

GENERAL NOTES:

All dimensions are measured perpendicular to ϕ of track.
 Prior to commencing any work, the contractor shall submit for approval by the Railroad detailed plans indicating the nature and extent of the track protection shoring proposed. The contractor shall install the temporary shoring system per the approved plans. Design of the temporary shoring system to comply with **GUIDELINES FOR TEMPORARY SHORING.**

For excavations which encroach into zone A or B, shoring plans shall be accompanied by design calculations. Plans and calculations must be signed and stamped by a Professional Engineer registered in the state where the work will be performed.

GENERAL EXCAVATION ZONES

SCALE: (NOT TO SCALE)

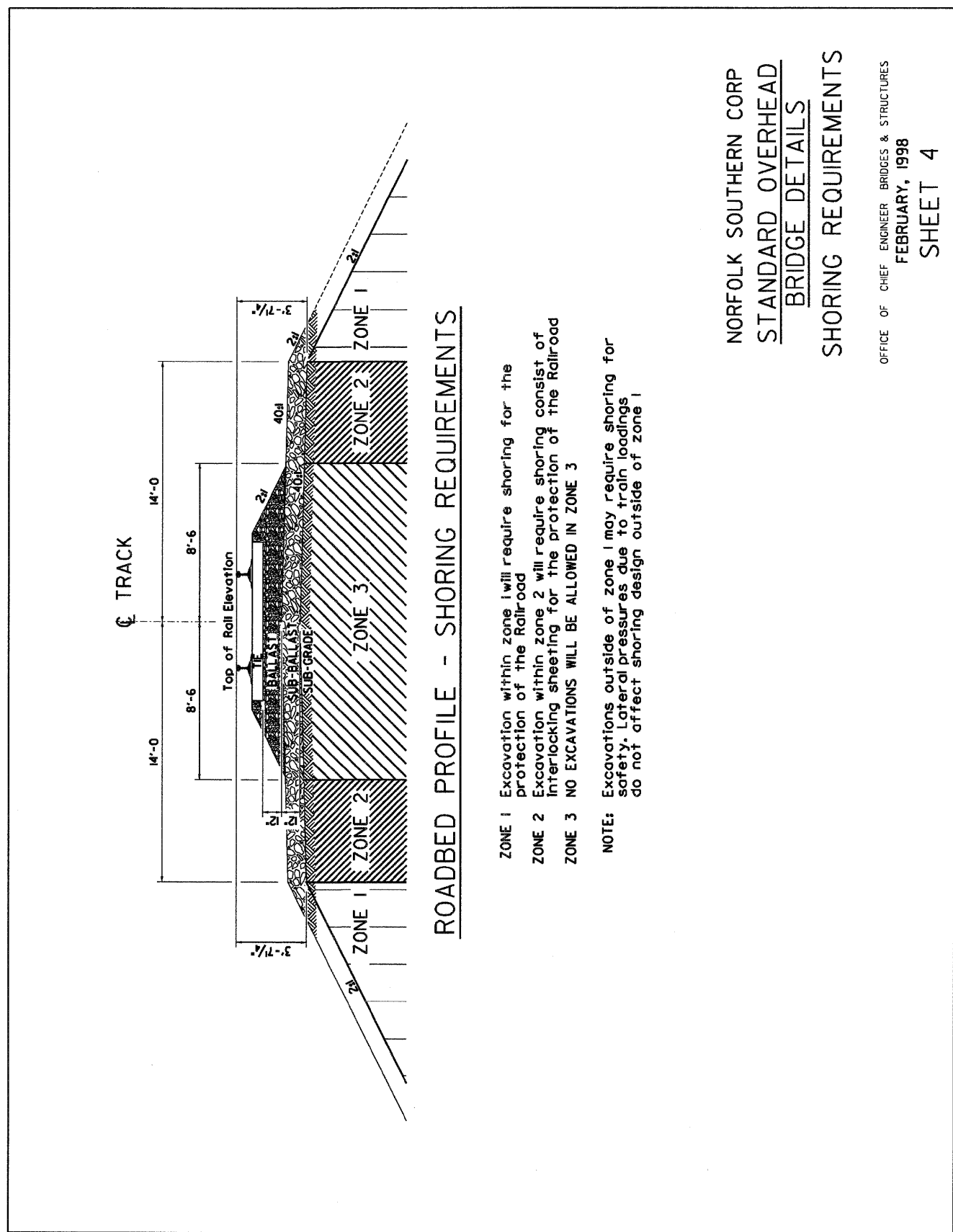
Shoring must be designed for Railroad live load surcharge in addition to OSHA Standard loads for excavation in Zone A. **APPLICABLE RAILROAD LIVE LOAD: COOPER E80**

Only vertical shoring will be permitted for excavation in this Zone, (no sloping cuts) Shoring to comply with OSHA requirements

DESIGN BY: PGP	DRAWN BY: JFS	CHECKED BY: AA
DATE: 5/03	LTR: 1	DESCRIPTION: FORMERLY UPRR C.E. 106613
APPROVED: <i>K.H. Jennison</i>		
BNSF - ASSISTANT DIRECTOR STRUCTURES DESIGN		
UPRR - MGR. SPECIAL PROJECTS STRUCTURES DESIGN		
DATE: 5-8-03		
FILE OWNER: UPRR		
PLAN NO.: 710000		
SHEET: 1 OF 1		
PLOTTER: 88000000		



FOR INFORMATION ONLY



ROADBED PROFILE - SHORING REQUIREMENTS

- ZONE 1 Excavation within zone 1 will require shoring for the protection of the Railroad
 - ZONE 2 Excavation within zone 2 will require shoring consist of interlocking sheeting for the protection of the Railroad
 - ZONE 3 NO EXCAVATIONS WILL BE ALLOWED IN ZONE 3
- NOTE:** Excavations outside of zone 1 may require shoring for safety. Lateral pressures due to train loadings do not affect shoring design outside of zone 1

NORFOLK SOUTHERN CORP
 STANDARD OVERHEAD
 BRIDGE DETAILS
 SHORING REQUIREMENTS

OFFICE OF CHIEF ENGINEER BRIDGES & STRUCTURES
 FEBRUARY, 1998
 SHEET 4

FILE NAME =	USER NAME = #USER#	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION	GENERAL SHORING REQUIREMENTS ADJACENT TO RAILROAD				F.A.P. RTE. 998	SECTION 82-2-1HVB	COUNTY ST. CLAIR	TOTAL SHEETS 285	SHEET NO. 108
#FILE#	PLOT SCALE = #SCALE#	DRAWN - JFS	REVISED -		SCALE: N.T.S.	SHEET NO. OF	SHEETS	STA. TO STA.	CONTRACT NO. 76C44				
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	CHECKED - ACL	DATE - 06/04/10	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								
	PLOT DATE = #DATE#												