



BLACK SECURITY PRODUCTS

AVBD 1101

PRODUCT DATA · 2026

SECUREPALE™

HIGH-SECURITY PALISADE FENCE SYSTEM

W-profile steel palisade engineered for critical infrastructure, federal installations and high-threat commercial perimeters — with optional integrated M30 / M50 anti-ram protection.

30-YEAR WARRANTY

ASTM F2656 · F2781

MADE IN THE USA

DOD ANTI-RAM LIST

DETERRENCE YOU CAN SPECIFY WITH CONFIDENCE.

Palisade fencing is judged on three things: how hard it is to climb, how hard it is to defeat, and how long it still looks right after it is installed. SecurePale™ was engineered to win on all three — then backed with the longest durability warranty in the category.

The system uses a roll-formed W-section pale that resists bending, prying and cutting far better than flat or tubular pickets. Pales bolt to rails with break-away security nuts, so the fence cannot be disassembled from the attack side — yet a single damaged pale can be replaced without cutting out a panel.

And unlike the diversified fence giants, manufacturing high-security perimeter products is **all BSP does**. That focus means dedicated manufacturing capacity, shorter and more predictable lead times, and pricing that tracks real steel and process cost — not the overhead of a thousand-SKU catalog.



DIFFERENTIATOR

The only palisade system in its class that integrates directly with ASTM F2656 crash-rated cable barrier. One manufacturer, one detail, one warranty — see page 8.

30

YEAR DURABILITY
& WEATHERING WARRANTY

1½"

ANTI-SCALE PALE
SPACING AVAILABLE

M50

INTEGRATED ANTI-RAM
RATING AVAILABLE

100%

BOLTED ASSEMBLY
NO FIELD WELDING

SPECIFIED & DEPLOYED FOR

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

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

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

LISTED — DOD ANTI-RAM VEHICLE BARRIER LIST

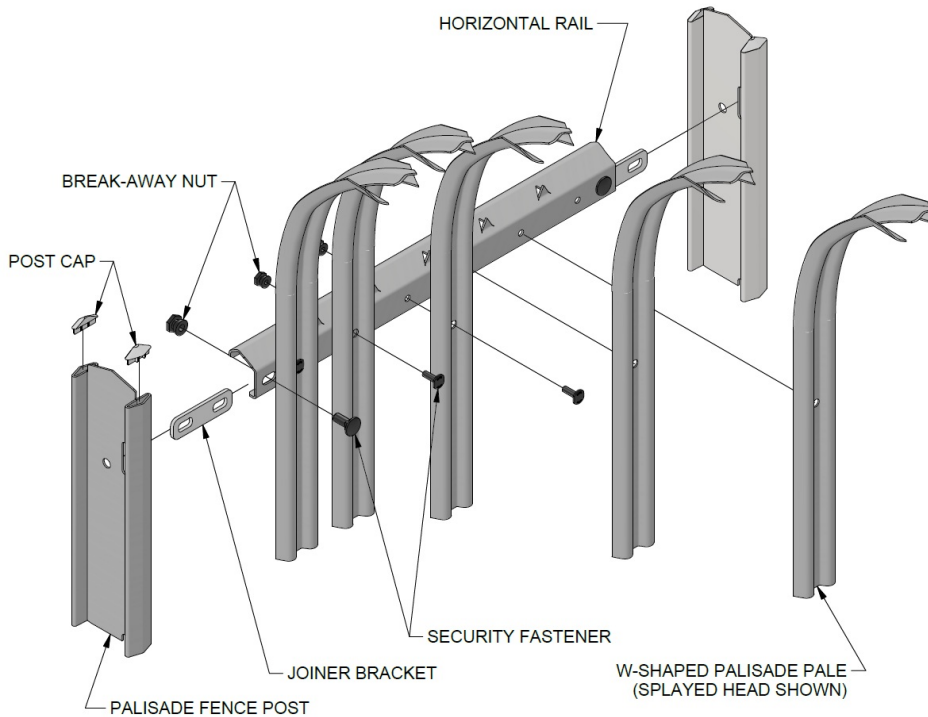
ASTM F2656

PAS 68

CWA 16221

Design support delivered in partnership with leading A&E firms including Atkins, Jacobs and Fluor. CAD, BIM and 3D specification resources are published through CADdetails — see page 11.

SIX COMPONENTS. NO FIELD FABRICATION.



DETAIL A: EXPLODED VIEW

1 W-Shaped Pale

Roll-formed W-section. The corrugation resists prying and cutting and leaves no flat face to grip.

2 Horizontal Rail

Pre-punched rail. Two, three or four rails per bay; three is standard.

3 I-Beam Fence Post

Heavy section intermediate and corner post, embedded — no baseplate to defeat.

4 Break-Away Nut & Security Fastener

M8 at each pale, M12 at each rail. Shears at torque, leaving a smooth tamper-proof face that cannot be backed off from outside.

5 Joiner Bracket

Connecting plate ties rail to post at line, corner and termination — no field welding. See page 4.

6 Post Cap

Caps the post section against water ingress and gives a clean finish.

BOLTED, NOT WELDED — WHY IT MATTERS

Coating stays intact

Welded palisade systems fuse pale to rail at the factory, burning the coating at every intersection — the exact points where corrosion begins. SecurePale™ is fully bolted, so the finish is never broken.

Repairable, not replaceable

Impact or vandalism takes out pales, not panels. Each pale unbolts and swaps individually — a welded panel has to be cut out and replaced whole.

Faster in the field

No welder, no generator, no hot-work permit, no on-site fabrication. Fully modular panels install with hand tools on 96" post centers, cleanly and quickly.

BOLTED TOGETHER. NOT WELDED SHUT.

SecurePale™ is fully modular and fully bolted — no on-site welding, no field fabrication. Every joint is a purpose-made galvanized, powder-coated connector, so the fence goes up faster and the finish is never broken.

Coating stays intact

Welded palisade burns the coating at every pale-to-rail joint — where corrosion starts. Bolting never breaks the finish.

Repairable

A damaged pale unbolts and swaps individually; a welded panel must be cut out and replaced whole.

CONNECTING PLATES

Galvanized steel, powder coated. Straight plates secure rails to posts; corner and termination plates handle changes of direction and the end of a run — all without cutting or welding on site.



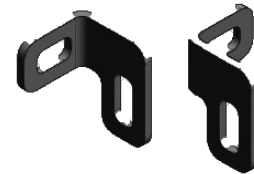
Straight Connecting Plate

Two sizes. Long plate (ICC compliant) 5.25" × 1.25" × .2"; short plate 4.25" × 1.25" × .2".



Corner Plate

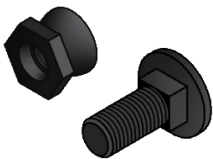
Forms an accurate 90° corner. 1.2" high, .2" thick.



Termination Plates (R/H & L/H)

Safely and securely end a run. 1.2" high, .2" thick.

FASTENERS & CAPS



Break-Away Security Nuts & Bolts

Hot-dip galvanized, coated to match. High-tensile bolts with break-away nuts that shear at a set torque, leaving a smooth, tamper-proof face that cannot be backed off from the attack side.

M8 — pales to rails. M12 — rails to posts.



Post Caps

High-strength polymer cap that seals the post against weather and gives a clean finished top.

ONE SYSTEM, TWO SPACINGS

The same pales, rails, posts and hardware build both the standard 3½" fence and the anti-scale 1½" fence — nothing on this page changes. See page 5 for spacing detail.

No field welding

No baseplates

No proprietary tools

ONE SYSTEM. FOUR ORDERING CODES.

Specify SecurePale™ by pale spacing and by whether integrated vehicle barrier is required. Every configuration shares the same pales, rails, posts and fasteners.

	WITHOUT VEHICLE BARRIER	WITH INTEGRATED PVB
Standard spacing 3½" max pale gap	AVBD 1101-01 SecurePale Inline, Standard Spacing	AVBD 1101-03 SecurePale Inline, Standard w/ PVB
Anti-scale spacing 1½" max pale gap	AVBD 1101-02 SecurePale Inline, Anti-Scale Spacing	AVBD 1101-04 SecurePale Inline, Anti-Scale w/ PVB

PVB = passive vehicle barrier. Integrated ASTM F2656 crash-rated cable system; M30 or M50 test level. See page 8.

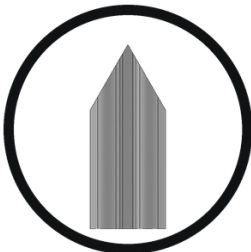
Standard spacing — 3½"

The conventional palisade gap. Maintains sightlines and airflow, deters and delays casual intrusion, and satisfies most commercial and industrial perimeter requirements. Lightest material take-off and lowest installed cost per foot.

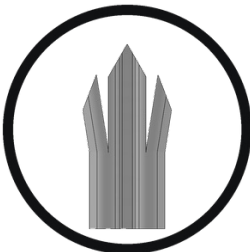
Anti-scale spacing — 1½"

The gap is narrowed to defeat toe and finger purchase, so the fence cannot be climbed by inserting a boot between pales. Specified where standoff is limited, dwell time matters, or the threat model includes a determined climber.

HEAD PROFILE



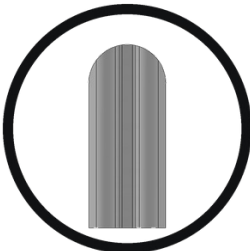
SINGLE POINT



TRIPLE POINT



SPLAYED



ROUNDED

RAIL CONFIGURATION

QUANTITY	RAIL POSITIONS
2 rails	#1, #4
3 rails — standard	#1, #2, #4
4 rails	#1, #2, #3, #4

Rail count is driven by fence height and by the required resistance to spreading and lever attack. Three rails are standard across the range; four are specified on taller runs and in high-threat applications.

Corner detail. Both 90° and non-90° corners share a single post using an angled connecting plate — no doubled posts, no field cutting.

SPECIFICATIONS

COMPONENTS & MATERIALS	
Base material	Pre-galvanized G90 high-tensile steel
Pale profile	Roll-formed W-section, 13 ga
Pale head styles	Single point, triple point, splayed, rounded
Horizontal rail	C-channel, 1¾" × 1¾" × 11 ga
Rail quantity	2, 3 (standard) or 4 per bay
Post section	I-beam, 5" × 2¾"
Pale fastener	M8 bolt with break-away security nut
Rail fastener	M12 bolt with break-away security nut
Connecting plates	Line, corner (90°) and R/L termination
Post cap	High-strength polymer, formed to post
Finish	11-stage pretreat; dual-coat epoxy base + polyester top
Coating thickness	5 mils (125 µm) total, min
Salt spray (ASTM B117)	4,000 hours
Origin	Manufactured in the United States

HEIGHT SCHEDULE

SYSTEM HEIGHT	RAILS	EMBEDMENT (IN)
6'-0"	3	30
7'-0"	3	42
8'-0"	3	42
9'-0"	3	48
10'-0"	3	48
11'-0"	3	54
12'-0"	3	54

Embedment shown is typical. Final footing design is subject to wind load calculation and site soil conditions; BSP provides project-specific engineering.

REFERENCE STANDARDS

ASTM F2656	Vehicle crash testing of perimeter barriers
ASTM F2781	Performance of security fence systems
ASTM A653	G90 galvanized (zinc-coated) steel sheet
ASTM B117	Salt-spray (corrosion) testing

GEOMETRY	
Post spacing	96" (8'-0") c/c
Pale spacing — standard	3½" max
Pale spacing — anti-scale	1½" max
Max gap, any point	Equal to pale spacing
Ground clearance	2" (±½")
Pier diameter	Ø12"
Pier depth, minimum	42"

WARRANTY

30 YEARS

Durability and weathering — twice the coverage of the nearest comparable US palisade system.

HARDWARE

Pale bolt	M8, break-away nut
Rail bolt	M12, break-away nut
Straight plate	5.25" × 1.25" × .2"
Corner plate	90°, galvanized
Termination plate	R/H and L/H

All fasteners hot-dip galvanized and coated to match. Break-away nuts shear at torque for a tamper-proof face.

A TOUGHER COAT. BY THE NUMBERS.

SecurePale™ starts on pre-galvanized G90 steel — the same high-tensile substrate the specification-grade market runs on — then adds a dual-coat powder finish engineered to outlast it.

Steel passes an **11-stage** pretreatment and coating line. Cleaning, rinse and phosphate stages strip the salts and conductivity that cause coating to fail from underneath. An epoxy base coat is electrostatically applied and cured, then a polyester top coat is applied and cured over it — a true dual-coat build, not a single pass.

The result is a **5-mil (125 µm)** minimum total film validated to **4,000 hours** of ASTM B117 salt spray. Both numbers exceed the specification-grade competition's published figures.

SECUREPALE™ vs. TYPICAL SPEC-GRADE PALISADE

Salt spray, ASTM B117
4,000 hrs vs. 3,500 hrs

Total coating film
5 mils vs. 4 mils

Finish warranty
30 years vs. 15 years

Pretreatment stages
11 vs. 6

Comparison values from competitor published literature (Ameristar Impasse II® PermaCoat®). See page 10.

THE 11-STAGE PROCESS

01

Clean & prepare

Degreasing and rinsing remove oil and dust; phosphate stages profile the surface for adhesion.

02

Rinse & condition

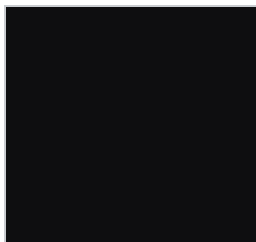
Reverse-osmosis rinse and demineralization strip the salts and conductivity that cause coatings to fail from underneath.

03

Dual-coat & cure

Epoxy base coat applied and cured, then a polyester top coat applied and cured over it — two coats, two bakes.

STANDARD COLORS



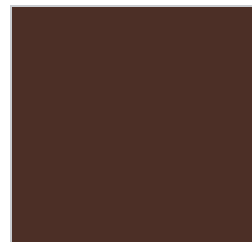
Black
RAL 9005



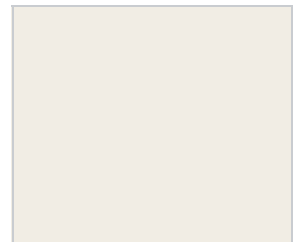
Desert Tan
RAL 1001



Olive Drab
RAL 6022



Bronze
RAL 8016



White
RAL 9010

Custom colors matched to any customer-supplied RAL reference. On-screen swatches are representative only — request a physical sample for color-critical work.



Most palisade fences stop people. SecurePale™ can be specified to stop a 15,000 lb truck as well — without a separate barrier line, a second foundation, or a second vendor.

The cable barrier is crash tested to **ASTM F2656 at M50**, at both **P1 and P2** penetration levels, by accredited crash labs. The M50 P2 configuration is listed by the U.S. Army Corps of Engineers Protective Design Center on the **DoD Anti-Ram Vehicle Barrier List**. Tested configurations span up to **200 ft** between anchor points — sharply reducing foundations on long runs.

CRASH RATING	
Test standard	ASTM F2656-23
Ratings	M50 · P1 / P2
Also available	M30 · P1 / P2
Max tested span	200 ft anchor-to-anchor
DoD status	M50 P2 and M30 P1 currently listed
Products	AVBD 151/152 (M50) · 131/132 (M30)



The USACE Protective Design Center reviewed BSP's independent ASTM F2656 crash-test report and added the M50 P2 cable barrier to the DoD Anti-Ram Vehicle Barrier List — the same public list a federal specifier checks when qualifying a barrier. It is verifiable by any customer, on record with the government, and current to the F2656-23 edition.

WHERE IT GOES IN THE GROUND.



Defense & federal

Installation perimeters, entry control facilities, ammunition and fuel storage, restricted areas. Specify anti-scale spacing with integrated PVB where standoff is constrained.

Energy & utilities

Substations, generation sites, pipeline and terminal facilities, refineries. Copper theft and sabotage drive anti-scale spacing and four-rail configurations.

Data & communications

Hyperscale and colocation campuses, switching centers, satellite ground stations. Curved triple point heads deter boost-over at the property line.

Transportation

Airport operations areas, port and rail yards, intermodal terminals, bridge and tunnel approaches. Long straight runs favor 96" post centers.

Industrial & commercial

Manufacturing campuses, distribution centers, equipment yards, laydown areas. Standard spacing with three rails is typically sufficient and most economical.

Institutional

Correctional and secure care facilities, laboratories, campuses. Rounded heads satisfy jurisdictions that restrict spiked tops on public frontage.

SITE ASSESSMENT

BSP provides free product and site assessments. Our engineering team reviews the site security assessment first, then specifies configuration, rail count, height and footing to the actual threat — rather than defaulting to catalog standard.

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blacksp.com/contact

THIRTY YEARS, IN WRITING.

The finish warranty is the single clearest signal a manufacturer sends about what it actually believes its coating will do. SecurePale™ carries a 30-year durability and weathering warranty — twice the coverage of the nearest comparable US palisade system.

That confidence is earned in the coating shop. On pre-galvanized G90 steel, SecurePale™ runs an 11-stage pretreatment and a dual-coat powder build to a 5-mil minimum film, validated to 4,000 hours of salt spray. Every one of those figures meets or beats the specification-grade competition's published numbers — so the doubled warranty rests on a measurably better finish, not marketing.



Profile cutting at BSP. SecurePale™ components are cut, formed, galvanized and coated in the United States.

SECUREPALE™

30

YEAR WARRANTY

Durability and weathering
on all structural components

FOR COMPARISON

Typical competing US palisade
system: **15 years** finish,
5 years labor.

TESTING & REFERENCE STANDARDS

STANDARD	SCOPE	APPLICATION TO SECUREPALE™
ASTM F2656	Vehicle crash testing of perimeter barriers	Integrated cable barrier certified at M30 and M50, P1 and P2
ASTM F2781	Standard practice for testing forced entry, ballistic, vehicle impact and low-impact resistance of secure fence systems	Fence system performance evaluation
ASTM A653	G90 zinc-coated (galvanized) steel sheet by hot-dip process	Pre-galvanized base material for all components
ASTM B117	Operating salt-spray (fog) apparatus for corrosion testing	4,000 hours — dual-coat finish, 5 mil min film

BSP STANDARDS CAPABILITY

BSP works to US, UK and European testing regimes. In addition to ASTM F2656, our engineering team specifies and certifies to **PAS 68** (Publicly Available Specification) and **CWA 16221** (CEN Workshop Agreement) — which matters on international projects and on US work where a client's parent organization specifies to a European standard.

ASTM F2656-23

ASTM F2781

PAS 68

CWA 16221

LISTED — DOD ANTI-RAM VEHICLE BARRIER LIST

SHORT-FORM SPECIFICATION

SECTION 32 31 19
HIGH-SECURITY STEEL PALISADE FENCING

PART 2 — PRODUCTS

2.01 MANUFACTURER

The steel palisade high-security fence system shall be SecurePale™, product number AVBD 1101, manufactured by Black Security Products, LLC, Houston, Texas. Specify configuration: [-01 standard spacing] [-02 anti-scale spacing] [-03 standard with integrated PVB] [-04 anti-scale with integrated PVB].

2.02 MATERIALS

- A. All components shall be fabricated from pre-galvanized G90 high-tensile steel conforming to ASTM A653.
- B. Pales shall be roll-formed W-section, 13 ga.
- C. Horizontal rails shall be C-channel, 1¾" × 1¾" × 11 ga. Provide three rails unless otherwise indicated.
- D. Posts shall be I-beam section, 5" × 2¾", with formed post cap.
- E. Pales shall be secured with M8 bolts and break-away security nuts; rails with M12 bolts and break-away security nuts. No field welding shall be permitted.

2.03 GEOMETRY

- A. Posts at 96" on center.
- B. Maximum pale spacing 3½" (standard) or 1½" (anti-scale) at any point in the fence line.
- C. Maximum gap between finished grade and bottom of fence: 2" (±½").

2.04 FINISH

- A. Framework shall receive an 11-stage pretreatment followed by a dual-coat powder finish: an electrostatically applied epoxy base coat and a polyester top coat, separately cured, to a combined 5 mil (125 µm) minimum film.
- B. Finish shall withstand a minimum 4,000 hours salt-spray exposure per ASTM B117. Color: [RAL 9005 Black] [specify RAL].

2.05 WARRANTY

- A. Manufacturer shall warrant all structural components against defects in durability and weathering for 30 years from date of original purchase.

DESIGN RESOURCES

CAD, BIM & 3D files

BSP publishes CAD details, BIM objects, 3D models, product specifications and technical documentation through CADdetails — ready to drop into construction documents.

blacksp.caddetails.com

STANDARD DRAWINGS

AVBD 1101-01	Inline, standard spacing
AVBD 1101-02	Inline, anti-scale spacing
AVBD 1101-03	Inline, standard w/ PVB
AVBD 1101-04	Inline, anti-scale w/ PVB

Drawings include post detail, corner details at 90° and non-90°, rail options and head profiles.

PROCUREMENT

CAGE	7MT82
DUNS	83-888-8670
NAICS	339999

Engineering support. From simple layouts to engineer-stamped drawings, BSP works directly with your design team to confirm the system is specified and installed correctly.

Short form shown for reference. Full three-part CSI specification available on request.

SECURE WHAT MATTERS MOST.

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

PERIMETER SECURITY PRODUCT FAMILY

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

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

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

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PROCUREMENT

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REQUEST A FREE SITE ASSESSMENT

Talk to a BSP perimeter specialist about your project.

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