SCHEDULE OF RECOMMENDED FOUNDATION PIER MIN. SIZES

SPLIT RAIL FENCE W/ 3 RAILS MIN. FOUNDATION SIZES

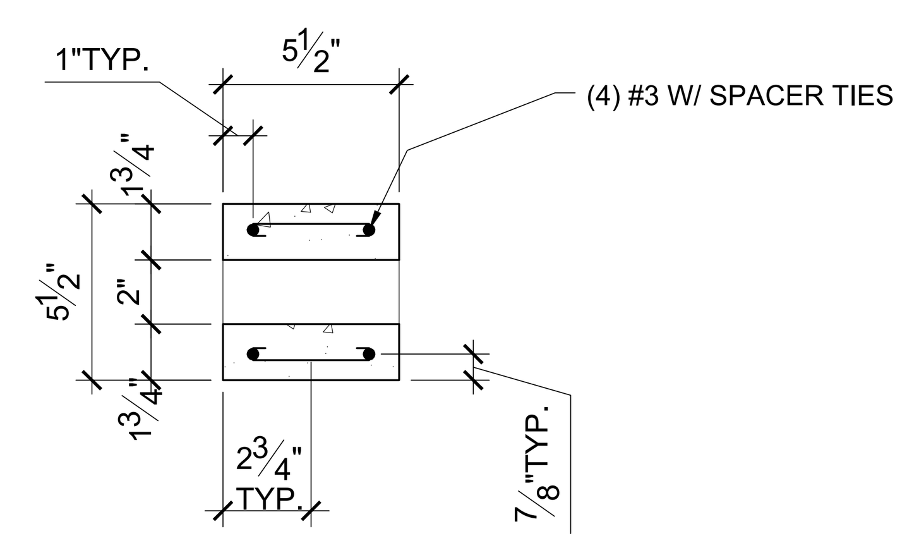
		Bedrock			Gravel			Sand			Clay			Unknown Fill / Organics
		Friction Angle, ϕ = 40° (min); Cohesion, c = 10,000 psf (min); Bearing = 3000 psf; Total Density γ_t = 130 pcf (min)			Friction Angle, ϕ = 35° (min); Cohesion, c = 0 psf (min); Bearing = 2000 psf; Total Density γ_t = 120 pcf (min)			Friction Angle, ϕ = 30° (min); Cohesion, c = 0 psf (min); Bearing = 2000 psf; Total Density γ_t = 115 pcf (min)			Friction Angle, ϕ = 0° (min); Cohesion, c = 1000 psf (min); Bearing = 1500 psf; Total Density γ_t = 110 pcf (min)			Poorly-Characterized
Exposure	Wind Speed (mph)	Pier Diameter (in)	Pier Depth (in)	Pier Steel	Pier Diameter (in)	Pier Depth (in)	Pier Steel	Pier Diameter (in)	Pier Depth (in)	Pier Steel	Pier Diameter (in)	Pier Depth (in)	Pier Steel	
B	110	12	30	NIL	12	36	NIL	18	36	NIL	18	30	NIL	REQUIRES SITE SPECIFIC ENGINEERED FOUNDATION
	130	12	30	NIL	12	36	NIL	18	36	NIL	18	30	NIL	
	140	12	30	NIL	12	36	NIL	18	36	NIL	18	30	NIL	
C	110	12	30	NIL	12	36	NIL	18	36	NIL	18	30	NIL	
	130	12	30	NIL	12	36	NIL	18	36	NIL	18	30	NIL	
	140	12	30	NIL	12	36	NIL	18	36	NIL	18	30	NIL	

Note: Foundation pier minimum depth shall exceed depth required locally for frost protection.

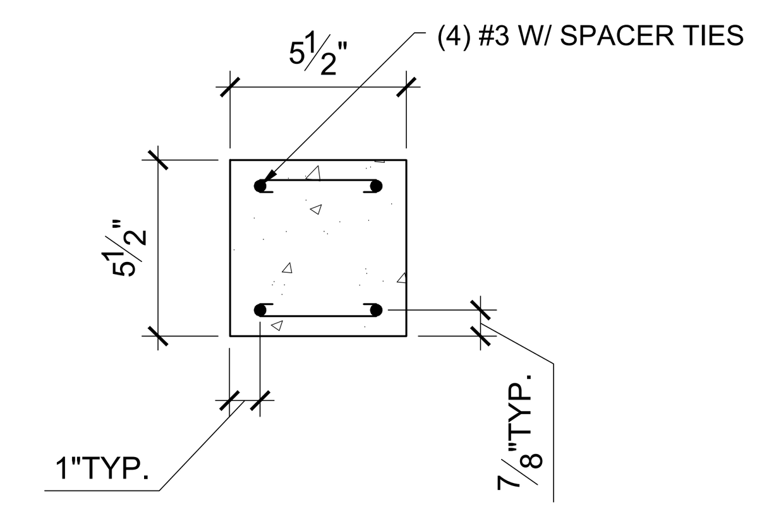
SPLIT RAIL FENCE W/ 2 RAILS MIN. FOUNDATION SIZES

		Bedrock			Gravel			Sand			Clay			Unknown Fill / Organics
		Friction Angle, ϕ = 40° (min); Cohesion, c = 10,000 psf (min); Bearing = 3000 psf; Total Density γ_t = 130 pcf (min)			Friction Angle, ϕ = 35° (min); Cohesion, c = 0 psf (min); Bearing = 2000 psf; Total Density γ_t = 120 pcf (min)			Friction Angle, ϕ = 30° (min); Cohesion, c = 0 psf (min); Bearing = 2000 psf; Total Density γ_t = 115 pcf (min)			Friction Angle, ϕ = 0° (min); Cohesion, c = 1000 psf (min); Bearing = 1500 psf; Total Density γ_t = 110 pcf (min)			Poorly-Characterized
Exposure	Wind Speed (mph)	Pier Diameter (in)	Pier Depth (in)	Pier Steel	Pier Diameter (in)	Pier Depth (in)	Pier Steel	Pier Diameter (in)	Pier Depth (in)	Pier Steel	Pier Diameter (in)	Pier Depth (in)	Pier Steel	
B	110	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	REQUIRES SITE SPECIFIC ENGINEERED FOUNDATION
	130	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	
	140	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	
C	110	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	
	130	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	
	140	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	

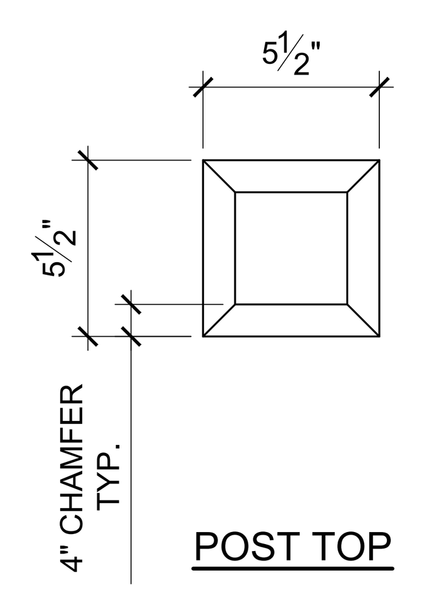
Note: Foundation pier minimum depth shall exceed depth required locally for frost protection.



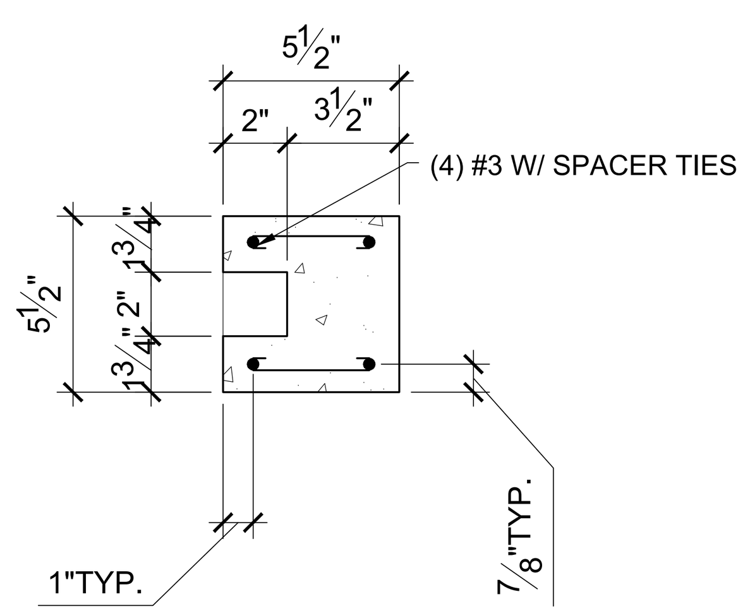
LINE POST @ RAIL SLOT



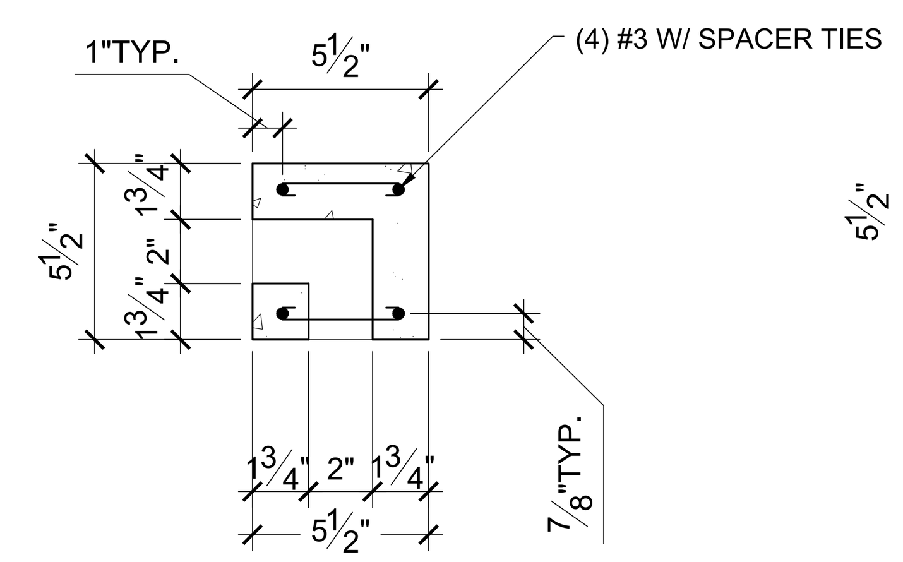
TYPICAL POST



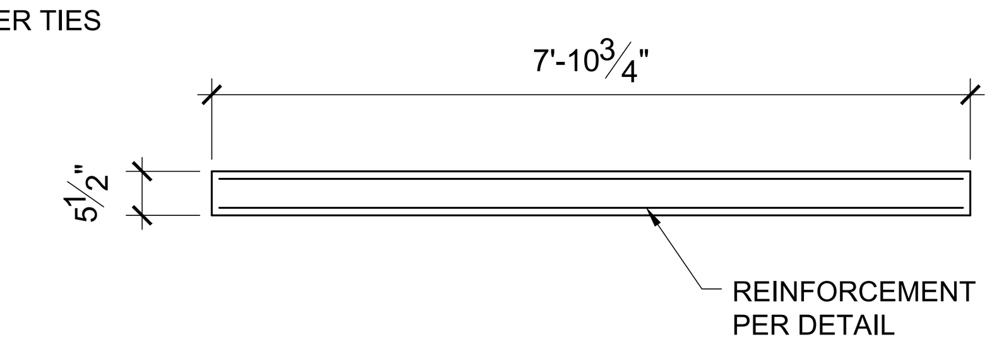
POST TOP



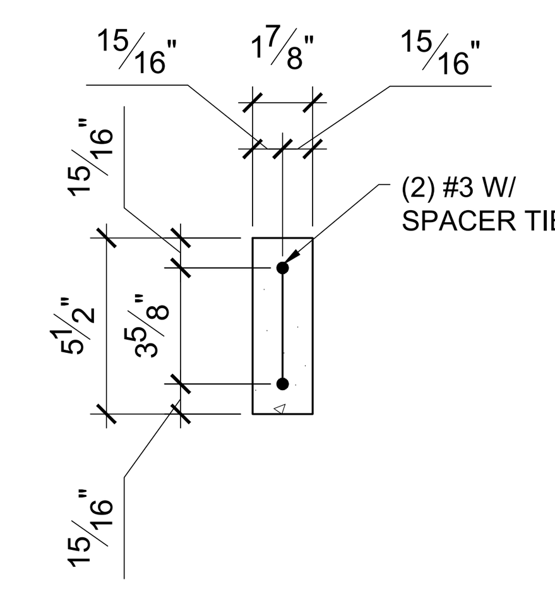
END POST @ RAIL SLOT



CORNER POST @ RAIL SLOT

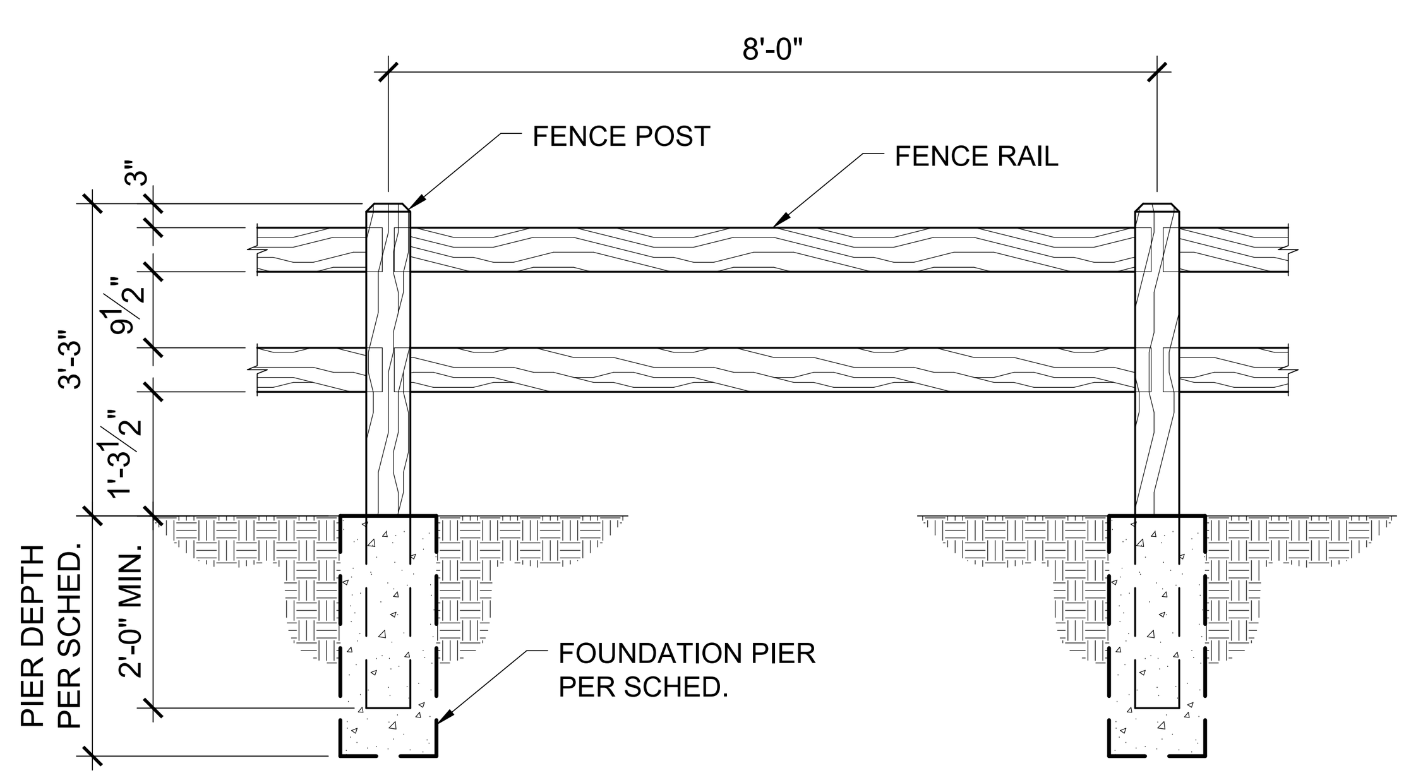


TYPICAL FENCE RAIL

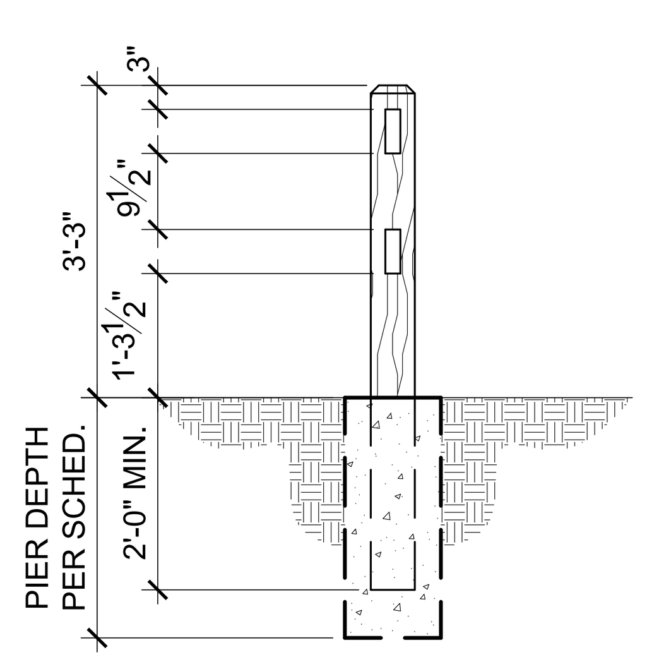


TYPICAL RAIL

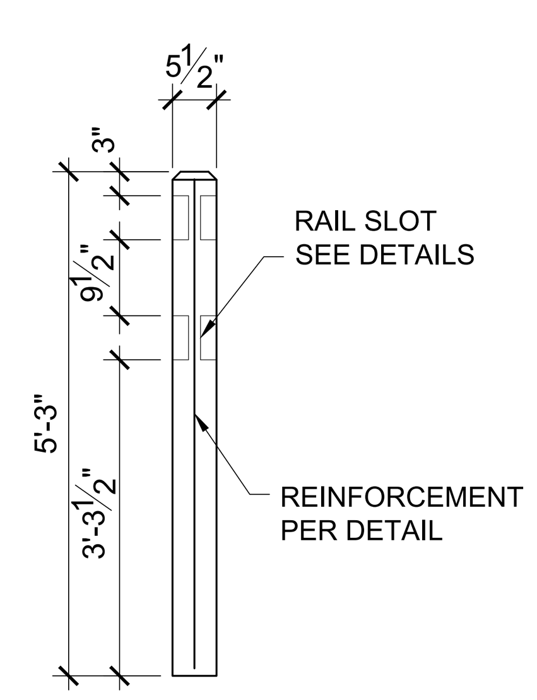
2-RAIL FENCE SYSTEM



(2 RAIL) SPLIT RAIL FENCE
ELEVATION

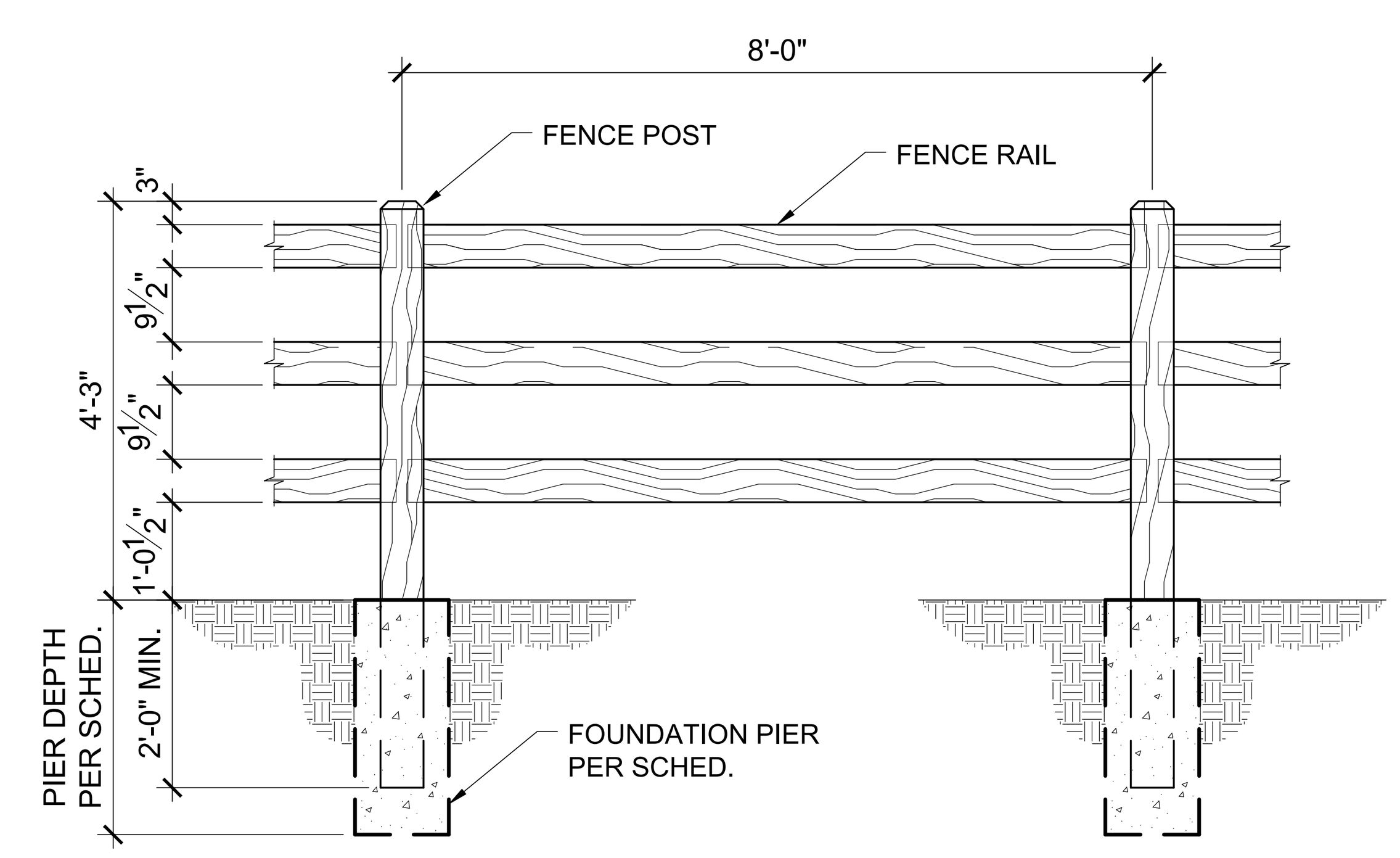


(2 RAIL) SPLIT RAIL FENCE
ELEVATION

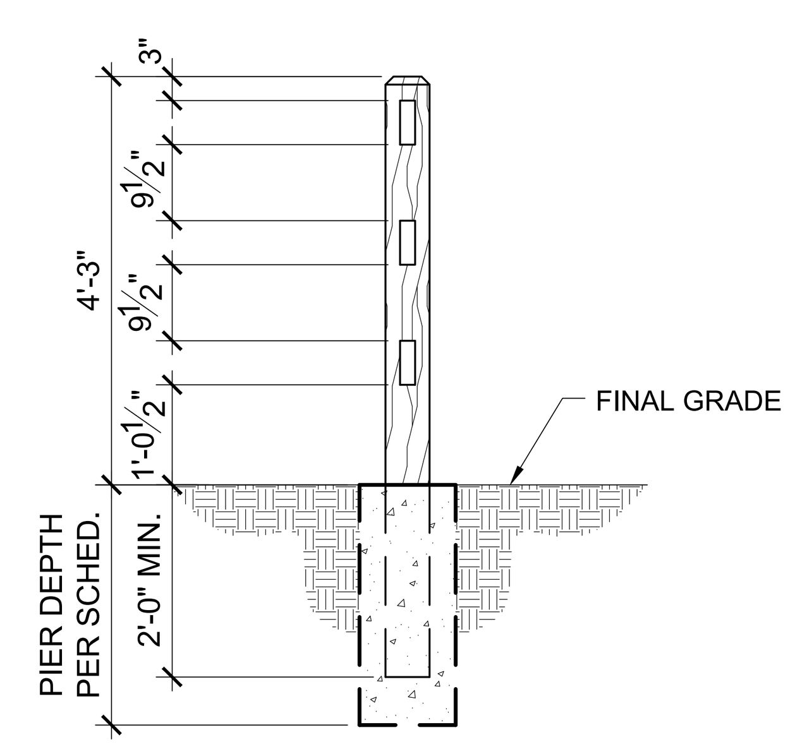


(2 RAIL) POST

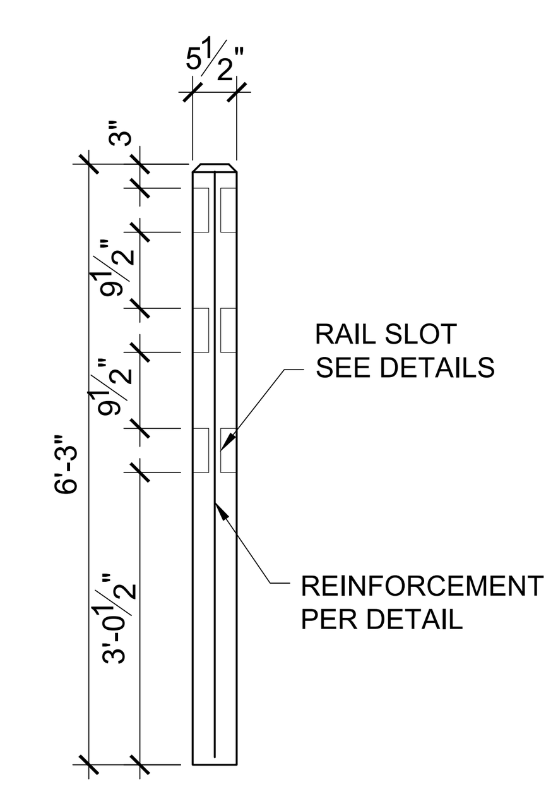
3-RAIL FENCE SYSTEM



(3 RAIL) SPLIT RAIL FENCE
ELEVATION



(3 RAIL) SPLIT RAIL FENCE
ELEVATION



(3 RAIL) POST

SPLIT-RAIL FENCE SYSTEM

SPECIFICATION DATA

1. PRODUCT NAMES:
SPLIT RAIL FENCE SYSTEM

2. MANUFACTURER:
SIGNATURE STONE, LLC.
211 30TH STREET
GREELEY, CO 80631

3. PRODUCTS DESCRIPTION:
PRODUCTS ARE INTENDED FOR RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL EXTERIOR FENCING, SCREENING WALLS AND NOISE BARRIERS.

4. COMPOSITION AND MATERIALS:
A MIX OF HIGH STRENGTH PORTLAND CEMENT CONCRETE W/ FIBER MESH REINFORCING, MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM-C150, NATURAL AGGREGATES, AND IRON OXIDE COLORS PLACED AND CAST WITHIN FACTORY MOLDS. FILLED MOLDS ARE VIBRATED AFTER SETUP OF MIX, CURED, AND PACKAGED FOR SHIPMENT.

5. SIZES:
FENCE POSTS ARE TYPICALLY PLACED AT 96.0 in. CENTERS WITH THE FENCE RAILS BEING 5.5 in. IN HEIGHT AND APPROXIMATELY 1.875 in. IN THICKNESS. HEIGHT OF THE FENCE SYSTEM SHOULD NOT EXCEED THAT SHOWN. CONTACT MANUFACTURER FOR ENGINEERING NOT INCLUDED IN THESE SPECIFICATIONS.

6. LIMITATIONS:
FENCE SYSTEM IS DESIGNED FOR TYPICAL CONDITIONS AND APPLICATIONS. SIGNATURE STONE RECOMMENDS FENCE SYSTEM APPLICATION AND FOUNDATION INSTALLATION BE APPROVED BY LOCAL PROFESSIONAL ENGINEER ON EVERY PROJECT. FENCE SYSTEM SHOULD NOT BE USED AS AN EARTH RETENTION SYSTEM UNLESS MODIFICATIONS IN DESIGN AND CONSTRUCTION ARE DONE BY A REGISTERED PROFESSIONAL ENGINEER AND APPROVED BY THE MANUFACTURER.

7. TECHNICAL DATA FOR CONCRETE MIX:
PRE-CAST FENCE POSTS AND PANELS:
MIN. 28 DAY COMPRESSIVE STRENGTH = 5,000 psi
ACI EXPOSURE CLASS F3: 6.0% (±1.0%) AIR ENTRAINMENT

CAST-IN-PLACE FOUNDATION PIERS:
MIN. 28 DAY COMPRESSIVE STRENGTH = 3,000 psi

8. BUILDING CODES:
DESIGN OF FENCE POSTS, PANELS AND FOUNDATION PIERS IS BASED ON 2018 VERSION OF IBC, ACI, AND AASHTO CODES.

9. INSTALLATION:
THE POSTS ARE POSITIONED AND WET-SET INTO A DRILLED CONCRETE FOUNDATION PIER. THE PIER SIZE, DEPTH AND REINFORCEMENT SHALL BE AS SPECIFIED BY LOCAL ENGINEER OR AS SHOWN ON SCHEDULE. AFTER POSTS AND RAILS ARE ACCURATELY SPACED, PLUMBED AND LEVELED, THEY ARE BRACED UNTIL PIER CONCRETE HAS OBTAINED ITS INITIAL STRENGTH.

10. DRAINAGE:
THE LONG-TERM PERFORMANCE OF ALL FOUNDATIONS, INCLUDING THE SIGNATURE STONE FENCE FOUNDATION, DEPENDS ON PROPER GRADING. POSITIVE DRAINAGE AWAY FROM THE FENCE FOUNDATIONS TO THE EXTENT POSSIBLE IS RECOMMENDED AT ALL TIMES. PANELS CAN BE ARRANGED TO ALLOW FOR CONTINUOUS OR INTERMITTENT DRAINAGE BENEATH THE FENCE WHERE NECESSARY.

GENERAL NOTES:

1. ALL CONSTRUCTION TO MEET LOCAL CODES AND AMENDMENTS
2. ALL CONCRETE FOOTINGS SHALL USE TYPE I/II CEMENT.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60 (GRADE 40 FOR #3 REBAR ONLY).
4. ALL PIER FOUNDATIONS ARE TO BE LOCATED IN UNDISTURBED SOIL, UNLESS APPROVED BY A GEOTECHNICAL ENGINEER.
5. FENCE WALL PANEL STANDARD DESIGN IS FOR A WIND LOAD OF 140 MPH (ULTIMATE). WIND PRESSURE IS BASED ON IBC WIND PRESSURES.
6. APPROVAL OF THE ENGINEER IS REQUIRED WHEN FENCE IS USED UNDER A CONDITION WHERE THE SPECIFICATIONS ARE DIFFERENT THAN SHOWN.
7. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AT THE JOB SITE.
8. THE POSTS, PANELS AND CAPS ARE MADE OF CONCRETE AND ARE MANUFACTURED BY A NATIONAL READY MIX CONCRETE ASSOCIATION APPROVED MANUFACTURER.
9. A FULLY DIMENSIONED PLOT PLAN IS REQUIRED FOR A BUILDING PERMIT AND MUST BE PROVIDED WITH EACH STANDARD PLAN.
10. LOCATION AND FENCE HEIGHT SHALL COMPLY WITH CITY/COUNTY FENCING CODES AND CURRENT CONDITIONS.
11. ALL WORK SHALL COMPLY WITH CITY/COUNTY GRADING ORDINANCES.
12. EPOXY SHALL BE SIKAFLEX-1a (175 PSI TENSILE STRENGTH) OR APPROVED EQUIVALENT. CONTRACTOR SHALL USE EPOXY ON ALL ADJOINING SURFACES OF COLUMN SEGMENTS.

NOTE: ALL DIMENSIONS SHOWN ON THIS SHEET ARE FOR INFORMATION PURPOSES ONLY. ACTUAL DIMENSIONS MAY VARY DUE TO MANUFACTURING AND MOLDING TOLERANCES.

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F: 970-206-9441
www.ctlt.com
CTL | THOMPSON INCORPORATED
400 North Link Lane
Fort Collins, CO 80524

12/27/2022

2-3 RAIL FENCE

NO. | DATE | REVISION/ISSUE
1
2
3

CLIENT:
SIGNATURE STONE
211 30TH STREET
GREELEY, COLORADO, 80631
contact: ERIC BOEHNER
(970) 351-0270

TDM
DES
FC07305.000
11/22/2022
PER PLAN
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