

KORMAN SIGNS, INC. WORK ZONE SAFETY PRODUCTS

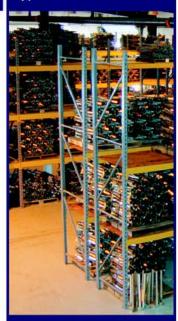




804.262.6050 Toll-Free 800.296.6050 Since 1975, Korman Signs, Inc. has been designing and manufacturing highway and construction signage systems. Our 100,000 square foot facility in Richmond, Virginia serves as a home base for production of our signs – made only with 3MTM high-quality products – and wind-resistant portable stands. Today we offer the contracting industry, local, state and federal governments one of the largest inventories of work zone products in the country. In addition, we manufacture fleet graphics, decals and traffic signs, and stock many other highway and traffic control products.



Type III barricade crash test



A large inventory of sign stands is maintained in our 100,000 sq. ft. warehouse



KSI tests products under extreme conditions, such as this at the Langley Full Scale Wind Tunnel



Research and Development

In 1999, KSI began our crash testing program according to NCHRP 350, and received FHWA approvals on our complete line of signs, sign stands and barricades. With a Korman product, you can be assured of meeting and exceeding all of the MUTCD and work zone guidelines. In addition, we have extended our research and development into wind testing, utilizing the Langley Full Scale Wind Tunnel and our own wind testing facility. This insures that each sign and stand combination will stay in place and display with maximum visibility.

At Korman Signs, Inc., our primary concerns are raising performance and providing safe, convenient solutions for the work zone. KSI strives to be the best, with innovative ideas and quality products. We diligently look for ways to improve upon what we make, while we develop new products that provide our customers with what they need. Many of our innovations will be found within the pages that follow.

For more information, please call KSI at 800.296.6050, fax us at 804.261.1040, or you can visit us on our Web site, www.kormansigns.com.



Over 90 combined years of experienced leadership



Welcome to KSI

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SIGN STAND CAPABILITIES AND MOUNTING HEIGHTS - NCHRP 350 CRASH TESTED AND ACCEPTED BY WZ-100 All models 350 approved with signs from 30" x 30" to 48" x 60", with or without DISTANCE FROM THE SURFACE TO THE BOTTOM OF THE SIGN LIGHT-WITH OR flags and/or ballast WEIGHT .080 WITHOUT NUMBER STAND MODEL **ROLL-UP PLYWOOD** ALUM. ALUM. ALUM. SUPPL. HAZARD TELESCOPIC ALUM. WEIGHT PAGE RIGID OF NUMBER PANEL** NUMBER SIGNS SIGNS SIGNS SIGNS SIGNS LIGHT SPRINGS LEGS MAST LEGS POUNDS SS548UCR 13" 0 23 3 13" SS548UCRA 3 0 X 16 SS548UC 21" 33 2 SS548UCA 21" 2 X 24 SS560UCA 4 5' 31 14" 14" 14" SS₁ 10 0 20 X SS548 19"-21" 19"-21" 19"-21" 6 39 SS548A 6 19"-21" 19"-21" 19"-21" X 32 SS548C 5 19"-21" 19"-21" 19"-21" 39 SS548CA 19"-21" 19"-21" 19"-21" 32 SS548E 19"-21",5" 19"-21" 19"-21" 21" 41 SS548AE 19"-21",5" 19"-21" 19"-21" 21" 35 X X 19"-21" SS548ETL 19"-21",5" 19"-21" 21" 41 SS548AETL 19"-21",5" 19"-21" 19"-21" 21" 2 X 34 SS548EE 19"-21",5" 19"-21",5" 19"-21",5" 21" 5' 48 5' 5' **SS560** 5'-7' 5' 5' 5' 21" 53 5' 5' SS560A 5'-7' 5' 5' 5' 21" 41 5' SS560E 5'-7' 5' 5' 5' 5' 21" X 55 SS560AE 5'-7' 5' 5' 5' 5' 5' 21" 43 SS560EE 5'-7' 5'-7' 5'-7' 5'-7' 5'-7' 5'-7' 21" 2 55 Y SS560AEE 5'-7' 5'-7' 5'-7' 5'-7' 5'-7' 5'-7' 21" 44

^{*} Includes Endurance, 6.35 mm solid plastic, Fluted Plastic, HDPE "waffleboard" and 2mm – 4mm aluminum composite laminates (such as ALPOLIC* 350)

^{**} Supplemental panels may be roll-up, 2mm aluminum composite or 10mm fluted plastic up to 48" x 30"

Sign **Stands Ultra** compact with springs

SS548UC SS548UCA

Designed only for roll-up signs

- Key features of the ultra compact design are versatility, size, weight and flexing motion that spills wind while maximizing readability
- Great for any work zone application including secondary, primary and interstate
- Universal clamping system holds any roll-up sign securely
- Telescopic legs with four positive locking positions; vertical, normal, and two for uneven terrain
- Two-stage dual spring action insures sign visibility at all times and gives stability in high wind conditions
- Stands are distinguished by their legs SS548UC has galvanized steel legs while the SS548UCA legs are aluminum
- 350 Approved with or without flags and/or ballast

Weight:

SS548UC 33 lbs., SS548UCA 24 lbs.

Collapsed Dimensions:

8" x 8" x 31"

Open Dimensions:

Min. 31" x 60" Max. 48" x 96" (Legs Extended)

Height to Bottom of Sign:

Sign Capacity:

30" x 30" to 60" x 60"

Finish:

SS548UC -

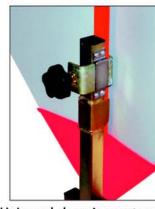
Zinc & Flo Coat Galvanized

SS548UCA -

Zinc & Aluminum







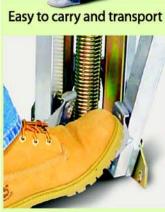
Universal clamping system with Comfort Grip soft rubber knob

Back view showing optional flag adapter with flags



NCHRP 350 Tested **FHWA Accepted** WZ-21, WZ-29, WZ-100





Kick release legs drop down and do not require bending or stooping



Telescopic legs have skid-proof rubber tips

Weight:

SS548UCR 23 lbs., SS548UCRA 16 lbs.

Collapsed Dimensions:

7" x 8" x 30"

Open Dimensions:

Min. 32" x 57"

Max. 49" x 94" (Legs Extended)

Height to Bottom of Sign:

13" (Diamond Shape Sign)

Sign Capacity:

30" x 30" to 48" x 60"

Finish:

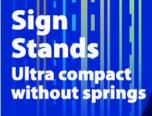
SS548UCR -

Zinc & Flo Coat Galvanized

SS548UCRA -

Zinc & Aluminum

- Key features: compact, lightweight and no spring design
- Stands derive wind resistance from the vertical sign rib, which flexes to spill the wind as it hits the sign
- Perfect for secondary roads and short-term interstate projects (moving operations)
- Our most user friendly stand, because it is so lightweight and easy to handle
- Stainless steel guide plate provides smooth clamping motion as sign is tightened to the stand
- Telescopic legs with four positive locking positions: vertical, normal, and two for uneven terrain
- Stands are distinguished by their legs SS548UCR has galvanized steel legs while the SS548UCRA legs are aluminum
- 350 Approved with or without flags and/or ballast



SS548UCR SS548UCRA

Designed only for roll-up signs



Kick release legs for easy leg engagement and disengagement







Universal clamping system holds vertical rib of sign to stand, and Comfort-Grip knob makes it "easy on the hand"



Rectangular signs need third vertical rib to secure to stand, and flex during wind gusts



NCHRP 350 Tested **FHWA Accepted** WZ-21, WZ-29, WZ-100

Sign Stands Ultra compact with springs

SS560UCA

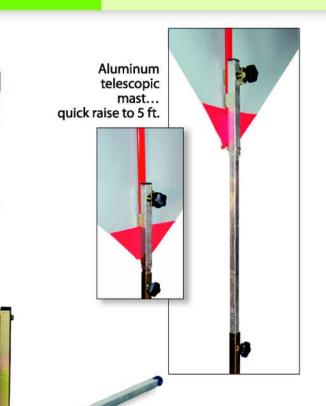
Designed only for roll-up signs

- Key feature to this compact stand is that it is specifically designed for mounting roll-up signs at a height of five feet
- Telescopic legs extend to give this stand a wide base, and along with the two stage vertical spring system, makes stability almost like permanent installation
- Stainless steel guide plate provides smooth clamping motion as sign is tightened to the stand
- Kick release legs for quick and convenient deployment
- Optional adapter available to accommodate supplemental sign

350 Approved with or without flags or ballast; flag adapter available

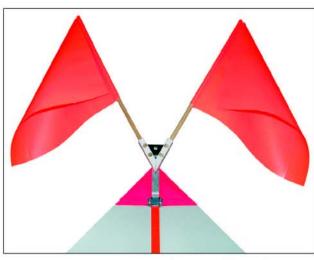
Weight:
SS5560UCA 31 lbs.
Collapsed Dimensions:
8" x 8" x 51"
Open Dimensions:
Min. 47" x 95"
Max. 65" x 133" (Legs Extended)
Height to Bottom of Sign:
60"
Sign Capacity:
30" x 30" to 60" x 60"
Finish:

Zinc & Aluminum



ROAD WORK AHEAD

SS560UCA with roll-up sign at 5 ft. and optional flag adapter



NCHRP 350 approved optional flag adapter



Compact for convenient storage



Two-stage spring action insures sign visibility at all times and gives stability in high wind conditions



Snap button provides accurate positioning of sign at 5 ft.

NCHRP 350 Tested FHWA Accepted WZ-21, WZ-29, WZ-100

www.kormansigns.com

5 FT GROUND TO SIGN CLEARANCE

Weight:

SS548C 39 lbs. SS548CA 32 lbs.

Collapsed Dimensions:

8" x 8" x 39"

Open Dimensions:

Min. 31" x 60"

Max. 48" x 96" (Legs Extended)

Height to Bottom of Sign:

21"

Sign Capacity:

30" x 30" to 60" x 60"

Finish:

SS548C -

Zinc & Flo Coat Galvanized

SS548CA -

Zinc & Aluminum

- Key feature: same capability as larger models SS548 & SS548A but more compact and versatile
- Built-in rigid and roll-up brackets
- Two-stage dual spring action insures sign visibility at all times and gives stability in high wind conditions
- Legs have anti-skid rubber tips and snap buttons that activate when leg reaches its maximum extension
- Conventional x-style footprint sign stand with telescopic mast and telescopic legs, thus reducing collapsed size and giving greater versatility for use on narrow shoulder setups
- Crash tested in accordance with NCHRP Report 350 with ALPOLIC® 350, other rigid substrates and roll-up signs (see chart, page 1)
- Stands are distinguished by their legs SS548C has galvanized steel legs while the SS548CA legs are aluminum



SS548C SS548CA

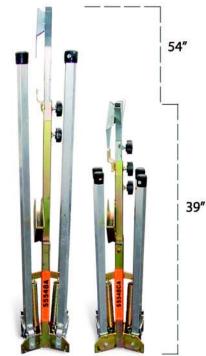
Supports roll-up and rigid signs



Comfort-Grip soft rubber knobs make for easy tightening and loosening



Built-in flag holders on all KSI rigid stands can hold up to 3 flags



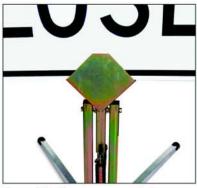
Compare collapsed height of the full-size SS548 (left) with the compact SS548CA



V-clips and Offset Bracket allow for various sign applications and thicknesses



Roll-up bracket holds roll-up sign in place, snap button keeps extended mast at proper position



Large V-clip accommodates diamond shape, square or rectangular rigid signs



NCHRP 350 Tested FHWA Accepted WZ-21, WZ-29, WZ-100

www.kormansigns.com

OUR MOST VERSATILE STAND



Sign Stands Full-size with springs

SS548 SS548A Supports roll-up and rigid signs

- Key feature: workhorse stand of KSI fleet designed to be versatile and dependable in all work zone applications
- Built-in mounting brackets conveniently incorporated into the unit in a compact fashion, making setup quick and direct for both rigid and roll-up signs
- Two-stage dual spring action insures sign visibility at all times and gives stability in high wind conditions
- Crash tested in accordance with NCHRP Report 350 with ALPOLIC® 350, other rigid substrates and roll-up signs (see chart, page 1)
- Stands are distinguished by their legs –
 SS548 has galvanized steel legs while the SS548A legs are aluminum
 (These legs are standard length not telescopic)

Weight:

SS548 39 lbs.

SS548A 32 lbs.
Collapsed Dimensions:

8" x 8" x 54"

Open Dimensions: 48" x 94"

Height to Bottom of Sign: 21"

Sign Capacity:

30" x 30" to 60" x 60" (All shapes)

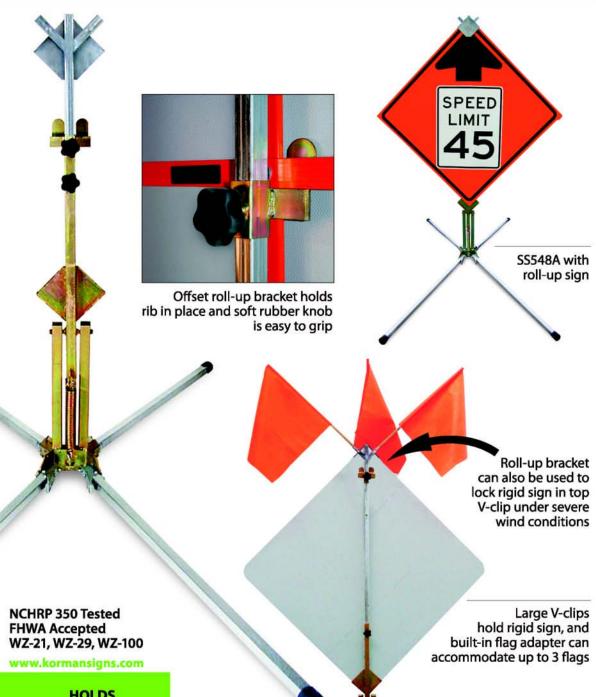
Finish:

SS548

Zinc & Flo Coat Galvanized

SS548A

Zinc & Aluminum







Two-stage dual spring action base with kick release legs

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HOLDS ROLL-UP OR RIGID SIGNS 8" x 8" x 73"

Open Dimensions:

Min. 31" x 60" (SS548ETL Only) Max. 49" x 98" (Legs Extended - SS548ETL)

Height to Bottom of Sign:

21" Rigid 21" & 60" Roll-up

Sign Capacity:

30" x 30" to 60" x 60" (All Shapes)

Finish:

SS548E/ETL -

Zinc & Flo Coat Galvanized

- Weight: Key feature: same design and versatility as SS548 series SS548E 41 lbs. but with extended mast giving an additional mounting SS548ETL 41 lbs. height of 5 ft. for roll-up signs **Collapsed Dimensions:**
 - Built-in rigid and roll-up brackets
 - Extended mast not only enables stand to hold up to 60" x 60" roll-up and rigid signs at 19" clearance but also up to 60" x 60" roll-up sign at 60" (a supplemental sign up to 48" x 30" may be displayed using bolt-on roll-up, sold separately)
 - Crash tested in accordance with NCHRP Report 350 with 2mm ALPOLIC® 350, other rigid substrates and roll-up signs (see chart, page 1)
 - 350 Approved with or without flags or ballast and with light
 - SS548E stand has galvanized steel legs SS548ETL has telescopic galvanized steel legs to accommodate narrow shoulder placement
 - Aluminum legs available with KSI model SS548AE



SS548E SS548ETL

Supports roll-up and rigid signs

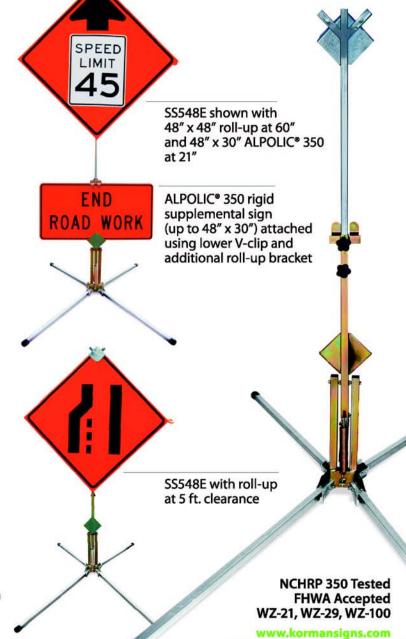


SS548ETL collapsed, shown with telescopic legs extended





SS548ETL set up on uneven terrain using various locking positions



CLEARANCE ON

ROLL-UP SIGNS

Two-stage dual spring action



Using an additional bolt-on roll-up bracket, supplemental roll-up sign can be added

Sign Stands **Heavy-duty** Full-size with springs

SS560 SS560A

Supports roll-up and rigid at 5 ft.

- Key feature: designed for highway applications that require a rigid sign with ground-to-bottom sign clearance of 5 ft. or roll-up at 5 ft. to 7 ft.
- Crash tested in accordance with NCHRP Report 350 with ALPOLIC® 350, other rigid substrates and roll-up signs (see chart, page 1)
- Supplemental rigid or roll-up sign can be held under primary sign with additional bolt-on brackets
- Kick release legs with multiple leg positions for uneven terrain
- 350 Approved with or without flags or ballast and supplemental sign and lights
- Stands are distinguished by their legs SS560 has galvanized steel legs while the SS560A legs are aluminum

Weight:

SS560 53 lbs.

SS560A 41 lbs.

Collapsed Dimensions:

8" x 8" x 76"

Open Dimensions:

Min. 47" x 97"

Max. 65" x 133" (Legs Extended)

Sign Capacity:

30" x 30" to 60" x 60"

(All Shapes)

Finish:

SS560 -

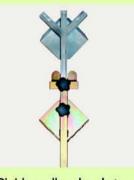
Zinc & Flo Coat Galvanized

SS560A -

Zinc & Aluminum



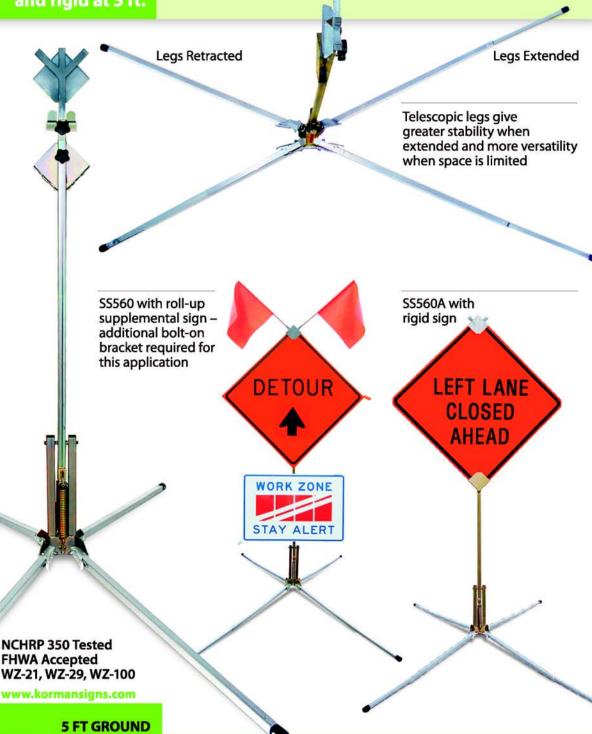
SS560 Collapsed View



Rigid or roll-up brackets are built in to securely hold either type of sign



Rectangular/square roll-up signs are easily attached to stand utilizing roll-up bracket



TO SIGN **CLEARANCE**

Weight: SS560EE 55 lbs. **Collapsed Dimensions:** 8" x 8" x 91" **Open Dimensions:** Min. 47" x 95" Max. 65" x 133" (Legs Extended) **Height to Bottom of Sign:**

5 ft. to 7 ft. for roll-up or rigid Sign Capacity: 30" x 30" to 48" x 60" At 5 ft. - 60" x 60"

Finish:

Zinc & Flo Coat Galvanized



SS560EE Collapsed View



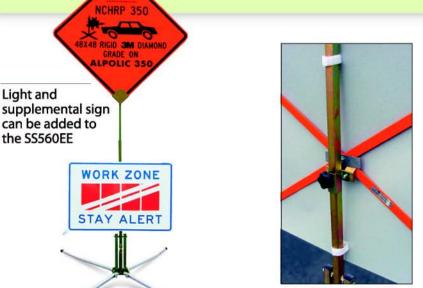
- SS560EE has been designed to handle roll-up or rigid signs at a 5 ft. to 7 ft. clearance from bottom of sign to ground
- Use where maximum visibility is required
- Crash tested in accordance with NCHRP report 350 with ALPOLIC® 350, other rigid substrates and roll-up signs (see chart, page 1)
- 350 Approved for use with flags, ballast and light
- Rugged construction built to last

NCHRP 350



SS560EE

Supports roll-up and rigid signs at 5 ft. to 7 ft.



Optional bolt-on roll-up bracket holds supplemental sign

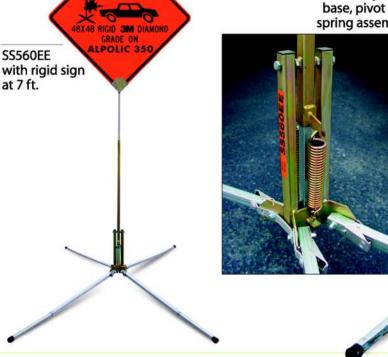
> Heavy-duty base, pivot and spring assembly







NCHRP 350 Tested FHWA Accepted WZ-21, WZ-29, WZ-100



Sign Stands **Tripod**

SS₁ Supports roll-up and rigid signs

- Key feature: most economical stand
- Collapsible and capable of displaying rigid or roll-up signs
- Tripod combination of economy, versatility, compactness and practicality - all in one stand
- Heavy-duty construction and galvanized finish insure a long, hard-working career
- Crash tested in accordance with NCHRP Report 350 with ALPOLIC® 350, other rigid substrates and roll-up sign (see chart, page 1)
- 350 Approved with or without flags or ballast and with light
- Dependable performance since its introduction over 30 years ago

Weight:

20 lbs.

Collapsed Dimensions:

6" x 4" x 54" Open Footprint ID:

47" x 52" x 52" Height to Bottom of Sign:

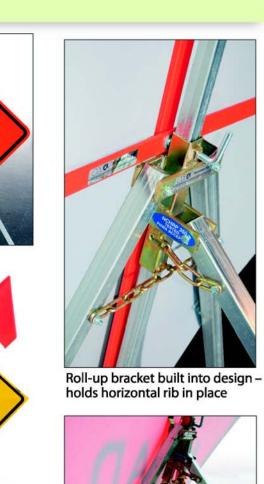
13"

Sign Capacity: 30" x 30" to 48" x 60"

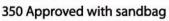
Flag Holders:

Finish:

Zinc & Flo Coat Galvanized





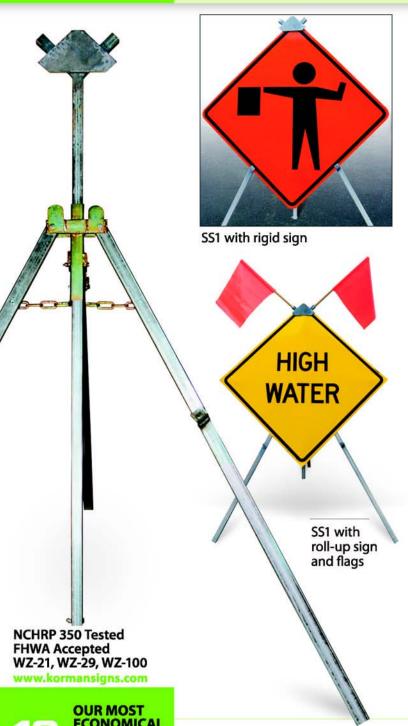




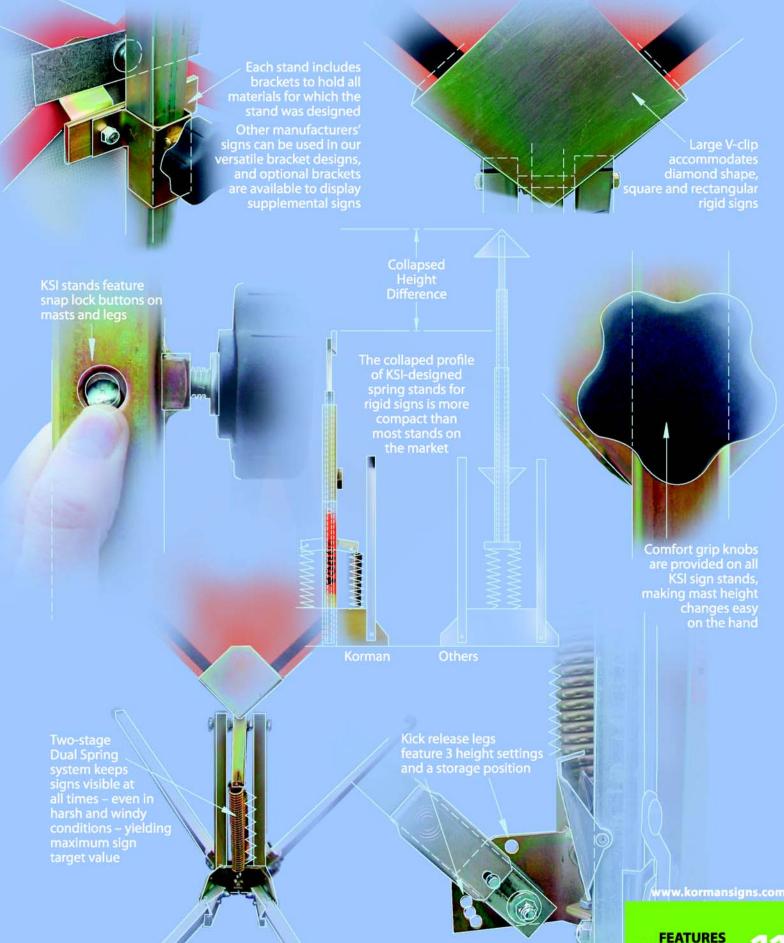
Heavy-duty chains control leg spread - telescopic mast includes bracket with flag holders



Sign clips hold bottom of rigid sign in place



EXAMINE THE DISTINCTIVE FEATURES OF KORMAN STANDS



11

YOU CAN USE

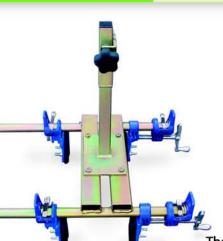
ledian Adapters

SSMAUCR SSMAUC

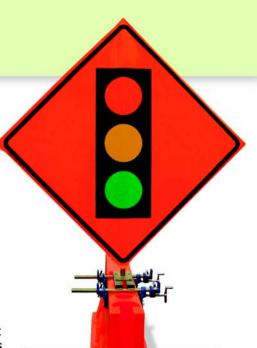
Designed only for roll-up signs

- SSMAUC (this page) and SSMA548 (page 13) are spring-loaded for flexibility in windy conditions. SSMAUC is designed only for roll-up signs while SSMA548 is designed for roll-up or rigid signs
- SSMAUCR is designed only for roll-up signs and is equipped with stainless steel guide plates, which provide for a smooth clamping motion
- Tightening and loosening sign is made easy with Comfort-Grip soft rubber knob
- Use on any permanent concrete, steel or approved temporary barriers (as shown)
- All median adapters include pony clamps (shown top of next page) that adjust from 4" to 16" wide

Sign Capacity: SSMAUCR -Roll-up signs up to 48" x 60" SSMAUC-Roll-up signs up to 48" x 60" Finish: SSMAUCR - Zinc SSMAUC - Zinc



The SSMAUCR has a springless design that only supports roll-ups





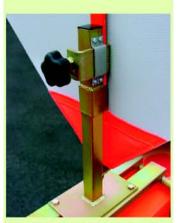
employs dual,

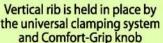
The SSMAUC two-stage spring action





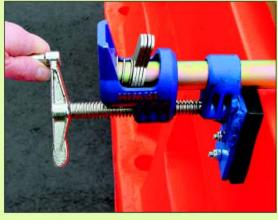






Sign Capacity: SSMA2PCM Roll-up or rigid sign up to 48" x 60" SSMA548 Roll-up or rigid sign up to 48" x 60" Finish: SSMA2PCM Zinc & Flo Coat Galvanized SSMA548 Zinc & Flo Coat Galvanized

- All median adapters feature pony clamps that provide quick setup and plenty of torque
- Clamps adjust from 4" to 16" wide applications
- Rubber grips clutch any surface, and hold secure over long periods of time
- Models available to fit all applications



Median Adapters

SSMA2PCM SSMA548

Supports roll-up and rigid signs



SSMA2PCM has a rigid vertical mast that does not flex



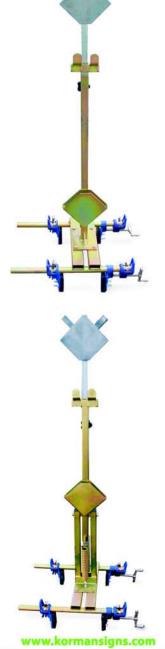
The versatile spring-loaded SSMA548 supports either roll-up or rigid signs



The 2-piece telescopic mast of the SSMA2PCM firmly supports roll-up or rigid signs



Similar in design to our SS548 portable sign stand, the SSMA548 handles extreme winds with ease



Roll-up Signs

3M[™]Diamond Grade, **Vinyl & Mesh**



THREE ROLL-UP SIGN **MATERIALS**

DF SERIES

3M #RS-20/24 Diamond Grade Wide-Angle Prismatic Lens Reflective 3-YEAR WARRANTY

RF SERIES

3M #RS-30/34 High-Intensity Vinyl Microprismatic Reflective

MF SERIES

Fluorescent Orange Mesh Non-Reflective

For Daytime Use Only

CONSIDER THESE QUALITIES OF 3M DIAMOND GRADE ROLL-UP SIGNS:

- Unsurpassed reflectivity & angularity values
- Long-lasting visible fluorescent orange color
- Portability
- Surface cleans up easily and is nonabsorbent of most chemicals
- 3-Year warranty
- Product of 50 years of ongoing 3M innovation and engineering
- Closely resembles a rigid Diamond Grade sign due to its smooth, low-wrinkle surface



3M Diamond Grade signs retain surface integrity and reflectivity after numerous cleanings



KSI maintains a large inventory of roll-up signs, screen-printed with a wide variety of legends



NCHRP 350 Accepted

Overlays are available for customizing all roll-up signs - each is equipped with velcro fasteners for application to the front side of signs, and can be adhered to the back side when not in use



Also available in roll-up is 3M #RS-33 Fluorescent Pink for incident management, as recommended in the 2003 MUTCD Chapter 6-1, FHWA and NFPA 1500





Numeric overlay kits provide for multiple distance messages



Sewn-on velcro strips attach message overlay to signs



Sewn-on velcro strips adhere spare overlay to back of sign



KSI provides the option of riveted plastic pockets, available upon request



SOLUTIONS

CORNER POCKETS

KSI has been developing and improving upon roll-up signs for more than 30 years.

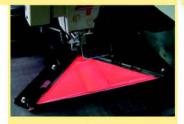
State-of-the-art, computerized sewing equipment at KSI has brought with it innovations in pocket designs.

For example, 4-ply triangular shaped pockets spread corner stress over a larger area to help prevent failure (40 square inches vs. 5 square inches for plastic pockets).



ANY RIGID SIGN AND ARE AVAILABLE IN MANY SHAPES, SIZES AND COLORS

3M™ Diamond Grade, **Vinyl & Mesh**



Heavy-duty, 4-ply, minimum 14 oz. material, bar-tacked and ...



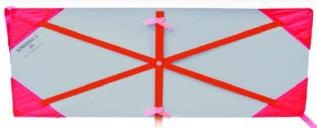
...double-stitched directly to the back of the sign for durability



Printed lot number for quality control



Strip of velcro keeps signs in tightly rolled-up state, and is available for anti-kiting



Rectangular signs have angled pockets for best rib fit, and come with above-shown anti-kiting velcro



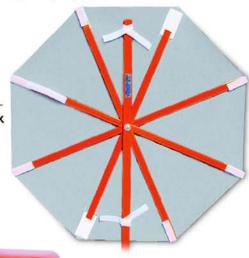
Sign legend is printed on outer edge for ready identification when sign has been rolled for storage and transport (sign bags available)

All signs come with .375" thick vertical ribs to minimize sign deflection when used with ultra-compact stands

Rib ends are radiused and chamfered for smooth assembly and low abrasion



High-quality UV resistant polyester/glass fiber "pultrusion" ribs are joined at the center with a special heavy-duty, low-profile rivet to minimize scuffing and wear; thus lasting the lifetime of the sign they support



NCHRP 350 Accepted



Rigid Signs

ALPOLIC 350 Composite, Solid Aluminum

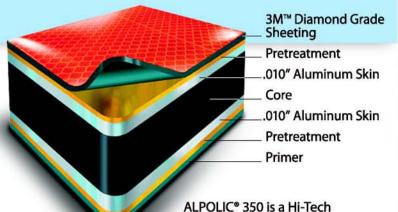
CONSIDER THESE ADVANTAGES OF USING ALPOLIC® 350:

- Energy absorption characteristics
- Tightweight half the weight of .080 aluminum
- Accepted by major sheeting manufacturers for both permanent and temporary signs
- **Rigidity**
- TO Outdoor durability
- Retains its flatness
- User friendly with ease of fabrication and storage

Permanent ALPOLIC® 350

span wire sign application

- Tild Exceptional reflective performance under wind load
- Trash safety low airborne velocity
- Anti-theft value



Aluminum Composite Material (ACM) produced by continuously laminating aluminum coil stock to both sides of an extruded thermoplastic core.

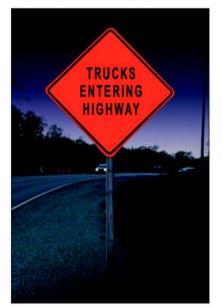
NORTH

TO



and Plastic

Compare 48" & 60" ALPOLIC® 350 signs in portable sign application



Post-mounted ALPOLIC® 350 rigid sign with 3M™ Diamond Grade sheeting

NCHRP 350 Tested FHWA Accepted WZ-100

www.kormansigns.com

ROAD CLOSED DETOUR

ALPOLIC® 350 Signs – NCHRP 350 approved with Type III Barricades

ALPOLIC signs (2mm) can be direct-mounted to the rails of any NCHRP 350 approved barricade up to 25 sq. ft., per WZ-100 approval letter

ALPOLIC® 350

2mm, 3mm, and 4mm Sheets, Blanks

ALUMINUM

.040, .063, .080, .100, and .125 Gauge Sheets, Blanks

PLASTIC

10mm and 13mm Fluted Sheets, Blanks

ALPOLIC® 350 is protected for work zone signs under U.S. Patent No. 6,569,510,B1









ALPOLIC® 350 fabricates using the same equipment as aluminum



Product Testing:

All sign and stand assemblies used on the NHS must be subjected to the crash testing criteria set forth in NCHRP Report 350 and its addenda. KSI signs and sign stands are subjected to testing through one or more of the following:

Langley Wind Tunnel Formal Wind/Stress Tests Formal and Informal Crash Tests and Wind Tests

ALPOLIC® 350 - THE VIABLE SOLUTION FOR PERMANENT SIGNING

- Save Lives and Reduce Potential Injuries NCHRP 350 Crashworthy and accepted by FHWA
- Save Money –
 Lower cost than solid aluminum
- Save Your Back Half the weight of solid aluminum, easier to handle and quicker to install
- Save Your Sign Minimize theft (no value at recycle centers) Bullet tolerant (small hole, small dent) Reclaim with hydrostripper for reuse



ALPOLIC® 350 Composite, Solid Aluminum and Plastic



ALPOLIC® 350 (right) outperformed roll-up signs in tests at the Langley Wind Tunnel (above at 15 M.P.H.)



Typical ALPOLIC® 350 impact during crash testing



ALPOLIC® 350 signs and barricade prepared for testing to NCHRP 350 requirements



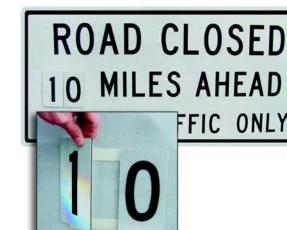
ALPOLIC® 350 was subjected to hurricane force wind testing at ATI



ALPOLIC® 350 For permanent sign solutions







Overlays are available for rigid signs, attaching to the sign via dual lock tape

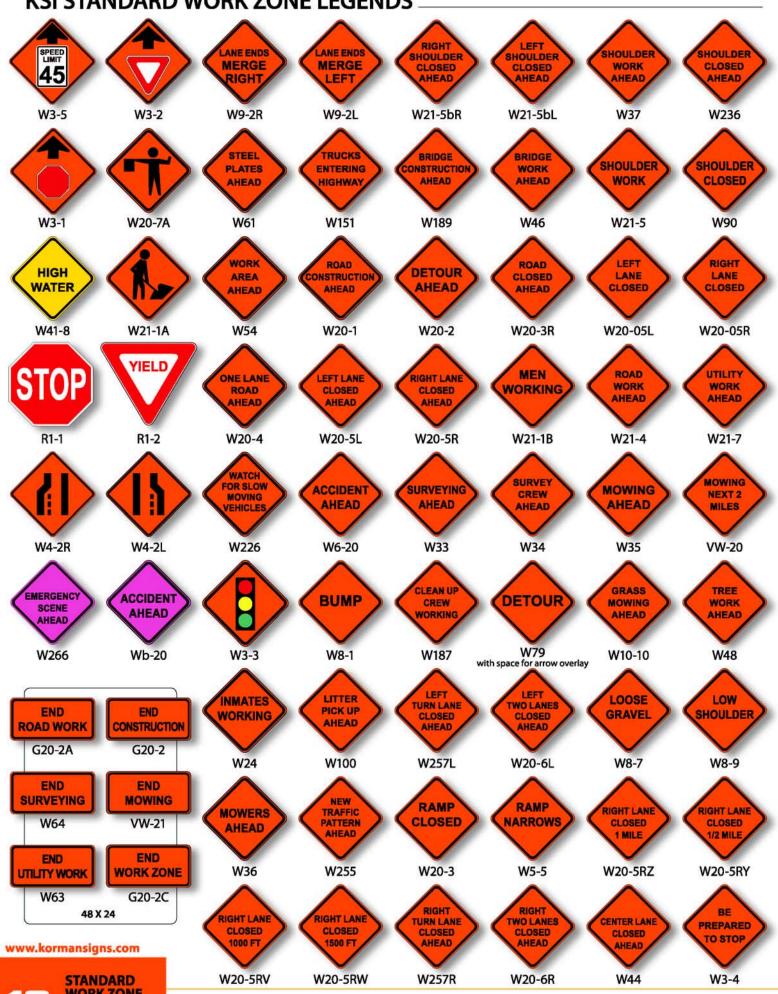
KSI stocks a large inventory of standard blanks and can fabricate to customers' specifications

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APPLICABLE RIGID SIGN SOLUTIONS

KSI STANDARD WORK ZONE LEGENDS



WORK ZONE LEGENDS

Panel Coverings 3M™ Diamond, Prismatic Hi-Intensity, Hi-Intensity, Engineer Grade Left or right slant

pattern on one or both sides of barricade

Panel Construction 1" x 8" Extruded Plastic .375" and .5" Fluted Plastic 24" or 36" length 8" or 12" depth

Leg Construction 1.5" x 1.5" x .25" Impact Resistant HDPE tubing



KSI puts our Type II barricades through the same rigorous crash testing as our other products



Side lock feature assures that barricades will not collapse unintentionally



Optional barricade light attaches easily to barricade with included hardware

THE JAMMER BARRICADE SERIES

- Available in 24" or 36" wide models, each with either 8" extruded or 8" and 12" fluted plastic panels
- Side locks hold barricade in secure open position
- Tightweight and easy to handle
- 36" Type II gives greater visibility and performance
- Barricade legs intermesh for compact storage and stackability
- NCHRP 350 approved with or without barricade light (up to 4.4 lbs.), sandbags (up to 100 lbs.) and up to 48" x 48" 2mm ALPOLIC® 350 composite sign
- Replacement parts are available for repairs and for converting barricade from 24" to 36"





Type II Barricades are designed for temporary traffic control applications, and accommodate optional 2mm ALPOLIC® 350 signs up to 48" x 48" mounted on panels



Type II barricade with sandbag and attached barricade light



KSI Type II barricades collapse flat, which makes stacking a cinch

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WZ-100 Amendment #3 www.kormansigns.com

FHWA Accepted

DEPENDABLE AND SAFE SOLUTIONS

Type III Barricades WBT3 Series

- Our Type III barricades are constructed of rugged galvanized square tubing and plastic panels durable yet lightweight and built to last
- Skids are connected to the uprights by either hinge plate bracket (The EZ-Kade) or stub weld receiver (The Klassic-Kade)
- Our Type III barricades are approved to display single 2mm ALPOLIC® 350 composite sign or any combination of signs up to 33 sq. ft. mounted to single or multiple rails, at 12" minimum from ground to bottom of sign per WZ-100 acceptance letter (ALPOLIC® 350 is protected by the following: U.S. Patent No. 6,569,510,B1)
- Sandbags up to 200 lbs. can be used, or stakes can be conveniently placed through the perforated legs for extra stability
- Shipped unassembled (includes assembly instructions and hardware)

Panel Coverings 3M™ Diamond, Prismatic Hi-Intensity, Hi-Intensity, Engineer Grade single or double sided

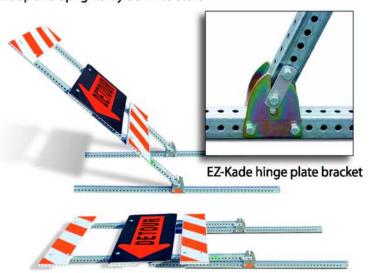
Panel Construction 8" tall hollow core plastic (in 1" or 2" thicknesses) Also available in .5" fluted plastic, 8". 10" or 12" tall

Frame Construction Galvanized square perforated tube Hinge plate bracket or Stub weld receiver Optional crossbar

4', 6', 8', 10', 12' lengths

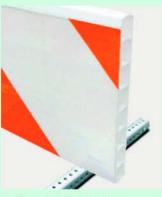


With no tools, parts or pieces to keep track of, The EZ-Kade is our new Quick Release barricade that makes setup and storage a snap – simply lift up and uprights lay down to store





8" hollow core plastic comes in 1" and 2" thicknesses



Rails available in hollow core or .5" fluted plastic

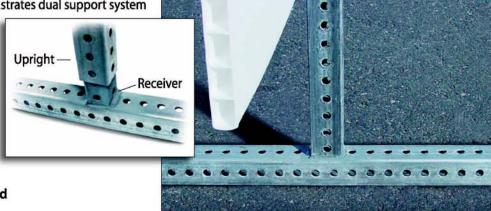


For extra stability, stakes can be placed through perforations in place of sandbags

KLASSIC-KADE TYPE III BARRICADES

Cutaway view illustrates dual support system

on Klassic-Kade – receiver is stub welded to skid, upright tubing slides over



NCHRP 350 Tested FHWA Accepted WZ-100



BARRICADE ORDERING OPTIONS							
MODELS	BASE CONNECTION	BARRICADE HEIGHTS AND NUMBER OF PANELS	CROSS BAR WITH BRACKETS AND FASTENERS	PANEL MATERIAL	PANEL LENGTH OPTIONS	3M™ SHEETING	WARNING LIGHTS ADAPTERS
EZ-KADE	HINGE PLATE	5' – 3-PANEL 7' – 4-PANEL	Adds Structural Stability Recommended Especially For Barricades 8' And Over In Length	1" x 8" And 2" x 8" Hollow Extruded Plastic .375" or .5" x 8", 10" or 12" High Fluted Plastic	4' 6' 8' 10' 12'	Diamond Grade High-Intensity Prismatic High-Intensity Engineer Grade Left, Right Or Chevron Pattern Single Or Double-Sided	Adapter Brackets And Bolts Needed To Attach Standard Barricade Lights
KLASSIC-KADE	WELDED STUB						

Type III Barricades

WBT3 Series



Type III barricade with ALPOLIC® 350 signs crash test



Type III barricade with sign blanks mounted for crash test



All KSI Type III barricades have been crash tested and are FHWA Letter WZ-100 #3 accepted



5' high x 8' long barricade with 48" x 30" ALPOLIC® 350 sign mounted to top panel – Chevron Pattern rails are lightweight, strong and durable 1" thick hollow core plastic

WBT3 Series



WBT3 Series 7' high x 8' long barricade mounted with 96" x 48" ALPOLIC® 350 sign



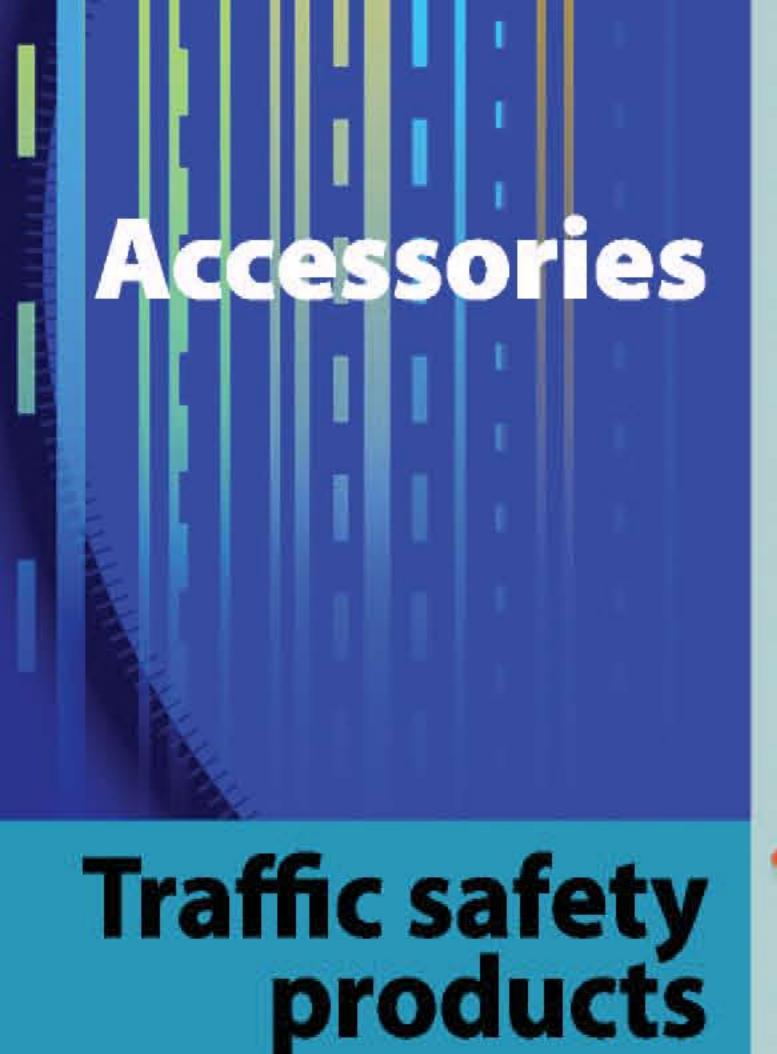
WBT3 Series
7' high x 12' long barricade depicts
typical sign setup for interstate detour,

with ALPOLIC® 350 signs and lights

NCHRP 350 Tested
FHWA Accepted

WZ-100 Amendment #3 www.kormansigns.com

DEPENDABLE AND SAFE SOLUTIONS





SAFETY IS OUR PRIORITY

We have developed a full line of transportation safety products to work in tandem with your highway and construction signage

STOP



Stop/Slow Paddle with 7 ft. staff in plastic with 2-piece staff as shown, or metal staff and paddle

Also available in a lightweight roll-up kit (inset photo) for compact storage and easy transport





From warning lights and pavement markers to safety vests and Stop/Slow paddles, we offer everything needed to run safer work zones on interstates, state highways and city streets

Barrels

7.5 lbs. 41.27" height, available with tire ring, plastic sandbag base or molded rubber base

Certified to meet crashworthy requirements of NCHRP 350 and Federal MUTCD

Cones

18", 28" or 36" height
4" and 6" 3M™ reflective bands
available for night time use
All cones meet State and
Federal standards

7 lb. Cone Weight available to help stabilize cones in windy conditions

42" T-Top Delineator with two yellow reflective bands and 12 lb. base



Mesh or vinyl flags for increased visibility – 24" flag with 36" staff or 18" flag with 24" staff



KSI provides the right safety vest for any situation



HEADQUARTERS FOR TRANSPORTATION SAFETY AND FLEET GRAPHICS

3029 Lincoln Avenue Richmond, Virginia 23228 -4295