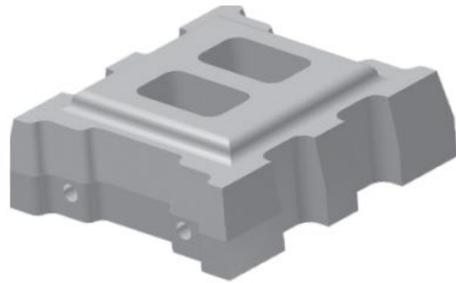


# Armortec Hard Armor Solutions

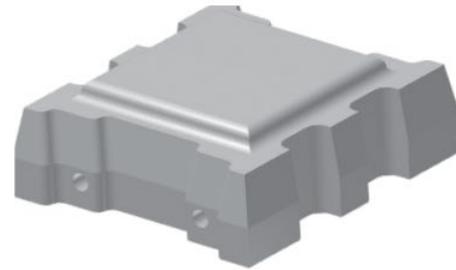
# ArmorFlex

**Engineered Hydraulic Applications  
for Dams / Reservoirs & Channels**

# ArmorFlex



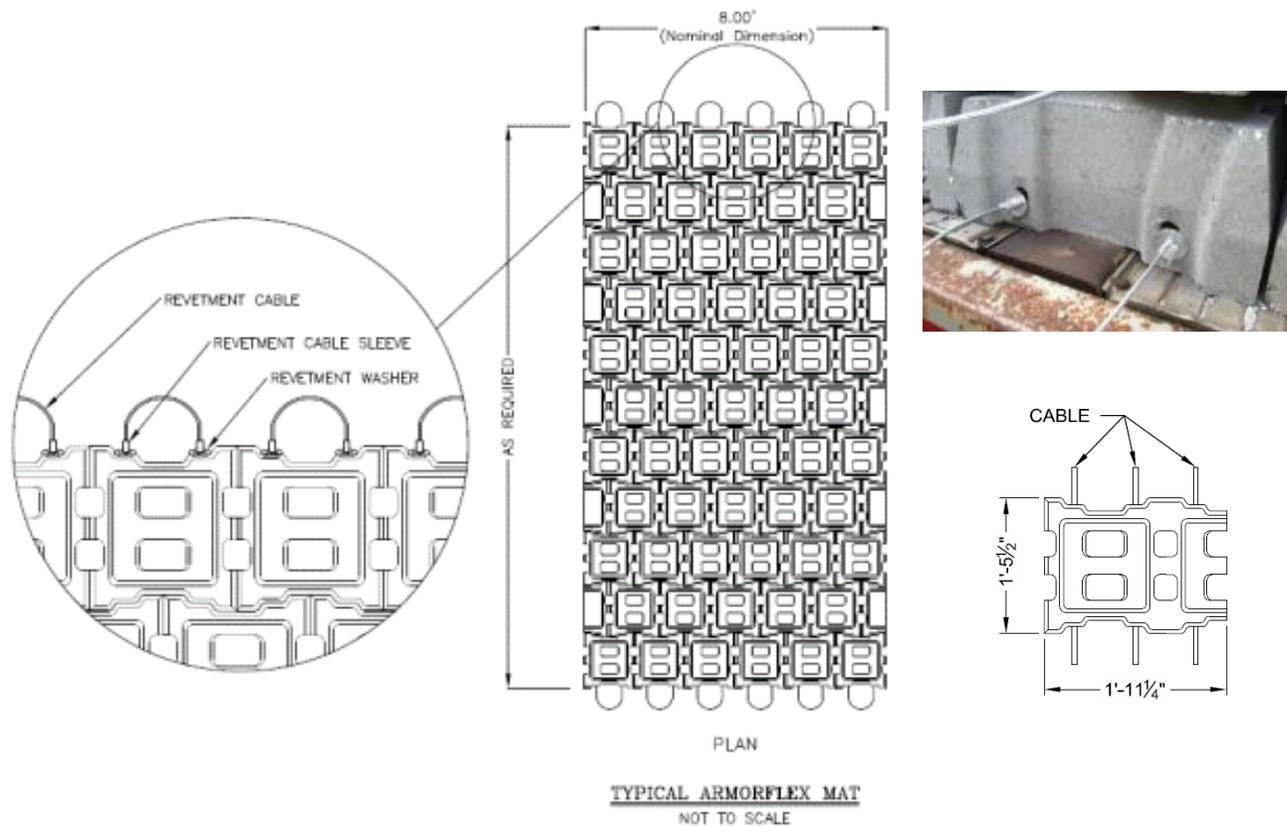
ArmorFlex® - Open Cell



ArmorFlex® - Closed Cell

- **Engineered Hydraulic Applications**
- **Flexible, interlocking matrices of concrete blocks**
- **Uniform size, shape, and weight**
- **Specific Hydraulic capacities substantiated by ASTM Testing**

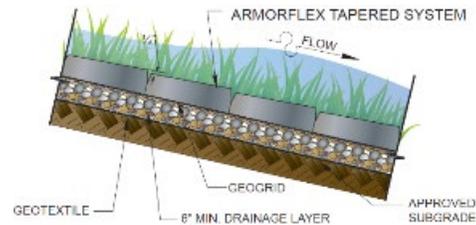
# ArmorFlex



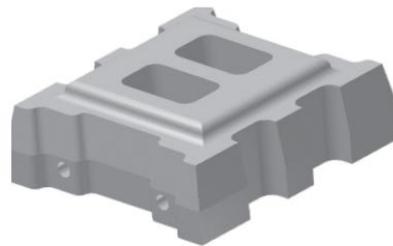
- Flexible, interlocking matrices of concrete blocks
- Uniform size, shape, and weight
- Mattresses or Hand-Placed Blocks
  - 4 Thicknesses (4.75", 6", 7.5", 8.5")
  - 3 Footprints (0.98-sf, 1.77-sf, 2.58-sf)
  - 3 Types (Open, Closed, Tapered)
  - Block and a Half

# ArmorFlex

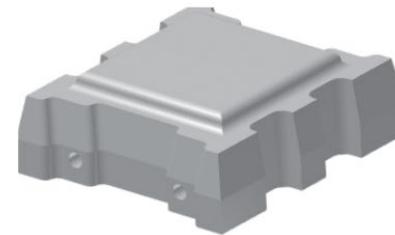
ArmorFlex Unit Specification						
Concrete Block Class	Nom. Dimensions (in.)			Gross Area/ (sq. ft.)	Typ. Block Weight	
	L	W	H		lbs	lbs/sq. ft.
Open Cell - 20% Open Area						
30S	13	11.6	4.75	0.98	33	35
50S	13	11.6	6	0.98	42	50
40	17.4	15.5	4.75	1.77	59	40
50	17.4	15.5	6	1.77	76	50
70	17.4	15.5	8.5	1.77	108	70
40L	17.4	23.6	4.75	2.58	97	40
50L	17.4	23.6	6	2.58	116	50
70L	17.4	23.6	8.5	2.58	174	70
Closed Cell - 10% Open Area						
45S	13	11.6	4.75	0.98	39	45
55S	13	11.6	6	0.98	50	55
45	17.4	15.5	4.75	1.77	71	45
55	17.4	15.5	6	1.77	91	55
85	17.4	15.5	8.5	1.77	136	85
45L	17.4	23.6	4.75	2.58	109	45
55L	17.4	23.6	6	2.58	138	55
85L	17.4	23.6	8.5	2.58	207	85
High Velocity Application - Tapered Open Cell - 20% Open Area						
40-T	17.4	15.5	4.75	1.77	58	40
50-T	17.4	15.5	6.00	1.77	75	50
70-T	17.4	15.5	8.50	1.77	109	70



- Engineered Hydraulic Applications
- Block selection by Armortec Engineering based on the type of application and project-specific conditions, loading, velocity, etc.
- Specific Hydraulic capacities substantiated by ASTM Testing
- Block thicknesses between 4.75" and 8.5"
- Tapered block options for high velocity applications
- Open Cell options to accommodate vegetation
- Traffic compatible



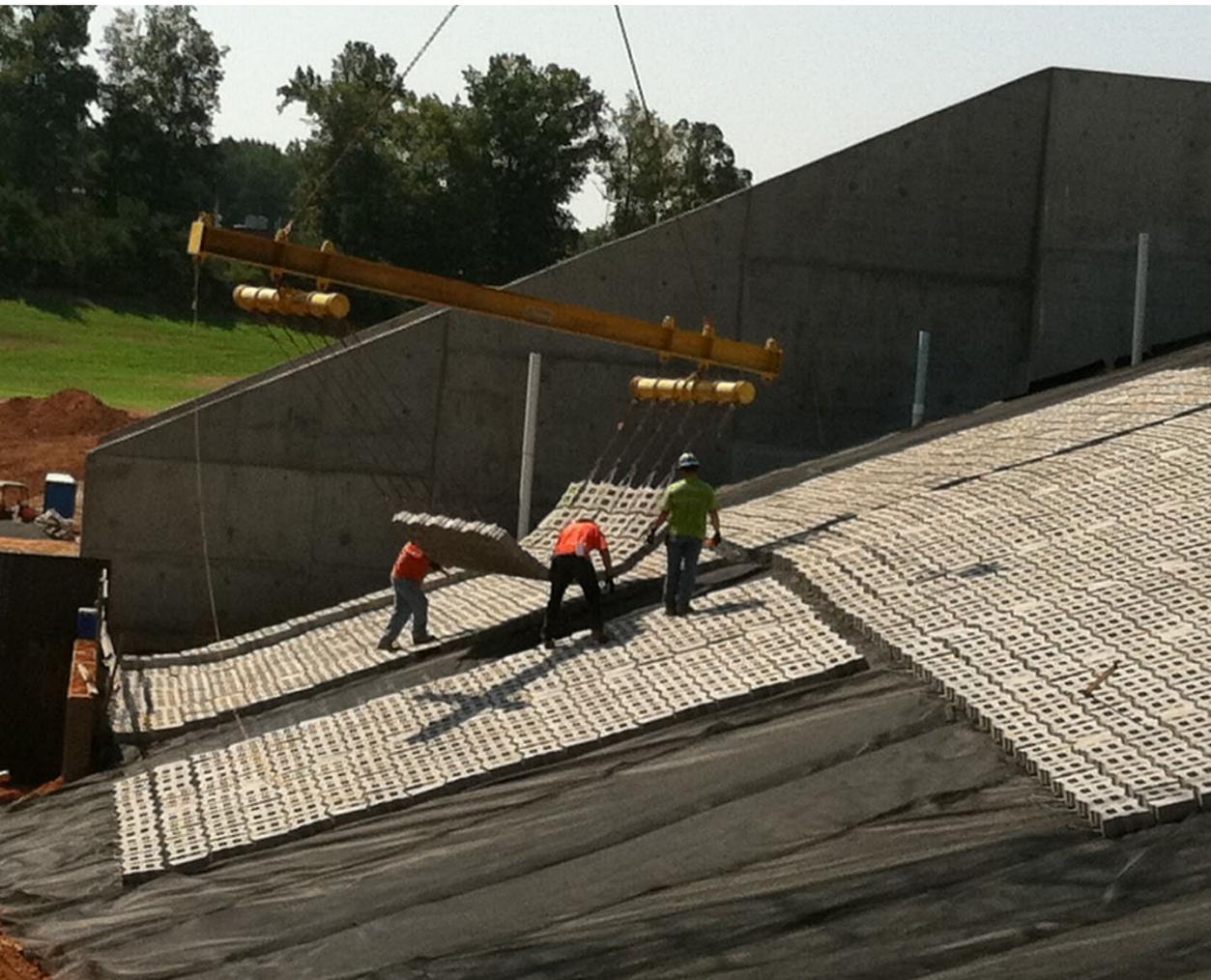
ArmorFlex® - Open Cell



ArmorFlex® - Closed Cell

# Applications

## Dam Overtopping Protection



# Applications

## Weirs & Spillways



# Applications

## Emergency Spillway Protection



# Applications

## Outfall Protection



# Applications

## Down Chutes



# Applications

## Flood Control



# Applications

## River Embankment Protection



# Applications

## Low Water Crossings



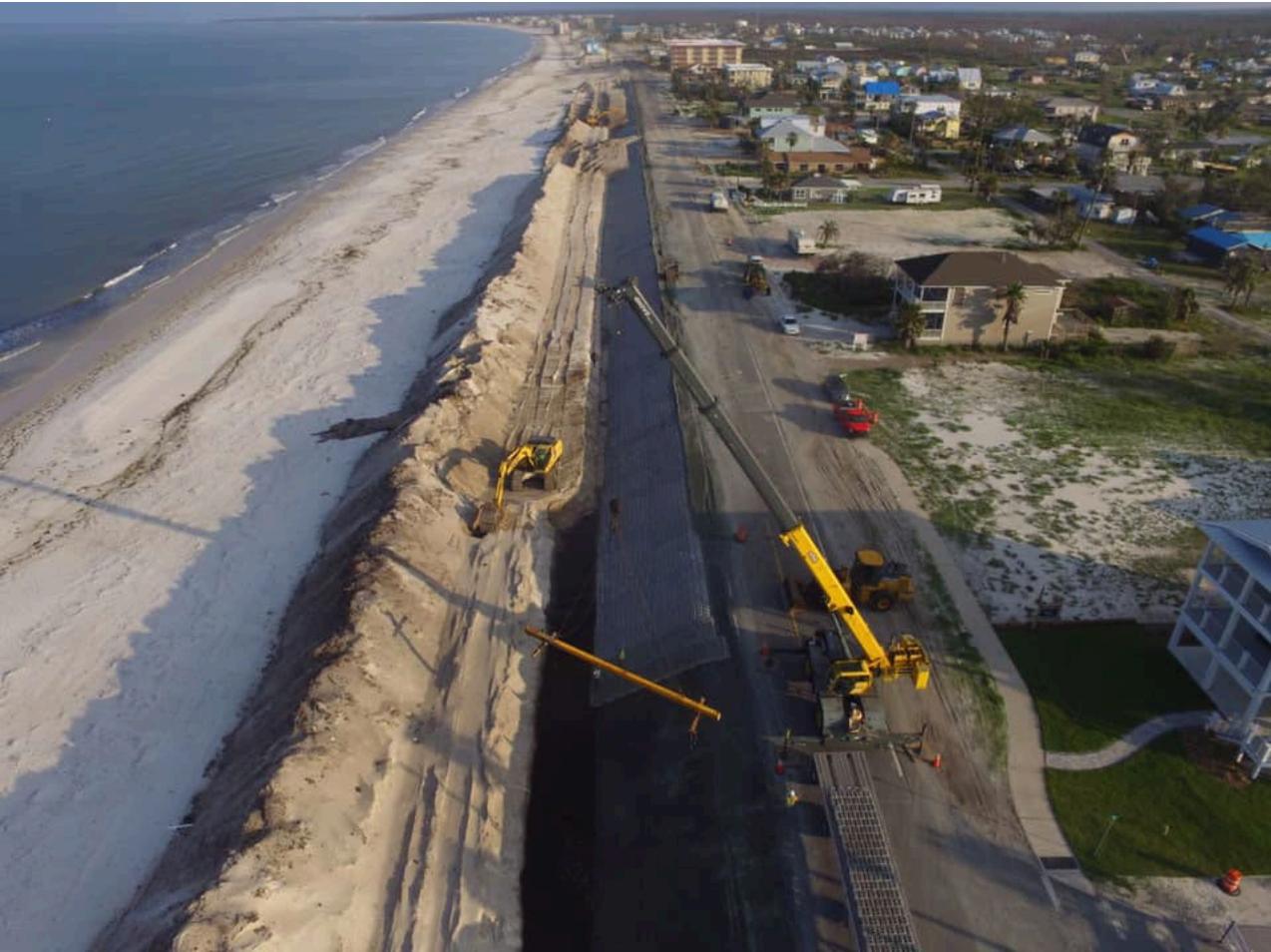
# Applications

## Utility & Pipeline Protection



# Applications

## Shore Protection



# Applications

## Channel Lining



# Applications

## Scour Protection



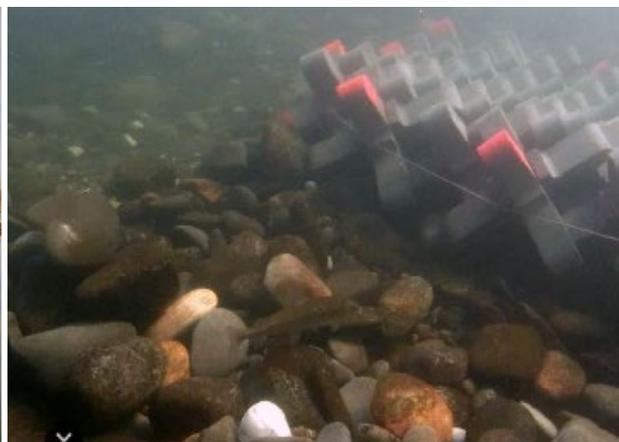
# Applications

## Boat Ramps



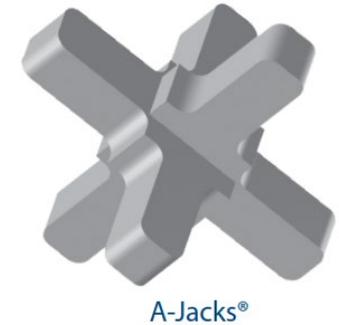
# A-Jacks Concrete Armor Units

# Applications



# Ajacks

## Dams / Reservoirs & Channels

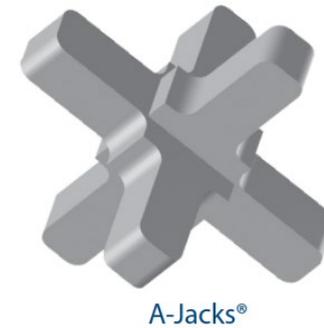


### Energy Dissipation in Hydraulic Drops

- Inlet structures
- Spillway structures

# Willow Creek Reservoir

## Lodge Grass, Montana



- **Nested installation  
(~0.8 Ajacks units per  
SF)**

Thank you!

Questions?