

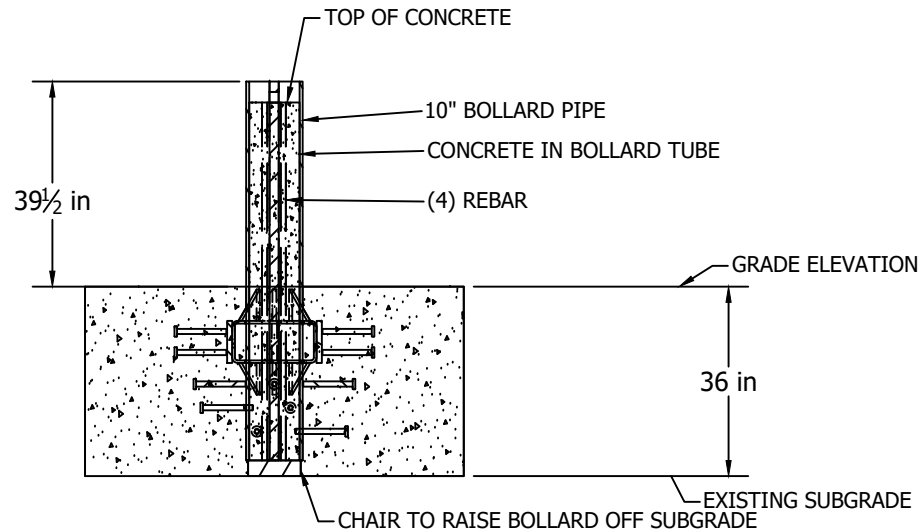
# SET & POUR BOLLARD - MODEL SPB-1200 (PREFABRICATED SINGLE BOLLARD UNIT, NO REBAR IN FOUNDATION)

STOPS 15,000 LB. VEHICLE AT 50 MPH IMPACT (BOLLARD SPACING IS UNRESTRICTED)

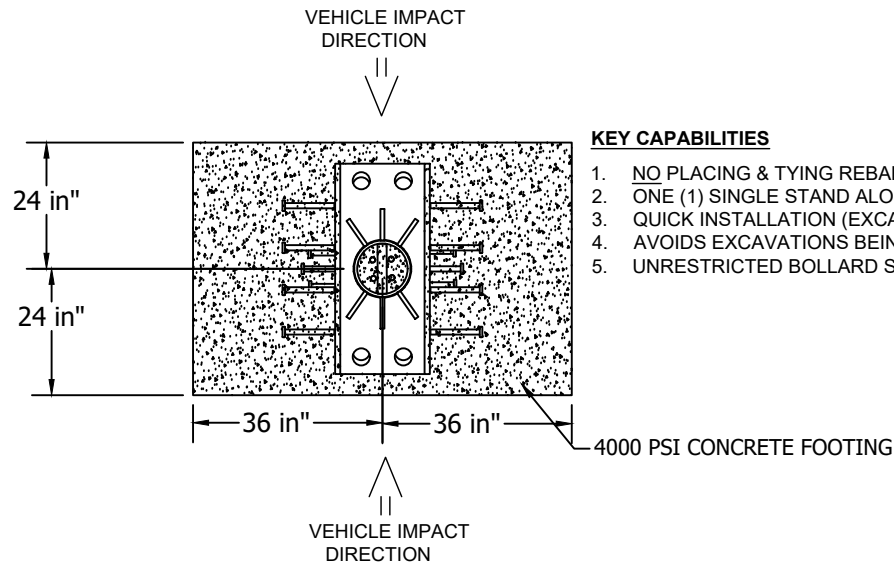
ASTM F2656-07 M50(K12) CERTIFIED, APPROVED BY DoD AND ON ANTI-RAM LIST

## SINGLE STAND ALONE BOLLARD INSTALLATION

FRONT VIEW



TOP VIEW



### KEY CAPABILITIES

1. NO PLACING & TYING REBAR IN CONCRETE FOUNDATION.
2. ONE (1) SINGLE STAND ALONE PREFABRICATED BOLLARD UNIT STOPS THE VEHICLE IMPACT.
3. QUICK INSTALLATION (EXCAVATE, THEN SET BOLLARD & POUR CONCRETE).
4. AVOIDS EXCAVATIONS BEING OPEN OVERNIGHT (SET & POUR BOLLARD ARRAY IN 1 DAY).
5. UNRESTRICTED BOLLARD SPACING (ONE BOLLARD STOPS VEHICLE IMPACT).



**BARRIER1 SYSTEMS, INC.**  
 8015 THORNDIKE ROAD  
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DETAILS  
 ASTM M50(K12)  
 SET & POUR BOLLARD

SAMPLE DRAWING

SHEET: 1 OF 9  
 20180702-01-PD  
 SCALE: N.T.S.

# SET & POUR BOLLARD - MODEL SPB-1200 (PREFABRICATED SINGLE BOLLARD UNIT, NO REBAR IN FOUNDATION)

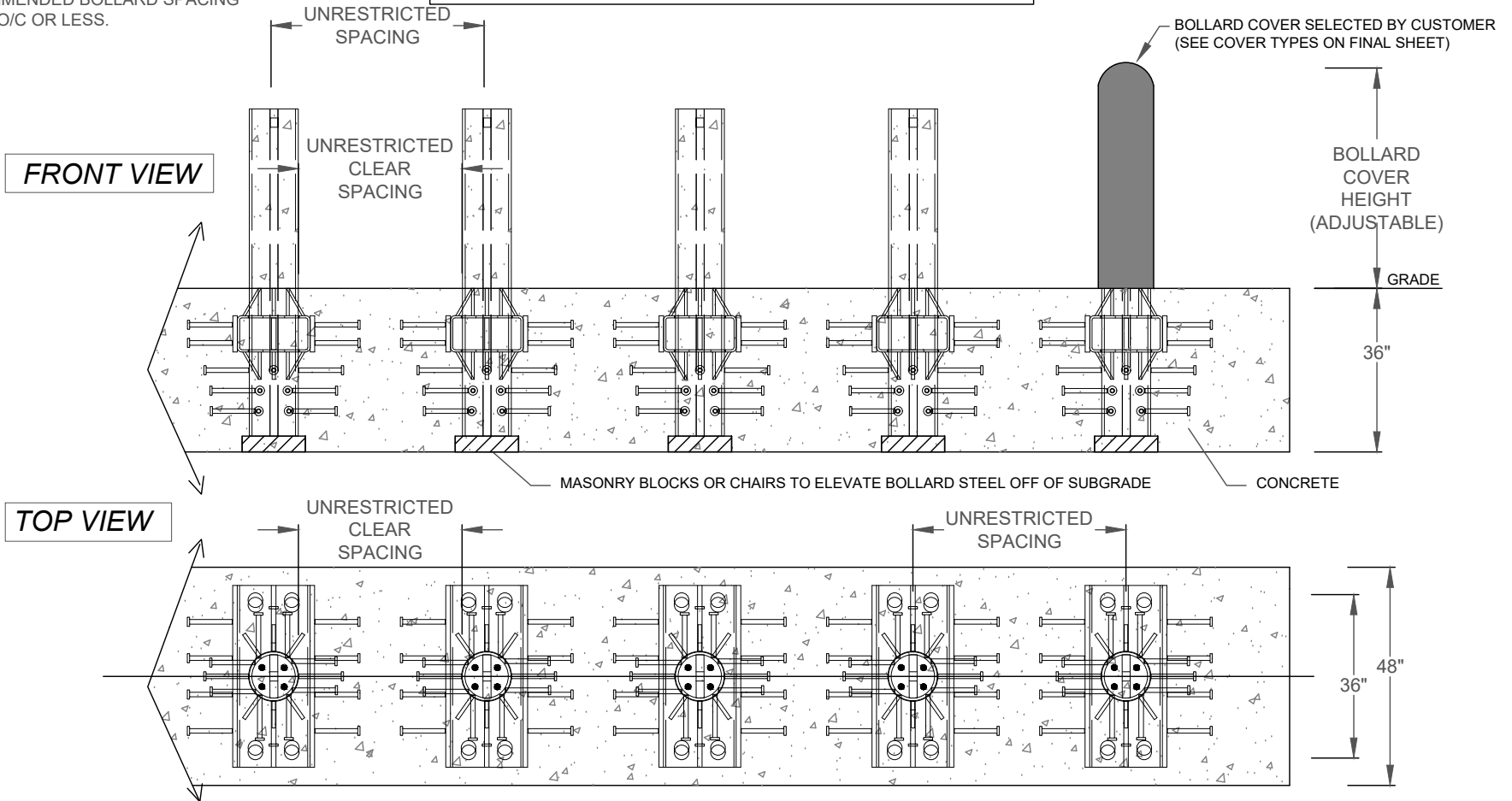
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**NOTE**

RECOMMENDED BOLLARD SPACING OF 60" O/C OR LESS.

## TYPICAL BOLLARD ARRAY INSTALLATION



**KEY CAPABILITIES**

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TYPICAL ARRAY  
 ASTM M50(K12)  
 SET & POUR BOLLARD

SAMPLE DRAWING

SHEET: 2 OF 9  
 20180702-01-PD  
 SCALE: N.T.S.

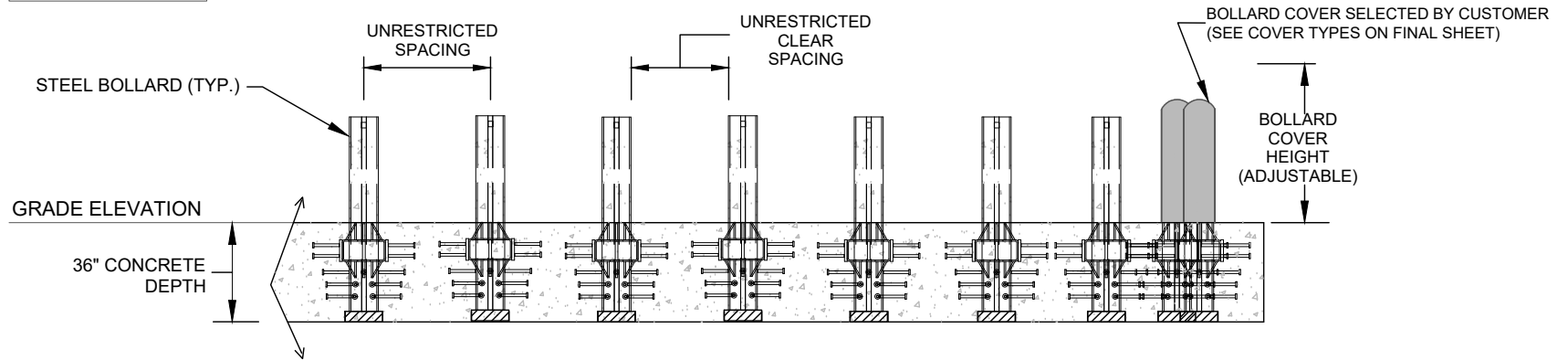
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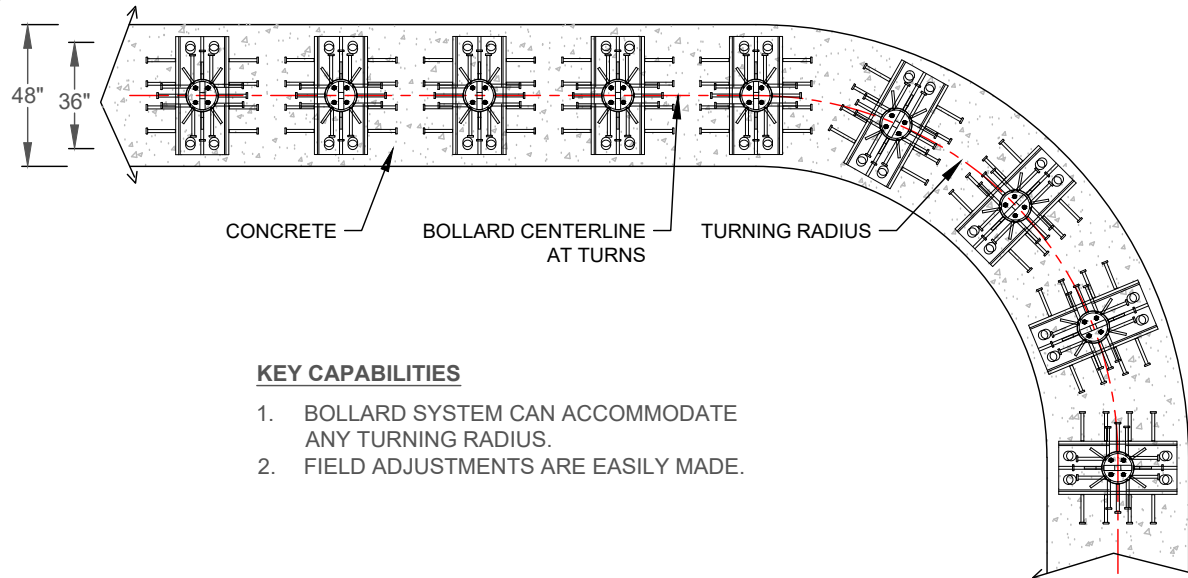
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## BOLLARD INSTALLATION WITH TURN

### FRONT VIEW



### TOP VIEW



#### KEY CAPABILITIES

1. BOLLARD SYSTEM CAN ACCOMMODATE ANY TURNING RADIUS.
2. FIELD ADJUSTMENTS ARE EASILY MADE.



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TYPICAL ARRAY  
ASTM M50(K12)  
SET & POUR BOLLARD

SAMPLE DRAWING

SHEET: 3 OF 9

20180702-01-PD

SCALE: N.T.S.

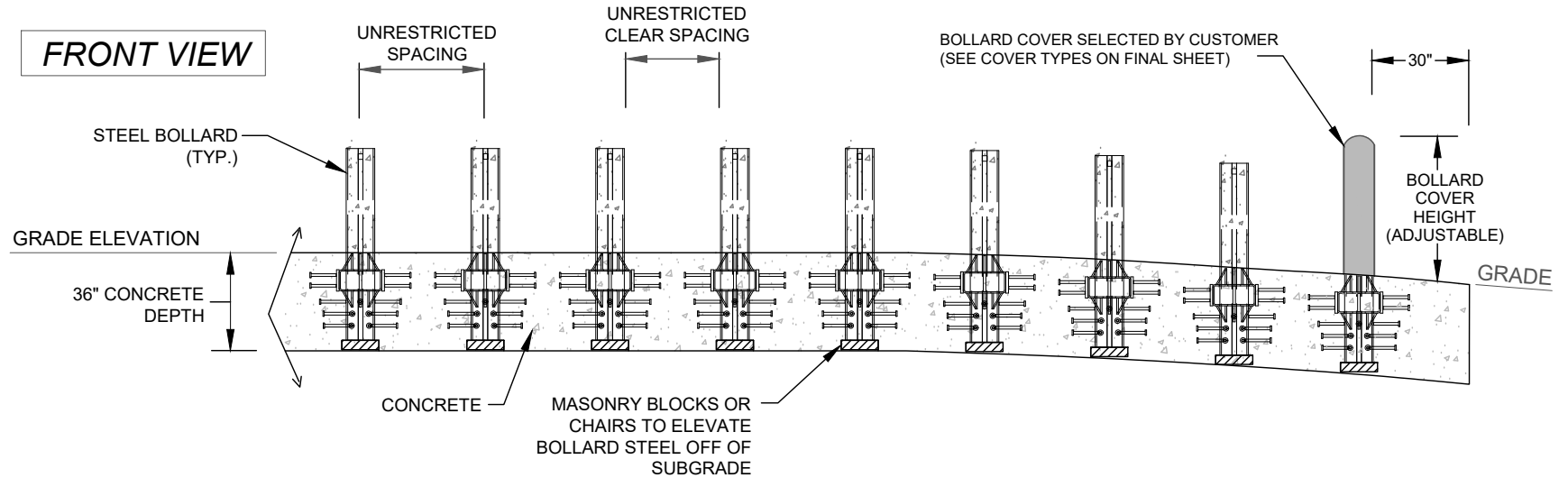
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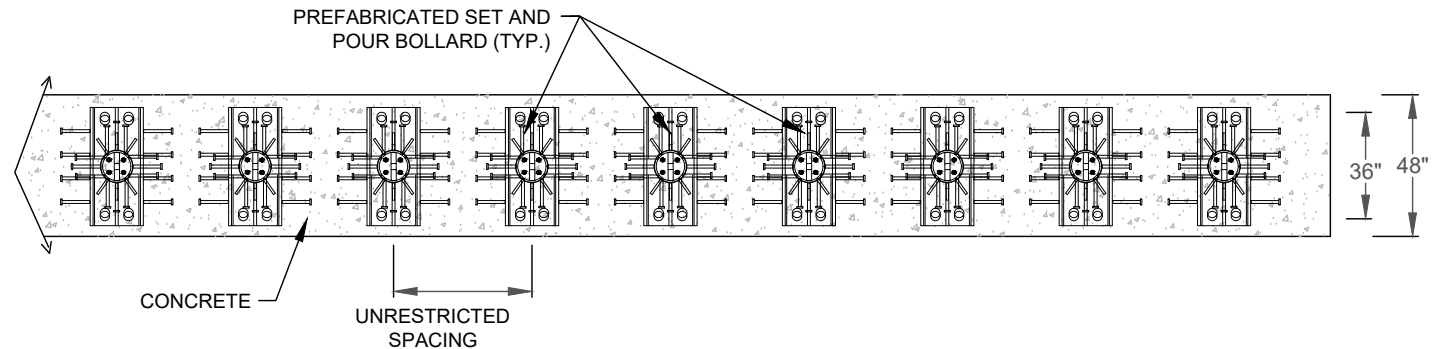
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## BOLLARD INSTALLATION ACROSS GRADE CHANGES

### FRONT VIEW



### TOP VIEW



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TYPICAL ARRAY  
ASTM M50(K12)  
SET & POUR BOLLARD

SAMPLE DRAWING

SHEET: 4 OF 9

20180702-01-PD

SCALE: N.T.S.

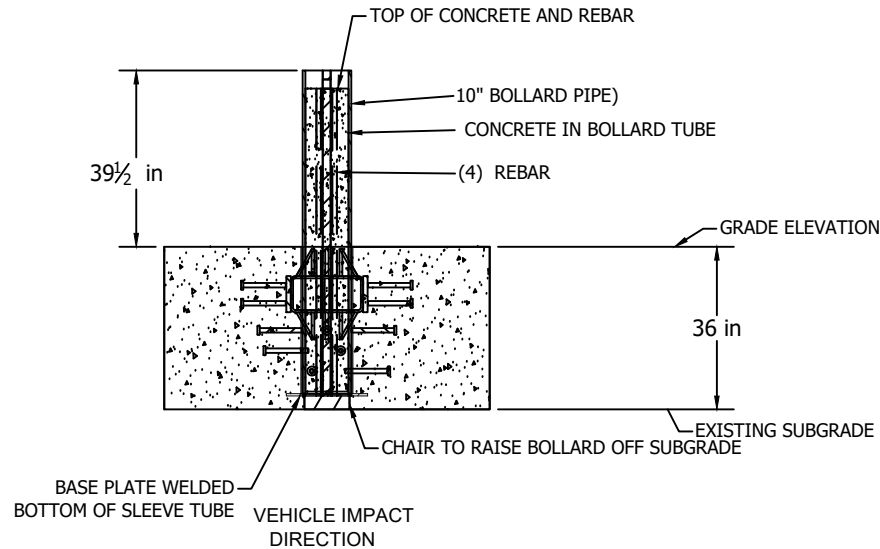
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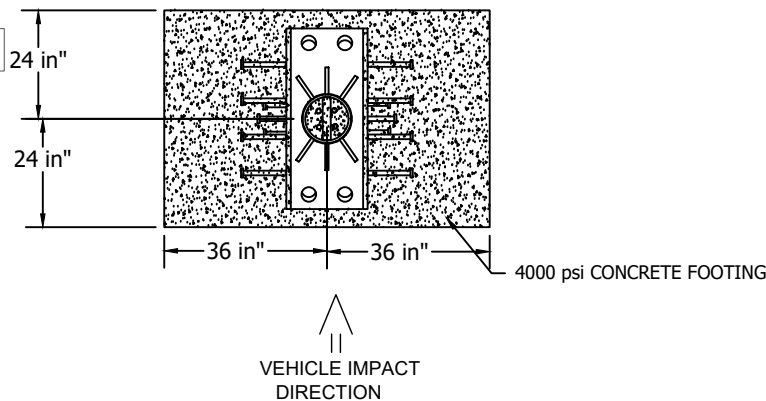
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## REMOVABLE BOLLARD MODEL

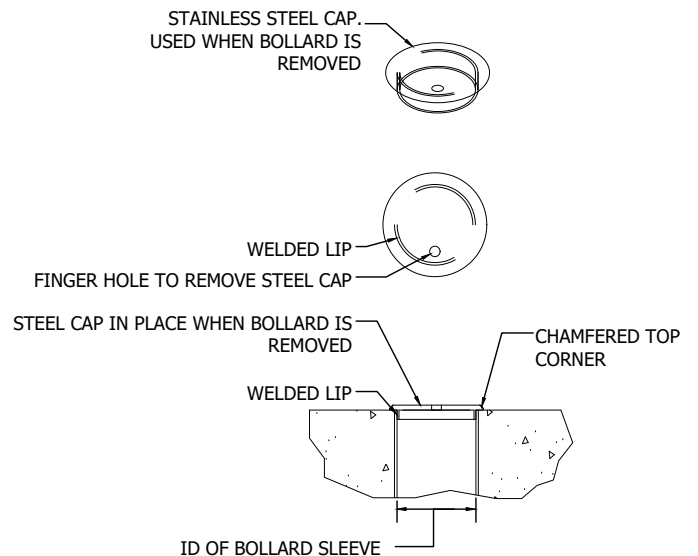
### FRONT VIEW



### TOP VIEW



### BOLLARD CAP DETAILS



### KEY CAPABILITIES

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TYPICAL ARRAY  
 ASTM M50(K12)  
 SET & POUR BOLLARD

SAMPLE DRAWING

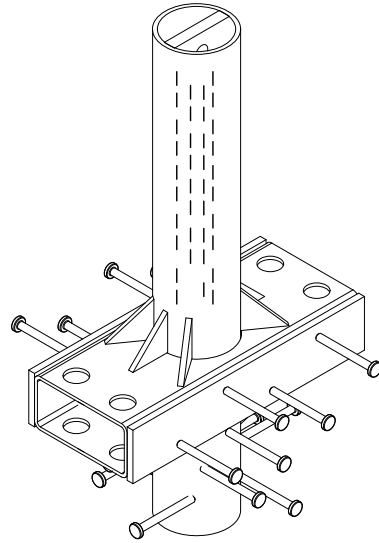
SHEET: 5 OF 9  
 20180702-01-PD  
 SCALE: N.T.S.

**SET & POUR BOLLARD - MODEL SPB-1200 (PREFABRICATED SINGLE BOLLARD UNIT, NO REBAR IN FOUNDATION)**

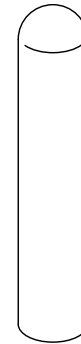
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ASTM F2656-07 M50(K12) CERTIFIED, APPROVED BY DoD AND ON ANTI-RAM LIST

PREFABRICATED BOLLARD MATERIALS PROVIDED BY BARRIER1 SYSTEMS



(QTY 1) EACH:  
BOLLARD TUBE



(QTY 1) EACH:  
BOLLARD COVER

MATERIALS PROVIDED BY INSTALLER

1. CONCRETE, 2.75 CUBIC YARDS PER BOLLARD
2. CHAIRS TO ELEVATE BOLLARDS ABOVE SUBGRADE



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TYPICAL ARRAY  
ASTM M50(K12)  
SET & POUR BOLLARD

SAMPLE DRAWING

SHEET: 6 OF 9

20180702-01-PD

SCALE: N.T.S.

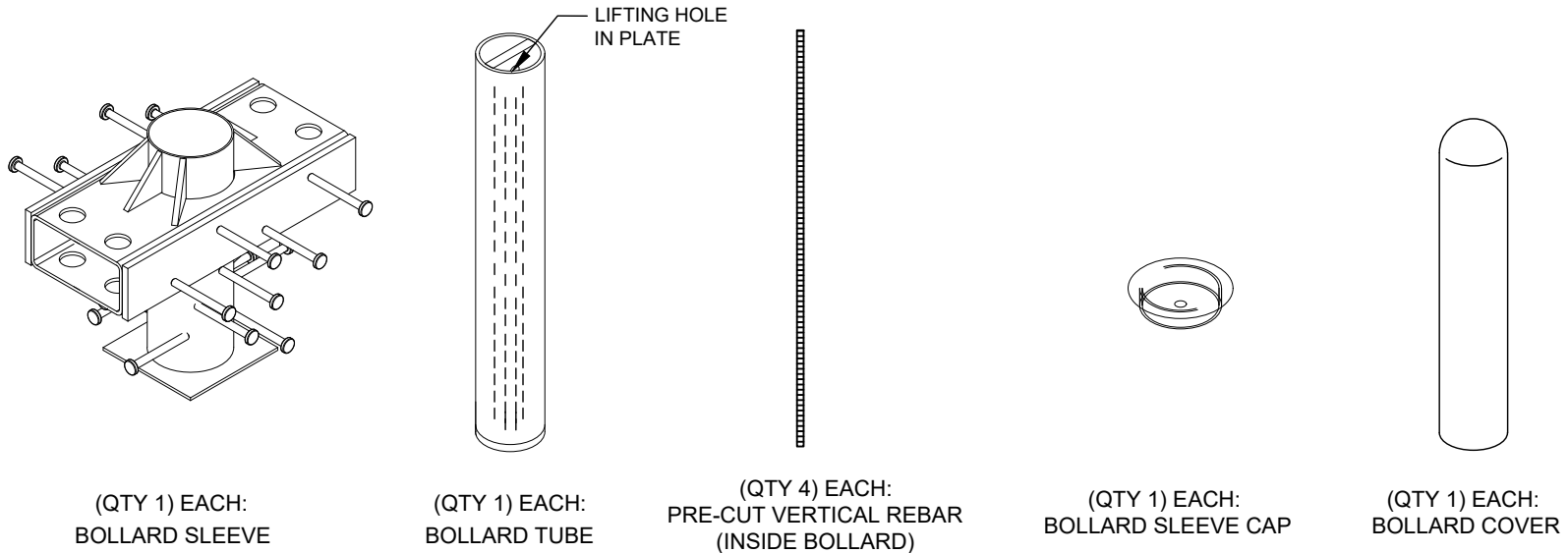
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ASTM F2656-07 M50(K12) CERTIFIED, APPROVED BY DoD AND ON ANTI-RAM LIST

REMOVABLE BOLLARDS

PREFABRICATED BOLLARD MATERIALS PROVIDED BY BARRIER1 SYSTEMS



MATERIALS PROVIDED BY INSTALLER

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TYPICAL ARRAY  
ASTM M50(K12)  
SET & POUR BOLLARD

SAMPLE DRAWING

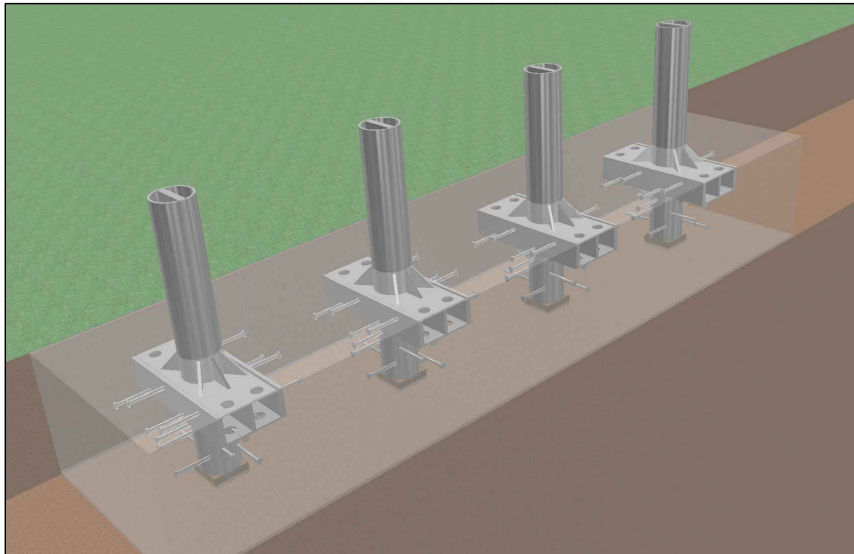
SHEET: 7 OF 9  
20180702-01-PD  
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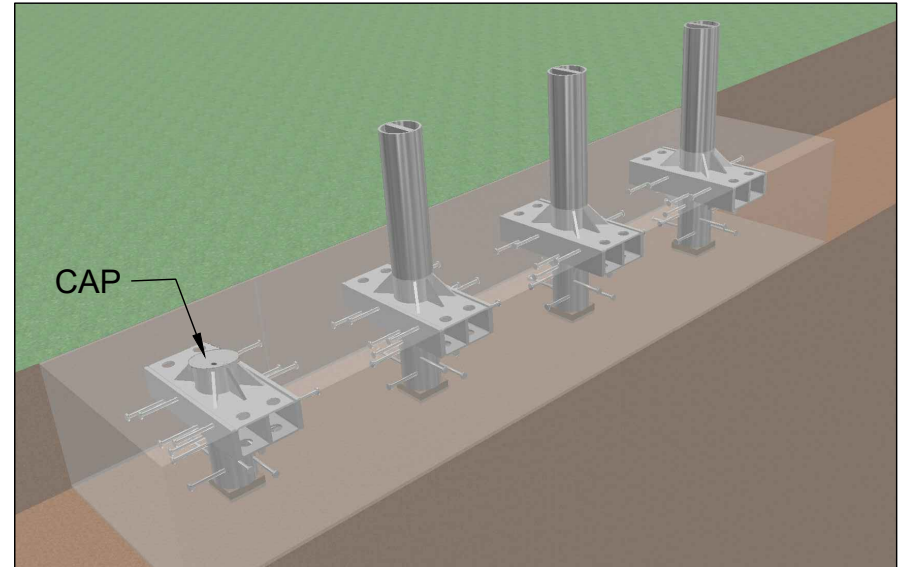
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FIXED BOLLARDS IN ARRAY



REMOVABLE BOLLARDS IN ARRAY



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3D VIEW

SAMPLE DRAWING

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BOLLARD COVER EXAMPLES - CUSTOM TYPES, SHAPES, SIZES AND COLORS ARE AVAILABLE



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BOLLARD COVER EXAMPLES

SAMPLE DRAWING

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