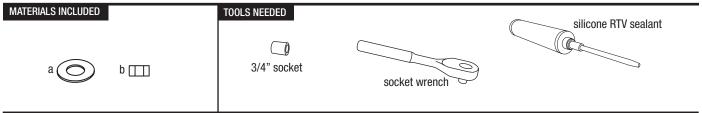
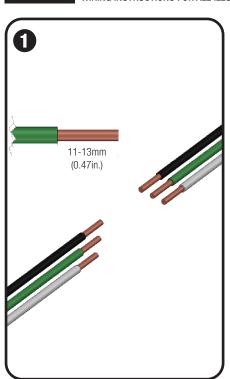
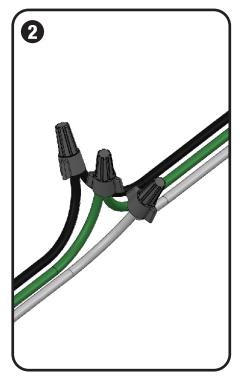
# **LIGHT COLUMN BOLLARD**

SECURITY BOLLARD WIRING & INSTALLATION INSTRUCTIONS



STEP BY STEP WIRING INSTRUCTIONS FOR ALL ILLUMINATED LIGHT COLUMN BOLLARDS WITH EMBEDDED SECURITY CORES





## NOTES:

- Installation should be performed only by qualified individuals.
- Wire used should be 22-14 AWG copper conductors.
- Caution: Installation of a surge protector as part of each unit's wiring is recommended.
   Light fixture rated for 120-277 VAC power.

## Locate and prepare wires

- Before proceeding with wiring of luminary, check to ensure that all applicable site wiring and safety codes have been followed.
- Locate wires at base of light fixture.
- Ensure power supply is shut off and circuit being used is isolated.
- Prepare wiring from site junction box and bollard by stripping and removing 11-13mm (.47") of insulation.

## Connect wires

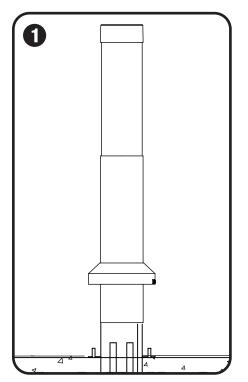
- Insert ground (green), neutral (white), and positive (black) wires into provided wire nuts, being sure to match wire color codes from junction box to bollard.
- Tighten wire nuts until exposed wire ends are below bottom of wire nut.
- Inspect all wiring and connections before.

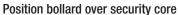
FORMS+SURFACES®

# **LIGHT COLUMN BOLLARD**

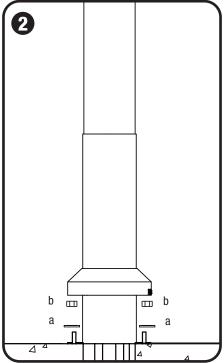
SECURITY BOLLARD WIRING & INSTALLATION INSTRUCTIONS

STEP BY STEP INSTALLATION INSTRUCTIONS FOR ALL LIGHT COLUMN BOLLARDS WITH EMBEDDED SECURITY CORES



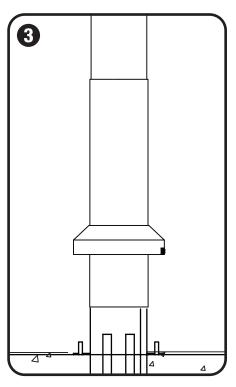


- Inspect security core for moisture. If moisture is present, dry immediately before installing fixture. Do not install fixture unless security core is completely dry.
- Slide bollard over security core so threaded pegs slide through holes in bollard base plate.
- Carefully use masking tape to tape escutcheon cover further up the body until installation is complete.



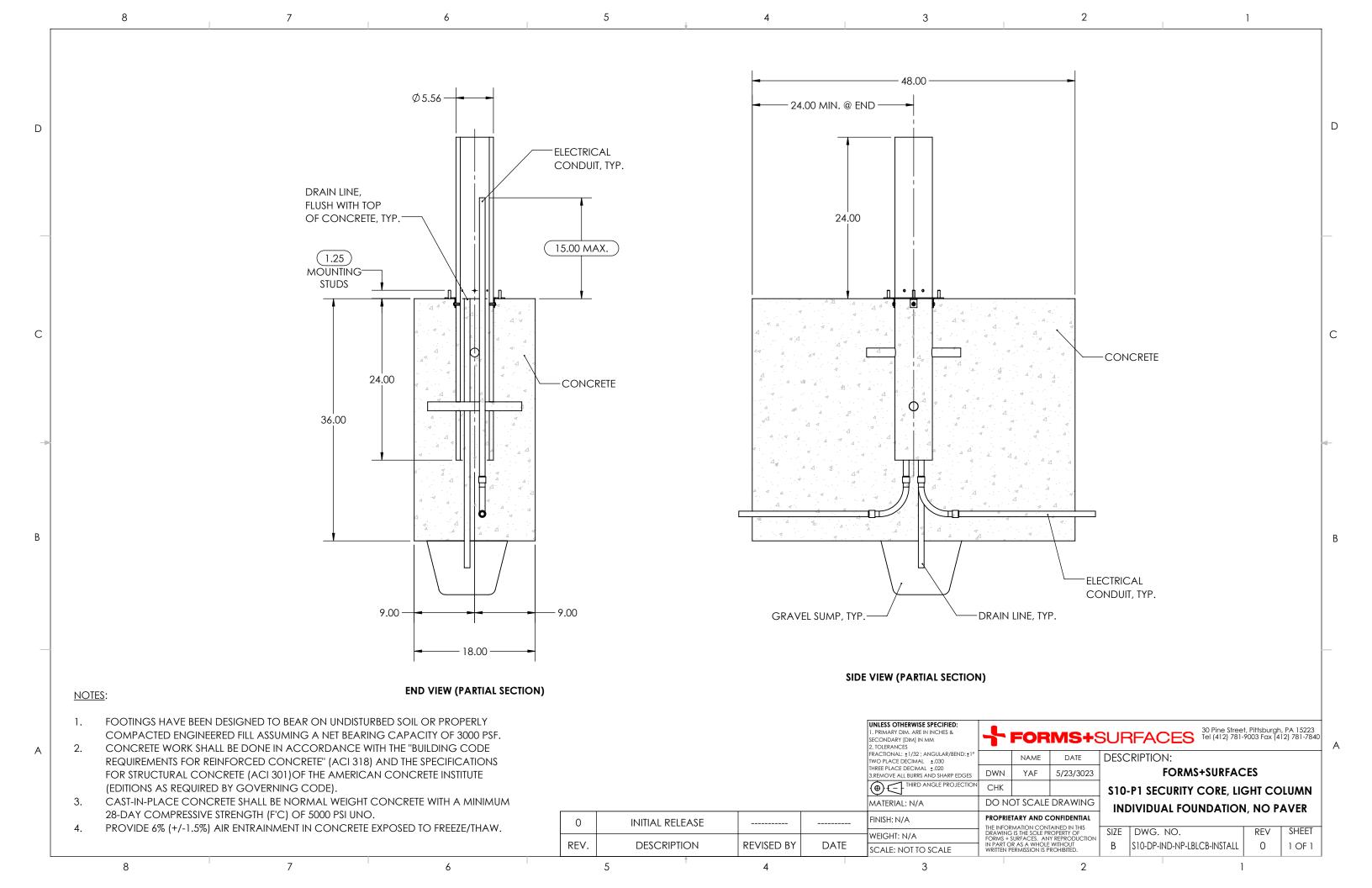
## Attach bollard to security core

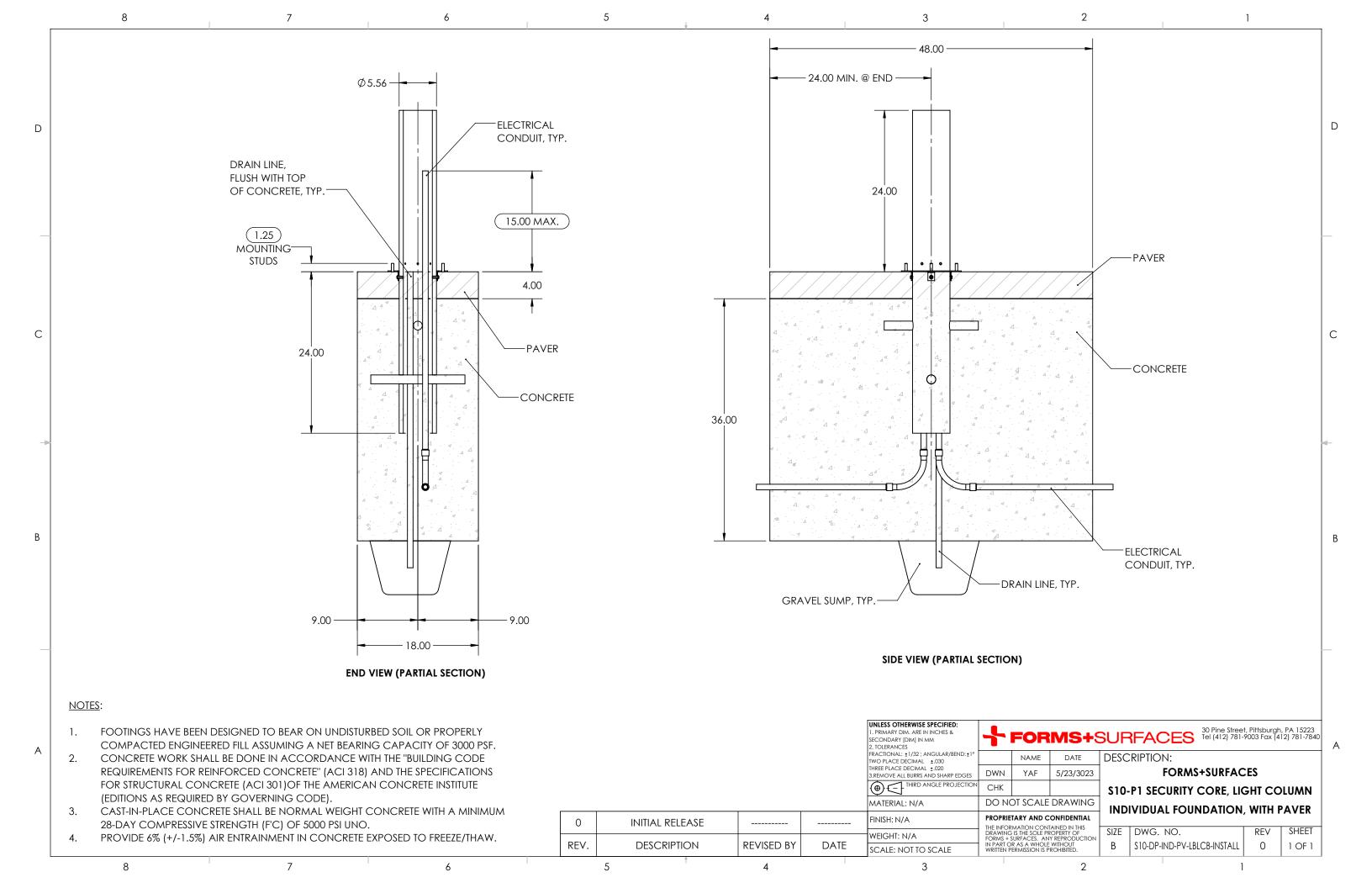
- Slide 1/2" washer (a), then thread 1/2"-13 nut (b) onto each threaded peg.
- Use 3/4" socket and socket wrench to tighten all nuts until snug.

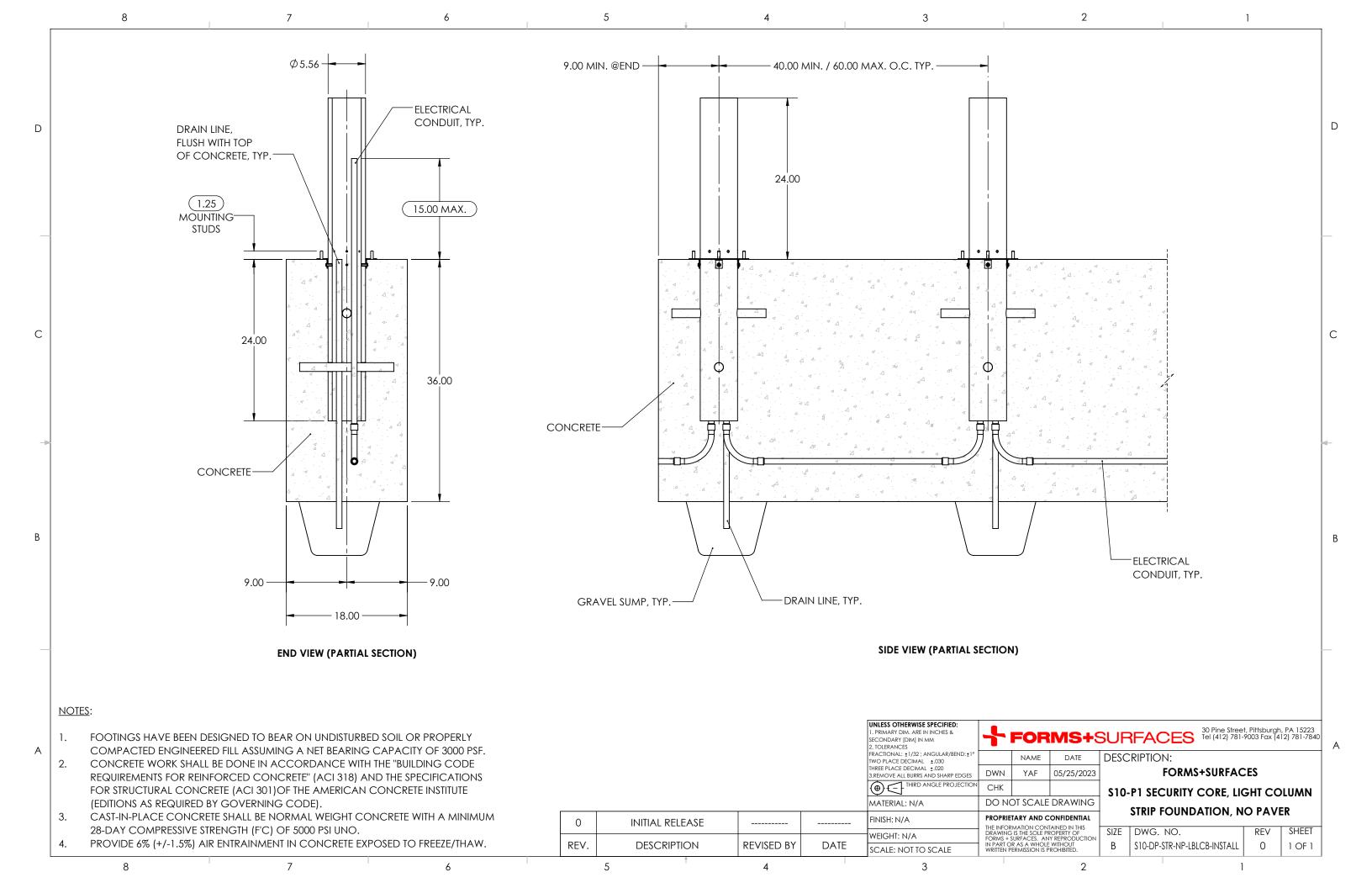


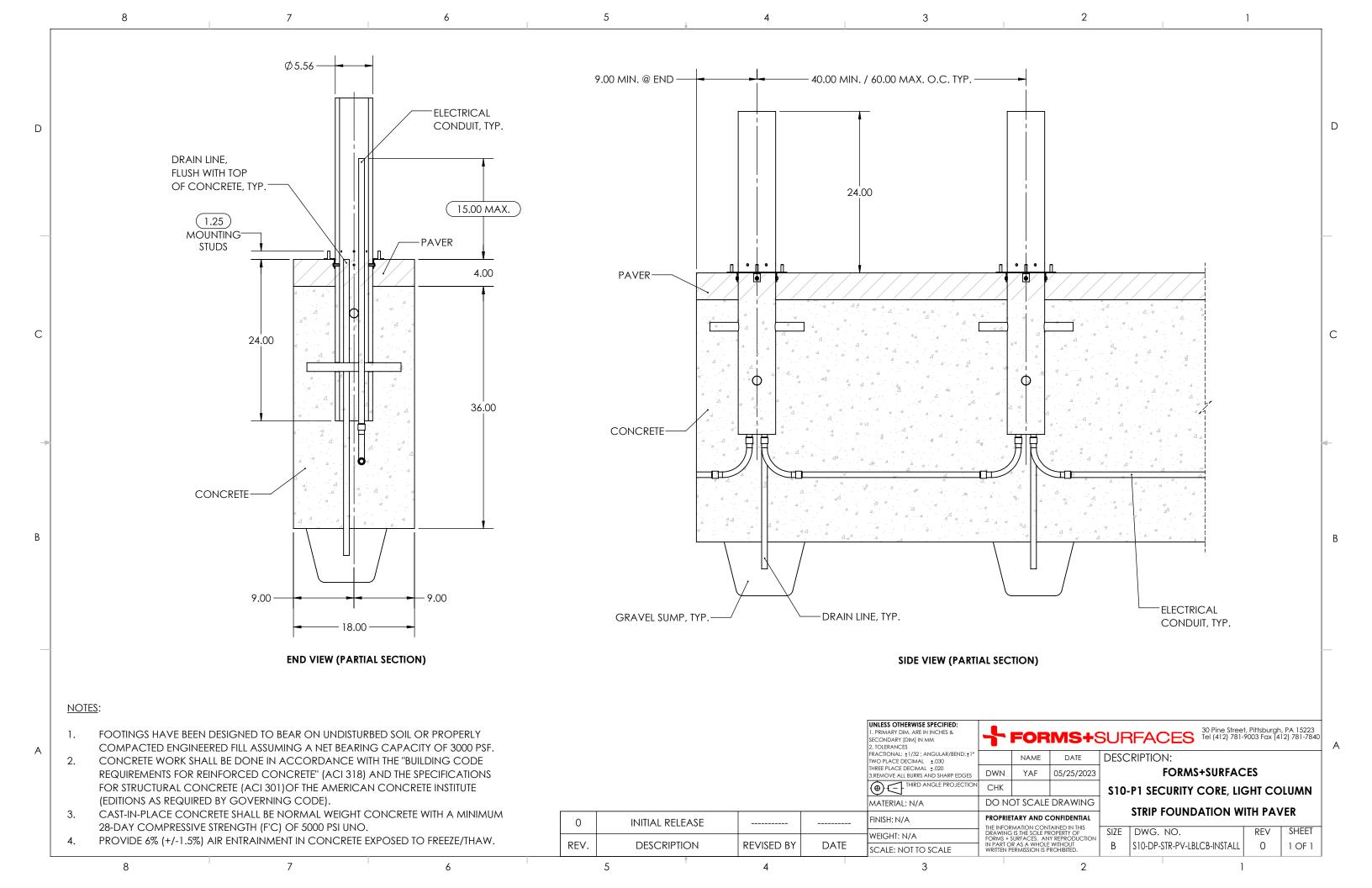
# Apply sealant to permanently attach escutcheon cover (optional) and lower onto base

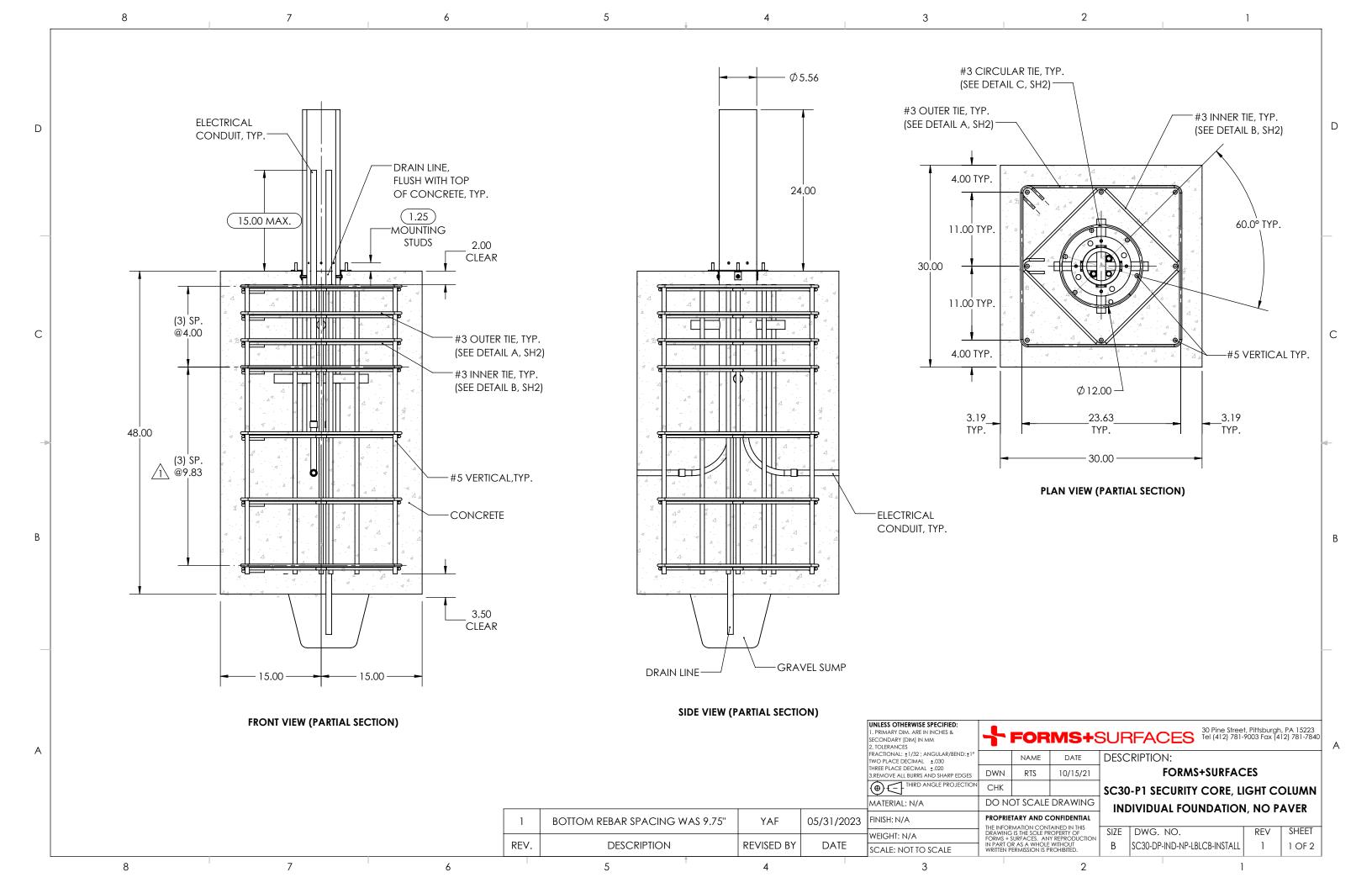
- Apply a thick bead of silicone RTV sealant around the vertical edge of the base plate.
  - NOTE: Leave four 1/2" gaps to allow for water drainage.
- Lower escutcheon cover to ground level and wipe away any excess sealant.







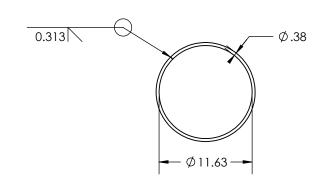




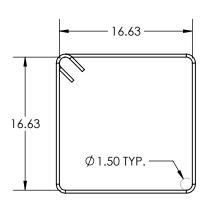
8 7 6 5 4 3 2 1

D

DETAIL A #3 OUTER TIE, TYP.



DETAIL C #3 CIRCULAR TIE, TYP.



DETAIL B #3 INNER TIE, TYP.

REBAR CHART		
BAR SIZE	DIAMETER	
#3	Ø 0.375	
#5	Ø 0.625	

## NOTES:

- . FOOTINGS HAVE BEEN DESIGNED TO BEAR ON UNDISTURBED SOIL OR PROPERLY COMPACTED ENGINEERED FILL ASSUMING A NET BEARING CAPACITY OF 2000 PSF.
- 2. REINFORCED CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND THE SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301) OF THE AMERICAN CONCRETE INSTITUTE (EDITIONS AS REQUIRED BY GOVERNING CODE).

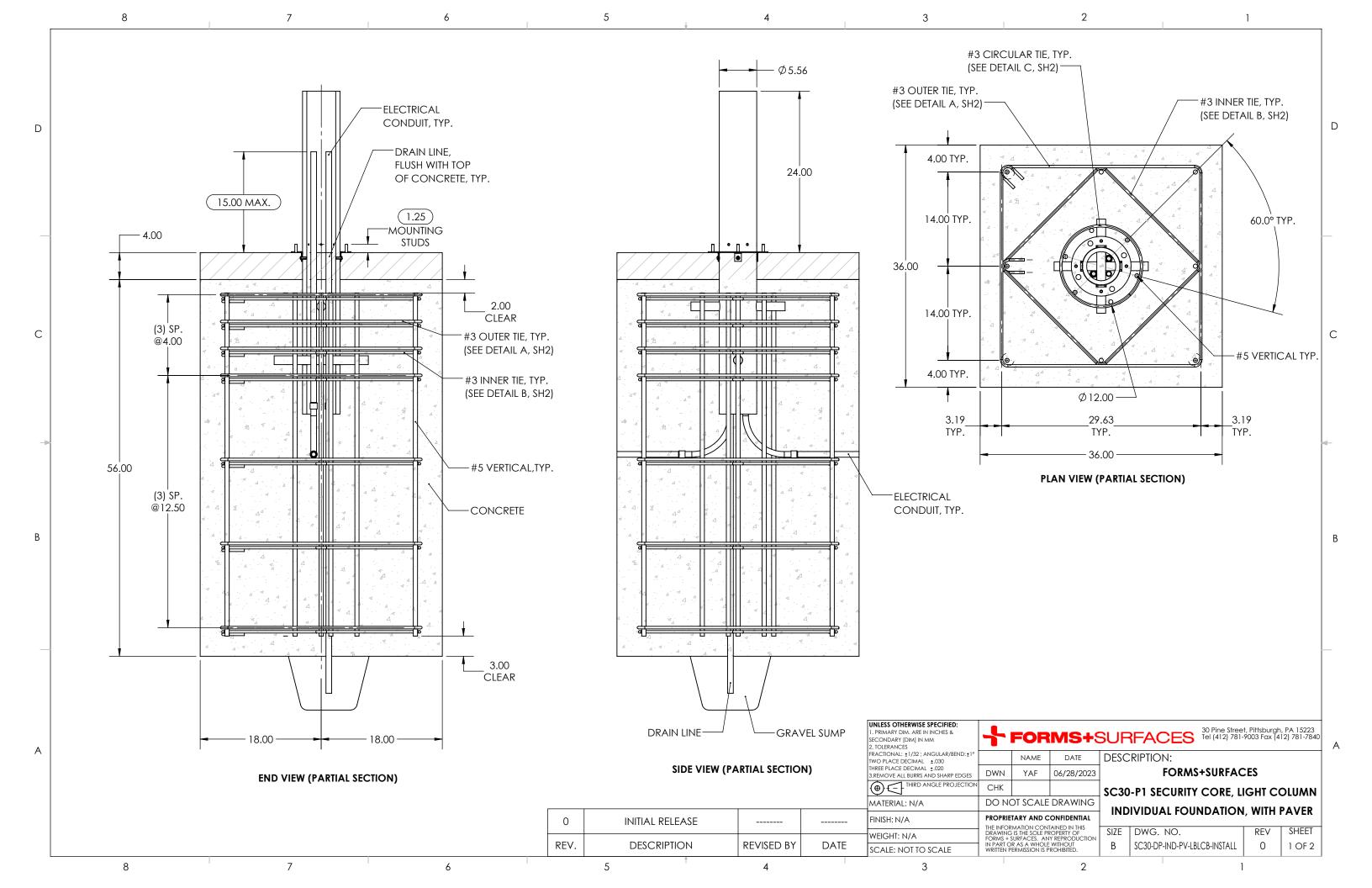
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- 3. CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH (F'C) OF 5000 PSI UNO.
- PROVIDE 6% (+/-1.5%) AIR ENTRAINMENT IN CONCRETE EXPOSED TO FREEZE/THAW.
- 5. DEFORMED BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60; SEE CHART FOR SIZING.
- 6. REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS, STIRRUPS, OR CHAIRS SHALL BE PROVIDED TO FURNISH SUPPORT FOR SPECIFIED BARS.

UNLESS OTHERWISE SPECIFIED:

1. PRIMARY DIM. ARE IN INCHES & FORMS+SURFACES 30 Pine Street, Pittsburgh, PA 15223 Tel (412) 781-9003 Fax (412) 781-7840 SECONDARY [DIM] IN MM 2. TOLERANCES FRACTIONAL: ±1/32; ANGULAR/BEND:±1
TWO PLACE DECIMAL ±.030 DESCRIPTION: NAME DATE THREE PLACE DECIMAL ±.020 **FORMS+SURFACES** DWN RTS 10/15/21 REMOVE ALL BURRS AND SHARP EDGES THIRD ANGLE PROJECTION CHK SC30-P1 SECURITY CORE, LIGHT COLUMN MATERIAL: N/A DO NOT SCALE DRAWING INDIVIDUAL FOUNDATION, NO PAVER PROPRIETARY AND CONFIDENTIAL FINISH: N/A THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FORMS + SURFACES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION IS PROHIBITED. SHEET SIZE DWG. NO. REV WEIGHT: N/A SC30-DP-IND-NP-LBLCB-INSTALL 2 OF 2 SCALE: NOT TO SCALE



NOTES: - 29.25 -CAPACITY OF 2000 PSF. Ø 1.50 TYP. 0.313 GOVERNING CODE). **-** Ø.38 29.25 FREEZE/THAW. SEE CHART FOR SIZING. – Ø11.63 — BE PROVIDED TO FURNISH SUPPORT FOR SPECIFIED BARS. **DETAIL C #3 CIRCULAR TIE, TYP. DETAIL A** #3 OUTER TIE, TYP. REBAR CHART **BAR SIZE** DIAMETER #3 Ø 0.375 #5 Ø 0.625

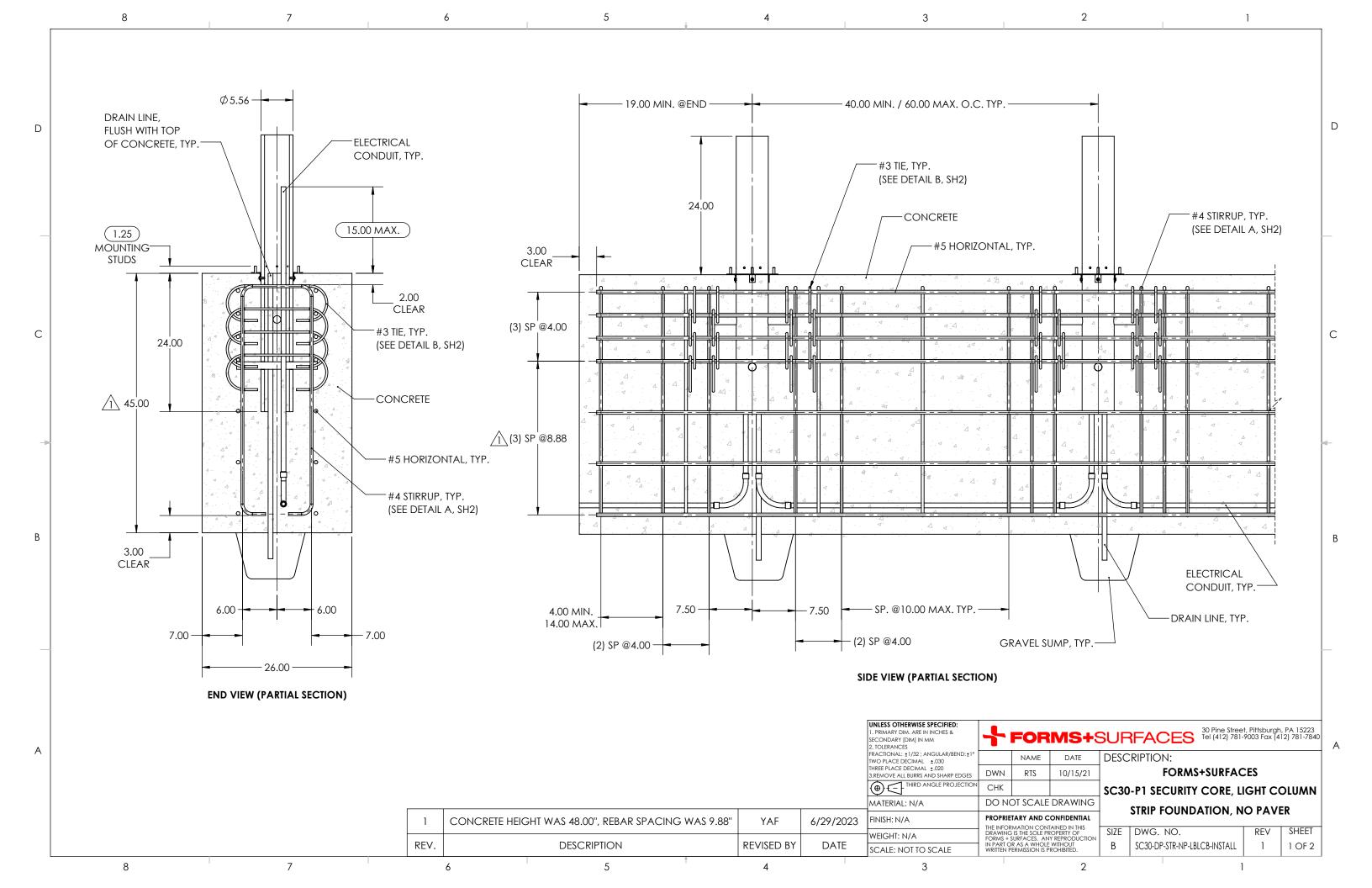
	20.84	
20.84	Ø 1.50 TYP. → Ø .38	
•		
DETAIL B #3 INNER TIE, TYP.		

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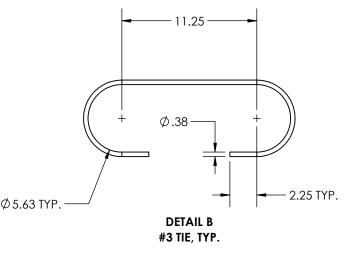
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- PROVIDE 6% (+/-1.5%) AIR ENTRAINMENT IN CONCRETE EXPOSED TO
- DEFORMED BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60;
- REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS, STIRRUPS, OR CHAIRS SHALL

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FRACTIONAL: ±1/32; ANGULAR/BEND:±1° TWO PLACE DECIMAL ±.030		NAME	DATE	DESC	RIPTION:		
THREE PLACE DECIMAL ±.020  3.REMOVE ALL BURRS AND SHARP EDGES	DWN	YAF	06/28/2023		FORMS+SURFAC	CES	
THIRD ANGLE PROJECTION	CHK			SC30	-P1 SECURITY CORE, L	GHT CO	OLUMN
MATERIAL: N/A	DO NOT SCALE DRAWING			IVIDUAL FOUNDATION			
FINISH: N/A	PROPRIETARY AND CONFIDENTIAL				,	, <b>-</b>	
WEIGHT: N/A	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FORMS + SURFACES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION IS PROHIBITED.		SIZE	DWG. NO.	REV	SHEET	
SCALE: NOT TO SCALE			В	SC30-DP-IND-PV-LBLCB-INSTALL	0	2 OF 2	



8 D Ø 3.00 TYP. Ø 5.63 TYP. 1 39.00 Ø.50 -3.75 3.75 **DETAIL A** #4 STIRRUP, TYP.



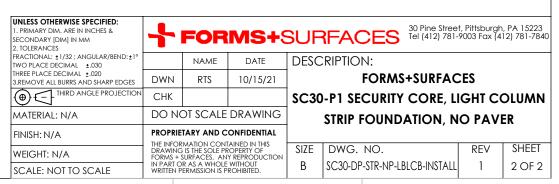
REBAR CHART		
BAR SIZE	DIAMETER	
#3	Ø 0.375	
#4	Ø 0.500	
#5	Ø 0.625	

## NOTES:

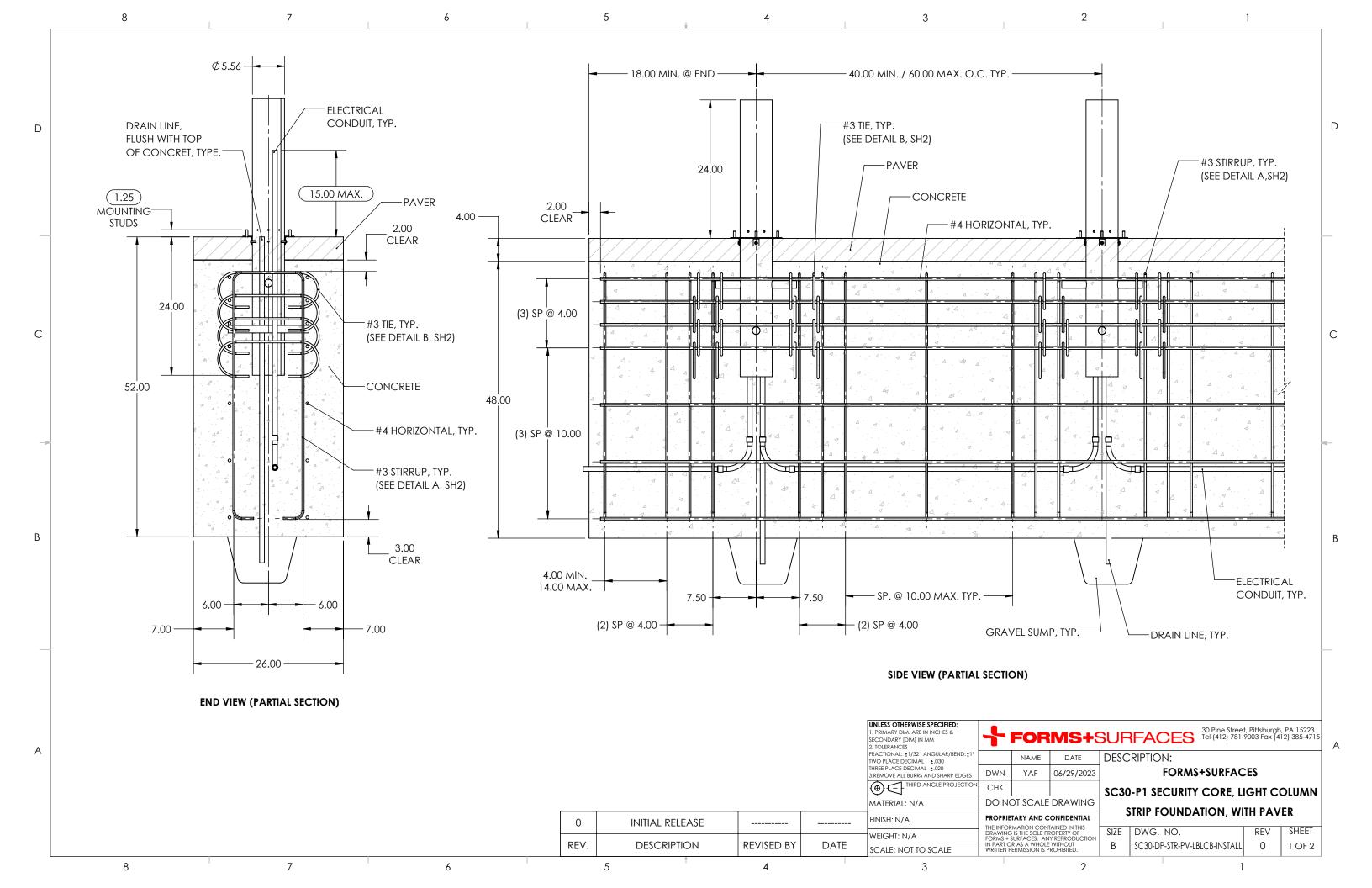
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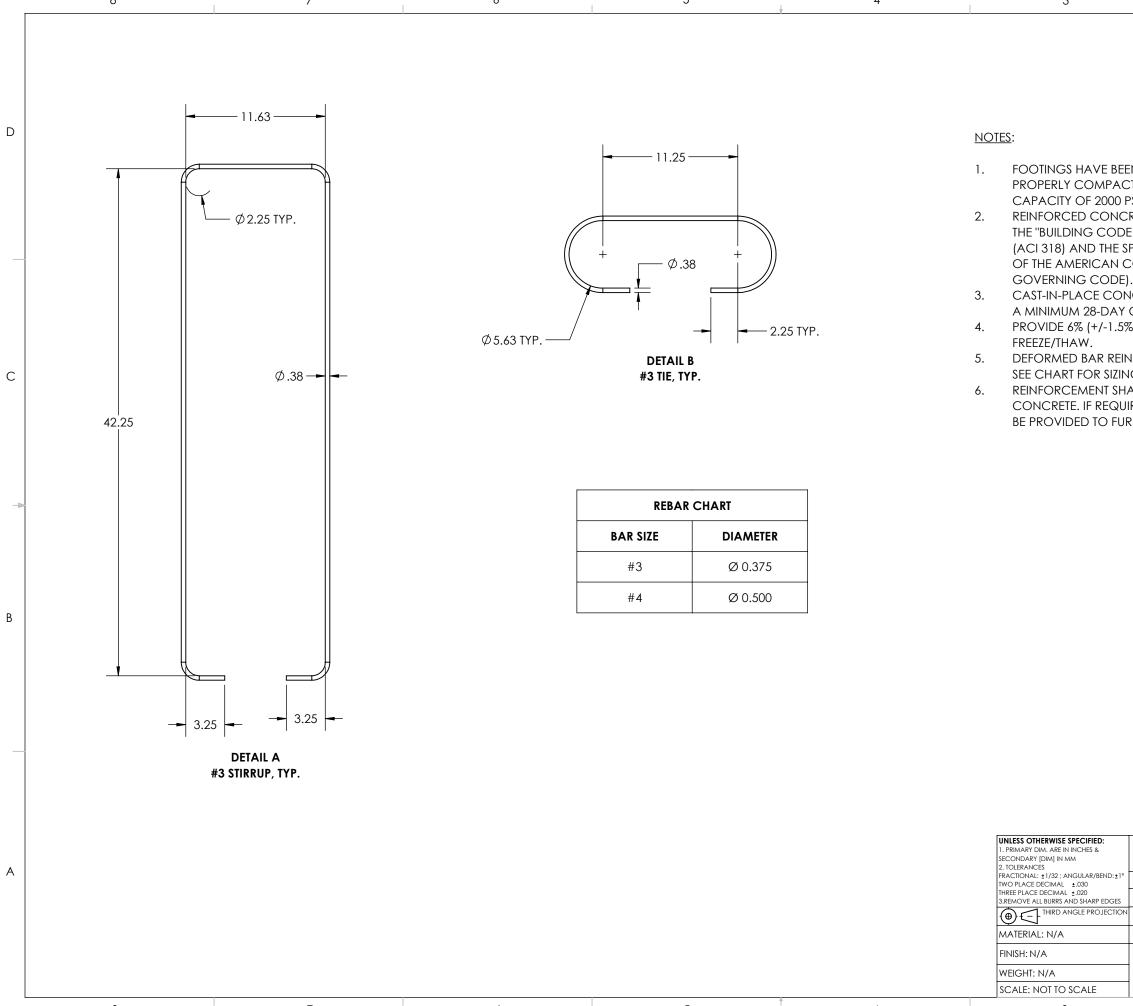
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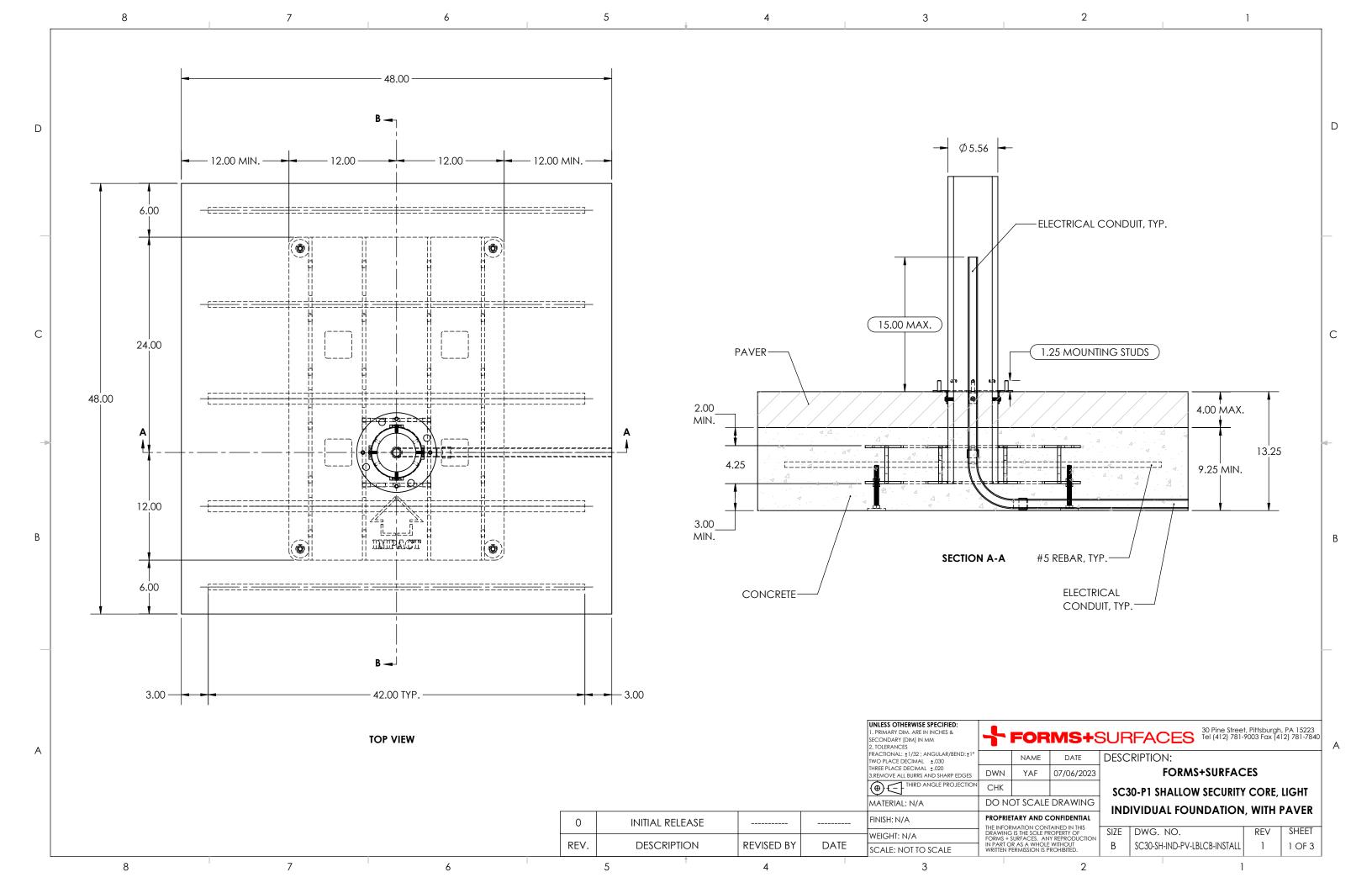
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FORMS+SURFACES 30 Pine Street, Pittsburgh, PA 15223 Tel (412) 781-9003 Fax (412) 781-7840 FRACTIONAL: ±1/32; ANGULAR/BEND:±1
TWO PLACE DECIMAL ±.030 DESCRIPTION: NAME DATE THREE PLACE DECIMAL ±.020 3.REMOVE ALL BURRS AND SHARP EDGES **FORMS+SURFACES** DWN YAF 06/29/2023 THIRD ANGLE PROJECTION **SC30-P1 SECURITY CORE, LIGHT COLUMN** DO NOT SCALE DRAWING STRIP FOUNDATION, WITH PAVER PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FORMS + SURFACES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION IS PROHIBITED. SHEET SIZE DWG. NO. REV SC30-DP-STR-PV-LBLCB-INSTALL 0 2 OF 2



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**SECTION B-B** 

## NOTES:

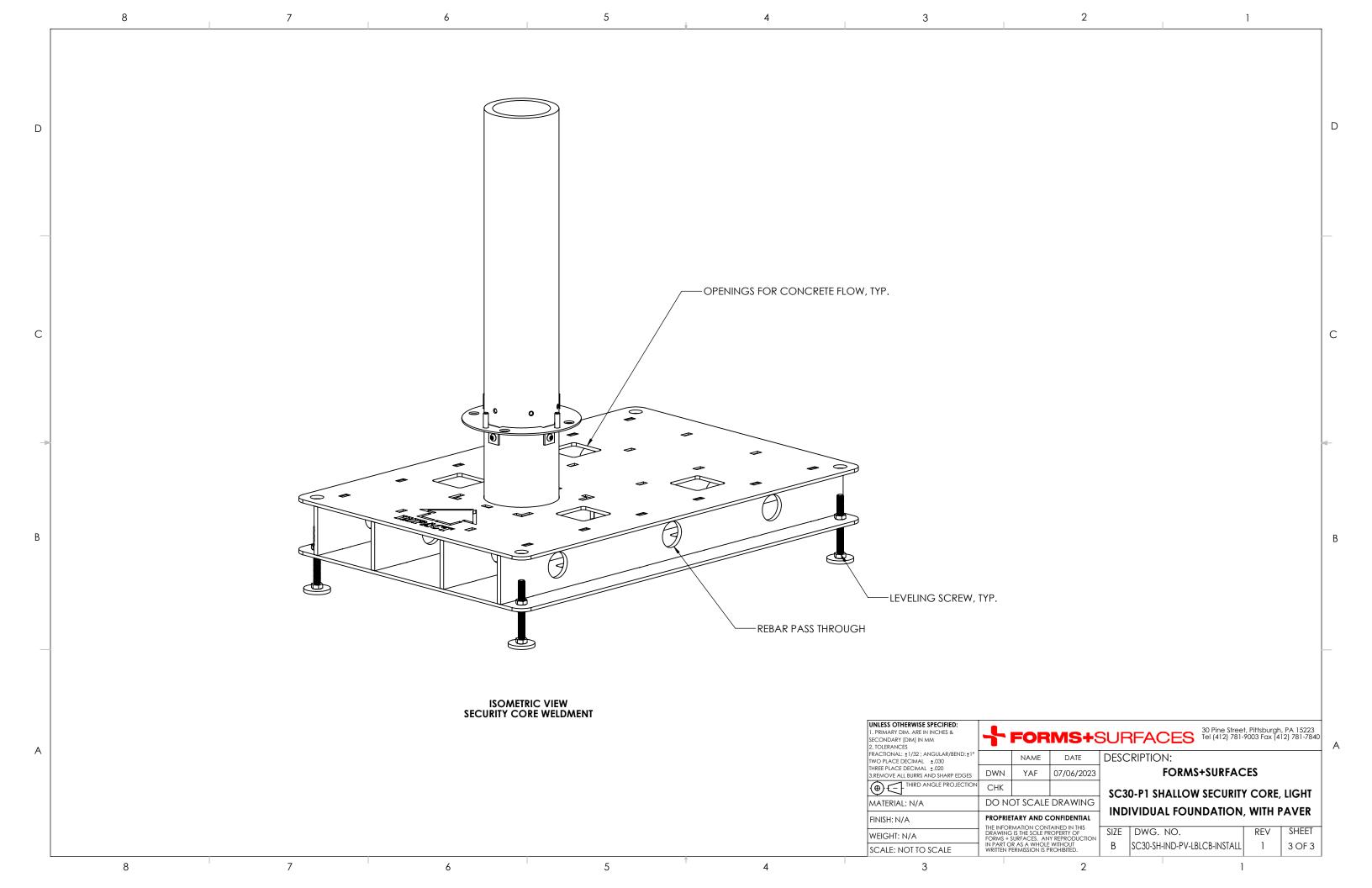
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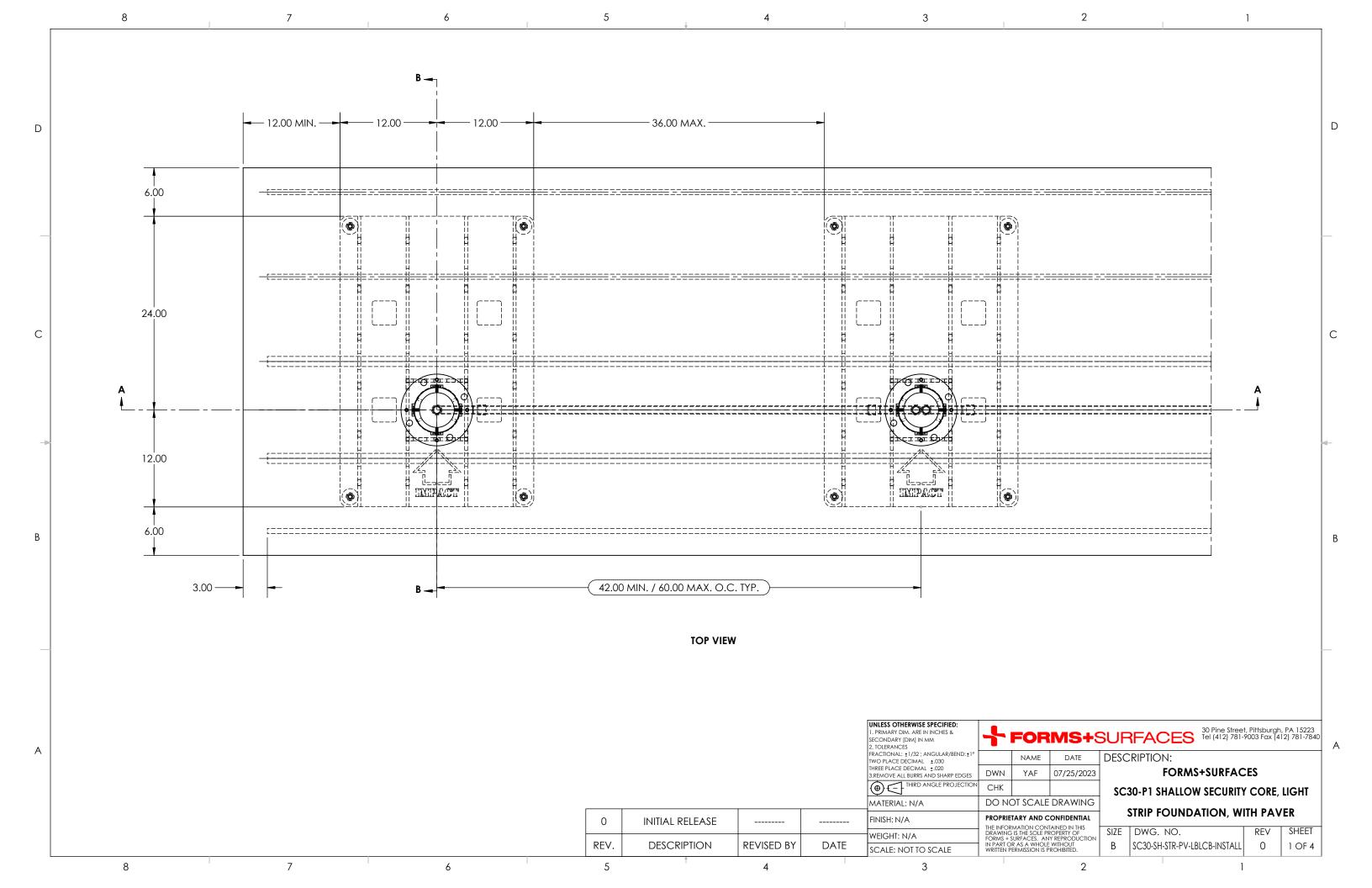
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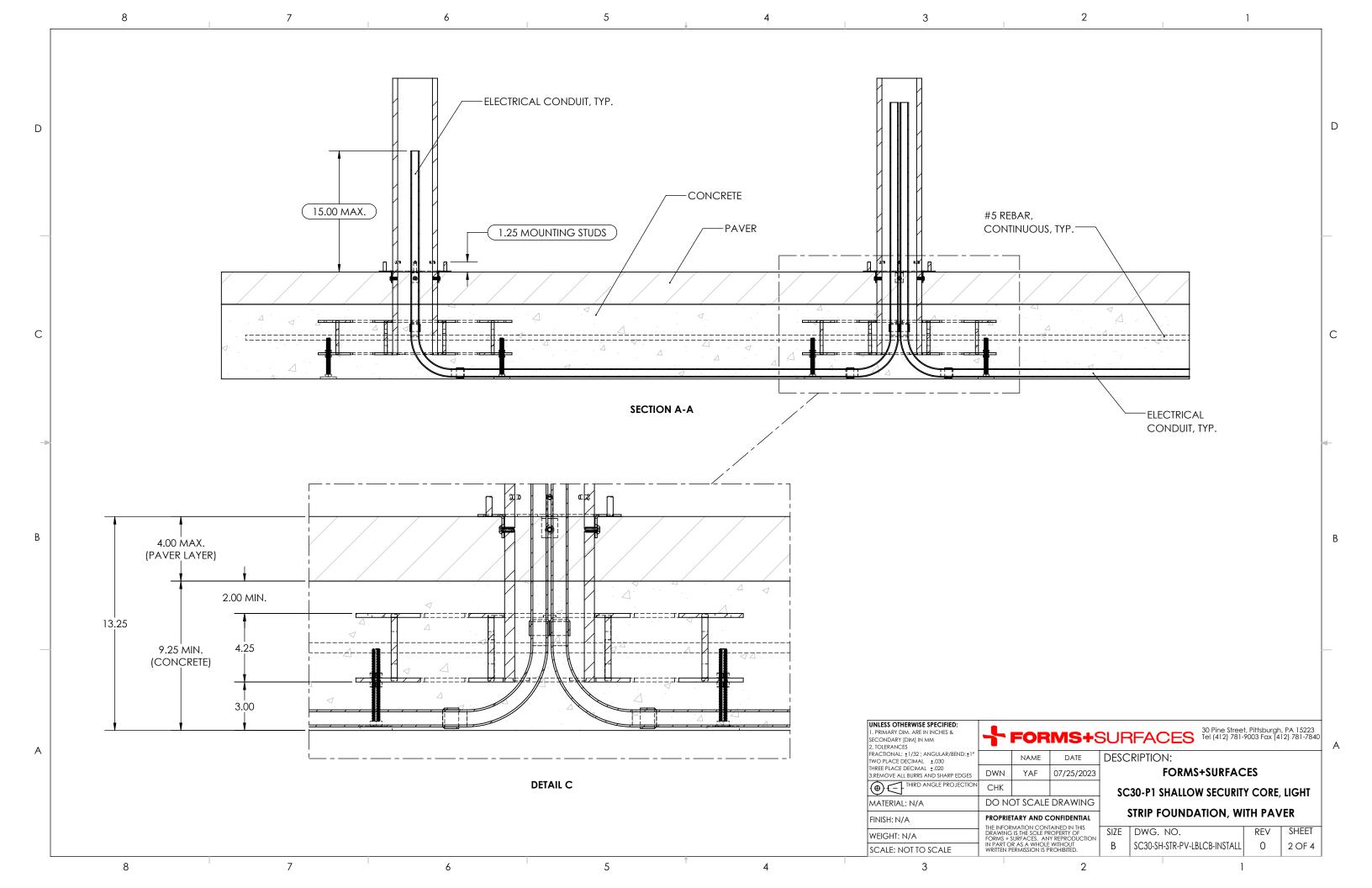
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REBAR CHART	
BAR SIZE	DIAMETER
#5	Ø 0.625

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TWO PLACE DECIMAL ±.030 DESCRIPTION: NAME DATE THREE PLACE DECIMAL ±.020 **FORMS+SURFACES** DWN YAF 07/06/2023 THIRD ANGLE PROJECTION SC30-P1 SHALLOW SECURITY CORE, LIGHT MATERIAL: N/A DO NOT SCALE DRAWING INDIVIDUAL FOUNDATION, WITH PAVER PROPRIETARY AND CONFIDENTIAL FINISH: N/A THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FORMS + SURFACES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION IS PROHIBITED. SHEET SIZE DWG. NO. REV WEIGHT: N/A 2 OF 3 SC30-SH-IND-PV-LBLCB-INSTALL SCALE: NOT TO SCALE







8 7 6 5 4 3 2 1

DOUBLE #5 REBAR,
CONTINUOUS, BOTH
SIDES OF CORE

#5 REBAR,
CONTINUOUS, TYP.

SECTION B-B

## NOTES:

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REBAR CHART	
BAR SIZE	DIAMETER
#5	Ø 0.625

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