



BLACK SECURITY PRODUCTS

AVBD 100 SERIES
PRODUCT DATA · 2026



PASSIVE CABLE BARRIER

CRASH-RATED VEHICLE BARRIER · M30 & M50

Six full-scale crash tests at three independent accredited laboratories. M30 and M50, P1 and P2 — every configuration listed on the DoD Anti-Ram Vehicle Barrier List. No power, no moving parts, nothing to maintain.

20-YEAR WARRANTY

ASTM F2656 · M30 / M50

MADE IN THE USA

DOD ANTI-RAM LIST

NO POWER. NO PARTS. NO WAY THROUGH.

An active barrier fails the way any machine fails — it loses power, it jams, someone forgets to lower it. A passive cable barrier has nothing to fail. It is steel rope, embedded posts and concrete, and it is at full rating the moment it is installed.

Under impact the cables stretch and carry a 15,000-lb truck's energy back into the anchor foundations instead of stopping it dead at one point. At M50 P1, TT1 measured just **2 ft 11.7 in of penetration** and the vehicle was not operable afterward — while the barrier itself sits below sightline on the approach.

BSP tests the full range, not one flagship number. **Six full-scale crash tests since 2019, at three independent laboratories, across M30 and M50 at both P1 and P2** — so the barrier can be specified to the actual threat and the actual civil budget.

And the system is deliberately simple. BSP's **patent-pending post wrap** needs no welding in manufacture or on site, no corner posts at a change of direction, and one post and foundation size across every crash post on the job. See page 8.



M50 passive cable barrier on a federal campus approach — full crash rating, below sightline.

DIFFERENTIATOR

M50 P2 is USACE-accepted at 20 ft, 30 ft and 200 ft post spacing. Long runs take a fraction of the foundations — without dropping a rating. See page 6.

6

FULL-SCALE CRASH
TESTS SINCE 2019

3

INDEPENDENT
ACCREDITED LABS

600'

LONGEST SYSTEM
CRASH-TESTED

20

YEAR WARRANTY —
PARTS AND LABOR

TESTED, LISTED & DEPLOYED FOR

Department of Defense installations
Federal & civilian agency facilities
Airports and transportation hubs

Electric utilities & substations
Data centers & network facilities
Oil, gas and petrochemical sites

Ports, rail and logistics yards
Correctional & secure institutions
Industrial & manufacturing campuses

ASTM F2656

M30 · P1 / P2

M50 · P1 / P2

LISTED — DOD ANTI-RAM VEHICLE BARRIER LIST

Crash testing by Texas A&M Transportation Institute, Calspan Corporation and Applus IDIADA KARCO Engineering. Acceptance letters issued by the U.S. Army Corps of Engineers Protective Design Center — see page 5.

SIX COMPONENTS. NONE OF THEM MOVE.



Detail A: section cutaway — crash posts in reinforced piers, intermediate posts in small unreinforced piers.

AT A GLANCE

Cable	Two ropes, 1-3/8"–7/8" dia. 6×36 IWRC, un-tensioned
Cable heights	33" and 39" nominal above grade
Crash post	Concrete-filled steel pipe
Intermediate post	Steel U-channel, 13'-4" max
Pier diameter	Ø24"–36" crash · Ø12" intermediate
Concrete	4,000 PSI
Welding	None — in manufacture or on site

1 Wire Rope Cable

Two 6×36 IWRC steel ropes at 33" and 39" above grade, 1-3/8" to 7/8" diameter depending on the system. Un-tensioned — they arrest the vehicle by deflecting.

2 Crash Post

Concrete-filled steel pipe in a reinforced drilled pier. The structural element that takes the load.

3 Intermediate Post

Steel U-channel in a small Ø12" unreinforced pier. Holds cable height between crash posts.

4 Post Wrap — Patent Pending

At every line crash post the rope passes a full turn around the post. That wrap alone locks it — no clamp, no socket, no weld. See page 8.

5 Drilled Pier Foundation

Ø24"–36" at crash posts, sized by rating. 4,000 PSI concrete throughout.

6 Rebar Cage

Specified per rating. M30 P2 is the one configuration tested without one — the lightest civil scope in the range.

INDEPENDENTLY VERIFIED

High-speed video analysis at Applus IDIADA confirmed the intermediate posts contribute negligible resistance — the rating comes from the crash posts and the two wire ropes. Intermediate posts can therefore be added or upsized to suit the site without affecting crash performance.

PASSIVE BY DESIGN — WHY IT MATTERS

Nothing to power

No hydraulics, no controller, no generator, no standby circuit. The barrier is at full rating during a site-wide power loss — the moment a perimeter is most exposed.

Nothing to maintain

No service contract, no seals, no actuator. Yearly: inspect cables, posts and fittings, check cable sag, check clamp torque. That is the entire schedule.

Nothing to look at

Two cable lines below eye level. Where a bollard field or barrier wall dominates an approach, this holds the same rating and effectively disappears.

ONE MANUFACTURER, ONE DETAIL

The same cable line integrates behind SecurePale™ palisade and SecureMesh™ welded mesh — one barrier, one interface detail, one warranty, not a coordination problem between two vendors. See page 8.

FOUR CONFIGURATIONS. ALL FOUR CRASH-TESTED.

Every configuration below was run as a full-scale ASTM F2656 crash test — not derived from one test and extrapolated across a catalog. What changes between them is post spacing and civil scope, and those two things move together in a way a site planner can use directly.

RATING	CABLES	POST SPACING	POST SIZE	FDN DEPTH	FDN DIA.	REBAR	MEASURED PENETRATION
M30 · P1	2	30 ft	12"	84"	30"	Yes	0.17 m (6.7 in)
M30 · P2	2	200 ft	8"	72"	24"	No	17 ft 6.7 in
M50 · P1	2	18–32 ft	12"	96"	36"	Yes	2 ft 11.7 in
M50 · P2	2	200 ft	12"	84"	30"	Yes	21.0 ft

Penetration is the maximum measured dynamic penetration of the vehicle reference point beyond the barrier reference point, per ASTM F2656. Test authorities and report numbers on page 5. M30 = 15,000 lb at 30 mph; M50 = 15,000 lb at 50 mph.

HOW TO READ THE MATRIX

Spacing buys penetration

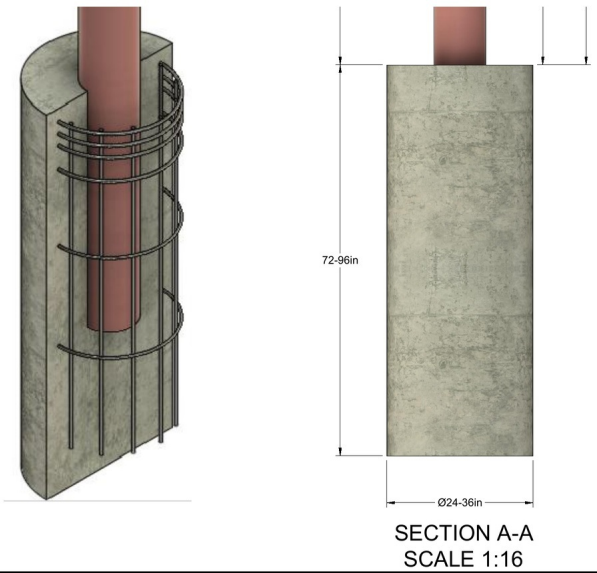
Tighten the crash posts and the vehicle stops sooner. At 18 ft the M50 truck traveled under three feet; at 200 ft it traveled twenty-one. Standoff is what you are really specifying.

Spacing buys civil scope

At 200 ft a mile of perimeter needs roughly 27 foundations. At 18 ft it needs nearly 300. On long rural boundaries that difference dominates installed cost.

M30 P2 is the light option

Ø24" piers at 72", an 8" post and no rebar cage — the only tested configuration without a cage. The lightest civil scope of any BSP crash-rated line.



Section A-A — crash post, rebar cage and drilled pier. Cages are ASTM A615 Grade 60, #3 through #10.

SPECIFY BY STANDOFF, NOT BY LABEL

P1 and P2 are penetration bands, not quality grades. Where the protected asset sits more than 25 ft behind the line, M50 P2 at 200 ft spacing delivers the same vehicle arrest for a fraction of the foundations. Where standoff is tight, M50 P1 buys the distance back.

COMMON TO ALL CONFIGURATIONS

Concrete	4,000 PSI
Reinforcing steel	ASTM A615 Grade 60
Welding	None required
Cable heights	33" and 39"
Intermediate posts	13'-4" max spacing

THREE LABS. SIX TESTS. ONE PUBLIC LIST.



After the M50 test: the crash post is standing, both cables are still anchored, and the truck is the debris field around it.

Anyone can claim a rating. A federal specifier checks one thing — whether the barrier appears on the U.S. Army Corps of Engineers Protective Design Center’s **DoD Anti-Ram Vehicle Barrier List**, which is public and current.

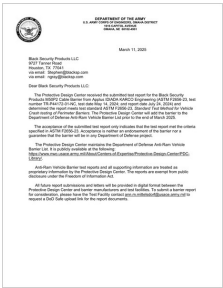
BSP is on it, and the reports behind the listing were produced by three accredited independent laboratories over five years.

NOT AN ENDORSEMENT — A RECORD

USACE acceptance confirms a test report met ASTM F2656. It is not a DoD endorsement, and BSP does not present it as one. It is simply verifiable by anyone.

THE TEST RECORD

RATING	TEST AUTHORITY	REPORT NO.	TEST DATE	STANDARD	RESULT
M30 · P1	Applus IDIADA KARCO Engineering	TR-P39035-01	8 Mar 2019	ASTM F2656-18a	0.17 m — vehicle disabled
M50 · P2	Applus IDIADA KARCO Engineering	TR-P39093-01	3 May 2019	ASTM F2656-18a	1.56 m — vehicle disabled
M50 · P2	Calspan Corporation	BR0025	23 Oct 2020	ASTM F2656-20	6.41 m — 600 ft system
M50 · P2	Applus IDIADA	TR-P44172-01	14 May 2024	ASTM F2656-23	P2 — 20 ft post spacing
M30 · P2	Texas A&M Transportation Institute	690900-BSP-1	5 Aug 2024	ASTM F2656-23	17 ft 6.7 in — 600 ft system
M50 · P1	Texas A&M Transportation Institute	690900-BSP-3	3 Oct 2024	ASTM F2656-23	2 ft 11.7 in — vehicle not operable



USACE PROTECTIVE DESIGN CENTER — ACCEPTANCE LETTERS

The Protective Design Center reviewed the independent test reports and added the barrier to the DoD Anti-Ram Vehicle Barrier List. **M50 P2 alone carries three separate acceptance letters — at 20 ft, 30 ft and 200 ft post spacing** — so the specifier can select spacing to the site without leaving the listing. The list is published at nwo.usace.army.mil and can be checked by any customer.

TTI

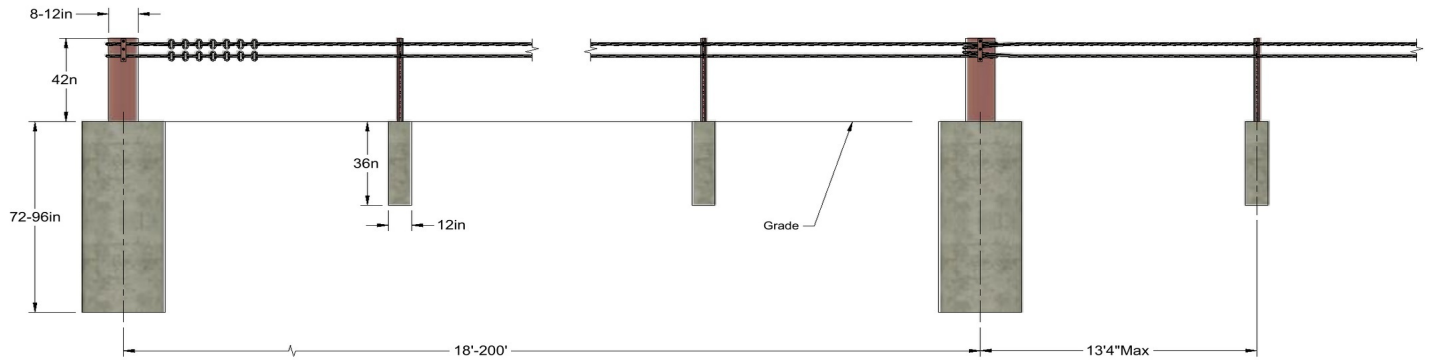
CALSPAN

APPLUS IDIADA KARCO

LISTED — DOD ANTI-RAM VEHICLE BARRIER LIST

EIGHTEEN FEET TO TWO HUNDRED.

Crash posts can stand 18 ft apart or 200 ft apart and both are tested configurations. That single fact is what lets one product line cover a tight urban entry control point and forty miles of open boundary — and it is decided at design stage, on the drawing, not by changing manufacturer.



Elevation — crash posts at 18'-200' centers with intermediate posts between, at 13'-4" maximum spacing. Intermediate posts carry cable height only.

DRILLED PIERS PER 1,000 FT OF PERIMETER

56

AT 18 FT
M50 · P1

34

AT 30 FT
M30 · P1

6

AT 200 FT
M30 / M50 · P2

9x

FEWER FOUNDATIONS
ACROSS THE RANGE

ONE SYSTEM, ANY GROUND



Fort Bliss, Texas — arid soil, open desert boundary.



NAS Pensacola, Florida — landscaped campus, coastal exposure.



Barnes Air National Guard Base — roadside curve, freeze-thaw.

WHERE SPACING IS ENGINEERED RATHER THAN TESTED

M30 P1 is crash-tested at 30 ft. A separate engineering study scales that result to a **136 ft recommended maximum** — derated 20% for soil and installation variance, then rounded down to a multiple of 8 ft for fence-panel compatibility. BSP states tested and engineered spacings separately, on purpose.

COMPARE THE PUBLISHED NUMBERS.

Every figure below is taken from the manufacturer's own published specification or literature. Where a manufacturer does not publish a figure, the cell says so rather than guessing — and no inference should be drawn from it.

	BSP PASSIVE CABLE BARRIER	AMERISTAR STALWART OPTIMA	CLD SECURUS RAMPART 50	TYMETAL POST & CABLE
Rated configurations	Four — M30 P1/P2, M50 P1/P2	Two — M30/P1, M50/P2	One — IWA rating	One — M50/P1
Test standard cited	ASTM F2656-23	ASTM F2656	IWA 14-1:2013 7.5-tonne vehicle	ASTM F-2656-15
Longest tested run published	600 ft	Not stated	Not stated	64 ft
Tension member	Two steel wire ropes, 1-3/8"–7/8"	Three 1½" fiber rope	Five 0.87" rope	Not stated
Max published post spacing	200 ft	Not stated	Not stated	16 ft o.c.
Foundation	Ø24–36" drilled pier	Not stated	400 mm deep; 12.2 m × 2 m end raft	Not stated
Cable-to-post attachment	Full wrap around post — no fittings (patent pending)	Termination assembly required	Rope slings	Connection & termination hardware
Special corner / terminal posts	None — every crash post is identical	End, corner & intermediate posts 172 / 599 / 899 lb	End raft foundation	End and/or inline terminal posts
Published warranty	20 years, parts and labor	Not stated	15 years, defects only	Not stated

Compiled from published manufacturer literature: Ameristar Stalwart Optima catalog and Construction Specification 32 30 00 11; CLD Securus Rampart 50 data sheet and Q40 specification; Tymetal SPEC-75 Post & Cable Crash Tested Fencing Rev 5. "Not stated" means the figure does not appear in the literature reviewed — it is not a claim that the capability is absent. Competitor products may hold ratings, listings or warranties not published in these documents. Figures current at time of publication; verify against the manufacturer's current literature.

WHAT THE DIFFERENCES ACTUALLY MEAN

Tested length matters

A barrier's behavior under impact depends on how much cable is available to absorb it. A 64 ft test article and a 600 ft test article are not the same system, and a long perimeter behaves like the long one.

Standard, and edition

ASTM F2656-23 is the current edition and the one USACE accepts today. IWA 14-1 is a different standard against a different vehicle — capable, but not interchangeable on a US federal specification.

Range beats a data point

Four rated configurations let the same manufacturer serve a tight entry point and a forty-mile boundary. One rating means designing the site around the product.

THE POST IS THE FITTING.

At every line crash post the cable passes **completely around the post**. That wrap is what locks the cable to the post — there is no compression block, no spelter socket and no cable clamp holding it there. The industry adds a machined fitting at every post; BSP added a turn of rope.

The mechanism is friction on a turned rope, and it works in BSP's favor: the harder the vehicle pulls on the standing part, the tighter the wrap grips the post. It cannot be over-torqued, under-torqued, or installed to the wrong crush value, because there is nothing to torque.



Line crash post after the M50 impact — the cable is wrapped around the post and held by a simple keeper strap.



Cables marked and tagged at the posts for crash testing — photographed after the M50 impact at TTI.

WHAT THE GEOMETRY BUYS

No welding, anywhere

Not in the shop, not in the field. No welder, no generator, no hot-work permit, no weld inspection, and no coating burned off at a joint and left to corrode.

No corner posts

The rope wraps the post at whatever angle it arrives, so a change of direction is handled by an ordinary line crash post. The barrier follows the site.

One post, one foundation

Every crash post on the job is the same post in the same pier — no terminal, corner or anchor variants to order, stage or install. The run extends as far as the boundary does.

OBSERVED AT TEST

BSP marks the cables at the posts before a crash test so that any movement through the wrap would show. Inspecting the barrier after impact at Applus IDIADA KARCO, the marks had not moved — the wrap carried the load without the cable slipping through it. The same detail serves at M30 and at M50 without change.

REMOVED FROM THE JOB

Clamps at line posts	None
Spelter sockets	None
Compression blocks	None
Field welding	None
Corner posts	None
Hot-work permits	None

BEHIND THE FENCE YOU ALREADY HAVE.

A crash rating and a security fence are two different jobs. The cable line does not care which fence stands in front of it — it runs behind palisade, chain link, ornamental iron or welded mesh, new build or retrofit. **The fence keeps people out; the cable stops the vehicle.**



SecurePale™ palisade — FBI San Diego.



Chain link — Fairchild Air Force Base. Existing fence retained, crash rating added behind it.



Ornamental iron — cable line carried at height on the fence face, rating unchanged.



SecureMesh™ welded mesh with integrated PVB — AVBD 1002.

ALSO AVAILABLE — WHEN THE CABLE SHOULDN'T SHOW

C-CHANNEL RAIL COVER

On civic frontages and headquarters campuses a C-channel closes over the cable line so the barrier reads as a rail rather than as security. Nothing about the crash posts changes, so the rating does not change either — and because the cable wraps an ordinary post, every one of these interfaces is a published BSP drawing rather than a negotiation between two suppliers.



C-channel rail installed over the cable line — the wrapped post carries the rating.

PROVEN ON FEDERAL GROUND.

BSP cable barrier protects military installations, federal law-enforcement facilities and critical infrastructure across the United States — in desert, coastal and freeze-thaw conditions, on new construction and behind fence lines that were already standing.



Fort Bliss
U.S. Army • Texas



NAS Pensacola
U.S. Navy • Florida



Fairchild AFB
U.S. Air Force • Washington



FBI San Diego
U.S. Dept. of Justice • California

INDUSTRIES & FACILITIES SERVED

Military installations & bases
Federal law-enforcement facilities
Federal & agency campuses
Airports & transportation hubs

Electric utilities & substations
Data centers & network facilities
Oil, gas & petrochemical sites
LNG & energy infrastructure

Ports, rail & logistics yards
Water & wastewater treatment
Industrial & manufacturing campuses
Corporate & institutional campuses

SPECIFIED & INSTALLED FOR

BSP perimeter systems protect facilities for the U.S. Army Corps of Engineers, NAVFAC, the U.S. Air Force and federal agencies, alongside commercial operators in energy, data-center and logistics infrastructure. Additional named references are available under NDA for qualified projects.

RETROFIT IS THE COMMON CASE

Most perimeters already have a fence. Because the cable line is independent of it, a crash rating can usually be added behind the existing fence without replacing it — the fastest route from an unrated boundary to a DoD-listed one.

SITE ASSESSMENT

BSP provides free site assessments. Our engineering team reviews standoff, soil and threat before specifying rating, spacing and foundation — rather than defaulting to catalog standard.

sales@blacksp.com
(512) 926-0800
blacksp.com/contact

SPECIFICATIONS & STANDARDS.

SYSTEM	
Cable	Two 6×36 IWRC steel wire ropes, 1-3/8"–7/8" dia.
Cable heights	33" and 39" nominal above grade
Cable condition	Un-tensioned
Cable-to-post	Full post wrap, keeper strap (patent pending)
Crash post	Concrete-filled steel pipe, 8"–12"
Intermediate post	Steel U-channel
Crash post spacing	18'–200' by rating
Intermediate spacing	13'–4" maximum
Foundation	Drilled pier, Ø24"–36"
Foundation depth	72"–96" by rating
Concrete	4,000 PSI
Reinforcement	ASTM A615 Grade 60, #3–#10
Welding	None — manufacture or installation
Corner / terminal posts	None required
Finish	Hot-dip galvanized or polyester powder coat
System length	Unlimited
Warranty	20 years, parts and labor
Origin	Manufactured in the United States

CONFIGURATIONS & TEST RECORD

CODE	RATING	SPACING	PENETRATION
AVBD 131	M30 P1	30 ft	0.17 m
AVBD 132	M30 P2	200 ft	17' 6.7"
AVBD 151	M50 P1	18–32 ft	2' 11.7"
AVBD 152	M50 P2	200 ft	21.0 ft

REFERENCE STANDARDS

ASTM F2656	Vehicle crash testing of perimeter barriers
ASTM A1023	Steel wire rope
ASTM A615	Deformed carbon-steel reinforcing bars

SECTION 34 71 19.16
PASSIVE CABLE VEHICLE BARRIER

PART 2 — PRODUCTS

2.01 MANUFACTURER

The passive cable vehicle barrier shall be the Passive Cable Barrier, AVBD 100 Series, manufactured by Black Security Products, LLC, Houston, Texas. Configuration: [131 M30 P1] [132 M30 P2] [151 M50 P1] [152 M50 P2].

2.02 PERFORMANCE

- A. The barrier shall be crash tested to ASTM F2656 at the [M30] [M50] condition designation and achieve a [P1] [P2] penetration rating.
- B. The as-tested configuration shall be listed on the U.S. Department of Defense Anti-Ram Vehicle Barrier List maintained by the USACE Protective Design Center.

2.03 MATERIALS

- A. Cables shall be two 6×36 IWRC steel wire ropes to ASTM A1023, of the diameter scheduled for the system — 1-3/8" to 7/8" — at nominal heights of 33" and 39" above grade.
- B. Crash posts shall be concrete-filled steel pipe set in drilled pier foundations of Ø[24][30][36] inches to a depth of [72][84][96] inches.
- C. Cable shall be secured to each crash post by full wrap and keeper strap. Spelter sockets, compression fittings and welding shall not be required for manufacture or installation.

2.04 WARRANTY

Manufacturer shall warrant all components against defects in materials and workmanship, parts and labor, for twenty (20) years from date of delivery.

PROCUREMENT

CAGE	7MT82
DUNS	83-888-8670
NAICS	339999
CSI section	34 71 19.16
Origin	Made in the USA

ENGINEERING SUPPORT

From layout to engineer-stamped drawings, BSP works directly with your design team — including post-spacing calculations for the specific site. Full three-part specification, CAD and submittal package on request.



BLACK SECURITY PRODUCTS



STOPS THE TRUCK. TESTED AND PROVEN.

Black Security Products designs and manufactures high-security perimeter protection systems for military installations, government facilities, data centers, utilities and critical infrastructure worldwide — with an emphasis on anti-terrorism and force protection.

PERIMETER SECURITY PRODUCT FAMILY

PASSIVE VEHICLE BARRIERS

Drill-and-Set Bollard — AVBD 331
Crash-Rated Bollards — AVBD 300
Cable Barrier M30 — AVBD 131/132
Cable Barrier M50 — AVBD 151/152
Rapid Deployment MPPD — AVBD 700

SECURITY FENCING

SecurePale™ Palisade — AVBD 1101
SecureMesh™ — AVBD 1001
SecureMesh™ Integrated PVB — AVBD 1002
SecureMesh™ Delay — AVBD 1003
ENC Non-Conductive — AVBD 1200
Ballistic Rated Fence — AVBD 1300

ACTIVE VEHICLE BARRIERS

Shallow Wedge M50 P1 — AVBD 452
Wedge Barrier M50 P1 — AVBD 451
M50 Drop Arm — AVBD 551/552
M30 P1 Drop Arm — AVBD 531
Defender Net Barrier — AVBD 651
Bi-Folding Speed Gate — AVBD 210
Anti-Ram Crash Gates — AVBD 230/250

HEADQUARTERS

6525 Cunningham Rd, Building E
Houston, TX 77041
United States

CONTACT

(512) 926-0800
sales@blacksp.com
blacksp.com

PROCUREMENT

CAGE 7MT82
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Made in the USA

REQUEST A FREE SITE ASSESSMENT

Talk to a BSP perimeter specialist about your project.

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