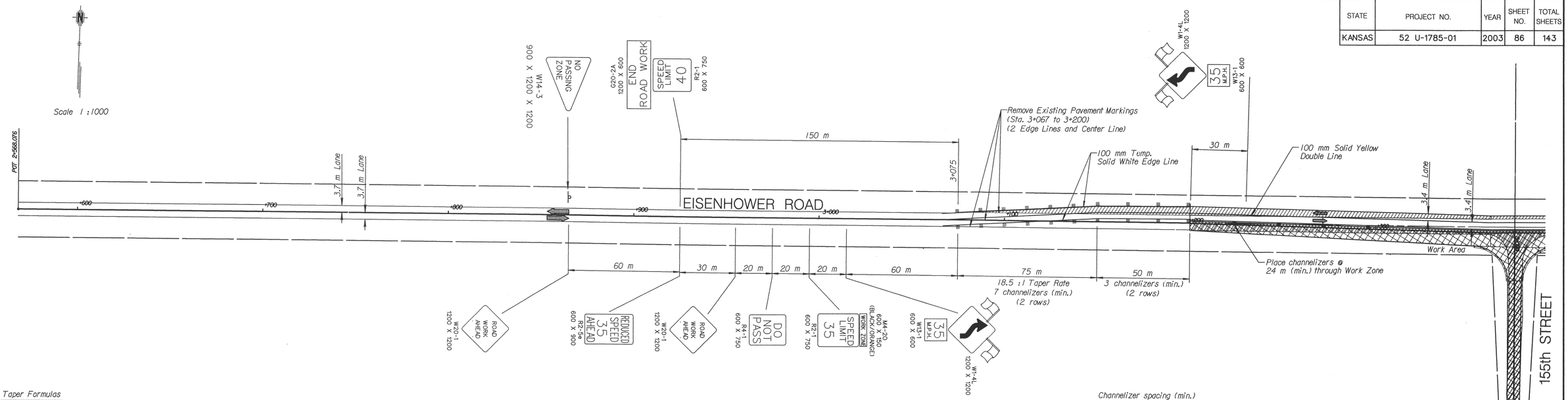
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	52 U-1785-01	2003	86	143



Taper Formulas

$L = \frac{W \times S^2}{155}$ for speed of 60 km/h or less.

L= minimum length of Taper in meters.

S= numerical value of Posted speed prior to work starting in km/h.

W= width of offset in meters.

$L = \frac{(5.9\ m) \times (60)^2}{155} = 137\ m$

Taper Rate $= \frac{W}{\frac{L}{2}} = \frac{5.9\ m}{68.5\ m} = 0.0861 \Rightarrow 11.61 : 1$ Minimum Taper

Use 18.5 :1 $\Rightarrow \frac{L}{2} = 75\ m$

Channelizer spacing (min.)

Taper spacing 0.2 x (60 km/h) = 12.0 m

$\frac{75}{12} = 6.25 \Rightarrow 7$ channelizers

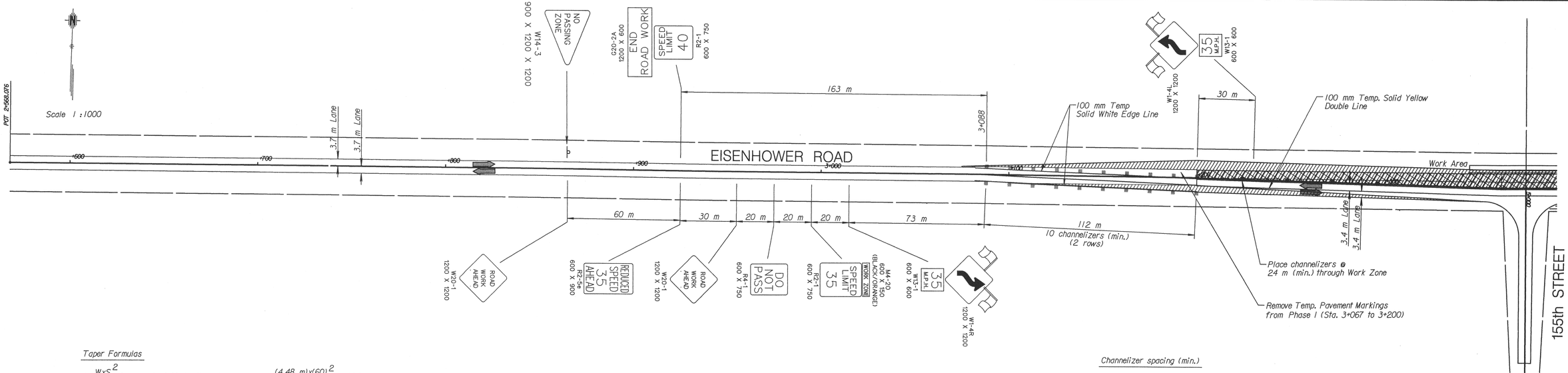
Work Zone = 0.4 x (60 km/h) = 24.0 m

$\frac{50}{24} = 2.08 \Rightarrow 3$ channelizers

See Sheet 88 for Traffic Control on Side Streets at 10th Street, 13th Street and Mt. Calvary Rd.

ADVANCE WARNING 155th STREET

Phase I



Taper Formulas

$L = \frac{W \times S^2}{155}$ for speed of 60 km/h or less.

L= minimum length of Taper in meters.

S= numerical value of Posted speed prior to work starting in km/h.

W= width of offset in meters.

$L = \frac{(4.48\ m) \times (60)^2}{155} = 104\ m$

Taper Rate $= \frac{W}{L} = \frac{4.48\ m}{104\ m} = 0.0431 \Rightarrow 23.22 : 1$ Minimum Taper

Use 25 :1 $\Rightarrow L = 112\ m$

Channelizer spacing (min.)

Taper spacing 0.2 x (60 km/h) = 12.0 m

$\frac{112}{12} = 9.33 \Rightarrow 10$ channelizers

Work Zone = 0.4 x (60 km/h) = 24.0 m

ADVANCE WARNING 155th STREET

Phase II

DATE	BY	
9-01	M Adams	REFERENCES NOTED
11-01	R Stegman	REFERENCES CHECKED

Plotted : 4/6/2004
Drawn By: whudson
File : P:\0154\0154 155th Advance Warning Detail.dgn
Section : $$$$KDOTGRP$$$$

Cook, Flatt & Strobel ENGINEERS, P.A.

KANSAS DEPARTMENT OF TRANSPORTATION

155TH STREET
ADVANCE WARNING DETAILS