



The beauty and popularity of Seattle have created downtown space problems—

but a versatile product from Knauf has helped provide a solution.

Wall and Ceiling Liner M offers sound solutions for  
WASHINGTON STATE STADIUM  
EXHIBITION CENTER

To the first-time visitor gazing across glittering Puget Sound, the city of Seattle appears to sparkle with life. Majestic snow-capped peaks of the nearby Cascade and Olympic mountains lure guests to the abundance of enchanting coffee shops nestled snugly among the foothills. The breathtaking beauty of its rugged landscape, tranquil harbors and shimmering skyscrapers has helped usher Seattle into the new millennium as one of the country's most popular and fastest-growing metropolitan areas.

Yet with that rapid growth have come some familiar spoils: too many people and too little space. Undaunted, the city has taken a new approach to the old dilemma by making limited downtown space do double duty. With the help of a versatile product from Knauf Fiber Glass, one facility is redefining the term *flexibility* in the meeting and convention industry.



The new Washington State Stadium Exhibition Center creates a convenient link between Safeco Field and the new stadium that will replace the Kingdome. It offers exhibitors an impressive 325,000 square feet of exhibit space and a 2,000-car parking garage.

## Designing a VERSATILE VENUE

The Pacific Northwest's newest exhibition facility, the Washington State Stadium Exhibition Center also ranks as one of its largest. Part of the \$430 million Washington State Football/Soccer Stadium project, the Exhibition Center boasts an impressive 325,000 gross square feet of exhibit space and a 2,000-car parking garage. The facility will be sandwiched between Safeco Field (home to Major League Baseball's Mariners) and the future site of the Football/Soccer Stadium (replacing the Kingdome in 2002 as the home of the National Football League's Seahawks), creating a convenient link between the two sports venues and an ideal site for pre- and post-game

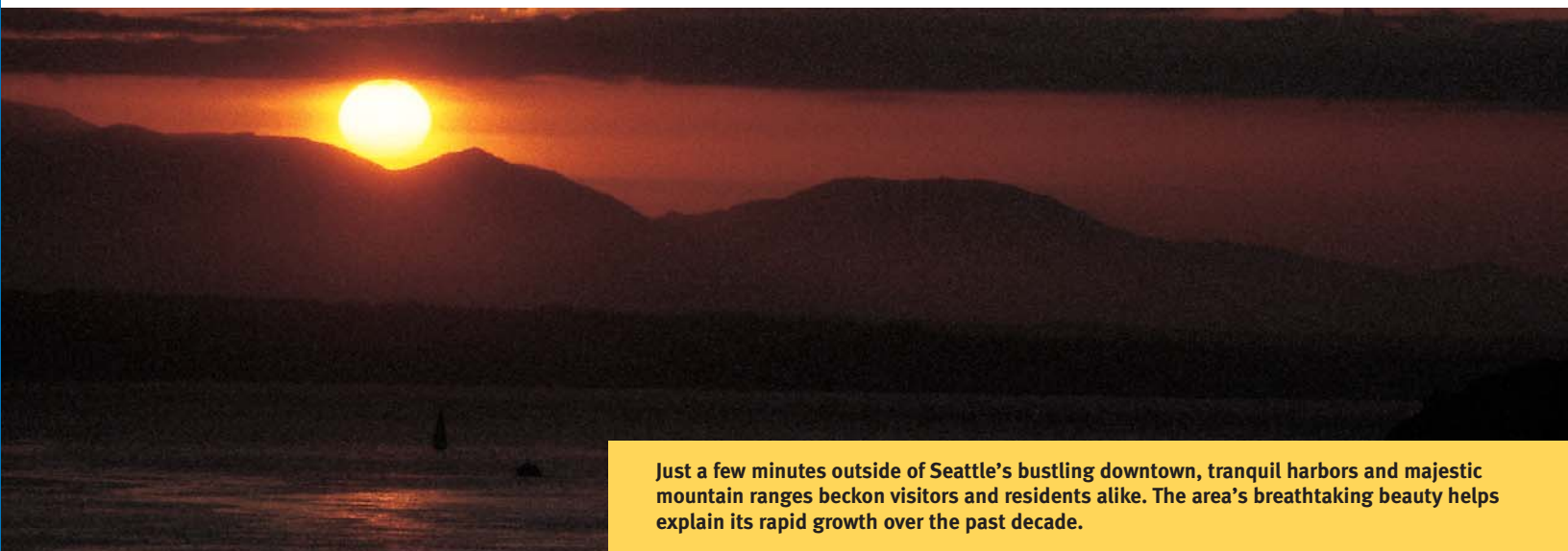
events. More importantly for the local economy, it will also serve as the setting for several large consumer products shows, the International Sportsmen's Exposition and the popular *Christmas in Seattle* show.

Despite its ranking as one of the Northwest's largest exhibition venues, the new Exhibition Center is arguably also one of its most versatile. The entire first floor of the parking garage is designed as a unique "swing space" that can provide 92,000 square feet of exhibit area—or additional parking, depending on the needs of the exhibitors. The flexible space uses the same architectural finishes, utilities,

lighting and HVAC criteria as the main exhibition hall, to provide a virtually seamless expansion opportunity for exhibitors.

### Keeping the facility IN THE BLACK

Maintaining continuity in the look and feel of the two spaces was still a challenge, though, in part because of different construction materials and divergent primary uses. The Main Exhibit Hall had a metal roof deck 48 feet high; the swing space (first floor of the parking garage) had a 24-foot concrete ceiling. Plus, the swing space had to accommodate vehicles when it



Just a few minutes outside of Seattle's bustling downtown, tranquil harbors and majestic mountain ranges beckon visitors and residents alike. The area's breathtaking beauty helps explain its rapid growth over the past decade.



**Knauf Wall and Ceiling Liner M was used in the Stadium Exhibition Center as a ceiling blackout treatment and for its thermal and acoustical benefits. In the Main Exhibit Hall (left), it was used under the metal roof deck primarily for sound control and aesthetics. In the “swing space” (right), it was used in combination with R-11 batt insulation and a foil vapor barrier to achieve the thermal envelope design requirements.**

was used as a garage and reduce vehicle noise from other levels when it wasn't.

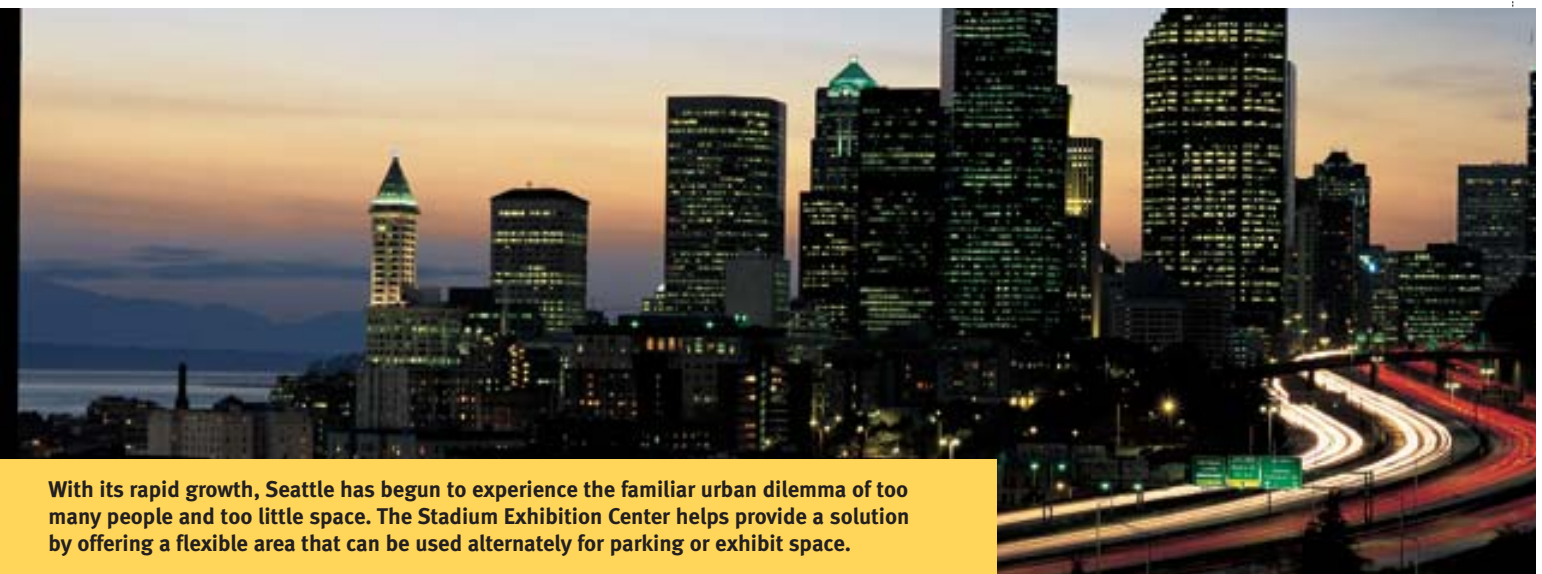
The solution that Seattle-based LMN Architects came up with was a flexible black insulation material that could serve multiple purposes: provide a consistent dark, smooth architectural finish for ceilings in both areas; reduce noise; and contribute additional thermal resistance where needed. Wall and Ceiling Liner M (1.5 PCF density, 2" thickness) from Knauf Fiber Glass was used on ceilings in both areas, providing a Noise Reduction Coefficient (NRC) value of .90 and thermal resistance of R-8. In total, the project used about 300,000 square feet of the liner material, which was supplied by R-Factor, an insulation and accessories distributor based in Woodinville, Wash.

In the swing area, Wall and Ceiling Liner M was used in combination with R-11 batt insulation and a foil vapor barrier to achieve the thermal envelope design requirements. In the Main Exhibit Hall, the liner was used alone under the metal roof deck, for its acoustical and aesthetic benefits. Rigid thermal insulation was applied above the roof deck to provide thermal resistance.

The Exhibition Center represents one of the first applications of black fiber glass liner in a highly exposed setting, but this type of use is increasing as recent interior design trends favor blackout treatments. “We’ve seen more specifications for black fiber glass liner lately in theaters and large facilities like the Exhibition Center

because it gives the architect several advantages,” says Gary Trauter, co-owner of Insulation Contractors (Kent, Wash.). His company, which has about 100 employees and services an area stretching from Sacramento to the Canadian border, is one of the few firms in the U.S. that specialize in thermal and acoustical insulation for commercial applications. “The primary use of the product is for acoustical control, but it also gives you additional thermal resistance and a visual blackout on walls and ceilings, which is becoming more popular. For this project, LMN got multiple benefits from a solution that’s more affordable than most of the alternatives.”

(Cut along this dotted line (at 7 7/8"), but do NOT print the line itself.)



**With its rapid growth, Seattle has begun to experience the familiar urban dilemma of too many people and too little space. The Stadium Exhibition Center helps provide a solution by offering a flexible area that can be used alternately for parking or exhibit space.**

Group participants included, from left to right: Brian Polis, Turner Construction; Brad Omlid, Knauf; Gary Trauter and Fletcher Vinson, Insulation Contractors; Bill Stocker, R-Factor; and Jerry Gentry, Insulation Contractors.



## PROJECT PROFILE

- **Facility:**  
Washington State Stadium Exhibition Center
- **Size:**  
325,000 sq. ft.
- **Cost:**  
\$425 million (including stadium)
- **Building Owner:**  
Public Stadium Authority
- **Facts:**  
92,000 sq. ft. swing space  
1,415 booth capacity  
40' clearance in Main Hall
- **Architect:**  
LMN Architects  
Seattle, Wash.  
Ellerbe Becket  
Kansas City, Mo.
- **General Contractor:**  
Turner Construction Co.  
Seattle, Wash.
- **Insulation Contractor:**  
Insulation Contractors  
Kent, Wash.

## Moving at the SPEED OF SOUND

The use of the flexible ceiling liner also enabled the insulation contractor to meet tight deadlines on the construction schedule. “The job has been on a fast-track schedule because it’s only the first phase of the overall Seahawks stadium project,” Trauter explains. “Even though the stadium itself is not scheduled to open until 2002, part of the construction began early in 2000—before the old Kingdome was even torn down. So our installers had to keep on a tight schedule.”

Insulation Contractors’ crew began working on the job site in July and

finished up in time for the facility to open in October. And despite insulating bays up to 250 feet long and working at heights up to 40 feet—and using only two installers—they were actually pushing other subcontractors to move faster.

To add to the challenge and time pressure, the high-visibility nature of the Exhibition Center setting demanded a greater degree of craftsmanship than “blackout” material applications typically require. The installers had to use great care to align the insulation hangers (fastening pins) and then spray-painted the pin heads a flat black color to match the liner material.

- **Insulation Distributor:**  
R-Factor  
Woodinville, Wash.
- **Knauf Products:**  
Wall & Ceiling Liner M  
(300,000 sq. ft.)

The use of black fiber glass liner in highly exposed settings like the Stadium Exhibition Center is increasing, partly because recent design trends favor blackout treatments on ceilings. The liner also gives architects acoustical and thermal benefits, along with a price tag that’s more affordable than most alternatives.

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## Customer Service

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“Moving quickly was especially tough on the high bays, because there were already fixtures in the way, so we had to cut the rolls in six-foot lengths and insulate the bays cross-wise instead of lengthwise,” says foreman Steve Gega. “But this material is easy to cut and hang, and it’s a lot faster to install than sprayed-on treatments. Compared to the alternatives we’ve used, this saves us time and saves the building owner money.”

Finding cost savings and flexible solutions is critical to the facility owner at a time when competition in the convention and exhibition

**“For the project, LMN got multiple benefits from a solution that’s more affordable than most of the alternatives.”**

industry is at a feverish pitch. Those goals take on additional significance when the owner is the public—in Seattle’s case, the Public Stadium Authority, represented by a seven-member board appointed by the governor—and the project is funded in part by state tax dollars and bond sales.

Given the political nature of the project, there may be more benefits to cost-effective construction techniques than simply managing costs to attract potential exhibitors. Once the overall stadium project is complete, one of the most important exhibits for Washington State residents to see there may be the facility itself—along with a copy of the final balance sheet.

Finding cost savings and flexible solutions like the “swing space” area of the Stadium Exhibition Center was important for Seattle because of the highly competitive nature of the exhibition industry. It also took on added political significance because the project is funded in part by state tax dollars.





**Knauf On Display at Seattle Exhibition Center**

**Washington State Stadium Exhibition Center, Seattle, Washington**



**Field Bulletin**

Knauf delivers flexible solution for “swing space” challenges.

**“This is my insulation.”™**

