



- ① 3/4" Ø 2'-6" DONEL RODS  
AFTER BEAMS ARE IN  
PLACE DRILL HOLES IN  
CAP AND GROUT DONEL  
RODS INTO PLACE USING  
NON-SHRINK GROUT. SEE  
SPECS 504.06 (E)  
ALLOW TO CURE (MIN 24 HRS.)  
PRIOR TO GROUTING  
SHEAR KEY.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
PRECAST PRESTRESSED CONCRETE		
DECK BEAMS (21" DEPTH)	SQ. FT.	1316

PRESTRESSING STEEL SHALL BE NON-GALVANIZED HIGH STRENGTH, STRESS-RELIEVED 7-WIRE STRAND, GRADE 270.  
THE NOMINAL DIAMETER SHALL BE 1/2" AND THE NOMINAL CROSS-SECTIONAL AREA SHALL BE 0.153 SQ. IN.  
LIFTING LOOPS SHALL BE 1/2" DIAMETER, 6x25 CLASS WIRE ROPE WITH FIBER CORE AND SHALL HAVE A MINIMUM ULTIMATE TENSILE STRENGTH OF 21,000 LBS. OR TWO 1/2" DIA. - 270 KSI STRANDS, AS SHOWN.  
KEYWAY SURFACES SHALL BE CLEANED TO REMOVE FORM OIL OR OTHER BOND BREAKING MATERIAL PRIOR TO SHIPMENT OF THE BEAMS. CLEANING SHALL BE DONE BY SANDBLASTING THE KEYWAY AREAS BETWEEN TOP OF THE BEAM AND THE BOTTOM EDGE OF THE KEY.  
REINFORCEMENT BARS SHALL CONFORM TO AASHTO: M-31, M-42 OR M-53, GRADE 60.  
THE BEARING SEAT SURFACES SHALL BE ADJUSTED BY SHIMMING TO ASSURE FIRM AND EVEN BEARING. TWO 1/8" FABRIC ADJUSTING SHIMS OF THE DIMENSIONS OF THE EXTERIOR BEARING PAD SHALL BE PROVIDED FOR EACH BEARING.  
AN EQUAL SUBSTITUTION OF THE LOW-RELAXATION STRANDS FOR THE STRESS-RELIEVED STRANDS WILL BE PERMITTED.  
A CALCIUM NITRITE CORROSION INHIBITOR, AS COVERED IN THE SPECIAL PROVISIONS SHALL BE USED IN THE CONCRETE FOR PRECAST PRESTRESSED CONCRETE DECK BEAMS.  
THE INITIAL PRESTRESSING FORCE APPLIED TO EACH STRAND SHALL BE THE SAME AS FOR THE STRESS RELIEVED STRANDS (28,900 LBS.)  
RAIL POST ANCHOR DEVICES SHALL BE CAST INTO OUTSIDE BEAM AS ELSEWHERE SPECIFIED  
REQUIRED RELEASE STRENGTH, f'ci, SHALL BE 4,700 PSI

**SUPERSTRUCTURE DETAILS**

SEC. 92-00109-00-BR  
HUTTON ROAD DISTRICT  
COLES COUNTY

**McCLINTOCK**  
CIVIL ENGINEERING SERVICE  
404 SHAW AVE., PARIS, ILL. 61944  
PHONE (217) 486-6110

DRN TDL DATE 7/1/98 SHEET 5 OF 12  
REV. SDE DATE 1/6/11  
APPR. JOB NO. 3137-362-96