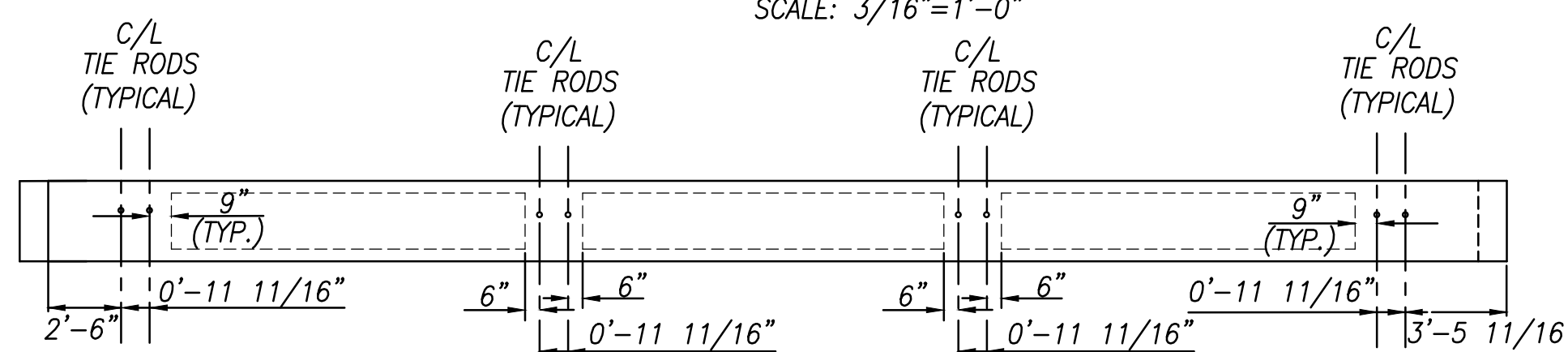


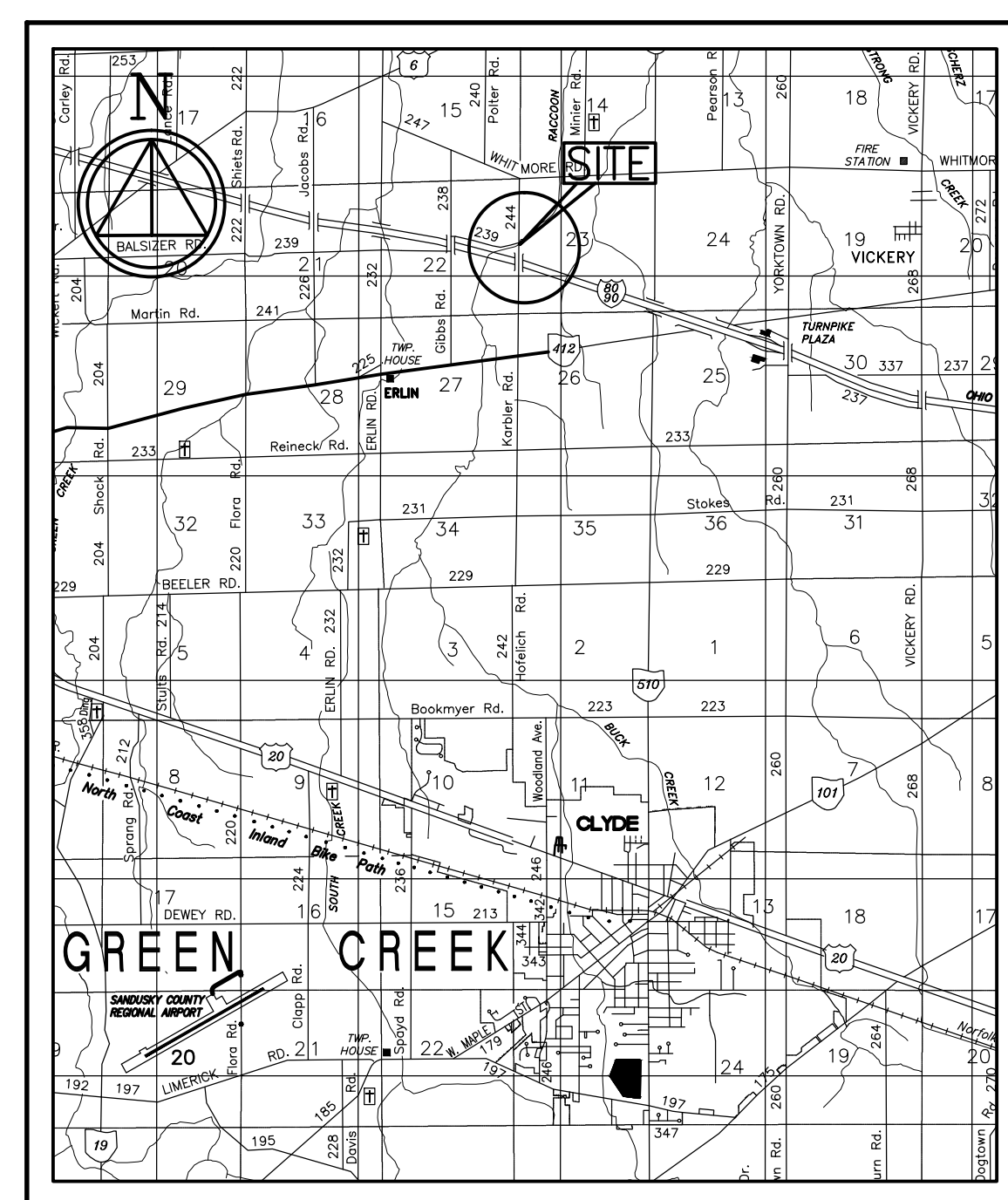
**BEAM LAYOUT**

SCALE: 3/16"=1'-0"

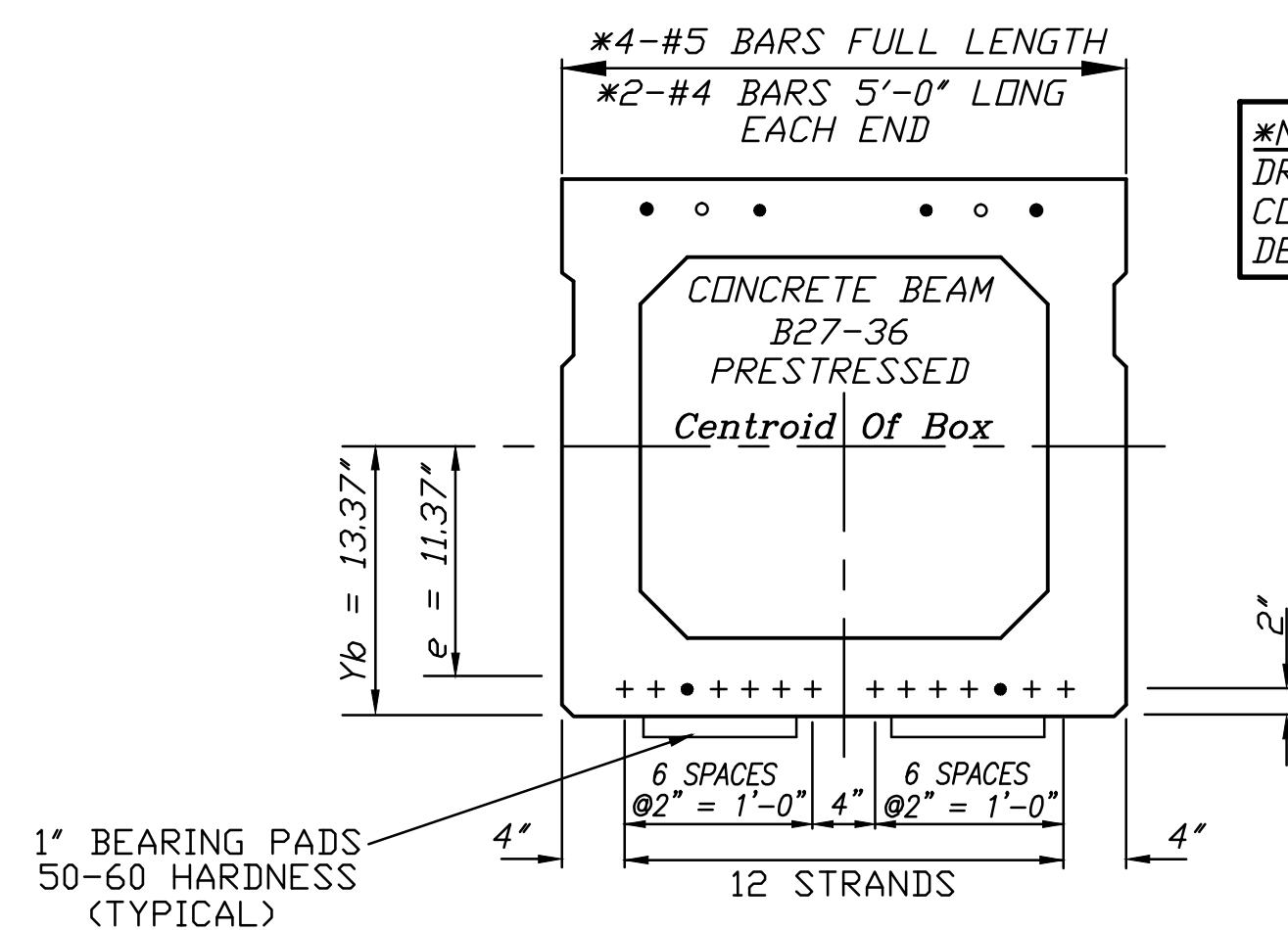


**SECTION A-A**

SCALE: 3/16"=1'-0"



**LOCATION MAP**



**TYPICAL B 27-36 PRESTRESSED CONCRETE BEAM SECTION**

SCALE: 1"=1'-0"

**STRUCTURE RY 244 -2.52  
SUPERSTRUCTURE DETAIL**

Sections 22, & 23 T5N-R16E  
Riley Township  
Sandusky County, Ohio  
2013

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, DATED JANUARY 1, 2010 SHALL GOVERN THE MAKING OF THIS IMPROVEMENT.

**ITEM 515, B27-36 PRESTRESSED CONCRETE BOX BEAM SUPERSTRUCTURE, AS PER PLAN**

THE BRIDGE SUPERSTRUCTURE SHALL CONSIST OF CONSTRUCTING AND ERECTING TEN (10) B27-36 PRESTRESSED CONCRETE BOX BEAMS IN ACCORDANCE WITH ITEM 515 OF THE STATE OF OHIO, CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE UNIT PRICE BID FOR "ITEM 515, PRESTRESSED CONCRETE BOX BEAM SUPERSTRUCTURE, AS PER PLAN", SHALL INCLUDE ALL LABOR AND MATERIAL NECESSARY TO CONSTRUCT, STORE, TRANSPORT AND ERECT THE BEAMS, INCLUDING 1" BEARING PADS, SHIMS, GUARDRAIL POSTS (TYPE 1), GUARDRAIL ANCHOR ASSEMBLIES WITH STUDS, NUTS AND WASHERS AND TRANSVERSE TIE RODS. IN ADDITION, THE DOWEL RODS, JUTE PACKING, AND NON-SHRINKING ADDITIVE SHALL ALSO BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

**GENERAL DESIGN NOTES**

DESIGN LOADING - HL-93

CONCRETE - MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS  $f'_c = 7000$  P.S.I.  
- MINIMUM COMPRESSIVE STRENGTH AT TIME OF INITIAL PRESTRESS  $f'_{ci} = 5000$  P.S.I.

REINFORCING STEEL - GRADE 60  
MIN. YIELD STRENGTH 60,000 P.S.I.

PRESTRESSING STEEL - A.S.T.M. A416, GRADE 270, LOW RELAXATION, UNCOATED, SEVEN WIRE STRAND  
1/2" DIAMETER  
 $A_{ps} = 0.167$  SQ. IN. PER STRAND  
 $f_{pu} = 270$  K.S.I.  
 $E_p = 28,500$  K.S.I.  
INITIAL STRESS  $0.75 f_{pu} = 202.5$  K.S.I.  
INITIAL TENSION LOAD = 33.82 KIPS/STRAND

ALL APPLICABLE NOTES AND DETAILS FROM THE STATE OF OHIO, STANDARD DRAWINGS PSBD-2-07, PAGES 1 THROUGH 4 SHALL APPLY TO THIS PROJECT.

PIANS PREPARED BY:

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