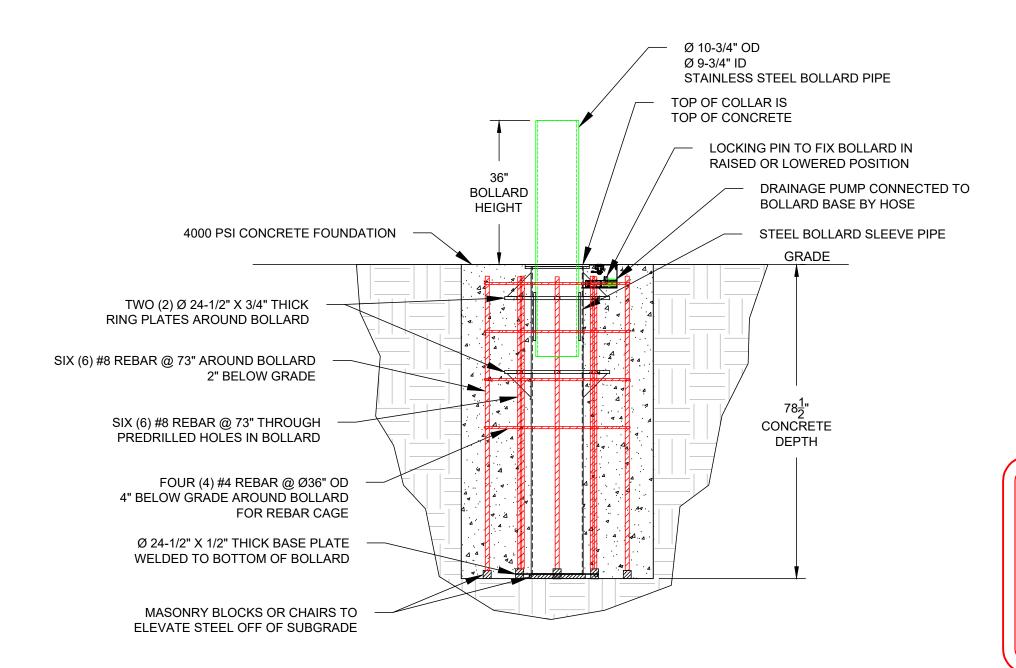
MANUALLY RETRACTABLE BOLLARD - MODEL RB-400 CRASH TESTED TO ASTM F2656-07 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

# TYPICAL SINGLE BOLLARD INSTALLATION



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

NAME:

SIGNATURE:

DATE:



### **BARRIER1 SYSTEMS, LLC**

3300 Battleground Ave. Suite 320 Greensboro, NC 27410 (336) 617-8478 www.barrier1.com sales@barrier1.com

### PATENT PROTECTED

THE DRAWINGS AND INFORMATION CONTAINED HEREIN ARE PROPRIETARY AND CONFIDENTIAL, AND ARE AUTHORIZED ONLY FOR USE FOR WORK ASSOCIATED WITH BARRIER1 SYSTEMS, LLC ALL RIGHTS RESERVED.

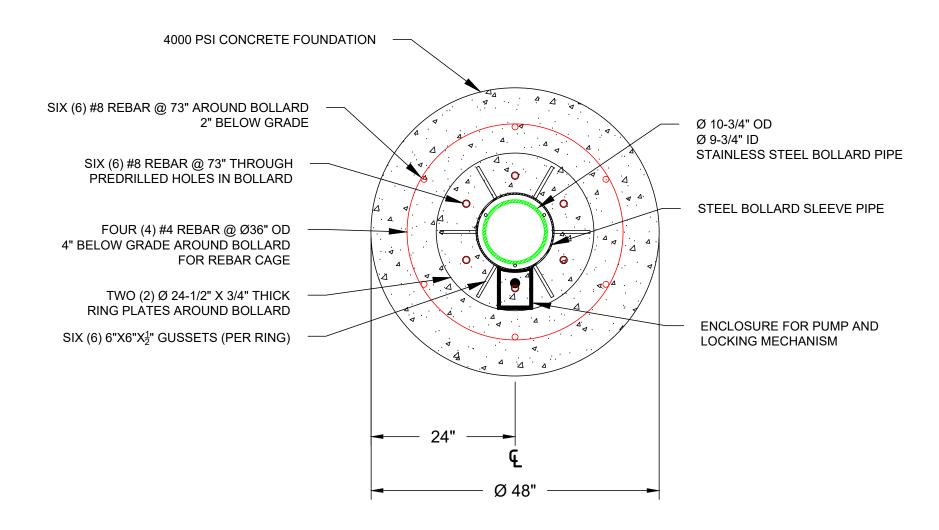
ELEVATION VIEW (STAND-ALONE)

MRB-400 SUBMITTAL DRAWING SHEET: 1 OF 6

20250527-10-S

MANUALLY RETRACTABLE BOLLARD - MODEL RB-400 CRASH TESTED TO ASTM F2656-07 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

# TYPICAL SINGLE BOLLARD INSTALLATION





### **BARRIER1 SYSTEMS, LLC**

3300 Battleground Ave. Suite 320 Greensboro, NC 27410 (336) 617-8478 www.barrier1.com sales@barrier1.com

### PATENT PROTECTED

THE DRAWINGS AND INFORMATION CONTAINED HEREIN ARE PROPRIETARY AND CONFIDENTIAL, AND ARE AUTHORIZED ONLY FOR USE FOR WORK ASSOCIATED WITH BARRIER1 SYSTEMS, LLC ALL RIGHTS RESERVED.

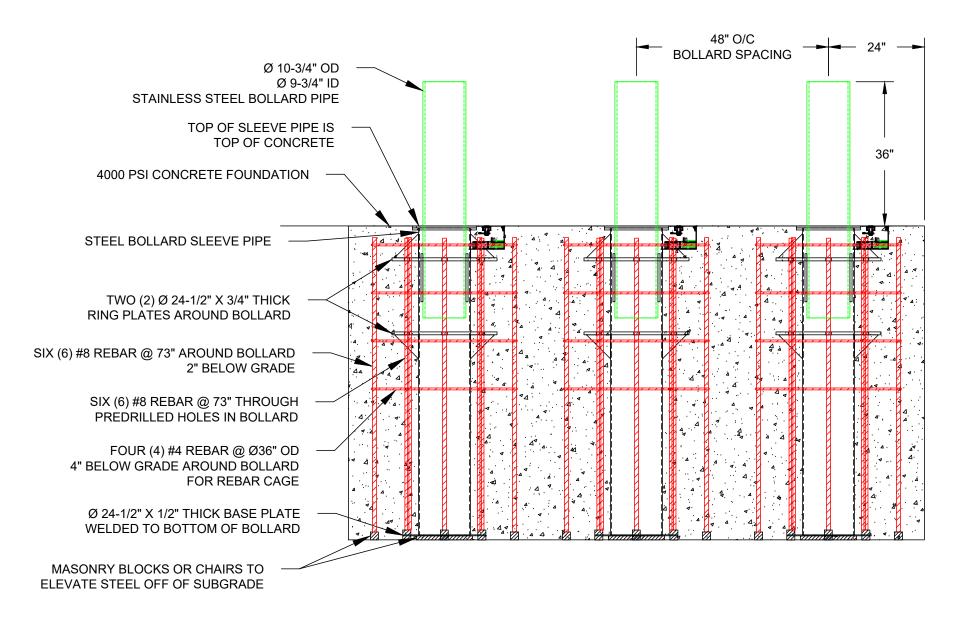
PLAN VIEW (STAND-ALONE)

MRB-400 SUBMITTAL DRAWING SHEET: 2 OF 6

20250527-10-S

MANUALLY RETRACTABLE BOLLARD - MODEL RB-400
CRASH TESTED TO ASTM F2656-07 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

## TYPICAL BOLLARD ARRAY INSTALLATION



#### NOTE:

MODIFIED SPACING FOR SITE SPECIFIC CONDITIONS AVAILABLE.



### **BARRIER1 SYSTEMS, LLC**

3300 Battleground Ave. Suite 320 Greensboro, NC 27410 (336) 617-8478 www.barrier1.com sales@barrier1.com

#### PATENT PROTECTED

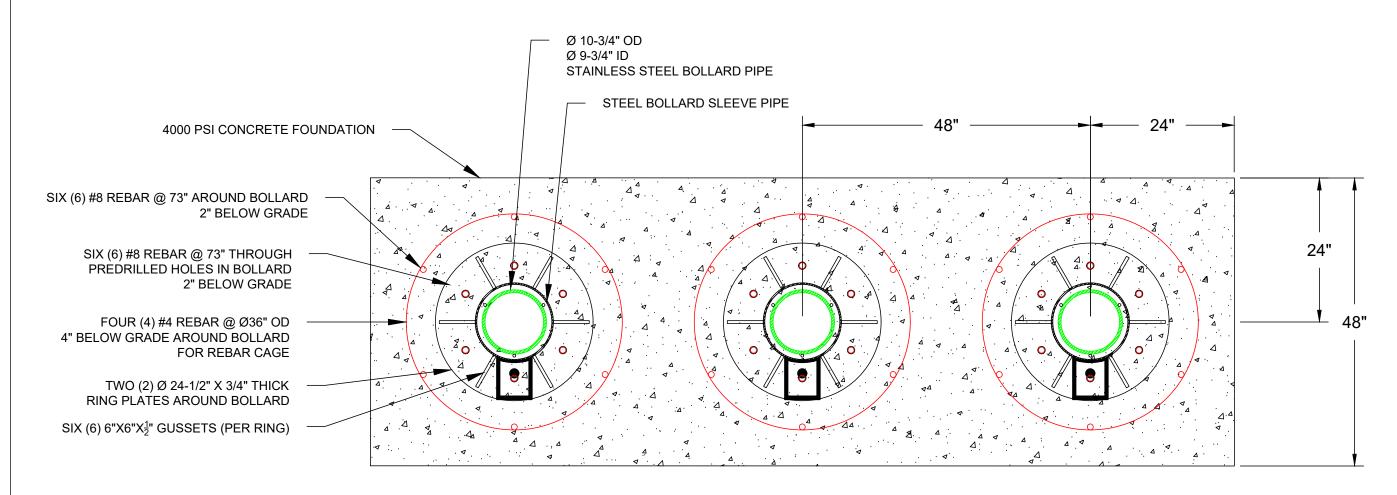
THE DRAWINGS AND INFORMATION CONTAINED HEREIN ARE PROPRIETARY AND CONFIDENTIAL, AND ARE AUTHORIZED ONLY FOR USE FOR WORK ASSOCIATED WITH BARRIER1 SYSTEMS, LLC ALL RIGHTS RESERVED.

ELEVATION VIEW (ARRAY) MRB-400 SUBMITTAL DRAWING SHEET: 3 OF 6

20250527-10-S

MANUALLY RETRACTABLE BOLLARD - MODEL RB-400 CRASH TESTED TO ASTM F2656-07 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

# TYPICAL BOLLARD ARRAY INSTALLATION



#### NOTE:

MODIFIED SPACING FOR SITE SPECIFIC CONDITIONS AVAILABLE.



### **BARRIER1 SYSTEMS, LLC**

3300 Battleground Ave. Suite 320 Greensboro, NC 27410 (336) 617-8478 www.barrier1.com sales@barrier1.com

### PATENT PROTECTED

THE DRAWINGS AND INFORMATION CONTAINED HEREIN ARE PROPRIETARY AND CONFIDENTIAL, AND ARE AUTHORIZED ONLY FOR USE FOR WORK ASSOCIATED WITH BARRIER1 SYSTEMS, LLC ALL RIGHTS RESERVED.

PLAN VIEW (ARRAY) MRB-400 SUBMITTAL DRAWING SHEET: 4 OF 6

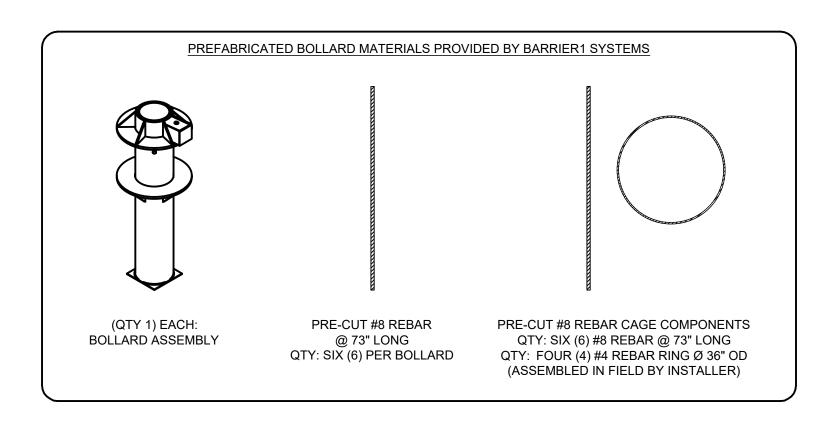
20250527-10-S

MANUALLY RETRACTABLE BOLLARD - MODEL RB-400 CRASH TESTED TO ASTM F2656-07 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

# MATERIALS PROVIDED

ABOVE GRADE FINISH: STAINLESS STEEL

BELOW GRADE FINISH: GALVANIZED STEEL



#### MATERIALS PROVIDED BY INSTALLER

- 1. CONCRETE, 3.0 CUBIC YARDS PER BOLLARD
- 2. CHAIRS TO ELEVATE BOLLARDS ABOVE SUBGRADE



### **BARRIER1 SYSTEMS, LLC**

3300 Battleground Ave. Suite 320 Greensboro, NC 27410 (336) 617-8478 www.barrier1.com sales@barrier1.com

### PATENT PROTECTED

THE DRAWINGS AND INFORMATION CONTAINED HEREIN ARE PROPRIETARY AND CONFIDENTIAL, AND ARE AUTHORIZED ONLY FOR USE FOR WORK ASSOCIATED WITH BARRIER1 SYSTEMS, LLC ALL RIGHTS RESERVED.

MATERIALS PROVIDED

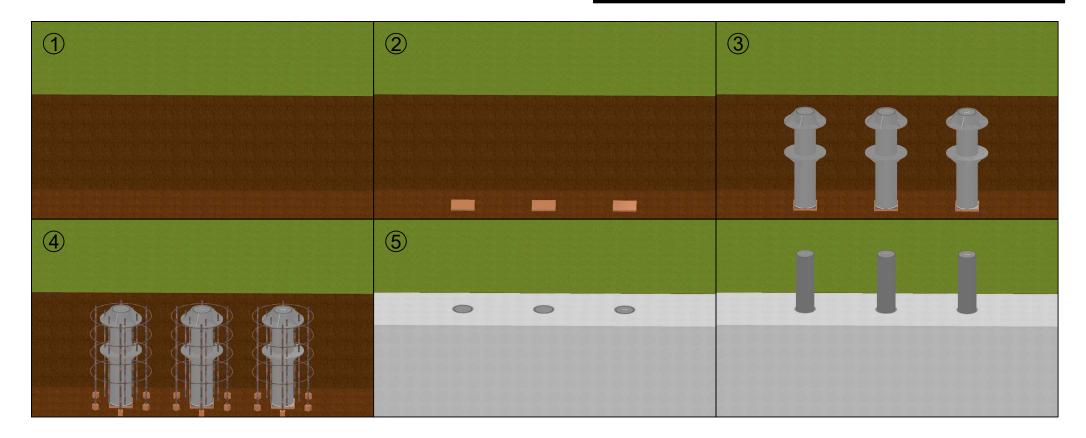
MRB-400 SUBMITTAL DRAWING SHEET: 5 OF 6

20250527-10-S

MANUALLY RETRACTABLE BOLLARD - MODEL RB-400 CRASH TESTED TO ASTM F2656-07 - M30/P1 RATED - STOPS 15,000 LB. VEHICLE AT 30 MPH IMPACT

# INSTALLATION STEPS

- 1 EXCAVATE THEN TAMP SUBGRADE WITH PLATE TAMPER.
- 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 AND REBAR CAGE INTO BOLLARD TUBE.
- 5 FILL EXCAVATION WITH CONCRETE, ENSURING NO CONCRETE SEEPS INTO BOLLARD TUBE OR SLEEVE.





### **BARRIER1 SYSTEMS, LLC**

3300 Battleground Ave. Suite 320 Greensboro, NC 27410 (336) 617-8478 www.barrier1.com sales@barrier1.com

### PATENT PROTECTED

THE DRAWINGS AND INFORMATION CONTAINED HEREIN ARE PROPRIETARY AND CONFIDENTIAL, AND ARE AUTHORIZED ONLY FOR USE FOR WORK ASSOCIATED WITH BARRIER1 SYSTEMS, LLC ALL RIGHTS RESERVED.

INSTALLATION STEPS

MRB-400 SUBMITTAL DRAWING SHEET: 6 OF 6

20250527-10-S