

FOR CONTRACT NO.: 05-0R7504

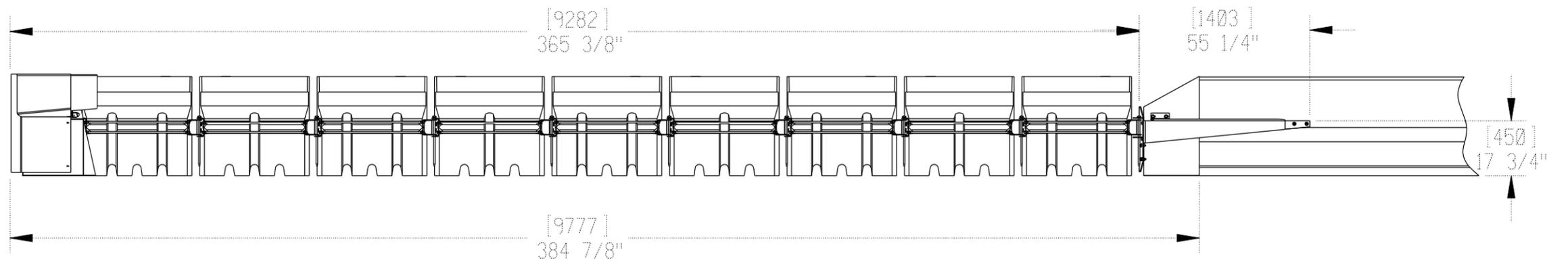
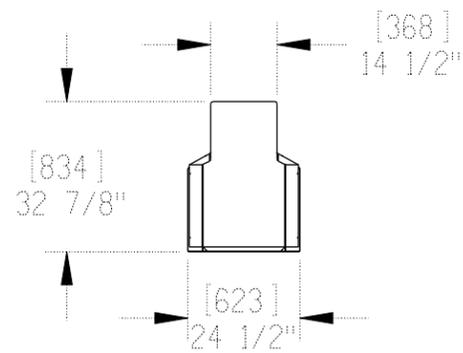
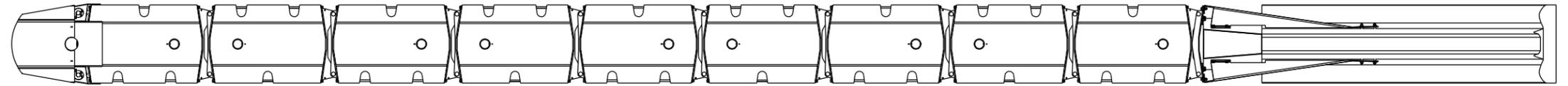
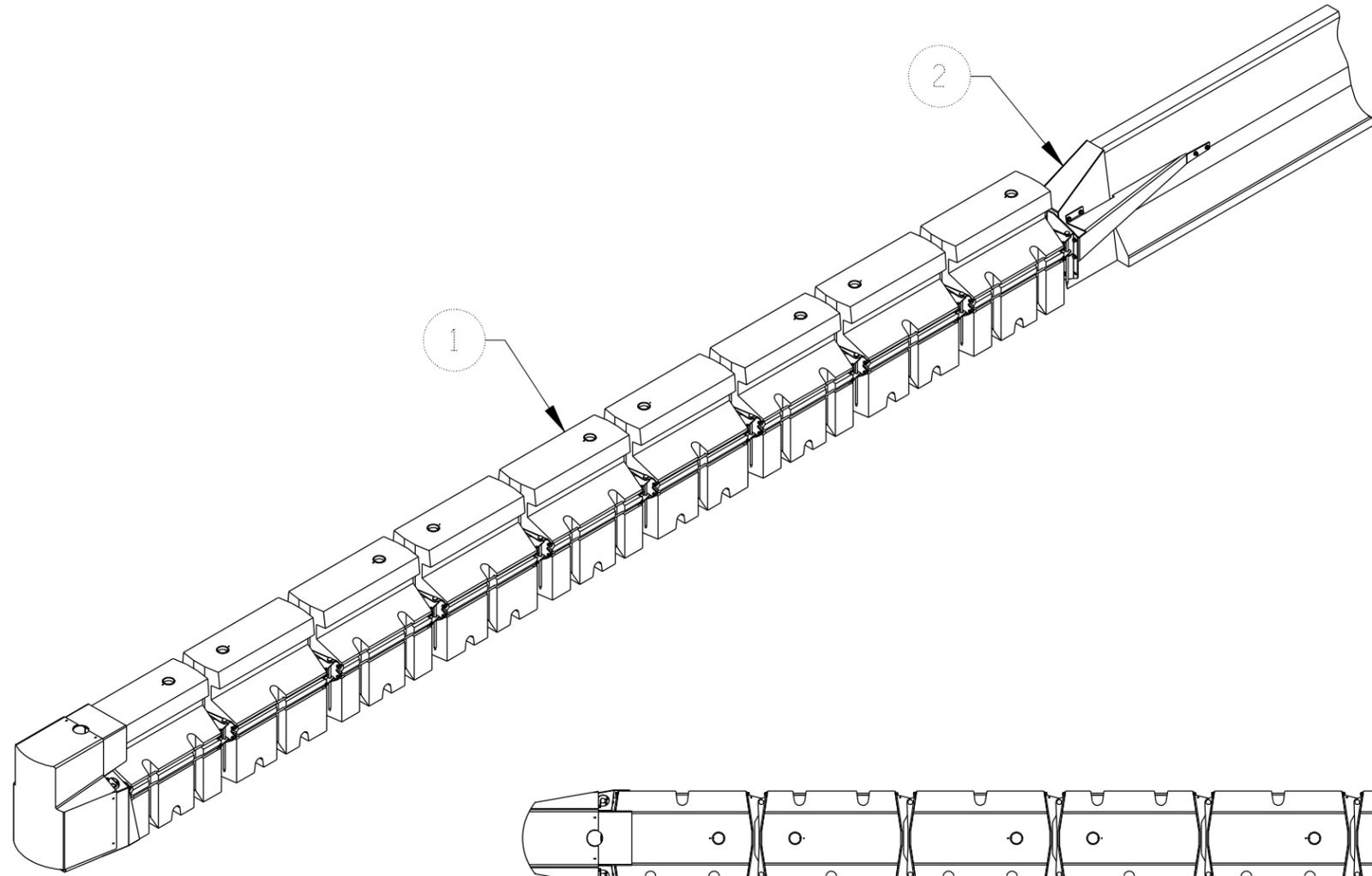
INFORMATIONAL HANDOUT

MANUFACTURER DRAWINGS FOR

ABSORD 350 BY BARRIER SYSTEMS, INC.

QUADGUARD C.Z. BY ENERGY ABSORPTION SYSTEMS, INC.

Item	Qty	Part Description	Part#	U/M
1	1.00	AB350 100km PCB ARRAY, TL-3	AB100P	EACH
2	1.00	AB350 PCB ATTACHMENT ASSY	SBPCB	EACH



NOTE:

The information herein is proprietary to Barrier Systems Inc. shall not be disclosed, duplicated or used otherwise without the express written approval of Barrier Systems Inc.

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AB350 PCB ATTACHMENT ASSY

REV.	CHANGES	DATE	BY	REQ'D	NEXT ASSY.	ITEM

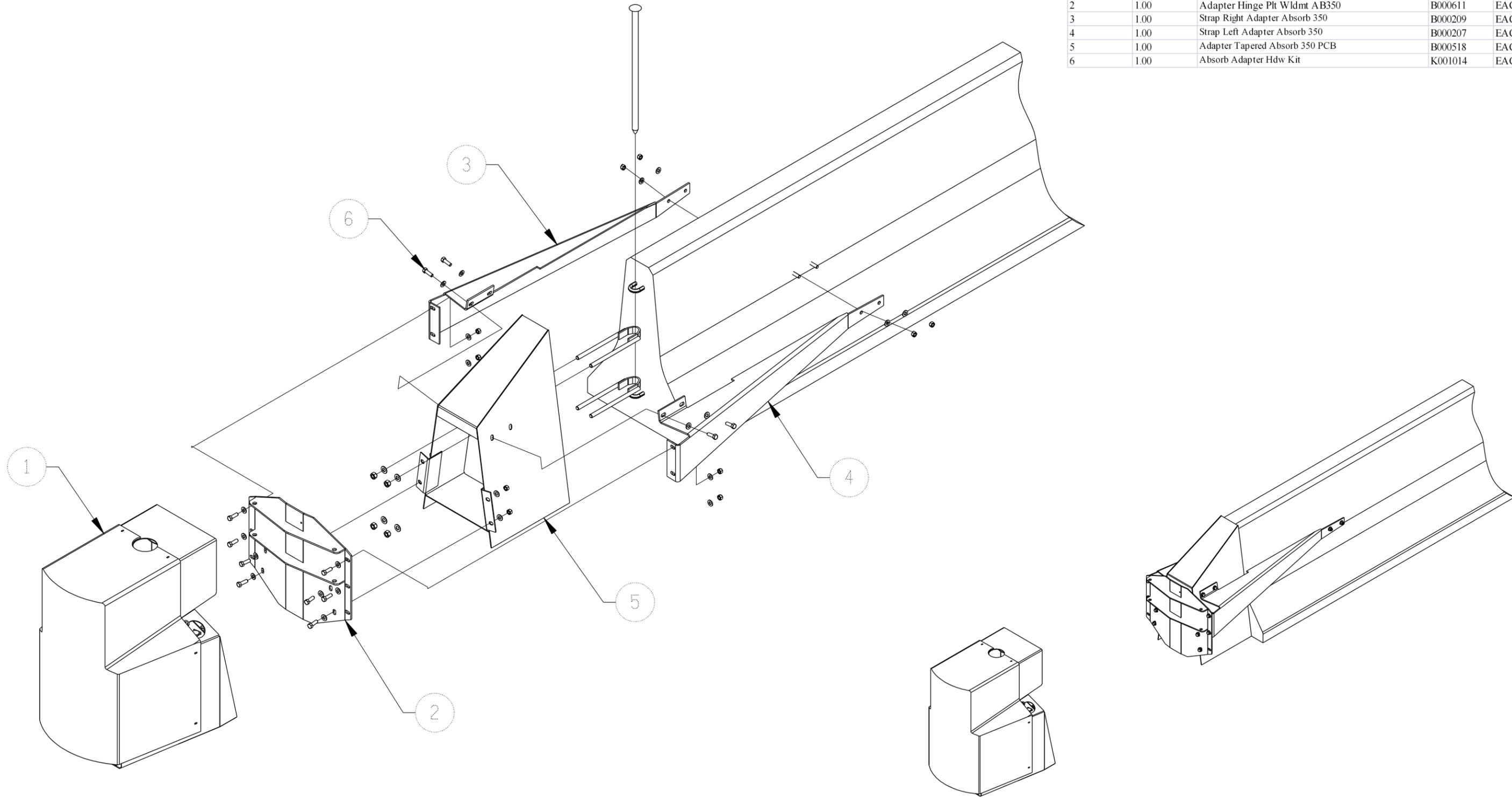
NO SCALE

DRAWN BY	DATE	INIT.
	6/06/05	CMB GAD

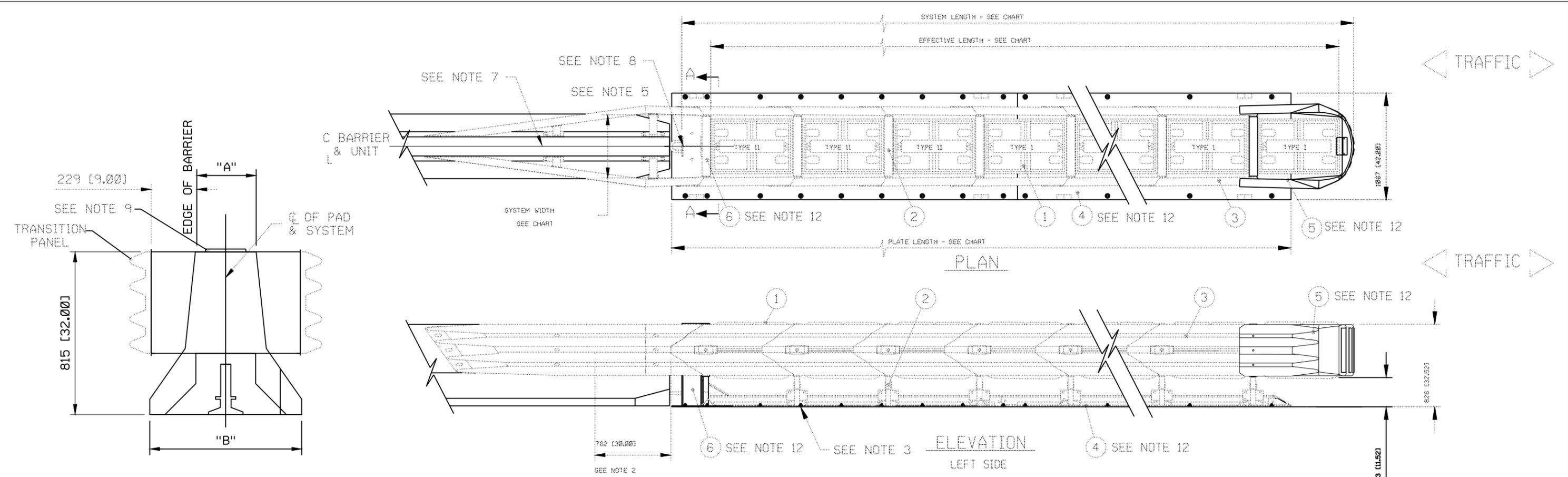
TITLE:	Standard Tolerance
	Angular +/- 1/2 Deg.
	Fractional +/- 1/16
	Dec. XXX: +/- .010
	Dec. JXX: +/- .005

MODEL	DRAWING NUMBER	REV

Item	Qty	Part Description	Part#	U/M
1	1.00	AB350 PCB Nose Piece rev "D"	B010825	EACH
2	1.00	Adapter Hinge Plt Wldmt AB350	B000611	EACH
3	1.00	Strap Right Adapter Absorb 350	B000209	EACH
4	1.00	Strap Left Adapter Absorb 350	B000207	EACH
5	1.00	Adapter Tapered Absorb 350 PCB	B000518	EACH
6	1.00	Absorb Adapter Hdw Kit	K001014	EACH



© 2005 Barrier Systems Inc.		NO SCALE		Standard Tolerance Angular +/- 1/2 Deg. Fractional +/- 1/16 Dec. XXX +/- .010 Dec. .XX +/- .030	
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REV.	CHANGES	6/24/05	CMB GAD		SBPCB
		TITLE:	AB350 PCB ATTACHMENT ASSY		REV



VIEW A-A
NO SCALE

TABLE "A"

SYSTEM WIDTH	TYPICAL BARRIER APPLICATION	
	"A" TOP OF BARRIER	"B" BARRIER WIDTH
610[24.00]	152 [6.00]	610 [24.00]
762[30.00]	305 [12.00]	762 [30.00]
914[36.00]	457 [18.00]	914 [36.00]

* G = GREY or Y = YELLOW

BAYS	610[24] WIDTH	762[30] WIDTH	914[36] WIDTH	SYSTEM LENGTH		EFFECTIVE LENGTH		PLATE LENGTH		MAX DESIGN SPEED	# OF CARTRIDGES	
	MODEL*	MODEL*	MODEL*	m	ft-in	m	ft-in	m	ft-in		km/h [MPH]	TYPE I
3	QZ2403P*	QZ3003P*	QZ3603P*	4.00	[13'-1"]	3.56	[11'-8"]	3.47	[11'-5"]	70 [44]	3	1
4	QZ2404P*	QZ3004P*	QZ3604P*	4.90	[16'-1"]	4.47	[14'-8"]	4.39	[14'-5"]	80 [50]	3	2
5	QZ2405P*	QZ3005P*	QZ3605P*	5.82	[19'-1"]	5.38	[17'-8"]	5.30	[17'-5"]	90 [56]	4	2
6	QZ2406P*	QZ3006P*	QZ3606P*	6.74	[22'-1"]	6.30	[20'-8"]	6.21	[20'-5"]	100 [62]	4	3
7	QZ2407P*	QZ3007P*	QZ3607P*	7.65	[25'-1"]	7.21	[23'-8"]	7.13	[23'-5"]	△ 105 [65]	4	4
8	QZ2408P*	QZ3008P*	QZ3608P*	8.56	[28'-1"]	8.13	[26'-8"]	8.05	[26'-5"]	△ 110 [68]	4	5
9	QZ2409P*	QZ3009P*	QZ3609P*	9.48	[31'-1"]	9.04	[29'-8"]	8.96	[29'-5"]	△ 115 [71]	4	6

- NOTES:
- IN COMPLIANCE WITH THE AASHTO 2002 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 - PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD UPON IMPACT 760 [30.00] MIN.
 - CAUTION: THE QUADGUARD C.Z. MUST BE CORRECTLY ANCHORED FOR PROPER IMPACT PERFORMANCE. ATTACH SYSTEM USING ONE OF THE FOLLOWING:
 - 7" STUDS MAY BE USED TO ATTACH SYSTEM TO 28 MPa[4000 PSI] MIN. P.C. CONCRETE PER THE FOLLOWING MINIMUMS:**
 - a) 150[6.00] NON REINFORCED ROADWAY OR PAD
 - b) 200[8.00] REINFORCED PORTABLE PAD PER THE REFERENCE DETAIL
 - c) 180[7.00] DECK STRUCTURE
 - 18" THREADED RODS MAY BE USED TO INSTALL SYSTEM ON ASPHALT.**
 - SEE THE "QUADGUARD SYSTEM PRODUCT MANUAL", FOR A DESCRIPTION OF ITS IMPACT PERFORMANCE CHARACTERISTICS AND DESIGN LIMITATIONS BEFORE PLACING A SYSTEM AT A GIVEN SITE. INFORMATION AND COPIES OF ABOVE MANUAL ARE AVAILABLE BY CALLING CUSTOMER SERVICE DEPARTMENT AT (888) 323-6374.
 - WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE QUADGUARD SYSTEM TO THE OBJECT BEING SHIELDED.

- UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
- CAUTION: C₁ OF QUADGUARD SYSTEM SHALL BE PARALLEL WITH C OF BARRIER ±1".
- CAUTION: MAX. 51 [2.00] CLEARANCE BETWEEN BACKUP AND BARRIER WALL. ZERO CLEARANCE RECOMMENDED.
- LOCATE EDGE OF BARRIER @ 815 [32.00] ABOVE GRADE & USE DIMENSIONS PROVIDED IN TABLE "A" TO LOCATE QUADGUARD SYSTEM & PAD WITH RESPECT TO SAFETY SHAPE BARRIER.
- THE NUMBER OF BAYS INDICATED IN THE TABLE IS BASED ON CALCULATED VALUES TO ENSURE ADEQUATE SYSTEM CAPACITY TO DISSIPATE THE LONGITUDINAL IMPACT ENERGY OF A 2000 kg VEHICLE TRAVELING AT THE SPEED INDICATED.
- THE SIX BAY SYSTEM HAS BEEN FULLY TESTED AT 100 km/h UNDER THE FULL 8 TEST MATRIX OF NCHRP 350 TL-3. SYSTEMS LONGER THAN SIX BAYS SHALL ALSO BE CAPABLE OF MEETING THE OCCUPANT RISK CRITERIA AS RECOMMENDED IN NCHRP 350 FOR VEHICLES WEIGHING 2000 kg IMPACTING HEAD ON AT THE SPEED INDICATED IN THE TABLE. NOSE, ANCHOR AND TRANSITION ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.
- TRANSITION PANEL SHALL BE ANGLED SUCH THAT MAXIMUM GAP FROM FENDER PANEL OVERLAP DOES NOT EXCEED 20 [.78].

REFERENCES

SERIAL#	_____	DIAPHRAGM ASSY.	_____
SALES ORDER#	_____	NOSE ASSY.	_____
EH PROJECT#	_____	FENDER PANEL ASSY.	_____
DESIGN SPEED	△ _____	C.Z. BACKUP/PLATE ASSY.	_____
NOSE COLOR	_____	LIFTING KIT	_____
NUMBER OF UNITS	_____	ANCHOR KIT	35-40-64
		PORTABLE BARRIER ANCHOR	_____
		TRANSITON	_____

DRAWN: STAGER	DATE: _____
DESIGNED: _____	DATE: _____
CHECKED: _____	DATE: _____
APPROVED: _____	DATE: _____
CAD FILE: _____	

ENERGY ABSORPTION SYSTEMS, INC.
ENGINEERING AND RESEARCH DEPARTMENT

QUADGUARD ® C.Z. SYSTEM ON A PLATE

SCALE	DWG.	SHEET	REV
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Revisions	Date	Rev.	By	Ckd.	App.
REVISED NOTE 12 & UPDATED REFERENCES					