

# All hands on “deck”: demanding Vegas conditions and construction schedules look to a “Noble” solution for Bellagio people movers

By Dean Moilanen,  
Noble Company

Exterior environments present a challenge for owners, architects and contractors. For owners and developers, exterior design upgrades can revitalize existing “dead zones,” and provide aesthetically-pleasing areas of entry and exit. Heretofore underutilized rooftops, plazas, and decks can become areas of revenue enhancement on commercial projects.

The reality for tile contractors can be a bit more daunting. For starters, the bold re-imagined exterior tile or stone detail in some cases must somehow be crammed into the existing space/substrate – five pounds of coffee in a three-pound can, so to speak. Existing framing – and substrates – may not offer the tile contractor many options. Oftentimes, time is of

the essence-with space at a premium. Successful waterproofing and crack isolation in the great outdoors can be a challenge.

Before we move ahead with specific product discussions and solutions, we all acknowledge there **ARE** unique challenges and pitfalls when the installation “hits the deck” – and an otherwise-conscientious installer can be tripped up.

Perhaps the most critical take-away is that deck engineering and design should never fall on the tile/stone contractor’s shoulders. Once you volunteer to start designing/redesigning existing

*The finished walkway features Ivory Premium 16” x 16” travertine octagon and Golden Sienna 16” x 16” travertine octagon, with Persian Red travertine dot for an Old-World feel.*

deck structures, any failure may come back to haunt you.

In my travels across the country, a very common and consistent thread emerges with regard to exterior work when a qualified installer – be it residential or commercial – chooses to use a crack-isolation/waterproofing membrane, intended for interiors, outside. If one reads the “small print” for many of these products, these facts will often emerge:

- The membranes in question are specifically not designed, approved, or warranted as primary waterproof membranes over occupied spaces for exterior applications
- The ANSI A118.12 crack-isolation properties for many of these indoor products will not hold up, or be warranted against the rate of thermal expansion and contraction in exterior applications.

To add to the product-selection challenges, installation profile limitations, and shortcomings, there are often time-crunch implications – in which the installer is tasked to deliver a finished product – that may conflict with the time requirements of some crack-isolation and waterproofing products.

The stakeholders involved with the Bellagio pool deck and people mover were well aware of all of the issues raised when this remodel project was being drawn up and put to bid.



*Be sure membranes in question are specifically designed, approved, or warranted as primary waterproof membranes over occupied spaces for exterior applications*



*Dal-Deck, a private-label version of Noble Deck supplied by Daltile, being applied to the people mover at the Bellagio*

## MGM/Mirage chooses Noble Deck™

MGM/Mirage Design has been a legacy supporter of Noble products for decades, as evidenced by the 15,000+ rooms in MGM/Mirage resorts in Las Vegas, in which NobleSeal® TS was specified and installed. In addition, tens of thousands of square feet of the same product lies beneath MGM food prep kitchens, spas, and health clubs. The track record of durability, longevity, and lack of waterproofing failures on MGM projects over 20+ years was the driver in Noble Deck being specified for this demanding exterior waterproofing/crack-isolation project. In conversations with senior design personnel at MGM/Mirage Design, the following unique proprietary performance characteristics of the Noble Deck installation system were pivotal in the product being selected:

- Thin 50 mil profile
- Fast zero-cure time installation when using Noble Bond EXT
- High-performance crack-isolation properties, per ANSI A118.12
- Rated for primary waterproofing, over occupied spaces
- Legacy success over 20 years in MGM projects
- A marine-grade sealant is used for seaming, drain details, and terminations

T Nickolas Company is one of the premier commercial tile con-

tractors in Las Vegas, Nevada. Founded in the early '90s, by Tom McDonald and Nick Mamula, T Nickolas (T Nick) has installed hundreds of thousands of square feet of tile and stone in some of the most prestigious commercial and hospitality projects in Las Vegas, Reno, California and elsewhere.

T Nick's legacy of quality has put the company in a unique consultative position with general contractors, as well as providing



*A marine-grade sealant is used for seaming, drain details, and terminations.*

feedback and input to architects and designers. Shane Switzer (VP of Operations), Evan Broadhead (Project Superintendent), and Dennis Laucht (Field Superintendent), have all been involved in Noble Company sheet membranes being successfully installed in thousands of hotel showers, countless lobbies, back of the house, and exterior applications. The Bellagio people mover was the latest project in which Noble products received their endorsement.

**Enter the “people mover”**

The people mover is an overhead traffic conveyance that directs patrons off the street, and offers an elevated and elements-protected pathway towards the Bellagio. A



*When embedding Noble/Dal-Deck over large exterior areas, a 75-100 lb roller ensures a uniform, consistent bond of CPE membrane to the substrate.*

people mover can be a mechanical moving sidewalk or – like this project – a stationary raised platform, with open sides and a roof that relies on a large-format natural stone walkway to funnel guests towards the main casino.

For this project, removal of the existing stone, all floor prep and membrane installation as well the new stone installation had to be done in a matter of weeks. The finished work had to stand up to significant thermal expansion/contraction, and provide a waterproof surface, which allowed rain water to funnel to drains and scuppers.

During the bid-negotiation process – and project pre-con meetings – Shane, Evan, and Dennis



*Crews at T Nickolas Company install the stone over the membrane.*

were able to converse between the general contractor, architect, and the Noble Company technical support team to fine tune the waterproofing details for this above-grade, raised-platform installation. Noble-Flex® drain flashings were an integral part of the sheet membrane transition-to-drain detail. The prefabricated drain flashings, inside, and outside corners ensured a smooth transition for these three details.

Historically, Noble Company has had no issue working with a variety of thinset and epoxy bonding agents for either bonding of the sheet to the substrate or bonding tile or stone to the polyester scrim. Over the last 30 years, Noble has worked with every major thinset/bonding agent manufacturer and has no documented cases of bonding failure for products meeting ANSI A118.4 due to incompatibility of any company's thinset



*The people mover directs large numbers of people from the street and into the Bellagio. The finished work had to stand up to significant thermal expansion/contraction, and provide a waterproof surface, which allowed rain water to funnel to drains and scuppers.*

and Noble's sheet membranes. In this instance, Dal-Deck, a private-label version of Noble Deck sold through Daltile, was used.

Working together, the project team and Noble Company were able to complete the project within five weeks, to the satisfaction of both MGM/Mirage Designs and visitors to the Bellagio property.

### Parting wisdom

The biggest challenge and temptation for installers approaching exterior work is to carefully vet the quality of the work done by other trades, prior to the scope of work commencing, and resist the urge to second guess design and engineering already in place. Secondly, a survey of the industry will reveal there are very few Division 9 waterproofing and crack-isolation products rated as primary waterproofing over occupied space, so make sure the product can perform as per plan and specification.

Projects in which tile and stone are installed in exterior settings, utilizing waterproofing and crack isolation will always be a part of the potential scope of work available to an installer. Truly, the devil is in the details with these types of projects.

Hopefully some of the information provided here can be of some assistance. For more information, contact Dean Moilanen at dean@noblecompany.com.