

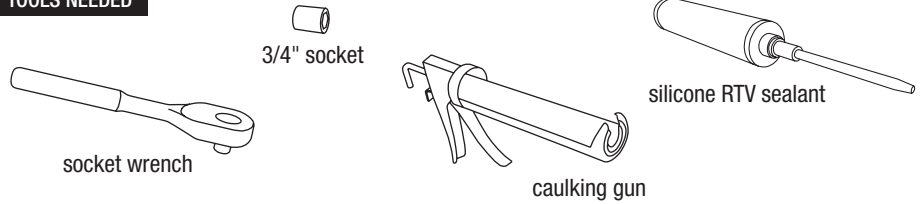
# HELIO™ M40/M50-P1 SECURITY BOLLARD, SERIES 1200

## SECURITY BOLLARD WIRING & INSTALLATION INSTRUCTIONS

### MATERIALS INCLUDED

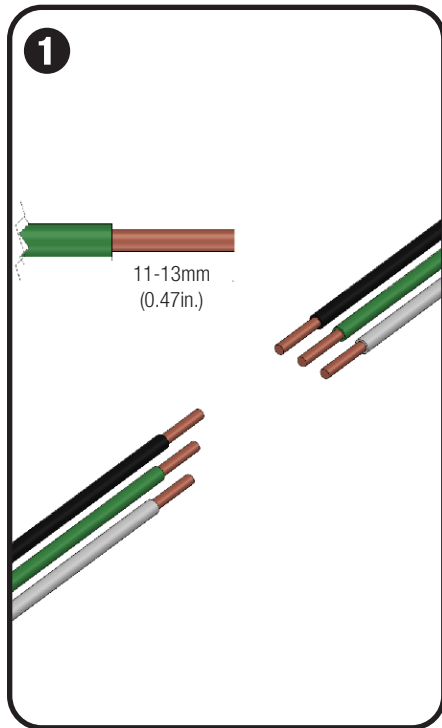


### TOOLS NEEDED



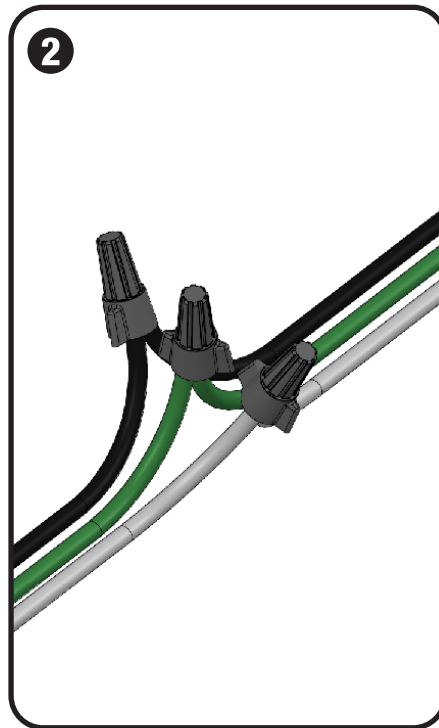
### STEP BY STEP

### WIRING INSTRUCTIONS FOR ALL ILLUMINATED HELIO BOLLARDS WITH EMBEDDED SECURITY CORES



#### 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.

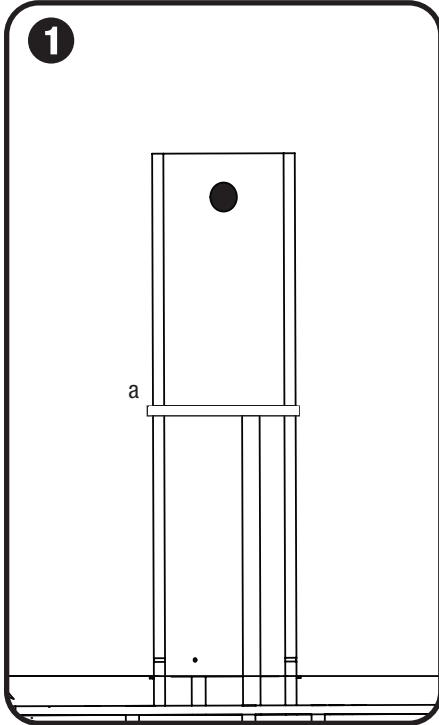
#### NOTES:

- 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.

# HELIO™ M40/M50-P1 SECURITY BOLLARD, SERIES 1200

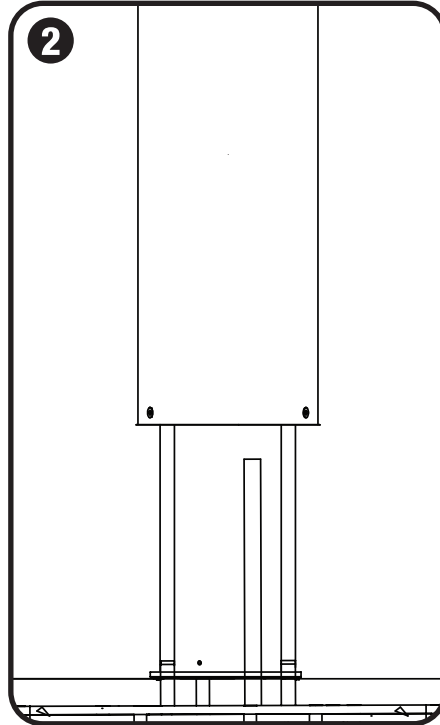
SECURITY BOLLARD WIRING & INSTALLATION INSTRUCTIONS

## STEP BY STEP INSTALLATION INSTRUCTIONS FOR ALL HELIO BOLLARDS WITH EMBEDDED SECURITY CORES



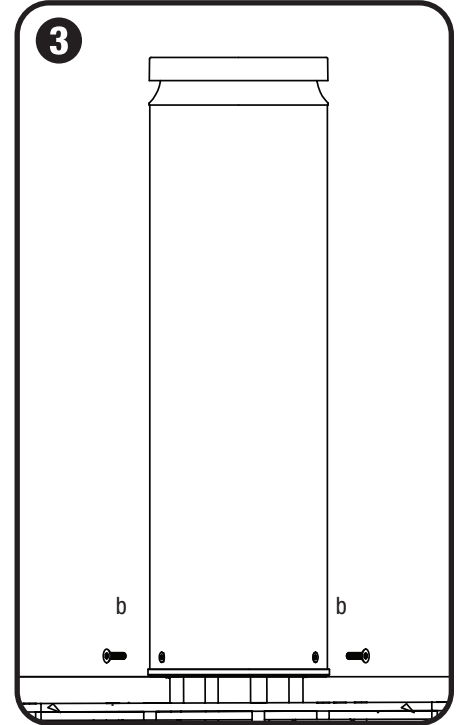
### Install trim ring

- Apply a thin bead of waterproof clear silicone to the top of the flange on the security core. Take care not to over apply.
- Slide trim ring (a) over security core and drop down to flange on security core. Press down on trim ring to ensure it is fully seated on the flange.



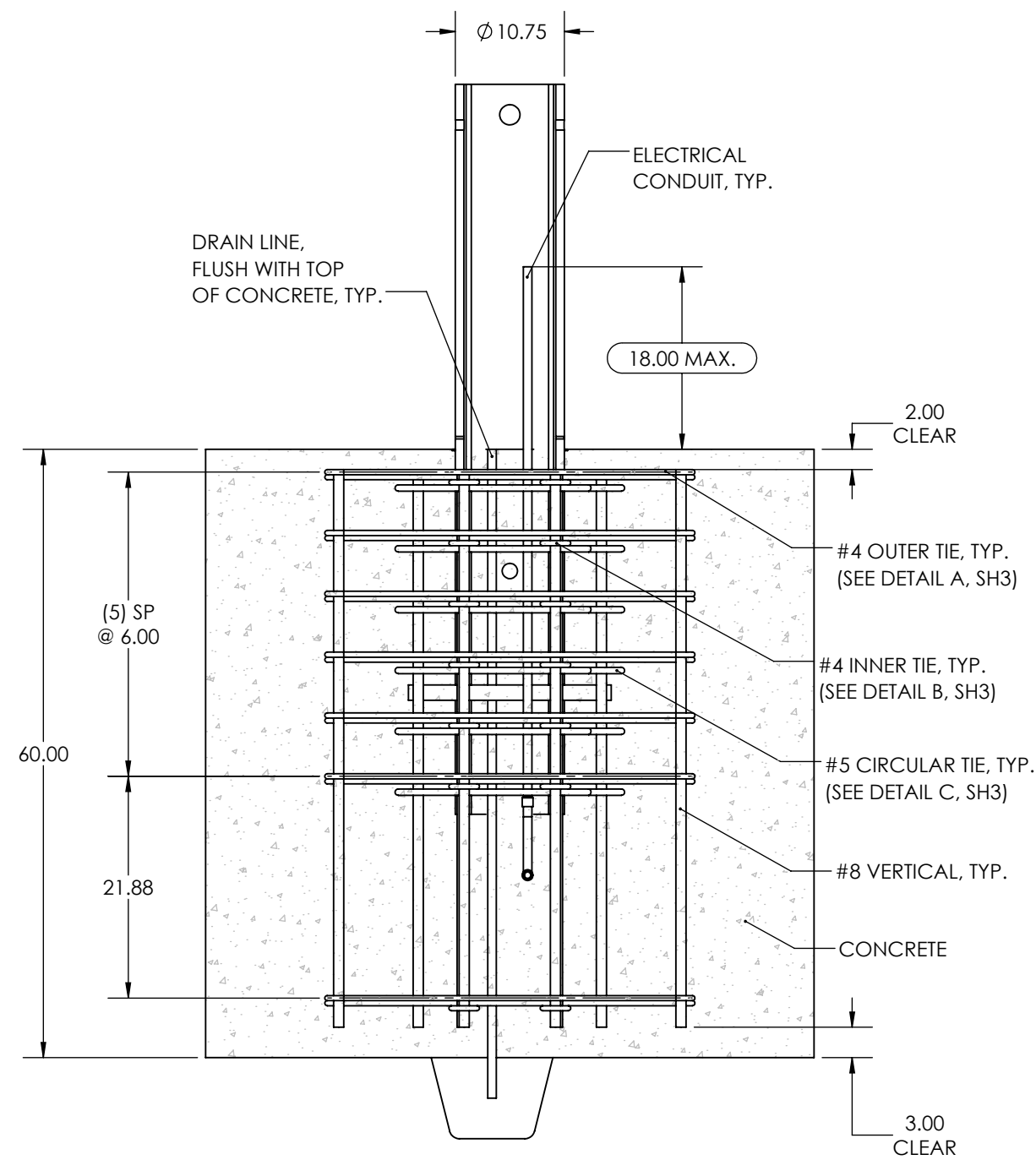
### Position bollard over security core

- Inspect security core for moisture. If moisture is present allow to dry before installing bollard. Do not install bollard unless security core is completely dry.
- Slide bollard over security core so that mounting holes in bollard body align with tapped holes in security core.

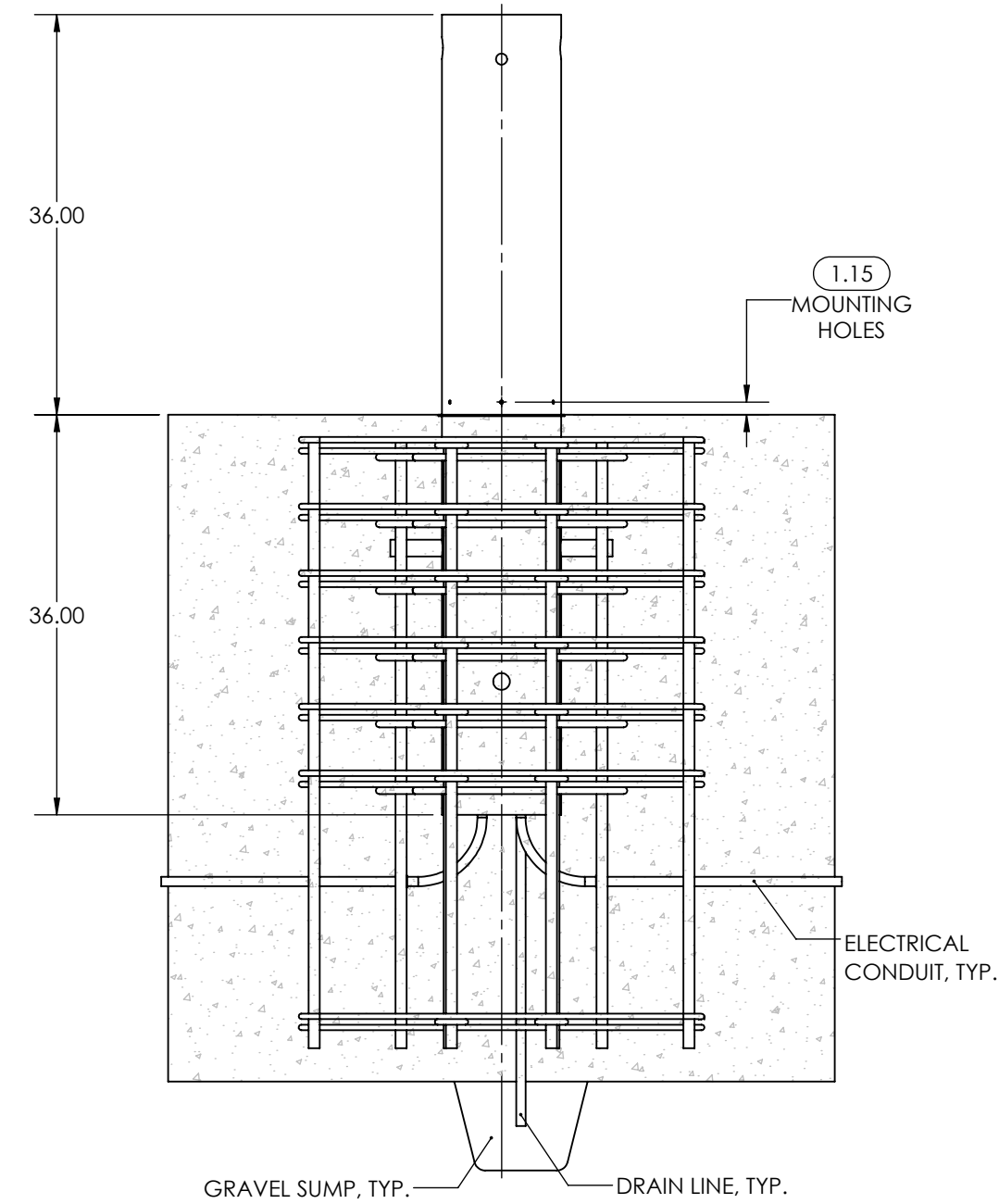


### Attach bollard to security core

- Thread 5/16"-18x1" tamper-resistant flat head bolts (b) into each hole.
- Use provided T40 Torx bit for tamper-resistant bolts to tighten all bolts until snug.



END VIEW (PARTIAL SECTION)  
SCALE 1 : 16



SIDE VIEW (PARTIAL SECTION)  
SCALE 1 : 16

UNLESS OTHERWISE SPECIFIED:  
1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
2. TOLERANCES  
FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
TWO PLACE DECIMAL ±.030  
THREE PLACE DECIMAL ±.020  
3. REMOVE ALL BURRS AND SHARP EDGES  
THIRD ANGLE PROJECTION  
MATERIAL: N/A  
FINISH: N/A  
WEIGHT: N/A  
SCALE: NOT TO SCALE

**FORMS+SURFACES** 30 Pine Street, Pittsburgh, PA 15223  
Tel (412) 781-9003 Fax (412) 781-7840

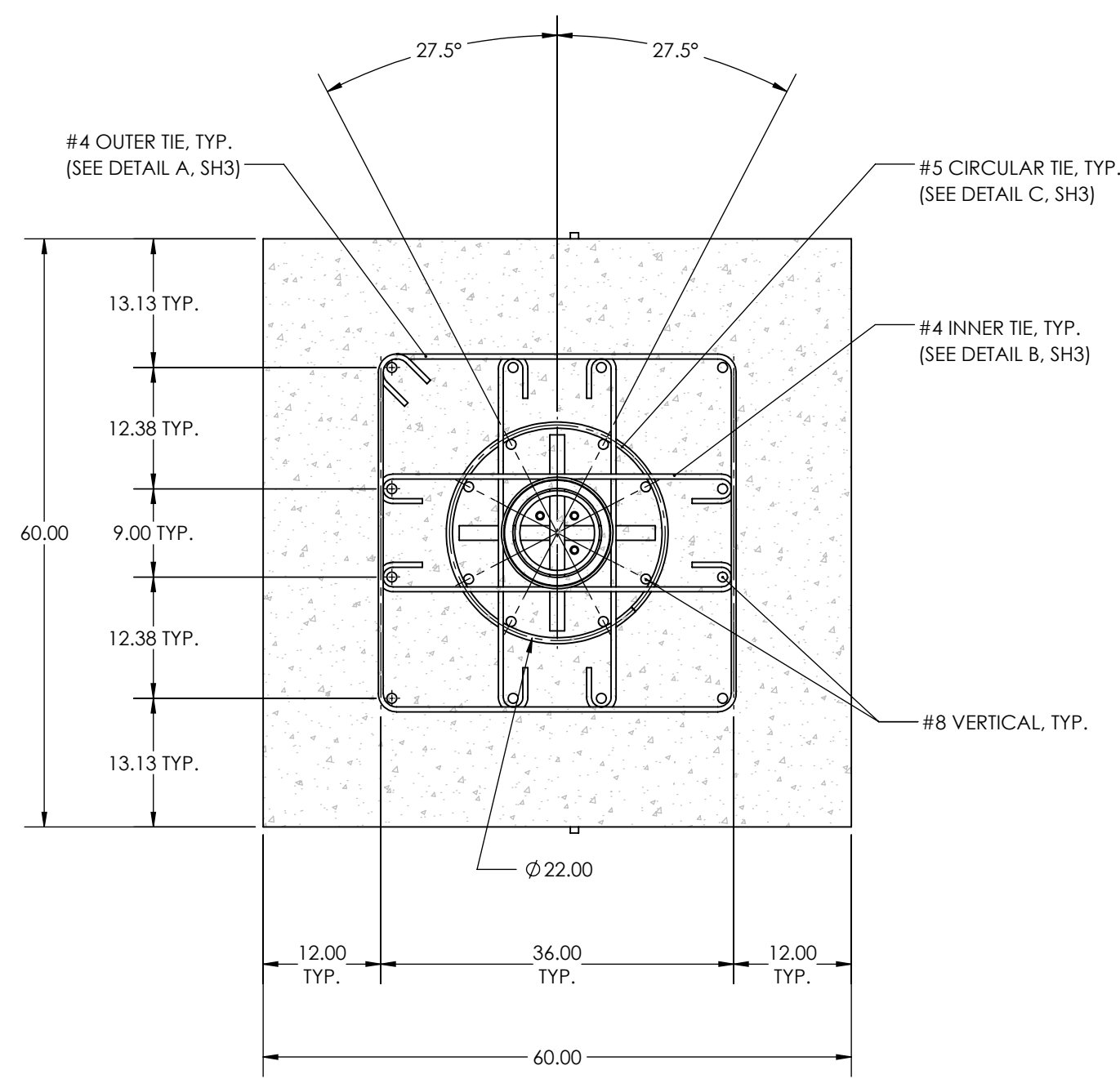
NAME	DATE
DWN	RTS
CHK	

DESCRIPTION:			
<b>FORMS+SURFACES</b>			
<b>M40-P1 DEEP SECURITY CORE</b>			
<b>INDIVIDUAL FOUNDATION, NO PAVER</b>			
SIZE	DWG. NO.	REV	SHEET
B	M40-DP-IND-NP-INSTALL	0	1 OF 3

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

8 7 6 5 4 3 2 1

D  
C  
B  
A



PLAN VIEW (PARTIAL SECTION)

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 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
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THIRD ANGLE PROJECTION

MATERIAL: N/A

FINISH: N/A

WEIGHT: N/A

SCALE: NOT TO SCALE

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NAME	DATE	DESCRIPTION:
DWN	RTS	10/27/20
CHK		

DO NOT SCALE DRAWING

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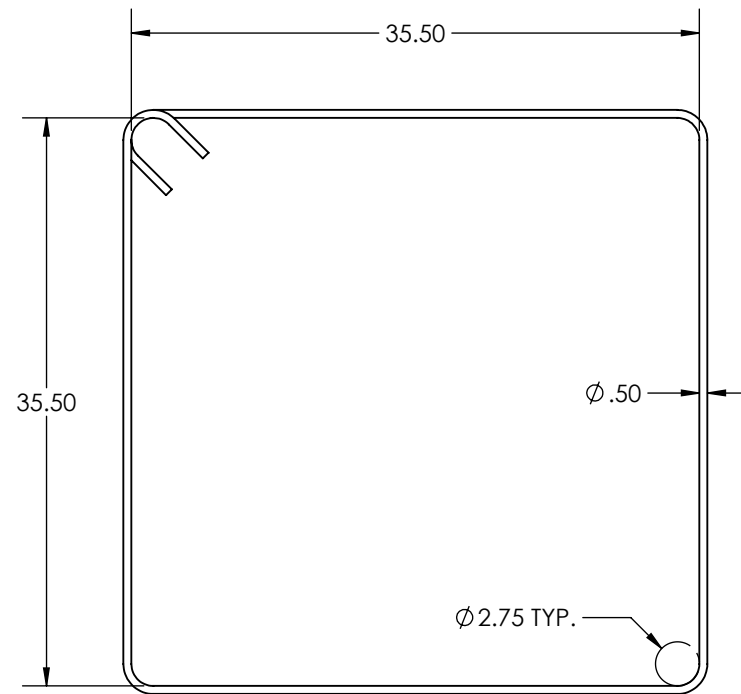
SIZE	DWG. NO.	REV	SHEET
B	M40-DP-IND-NP-INSTALL	0	2 OF 3

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

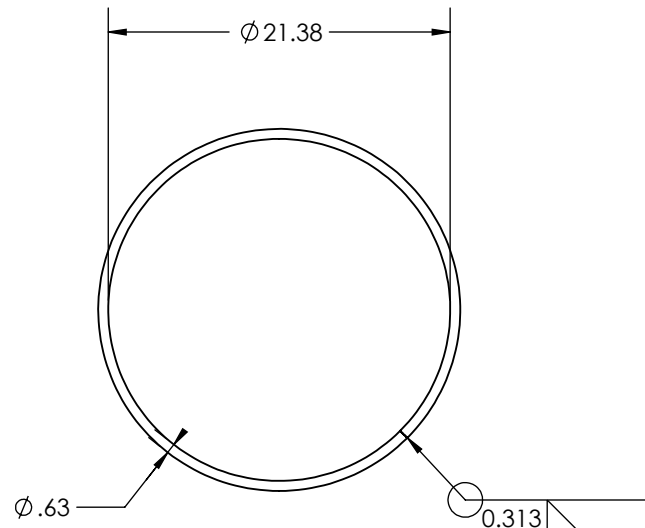
8 7 6 5 4 3 2 1

D  
C  
B  
A

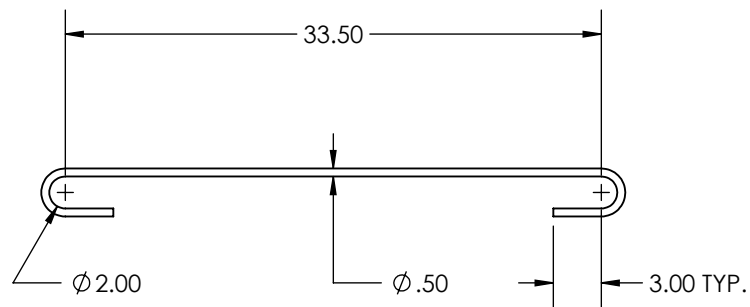
D  
C  
B  
A



**DETAIL A  
#4 OUTER TIE, TYP.**



**DETAIL C  
#5 CIRCULAR TIE, TYP.**



**DETAIL B  
#4 INNER TIE, TYP.**

REBAR CHART	
BAR SIZE	DIAMETER
#4	Ø 0.500
#5	Ø 0.625
#8	Ø 1.000

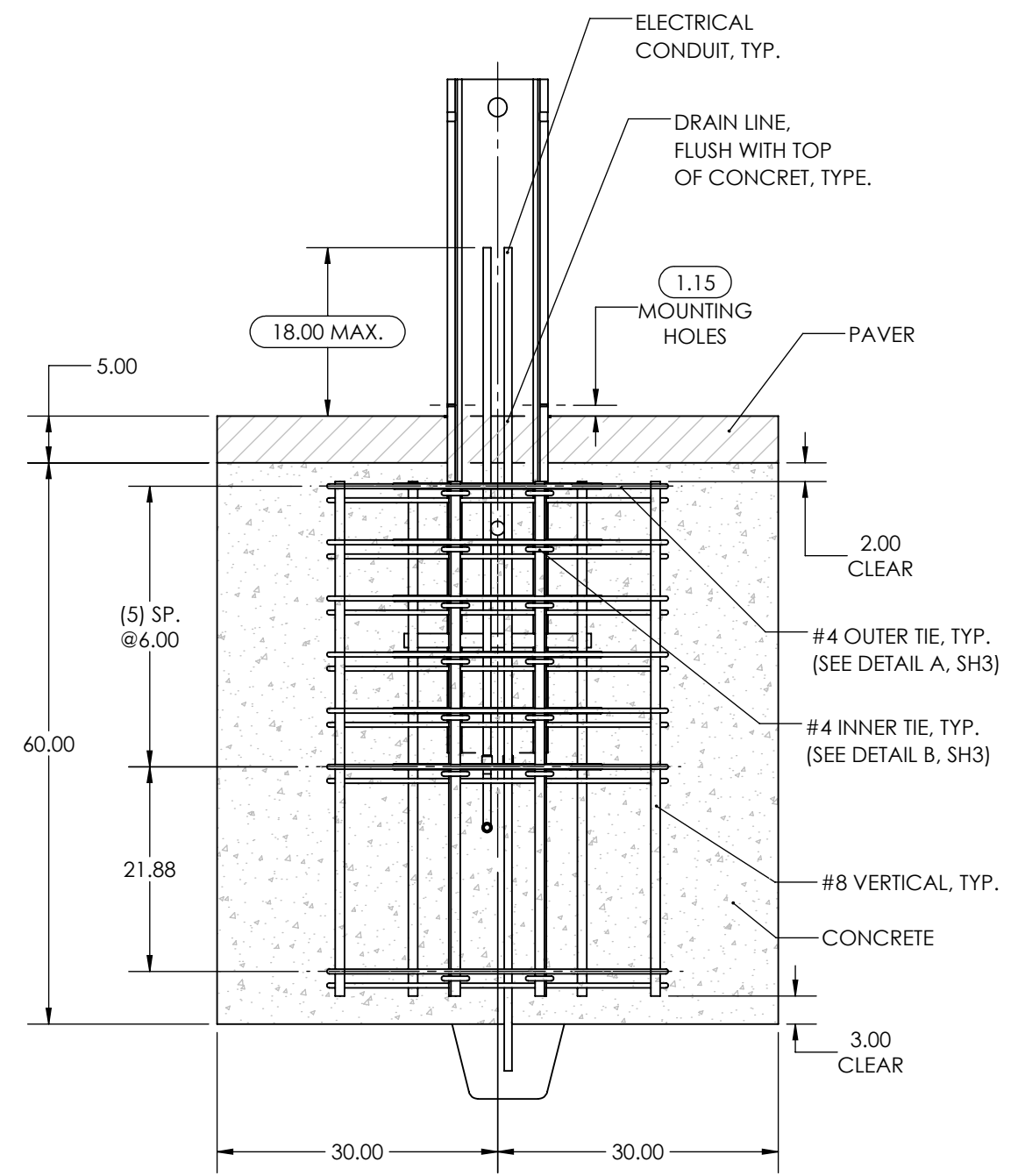
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- DEFORMED BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60; SEE CHART FOR SIZING.
- REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS, STIRRUPS, OR CHAIRS SHALL BE PROVIDED TO FURNISH SUPPORT FOR SPECIFIED BARS.

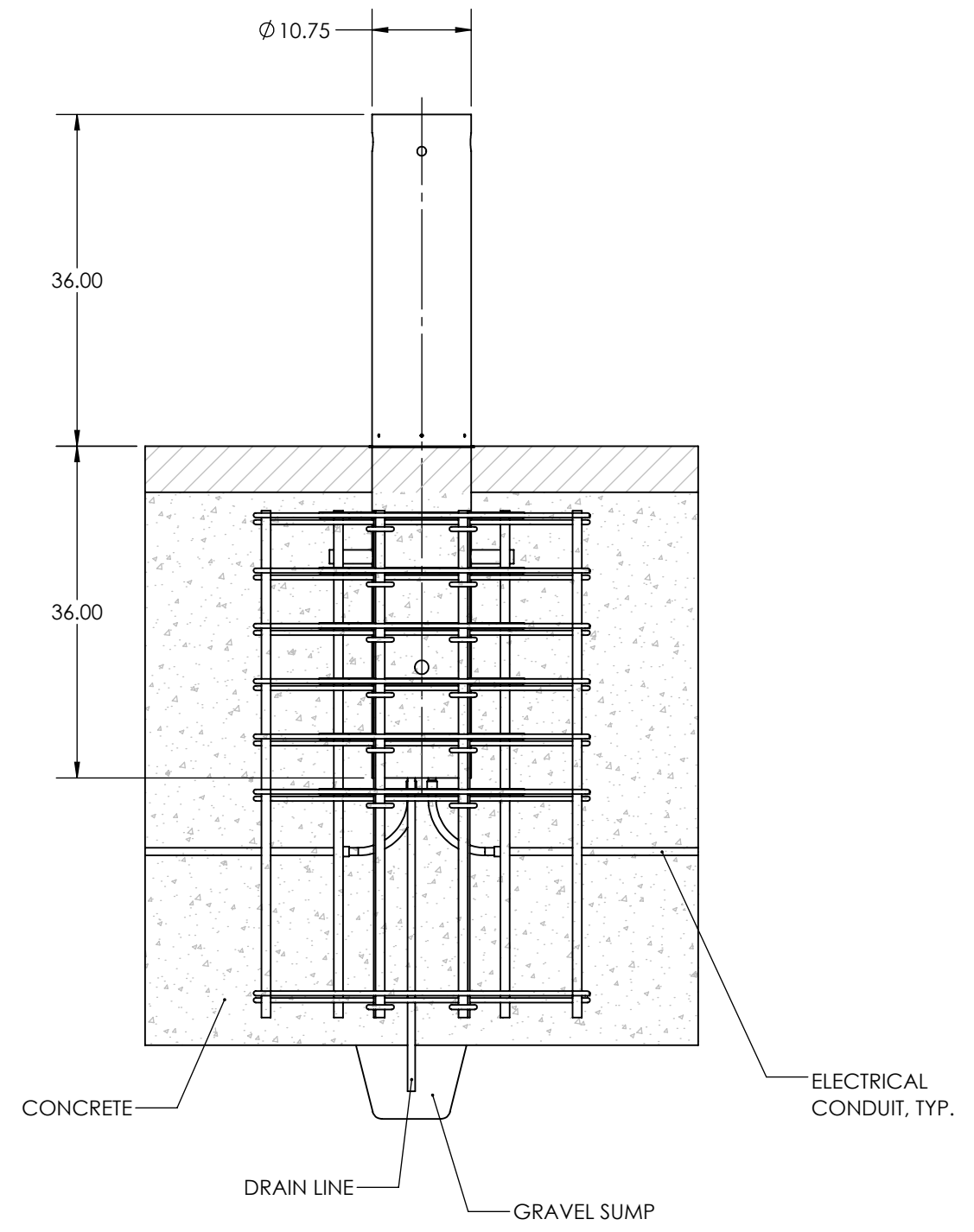
<p><b>UNLESS OTHERWISE SPECIFIED:</b>                  1. PRIMARY DIM. ARE IN INCHES &amp; SECONDARY [DIM] IN MM                  2. TOLERANCES                  FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°                  TWO PLACE DECIMAL ±.030                  THREE PLACE DECIMAL ±.020                  3. REMOVE ALL BURRS AND SHARP EDGES</p>		<p><b>FORMS+SURFACES</b> 30 Pine Street, Pittsburgh, PA 15223                  Tel (412) 781-9003 Fax (412) 781-7840</p>	
<p>THIRD ANGLE PROJECTION</p>		<p>NAME</p> <p>DWN RTS</p>	<p>DATE</p> <p>10/27/20</p>
<p>MATERIAL: N/A</p>		<p>DESCRIPTION:</p> <p><b>FORMS+SURFACES</b></p> <p><b>M40-P1 DEEP SECURITY CORE</b></p> <p><b>INDIVIDUAL FOUNDATION, NO PAVER</b></p>	
<p>FINISH: N/A</p> <p>WEIGHT: N/A</p> <p>SCALE: NOT TO SCALE</p>		<p>DO NOT SCALE DRAWING</p> <p><b>PROPRIETARY AND CONFIDENTIAL</b></p> <p>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.</p>	
<p>REV.</p>	<p>DESCRIPTION</p>	<p>REVISED BY</p>	<p>DATE</p>
<p>0</p>	<p>INITIAL RELEASE</p>	<p>-----</p>	<p>-----</p>
<p>B</p>	<p>M40-DP-IND-NP-INSTALL</p>	<p>0</p>	<p>SHEET 3 OF 3</p>

8 7 6 5 4 3 2 1

D  
C  
B  
A



END VIEW (PARTIAL SECTION)



SIDE VIEW (PARTIAL SECTION)

UNLESS OTHERWISE SPECIFIED:  
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 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES  
 THIRD ANGLE PROJECTION  
 MATERIAL: N/A  
 FINISH: N/A  
 WEIGHT: N/A  
 SCALE: NOT TO SCALE

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NAME	DATE
DWN YAF	07/11/2023
CHK	

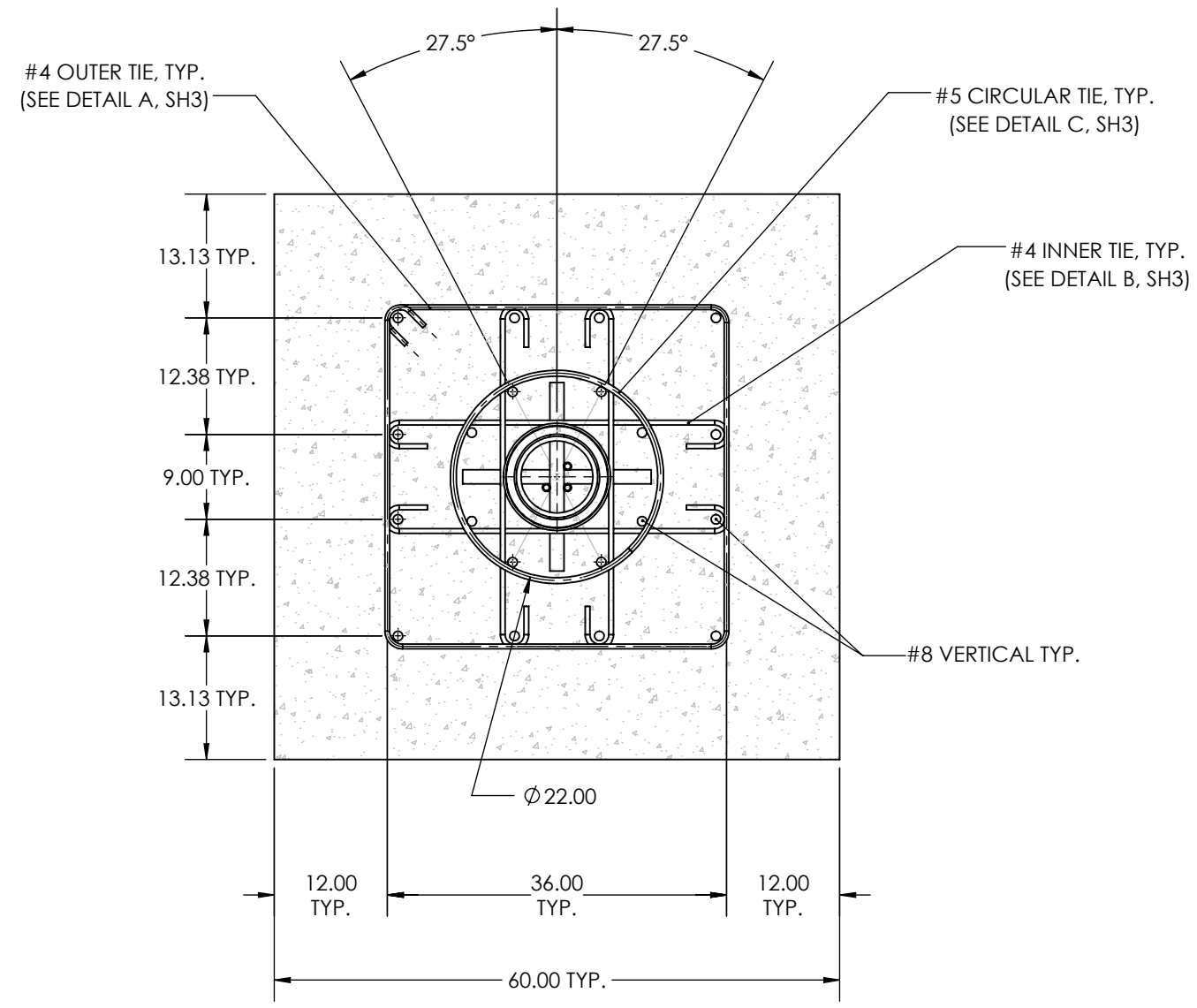
DESCRIPTION: <b>FORMS+SURFACES</b> <b>M40-P1 DEEP SECURITY CORE</b> <b>INDIVIDUAL FOUNDATION, WITH PAVER</b>			
SIZE	DWG. NO.	REV	SHEET
B	M40-DP-IND-PV-INSTALL	0	1 OF 3

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D  
C  
B  
A



PLAN VIEW (PARTIAL SECTION)

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 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL: N/A

FINISH: N/A

WEIGHT: N/A

SCALE: NOT TO SCALE

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NAME	DATE	DESCRIPTION:
DWN	YAF	07/11/2023
CHK		

DO NOT SCALE DRAWING

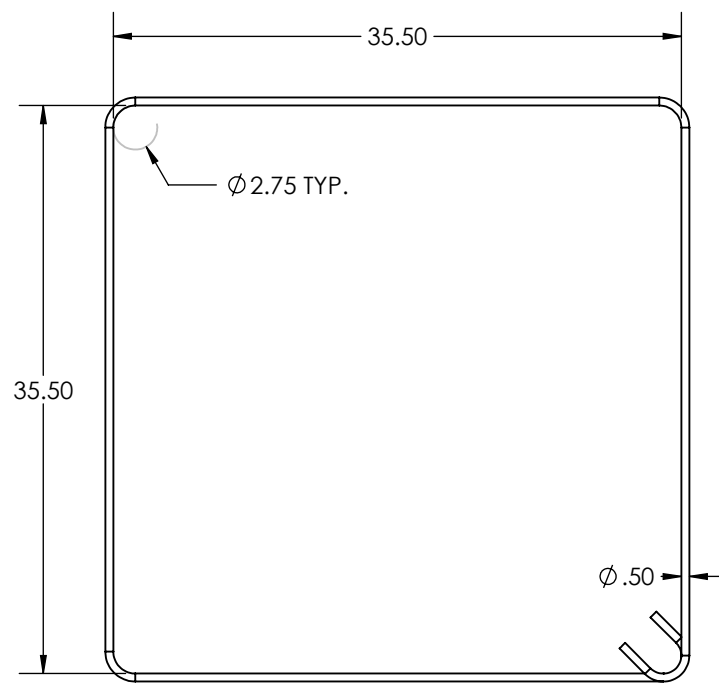
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SIZE	DWG. NO.	REV	SHEET
B	M40-DP-IND-PV-INSTALL	0	2 OF 3

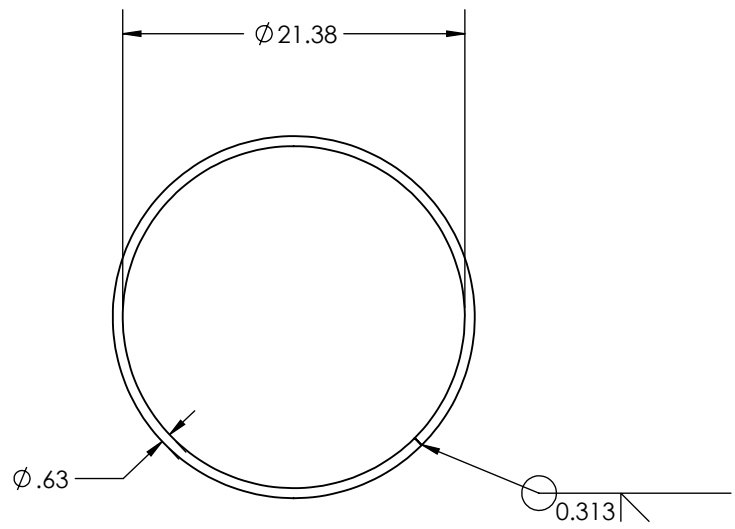
REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

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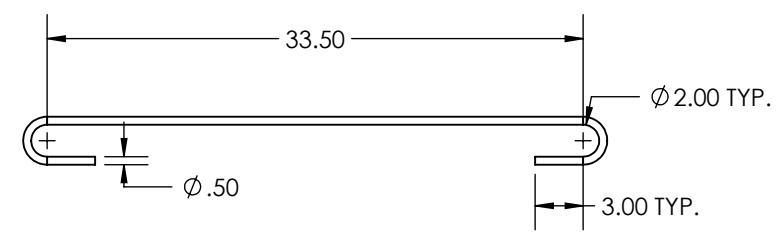
8 7 6 5 4 3 2 1



**DETAIL A  
#4 OUTER TIE, TYP.**



**DETAIL C  
#5 INNER TIE, TYP.**



**DETAIL B  
#4 INNER TIE, TYP.**

REBAR CHART	
BAR SIZE	DIAMETER
#4	Ø 0.500
#5	Ø 0.625
#8	Ø 1.000

**NOTES:**

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 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES  
 THIRD ANGLE PROJECTION  
 MATERIAL: N/A  
 FINISH: N/A  
 WEIGHT: N/A  
 SCALE: NOT TO SCALE



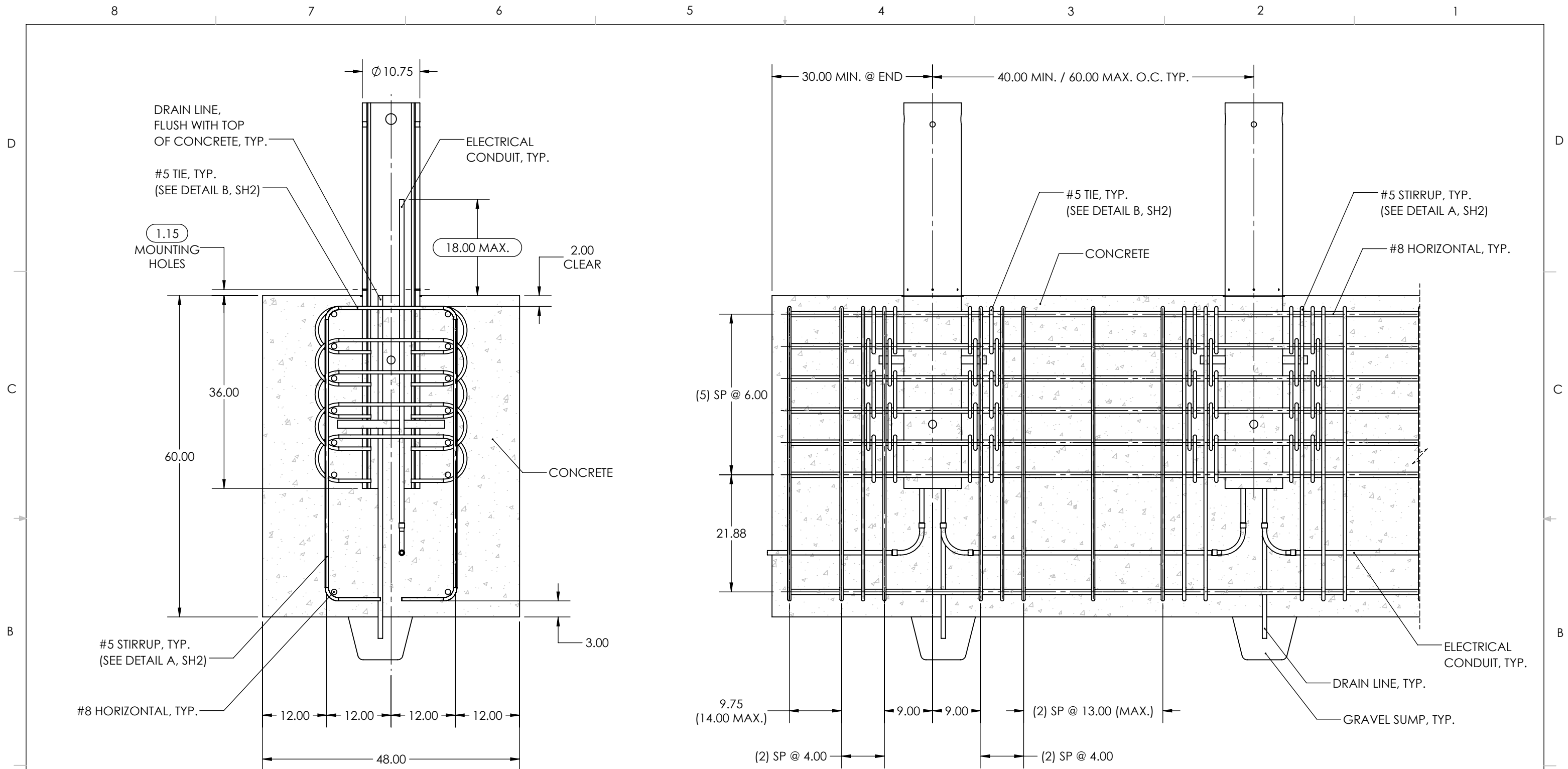
30 Pine Street, Pittsburgh, PA 15223  
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NAME	DATE
DWN YAF	07/11/2023
CHK	

DESCRIPTION:			
<b>FORMS+SURFACES M40-P1 DEEP SECURITY CORE INDIVIDUAL FOUNDATION, WITH PAVER</b>			
SIZE	DWG. NO.	REV	SHEET
B	M40-DP-IND-PV-INSTALL	0	3 OF 3

8 7 6 5 4 3 2 1





END VIEW (PARTIAL SECTION)

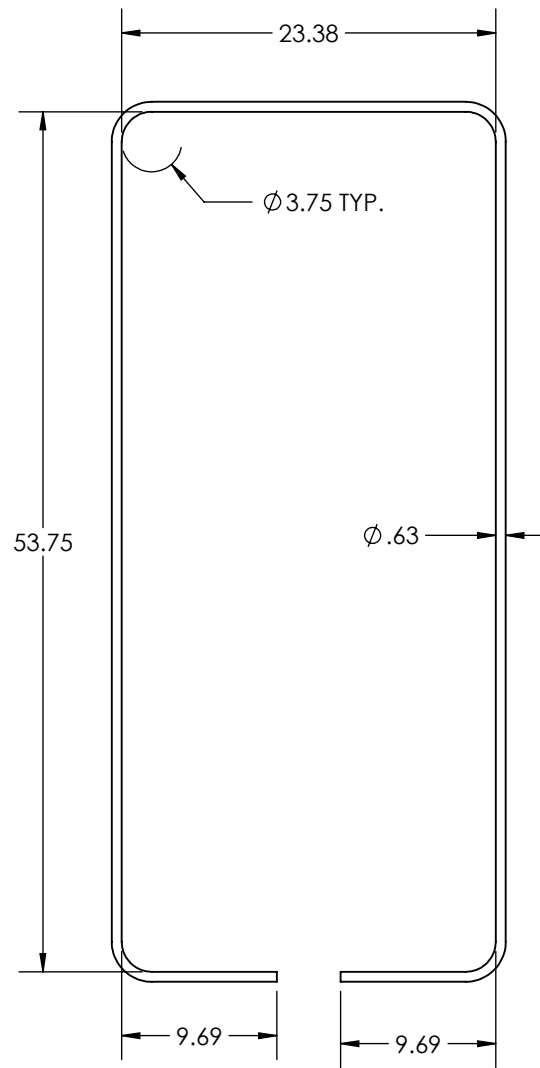
SIDE VIEW (PARTIAL SECTION)

**UNLESS OTHERWISE SPECIFIED:**  
 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
 2. TOLERANCES  
 FRACTIONAL:  $\pm 1/32$ ; ANGULAR/BEND:  $\pm 1^\circ$   
 TWO PLACE DECIMAL  $\pm .030$   
 THREE PLACE DECIMAL  $\pm .020$   
 3. REMOVE ALL BURRS AND SHARP EDGES  
 THIRD ANGLE PROJECTION  
 MATERIAL: N/A  
 FINISH: N/A  
 WEIGHT: N/A  
 SCALE: NOT TO SCALE

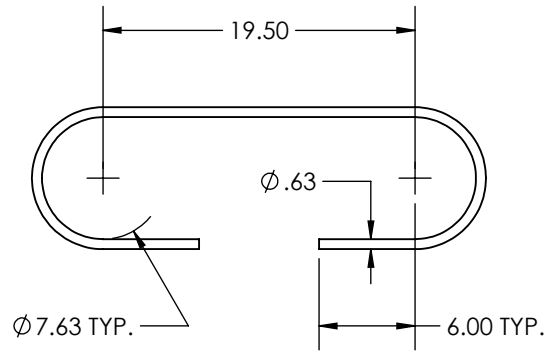
**FORMS+SURFACES** 30 Pine Street, Pittsburgh, PA 15223  
 Tel (412) 781-9003 Fax (412) 781-7840

NAME	DATE	DESCRIPTION:	
DWN	RTS	10/27/20	
CHK			
DO NOT SCALE DRAWING		<b>FORMS+SURFACES</b> <b>M40-P1 DEEP SECURITY CORE STRIP FOUNDATION, NO PAVER</b>	
<b>PROPRIETARY AND CONFIDENTIAL</b> 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
B	M40-DP-STR-NP-INSTALL	0	1 OF 2

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----



**DETAIL A**  
**#5 STIRRUP, TYP.**



**DETAIL B**  
**#5 TIE, TYP.**

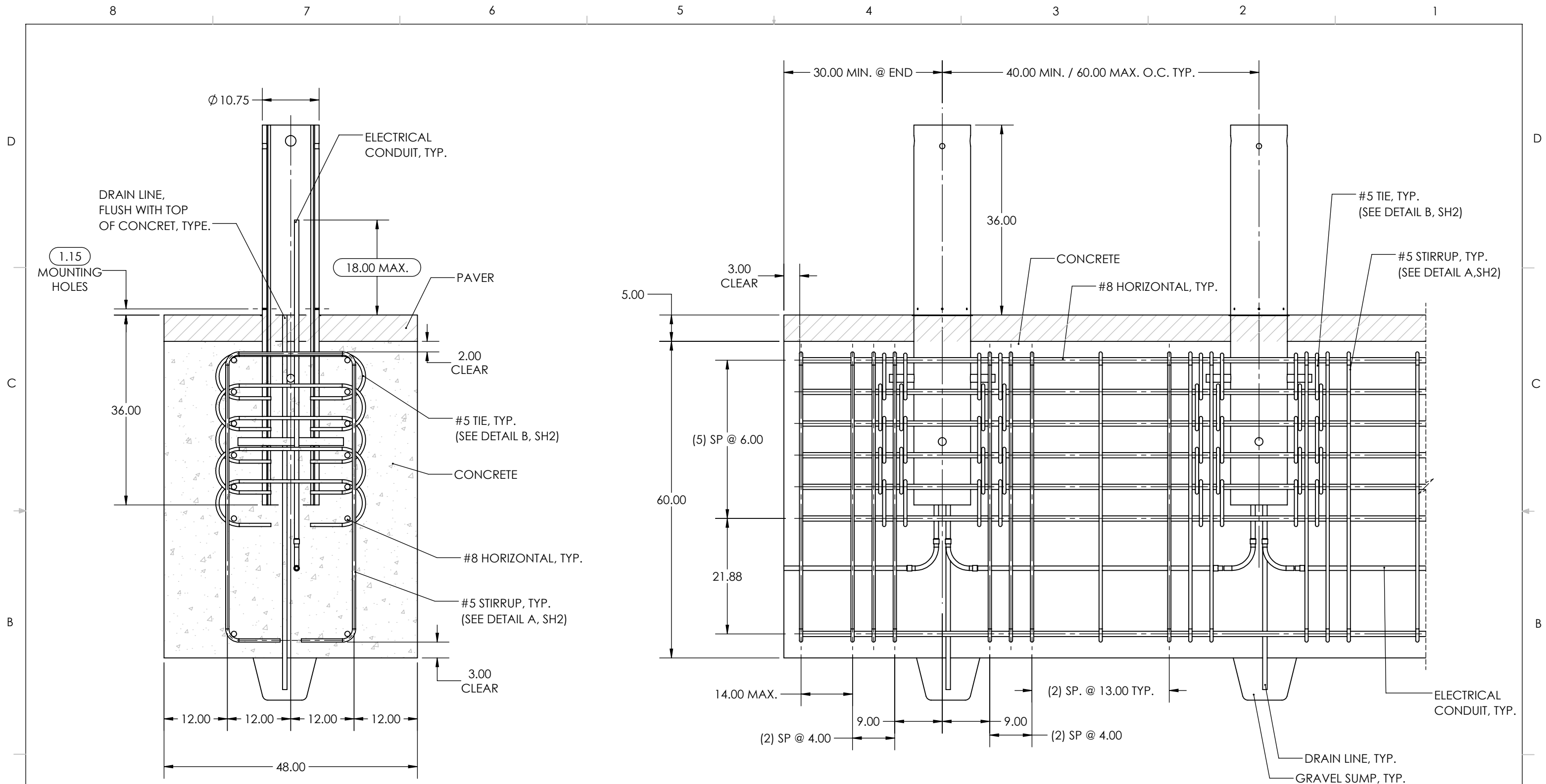
REBAR CHART	
BAR SIZE	DIAMETER
#5	Ø 0.625
#8	Ø 1.000

**NOTES:**

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MATERIAL: N/A FINISH: N/A WEIGHT: N/A SCALE: NOT TO SCALE		NAME: DWN DATE: 10/27/20 CHECKED: CHK	DESCRIPTION: <b>FORMS+SURFACES</b> <b>M40-P1 DEEP SECURITY CORE STRIP FOUNDATION, NO PAVER</b>
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.		DO NOT SCALE DRAWING	SIZE: B DWG. NO.: M40-DP-STR-NP-INSTALL REV: 0 SHEET: 2 OF 2

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----



END VIEW (PARTIAL SECTION)

SIDE VIEW (PARTIAL SECTION)

UNLESS OTHERWISE SPECIFIED:

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THIRD ANGLE PROJECTION

MATERIAL: N/A

FINISH: N/A

WEIGHT: N/A

SCALE: NOT TO SCALE



30 Pine Street, Pittsburgh, PA 15223  
Tel (412) 781-9003 Fax (412) 385-4715

NAME	DATE
DWN YAF	07/10/2023
CHK	

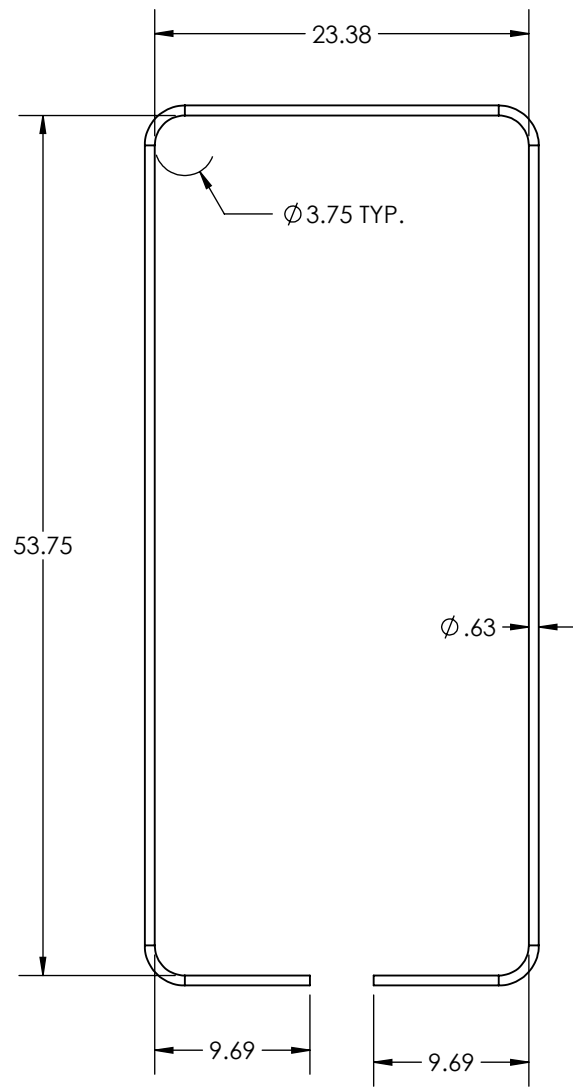
DESCRIPTION:  
**FORMS+SURFACES**  
**M40-P1 DEEP SECURITY CORE**  
**STRIP FOUNDATION, WITH PAVER**

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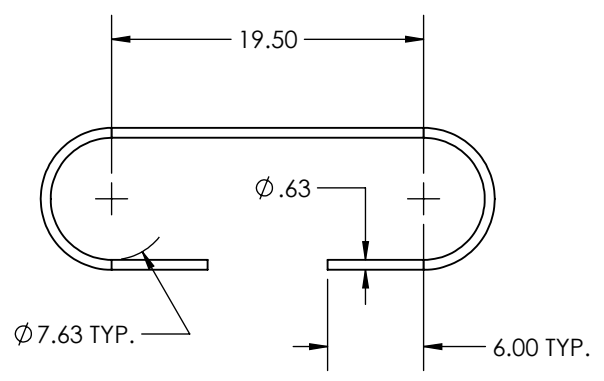
SIZE	DWG. NO.	REV	SHEET
B	M40-DP-STR-PV-INSTALL	0	1 OF 2

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

D  
C  
B  
A



**DETAIL A  
#5 STIRRUP, TYP.**



**DETAIL B  
#5 TIE, TYP.**

REBAR CHART	
BAR SIZE	DIAMETER
#5	Ø 0.625
#8	Ø 1.000

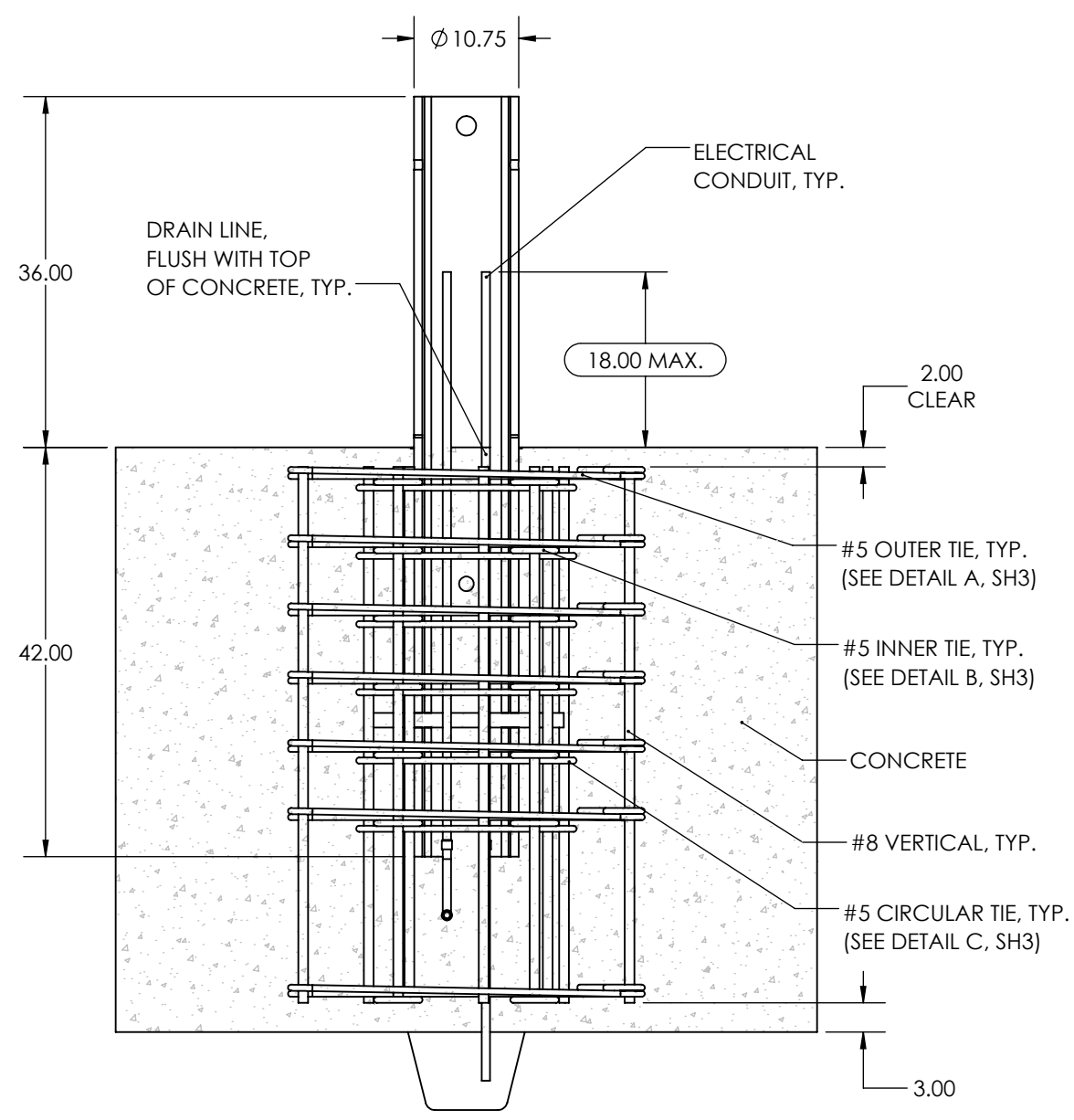
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6. REINFORCEMENT SHALL BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS, STIRRUPS, OR CHAIRS SHALL BE PROVIDED TO FURNISH SUPPORT FOR SPECIFIED BARS.

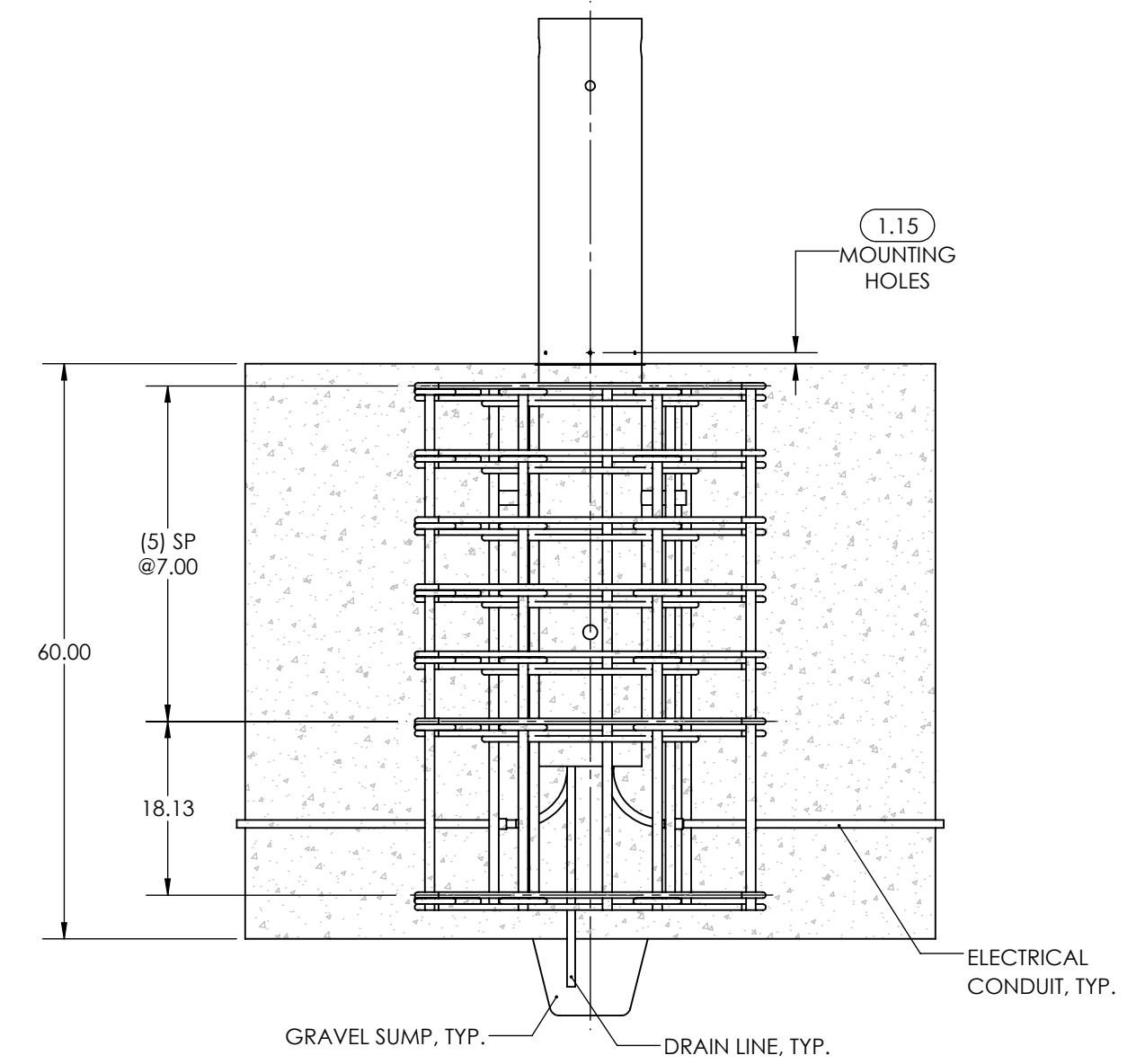
<p><b>UNLESS OTHERWISE SPECIFIED:</b>                  1. PRIMARY DIM. ARE IN INCHES &amp; SECONDARY [DIM] IN MM                  2. TOLERANCES                  FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°                  TWO PLACE DECIMAL ±.030                  THREE PLACE DECIMAL ±.020                  3. REMOVE ALL BURRS AND SHARP EDGES</p>		<p><b>FORMS+SURFACES</b> 30 Pine Street, Pittsburgh, PA 15223                  Tel (412) 781-9003 Fax (412) 781-7840</p>	
<p>THIRD ANGLE PROJECTION</p>		<p>NAME</p> <p>DWN YAF</p>	<p>DATE</p> <p>07/10/2023</p>
<p>MATERIAL: N/A</p>		<p>DESCRIPTION:</p> <p><b>FORMS+SURFACES</b>  <b>M40-P1 DEEP SECURITY CORE</b>  <b>STRIP FOUNDATION, WITH PAVER</b></p>	
<p>FINISH: N/A</p>		<p>DO NOT SCALE DRAWING</p>	
<p>WEIGHT: N/A</p>		<p>PROPRIETARY AND CONFIDENTIAL</p> <p>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.</p>	
<p>SCALE: NOT TO SCALE</p>		<p>SIZE</p> <p>B</p>	<p>DWG. NO.</p> <p>M40-DP-STR-PV-INSTALL</p>
		<p>REV</p> <p>0</p>	<p>SHEET</p> <p>2 OF 2</p>

8 7 6 5 4 3 2 1

D  
C  
B  
A



END VIEW (PARTIAL SECTION)



SIDE VIEW (PARTIAL SECTION)

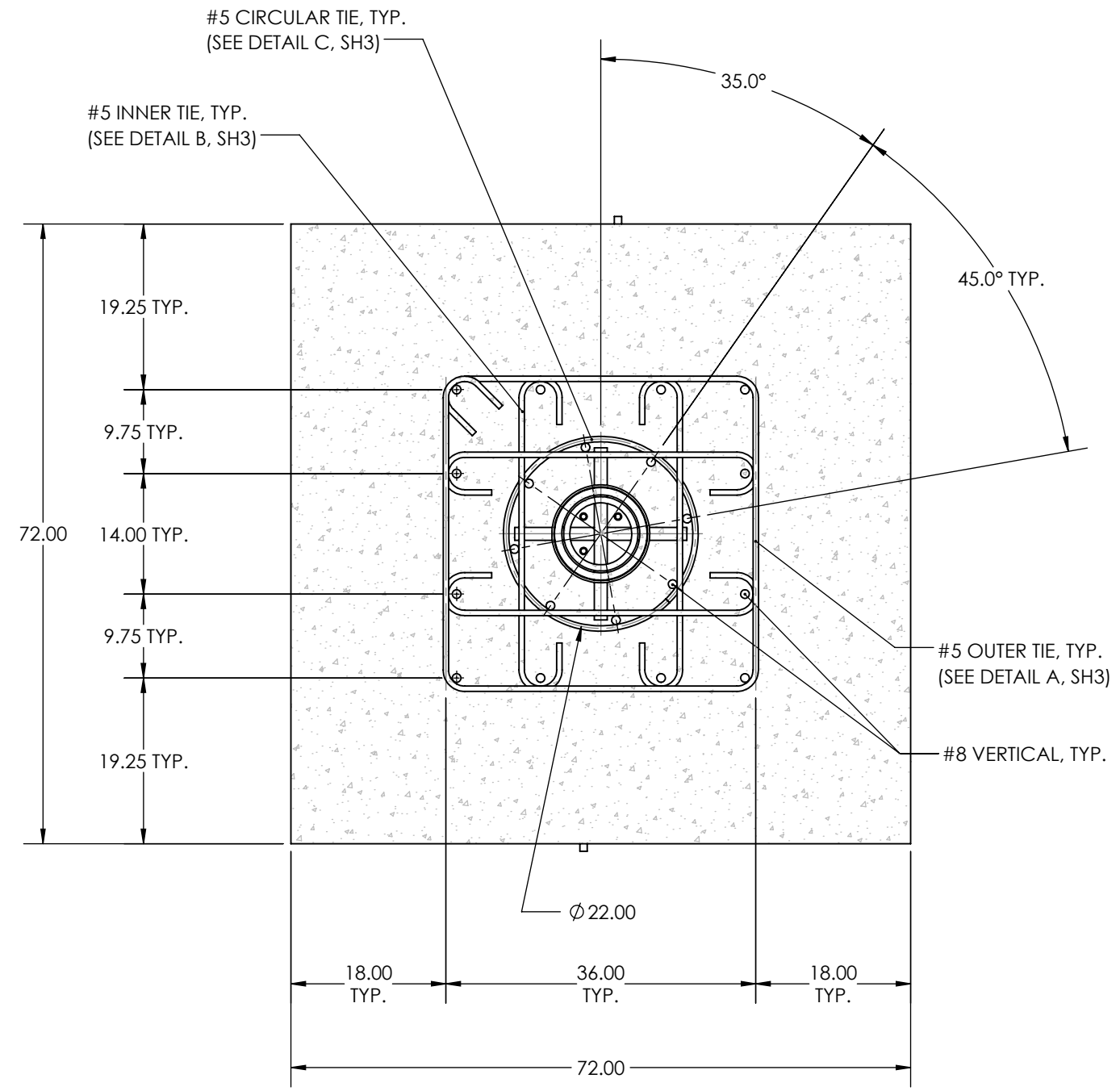
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REV.	DESCRIPTION	REVISED BY	DATE

<b>UNLESS OTHERWISE SPECIFIED:</b> 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM 2. TOLERANCES FRACTIONAL: ±1/32; ANGULAR/BEND: ±1° TWO PLACE DECIMAL ±.030 THREE PLACE DECIMAL ±.020 3. REMOVE ALL BURRS AND SHARP EDGES THIRD ANGLE PROJECTION MATERIAL: N/A FINISH: N/A WEIGHT: N/A SCALE: NOT TO SCALE				30 Pine Street, Pittsburgh, PA 15223 Tel (412) 781-9003 Fax (412) 781-7840	
NAME	DATE	DESCRIPTION:			
DWN	RTS 08/03/20	<b>FORMS+SURFACES</b> <b>M50-P1 DEEP SECURITY CORE</b> <b>INDIVIDUAL FOUNDATION, NO PAVER</b>			
CHK					
DO NOT SCALE DRAWING		SIZE	DWG. NO.	REV	SHEET
		B	M50-DP-IND-NP-INSTALL	0	1 OF 3

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D  
C  
B  
A



PLAN VIEW (PARTIAL SECTION)

**UNLESS OTHERWISE SPECIFIED:**  
 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL: N/A

FINISH: N/A

WEIGHT: N/A

SCALE: NOT TO SCALE

**FORMS+SURFACES** 30 Pine Street, Pittsburgh, PA 15223  
 Tel (412) 781-9003 Fax (412) 781-7840

NAME	DATE	DESCRIPTION:
DWN	RTS	08/03/20
CHK		

DO NOT SCALE DRAWING

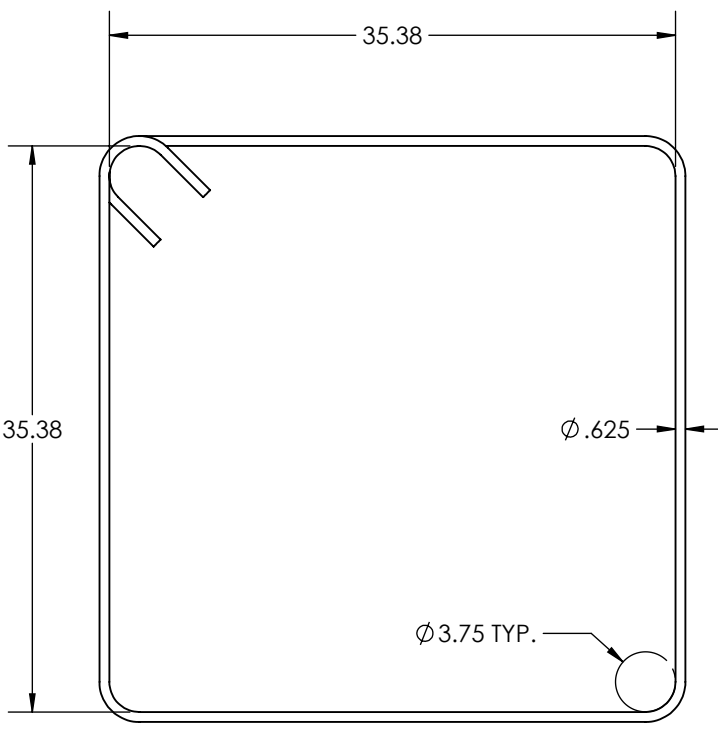
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 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FORMS + SURFACES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION IS PROHIBITED.

SIZE	DWG. NO.	REV	SHEET
B	M50-DP-IND-NP-INSTALL	0	2 OF 3

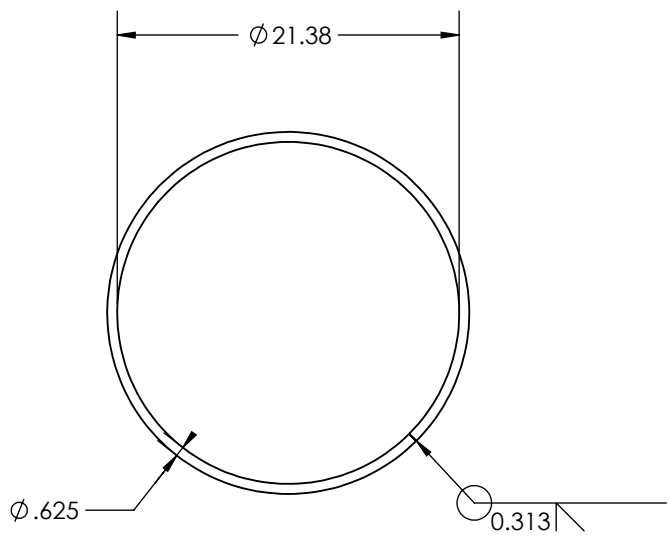
REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

8 7 6 5 4 3 2 1

D  
C  
B  
A



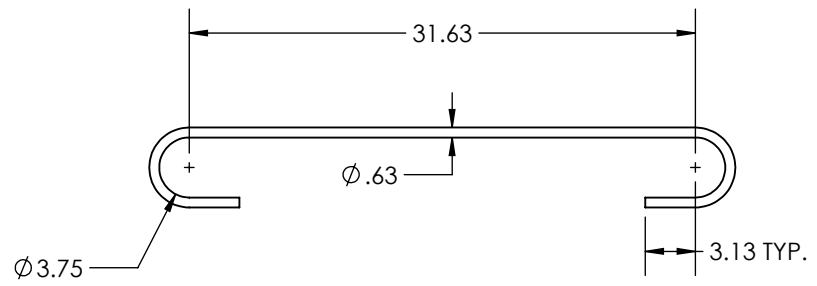
**DETAIL A**  
**#5 OUTER TIE, TYP.**



**DETAIL C**  
**#5 CIRCULAR TIE, TYP.**

**NOTES:**

1. 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).
3. CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH (F'C) OF 5000 PSI UNO.
4. 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.



**DETAIL B**  
**#5 INNER TIE, TYP.**

REBAR CHART	
BAR SIZE	DIAMETER
#5	Ø 0.625
#8	Ø 1.000

**UNLESS OTHERWISE SPECIFIED:**  
 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES  
 THIRD ANGLE PROJECTION  
 MATERIAL: N/A  
 FINISH: N/A  
 WEIGHT: N/A  
 SCALE: NOT TO SCALE

**FORMS+SURFACES** 30 Pine Street, Pittsburgh, PA 15223  
 Tel (412) 781-9003 Fax (412) 781-7840

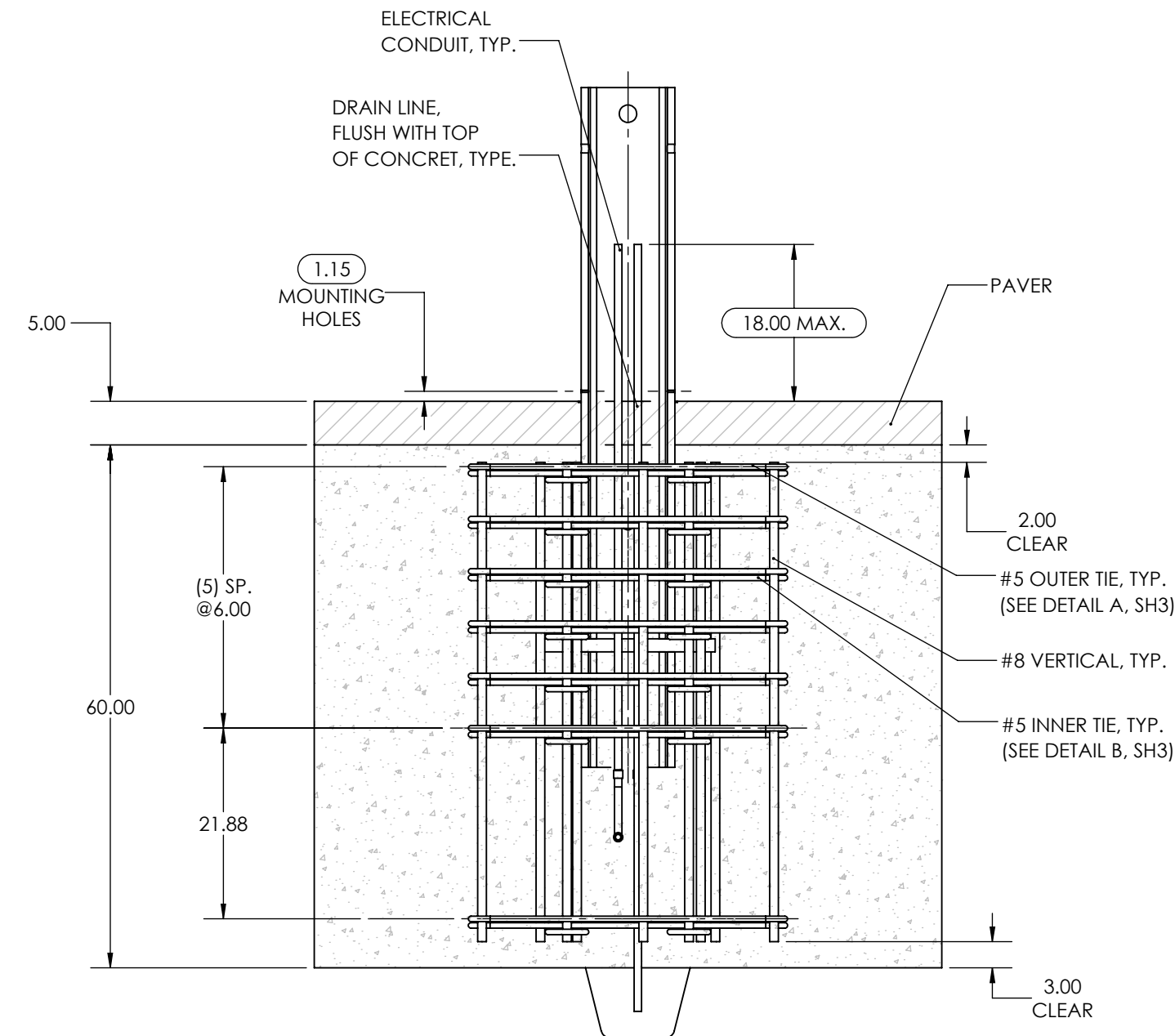
NAME	DATE
DWN	RTS
CHK	

DESCRIPTION:			
<b>FORMS+SURFACES</b>			
<b>M50-P1 DEEP SECURITY CORE</b>			
<b>INDIVIDUAL FOUNDATION, NO PAVER</b>			
SIZE	DWG. NO.	REV	SHEET
B	M50-DP-IND-NP-INSTALL	0	3 OF 3

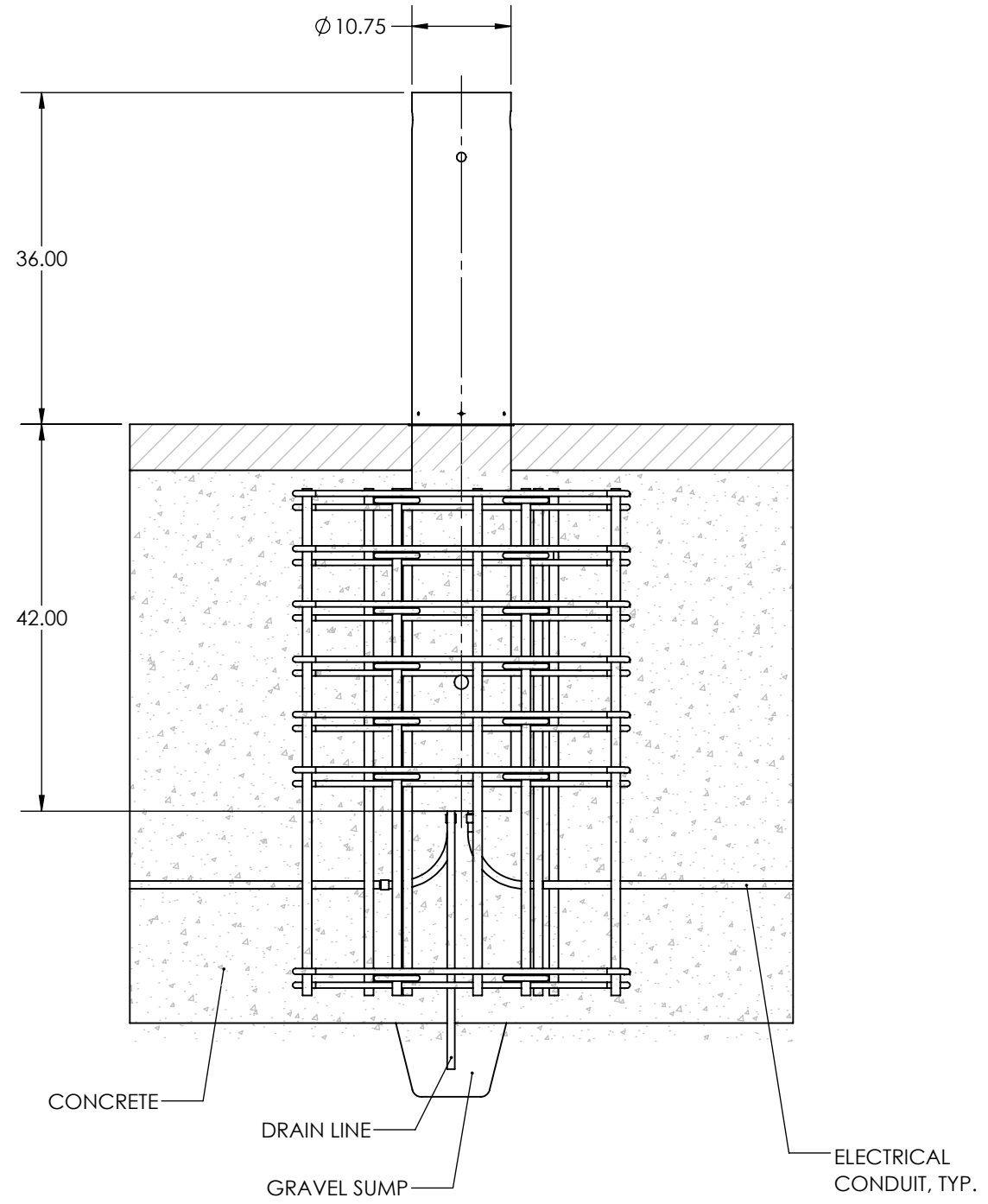
REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

8 7 6 5 4 3 2 1

D  
C  
B  
A



END VIEW (PARTIAL SECTION)



SIDE VIEW (PARTIAL SECTION)

**UNLESS OTHERWISE SPECIFIED:**  
 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES

**FORMS+SURFACES** 30 Pine Street, Pittsburgh, PA 15223  
 Tel (412) 781-9003 Fax (412) 385-4715

NAME	DATE	DESCRIPTION: <b>FORMS+SURFACES</b> <b>M50-P1 DEEP SECURITY CORE</b> <b>INDIVIDUAL FOUNDATION, WITH PAVER</b>
DWN YAF	07/11/2023	
CHK		

THIRD ANGLE PROJECTION

MATERIAL: N/A

FINISH: N/A

WEIGHT: N/A

SCALE: NOT TO SCALE

DO NOT SCALE DRAWING

**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.

SIZE	DWG. NO.	REV	SHEET
B	M50-DP-IND-PV-INSTALL	0	1 OF 3

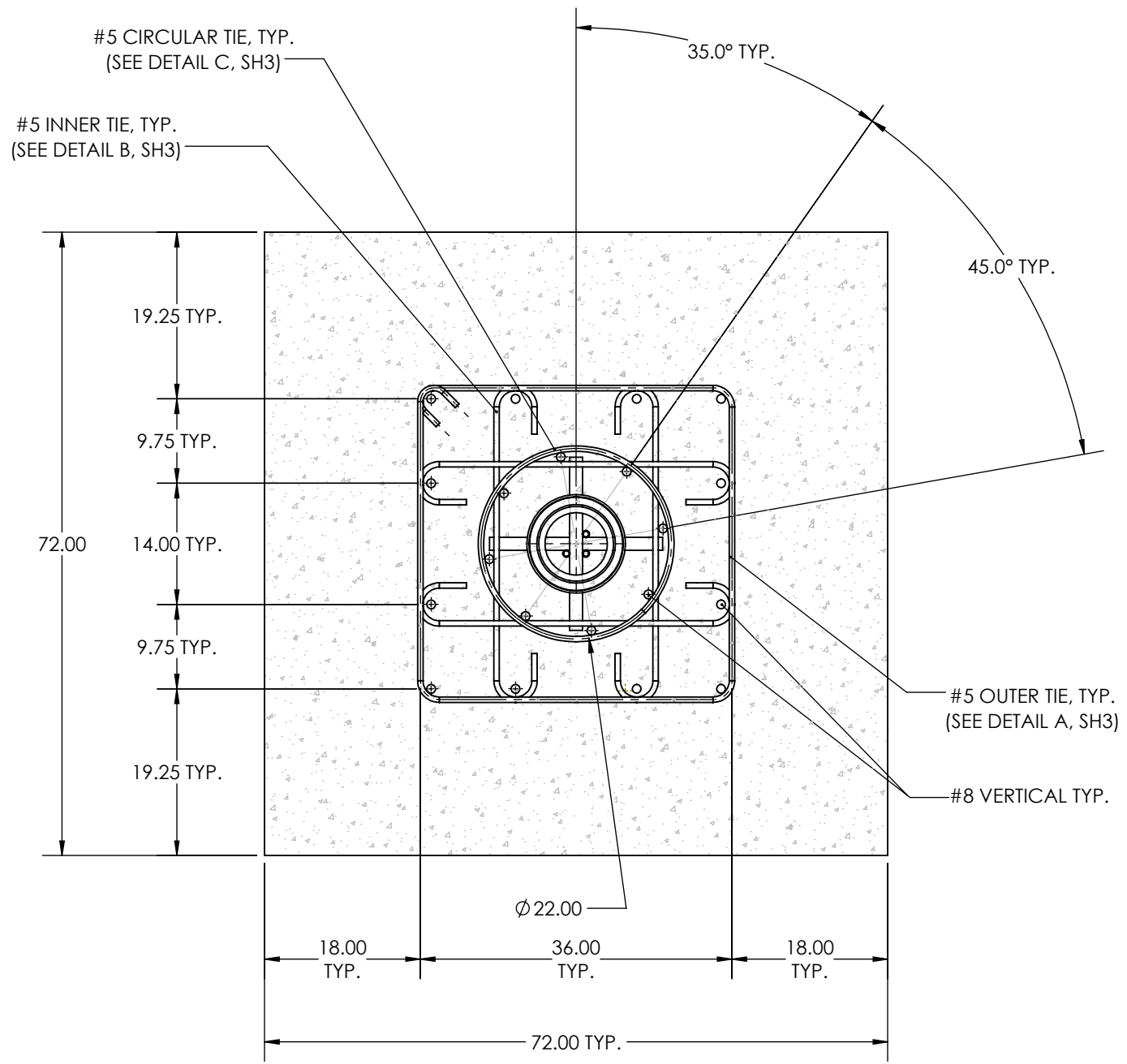
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REV.	DESCRIPTION	REVISED BY	DATE

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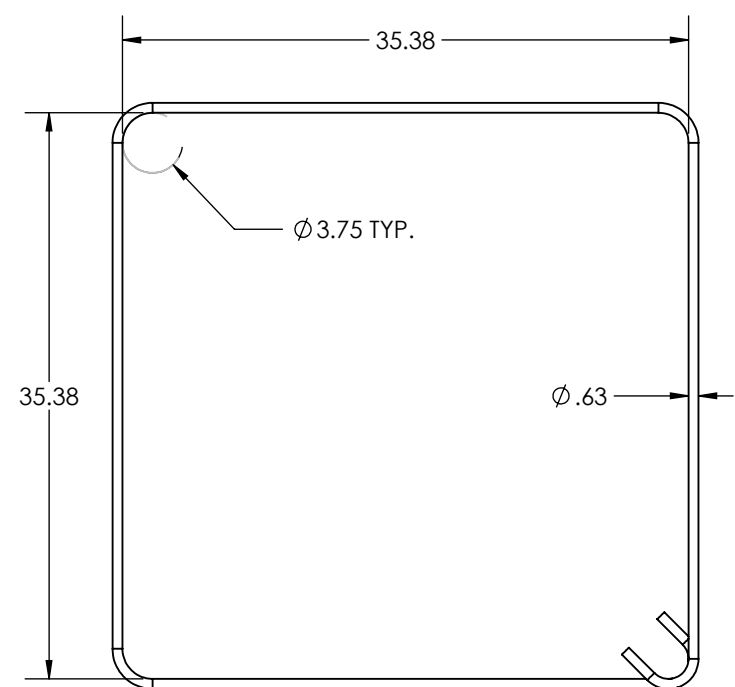
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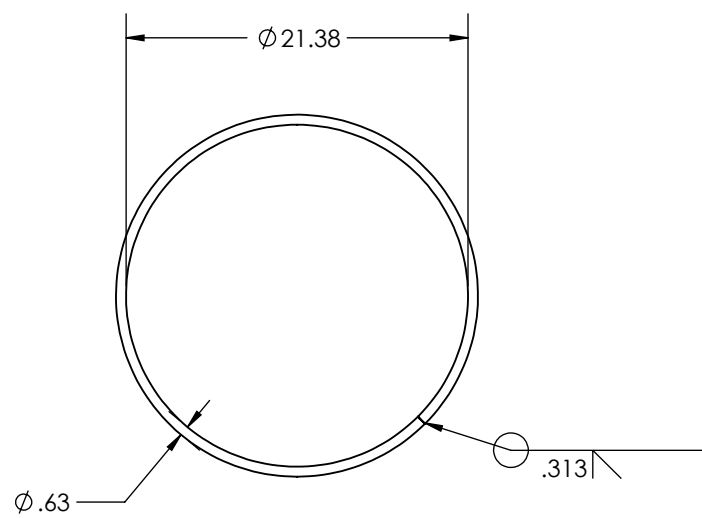
PLAN VIEW (PARTIAL SECTION)

<b>UNLESS OTHERWISE SPECIFIED:</b> 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM 2. TOLERANCES FRACTIONAL: $\pm 1/32$ ; ANGULAR/BEND: $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .030$ THREE PLACE DECIMAL $\pm .020$ 3. REMOVE ALL BURRS AND SHARP EDGES		<b>FORMS+SURFACES</b> <small>30 Pine Street, Pittsburgh, PA 15223 Tel (412) 781-9003 Fax (412) 781-7840</small>		
THIRD ANGLE PROJECTION 	NAME DWN YAF	DATE 07/11/2023	DESCRIPTION: <b>FORMS+SURFACES</b> <b>M50-P1 DEEP SECURITY CORE</b> <b>INDIVIDUAL FOUNDATION, WITH PAVER</b>	
MATERIAL: N/A	DO NOT SCALE DRAWING			
FINISH: N/A	<b>PROPRIETARY AND CONFIDENTIAL</b> <small>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.</small>			
WEIGHT: N/A	SIZE B	DWG. NO. M50-DP-IND-PV-INSTALL	REV 0	SHEET 2 OF 3
SCALE: NOT TO SCALE				

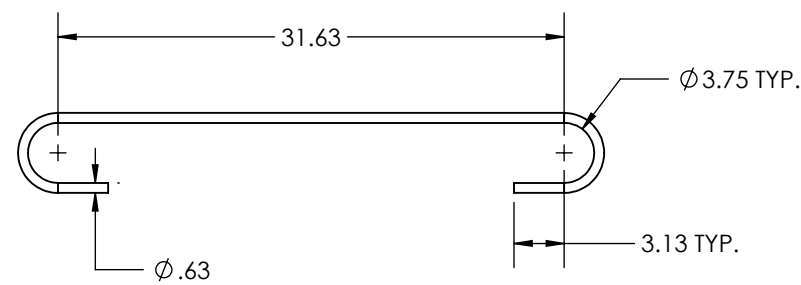
8 7 6 5 4 3 2 1



**DETAIL A**  
**#5 OUTER TIE, TYP.**



**DETAIL C**  
**#5 INNER TIE, TYP.**



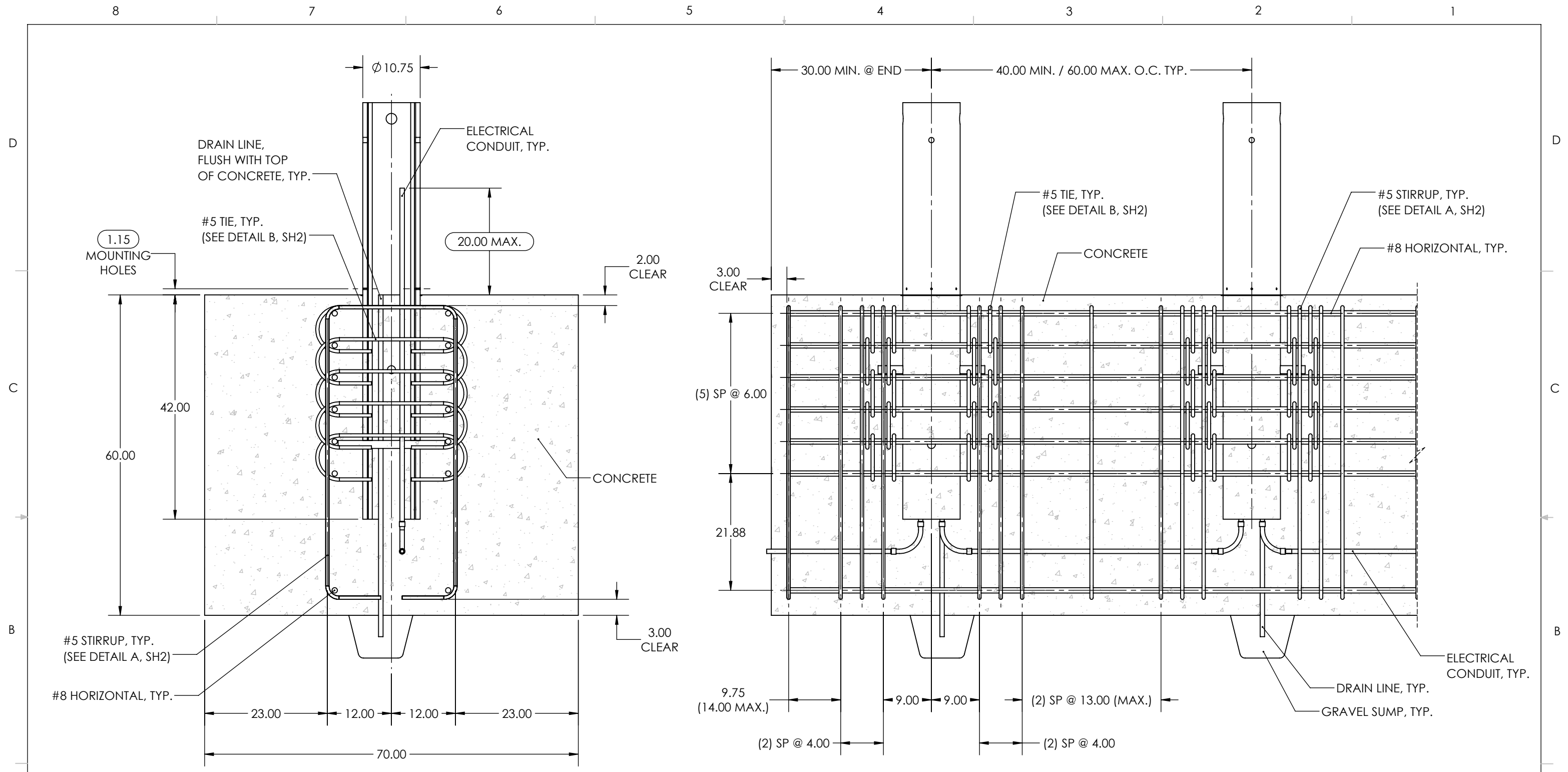
**DETAIL B**  
**#5 INNER TIE, TYP.**

REBAR CHART	
BAR SIZE	DIAMETER
#5	Ø 0.625
#8	Ø 1.000

**NOTES:**

1. FOOTINGS HAVE BEEN DESIGNED TO BEAR ON UNDISTURBED SOIL OR PROPERLY COMPACTED ENGINEERED FILL ASSUMING A NET BEARING CAPACITY OF 2000 PSF.
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4. 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.

<b>UNLESS OTHERWISE SPECIFIED:</b> 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM 2. TOLERANCES FRACTIONAL: ±1/32; ANGULAR/BEND: ±1° TWO PLACE DECIMAL ±.030 THREE PLACE DECIMAL ±.020 3. REMOVE ALL BURRS AND SHARP EDGES THIRD ANGLE PROJECTION		30 Pine Street, Pittsburgh, PA 15223 Tel (412) 781-9003 Fax (412) 781-7840	
MATERIAL: N/A FINISH: N/A WEIGHT: N/A SCALE: NOT TO SCALE		NAME: DWN DATE: 07/11/2023 CHECKED: CHK DO NOT SCALE DRAWING 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.	DESCRIPTION: <b>FORMS+SURFACES</b> <b>M50-P1 DEEP SECURITY CORE</b> <b>INDIVIDUAL FOUNDATION, WITH PAVER</b>
SIZE: B	DWG. NO.: M50-DP-IND-PV-INSTALL	REV: 0	SHEET: 3 OF 3



**END VIEW (PARTIAL SECTION)**

**SIDE VIEW (PARTIAL SECTION)**

**UNLESS OTHERWISE SPECIFIED:**  
 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL: N/A

FINISH: N/A

WEIGHT: N/A

SCALE: NOT TO SCALE

**FORMS+SURFACES** 30 Pine Street, Pittsburgh, PA 15223  
 Tel (412) 781-9003 Fax (412) 781-7840

NAME	DATE	DESCRIPTION:
DWN	RTS	08/17/20
CHK		

DO NOT SCALE DRAWING

**FORMS+SURFACES**  
**M50-P1 DEEP SECURITY CORE**  
**STRIP FOUNDATION, NO PAVER**

SIZE	DWG. NO.	REV	SHEET
B	M50-DP-STR-NP-INSTALL	0	1 OF 2

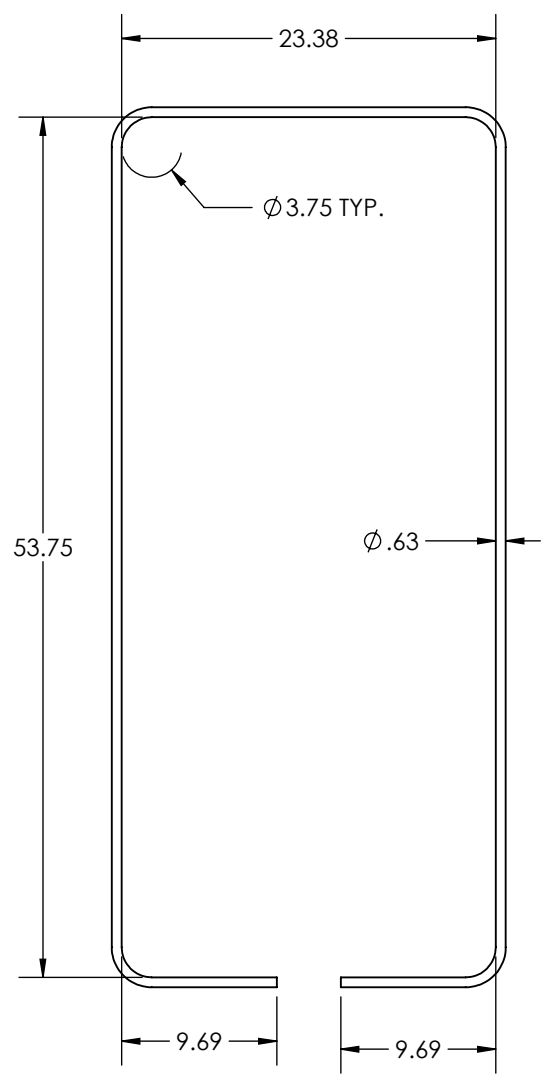
**PROPRIETARY AND CONFIDENTIAL**  
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REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

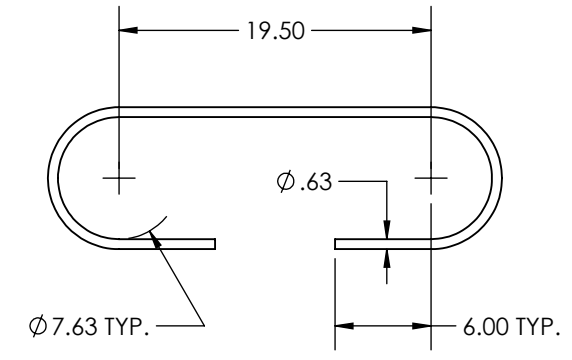
A

A

D  
C  
B  
A



**DETAIL A**  
**#5 STIRRUP, TYP.**



**DETAIL B**  
**#5 TIE, TYP.**

REBAR CHART	
BAR SIZE	DIAMETER
#5	Ø 0.625
#8	Ø 1.000

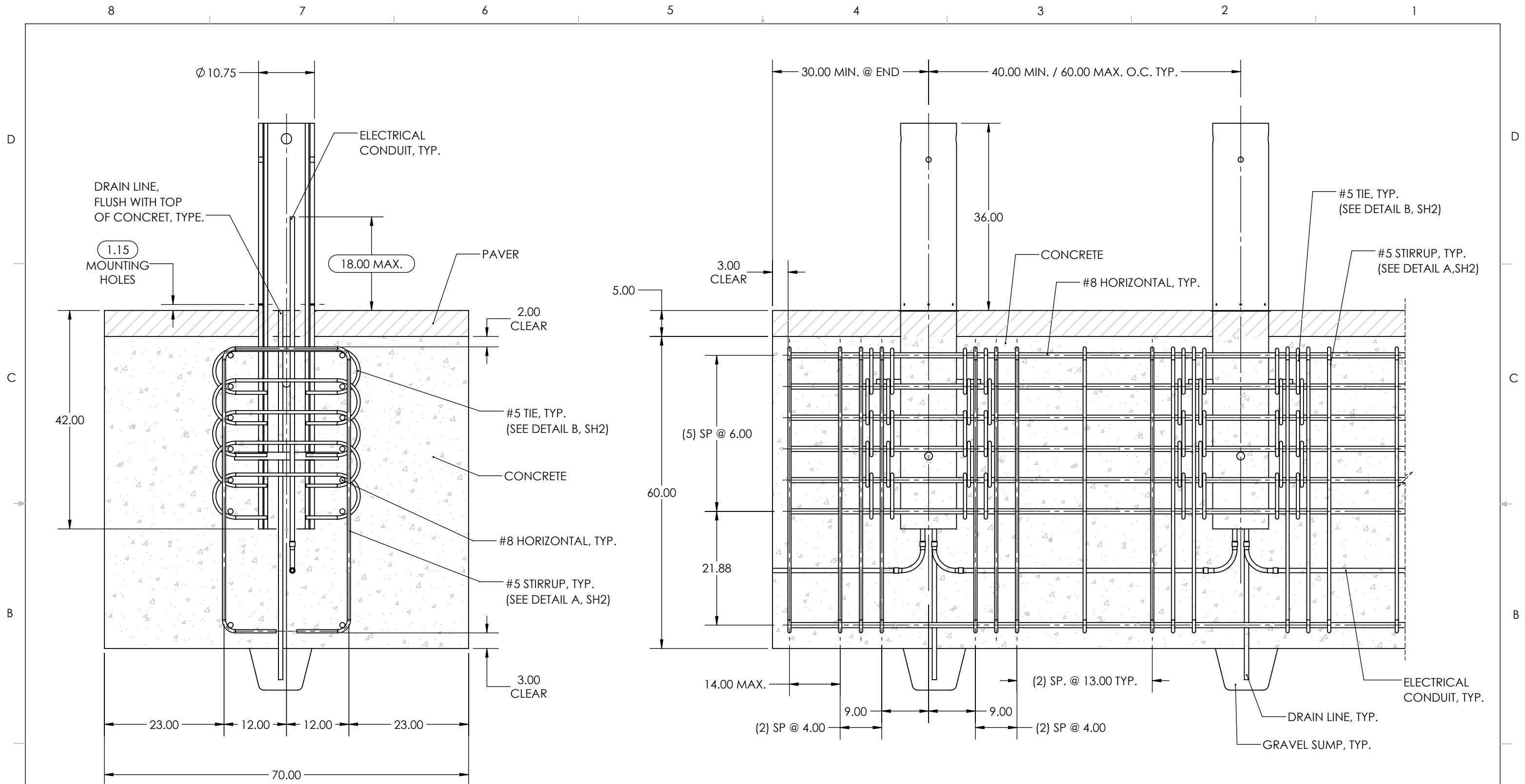
**NOTES:**

1. 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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4. 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.

D  
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<b>UNLESS OTHERWISE SPECIFIED:</b> 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM 2. TOLERANCES FRACTIONAL: ±1/32; ANGULAR/BEND: ±1° TWO PLACE DECIMAL ±.030 THREE PLACE DECIMAL ±.020 3. REMOVE ALL BURRS AND SHARP EDGES THIRD ANGLE PROJECTION		30 Pine Street, Pittsburgh, PA 15223 Tel (412) 781-9003 Fax (412) 781-7840	
MATERIAL: N/A FINISH: N/A WEIGHT: N/A SCALE: NOT TO SCALE		NAME: DWN DATE: 08/17/20 CHECKED: CHK	DESCRIPTION: <b>FORMS+SURFACES</b> <b>M50-P1 DEEP SECURITY CORE</b> <b>STRIP FOUNDATION, NO PAVER</b>
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.		SIZE: B DWG. NO.: M50-DP-STR-NP-INSTALL	REV: 0 SHEET: 2 OF 2

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----



**END VIEW (PARTIAL SECTION)**

**SIDE VIEW (PARTIAL SECTION)**

UNLESS OTHERWISE SPECIFIED:

1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM
2. TOLERANCES  
 FRACTIONAL:  $\pm 1/32$ ; ANGULAR/BEND:  $\pm 1^\circ$   
 TWO PLACE DECIMAL  $\pm .030$   
 THREE PLACE DECIMAL  $\pm .020$   
 3. REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL: N/A

FINISH: N/A

WEIGHT: N/A

SCALE: NOT TO SCALE



30 Pine Street, Pittsburgh, PA 15223  
Tel (412) 781-9003 Fax (412) 385-4715

NAME	DATE
DWN YAF	07/10/2023
CHK	

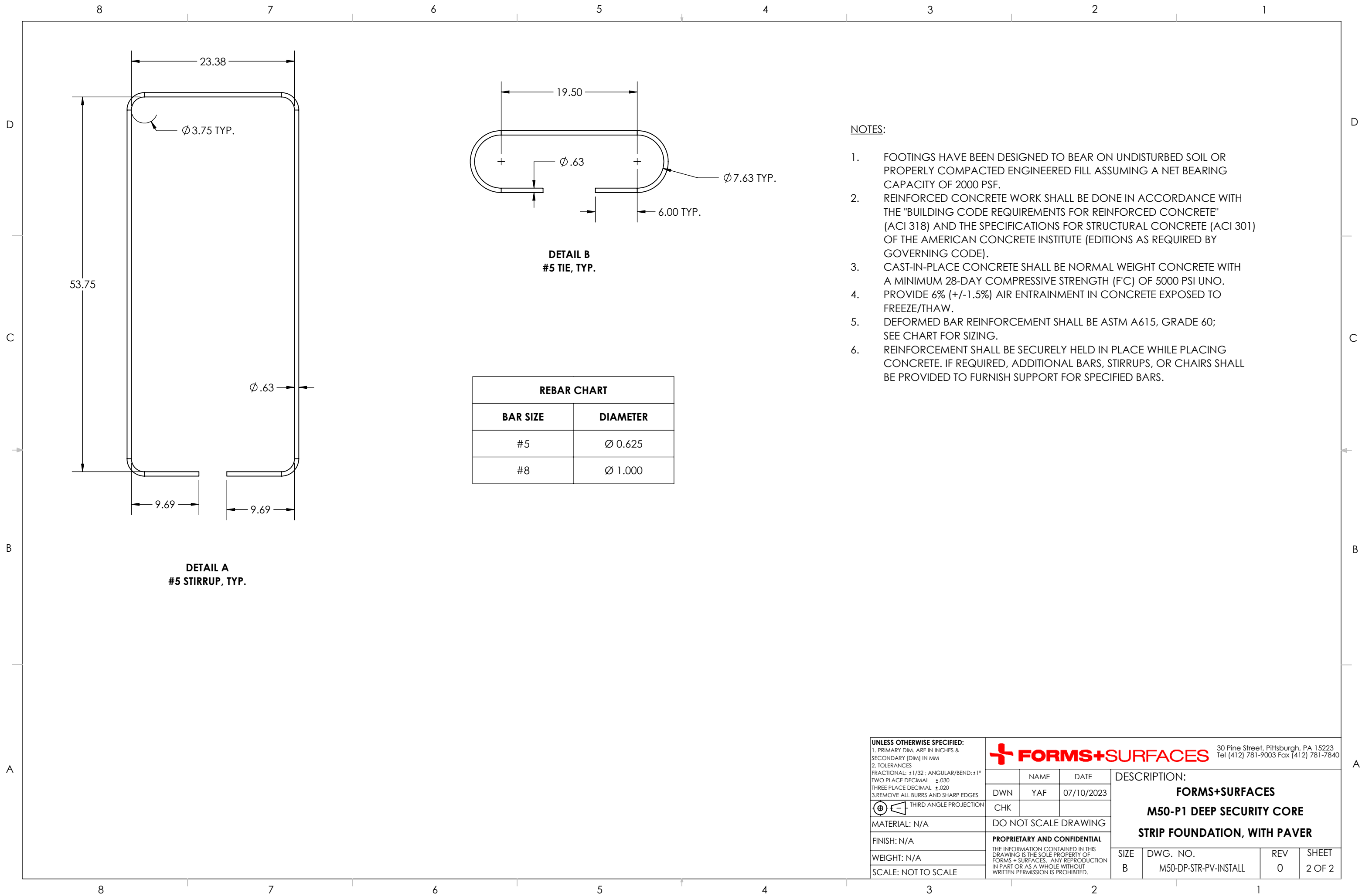
DO NOT SCALE DRAWING

**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.

DESCRIPTION:  
**FORMS+SURFACES**  
**M50-P1 DEEP SECURITY CORE STRIP FOUNDATION, WITH PAVER**

SIZE	DWG. NO.	REV	SHEET
B	M50-DP-STR-PV-INSTALL	0	1 OF 2

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----



**UNLESS OTHERWISE SPECIFIED:**  
 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL: N/A  
 FINISH: N/A  
 WEIGHT: N/A  
 SCALE: NOT TO SCALE

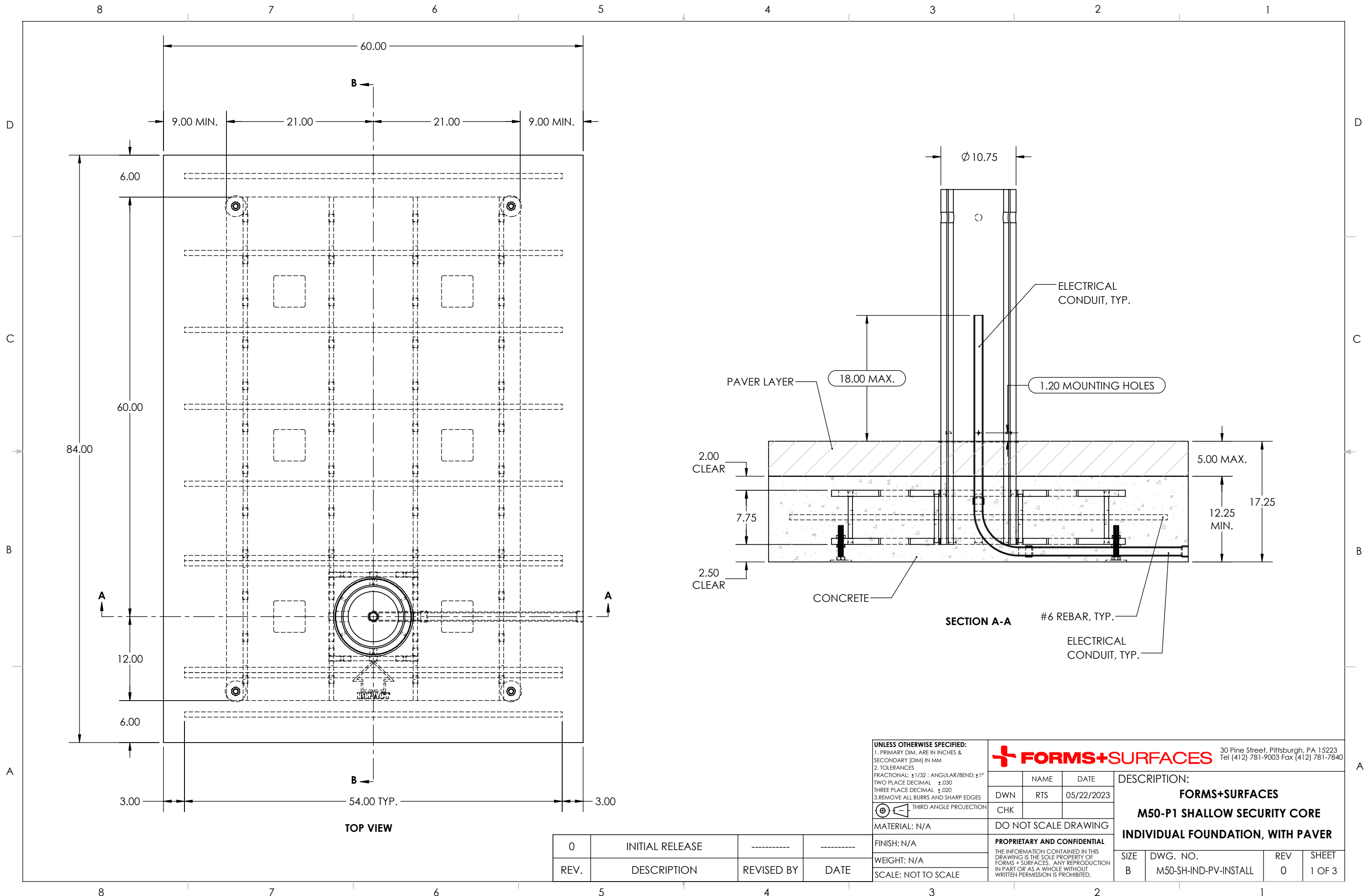
**FORMS+SURFACES** 30 Pine Street, Pittsburgh, PA 15223  
 Tel (412) 781-9003 Fax (412) 781-7840

NAME	DATE	DESCRIPTION: <b>FORMS+SURFACES</b> <b>M50-P1 DEEP SECURITY CORE</b> <b>STRIP FOUNDATION, WITH PAVER</b>
DWN	YAF 07/10/2023	
CHK		

DO NOT SCALE DRAWING

SIZE	DWG. NO.	REV	SHEET
B	M50-DP-STR-PV-INSTALL	0	2 OF 2

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.



**UNLESS OTHERWISE SPECIFIED:**  
 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES

**THIRD ANGLE PROJECTION**

MATERIAL: N/A  
 FINISH: N/A  
 WEIGHT: N/A  
 SCALE: NOT TO SCALE

**FORMS+SURFACES**  
 30 Pine Street, Pittsburgh, PA 15223  
 Tel (412) 781-9003 Fax (412) 781-7840

NAME	DATE	DESCRIPTION:
DWN	RTS	05/22/2023
CHK		

DO NOT SCALE DRAWING

**PROPRIETARY AND CONFIDENTIAL**  
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SIZE	DWG. NO.	REV	SHEET
B	M50-SH-IND-PV-INSTALL	0	1 OF 3

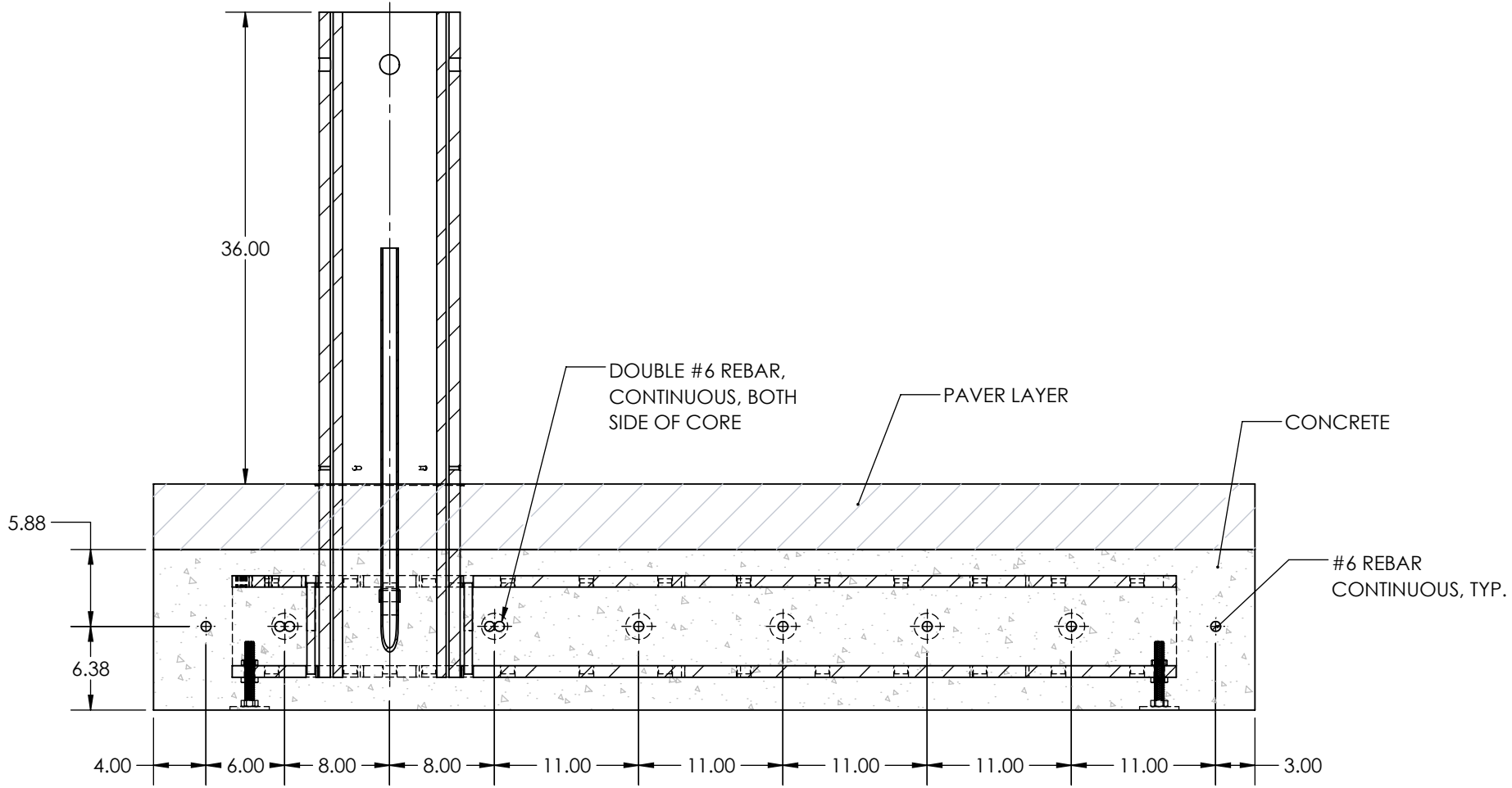
**FORMS+SURFACES**  
**M50-P1 SHALLOW SECURITY CORE**  
**INDIVIDUAL FOUNDATION, WITH PAVER**

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

8 7 6 5 4 3 2 1

D  
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A

D  
C  
B  
A



SECTION B-B

NOTES:

1. 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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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.

REBAR CHART	
BAR SIZE	DIAMETER
#6	Ø 0.750

**UNLESS OTHERWISE SPECIFIED:**  
 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES  
 THIRD ANGLE PROJECTION  
 MATERIAL: N/A  
 FINISH: N/A  
 WEIGHT: N/A  
 SCALE: NOT TO SCALE



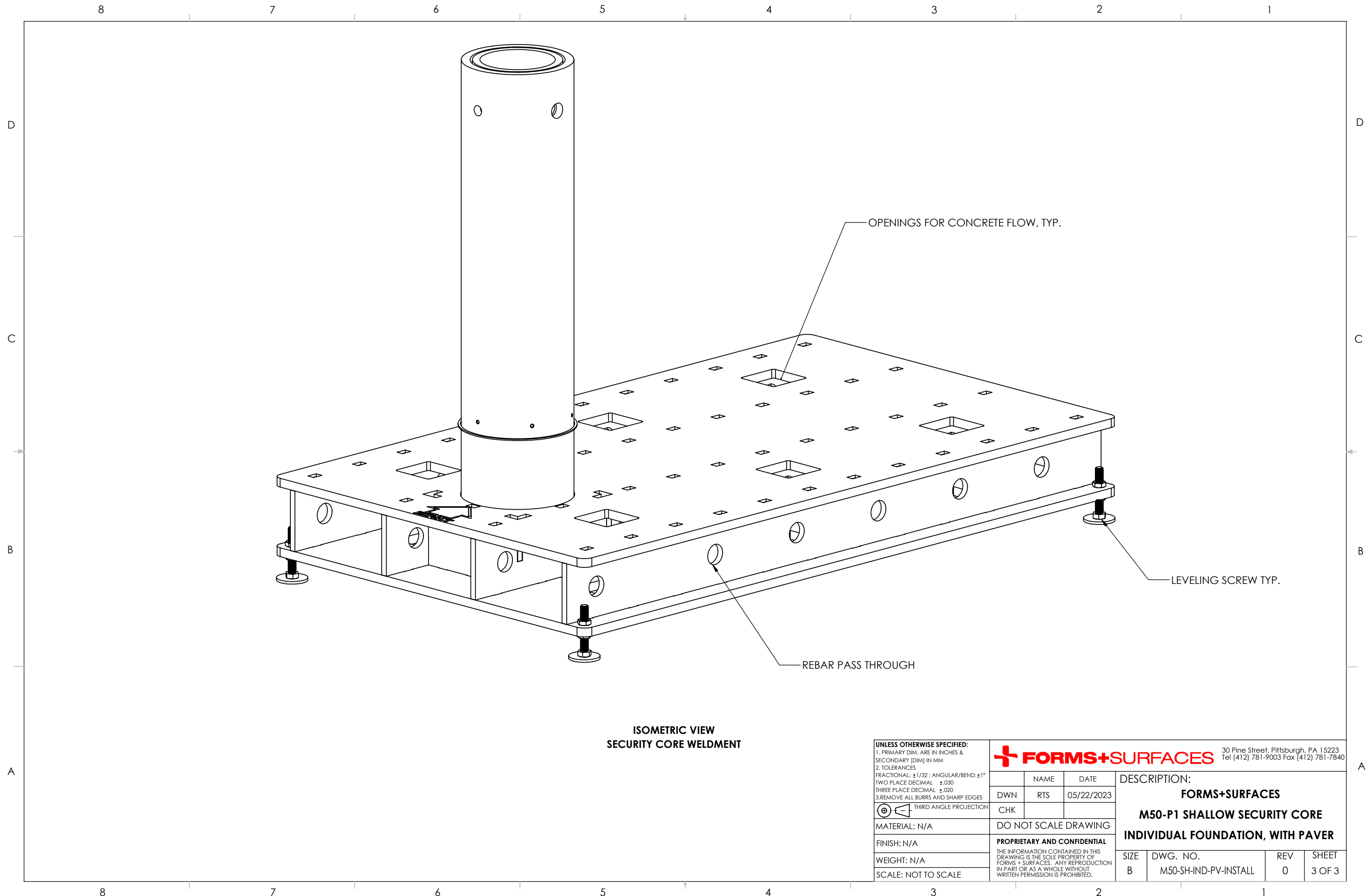
30 Pine Street, Pittsburgh, PA 15223  
 Tel (412) 781-9003 Fax (412) 781-7840

NAME	DATE
DWN	RTS
CHK	05/22/2023

DESCRIPTION: <b>FORMS+SURFACES</b> <b>M50-P1 SHALLOW SECURITY CORE</b> <b>INDIVIDUAL FOUNDATION, WITH PAVER</b>			
SIZE	DWG. NO.	REV	SHEET
B	M50-SH-IND-PV-INSTALL	0	2 OF 3

8 7 6 5 4 3 2 1

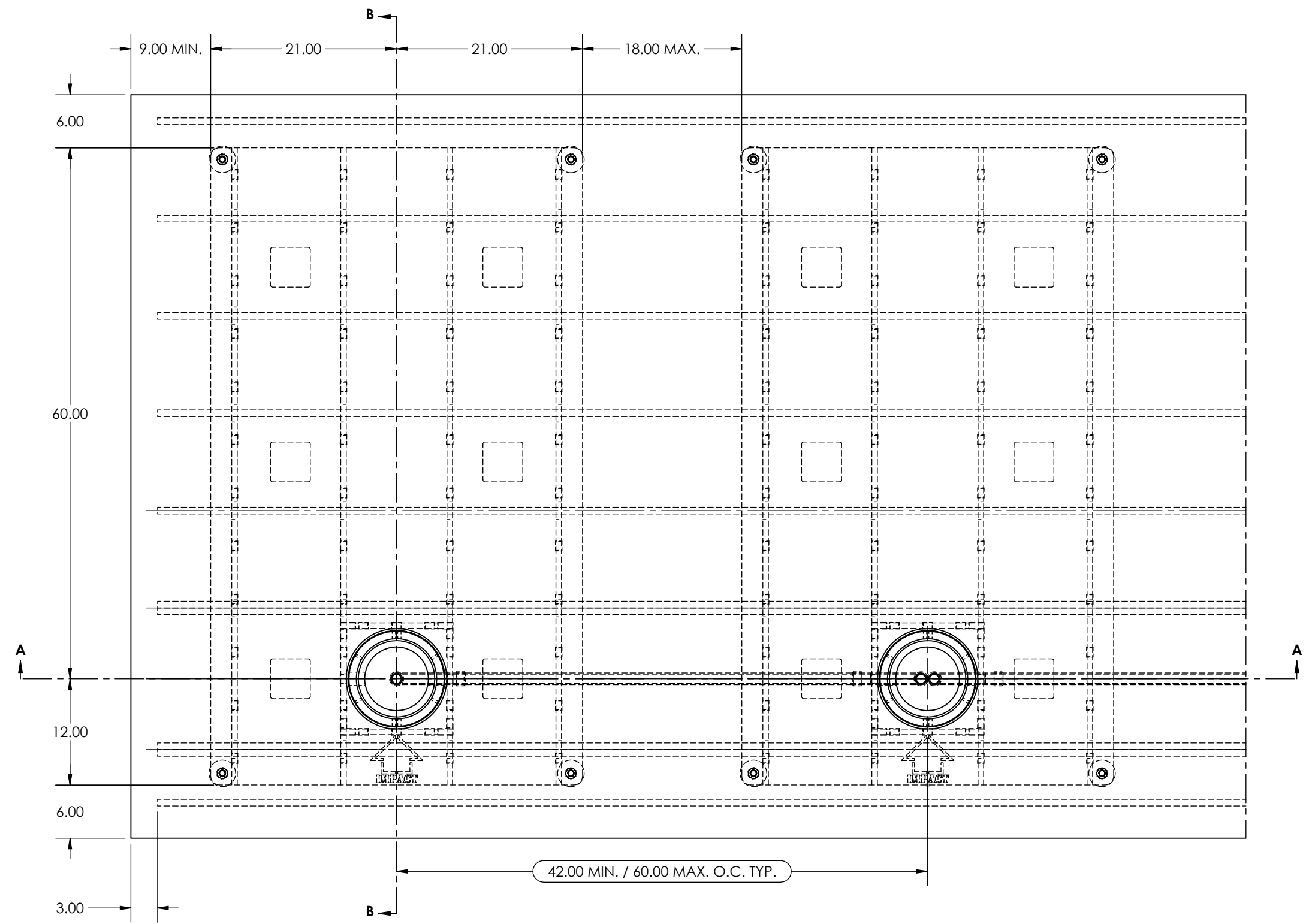




ISOMETRIC VIEW  
SECURITY CORE WELDMENT

<b>UNLESS OTHERWISE SPECIFIED:</b> 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM 2. TOLERANCES FRACTIONAL: ±1/32; ANGULAR/BEND: ±1° TWO PLACE DECIMAL ±.030 THREE PLACE DECIMAL ±.020 3. REMOVE ALL BURRS AND SHARP EDGES				30 Pine Street, Pittsburgh, PA 15223 Tel (412) 781-9003 Fax (412) 781-7840									
		NAME	DATE	DESCRIPTION: <b>FORMS+SURFACES</b> <b>M50-P1 SHALLOW SECURITY CORE</b> <b>INDIVIDUAL FOUNDATION, WITH PAVER</b>									
MATERIAL: N/A		DWN	RTS			05/22/2023							
FINISH: N/A		CHK		<table border="1"> <tr> <td>SIZE</td> <td>DWG. NO.</td> <td>REV</td> <td>SHEET</td> </tr> <tr> <td>B</td> <td>M50-SH-IND-PV-INSTALL</td> <td>0</td> <td>3 OF 3</td> </tr> </table>		SIZE	DWG. NO.	REV	SHEET	B	M50-SH-IND-PV-INSTALL	0	3 OF 3
SIZE	DWG. NO.	REV	SHEET										
B	M50-SH-IND-PV-INSTALL	0	3 OF 3										
WEIGHT: N/A		DO NOT SCALE DRAWING											
SCALE: NOT TO SCALE		<b>PROPRIETARY AND CONFIDENTIAL</b> 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.											

8 7 6 5 4 3 2 1



TOP VIEW

**UNLESS OTHERWISE SPECIFIED:**  
 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM  
 2. TOLERANCES  
 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES

THIRD ANGLE PROJECTION

MATERIAL: N/A  
 FINISH: N/A  
 WEIGHT: N/A  
 SCALE: NOT TO SCALE

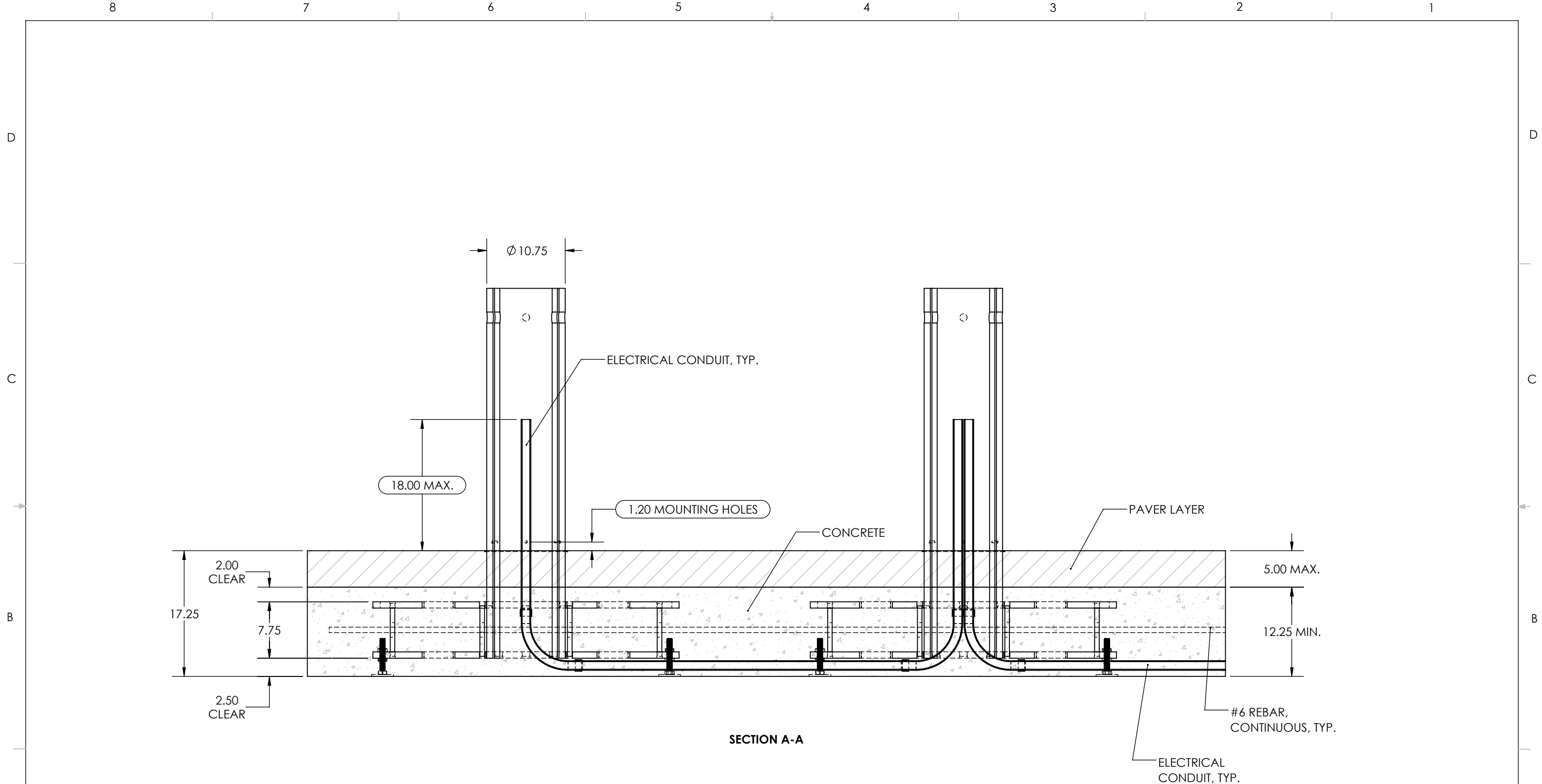
**FORMS+SURFACES** 30 Pine Street, Pittsburgh, PA 15223  
 Tel (412) 781-9003 Fax (412) 781-7840

NAME	DATE
DWN JRF	07/07/2022
CHK	

DESCRIPTION:			
<b>FORMS+SURFACES</b>			
<b>M50-P1 SHALLOW SECURITY CORE STRIP FOUNDATION, WITH PAVER</b>			
SIZE	DWG. NO.	REV	SHEET
B	M50-SH-STR-PV-INSTALL	0	1 OF 4

REV.	DESCRIPTION	REVISED BY	DATE
0	INITIAL RELEASE	-----	-----

8 7 6 5 4 3 2 1

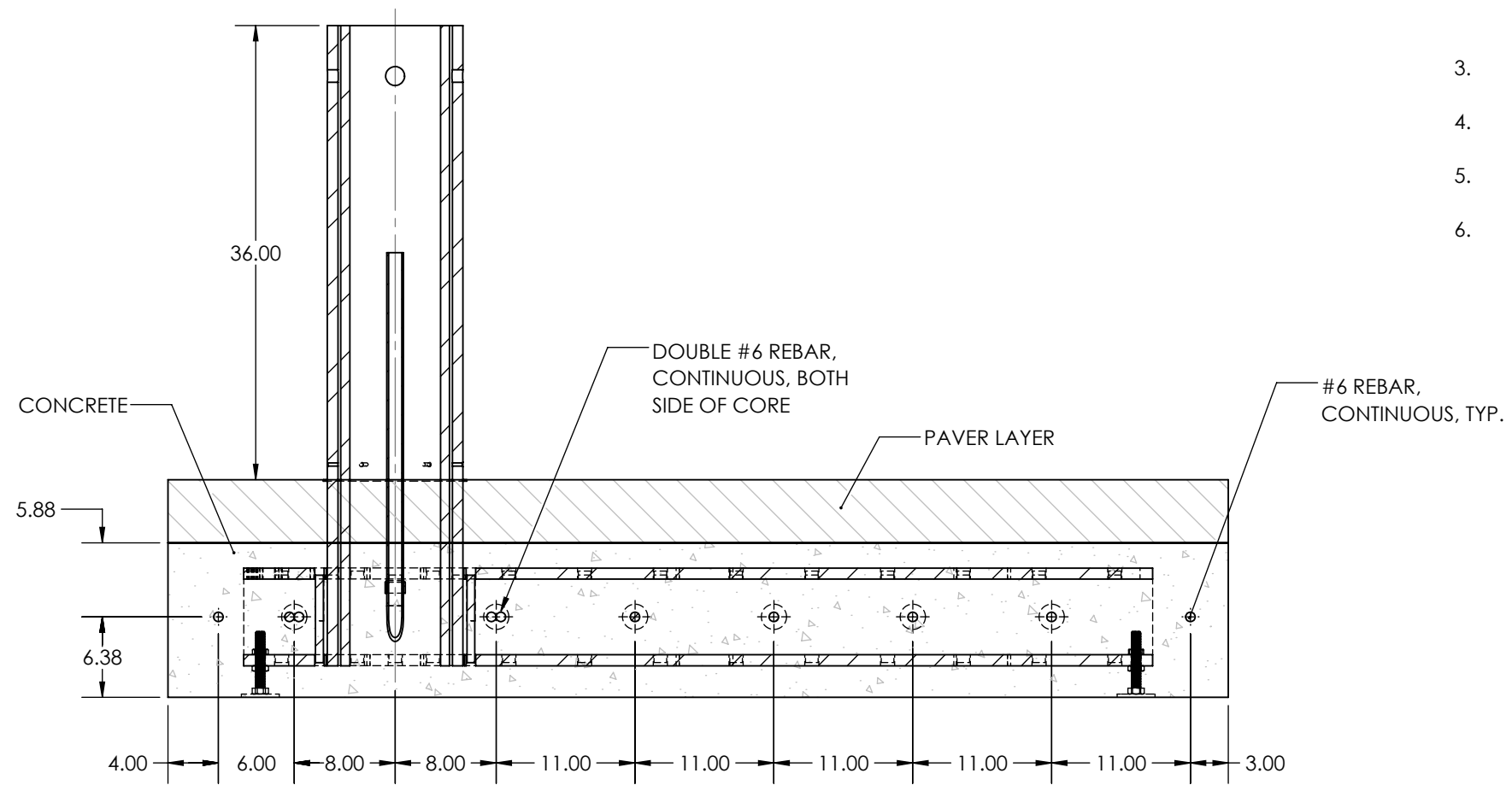


<b>UNLESS OTHERWISE SPECIFIED:</b> 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM 2. TOLERANCES FRACTIONAL: $\pm 1/32$ ; ANGULAR/BEND: $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .030$ THREE PLACE DECIMAL $\pm .020$ 3. REMOVE ALL BURRS AND SHARP EDGES				30 Pine Street, Pittsburgh, PA 15223 Tel (412) 781-9003 Fax (412) 781-7840				
THIRD ANGLE PROJECTION 		NAME	DATE	<b>DESCRIPTION:</b> <b>FORMS+SURFACES</b> <b>M50-P1 SHALLOW SECURITY CORE</b> <b>STRIP FOUNDATION, WITH PAVER</b>				
MATERIAL: N/A		DWN	JRF			07/07/2022		
FINISH: N/A		CHK						
WEIGHT: N/A		<b>PROPRIETARY AND CONFIDENTIAL</b> 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		B	M50-SH-STR-PV-INSTALL	0	2 OF 4			

8 7 6 5 4 3 2 1

D  
C  
B  
A

D  
C  
B  
A



SECTION B-B

NOTES:

1. 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).
3. CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH (F'c) OF 5000 PSI UNO.
4. 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.

REBAR CHART	
BAR SIZE	DIAMETER
#6	Ø 0.750

**UNLESS OTHERWISE SPECIFIED:**  
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 FRACTIONAL: ±1/32; ANGULAR/BEND: ±1°  
 TWO PLACE DECIMAL ±.030  
 THREE PLACE DECIMAL ±.020  
 3. REMOVE ALL BURRS AND SHARP EDGES  
 THIRD ANGLE PROJECTION  
 MATERIAL: N/A  
 FINISH: N/A  
 WEIGHT: N/A  
 SCALE: NOT TO SCALE



30 Pine Street, Pittsburgh, PA 15223  
 Tel (412) 781-9003 Fax (412) 781-7840

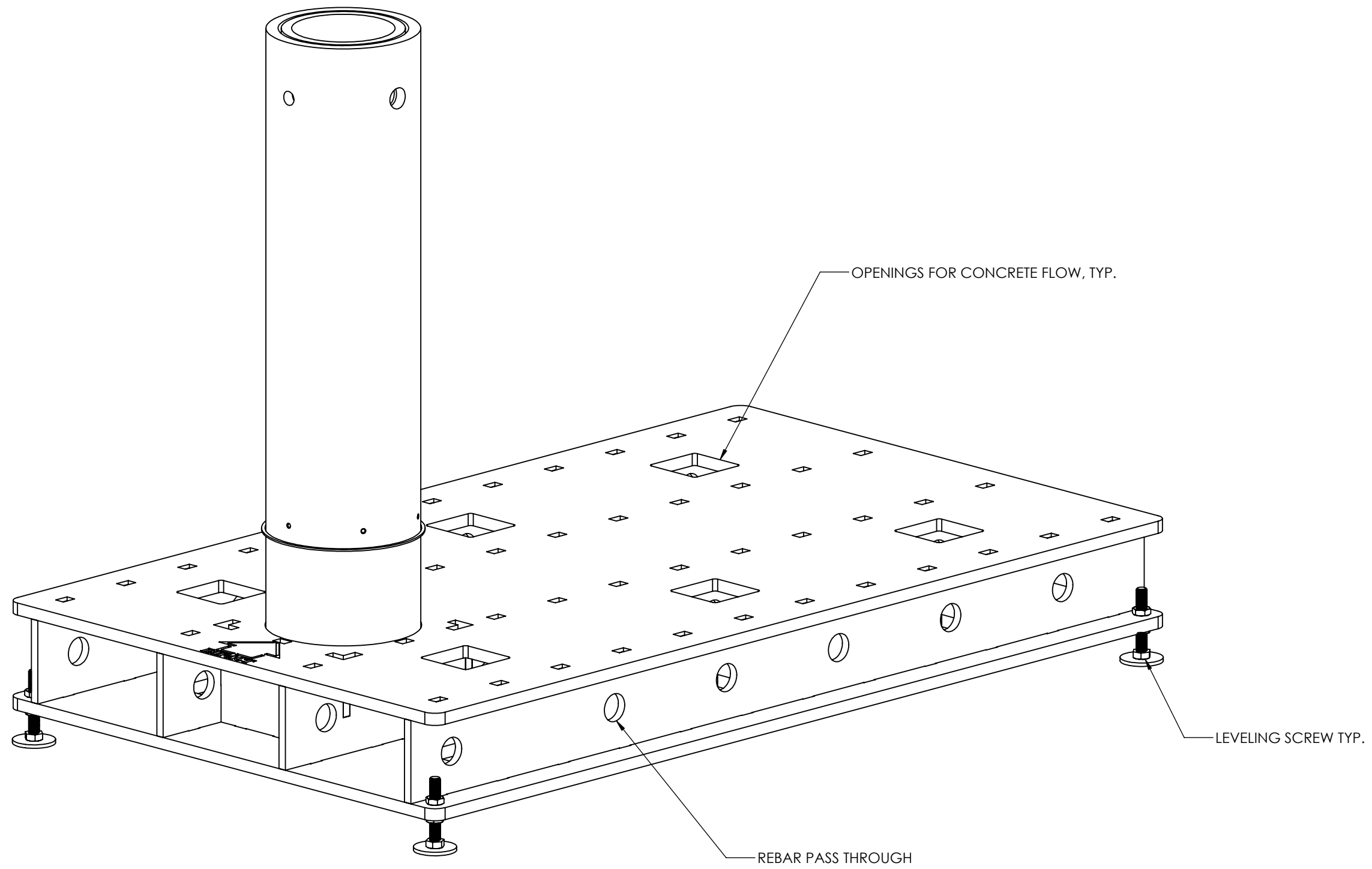
NAME	DATE
DWN JRF	07/07/2022
CHK	

DESCRIPTION: <b>FORMS+SURFACES</b> <b>M50-P1 SHALLOW SECURITY CORE STRIP FOUNDATION, WITH PAVER</b>			
SIZE	DWG. NO.	REV	SHEET
B	M50-SH-STR-PV-INSTALL	0	3 OF 4

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D  
C  
B  
A



**ISOMETRIC VIEW  
SECURITY CORE WELDMENT**

<b>UNLESS OTHERWISE SPECIFIED:</b> 1. PRIMARY DIM. ARE IN INCHES & SECONDARY [DIM] IN MM 2. TOLERANCES FRACTIONAL: $\pm 1/32$ ; ANGULAR/BEND: $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .030$ THREE PLACE DECIMAL $\pm .020$ 3. REMOVE ALL BURRS AND SHARP EDGES THIRD ANGLE PROJECTION				30 Pine Street, Pittsburgh, PA 15223 Tel (412) 781-9003 Fax (412) 781-7840	
NAME	DATE	DESCRIPTION:			
DWN	JRF 07/07/2022	<b>FORMS+SURFACES</b>			
CHK		<b>M50-P1 SHALLOW SECURITY CORE STRIP FOUNDATION, WITH PAVER</b>			
MATERIAL: N/A		DO NOT SCALE DRAWING			
FINISH: N/A		PROPRIETARY AND CONFIDENTIAL			
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.			
SCALE: NOT TO SCALE		SIZE	DWG. NO.	REV	SHEET
		B	M50-SH-STR-PV-INSTALL	0	4 OF 4

8 7 6 5 4 3 2 1