

General Notes:

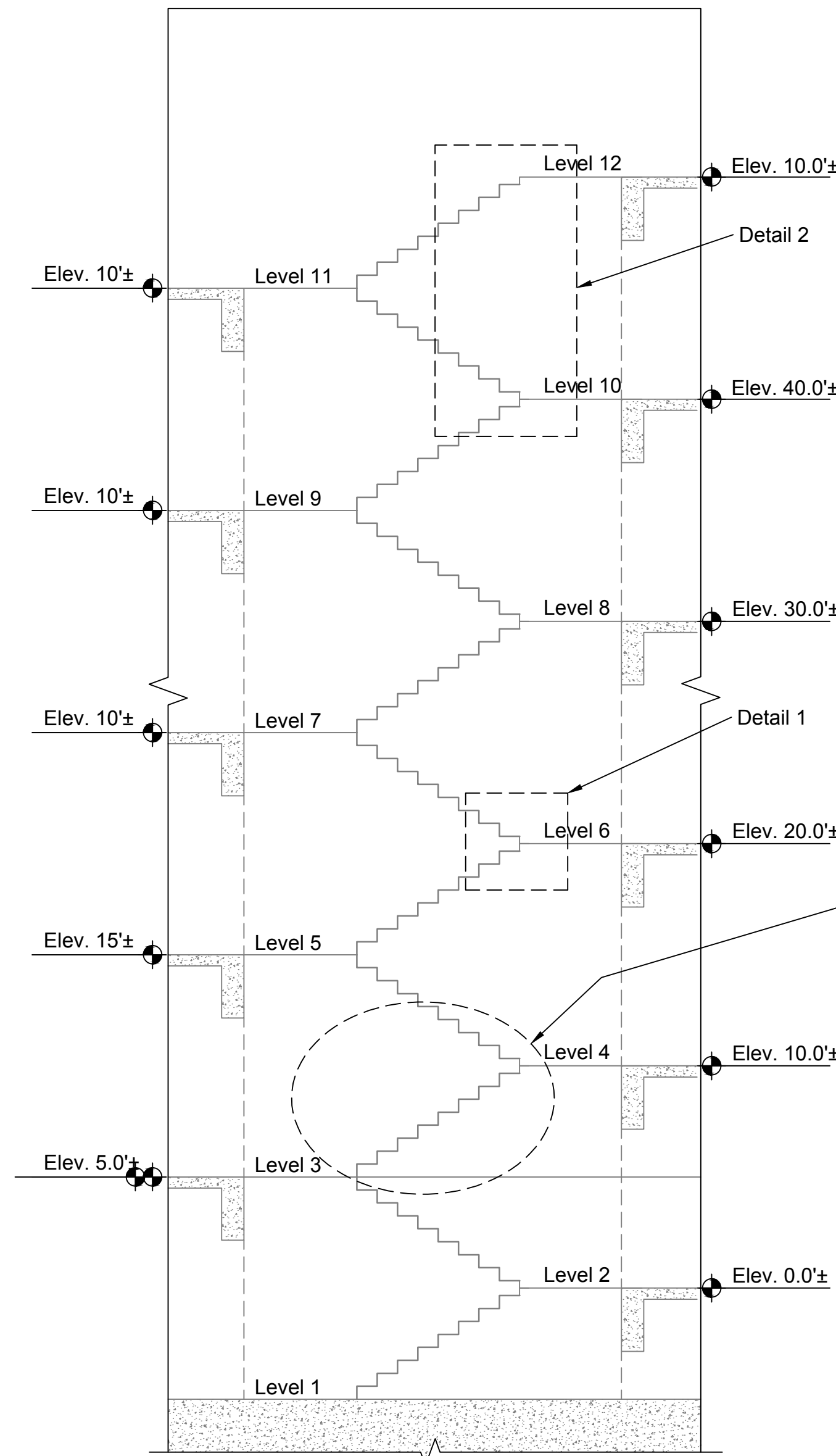
- Design Specifications: International Building Code (2012 Edition).
Design Loads:
Dead load: Actual
Stair Live Load: 100 PSF or 300lb concentrated
Landing Live Load: 100 PSF
Roof Live Load: 20 PSF
Risk Category: II
Exposure Category: B
- The construction falsework / shoring design (if any) is the responsibility of the Contractor. The design shall be performed by a Registered Engineer and shall be submitted for approval before commencing of the work.
- Where a detail is shown on Structural drawings for one condition, it shall apply to all similar or like conditions, unless noted or shown otherwise on plans.
- All items shall be tightly anchored or attached square, plumb, and true, or in other planes and shapes as shown on the drawings. Joints shall be tight, even, and free of offsets. No field altering of any members will be allowed that will cause them not to be in accordance with the drawings and specifications, without written approval of the Project Engineer.
- The dimensions shown with a suffix "±" are approximate and shall be verified by the Contractor before fabrication.
- If the Contractor finds a difference between these drawings & existing conditions, or finds any other conditions which prohibit execution of the work as directed in these drawings, the Contractor shall notify the Engineer immediately.
- The owner shall employ a laboratory to perform the quality assurance, sampling, testing and/or inspection at his expense. Final selection of such laboratory shall be approved by the Engineer.
- Any revision/modification to the original design during the shop drawing process, the Contractor shall clearly cloud line all the changes and shall receive approval from the Engineer in writing before fabrication. Any costs associated with correcting the unapproved change shall be at the Contractor's expense.
- All products used are recommended. Any other product to be used must be equal and approved by the Engineer.
- All observed corrosion be thoroughly cleaned and the steel repainted.
- Proper precautions/abatement shall be taken to determine the presence of lead based paint on the existing structure.
- Required measures shall be taken to allow a safe work and public environment in and near the construction site.
- The existing steel material will become the property of the contractor after demolition. Please note that the existing paint was previously determined to be lead based.

Structural and Miscellaneous Steel Notes

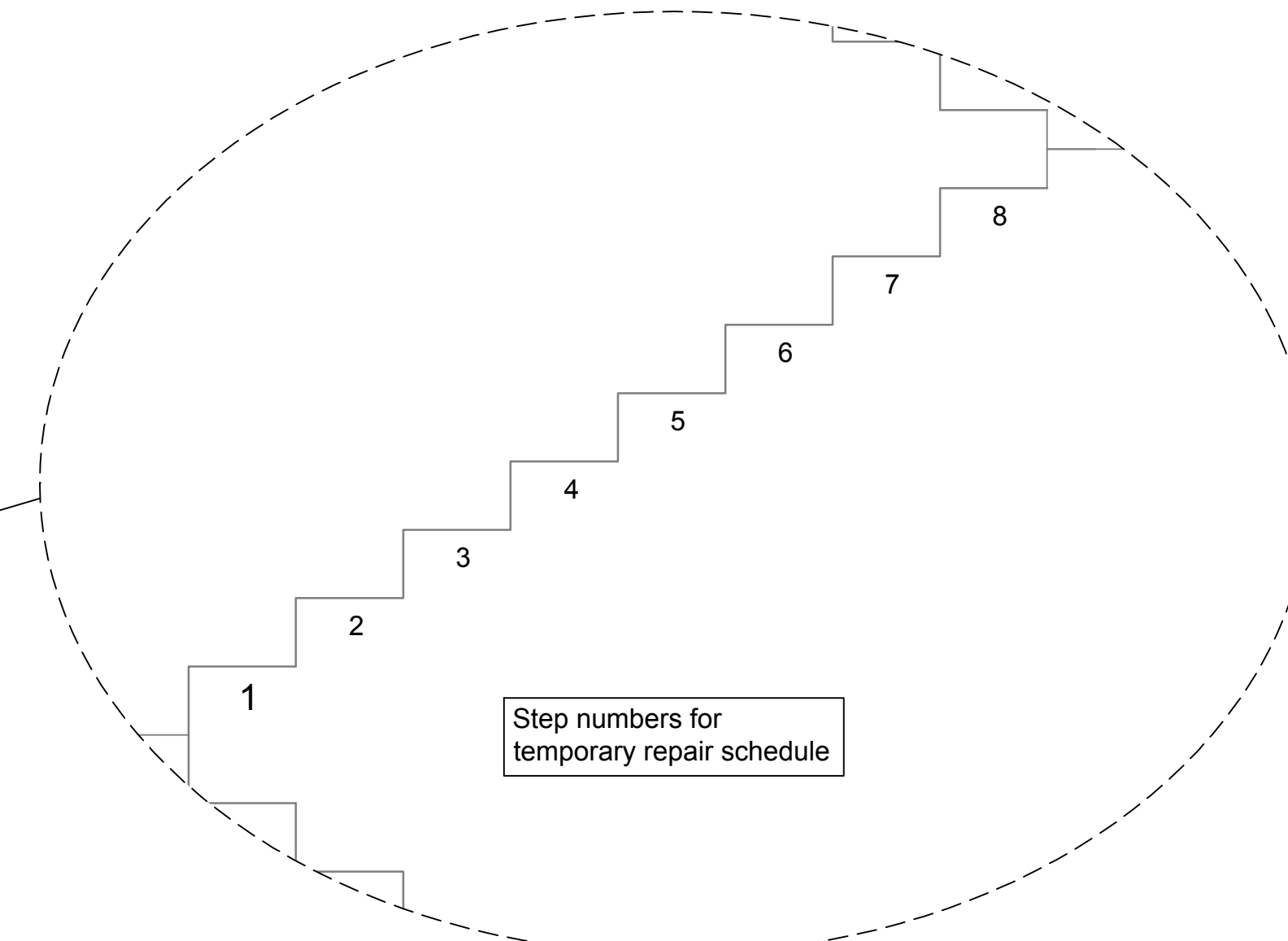
- All structural and miscellaneous steel shall conform to the Fourteenth Edition of the AISC "Specification for Structural Steel Buildings" and all its supplements, and to the AISC "Code of Standard Practice for Steel Buildings and Bridges".
- All structural steel shall conform to ASTM A-36, FY=36,000 PSI unless otherwise noted.
- All welded connections shall be done with E70XX electrodes with 3/16" min. material. All welding shall comply with AWS D1-1 structural welding code the latest edition.
- All bolts shall be Group A (A325), unless otherwise noted.
- The structural steel shall have one coat of finish paint of color determined by the owner. Prior to painting, all steel surfaces shall be prepared in accordance with SSPC-SP3. The finish paint used shall be compatible for applying over hot dipped galvanized coating. For duplex coatings (galvanized + painted) the steel shall be unquenched (or ASTM approved method). All paints shall be approved by the Owner/Architect prior to their use.
- Fabrication and assembly of bolted connections shall comply with applicable sections of AISC "Specification for Structural Joints using ASTM A325 or A490 bolts."
- No openings in beams shall be permitted without the written permission of the engineer.
- The use of a gas-cutting torch in the field for cutting holes or for correcting fabrication errors will not be permitted on structural framing members except w/ the written approval of the Engineer for each specification.
- An independent inspection agency shall be employed by the owner and approved by the engineer to inspect the structural steel in the field and verify that it conforms to the requirements of the contract documents.
- All structural steel shall be hot-dipped galvanized according to ASTM 123. All connections, hardware shall be hot-dipped galvanized according to ASTM 153. All galvanizing damaged by welding shall be repaired by Z.R.C. cold galvanizing paint.

Timber:

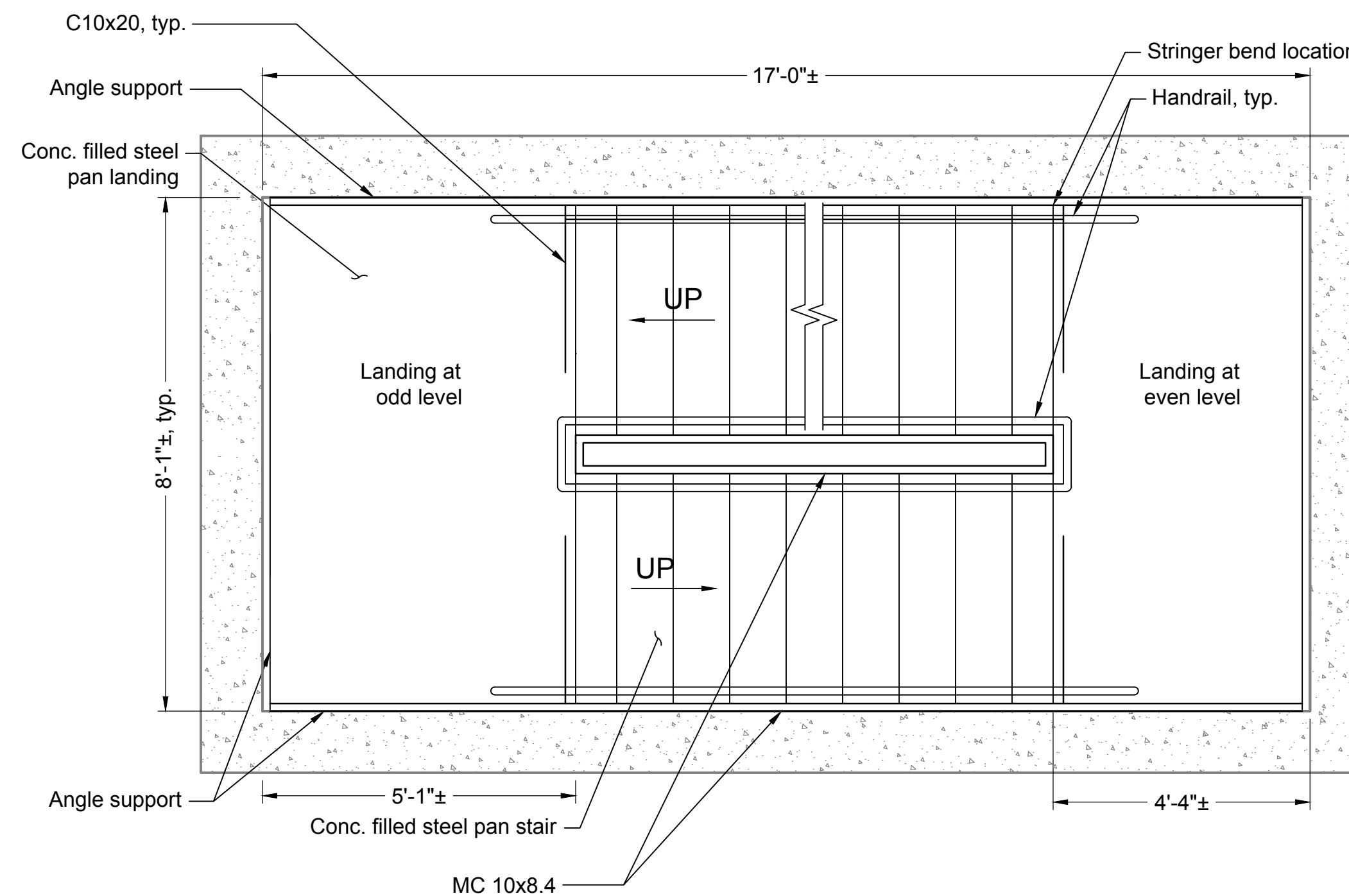
- All timber materials shall conform to the approved standards of the American Wood Preservers' Association. Each piece shall be treated in accordance with AWPA standards, and certified by an approved inspection agency. Any timber in contact with masonry or steel shall be treated. All cuts, holes, and machine areas shall be liberally brushed with a solution of copper naphthenate containing a min. of 2% metallic copper in accordance with AWPA standard M4.
- All lumber shall be #2 southern pine. All pieces shall bear the grade mark of a recognized agency or independent inspection service certified by the board of review, American lumber standard committee.
- Metal timber connectors shall be hot-dipped galvanized in accordance w/ ASTM A153, and shall be installed in strict accordance with the manufacturer's specification.
- Metal timber connector designation as by Simpson's strong tie. Product substitutions shall be permitted only if submitted in advance, as outlined in specifications, and approved by the engineer as an equal.
- Nails shall be commercial grade common wire nails, hot-dipped galvanized in accordance with ASTM A153. Nail spacing shall be sufficient to develop maximum connection strength without splitting the members. All split members shall be replaced.
- All bolts used in connections shall be ASTM A307 bolts in sizes as indicated in the plan. All bolts shall be installed with 1 1/2"Ø 1/8" galvanized washers under the head and nut, and shall be torqued until the wood just begins to yield under the washers. Bolts shall not be overtorqued so as to deform the washers or damage the lumber, hole size shall not exceed bolt diameter by more than 1/16".



Stair Repair Elevation
Scale: 3/16" = 1'-0"

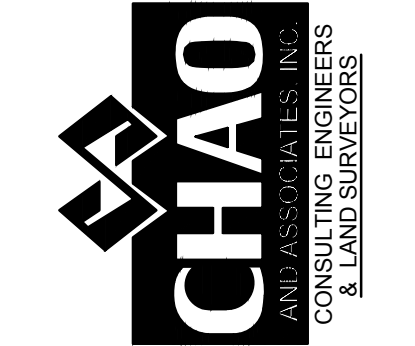


Blowup A
Scale: 3/4" = 1'-0"



Stair Repair Plan - Levels 1-12
Scale: 1/2" = 1'-0"

Stair case temporary repair schedule	
Stairs Designation	East Stair Case
11 - 12	4, 7, 8
10 - 11	2, 3, 6, 7, 8
9 - 10	3, 5, 7
8 - 9	2, 6, 8
7 - 8	2, 3, 4, 6
6 - 7	1, 2, 3, 4, 7, 8
5 - 6	1, 2, 3, 4, 5, 6, 7, 8
4 - 5	1, 2, 3, 5, 7, 8
3 - 4	1, 2, 6, 7, 8
2 - 3	1, 2, 3, 4, 5, 6, 7, 8
1 - 2	
Other repairs:	
Support below landing and stair connection to be reinforced (Detail 1)	Landing 8
	Landing 9
	Landing 10
	Landing 12
Additional stringer support (Detail 2)	Stairs 11 - 12
* Steps 1-8 start from the lowest elevation working upward for each respective flight of stairs	



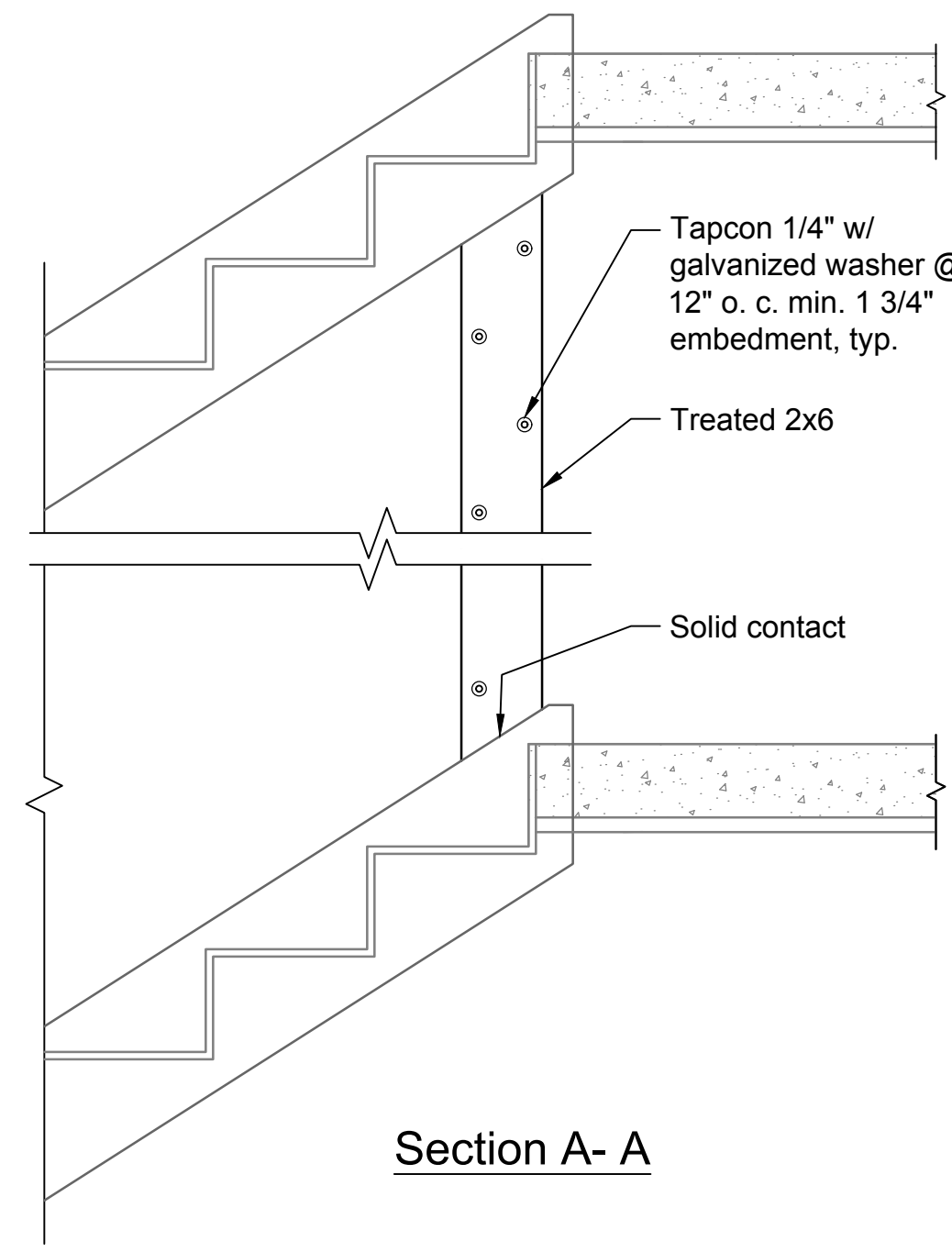
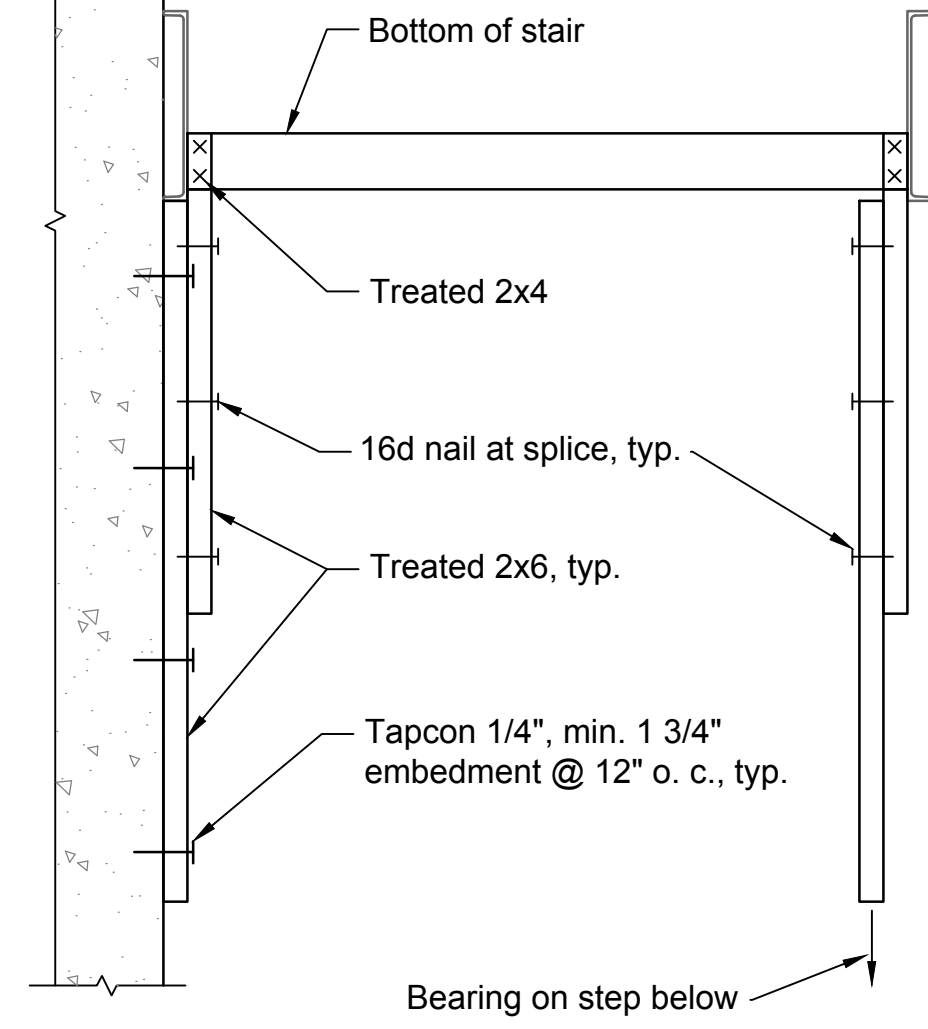
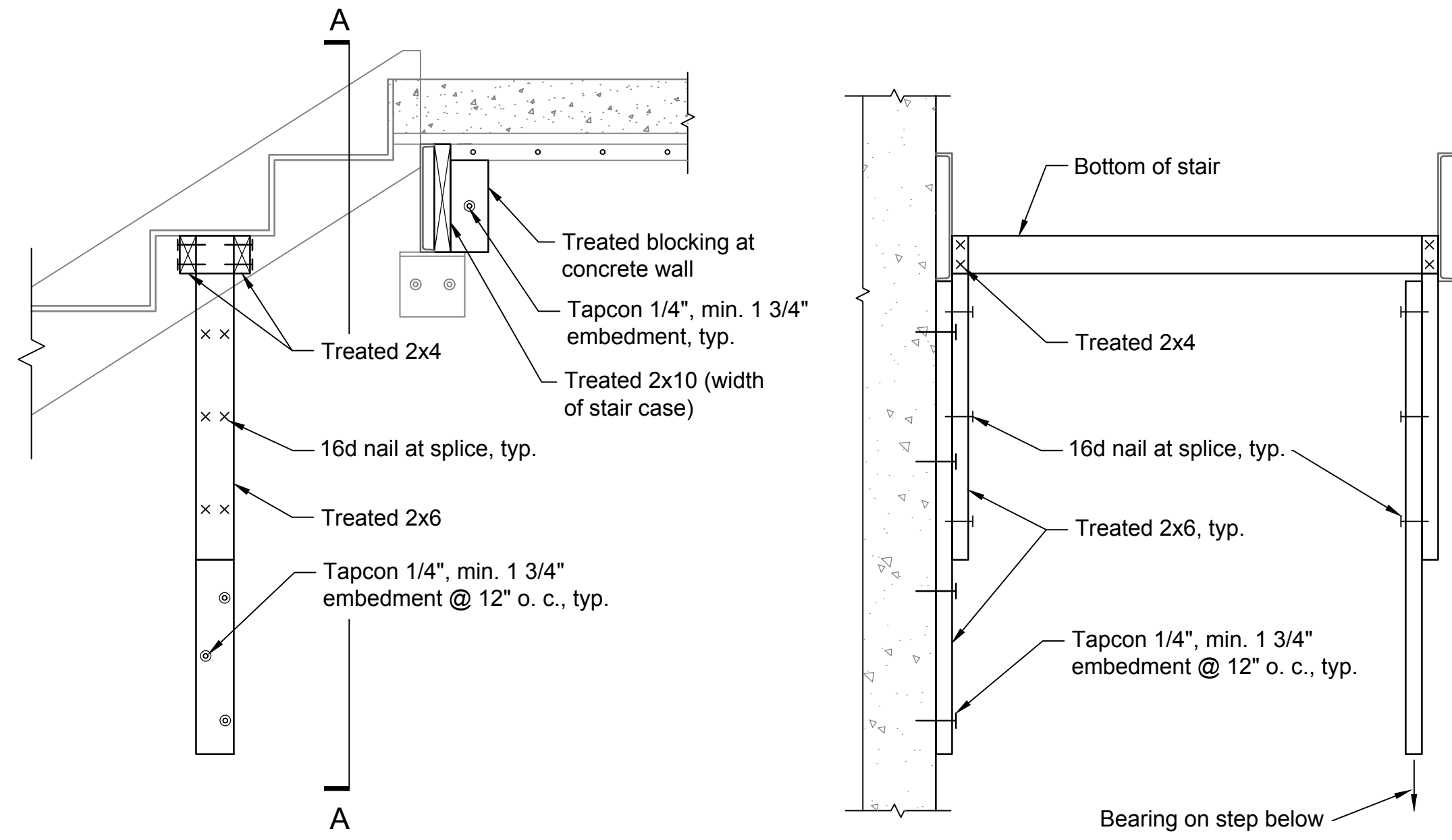
Chao & Associates, Inc.
Civil - Structural - Survey
7 Clusters Court
Columbia, SC 29210
Voice: (803) 772-8420
Fax: (803) 772-9120
Email: consult@chaoinc.com



Repair General Notes, Plan and Elevation
Blossom St. Parking Garage Stair Repair
Prepared for:
University of South Carolina, Columbia, SC

Drawn: LPL
Checked: JH
Revised:
Project No.: 393202D

S1.0
Sheet Number
8/22/18
Date

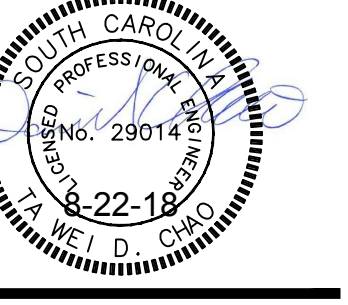


1 - Section for Stair Repair and/or Landing Deck Support

Scale: 1" = 1'-0"

2 - Temporary Shoring for Level 11-12 East Stair Case

Scale: 1" = 1'-0"



Chao & Associates, Inc.

Civil - Structural - Survey
 7 Clusters Court
 Columbia, SC 29210
 Voice: (803) 772-8420
 Fax: (803) 772-9120
 Email: consult@chaoinc.com

Repair Sections and Details
 Blossom St. Parking Garage Stair Repair
 Prepared for:
 University of South Carolina, Columbia, SC

Drawn: LPL
 Revised:
 Checked: JH

File: 393202D-18S.dwg
 Project No.: 393202D

S1.1

Sheet Number
 8/22/18
 Date