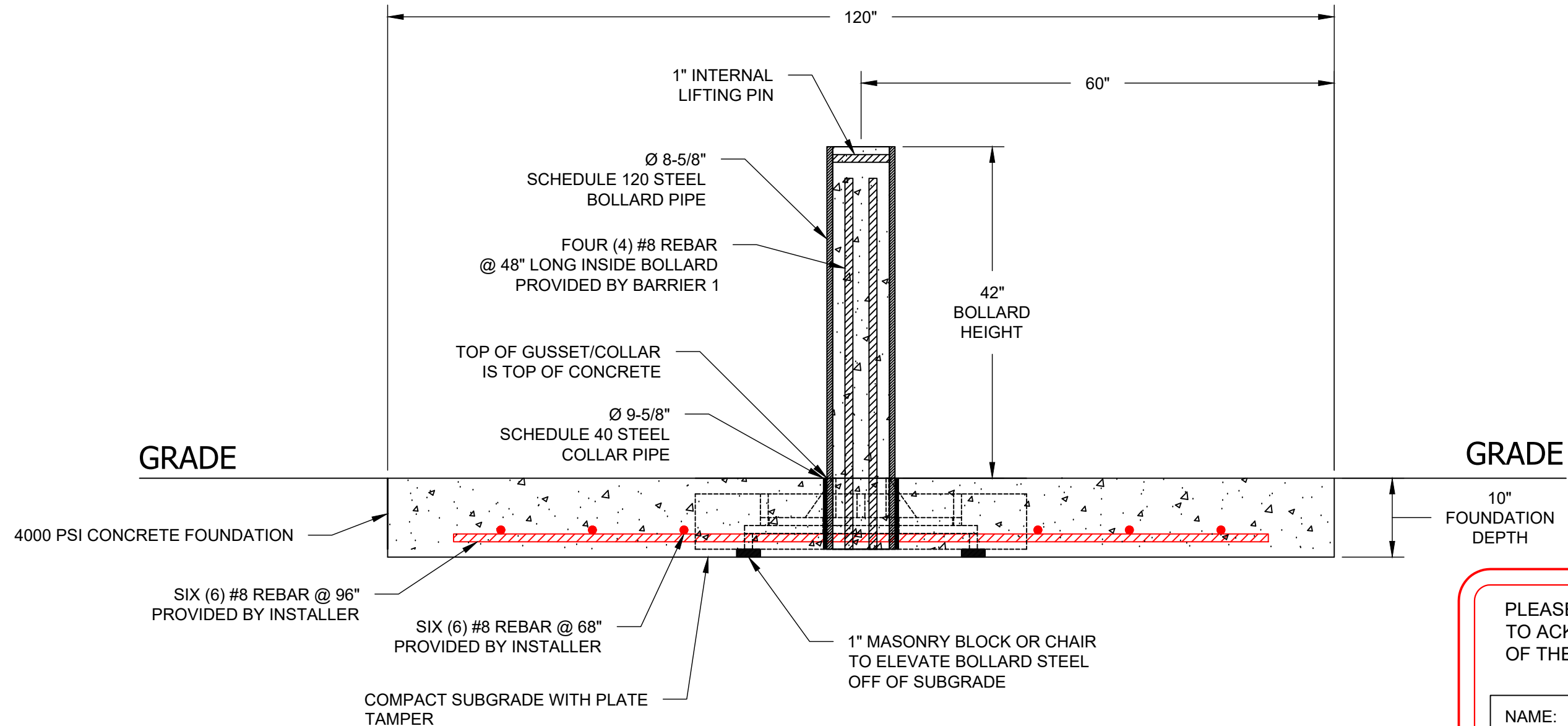


B1 TOMAHAWK M30

SHALLOW MOUNT BOLLARD - MODEL SMB-400-SSA

CRASH TESTED TO ASTM F2656-15 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

TYPICAL SINGLE BOLLARD INSTALLATION



PLEASE SIGN AND DATE BELOW TO ACKNOWLEDGE ACCEPTANCE OF THE SUBMITTAL DRAWING.

NAME:

SIGNATURE:

DATE:



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ELEVATION VIEW
(STAND-ALONE)

SMB-400-SA
SUBMITTAL DRAWING

SHEET: 1 OF 6

20230316-10-M

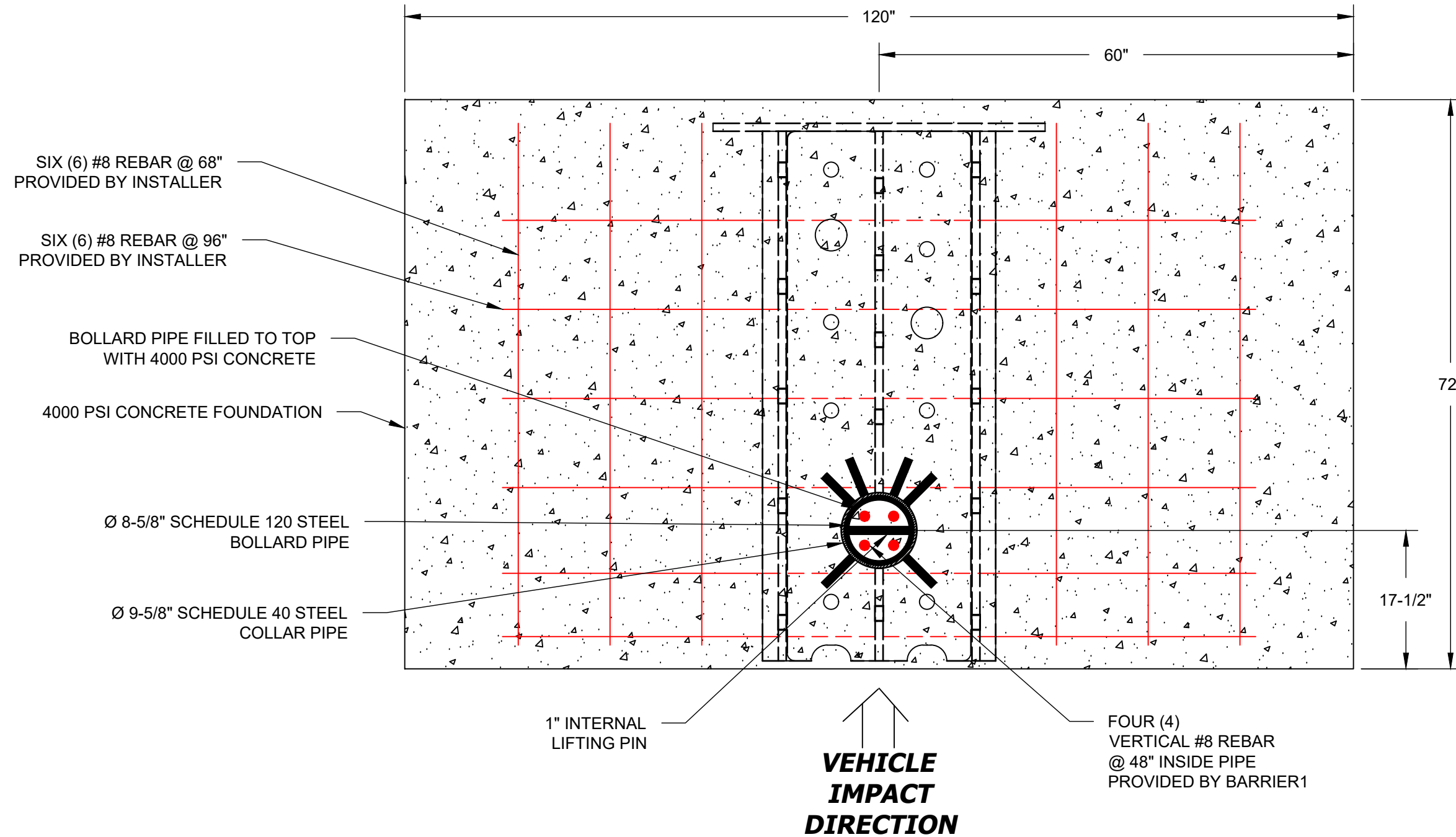
SCALE: N.T.S.

B1 TOMAHAWK M30

SHALLOW MOUNT BOLLARD - MODEL SMB-400-SSA

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TYPICAL SINGLE BOLLARD INSTALLATION



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ELEVATION VIEW
(STAND-ALONE)

SMB-400-SA
SUBMITTAL DRAWING

SHEET: 2 OF 6

20230316-10-M

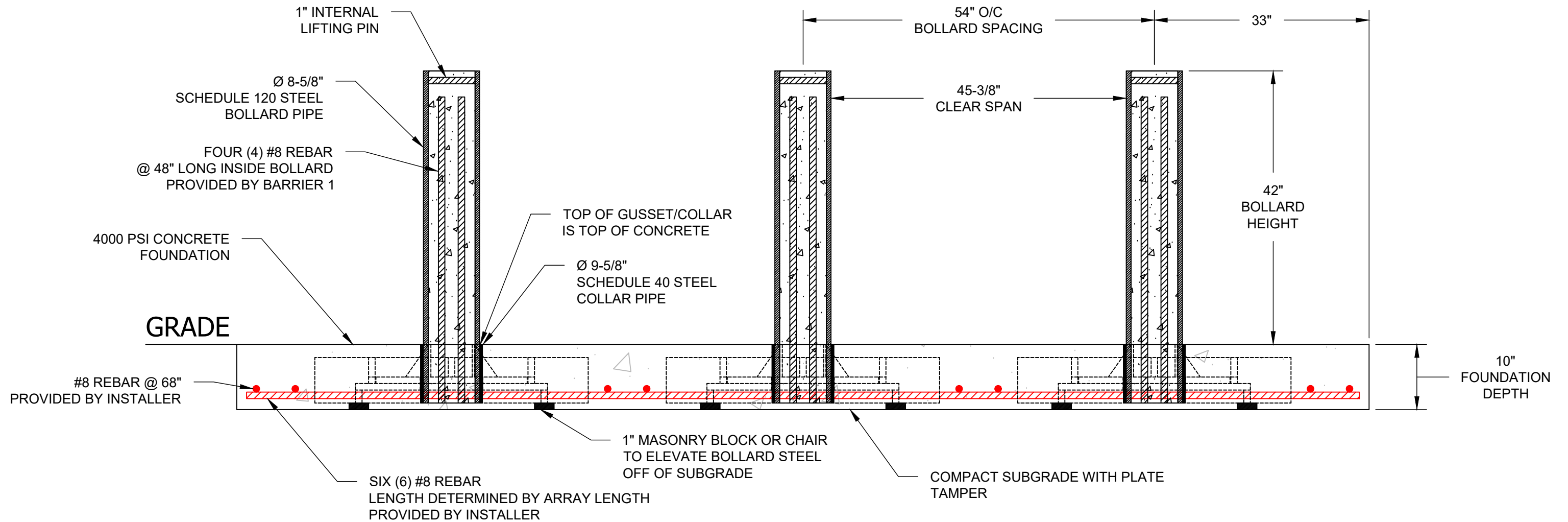
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B1 TOMAHAWK M30

SHALLOW MOUNT BOLLARD - MODEL SMB-400-SSA

CRASH TESTED TO ASTM F2656-15 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

TYPICAL BOLLARD ARRAY INSTALLATION



NOTE:

- 1. MODIFIED SPACING FOR SITE SPECIFIC CONDITIONS AVAILABLE



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ELEVATION VIEW
(ARRAY - MODIFIED)

SMB-400-SA
SUBMITTAL DRAWING

SHEET: 3 OF 6

20230316-10-M

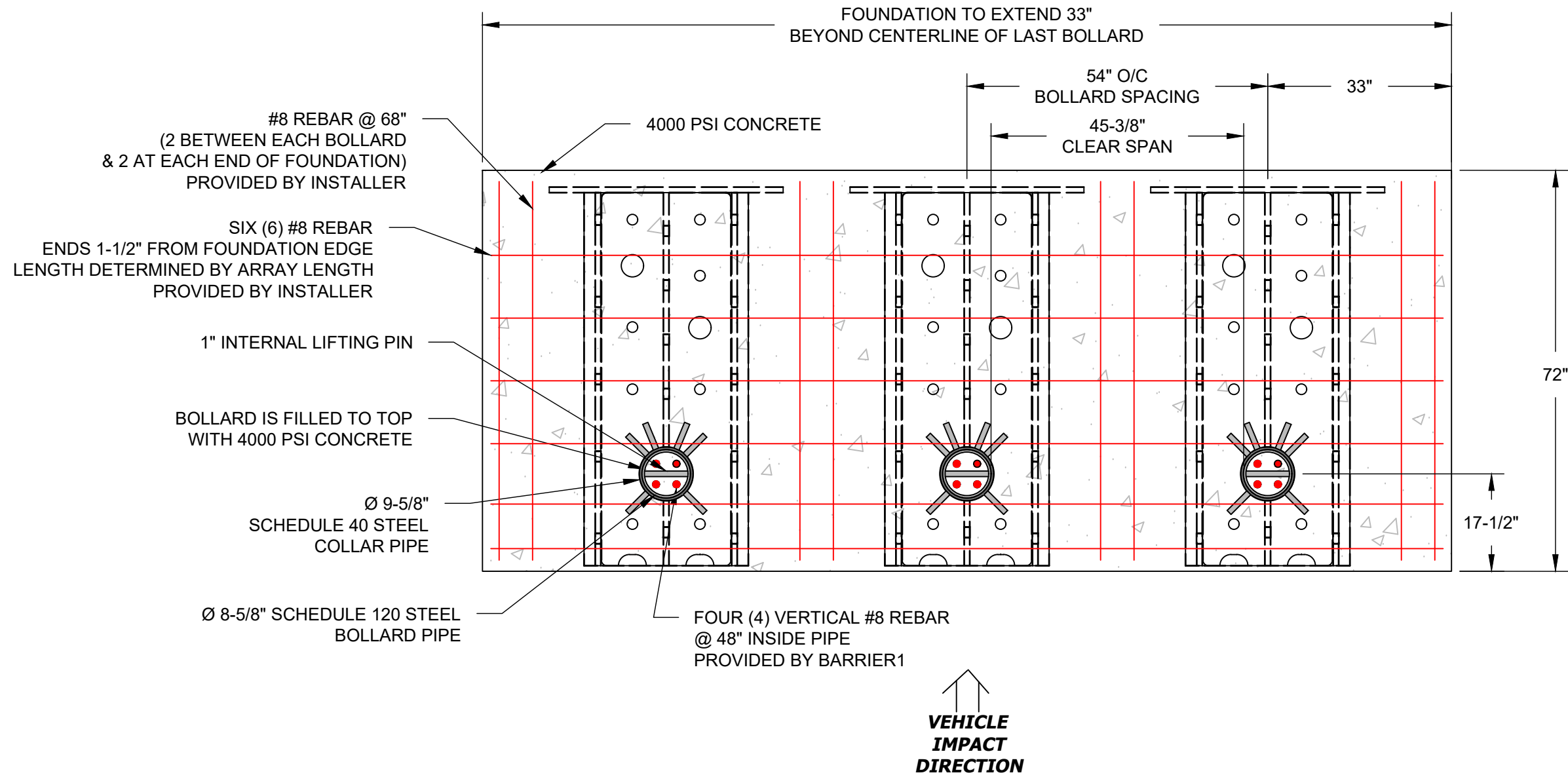
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B1 TOMAHAWK M30

SHALLOW MOUNT BOLLARD - MODEL SMB-400-SSA

CRASH TESTED TO ASTM F2656-15 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

TYPICAL BOLLARD ARRAY INSTALLATION



NOTE:
1. MODIFIED SPACING FOR SITE SPECIFIC CONDITIONS AVAILABLE



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PLAN VIEW
(ARRAY)

SMB-400-SA
SUBMITTAL DRAWING

SHEET: 4 OF 6

20230316-10-M

SCALE: N.T.S.

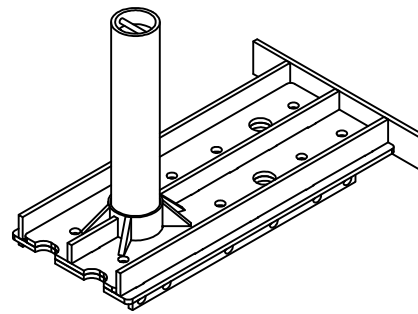
B1 TOMAHAWK M30

SHALLOW MOUNT BOLLARD - MODEL SMB-400-SSA

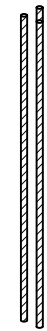
CRASH TESTED TO ASTM F2656-15 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

MATERIALS PROVIDED

MATERIALS PROVIDED BY BARRIER1 SYSTEMS



(1) EACH:
PREFABRICATED BOLLARD
WITH BASE STRUCTURE
AND BLACK PAINT FINISH



(4) EACH:
#8 VERTICAL REBAR
@ 48"

MATERIALS PROVIDED BY INSTALLER:

1. ABOUT 1.0 CUBIC YARDS OF CONCRETE PER BOLLARD
2. SIX (6) #8 HORIZONTAL REBAR @96" PER BOLLARD OR BY ARRAY LENGTH TO CONNECT ADJACENT BOLLARDS
3. #8 HORIZONTAL REBAR @68" LAID OVER #8 @ 96" REBAR BETWEEN ADJACENT BOLLARDS AND EDGE OF FOUNDATION
4. MASONRY BRICKS OR CHAIRS TO ELEVATE BOLLARD STEEL OFF SUBGRADE



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MATERIALS
PROVIDED

SMB-400-SA
SUBMITTAL DRAWING

SHEET: 5 OF 6

20230316-10-M

SCALE: N.T.S.

B1 TOMAHAWK M30

SHALLOW MOUNT BOLLARD - MODEL SMB-400-SSA

CRASH TESTED TO ASTM F2656-15 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

INSTALLATION STEPS

① EXCAVATE THEN TAMP SUBGRADE WITH PLATE TAMPER.

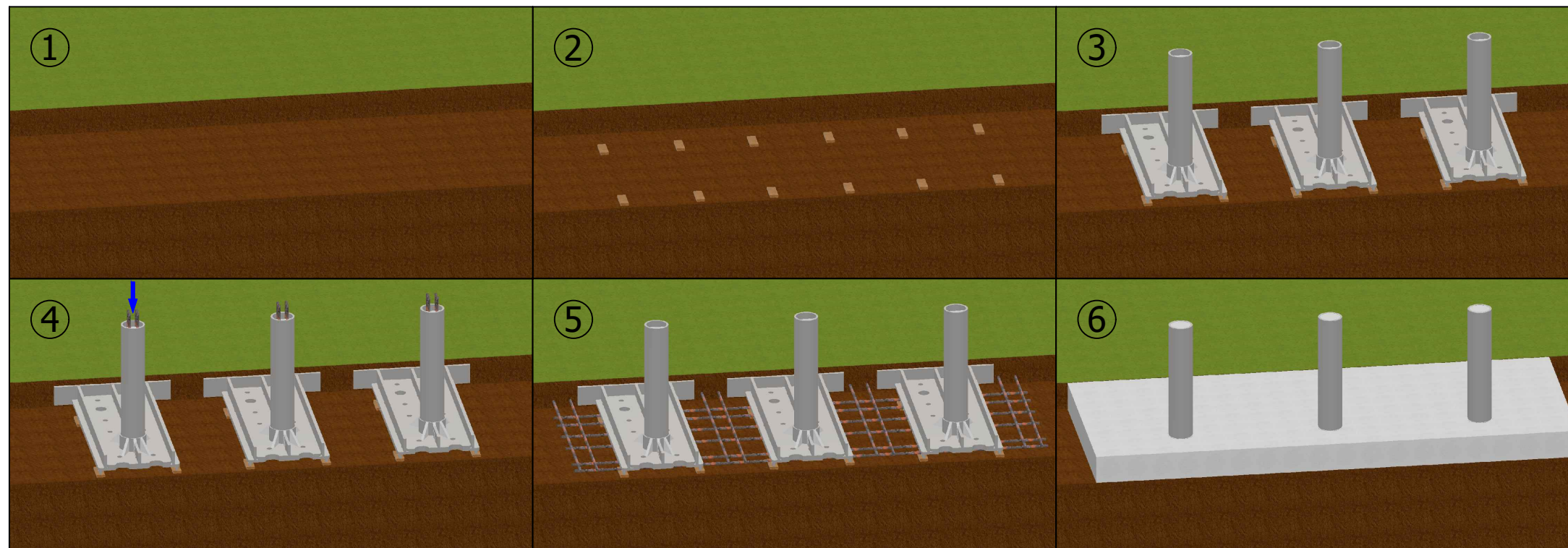
② USE MASONRY BLOCK OR CHAIRS TO ELEVATE BOLLARD OFF SUBGRADE, SO THAT TOP OF GUSSET / SLEEVE IS SAME HEIGHT AS TOP OF CONCRETE.

③ PLACE PREFABRICATED BOLLARDS INTO EXCAVATION.

④ INSERT VERTICAL REBAR INTO BOLLARD TUBE.

⑤ INSERT #8 REBAR THROUGH PREFABRICATED HOLES TO CONNECT BOLLARDS.

⑥ POUR AND VIBRATE CONCRETE IN BOLLARD TUBE AND EXCAVATION



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INSTALLATION STEPS

SMB-400-SA
SUBMITTAL DRAWING

SHEET: 6 OF 6

20230316-10-M

SCALE: N.T.S.