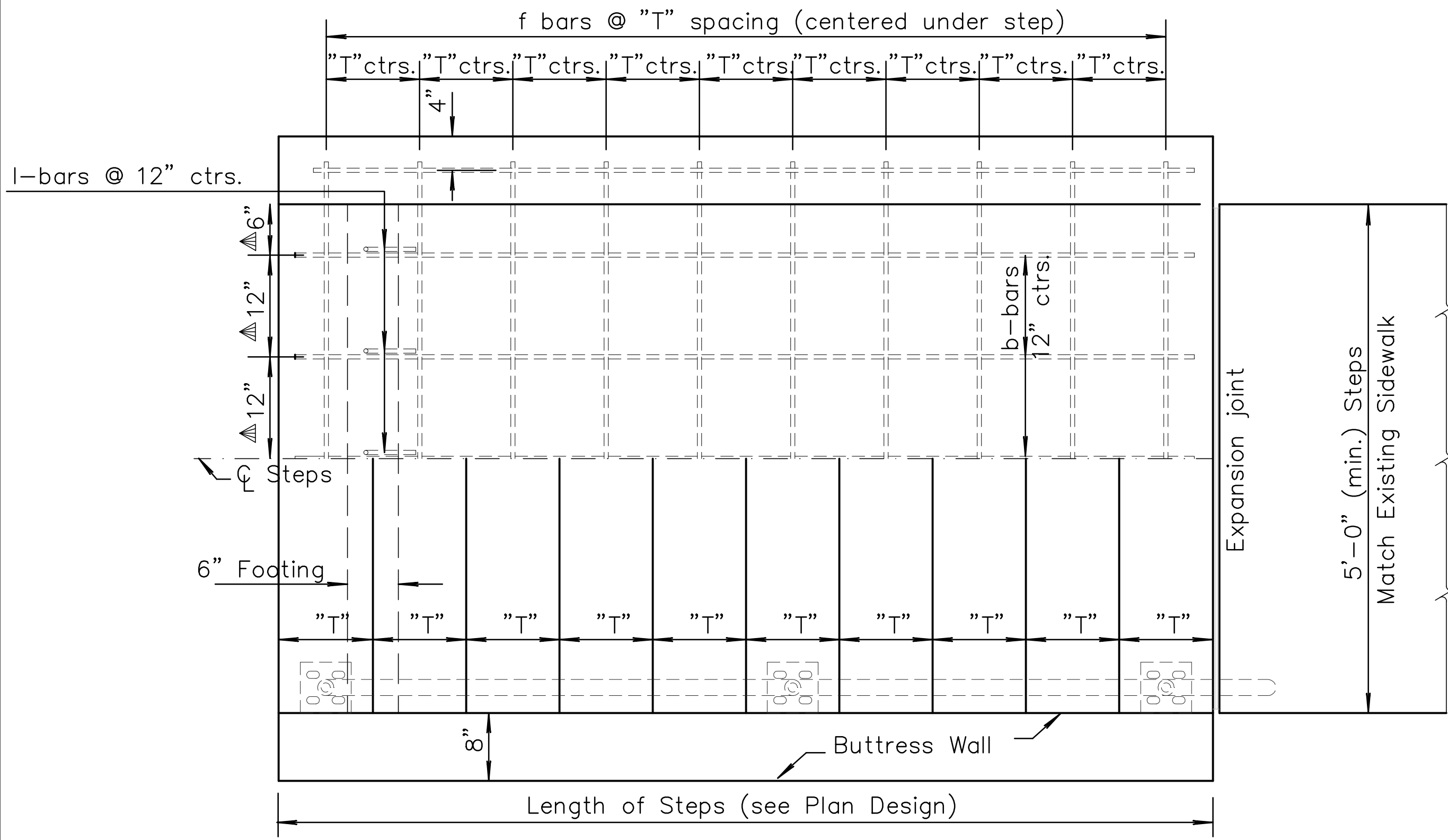
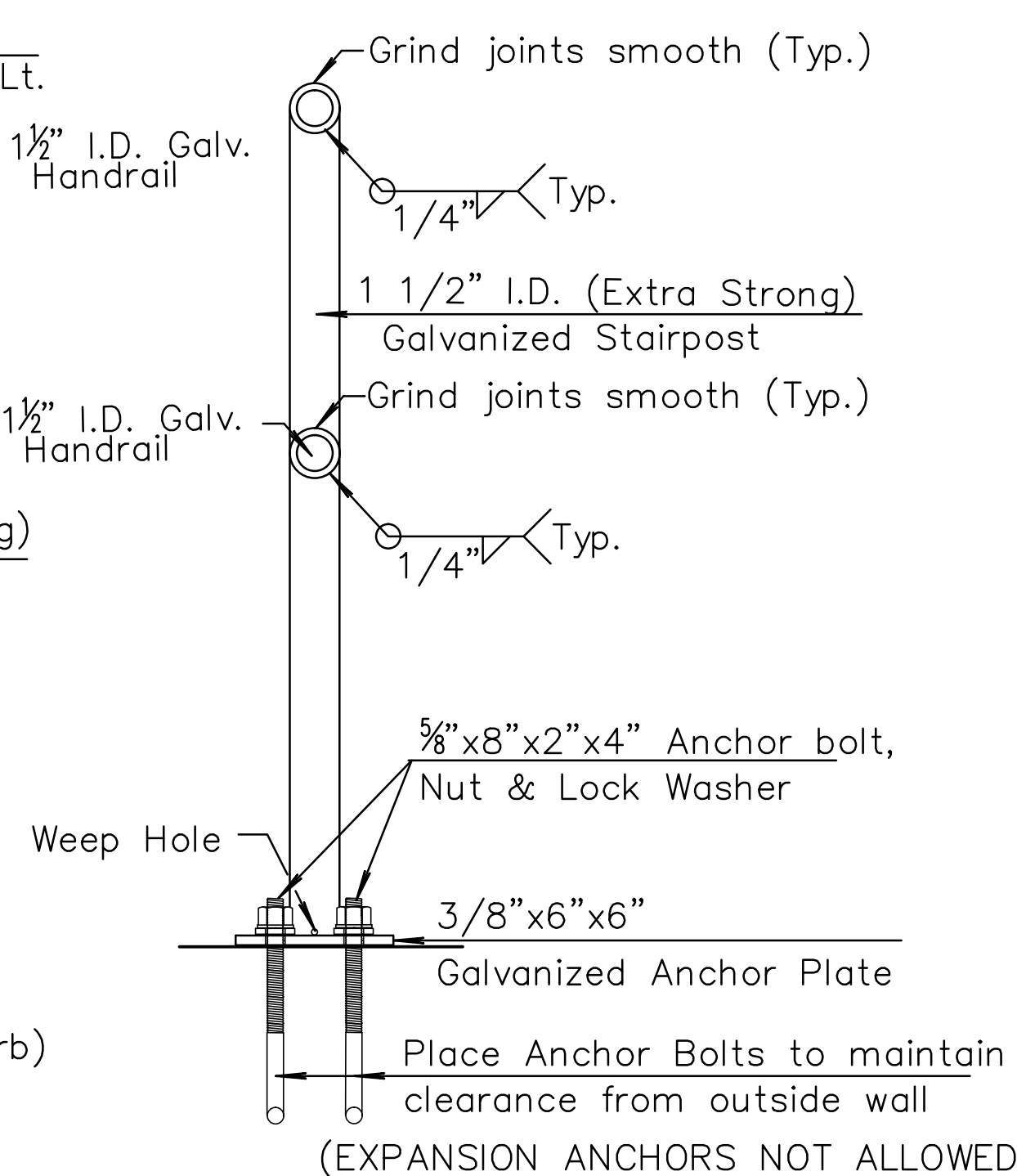


STEPS SECTION

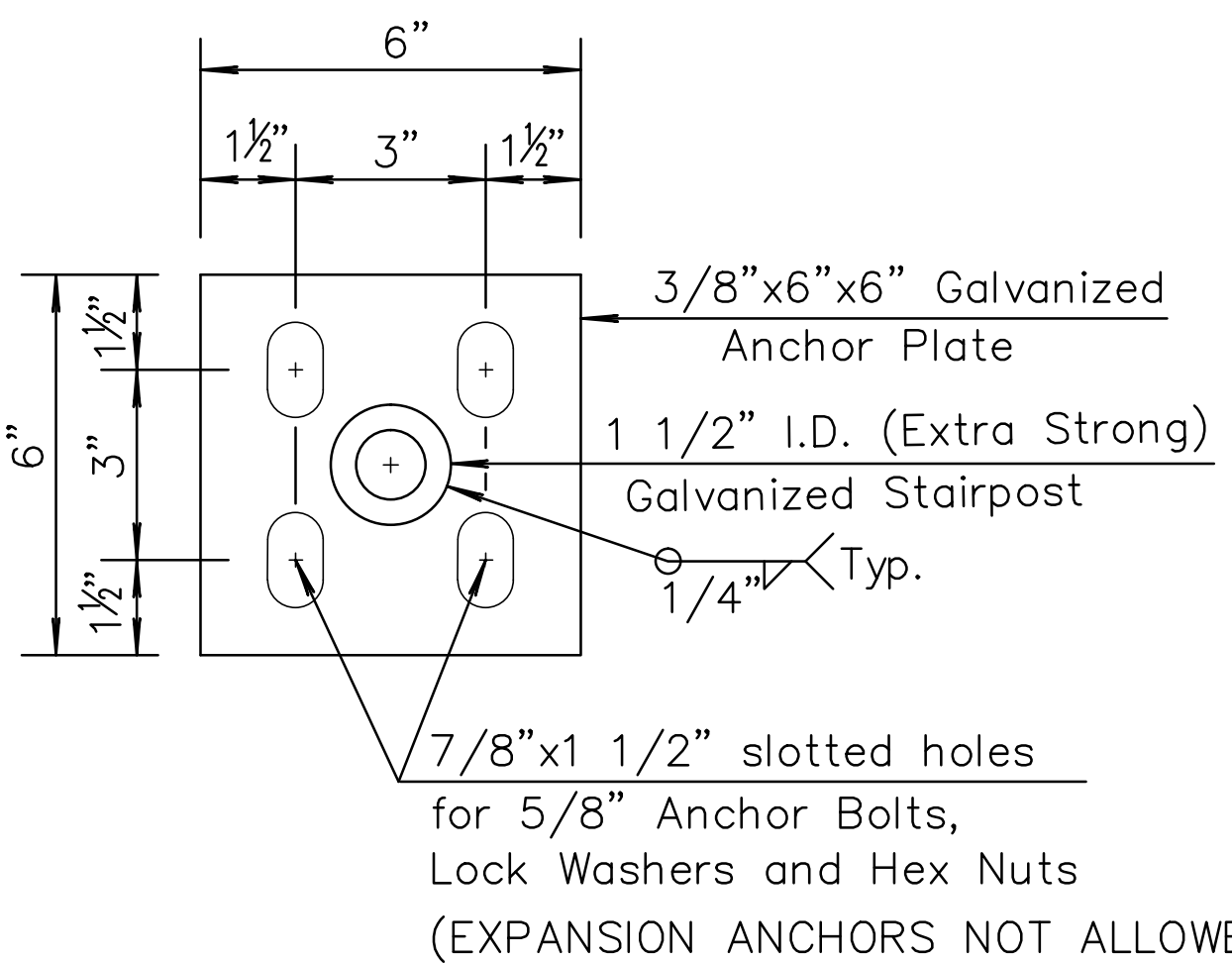
▲ #4 bars @ spacing shown are for 5'-0" wide steps (other widths must be figured).



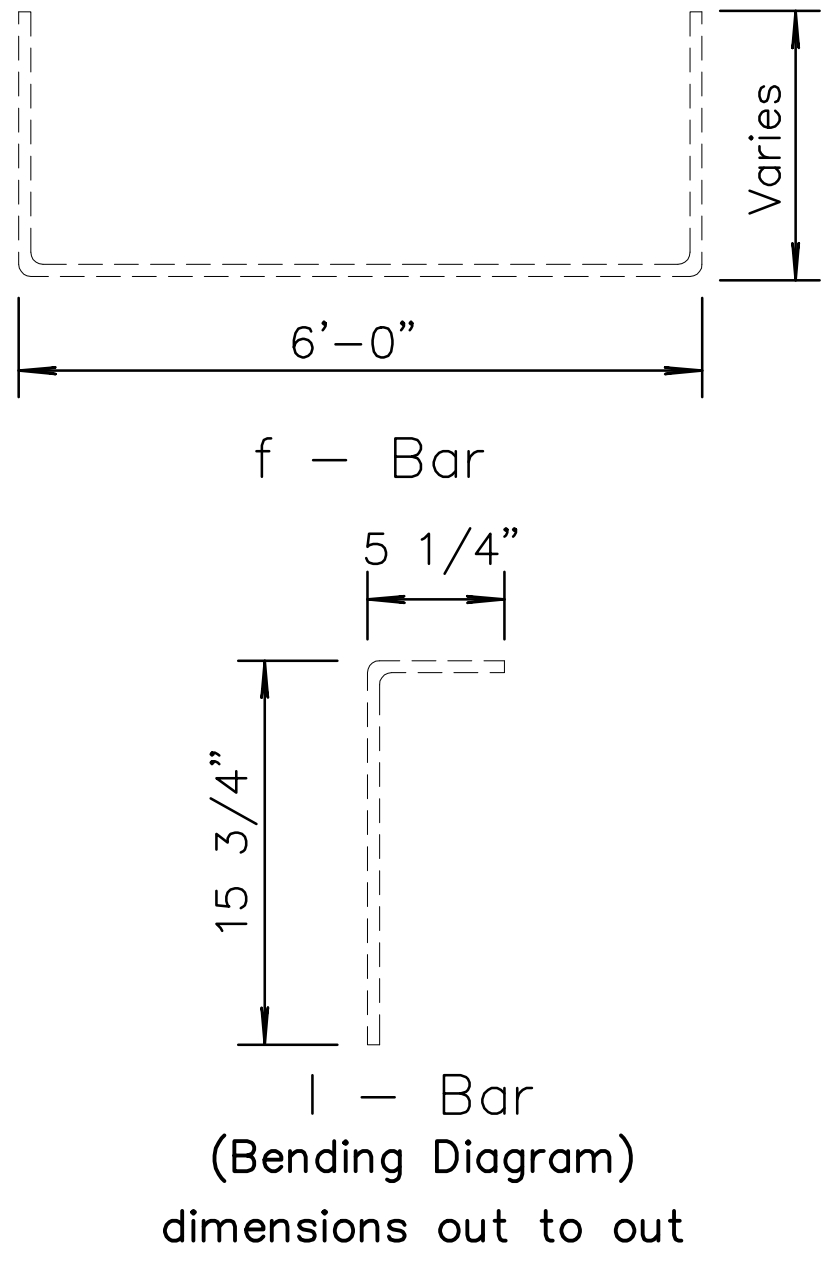
PLAN AND SECTION STEPS



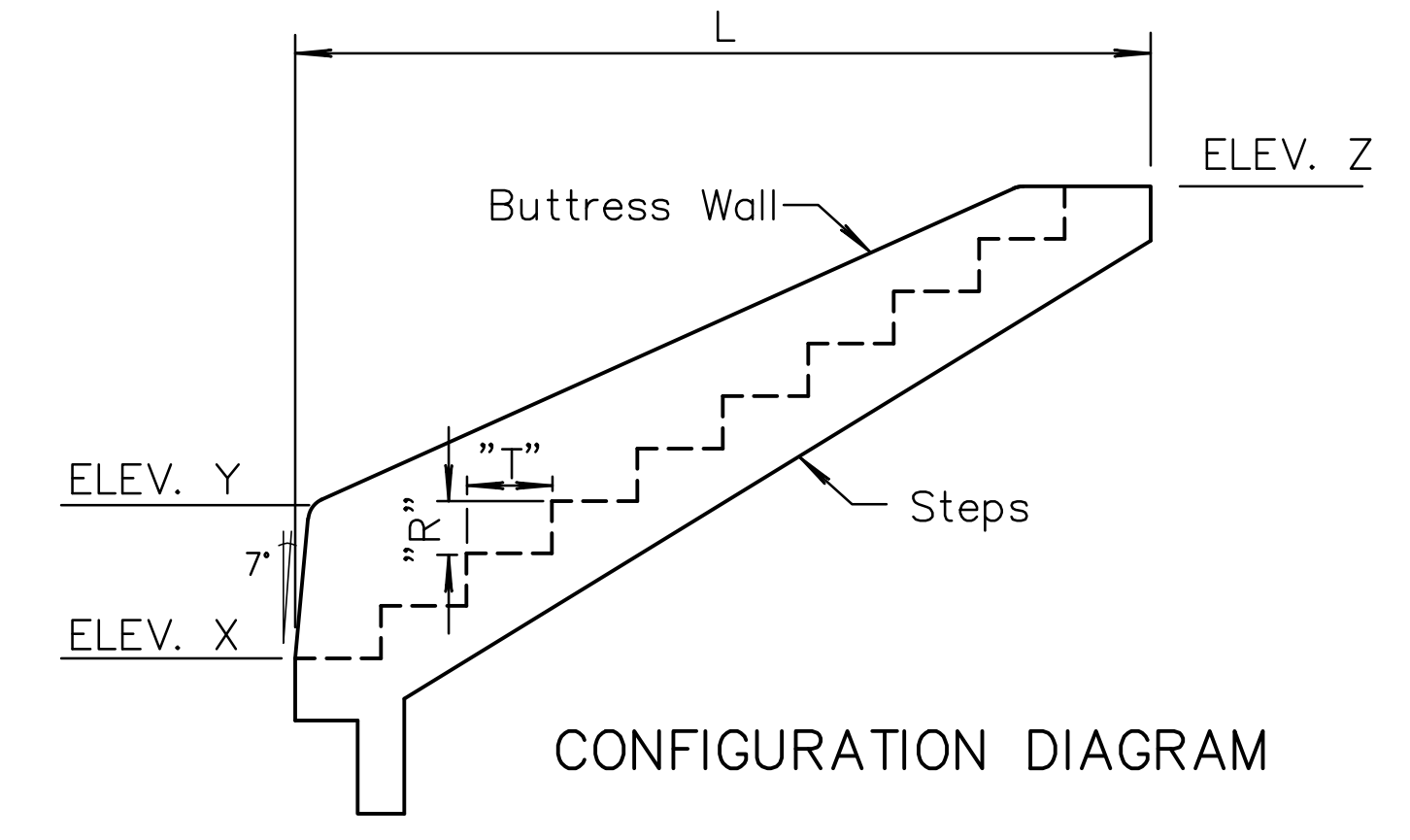
SECTION K-K



PLAN- ANCHOR PLATE



l - Bar (Bending Diagram) dimensions out to out



CONFIGURATION DIAGRAM

CONFIGURATION TABLE *(For Information Only)								
STEPS LOCATION	ELEV. X	ELEV. Y	ELEV. Z	L	R	T	Conc. c.y.	Reinf. lbs.
Sta. 37+01.26 Rt.	1320.28	1322.40	1322.40	5'-0"	6 3/8"	12"	1.4	80
Sta. 38+81.98 Lt.	1325.25	1328.11	1333.12	13'-9"	6 3/4"	11"	4.0	220
Sta. 36+92.00 Lt.	1319.92	1321.48	1322.86	9'-0"	5 7/8"	12"	1.7	100
Sta. 39+21.48 Lt.	1326.36	1329.22	1335.21	18'-0"	6 1/4"	12"	5.0	280
Sta. 40+73.77 Lt.	1329.85	1332.71	1335.58	12'-0"	6 1/4"	12"	3.3	190
Sta. 42+03.90 Lt.	1331.97	1332.94	1335.89	9'-0"	5 7/8"	12"	2.1	120
Sta. 60+88.40 Lt.	1377.60	1379.31	1379.31	3'-8"	6 3/4"	11"	1.0	60
Sta. 66+60.47 Rt.	1364.21	1366.16	1366.16	5'-0"	5 7/8"	12"	1.3	70

\*Dimensions may need to be field adjusted.

Step formula:  
 "R" x "T" = not less than 70 nor more than 75.  
 The maximum "R" = 6 3/4"  
 The minimum "T" = 11"

GENERAL NOTES

Excavation, Concrete and Reinforcing Steel for construction of Steps will not be computed but considered Subsidiary to the bid item "Steps with Handrails".  
 Step edges shall be rounded to 3/8" diameter. Step treads shall receive a non-skid broomed finish. All exposed surfaces except step treads shall receive a rubbed finish.  
 Concrete for steps to be Grade 3.0 (f'c=3,000 psi).  
 Use Grade 60 #4 bars for construction of steps with 2" clearance unless otherwise shown.  
 Handrail is required with three or more steps, less than three steps handrail is optional. Handrail, if needed, is required on both sides of steps.  
 Fabricate handrail from 1 1/2" I.D. Galvanized Steel Pipe for Rail and 1 1/2" I.D. Galvanized Steel Pipe (Extra Strong) for Stairposts. Handrail consists of equal spaced panels not to exceed 6'-0" O.C. (max.). Use galvanized bolts and hardware for fabrication or installation of handrail. Grind smooth all welded connections and re-galvanize any areas where the spelter coating has been damaged. Field welding is not permitted.  
 Details shown are typical. Shop drawings for Design shown and Alternate designs need to be submitted to the City of Wichita for approval prior to handrail fabrication.  
 Required handrail materials, incidentals and labor are paid for under the bid item "Steps with Handrail".

Revision  
 Approved  
 Date  
 No.

13th STREET NORTH FROM KANSAS TO OLIVER STREET & DRAINAGE IMPROVEMENTS  
 13th STREET STEPS AND HANDRAIL  
**CITY OF WICHITA, KANSAS**  
 JAMES L. ARMOUR, P.E. - CITY ENGINEER

**POE & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 5940 E. Central, Suite 200 • Wichita, KS 67208-4242  
 Phone 316/685-4114 • FAX 316/685-4444

**FINAL**

Designed By: P. Ferguson  
 Drawn By: P. Ferguson  
 City Job No.: 472-84320  
 Date: March 2012

Sheet  
 84 of 374