

Mariposa Land Port of Entry, Designed by Jones Studio

Phoenix-based Jones Studio balanced security and serenity in its design for one of the busiest border stations in the United States, sited in Nogales, Ariz.

By REED KARAIM Posted on: October 27, 2014



Bill Timmerman

The new Mariposa Land Port of Entry is one of the busiest vehicular ports into the United States.

U.S. border facilities can be unfriendly places in our post-9/11 world, seemingly focused on security above all else. But when Eddie Jones, AIA, principal at Jones Studio in Phoenix, designed the new Mariposa Land Port of Entry in Nogales, Ariz., he didn't start with traffic barriers or inspection lines. He started with the poem "Border Lines," by Arizona poet laureate Alberto Ríos, who grew up in Nogales. It concludes: "Let us turn the map until we see clearly:/The border is what joins us,/Not what separates us."

The government's priorities, however, were more practical: Mariposa is one of the United States' busiest land ports for vehicle and commercial truck traffic. The existing port facilities were 35 years old, and could no longer efficiently handle the volume of traffic or meet new environmental, inspection, and security requirements, says Traci Madison, a General Services Administration spokesperson.



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The traffic is funneled through checkpoints beneath a Cor-Ten canopy.

The question was whether Jones' vision could be joined with the government's concerns. "We had to produce a more efficient port and a safer port," he says. "The practical considerations are essential. ... But if all we did is create a more functional port, it wouldn't be healthier, it wouldn't be less intimidating and it damn sure wouldn't say, 'Welcome to the United States.'?"

The design involved a reconception of the port, reworking the bones of the existing structures into a facility that included 216,000 square feet of new facilities. The American Recovery and Reinvestment Act, commonly known as the stimulus, provided \$173 million of the approximately \$187 million cost, Madison says.



Cor-Ten canopies also shade small plazas and seating areas where post officials can gather. The landscape was designed as part of a rainwater retention system, while echoing the surrounding Sonoran desert.

Jones Studio's contract with the GSA was to produce three master plans for the 54-acre site for peer review. It took 45 plans and revisions before the studio satisfied U.S. Customs and Border Protection officials. Yet Jones embraced the challenge. "I loved the disparity in the two forces at work," he says.

The final design for the expansion—which was one of 11 national GSA Design Award winners while still on the boards in 2010—orients its two main structures running north and south. This presents the short end of the structures to the border and lets the "buildings get out of the way of the vehicles," Jones says, expediting traffic flow and inspection by creating a natural division that allows commercial trucks to be routed to one side and private vehicles to another



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Cor-Ten steel canopies line the landscaped plaza between the long, barlike structures at Mariposa that hold offices, processing, and port facilities. Steel scuppers and a rainwater harvesting system from StormTech funnel run off into a million-gallon cistern under the site.

Between the two buildings is a planted corridor that Jones describes as "a safe zone," for officers and staff to relax. "It's a little street with lots of landscaping, places to sit down and have your lunch," he says. "Here in the middle of the Sonoran Desert, you're surrounded by shade and nature."

Landscaping also plays an important role in the experience of approaching the facility. Chris Winters & Associates, a Phoenix-based landscape architecture firm, divided the site into three zones, intended to create a sense of welcome. The outer zone is a restored Sonoran Desert landscape that uses native plants. Closer to the facility, especially along the pedestrian pathway, the vegetation becomes denser and more lush. The final zone, within the complex, uses water features and more plantings to create a desert oasis. The idea, says Chris Winters, the firm's principal, is to "shelter people coming in."



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The plaza between the buildings is reserved for staff.

The abundant landscaping and the water features are made possible by a rainwater harvesting system that captures runoff from roofs and paved areas and stores it in a million-gallon underground tank. "Once we connected the system, the first monsoon totally filled it, and it's never been empty since," says Jones. "All this beautiful landscaping survives on rainwater in the desert." The buildings also incorporate solar hot-water heating, advanced lighting, and other energy efficiency features that are expected to receive a LEED Gold rating.



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Visitors can see the plaza from public areas such as the lobby (shown). The glass is from Guardian and LTI, and windows from Border Glass & Aluminum.

The processing areas incorporate security requirements—agents need to have clear lines of sight and to be able to get to each other for support. But their openness, natural colors, and sense of ordered progression also are designed to relieve the tension and sense of dislocation that comes with a border crossing.

Physical shading is manipulated to provide a feeling of growing comfort and arrival. As you approach the passport booths, Cor-Ten steel trellises slowly decrease the level of light (which can be blinding) at the roadway-level. "The Tohono O'odham"—a Native American group—"used saguaros to filter light hundreds of years ago, and we simply use steel angle to do the same thing," Jones says. "The spacing of the trellis gets closer together as you finally reach the full sh ade.



Offices, however, are enclosed in glass walls to promote a sense of procedural transparency.

Nogales, Ariz., sits just across the border from Nogales, Mexico. Two pieces of art at Mariposa, commissioned through the GSA's Art in Architecture Program, reference the connections between north and south. "An Album: Sewing into Borderlines" by the Korean visual artist Kimsooja projects silent videos of community members who commute daily between the two countries. Above a walkway, the sculpture "Passage" by Arizona artist Matthew Moore depicts the inverted topography of the Baboquivari Mountains, which run along the border, to represent the geographical landmarks that have guided people in the Sonoran Desert for centuries



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Security concerns are apparent in areas such as the K9 facility, which houses the dogs that assist officers in searching vehicles and making patrols.

The concrete-and-steel structures have another detail that expresses the reality of a border that, despite a public focus on illegal crossings and drug traffic, remains one of the busiest peaceful borders in the world: Life-sized footprints are scattered across the concrete. Like the intertwined history between the two countries, "they're traveling and they're moving forward," says Jones. "They're always advancing."



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"Passage," by local artist Matthew Moore, is installed over one of the site's many walkways.

Drawings

Satellite Site View



- Vehicle entry Port buildings Oasis

The GSA declined permission to publish drawings of this project, citing security concerns.

Project Credits Project Mariposa Land Port of Entry, Nogales, Ariz.

Client General Services Administration

Architect Jones Studio, Phoenix—Neal Jones, AIA (principal in charge), Eddie Jones, AIA (principal designer), Brian Farling (lead designer), Jacob Benyi (project director), Melissa Farling, FAIA, Maria Salenger, AIA, Joanna Noonan, Rob Viergutz, Bill Osborne, AIA, J. Barry Moffitt, AIA, Tom Conner, Kevin Jones, Brian Lee, Ashley Kenneally, Brett Marinoff, Nick Nevels, David Takeuchi, Amit Upadhye, Eric Weber

Civil Engineering/Transportation Engineering/Security Engineering/Surveying Stantec

Mechanical Engineer Associated Mechanical Engineers

Structural Engineer Bakkum Noelke Consulting Structural Engineers

Electrical Engineer/Lighting Design Woodward Engineering

Geotechnical Engineer West Technologies

Construction Manager Vanir Construction Management (phase 1); Heery International (phase 2-4b)

General Contractor Hensel Phelps

Landscape Architect Chris Winters & Associates; ARC Studios

Wayfinding Stantec; Jones Studio LEED Consultant Green Ideas

Fire Protection EJ Engineering Group; Stantec

Artists Matthew Moore ("Passage"); Kimsooja ("An Album: Sewing into Borderlines")

Size 115,722 square feet (building); 130,840 square feet (canopy)

Cost \$187 million

Material and Sources

Building Management Systems and Services Alerton alerton.com

Carpet Shaw Contract Group shawcontractgroup.com

Ceilings Hunter Douglas Contract hunterdouglascontract.com

Concrete Hensel Phelps <u>henselphelps.com</u>; GRG

Glass Guardian guardian.com; LTI Smart Glass Itisq.com

Gypsum USG usg.com; Georgia-Pacific www.buildgp.com

HVAC SPX Cooling Technologies spxcooling.com; Daikin Applied daikinmcguay.com

Lighting Control System Lutron Electronics Co. lutron.com

Lighting R.C. Lurie Co. rclurie.com

Masonry and Stone Superlite Block, an Oldcastle Company superliteblock.com

Metal S&H Steel snhsteel.com; S Diamond Steel sdiamondsteel.com

Millwork Pascetti pascettisteel.com, Architectural Millwork Design archmillwork.com

Paints and Finishes Dunn-Edwards Corp. <u>dunnedwards.com</u>

Roofing Roofing Southwest by Sprayfoam Southwest <u>roofingsouthwest.com</u>

Wayfinding ASI Sign Systems asisignage.com

Windows, Curtainwalls, Doors Border Glass & Aluminum <u>borderglass.com</u> **Rainwater Harvesting** StormTech, A Division of ADS <u>stormtech.com</u>

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