

PLAN VIEW

GENERAL NOTES:

- 1) "BY OTHERS" MAY REFER TO SERVICE PROVIDERS OTHER THAN THE EQUIPMENT MANUFACTURER. PLEASE REFER TO PROJECT SPECIFICATION FOR DETAILS OF RESPONSIBILITY.
- 2) PIPE LOCATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE.
- 3) USE ANTI-SEIZE ON ALL THREADS.
- 4) DRAINAGE SOLUTIONS ARE OPTIONAL AND UNDER THE RESPONSABILITY OF THE INSTALLER.
- 5) ABRIO PRODUCTS ARE ASSEMBLED ON-SITE BY INSTALLER. REFER TO ASSEMBLY GUIDE FOR STEP-BY-STEP INSTRUCTIONS.

ELECTRICAL NOTES:

- 1) NO LIVE ELECTRICAL CONNECTION TO BE DONE. SOLAR BATTERY SYSTEM IN OPERATION.
- 2) FAILURE TO FOLLOW VORTEX APPLICATION GUIDELINES, DRAWINGS, WIRING DIAGRAM & CABLE SPECIFICATIONS WILL VOID PRODUCT WARRANTY.
- 3) IF YOU HAD SEVERAL DAYS WITHOUT SUN (3 OR MORE), THE SYSTEM WILL GO TO A SLEEP MODE, WHICH WILL SHUTDOWN THE SYSTEM TO PROTECT THE CONTROLLER AND THE BATTERY UNTIL IT'S RECHARGED TO 20% (3-5 SUNNY HOURS).

OPTIMAL SOLAR ORIENTATION (DONE BY OTHERS):

- SOUTH FACING FOR NORTH OF THE EQUATOR
- NORTH FACING FOR SOUTH OF THE EQUATOR
- AVOID SHADOW AREAS FOR INSTALLATION

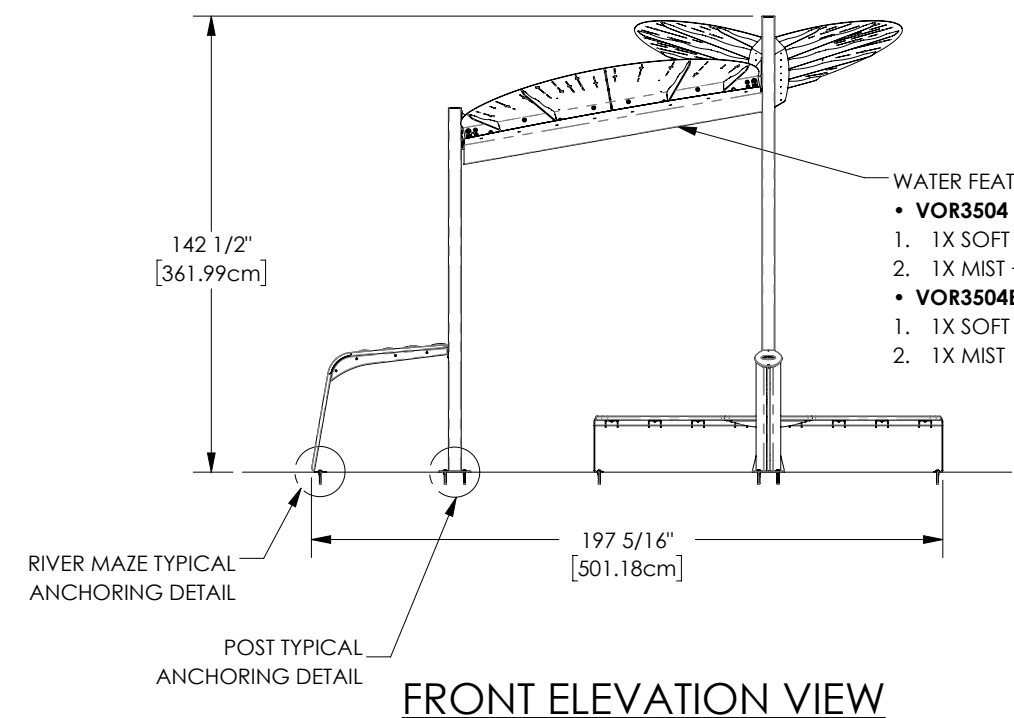
ABRIO OPTIONS:

BENCH OPTIONS:

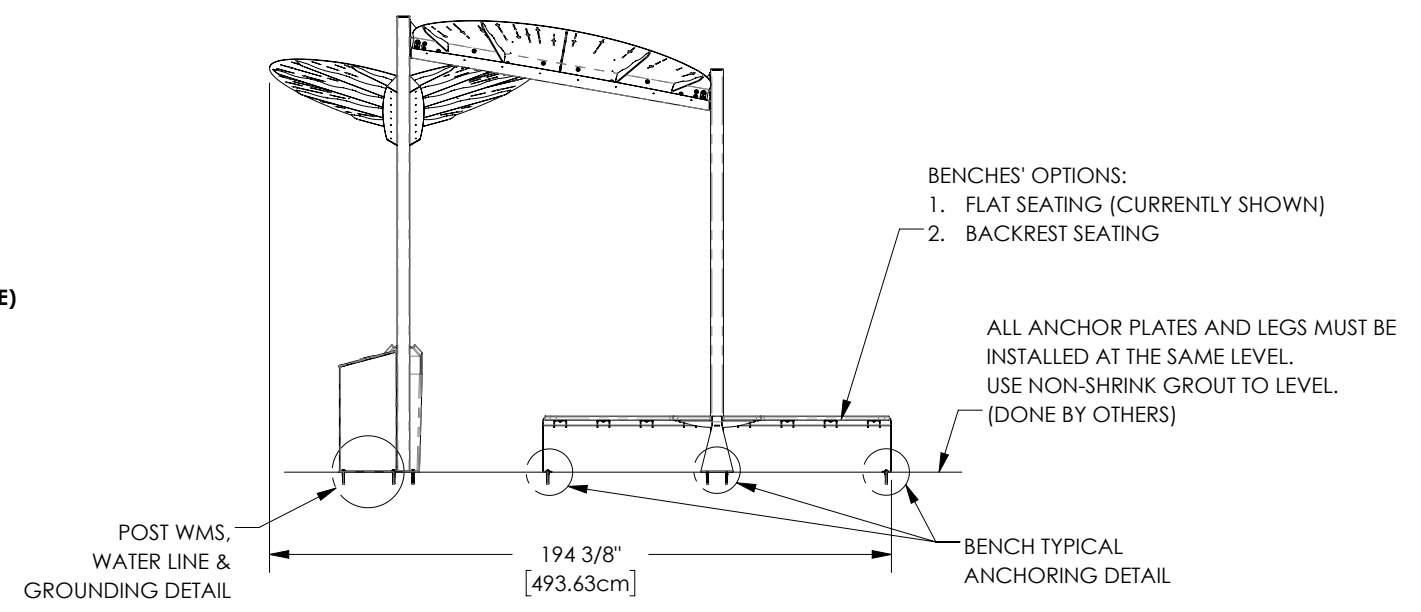
1. FLAT SEATING
2. BACKREST SEATING

WATER FEATURE OPTIONS:

- **VOR3504 (WITH RIVER MAZE)**
 1. 1X SOFT RAIN + 1X RIVER MAZE
 2. 1X MIST + 1X RIVER MAZE
- **VOR3504B (WITHOUT RIVER MAZE)**
 1. 1X SOFT RAIN
 2. 1X MIST



FRONT ELEVATION VIEW



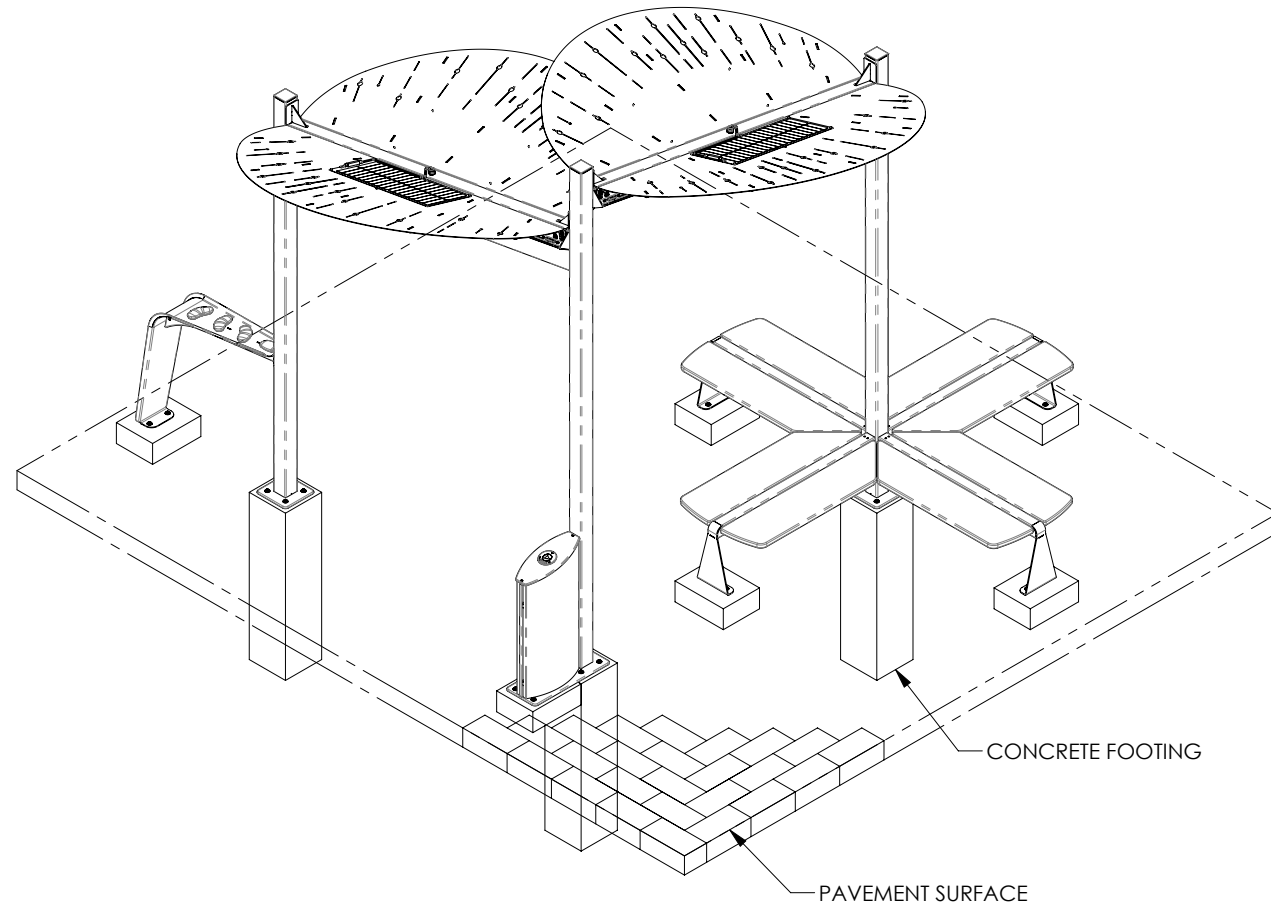
SIDE ELEVATION VIEW

**ABRIO 04 - VOR 3504 - VOR 3504B
 INSTALLATION DRAWING**

INSTALLATION OPTIONS

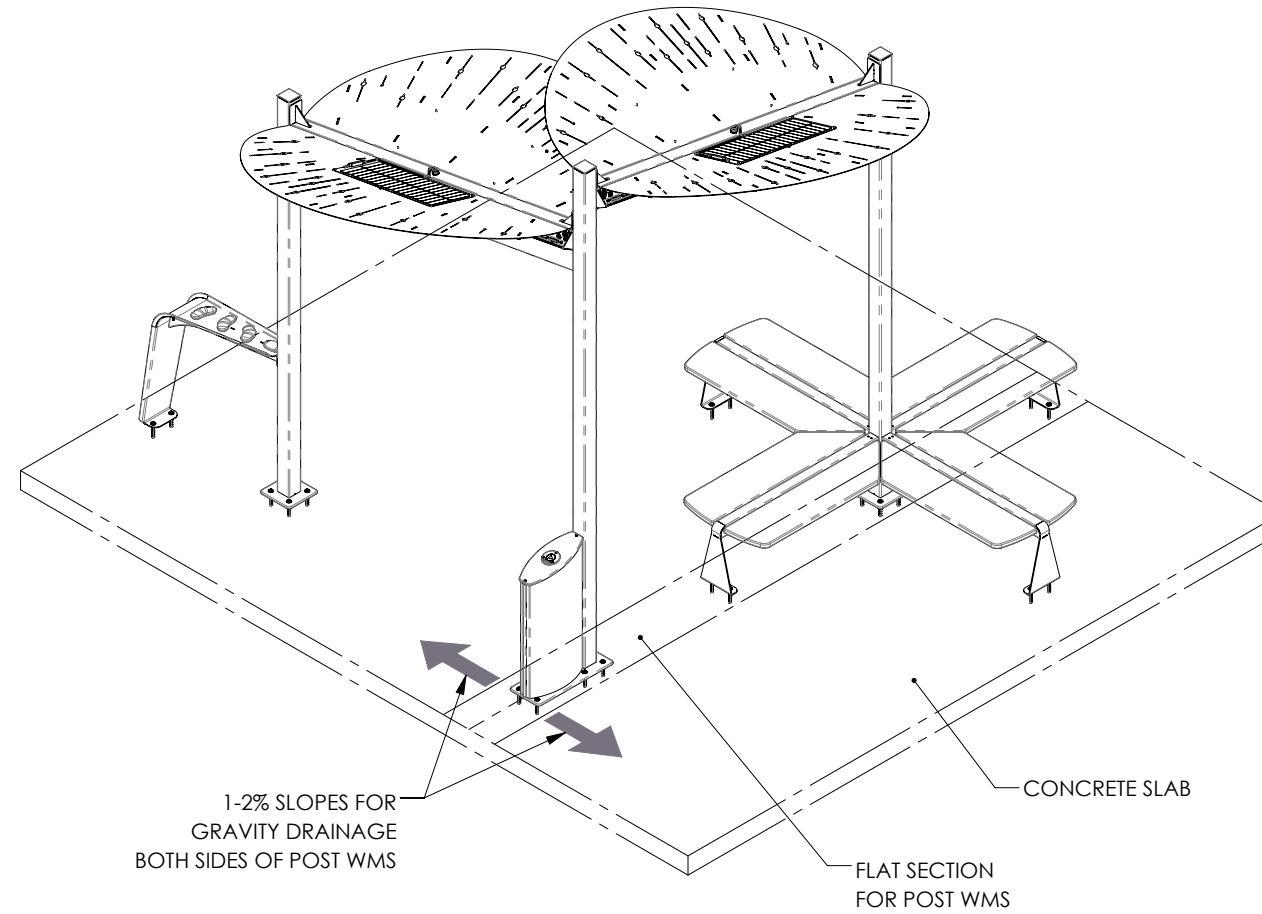
OPTION #1:

PAVEMENT SURFACE WITH CONCRETE FOOTINGS
(PERMEABLE OR ON A 1-2% SLOPE)



OPTION #2:

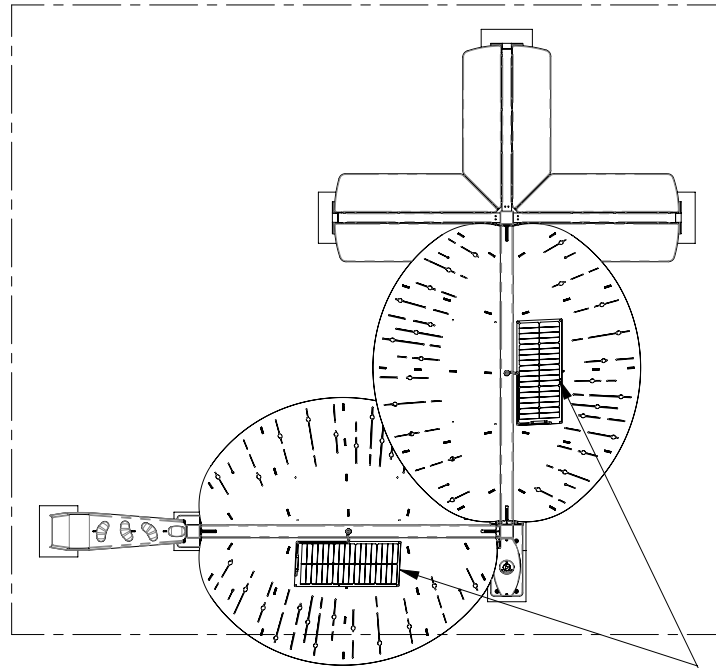
CONCRETE SLAB
(ON A 1-2% SLOPE)



INSTALLATION OPTION #1: PAVEMENT SURFACE WITH CONCRETE FOOTINGS

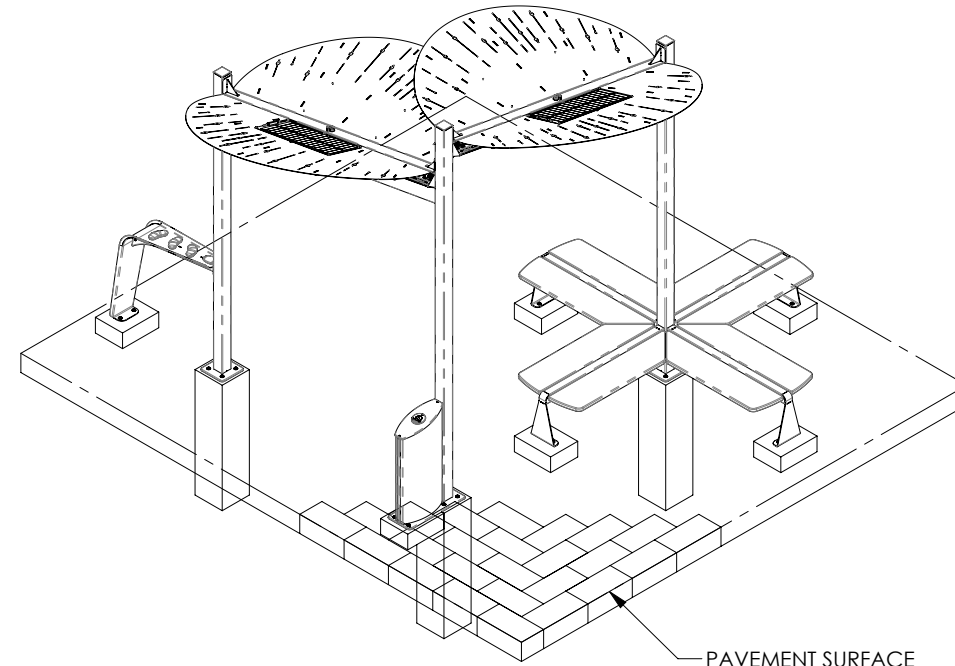
REFER TO TYPICAL ANCHORING DETAILS

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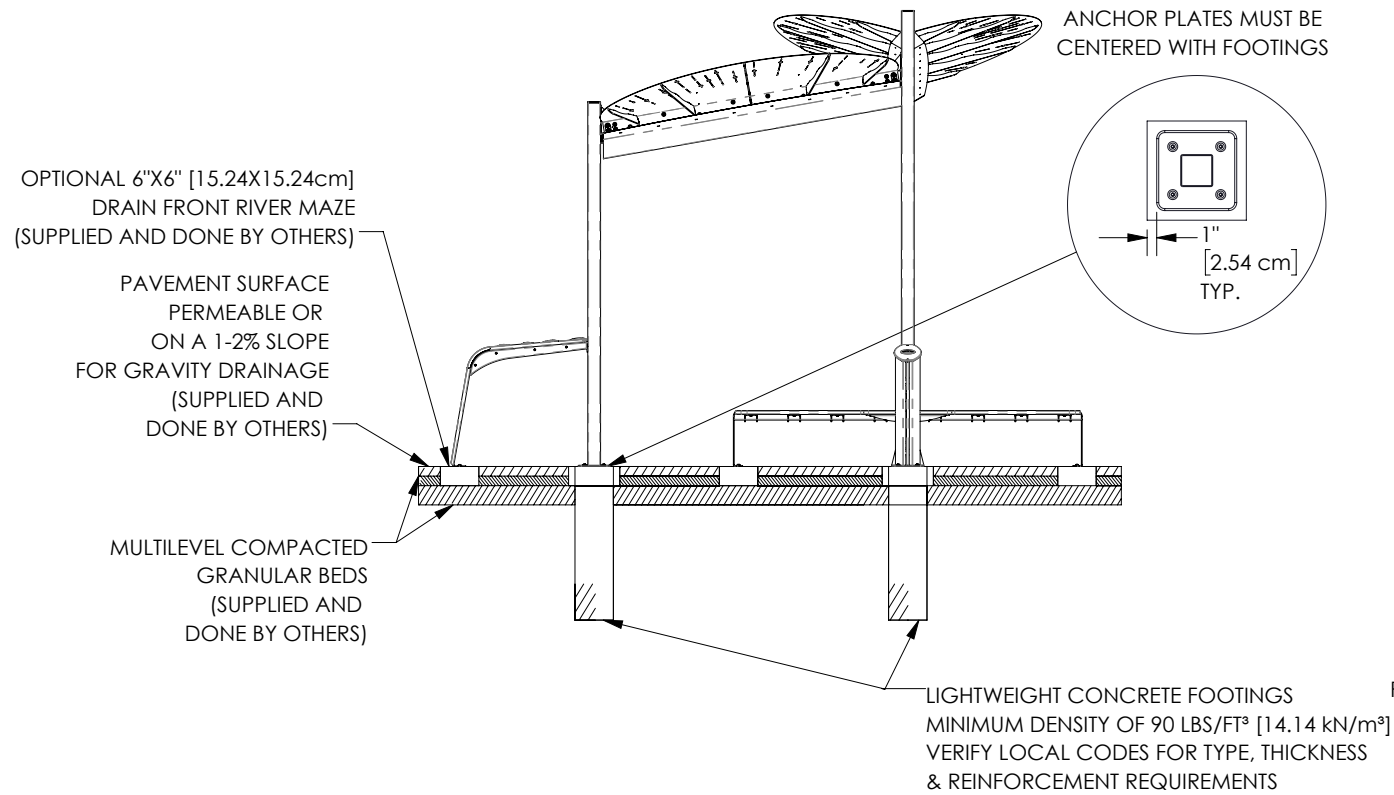


PLAN VIEW

SOUTH FACING SOLAR PANEL (MANDATORY)
 ACCORDING TO NORTHERN HEMISPHERE LOCATION
 (PLEASE CONSIDER HEMISPHERE LOCATION)
 AVOID SHADOW OR OBSTRUCTED AREAS



PAVEMENT SURFACE



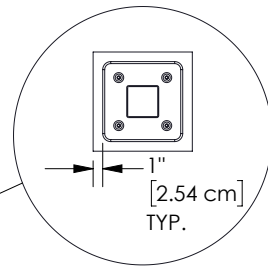
FRONT ELEVATION VIEW

OPTIONAL 6"X6" [15.24X15.24cm]
 DRAIN FRONT RIVER MAZE
 (SUPPLIED AND DONE BY OTHERS)

PAVEMENT SURFACE
 PERMEABLE OR
 ON A 1-2% SLOPE
 FOR GRAVITY DRAINAGE
 (SUPPLIED AND
 DONE BY OTHERS)

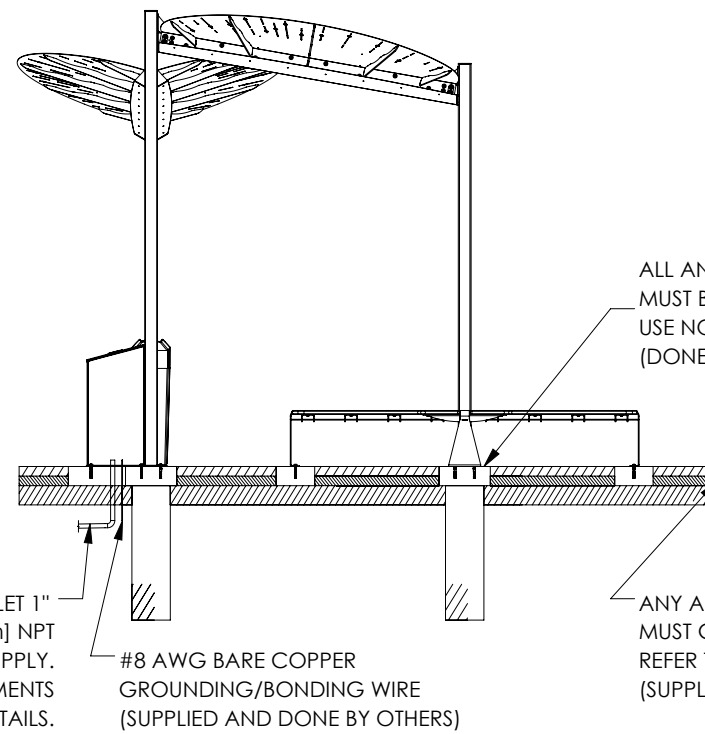
MULTILEVEL COMPACTED
 GRANULAR BEDS
 (SUPPLIED AND
 DONE BY OTHERS)

ANCHOR PLATES MUST BE
 CENTERED WITH FOOTINGS



LIGHTWEIGHT CONCRETE FOOTINGS
 MINIMUM DENSITY OF 90 LBS/FT³ [14.14 kN/m³]
 VERIFY LOCAL CODES FOR TYPE, THICKNESS
 & REINFORCEMENT REQUIREMENTS

DRINKING WATER LINE INLET 1"
 TO 1 1/2" [25.4 TO 38.1mm] NPT
 1-2% SLOPE BACK TO WATER SUPPLY.
 REFER TO CONSTRUCTION DOCUMENTS
 FOR LINE SIZE DETAILS.
 (LINE CONNECTION SUPPLIED
 AND DONE BY OTHERS)



SIDE ELEVATION VIEW

ALL ANCHOR PLATES AND LEGS
 MUST BE INSTALLED AT THE SAME LEVEL.
 USE NON-SHRINK GROUT TO LEVEL.
 (DONE BY OTHERS)

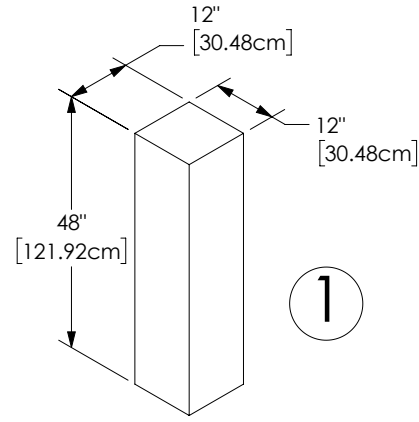
ANY ADDITIONAL DRAINAGE SOLUTION
 MUST GO TO SANITARY/STORM SEWER
 REFER TO LOCAL CODE.
 (SUPPLIED AND DONE BY OTHERS)

#8 AWG BARE COPPER
 GROUNDING/BONDING WIRE
 (SUPPLIED AND DONE BY OTHERS)

ABRIO 04 - VOR 3504 - VOR 3504B INSTALLATION DRAWING

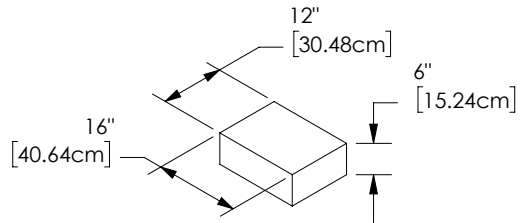
INSTALLATION OPTION #1: CONCRETE FOOTINGS, WATER INLET AND GROUNDING WIRE POSITIONING

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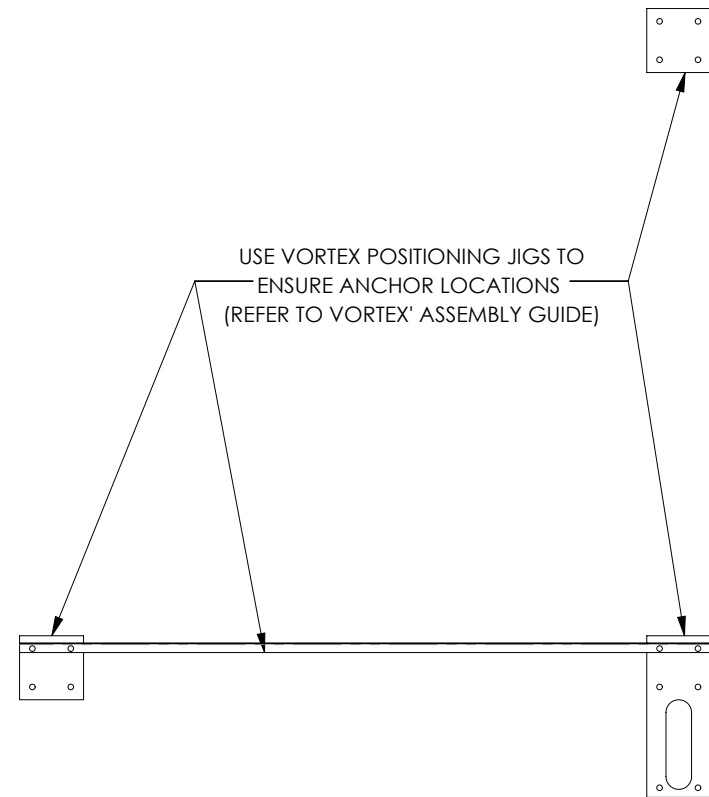
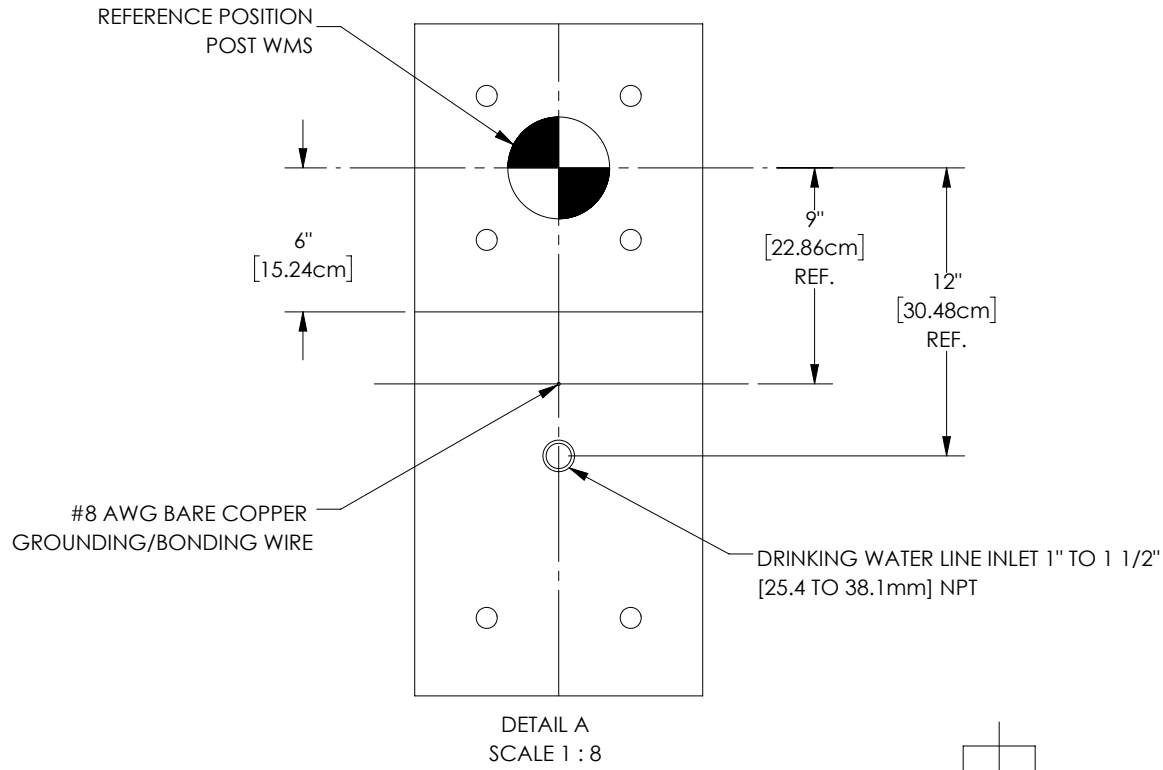
POST FOOTING DIMENSIONS & DETAILS

DIMENSIONS MAY VARY, BUT CONCRETE VOLUME MUST BE MINIMUM 5500 IN³ (3.183 FT³) [0.09 m³]
 LIGHTWEIGHT CONCRETE OF MINIMUM DENSITY = 90 LBS/FT³ [14.14 kN/m³]

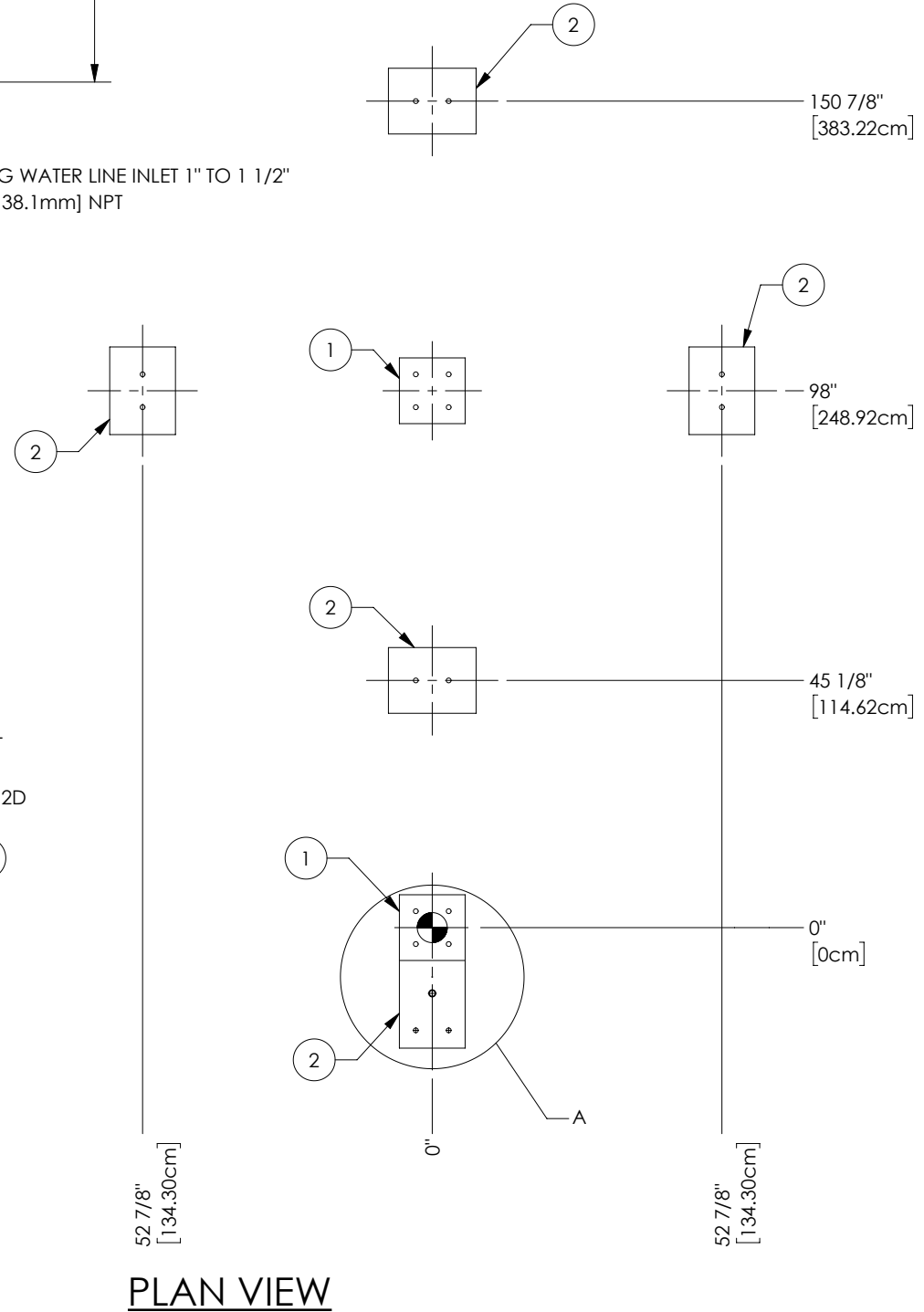
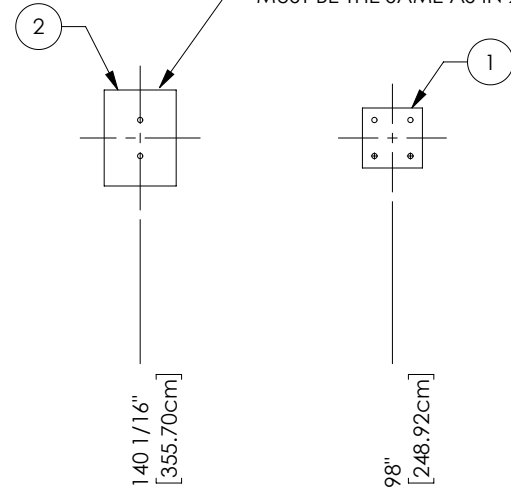


BENCH, RIVER MAZE AND WMS FOOTING DIMENSIONS & DETAILS

*DIMENSIONS MAY VARY, BUT CONCRETE VOLUME MUST BE MINIMUM 1005 IN³ (0.582 FT³) [0.165 m³]
 LIGHTWEIGHT CONCRETE OF MINIMUM DENSITY = 90 LBS/FT³ [14.14 kN/m³]



THE ORIENTATION OF ALL FOOTING ② MUST BE THE SAME AS IN 2D



PLAN VIEW

**ABRIO 04 - VOR 3504 - VOR 3504B
 INSTALLATION DRAWING**

INSTALLATION OPTION #2: CONCRETE SLAB

REFER TO TYPICAL ANCHORING DETAILS

SOUTH FACING SOLAR PANEL (MANDATORY)
ACCORDING TO NORTHERN HEMISPHERE LOCATION
(PLEASE CONSIDER HEMISPHERE LOCATION)
AVOID SHADOW OR OBSTRUCTED AREAS

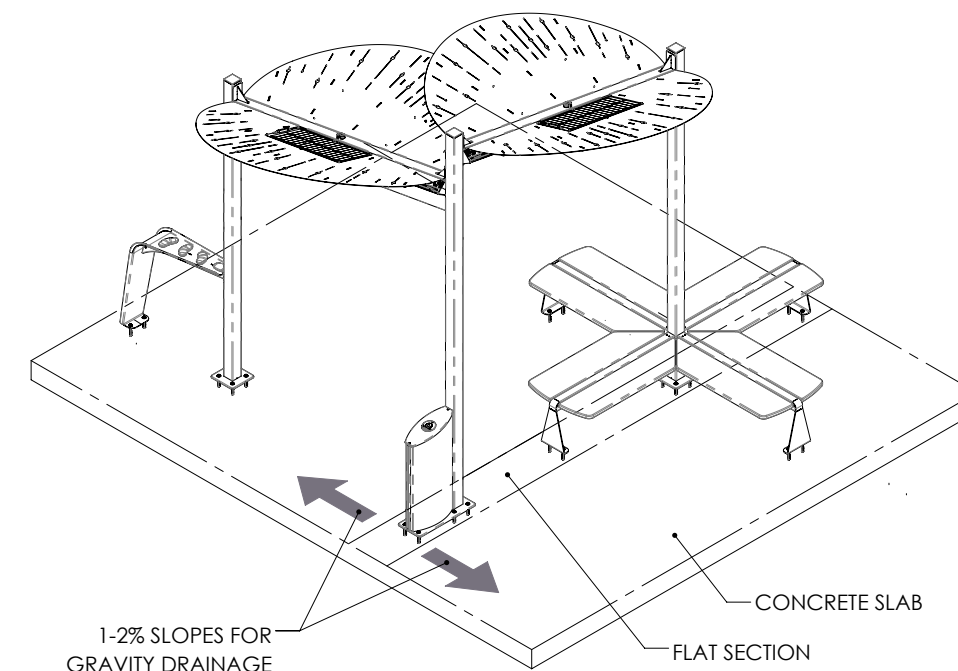
12"
[30.48cm]
= MIN. DISTANCE
BETWEEN BENCH LEG AND
CONCRETE SLAB'S EDGE

12"
[30.48cm]
= MIN. DISTANCE
BETWEEN BENCH LEG AND
CONCRETE SLAB'S EDGE

12"
[30.48cm]
= MIN. DISTANCE
BETWEEN BENCH LEG AND
CONCRETE SLAB'S EDGE

12"
[30.48cm]
= MIN. DISTANCE
BETWEEN BENCH LEG AND
CONCRETE SLAB'S EDGE

PLAN VIEW



1-2% SLOPES FOR
GRAVITY DRAINAGE
BOTH SIDES OF POST WMS

CONCRETE SLAB

FLAT SECTION
FOR POST WMS

OPTIONAL 6"X6" [15.24X15.24cm]
DRAIN FRONT RIVER MAZE
(SUPPLIED AND DONE BY OTHERS)

LIGHTWEIGHT CONCRETE SLAB
MINIMUM DENSITY OF
90 LBS/FT³ [14.14 kN/m³]
VERIFY LOCAL CODES FOR TYPE,
THICKNESS & REINFORCEMENT
REQUIREMENTS

6"
[15.24cm]
MIN. THICKNESS
FOR CONCRETE SLAB

COMPACTED GRANULAR
(DONE BY OTHERS)

12"
[30.48cm]
FLAT SECTION
FOR POST WMS

ANY ADDITIONAL DRAINAGE SOLUTION
MUST GO TO SANITARY/STORM SEWER
REFER TO LOCAL CODE.
(SUPPLIED AND DONE BY OTHERS)

1"
[2.54cm]
MIN. AROUND ANCHOR PLATE

LEVEL WITH NON-SHRINK GROUT
(DONE BY OTHERS)

CONCRETE SLAB

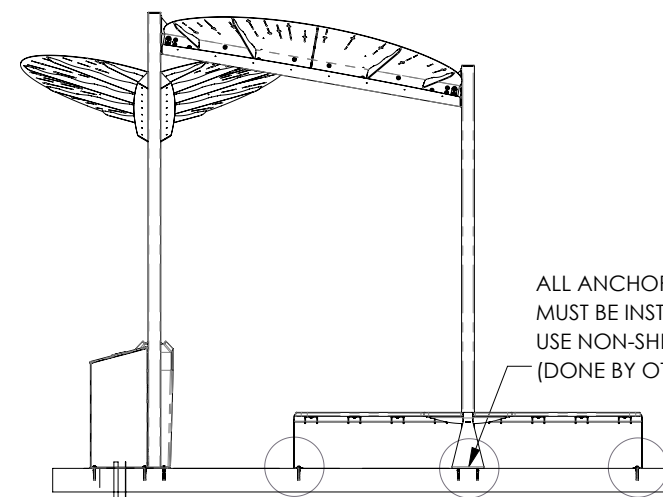
1-2% SLOPES FOR
GRAVITY DRAINAGE
BOTH SIDES OF POST WMS

DRINKING WATER LINE INLET 1" TO 1 1/2" [25.4 TO 38.1mm] NPT
MIN. 2° SLOPE BACK TO WATER SUPPLY. REFER TO
CONSTRUCTION DOCUMENTS FOR LINE SIZE DETAILS.
(LINE CONNECTION SUPPLIED AND DONE BY OTHERS)

#8 AWG BARE COPPER
GROUNDING/BONDING WIRE
(SUPPLIED AND DONE BY OTHERS)

ALL ANCHOR PLATES AND LEGS
MUST BE INSTALLED AT THE SAME LEVEL.
USE NON-SHRINK GROUT TO LEVEL.
(DONE BY OTHERS)

FRONT ELEVATION VIEW

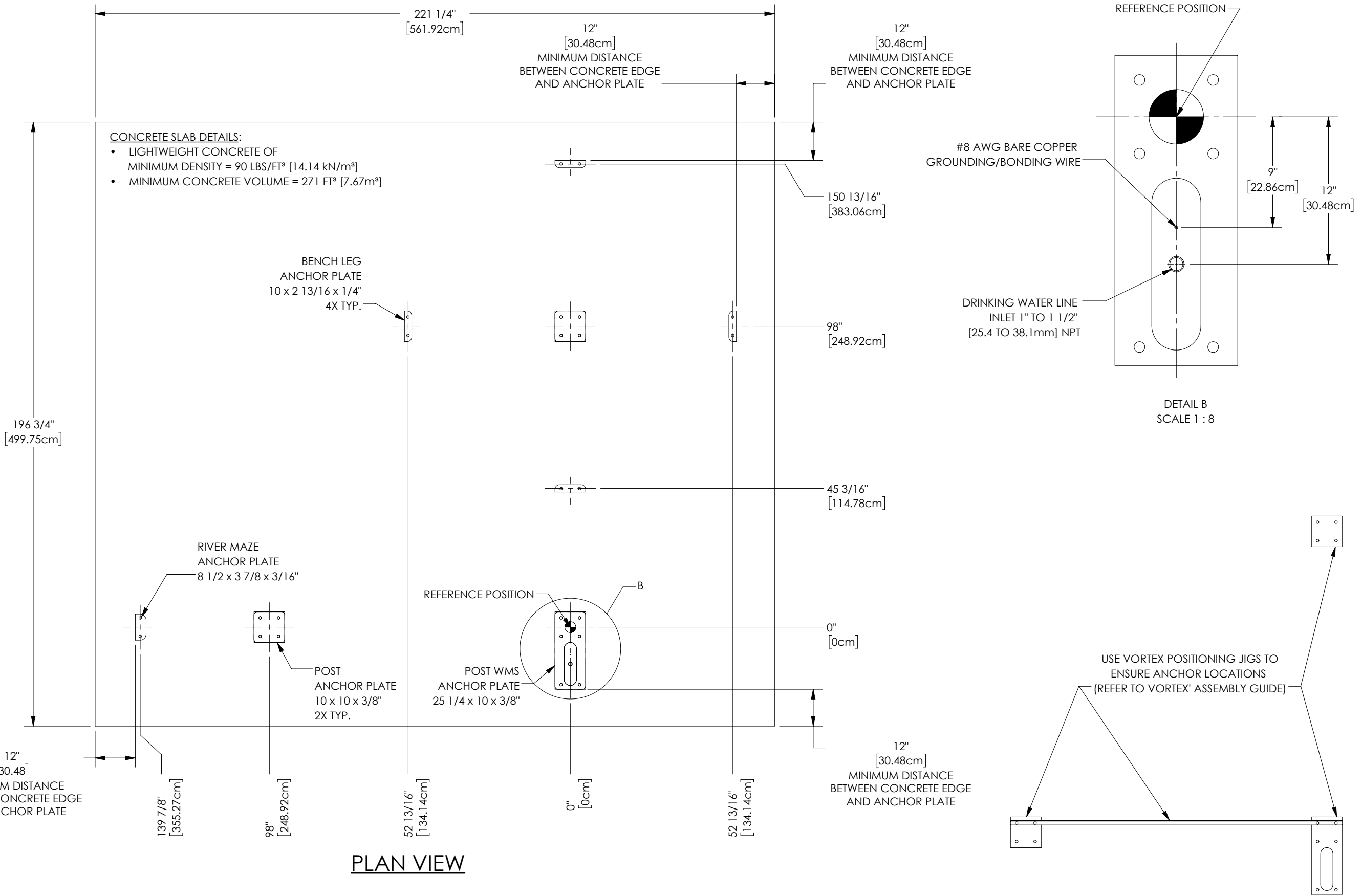


SIDE ELEVATION VIEW

ABRIO 04 - VOR 3504 - VOR 3504B INSTALLATION DRAWING

INSTALLATION OPTION #2: CONCRETE SLAB, WATER INLET AND GROUNDING WIRE POSITIONING

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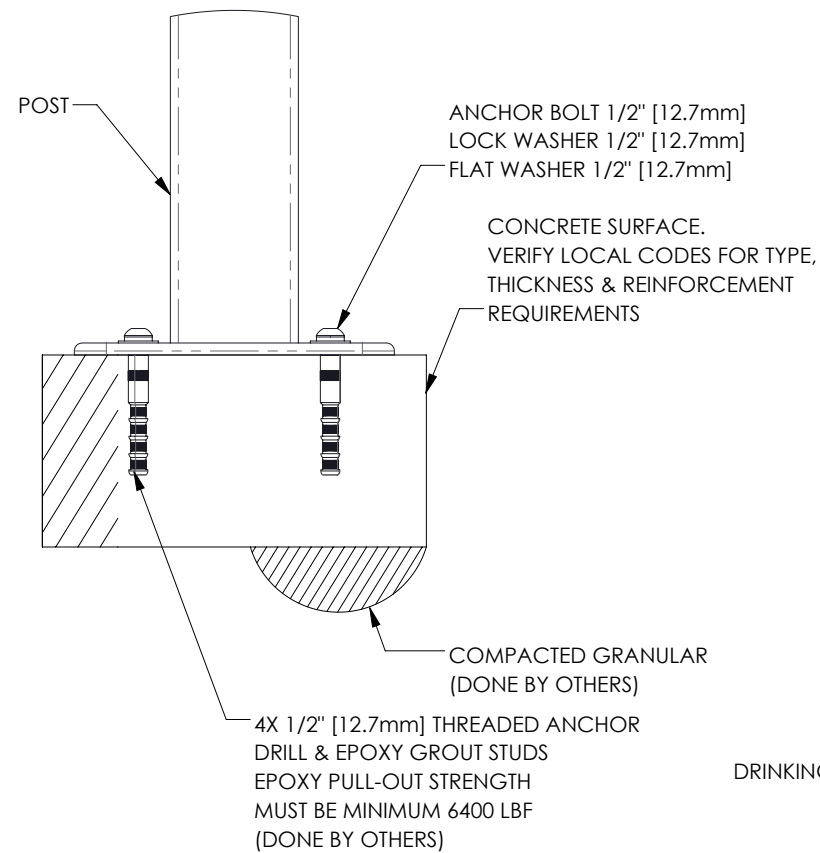
PLAN VIEW

**ABRIO 04 - VOR 3504 - VOR 3504B
 INSTALLATION DRAWING**

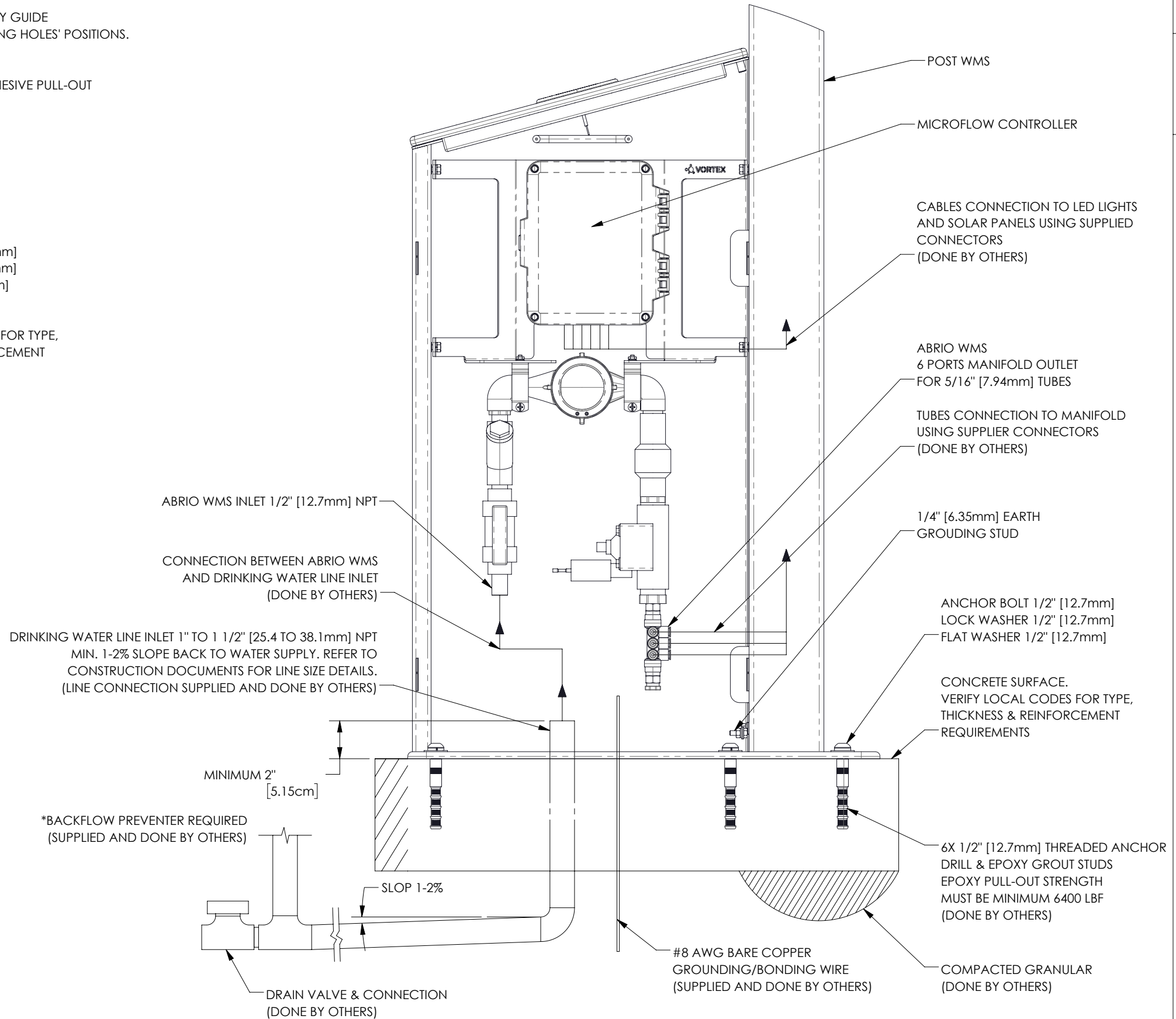
POSTS TYPICAL ANCHORING STEPS (DONE BY OTHERS)

REFER TO ANCHORING POSITIONS PAGE AND VORTEX' ASSEMBLY GUIDE

1. PLACE ANCHORING JIGS AS DETAILED IN THE VORTEX' ASSEMBLY GUIDE
2. MARK ON CONCRETE FOOTING OR SLAB, THE POST'S ANCHORING HOLES' POSITIONS.
3. DRILL ON HOLES' MARKINGS WITH 3/4" DRILL BIT SIZE.
4. CLEAN THE DRILLED HOLES.
5. PUT ANCHORS IN HOLES WITH EPOXY (EPOXY ANCHORING ADHESIVE PULL-OUT STRENGTH MUST BE MINIMUM 6400 LBF)
6. WAIT FOR EPOXY'S CURING TIME
7. ASSEMBLE THE POSTS AS PER VORTEX' ASSEMBLY GUIDE.



POST TYPICAL ANCHORING DETAIL



POST WMS TYPICAL ANCHORING DETAIL

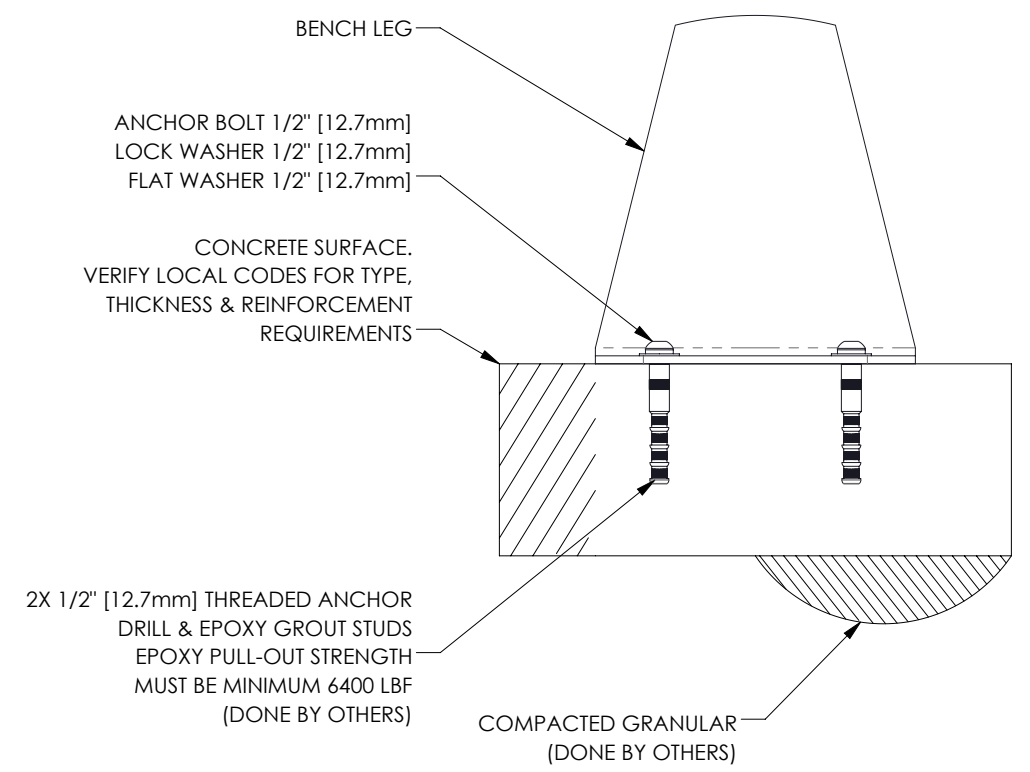
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**ABRIO 04 - VOR 3504 - VOR 3504B
 INSTALLATION DRAWING**

BENCH TYPICAL ANCHORING STEPS (DONE BY OTHERS):

1. PLACE BENCH ON POST BRACKET.
2. MARK ON CONCRETE FOOTING OR SLAB, THE BENCH LEG ANCHORING HOLES' POSITIONS.
3. REMOVE BENCH.
4. DRILL ON HOLES' MARKINGS WITH 3/4" DRILL BIT SIZE.
5. CLEAN THE DRILLED HOLES.
6. PUT ANCHORS IN HOLES WITH EPOXY (EPOXY ANCHORING ADHESIVE PULL-OUT STRENGTH MUST BE MINIMUM 6400 LBF)
7. WAIT FOR EPOXY'S CURING TIME
8. ASSEMBLE THE BENCH AS PER VORTEX' ASSEMBLY GUIDE.

BENCH TYPICAL ANCHORING DETAIL



RIVER MAZE TYPICAL ANCHORING STEPS (DONE BY OTHERS):

1. ASSEMBLE RIVER MAZE ON POST, USING SUPPLIED HARDWARE.
2. MARK ON CONCRETE FOOTING OR SLAB, THE RIVER MAZE LEG ANCHORING HOLES' POSITIONS.
3. REMOVE RIVER MAZE.
4. DRILL ON HOLES' MARKINGS WITH 3/4" DRILL BIT SIZE.
5. CLEAN THE DRILLED HOLES.
6. PUT ANCHORS IN HOLES WITH EPOXY (EPOXY ANCHORING ADHESIVE PULL-OUT STRENGTH MUST BE MINIMUM 6400 LBF)
7. WAIT FOR EPOXY'S CURING TIME
8. ASSEMBLE THE RIVER MAZE AS PER VORTEX' ASSEMBLY GUIDE.

RIVER MAZE TYPICAL ANCHORING DETAIL

