

Job Name: 25-3470P8 CCHS Precast Building
Job Location: 5185 Fort Campbell BLVD
Contractor: Christian County Board of Education C/O A&K Construction

Plant: Beaver Dam
9/10/2026 9:57:17 AM

Tech: J. Coppage
PC: E. Bradley



Structure ID: FP-05 - Floor Panel 5

P1 CVBS

FLOOR - EASI-SET BUILDING - FP-05 - 116" x 288"

WORLDWIDE EASI-SET

5119 Collett Rd. • Midland, VA 22728 • info@EasiSet.com • 800-547-4045 • Fax 540-439-2541

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DATE

DESCRIPTION

IN. REV.

CONTRACTOR: CHRISTIAN COUNTY SCHOOLS

HOKKINSVILLE, KY 42240

5185 FORT CAMPBELL BOULEVARD

PROJECT: 24'x50' LOCKER ROOM BUILDING

SCALE: 1/8" = 1'-0"

DRAWN BY: JLC

CHECK BY: JLC

ISSUE DATE: 08/18/26

PIECES MARK: FP-05

CONCRETE INSTRUCTIONS

CONCRETE - GRAY

CONCRETE - MAX 1

CONCRETE - MAX 2

SAF. SOUND

VOLUME = 3.57 C.Y.

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TOTALS

WEIGHT: 14,490 LBS.

FINISHING INSTRUCTIONS

M = MAG FLOAT FINISH

F = FORM FINISH

L = 9'-8 3/8"

M = 24'-0 3/4"

D = 5"

CONCRETE NUMBERS

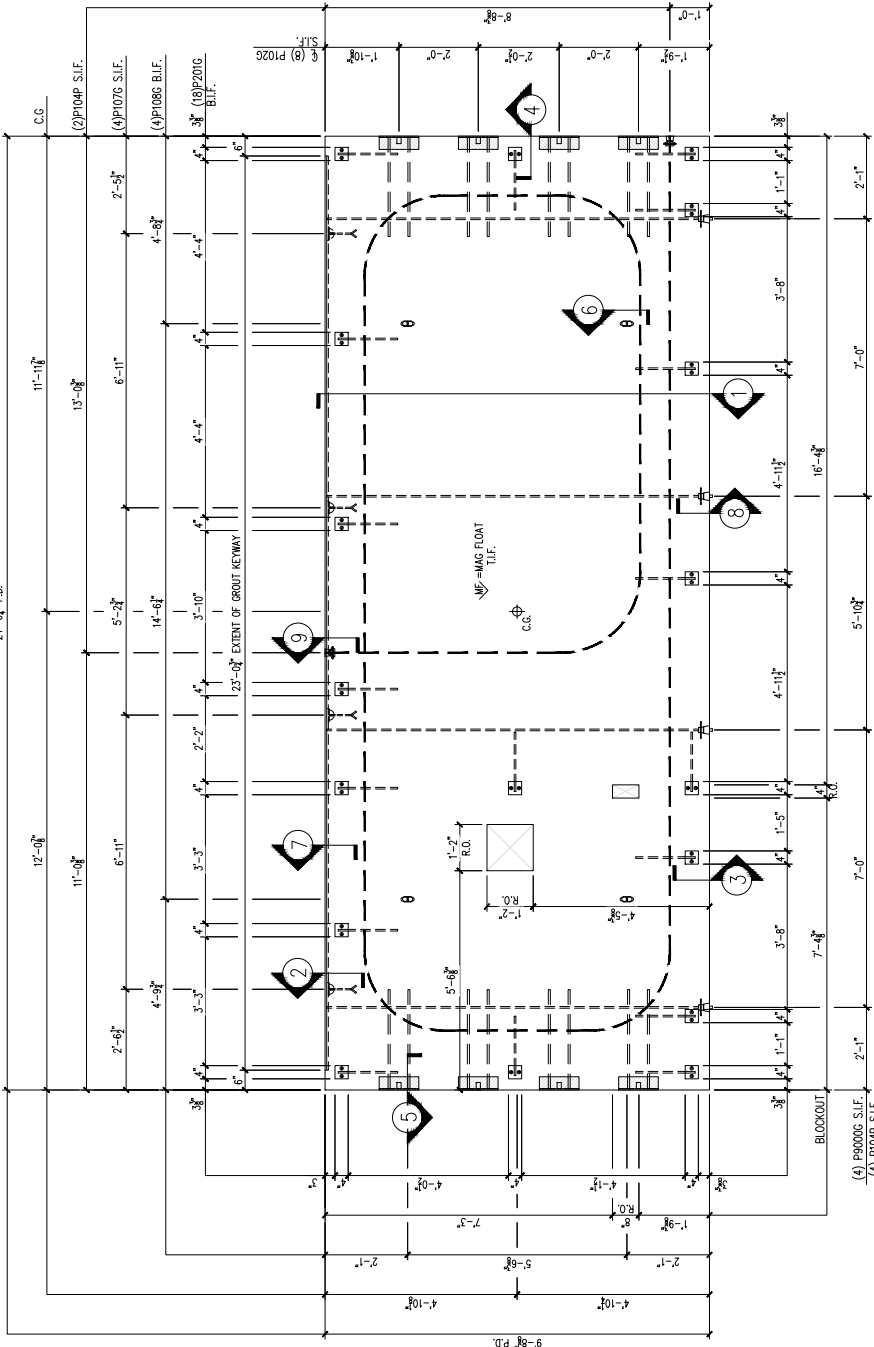
PRODUCT: LOCKER ROOM

LOCKER ROOM

SHEET NUMBER: 1 OF 2

SALES ORDER NUMBER

NUMBER REQUIRED: 1



MESSAGE CENTER

1. REFER TO DETAILS FOR REINFORCEMENT/CABLE PLACEMENT

2. SHOP TICKET SHOWS INSIDE SURFACE OF FLOOR CAST FACE DOWN

CHECKED BY:

DATE:

APPROVED BY:

DATE:

1



7

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PT Check for FP-05 (PCI MNL - 116)

Material Data

(7) Wire lo-lax Strand - ASTM A416

Φ_{ps} 0.500 in,

A= 0.153 in²

E= 28500000 psi

fpu= 270 ksi

Strand Length 918 in

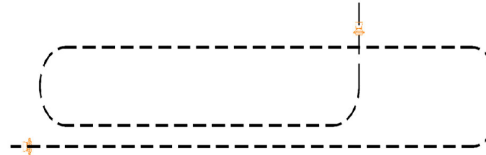
Assume (Info supplied by strand manufacturer)

k= 0.0007 Wobble Friction Coeff.

μ = 0.05 Curvature friction coeff. (Initial tension of 3,000 lbs)

Strand is to be stressed 70% of ultimate

= 28917 lbs



Cable Configuration

Adjustments to tensioning

1) Dead end anchor wedge seating loss

~ Expected to be 1/8 in

2) Live end anchor wedge seating loss

~ Expected to be 1/8 in, recommend over pull 1/8"

3) Elastic Shortening

Neglect for this pnl

4) Friction Loss

Additional force to overcome frictional forces between strand and sheathing

Tensioning Computations

Basic Elongation = $\frac{\text{(Force required beyond initial tension)} \text{ (Length of strand between anchorages)}}{\text{(Area of strand) (Modulus of Elasticity)}}$

= 5.46 in

Adjustments

a) Dead end anchor wedge seating: Add 1/8" to elong. No force adjustment req'd

Add 1/8 in

b) Live end seating: over pull by 1/8"

1/8 in

Force adjustment $t = \frac{594 \text{ lbs}}{\text{lbs}} \quad \alpha = \text{curvature} = \pi(2.5) \quad 7.85 \text{ radians}$

c) Friction losses $\frac{PD}{PS} = e^{-(kL + \mu\alpha)}$

= 0.640

Avg. strand force = 0.820 18.00% Loss

Recommend sequential jacking at both ends of the tendon be used to reduce the overstressing the strand at the live end

Friction loss at mid-point of tendon

$\frac{PD}{PS} = e^{\frac{-(kL + \mu\alpha)}{2}}$

= 0.800

Avg. strand force over

half of tendon = 0.900 10.00% Loss

Total force and elongation at live end must be increased to compensate for friction losses

Elong. Adjustment = 0.546 in

Force Adjustment = 2891 lbs

Total Force Required = 32402 lbs **OK**

Elongation Summary:

Gross Theoretical Elongation			
Basic Elongation	5.46 in		
Dead End Seating Loss	0.125 in		
Live End Seating Loss	0.125 in		
Friction Losses	0.546 in		
Total Elongation	6.25 in		
Rounded	6 4/16 in		
Tolerance limits	-7.0%	5.81 in	5 13/16 in
	+7.0%	6.69 in	6 11/16 in