring** on the Specific Requirements sheet for additional requirements.

11. Venting:

Will casing pipe be vented? Yes No Diameter: _____ (minimum 2")

Number of Vents: _____ Vent Height above ground surface: _____ (minimum 4')

Pipes carrying flammable contents must be vented. Vents are to be located at ends of casing off of KCS property and to be shown on drawing.



12. Additional Fees:

All excavations and installations on KCS's right-of-way will require construction observation, documentation and flagging by KCS or its authorized representative. Applicant or its contractor must contact Bartlett & West; KCS's authorized representative, a minimum of 10 days in advance of the scheduled construction date. Applicant will contract directly with Bartlett & West for the above services. The contact at Bartlett & West is Tom Faulkner at (817) 840-1562 or 785-215-2011, or by email at thomas.faulkner@bartwest.com. All costs associated with construction observation and flagging are the sole responsibility of the applicant. The daily services fees are \$2,500 per day, which include flagging and construction observation services. In addition to the daily fee, a fee of \$2,000 per mobilization fee will be charged for each job. Prices are subject to change and can double for 24-hour construction projects. No agreement for crossing or encroachment will be executed by KCS until applicant has contracted with Bartlett & West for the construction observation and flagging.

Each encroachment will also be subject to an annual or one-time fee, dependent on the type of installation and length of encroachment. If you will need to know these amounts before application, contact Sylvia Schmidt at sylvia.schmidt@am.jll.com or 817-230-2688.

Extreme caution is to be used in excavation due to the possible existence of other underground facilities along KCS's right-of-way. Any damage to existing facilities will be the sole responsibility of the applicant. In compliance with State law, prior to commencing work, the contractor shall notify appropriate State "One Call" service.

13. Existing Agreement? Yes No

*If replacing or repairing an existing line, a copy of the current permit agreement with KCS **must** be provided and accompany this application.*

14. Was this service requested by KCS? Yes No

If yes, who requested? _____ Phone #: _____

Is this installation in conjunction with a track or track expansion project? Yes No

If yes, KCS contact name and phone number: _____ Phone#: _____

By signing below, **applicant agrees to pay all fees associated with the installation of this utility.**

 Name of Applicant

 Signature of Applicant

 Date

If application is not signed and dated by applicant, application will be returned.



Specific Requirements for License to Install Pipeline or Wire Line Encroaching Over, Under or Parallel to KCS Tracks

A. General

Pipelines will be reviewed for compliance with The American Railway Engineering and Maintenance of Way Association (AREMA) standards. AREMA standards are available for purchase online at www.arema.org and specific parts may be purchased. The following Parts are utilized for underground installations:

- 5.1 Specifications for Pipelines Conveying Flammable Substances
- 5.2 Specifications for Uncased Pipelines within the Railway Right-of-Way
- 5.3 Specifications for Pipelines Conveying Non-Flammable Substances
- 5.4 Specifications for Overhead Pipelines Crossings
- 5.5 Specifications for Fiber optic "Route" Construction on Railroad Right-of-Way

Wire lines will be reviewed for compliance with the 2002 National Electric Safety Code Article 232, Table 232.1.

B. Casing

It is preferred that all pipelines have steel carriers and are encased in steel pipes. Uncased carrier pipe transporting or conveying natural gas must be steel and must be at a minimum depth of 10' from base of rail to top of carrier pipe, and a minimum of 10' between top of carrier pipe and natural ground or ditch bottom on KCS right-of-way. PVC, HDPE, and ductile iron carrier pipes must be encased in steel casing pipes extending from right-of-way line to right-of-way line.

Inside diameter of casing pipe shall be at least 2" greater than the largest outside diameter of the carrier pipe, joints, or couplings, for carrier pipes less than 6" in diameter; and at least 4" greater for carrier pipe 6" and over in diameter.

Additionally, KCS requires that all pipelines carrying liquid flammables must be encased across the entire width of the KCS right-of-way.

C. Boring

Bore pits **must** be placed outside of the KCS right-of-way. If there are extenuating circumstances which require a bore pit to be placed within the limits of the right-of-way, specific application must be made outlining the need for encroachment upon the KCS right-of-way and written permission must be obtained before construction is allowed.

Misaligned bores will not be pulled and re-drilled, but abandoned in place. Please see Section D – Abandonment for requirements. New bore will be moved at least 5' to either side of the misaligned attempt and re-drilled.

No wet bores or open cut trenching across tracks will be allowed. Directional boring must utilize a machine which retrieves a majority (95%) of the drilling fluid slurry used in the placement of lines/casings. Under paragraph 5.5.3.4.8 of AREMA Standards, the maximum size of the finished hole is 10" for fiber optic installation. AREMA specifically states in paragraph 5.5.3.4.6 that wet bores are not allowed for installations in KCS' right-of-way. Wet bores refers to the use of liquids to displace soil.



Specific Requirements for License to Install Pipeline or Wire Line Encroaching Over, Under or Parallel to KCS Tracks - Continued

D. Abandonment

Any lines being abandoned must be filled with a suitable flow able fill material and sealed.

When carrier pipe is centered in casing, provide end seals as manufactured by Link-Seal, Pipeline Seal and Insulator, Inc. (PSI), Raychem, or approved equal, as required for the application. Seal material shall be DFO and oil resistant. Provide coated steel or non-metallic casing spacers as manufactured by PSI or approved equal.

When carrier pipe is not centered in casing, provide end seals as manufactured by Pipeline Seal and Insulator, Inc. (PSI), Raychem, or approved equal, as required for the application. Seal material shall be DFO and oil resistant. Provide coated steel or non-metallic casing spacers as manufactured by PSI or approved equal.

E. Signage

All underground installations will be marked at entry and exit to KCS right-of-way with a sign mounted on a substantial post at least 4' above ground surface. Parallel encroachments will be marked with a sign every 500' and at every road crossing with a sign mounted on a substantial post at least 4' above ground surface. The sign must convey the commodity conveyed, name of licensee, address of licensee, emergency phone number and any emergency response information.

F. Shoring

All underground installations will be subject to an additional shoring review. All bore pits will be subject to OSHA requirements and may also be subject to AREMA standards (Part 28 – Temporary Structures for Construction). Using the print titled "General Shoring Requirements" Date: 4/21/06, Rev.: 4/27/07; a determination will be made on the need for a shoring review. If this additional review is required, please add 2 weeks to the estimated time to process your application. Additional documentation including shoring calculations and design details signed and sealed by a structural engineer, will need to be submitted to KCS Engineering department for review. The engineering review cost will need to be paid in advance at the rate of \$3,000 per installation. This amount is **in addition** to the standard \$2,000 processing fee.

G. Application Submittal

Applicant to furnish copy of fully completed application and print showing drawing with crossing measured from the nearest Mile Post, Bridge back wall, point of mainline switch or DOT-AAR numbered vehicular crossing, as well as limits of KCS (and street or highway, if involved) right-of-way; plus print of profile sketch (cross section) of actual situation showing relationship of tracks, contours of ground and surface ditches, the encroaching line, other buried or wire lines (if known), etc. This is to be used to prepare exhibit for agreement. **Print must show north.**

H. Schedule

The standard review takes approximately 6 weeks. These are estimated times for review and are not guaranteed. When application has been processed and agreement executed, allow a minimum of 10 days for scheduling of applicable flagging and construction observation services.



Dry Bore & Jack and Directional Drilling Specifications

1. Prior to drilling, the contractor is to provide the following information to KCS or the designated KCS representative for review and approval before any construction activities commence:
 - Type of drilling fluid and additives to be used (straight water is not acceptable);
 - Anticipated drilling fluid volume used for initial bore and pull back of casing pipe;
 - Anticipated drilling fluid pressure;
 - Anticipated drilling rate;
 - Anticipated drilling fluid volume recovery (minimum 95%).
2. Fluid volume, fluid pressure, and pumping rate are to be monitored by the drilling contractor (calibrated fluid tanks are to be used) and are to be provided to the KCS.
3. The bore is to be of constant grade (under the KCS right-of-way). No sag in pipe grade is allowed.
4. The back reamer is to have a maximum diameter of 10". Maximum casing pipe diameter is 8".
5. The contractor is to track the drill head during drilling and record depth of cover below existing surface and provide this information to the KCS.
6. If the casing becomes stuck, the end is to be cut off, the casing filled with flow able fill, and abandoned. An exhibit indicating the horizontal and vertical location of the abandoned casing must be provided to KCS. Casing pipe is only to be pulled into place with the drilling equipment. The use of a dozer, backhoe, etc. to pull casing pipe into place is not permitted.
7. If the fluid volume significantly exceeds the expected volume, or if the fluid pressure drops significantly, drilling is to stop, and the bore is to be filled with bentonite slurry and abandoned.
8. Casing ends must be sealed, with the contractor informing KCS of the type of seal they propose to use.
9. Identifying marker signs indicating the presence of the new utility must be posted within 24 hours of casing and carrier pipe material installation and backfilling of any pits and dressing of KCS right-of-way. The drilling contractor will be assessed a fee of \$1,500/day until the signs are placed. The inspector will stay on site and a fee of \$1,500 per day will be assessed until the signs are in place.
10. An exhibit indicating the plan view, skew, and vertical elevations of the casing must be submitted to KCS upon completion of the project.
11. Initial bore pit and receiving pit are to be located off of KCS right-of-way. If it is necessary for the pit(s) to be on KCS right-of-way, shoring plans for railroad loading must be provided to KCS for review and approval prior to the beginning of work.

TRACK PROTECTION SHORING:

ALL DIMENSIONS ARE MEASURED PERPENDICULAR TO C OF TRACK.

PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE RAILROAD ENGINEER, DETAILED PLANS INDICATING THE NATURE AND EXTENT OF THE TRACK PROTECTION SHORING PROPOSED. THE CONTRACTOR SHALL PROVIDE AND INSTALL TRACK PROTECTION SHORING BEFORE COMMENCING EXCAVATION.

SHORING WITHIN ZONE A SHALL BE DESIGNED FOR COOPER E80 LIVE LOAD SURCHARGE, IN ADDITION TO ALL OTHER APPLICABLE LOADS. THE RAILROAD MAY IMPOSE MORE STRINGENT REQUIREMENTS AS CONDITIONS WARRANT.

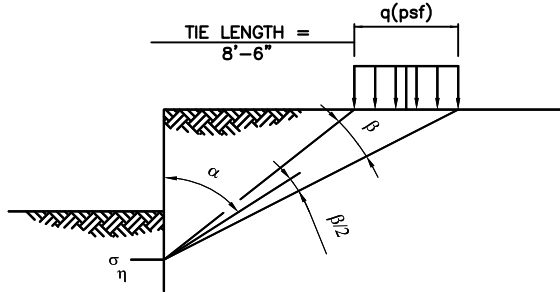
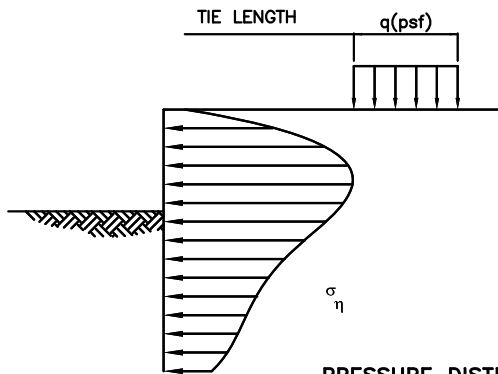
FOR EXCAVATIONS WHICH ENCROACH INTO RAILROAD LIVE LOAD SURCHARGE ZONE A, SHORING PLANS WILL BE ACCOMPANIED BY A COPY OF DESIGN CALCULATIONS, AND BOTH MUST BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER IN THE APPLICABLE STATE.

THE PRESSURE AT A GIVEN POINT OF A CONTINUOUS STRIP OF SURCHARGE LOAD q(psf) PARALLEL TO SHORING SHALL BE COMPUTED BY:

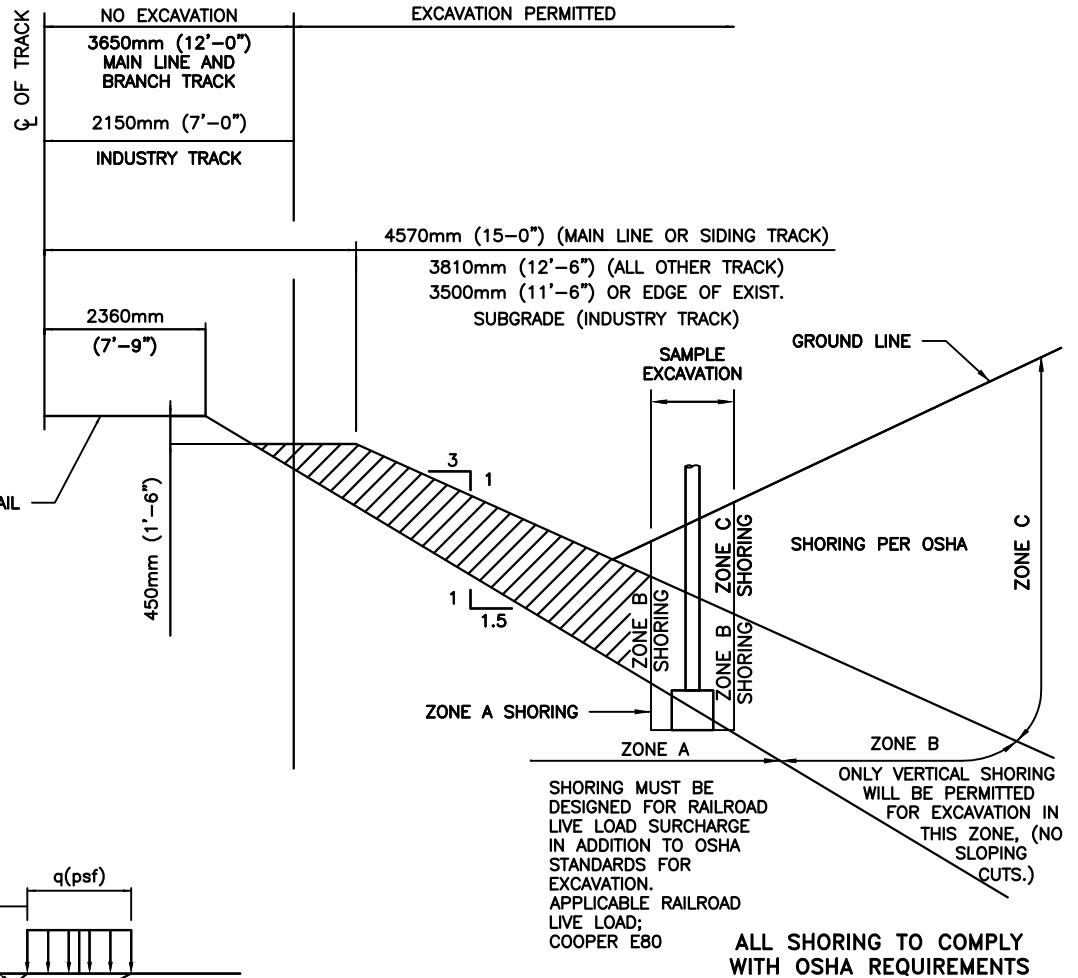
$$\sigma_{\eta} = \frac{2q}{\pi} [\beta - \sin \beta \cos 2\alpha]$$

WHERE ANGLES α AND β ARE EXPRESSED IN RADIAN.

$$q = \frac{80,000 \text{ lbs}}{(5 \text{ FEET})(8.5 \text{ FEET})}$$



PRESSURE DISTRIBUTION FOR STRIP LOAD (AREMA FIGURE 8.20-2)



K.C.S. STANDARDS

DATE: 4-21-06
 REV: 4-27-07
 SCALE: NONE
 DRAWN BY: RED

APPROVED BY:

 CHIEF ENGINEER

GENERAL SHORING REQUIREMENTS

DRAWING NO.

BR-122