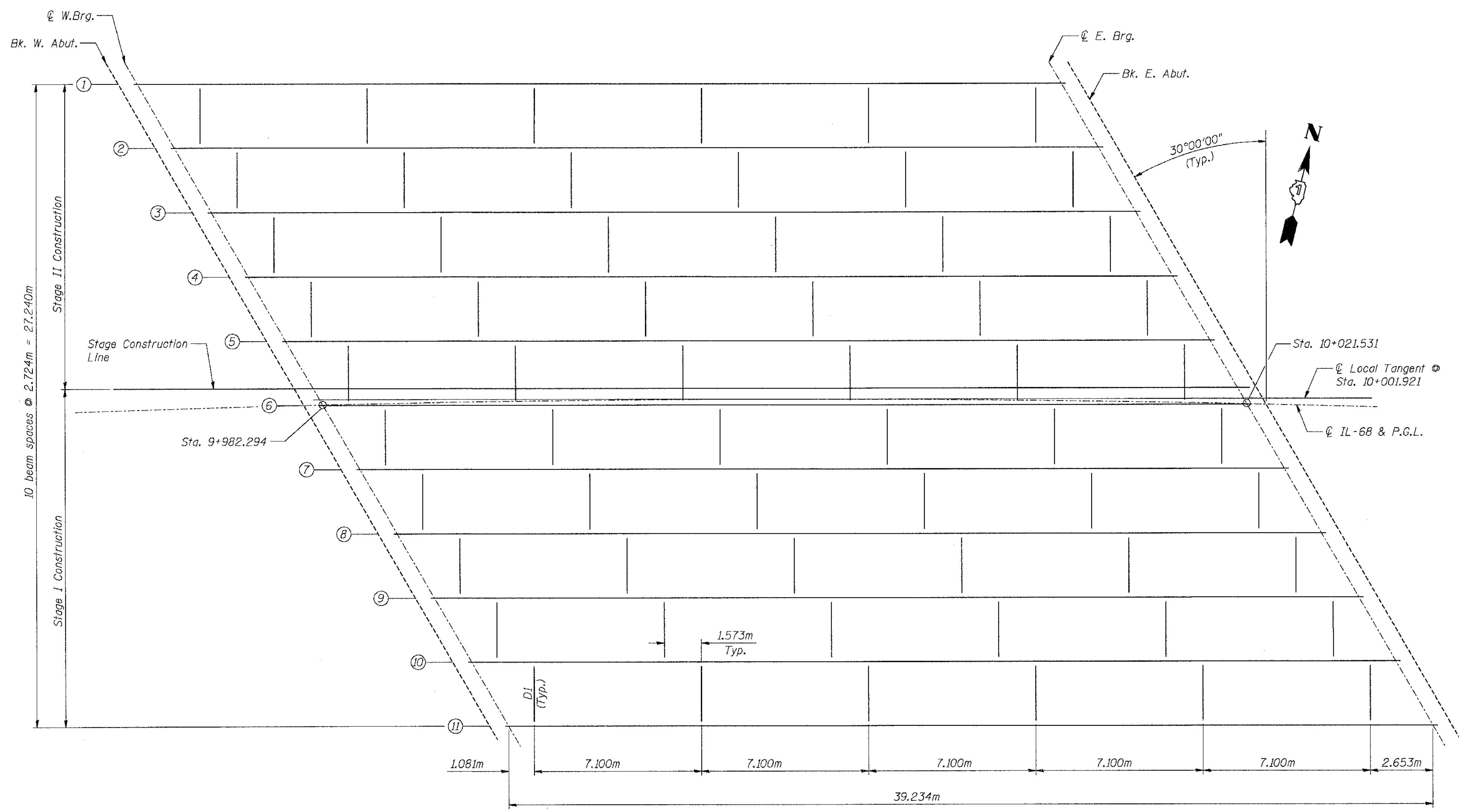
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	201
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62897



FRAMING PLAN

MOMENT AND REACTION TABLES

INTERIOR GIRDER MOMENT TABLE		
		0.5 Span
Is	(10^6 mm^4)	11171
Ic (n)	(10^6 mm^4)	30779
Ic (3n)	(10^6 mm^4)	20799
Ss	(10^3 mm^3)	28749
Sc (n)	(10^3 mm^3)	37944
Sc (3n)	(10^3 mm^3)	34861
Z	(10^3 mm^3)	-
DL	(kN/m)	16.60
Mdl	(kN*m)	3194
s DL	(kN/m)	7.48
MsDL	(kN*m)	1439
MLL	(kN*m)	2245
M (Imp)	(kN*m)	442
5/3[MLL + M(Imp)]	(kN*m)	4478
Ma	(kN*m)	11844
Mu	(kN*m)	13603
fs DL non-comp	(MPa)	111
fs DL (comp)	(MPa)	41
fs 5/3[MLL + M(Imp)]	(MPa)	118
fs (Overload)	(MPa)	270
fs (total)	(MPa)	
VR	(kN)	291

INTERIOR GIRDER REACTION TABLE		
		Abut.
RDL	(kN)	472
RLL	(kN)	243
Imp.	(kN)	48
R (Total)	(kN)	763

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment)=1.3[MDL + MsDL + 5/3(MLL + M(Imp))].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to MDL + MsDL + 5/3(MLL + M(Imp)).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[MDL + MsDL + 5/3(MLL + M(Imp))].

SHT. S-16 OF S-27

NOTE:

For Girder elevation, diaphragm details, and top of girder elevations see Sht. S-17 of S-27.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

IL ROUTE 68 OVER US ROUTE 14
F.A.P. ROUTE 343 SECTION 70HB-R-1
COOK COUNTY STATION 10+001.778
STRUCTURE NO. 016-2861

FRAMING PLAN & MOMENT TABLE

DESIGNED: BTO | DRAWN: BTO
DATE: 10/06 | CHECKED: JAN | CHECKED: JAN