United States Land Port of Entry

Columbus New Mexico

Architect: Richter Architects
MEP Engineers: IMEG Corp
Structural Engineers: Walter P Moore
Civil Engineers: JQ, LLC
Landscape Architects: MRWM Landscape Architects

Photo credit: Richter Architects

Existing Port

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Project Delivery Method

Design Bid Build

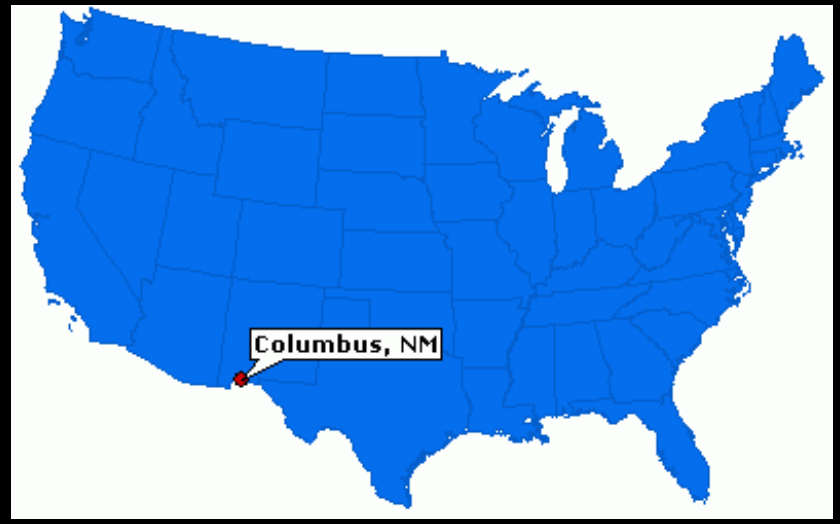
Design Start – March 2014
Design End – Sept 2016

Construction Start – Feb 2017
Construction End – 2019

Budget:
Design FY ‘14 - $7,400,000

Construction FY’16 - $79,600,000

M&I – FY’16 - $6,045,000



Project Scope

This Land Port of Entry (LPOE) expansion includes new Main building/Cargo Dock, Kennel, Narcotics Vault, POV and Commercial Inspections. Existing facility was too close to the border, compromising security and safety.

Challenges

- Regional watershed - Two major flood events occurred in 2006 and 2011
- Congestion - Single crossing point that serves the privately owned vehicles, commercial traffic and pedestrian traffic.
- Pedestrian Traffic - 800+ Children cross everyday during the school year.
- Truck Traffic - Commercial peak season 100 trucks per day cross, Mostly chili peppers.
- Phasing - LPOE operates 24/7. LPOE must stay operational during construction.

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Landscape Typologies

Chihuahuan Desert Grasslands

Chihuahuan Desert Scrub

Desert Washes

Desert Riparian Landscapes

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Net Zero Energy Study

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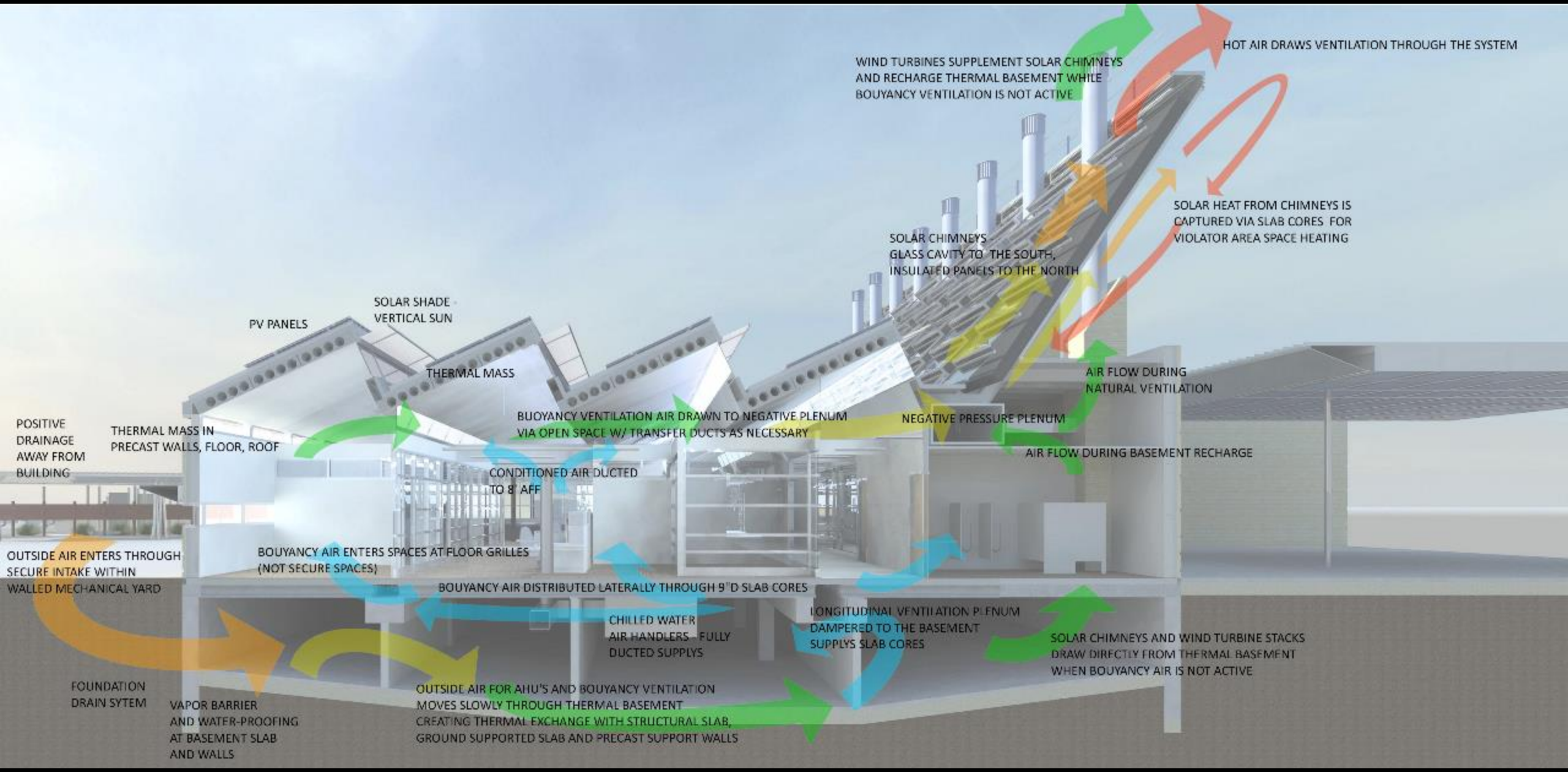

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Net Zero Energy Strategy

Net Zero Energy Strategy

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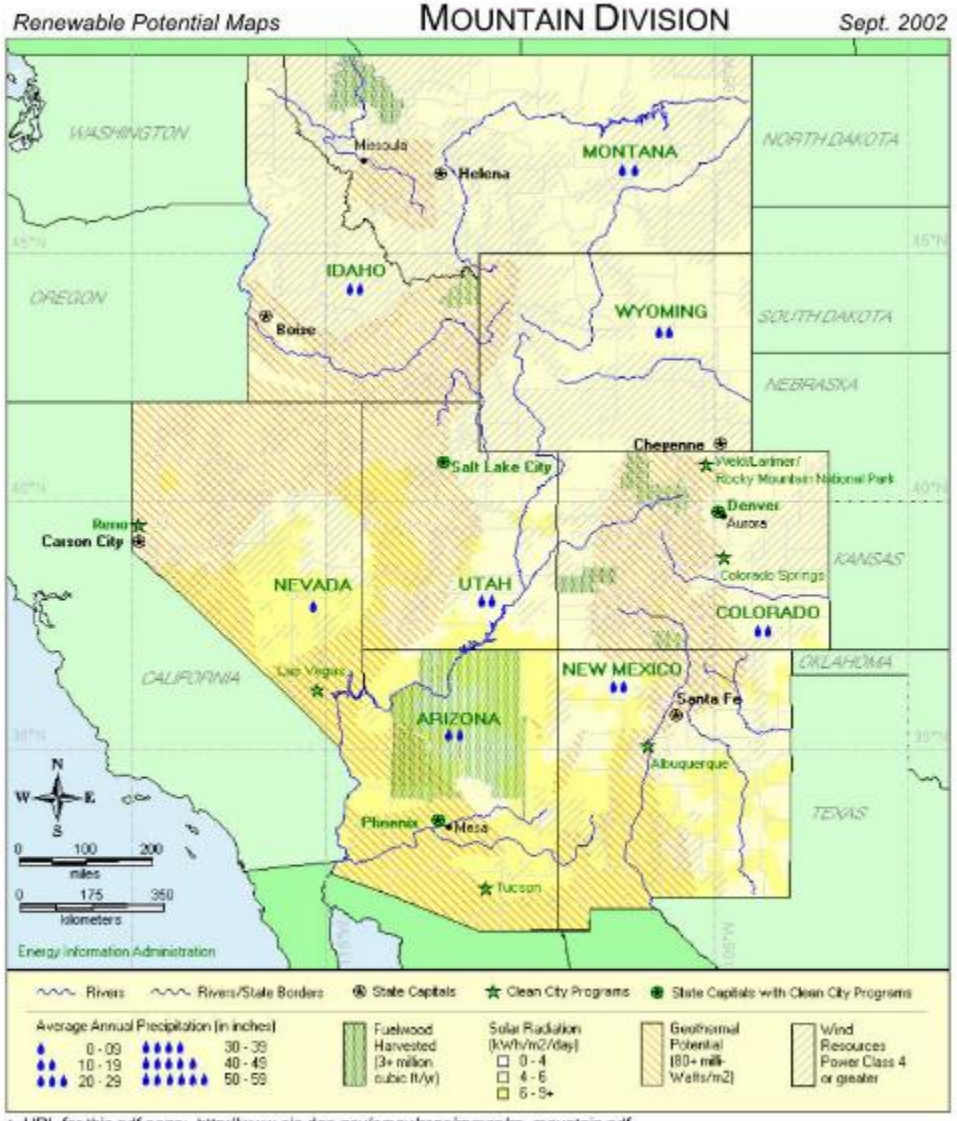

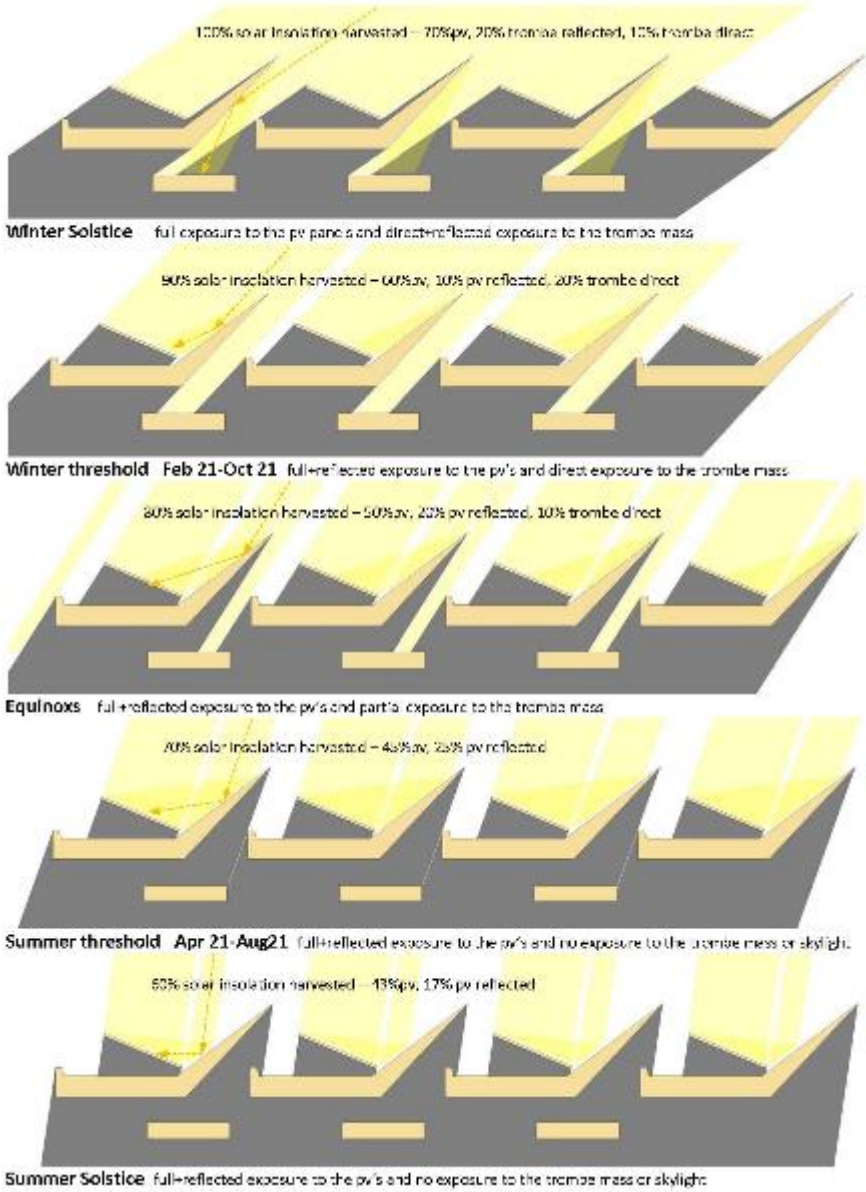

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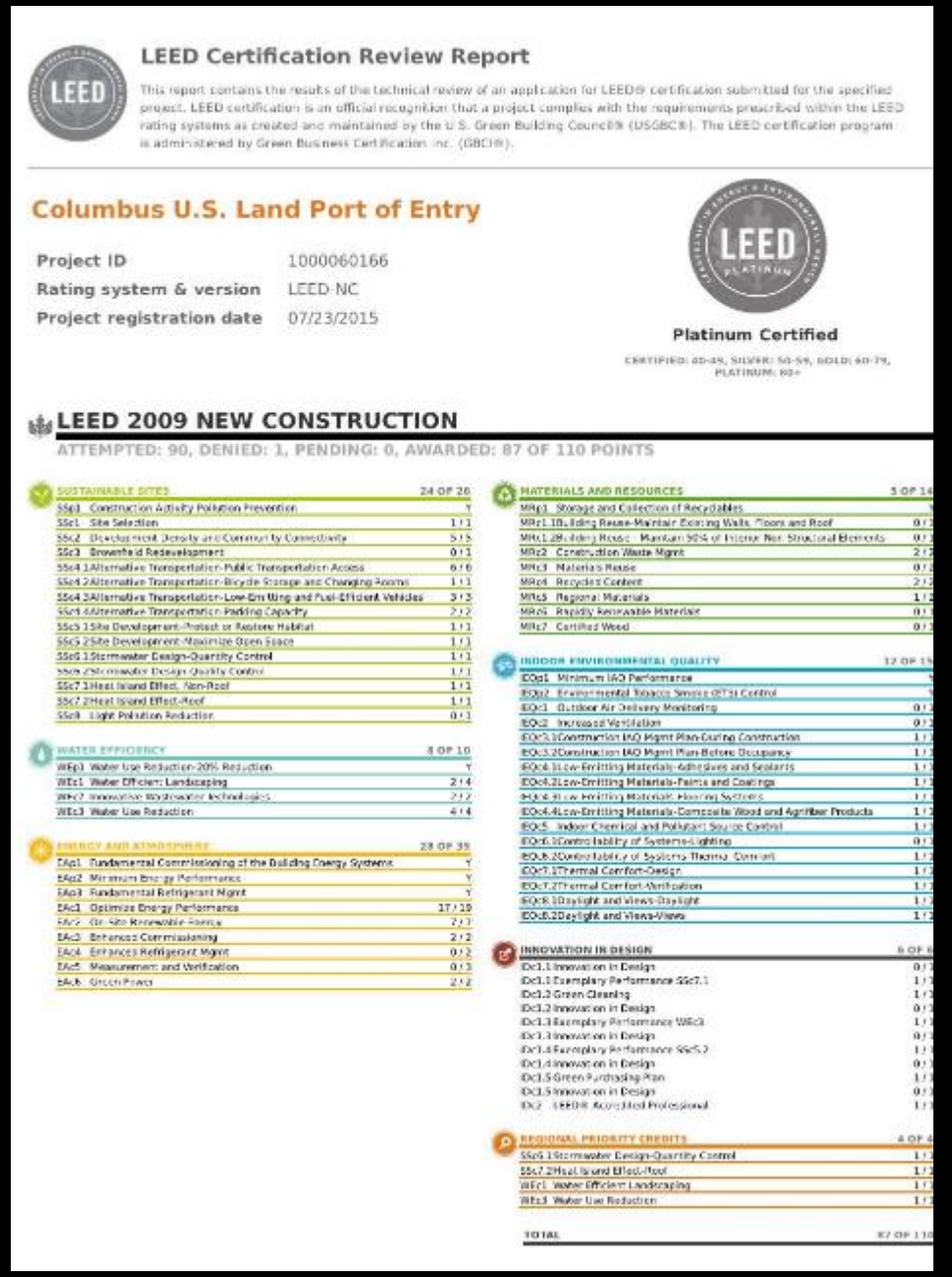
Renewable Energy Analysis

LEED Platinum



LEED Certification Review Report

This report contains the results of the technical review of an application for LEED® certification submitted for the specified project. LEED certification is an official recognition that a project complies with the requirements prescribed within the LEED rating systems as created and maintained by the U.S. Green Building Council® (USGBC®). The LEED certification program is administered by Green Business Certification Inc. (GBCI®).

Columbus U.S. Land Port of Entry

Project ID	1000060166
Rating system & version	LEED-NC
Project registration date	07/23/2015

Platinum Certified

CERTIFIED: 40-49, SILVER: 50-59, GOLD: 60-79, PLATINUM: 80+

LEED 2009 NEW CONSTRUCTION

ATTEMPTED: 90, DENIED: 1, PENDING: 0, AWARDED: 87 OF 110 POINTS

SUSTAINABLE SITES	24 OF 26
SSp1 Construction Activity Pollution Prevention	Y
SSc1 Site Selection	1 / 1
SSc2 Development Density and Community Connectivity	5 / 5
SSc3 Brownfield Redevelopment	0 / 1
SSc4.1 Alternative Transportation-Public Transportation Access	6 / 6
SSc4.2 Alternative Transportation-Bicycle Storage and Changing Rooms	1 / 1
SSc4.3 Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	3 / 3
SSc4.4 Alternative Transportation-Parking Capacity	2 / 2
SSc5.1 Site Development-Protect or Restore Habitat	1 / 1
SSc5.2 Site Development-Maximize Open Space	1 / 1
SSc6.1 Stormwater Design-Quantity Control	1 / 1
SSc6.2 Stormwater Design-Quality Control	1 / 1
SSc7.1 Heat Island Effect-Non-Roof	1 / 1
SSc7.2 Heat Island Effect-Roof	1 / 1
SSc8 Light Pollution Reduction	0 / 1

WATER EFFICIENCY	8 OF 10
WEp1 Water Use Reduction-20% Reduction	Y
WEc1 Water Efficient Landscaping	2 / 4
WEc2 Innovative Wastewater Technologies	2 / 2
WEc3 Water Use Reduction	4 / 4

ENERGY AND ATMOSPHERE	28 OF 35
EAp1 Fundamental Commissioning of the Building Energy Systems	Y
EAp2 Minimum Energy Performance	Y
EAp3 Fundamental Refrigerant Mgmt	Y
EAc1 Optimize Energy Performance	17 / 19
EAc2 On-Site Renewable Energy	7 / 7
EAc3 Enhanced Commissioning	2 / 2
EAc4 Enhanced Refrigerant Mgmt	0 / 2
EAc5 Measurement and Verification	0 / 3
EAc6 Green Power	2 / 2

MATERIALS AND RESOURCES	5 OF 14
MRp1 Storage and Collection of Recyclables	Y
MRc1.1 Building Reuse-Maintain Existing Walls, Floors and Roof	0 / 3
MRc1.2 Building Reuse-Maintain 50% of Interior Non-Structural Elements	0 / 1
MRc2 Construction Waste Mgmt	2 / 2
MRc3 Materials Reuse	0 / 2
MRc4 Recycled Content	2 / 2
MRc5 Regional Materials	1 / 2
MRc6 Rapidly Renewable Materials	0 / 1
MRc7 Certified Wood	0 / 1

INDOOR ENVIRONMENTAL QUALITY	12 OF 15
EQp1 Minimum IAQ Performance	Y
EQp2 Environmental Tobacco Smoke (ETS) Control	Y
EQc1 Outdoor Air Delivery Monitoring	0 / 1
EQc2 Increased Ventilation	0 / 1
EQc3.1 Construction IAQ Mgmt Plan-During Construction	1 / 1
EQc3.2 Construction IAQ Mgmt Plan-Before Occupancy	1 / 1
EQc4.1 Low-Emitting Materials-Adhesives and Sealants	1 / 1
EQc4.2 Low-Emitting Materials-Paints and Coatings	1 / 1
EQc4.3 Low-Emitting Materials-Flooring Systems	1 / 1
EQc4.4 Low-Emitting Materials-Composite Wood and Agrifiber Products	1 / 1
EQc5 Indoor Chemical and Pollutant Source Control	1 / 1
EQc6.1 Controllability of Systems-Lighting	0 / 1
EQc6.2 Controllability of Systems-Thermal Comfort	1 / 1
EQc7.1 Thermal Comfort-Design	1 / 1
EQc7.2 Thermal Comfort-Verification	1 / 1
EQc8.1 Daylight and Views-Daylight	1 / 1
EQc8.2 Daylight and Views-Views	1 / 1

INNOVATION IN DESIGN	6 OF 6
IDc1.1 Innovation in Design	0 / 1
IDc1.1 Exemplary Performance SSc7.1	1 / 1
IDc1.2 Green Cleaning	1 / 1
IDc1.2 Innovation in Design	0 / 1
IDc1.3 Exemplary Performance WEc3	1 / 1
IDc1.3 Innovation in Design	0 / 1
IDc1.4 Exemplary Performance SSc5.2	1 / 1
IDc1.4 Innovation in Design	0 / 1
IDc1.5 Green Purchasing Plan	1 / 1
IDc1.5 Innovation in Design	0 / 1
IDc2 LEED® Accredited Professional	1 / 1

REGIONAL PRIORITY CREDITS	4 OF 4
SSc6.1 Stormwater Design-Quantity Control	1 / 1
SSc7.2 Heat Island Effect-Roof	1 / 1
WEc1 Water Efficient Landscaping	1 / 1
WEc3 Water Use Reduction	1 / 1

TOTAL	87 OF 110

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THE Sustainable SITES Initiative®

Silver Certification

Section 1: Site Context

Section 2: Pre-Design Assessment + Planning

Section 3: Site Design – Water

Section 4: Site Design – Soil + Vegetation

Section 5: Site Design – Materials Selection

Section 6: Site Design – Human Health and Well-Being

Section 7: Construction

Section 8: Operations + Maintenance

Section 9: Education

Section 10: Innovation or Exemplary Performance

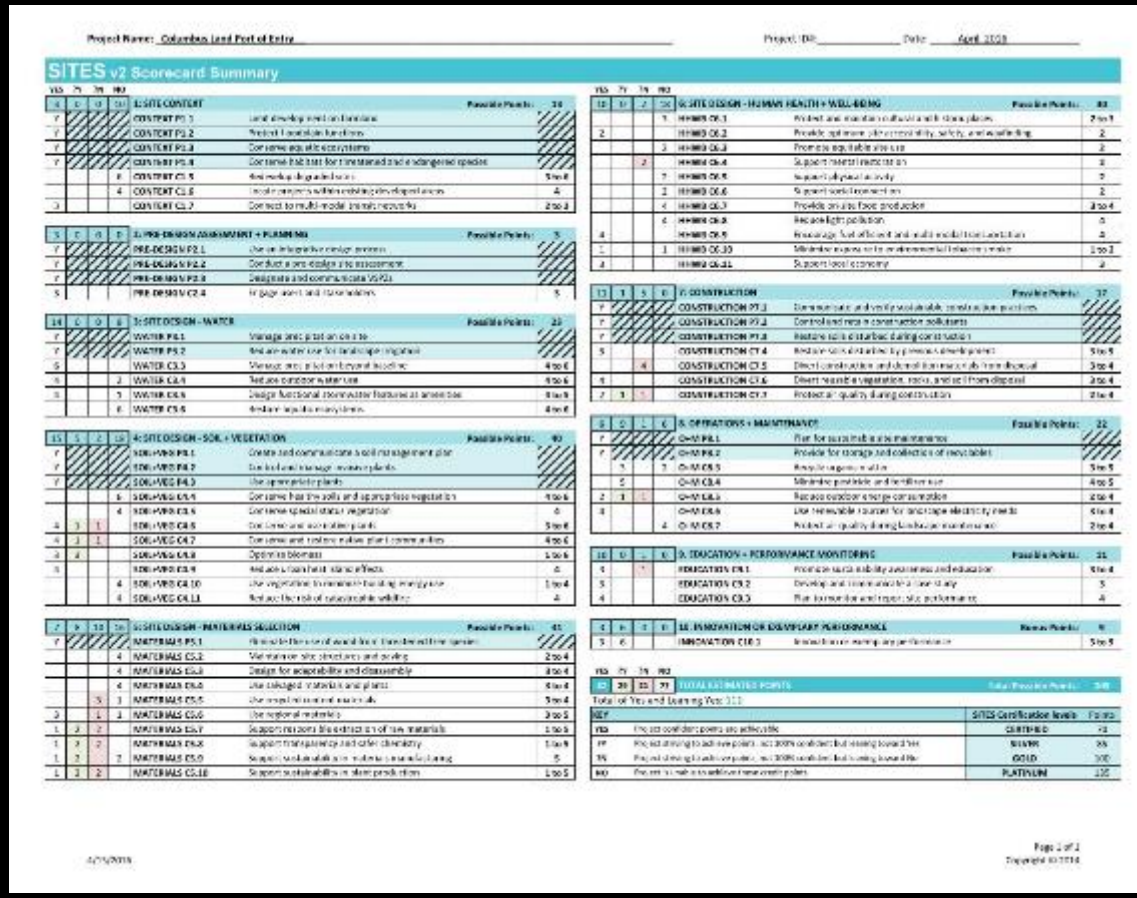
SITES v2 Scorecard Summary

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Photo credit:
Robert Reck

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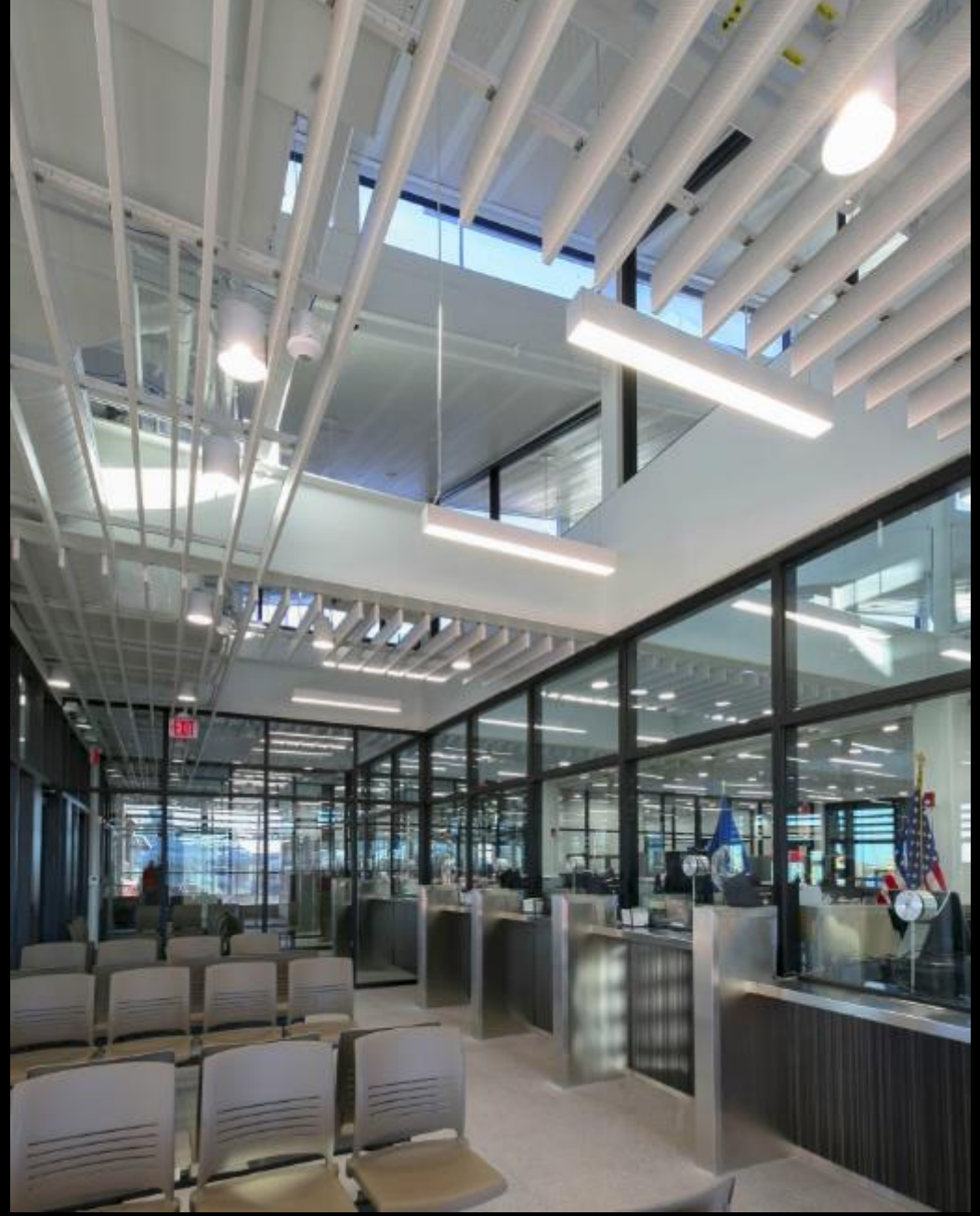

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100% of paving and roof materials high SRI

Over 1 acre of pavement shaded by trees and shade structures

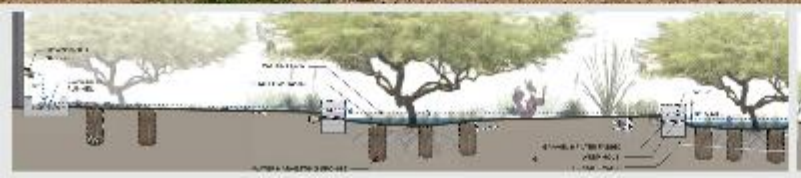
Roughly 6,000 tons recycled concrete used in gabion walls and mattresses

Roughly 12.5 acres of restored grassland

Initial irrigation requirement 76% below EPA WaterSense baseline

Post-establishment irrigation 97% below baseline

Water Harvesting terraces



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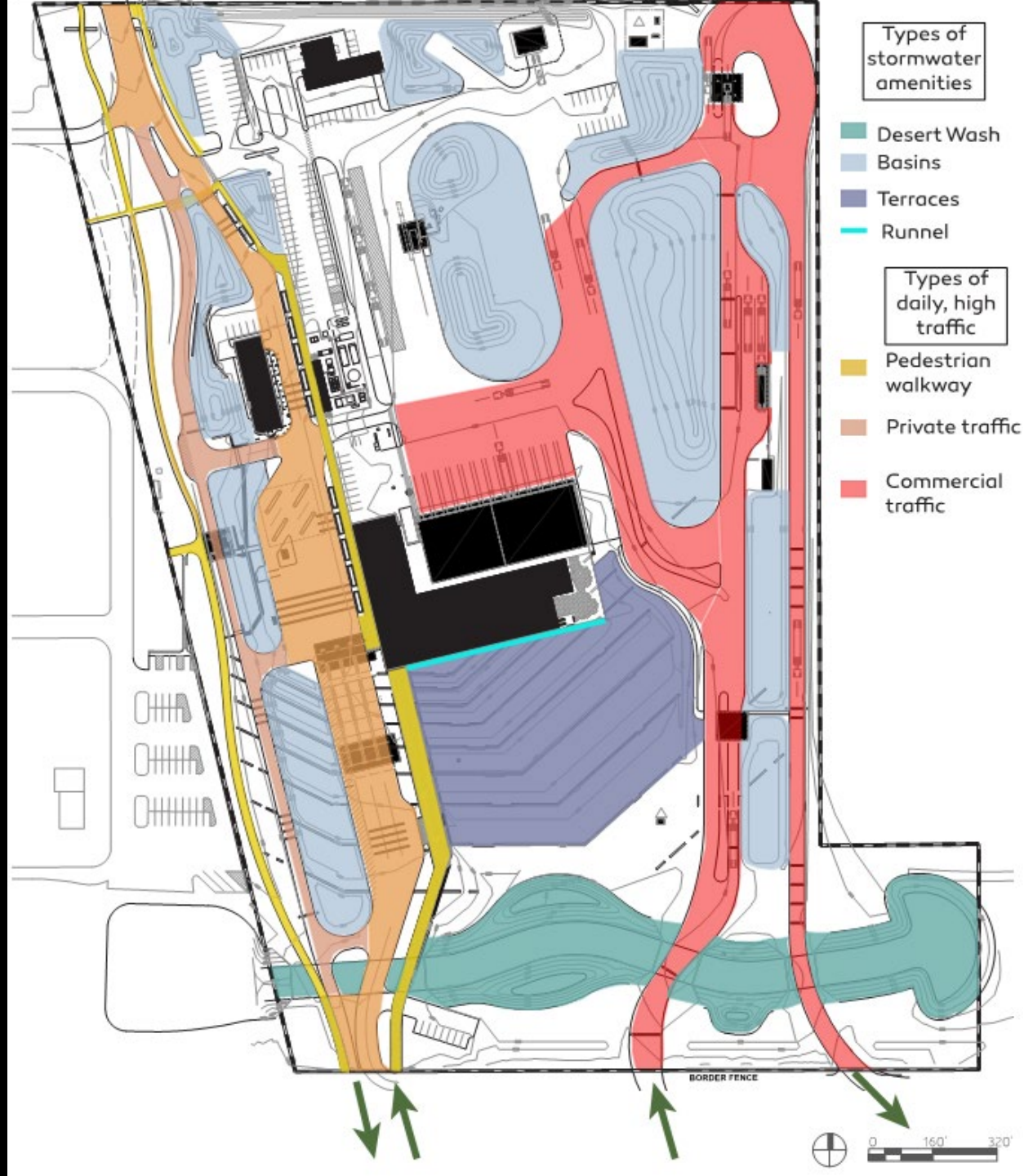
On-site stormwater management

2.5 million gallons of stormwater directed to landscape annually

(reduction in irrigation use)



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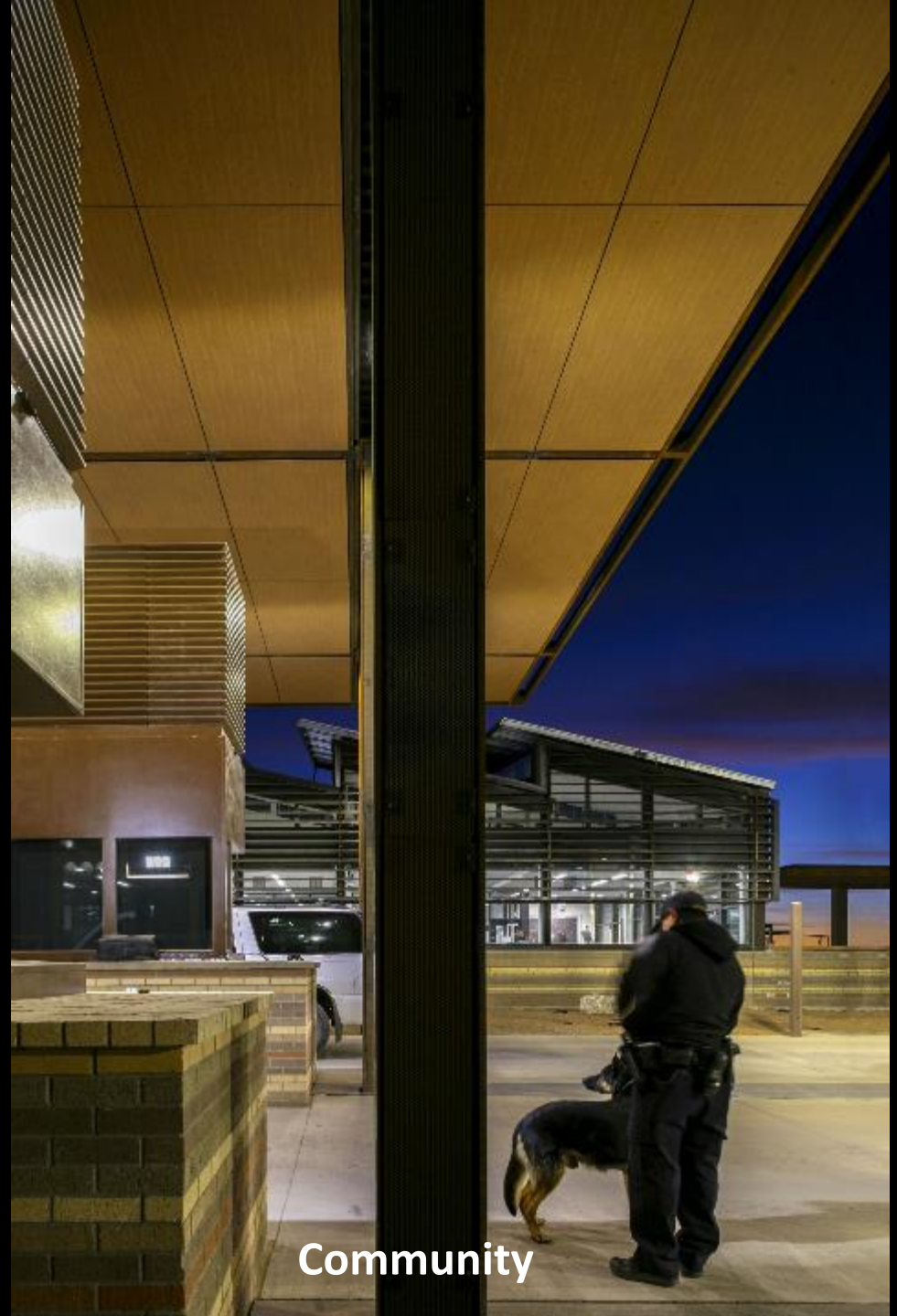

Community

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Awards/Recognitions/Publication

- AIA COTE Top Ten Award, 2020
- AIA New Mexico Honor Award, 2020
- Texas Society of Architects Design Award, 2020
- LEED Platinum
- Sustainable SITES Initiative Silver
- Architect Magazine, Oct. 2020
- Texas Architect Oct. 2020
- Socio-Ecological Practice Research, Design with Nature at 50, Sept 2020
- GSA Design Excellence monograph series

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