

1. PLOWS USED TO LAY GROUND RADIAL WIRES

2. SIDE VIEW OF TOWER BASE SHOWING PERIMETER STRAP AND ATTACHMENT OF RADIAL WIRES

3. TOP VIEW OF TOWER BASE SHOWING METHOD OF ATTACHING RADIAL WIRES TO PERIMETER STRAP

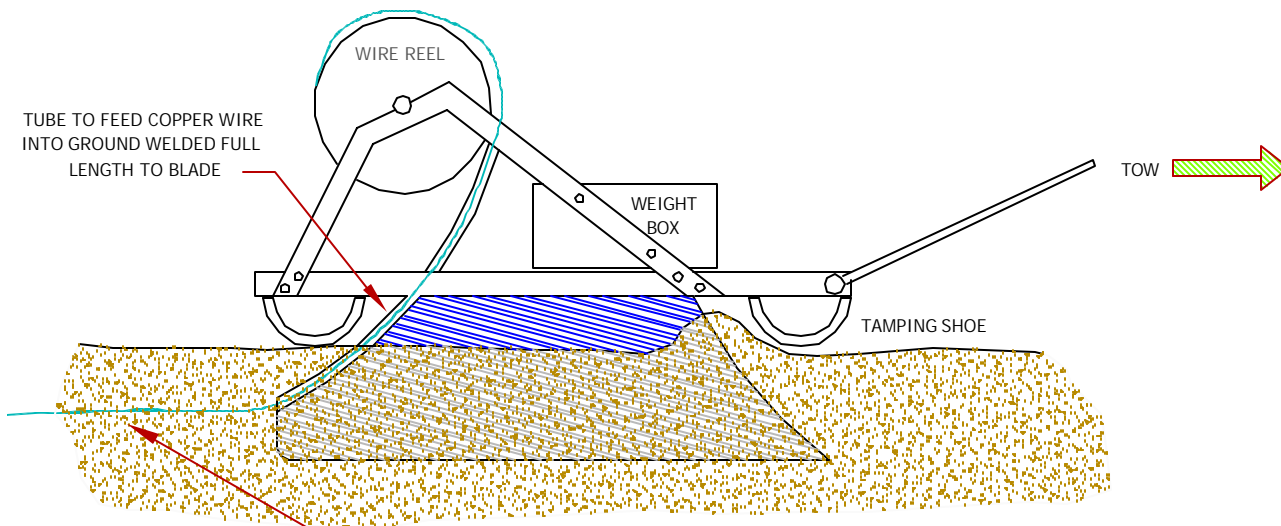
4. TOP VIEW SHOWING ATU BOX CONNECTION TO TOWER BASE PERIMETER STRAP

5. GROUND RADIAL WIRES IN MULTIPLE TOWER ARRAYS

6. SCHEMATIC SHOWING COMMON CHORDS BETWEEN TOWERS AND CHORDS CONNECTING TOWERS

7. MODIFICATION OF GROUND SYSTEM FOR CONSTRUCTION OF BUILDING OVER EXISTING GROUND RADIAL SYSTEM

8. TOP VIEW OF BUILDING OVER GROUND RADIAL WIRES

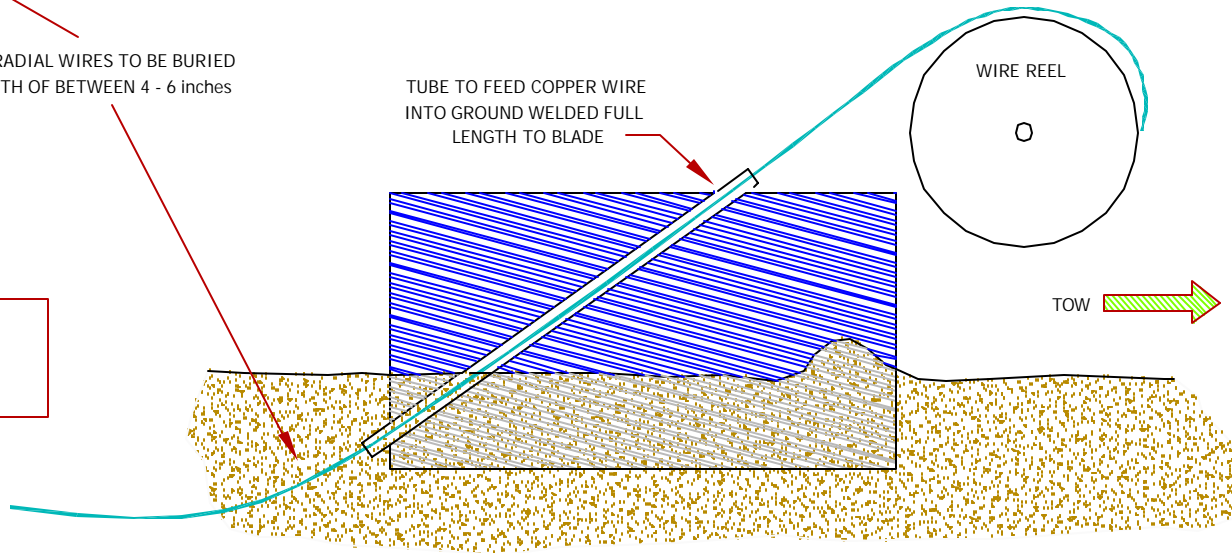


**STANDARD:**  
 STEEL BLADE approximately  
 2ft long x 1ft high x 1/2 to 3/4 inch thick

COPPER RADIAL WIRES TO BE BURIED TO A DEPTH OF BETWEEN 4 - 6 inches

TUBE TO FEED COPPER WIRE INTO GROUND WELDED FULL LENGTH TO BLADE

**ALTERNATE:**  
 STEEL PLATE approximately  
 2ft long x 1ft high x 3/16 inch thick  
 WELDED TO TRACTOR IMPLEMENT



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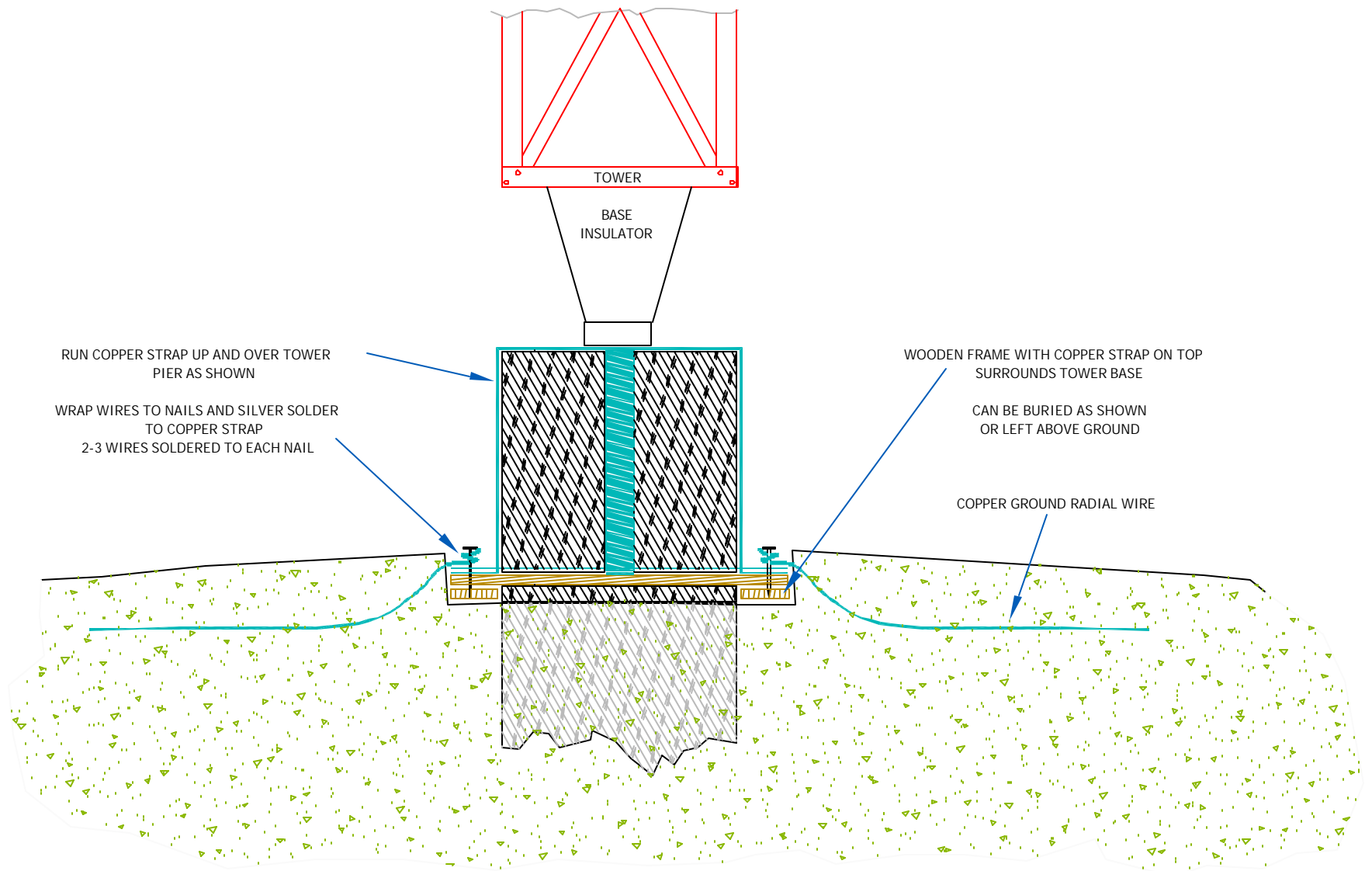
EIGHT DRAWINGS SHOWING  
 THE INSTALLATION OF A  
 STANDARD BROADCAST GROUND SYSTEM

DRAWING NO.

1

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 FILE: GS\_install.dwg  
 DATE: AUG 2002

**PLOWS USED TO LAY GROUND  
 RADIAL WIRES**



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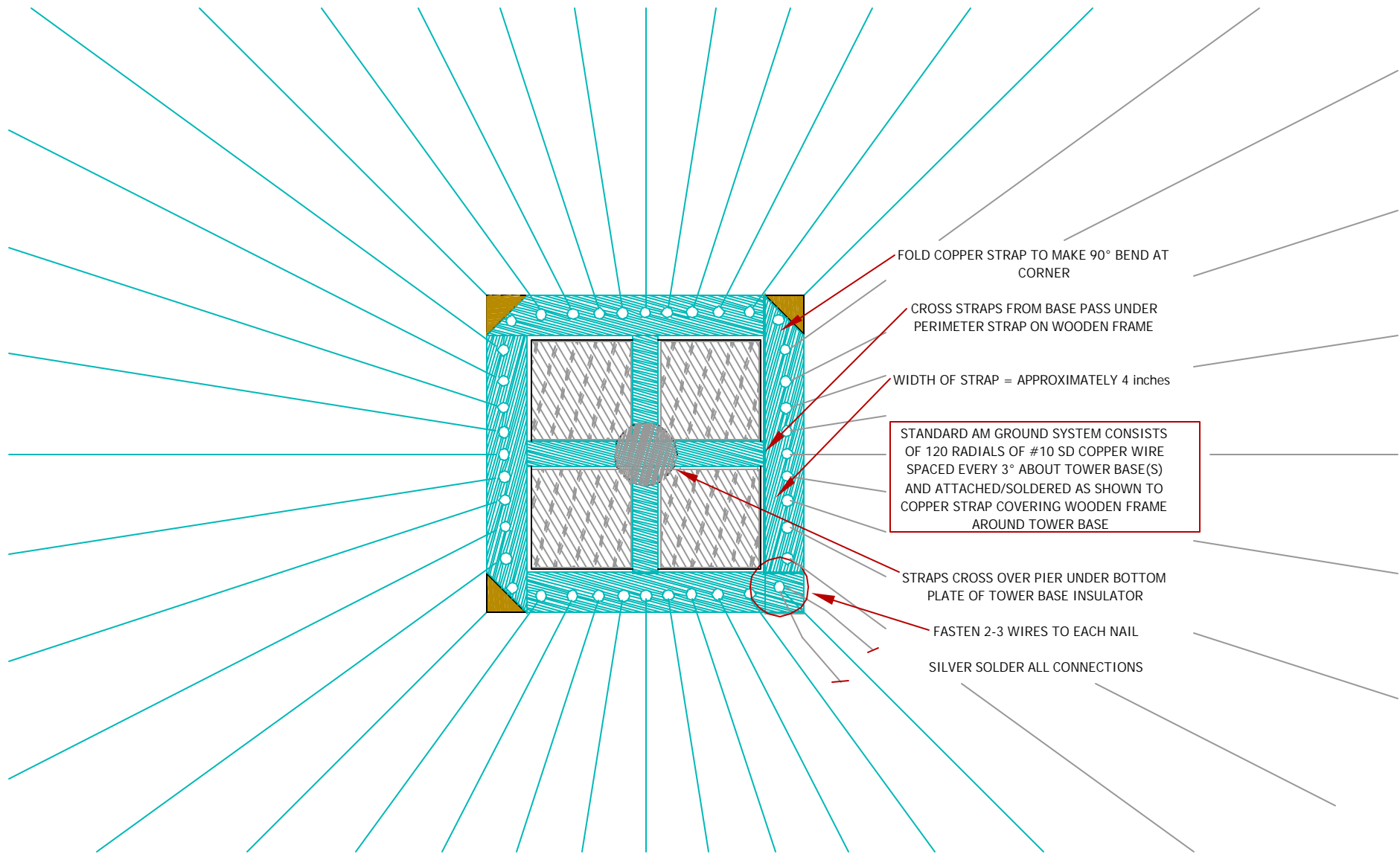
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2

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SIDE VIEW OF TOWER BASE  
SHOWING PERIMETER STRAP  
AND ATTACHMENT OF RADIAL WIRES



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EIGHT DRAWINGS SHOWING  
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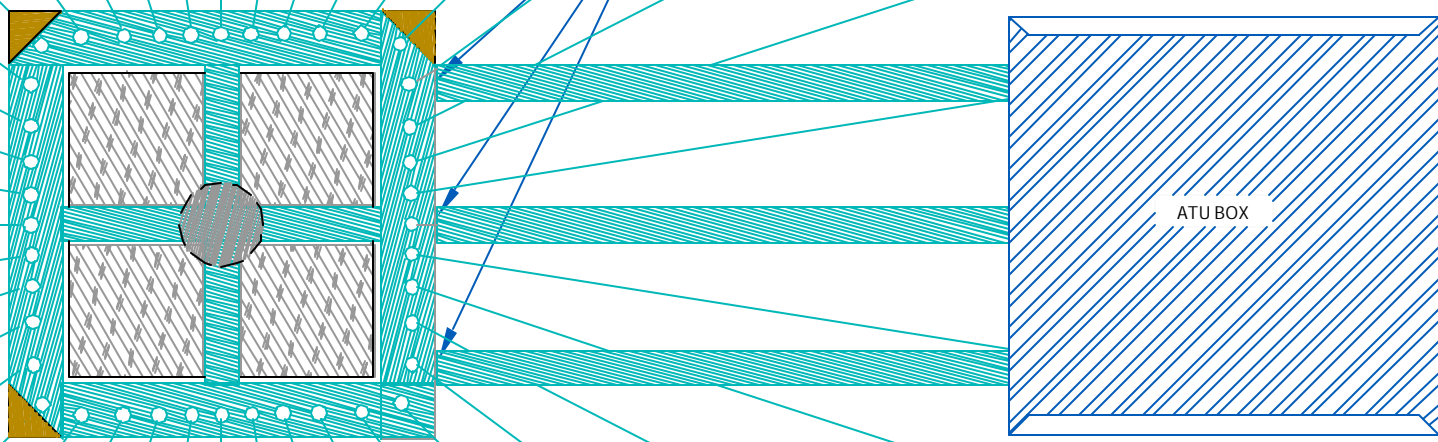
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3

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TOP VIEW OF TOWER BASE SHOWING METHOD  
OF ATTACHING RADIAL WIRES  
TO PERIMETER STRAP

EACH ATU BOX SHOULD BE CONNECTED TO TOWER BASE BY THREE PARALLEL COPPER STRAPS - SILVER SOLDERED TO PERIMETER STRAP AROUND CONCRETE PIER SUPPORTING TOWER



approx. 4 - 6ft

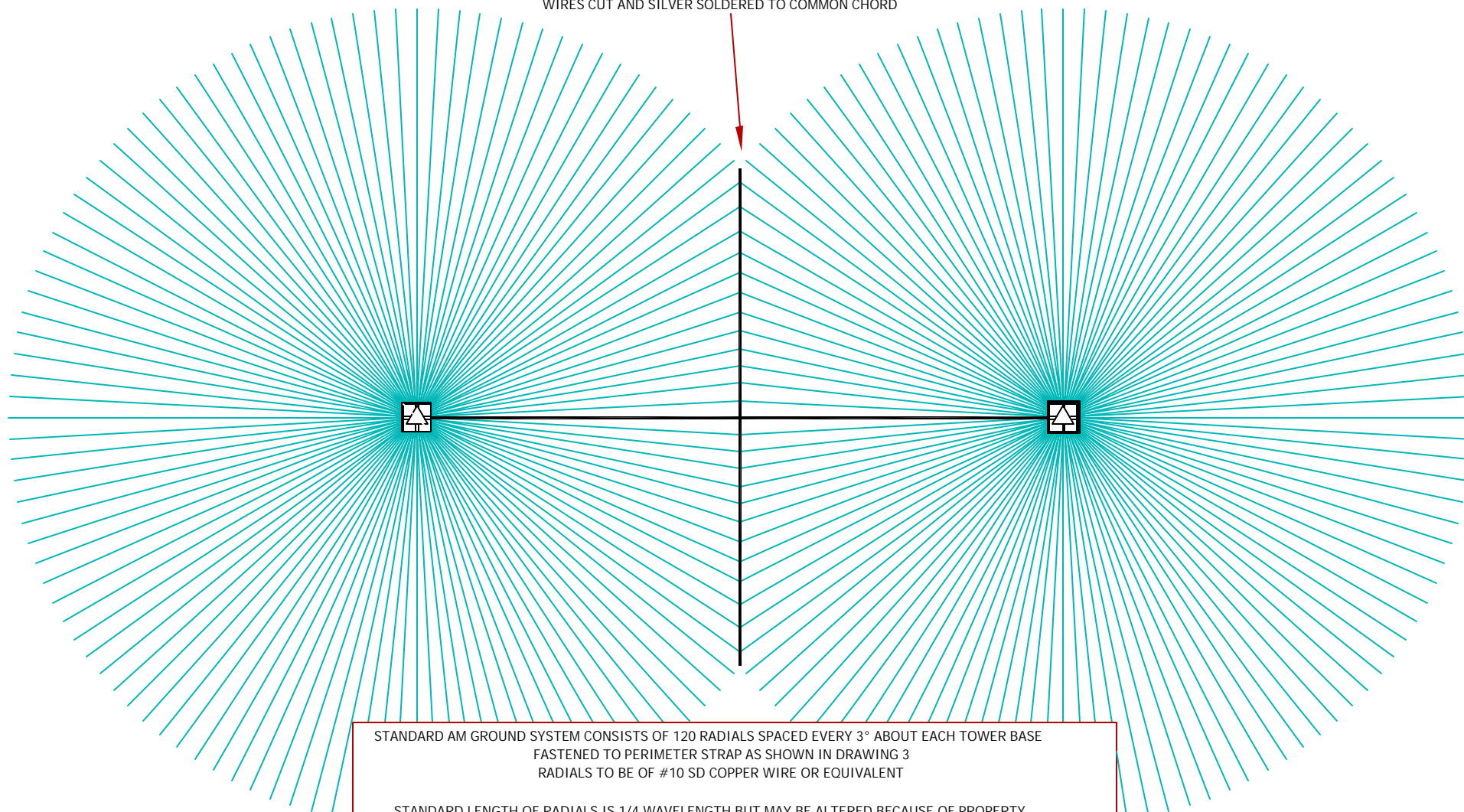
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EIGHT DRAWINGS SHOWING  
THE INSTALLATION OF A  
STANDARD BROADCAST GROUND SYSTEM

DRAWING NO.	4
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TOP VIEW SHOWING  
ATU BOX CONNECTION TO TOWER BASE  
PERIMETER STRAP

WIRES CUT AND SILVER SOLDERED TO COMMON CHORD



STANDARD AM GROUND SYSTEM CONSISTS OF 120 RADIALS SPACED EVERY 3° ABOUT EACH TOWER BASE  
FASTENED TO PERIMETER STRAP AS SHOWN IN DRAWING 3  
RADIALS TO BE OF #10 SD COPPER WIRE OR EQUIVALENT

STANDARD LENGTH OF RADIALS IS 1/4 WAVELENGTH BUT MAY BE ALTERED BECAUSE OF PROPERTY  
BOUNDARIES AND/OR OTHER CONCERNS/LIMITATIONS, FOLLOWING GOOD ENGINEERING PRACTICE AND  
MAINTAINING THE APPROXIMATE AREA OVERALL OF A NORMALLY INSTALLED SYSTEM

$$\text{WAVE LENGTH} = \frac{300}{\text{FREQUENCY IN MHz}}$$

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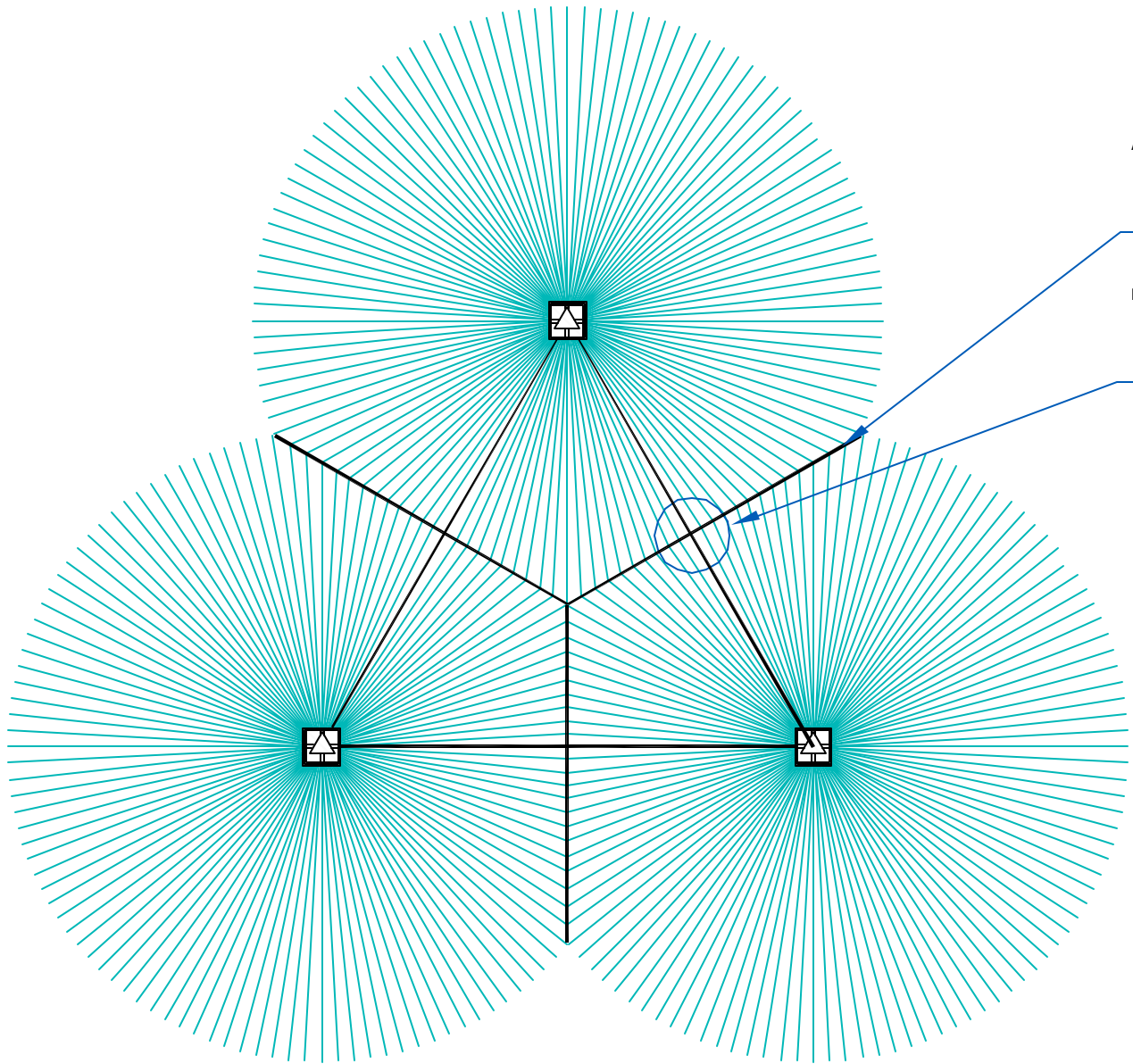
EIGHT DRAWINGS SHOWING  
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DRAWING NO.

5

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GROUND RADIAL WIRES IN  
MULTIPLE TOWER ARRAYS



AS FAR AS POSSIBLE - THE GROUND SYSTEM FOR ARRAYS WITH MORE THAN TWO TOWERS SHOULD FOLLOW THE BASIC GEOMETRY SHOWN IN DRAWING 5.

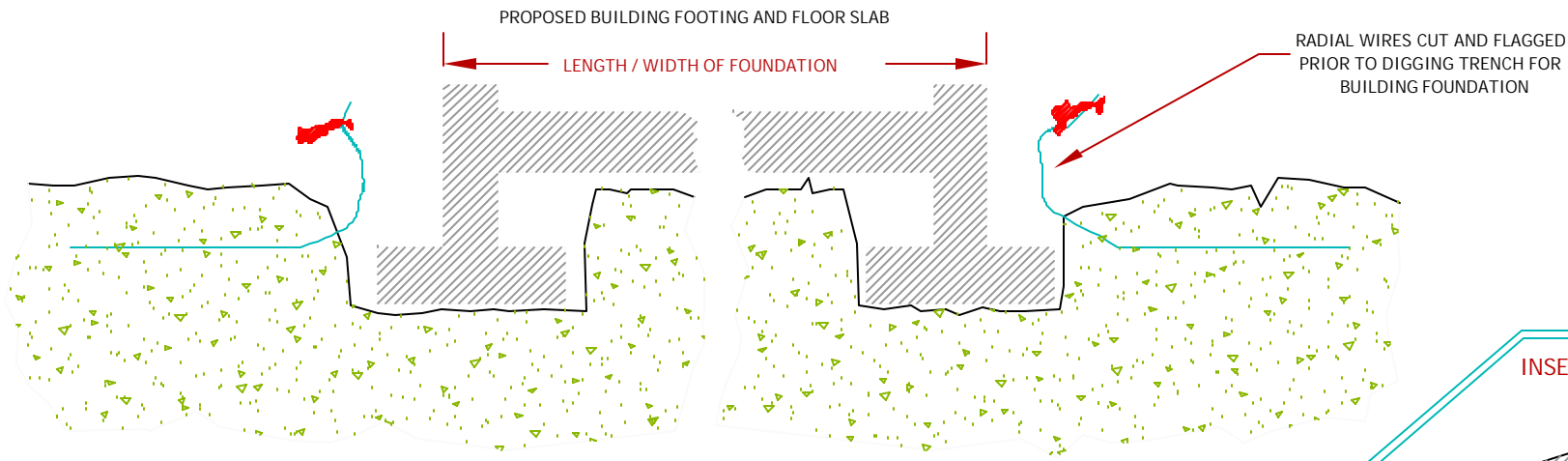
- ALL RADIAL WIRES SILVER SOLDERED TO COMMON CHORDS LAID OUT BETWEEN TOWERS.
- PRIORITY SHOULD BE GIVEN TO THE TOTAL AREA OF THE SYSTEM RATHER THAN THE SPECIFIC LAYOUT AROUND A PARTICULAR TOWER.
- WHERE POSSIBLE - THE CHORDS BETWEEN TOWERS SHOULD CROSS THOSE CHORDS CONNECTING THE TOWERS AT RIGHT ANGLES.

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EIGHT DRAWINGS SHOWING THE INSTALLATION OF A STANDARD BROADCAST GROUND SYSTEM

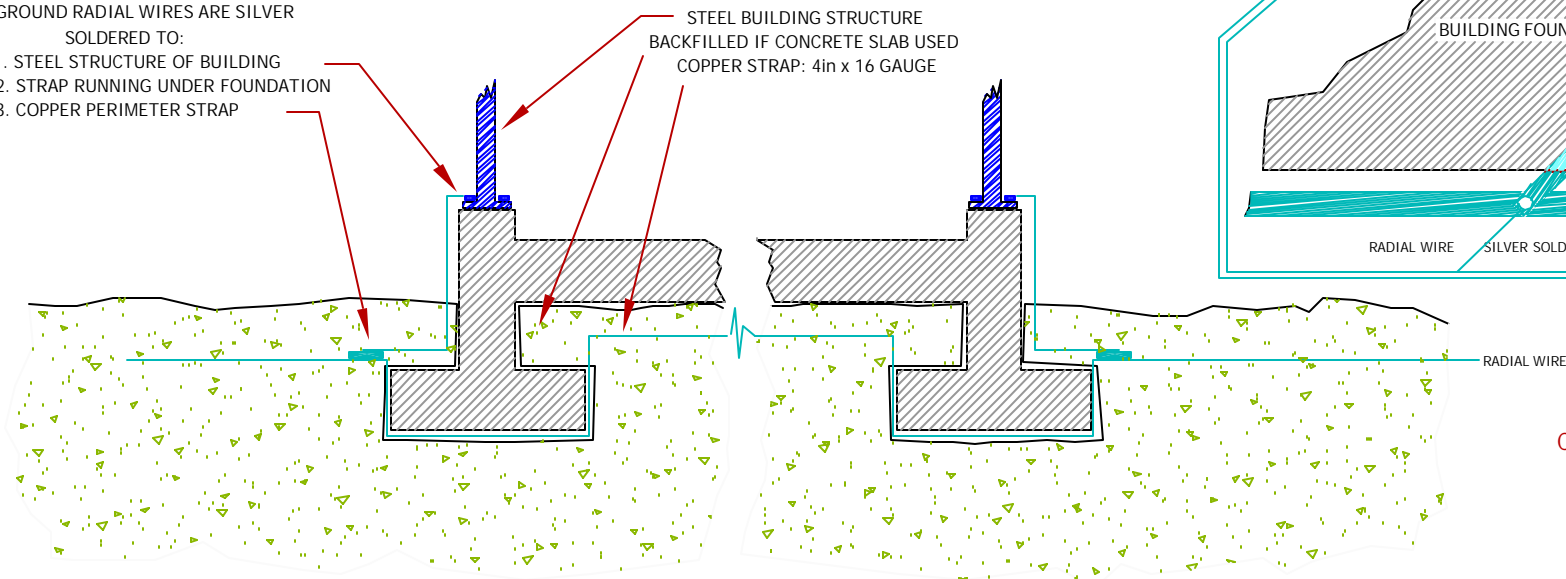
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SCHEMATIC SHOWING COMMON CHORDS BETWEEN TOWERS AND CHORDS CONNECTING TOWERS



SITE PREPARATION: TAKING UP COPPER RADIALS PRIOR TO LAYING FOUNDATION

- GROUND RADIAL WIRES ARE SILVER SOLDERED TO:
1. STEEL STRUCTURE OF BUILDING
  2. STRAP RUNNING UNDER FOUNDATION
  3. COPPER PERIMETER STRAP



SITE COMPLETION: COPPER STRAPS IN PLACE AROUND AND UNDER FOUNDATION

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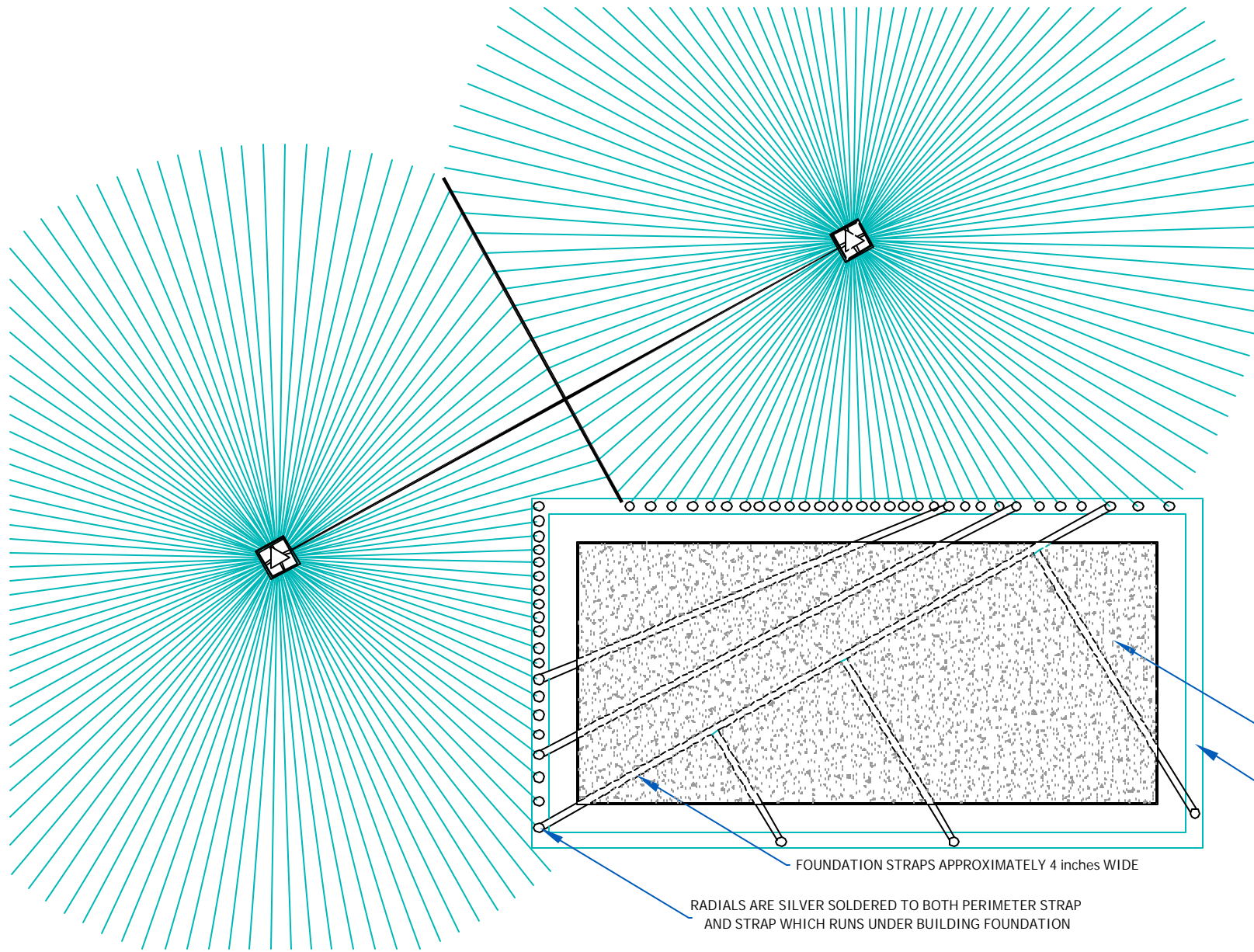
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MODIFICATION OF GROUND SYSTEM FOR  
CONSTRUCTION OF BUILDING OVER  
EXISTING GROUND RADIAL SYSTEM





STRAP LAYOUT UNDER FOUNDATION CAN BE MODIFIED AS NECESSARY ASSUMING AN APPROXIMATE RATIO OF 1 FOUNDATION STRAP FOR EVERY 3 GROUND SYSTEM RADIALS

BUILDING FOUNDATION (SCALE EXAGGERATED)

PERIMETER STRAP AROUND BUILDING APPROXIMATELY 4 inches WIDE

FOUNDATION STRAPS APPROXIMATELY 4 inches WIDE

RADIALS ARE SILVER SOLDERED TO BOTH PERIMETER STRAP AND STRAP WHICH RUNS UNDER BUILDING FOUNDATION

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EIGHT DRAWINGS SHOWING THE INSTALLATION OF A STANDARD BROADCAST GROUND SYSTEM

DRAWING NO.	8
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TOP VIEW OF BUILDING OVER GROUND RADIAL WIRES