HISTORIC AND DESIGN REVIEW COMMISSION

December 05, 2018

HDRC CASE NO:	2018-608
ADDRESS:	130 NORTH DR
LEGAL DESCRIPTION:	NCB 6705 BLK 15 LOT 21
ZONING:	R-6 H
CITY COUNCIL DIST.:	7
DISTRICT:	Monticello Park Historic District
APPLICANT:	Andrew Grohe
OWNER:	Andrew Grohe
TYPE OF WORK:	Exterior modifications, rear fencing, roof replacement, site modifications
APPLICATION RECEIVED:	November 22, 2018
60-DAY REVIEW:	January 21, 2018

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to:

- 1. Replace the existing composite shingle roof on the primary and accessory structures with a standing seam metal or wood shingle roof.
- 2. Replace the existing concrete ribbon driveway with new Geoblock ribbons to match the existing configuration.
- 3. Install an 8 foot tall metal and wire fence at the east and south property lines.
- 4. Remove a non-original front addition to the rear accessory structure.
- 5. Modify the façade and fenestration of the rear accessory structure.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 2, Exterior Maintenance and Alterations

1. Materials: Woodwork

A. MAINTENANCE (PRESERVATION)

i. *Inspections*—Conduct semi-annual inspections of all exterior wood elements to verify condition and determine maintenance needs.

ii. *Cleaning*—Clean exterior surfaces annually with mild household cleaners and water. Avoid using high pressure power washing and any abrasive cleaning or striping methods that can damage the historic wood siding and detailing.
iii. *Paint preparation*—Remove peeling, flaking, or failing paint surfaces from historic woodwork using the gentlest means possible to protect the integrity of the historic wood surface. Acceptable methods for paint removal include scraping and sanding, thermal removal, and when necessary, mild chemical strippers. Sand blasting and water blasting should never be used to remove paint from any surface. Sand only to the next sound level of paint, not all the way to the wood, and address any moisture and deterioration issues before repainting.

iv. *Repainting*—Paint once the surface is clean and dry using a paint type that will adhere to the surface properly. See *General Paint Type Recommendations* in Preservation Brief #10 listed under Additional Resources for more information. v. *Repair*—Repair deteriorated areas or refasten loose elements with an exterior wood filler, epoxy, or glue.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

i. *Façade materials*—Avoid removing materials that are in good condition or that can be repaired in place. Consider exposing original wood siding if it is currently covered with vinyl or aluminum siding, stucco, or other materials that have not achieved historic significance.

ii. *Materials*—Use in-kind materials when possible or materials similar in size, scale, and character when exterior woodwork is beyond repair. Ensure replacement siding is installed to match the original pattern, including exposures. Do not introduce modern materials that can accelerate and hide deterioration of historic materials. Hardiboard and other cementitious materials are not recommended.

iii. *Replacement elements*—Replace wood elements in-kind as a replacement for existing wood siding, matching in profile, dimensions, material, and finish, when beyond repair.

3. Materials: Roofs

A. MAINTENANCE (PRESERVATION)

i. *Regular maintenance and cleaning*—Avoid the build-up of accumulated dirt and retained moisture. This can lead to the growth of moss and other vegetation, which can lead to roof damage. Check roof surface for breaks or holes and flashing for open seams and repair as needed.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

i. *Roof replacement*—Consider roof replacement when more than 25-30 percent of the roof area is damaged or 25-30 percent of the roof tiles (slate, clay tile, or cement) or shingles are missing or damaged.

ii. *Roof form*—Preserve the original shape, line, pitch, and overhang of historic roofs when replacement is necessary. iii. *Roof features*—Preserve and repair distinctive roof features such as cornices, parapets, dormers, open eaves with exposed rafters and decorative or plain rafter tails, flared eaves or decorative purlins, and brackets with shaped ends. iv. *Materials: sloped roofs*—Replace roofing materials in-kind whenever possible when the roof must be replaced. Retain and re-use historic materials when large-scale replacement of roof materials other than asphalt shingles is required (e.g., slate or clay tiles). Salvaged materials should be re-used on roof forms that are most visible from the public right-of-way. Match new roofing materials to the original materials in terms of their scale, color, texture, profile, and style, or select materials consistent with the building style, when in-kind replacement is not possible.

v. *Materials: flat roofs*—Allow use of contemporary roofing materials on flat or gently sloping roofs not visible from the public right-of-way.

vi. *Materials: metal roofs*—Use metal roofs on structures that historically had a metal roof or where a metal roof is appropriate for the style or construction period. Refer to Checklist for Metal Roofs on page 10 for desired metal roof specifications when considering a new metal roof. New metal roofs that adhere to these guidelines can be approved administratively as long as documentation can be provided that shows that the home has historically had a metal roof. vii. *Roof vents*—Maintain existing historic roof vents. When deteriorated beyond repair, replace roof vents in-kind or with one similar in design and material to those historically used when in-kind replacement is not possible.

4. Materials: Metal

A. MAINTENANCE (PRESERVATION)

i. *Cleaning*—Use the gentlest means possible when cleaning metal features to avoid damaging the historic finish. Prepare a test panel to determine appropriate cleaning methods before proceeding. Use a wire brush to remove corrosion or paint build up on hard metals like wrought iron, steel, and cast iron.

ii. *Repair*—Repair metal features using methods appropriate to the specific type of metal.

iii. Paint—Avoid painting metals that were historically exposed such as copper and bronze.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

i. *Replacement*—Replace missing or significantly damaged metal features in-kind or with a substitute compatible in size, form, material, and general appearance to the historical feature when in-kind replacement is not possible.

ii. *Rust*—Select replacement anchors of stainless steel to limit rust and associated expansion that can cause cracking of the surrounding material such as wood or masonry. Insert anchors into the mortar joints of masonry buildings.

iii. *New metal features*—Add metal features based on accurate evidence of the original, such as photographs. Base the design on the architectural style of the building and historic patterns if no such evidence exists.

9. Outbuildings, Including Garages

A. MAINTENANCE (PRESERVATION)

i. *Existing outbuildings*—Preserve existing historic outbuildings where they remain.

ii. *Materials*—Repair outbuildings and their distinctive features in-kind. When new materials are needed, they should match existing materials in color, durability, and texture. Refer to maintenance and alteration of applicable materials above, for additional guidelines.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

i. *Garage doors*—Ensure that replacement garage doors are compatible with those found on historic garages in the district (e.g., wood paneled) as well as with the principal structure. When not visible from the public right-of-way, modern paneled garage doors may be acceptable.

ii. *Replacement*—Replace historic outbuildings only if they are beyond repair. In-kind replacement is preferred; however, when it is not possible, ensure that they are reconstructed in the same location using similar scale, proportion, color, and materials as the original historic structure.

iii. *Reconstruction*—Reconstruct outbuildings based on accurate evidence of the original, such as photographs. If no such evidence exists, the design should be based on the architectural style of the primary building and historic patterns in the district. Add permanent foundations to existing outbuildings where foundations did not historically exist only as a last

Historic Design Guidelines, Chapter 5, Guidelines for Site Elements

1. Topography

A. TOPOGRAPHIC FEATURES

i. *Historic topography*—Avoid significantly altering the topography of a property (i.e., extensive grading). Do not alter character-defining features such as berms or sloped front lawns that help define the character of the public right-of-way. Maintain the established lawn to help prevent erosion. If turf is replaced over time, new plant materials in these areas should be low-growing and suitable for the prevention of erosion.

ii. New construction—Match the historic topography of adjacent lots prevalent along the block face for new construction. Do not excavate raised lots to accommodate additional building height or an additional story for new construction. iii. New elements-Minimize changes in topography resulting from new elements, like driveways and walkways, through appropriate siting and design. New site elements should work with, rather than change, character-defining topography when possible.

2. Fences and Walls

A HISTORIC FENCES AND WALLS

i. Preserve-Retain historic fences and walls.

ii. *Repair and replacement*—Replace only deteriorated sections that are beyond repair. Match replacement materials (including mortar) to the color, texture, size, profile, and finish of the original.

iii. Application of paint and cementitious coatings—Do not paint historic masonry walls or cover them with stone facing or stucco or other cementitious coatings.

B. NEW FENCES AND WALLS

i. *Design*—New fences and walls should appear similar to those used historically within the district in terms of their scale, transparency, and character. Design of fence should respond to the design and materials of the house or main structure. ii. Location—Avoid installing a fence or wall in a location where one did not historically exist, particularly within the front yard. The appropriateness of a front yard fence or wall is dependent on conditions within a specific historic district. New front yard fences or wall should not be introduced within historic districts that have not historically had them. iii. *Height*—Limit the height of new fences and walls within the front yard to a maximum of four feet. The appropriateness of a front yard fence is dependent on conditions within a specific historic district. New front yard fences should not be introduced within historic districts that have not historically had them. If a taller fence or wall existed historically, additional height may be considered. The height of a new retaining wall should not exceed the height of the slope it retains.

iv. Prohibited materials—Do not use exposed concrete masonry units (CMU), Keystone or similar interlocking retaining wall systems, concrete block, vinyl fencing, or chain link fencing.

v. Appropriate materials-Construct new fences or walls of materials similar to fence materials historically used in the district. Select materials that are similar in scale, texture, color, and form as those historically used in the district, and that are compatible with the main structure. Screening incompatible uses-Review alternative fence heights and materials for appropriateness where residential properties are adjacent to commercial or other potentially incompatible uses.

C. PRIVACY FENCES AND WALLS

i. Relationship to front facade—Set privacy fences back from the front facade of the building, rather than aligning them with the front façade of the structure to reduce their visual prominence.

ii. Location - Do not use privacy fences in front yards.

5. Sidewalks, Walkways, Driveways, and Curbing

A. SIDEWALKS AND WALKWAYS

i. Maintenance-Repair minor cracking, settling, or jamming along sidewalks to prevent uneven surfaces. Retain and repair historic sidewalk and walkway paving materials-often brick or concrete-in place.

ii. Replacement materials—Replace those portions of sidewalks or walkways that are deteriorated beyond repair. Every effort should be made to match existing sidewalk color and material.

iii. Width and alignment— Follow the historic alignment, configuration, and width of sidewalks and walkways. Alter the historic width or alignment only where absolutely necessary to accommodate the preservation of a significant tree. iv. Stamped concrete-Preserve stamped street names, business insignias, or other historic elements of sidewalks and walkways when replacement is necessary.

v. ADA compliance—Limit removal of historic sidewalk materials to the immediate intersection when ramps are added to

address ADA requirements.

B. DRIVEWAYS

i. *Driveway configuration*—Retain and repair in place historic driveway configurations, such as ribbon drives. Incorporate a similar driveway configuration—materials, width, and design—to that historically found on the site. Historic driveways are typically no wider than 10 feet. Pervious paving surfaces may be considered where replacement is necessary to increase stormwater infiltration.

ii. *Curb cuts and ramps*—Maintain the width and configuration of original curb cuts when replacing historic driveways. Avoid introducing new curb cuts where not historically found.

C. CURBING

i. *Historic curbing*—Retain historic curbing wherever possible. Historic curbing in San Antonio is typically constructed of concrete with a curved or angular profile.

ii. *Replacement curbing*—Replace curbing in-kind when deteriorated beyond repair. Where in-kind replacement is not be feasible, use a comparable substitute that duplicates the color, texture, durability, and profile of the original. Retaining walls and curbing should not be added to the sidewalk design unless absolutely necessary.

UDC Sec. 35-514. - Fences.

(a) General.

(1) No fence may be constructed, repaired, or expanded within the city limits without first obtaining a building permit for such work, with the exception of any fence work specifically exempted by chapter 10, subsection 10-6(e) of the City Code.

(2) Fence Clear Vision Area.

a. Street Intersections on Residential Corner Lots. No fence exceeding three (3) feet in height within the city or ETJ shall be erected, constructed, or built on a corner lot within the area formed by measuring twenty-five (25) feet in each direction from the street curb.

b. Driveway, Accessway, or Alley Intersections on Residential Lots. No fence exceeding three (3) feet in height within the city or ETJ shall be erected, constructed, or built within a triangle formed by measuring fifteen (15) feet in each direction from the point where a driveway, accessway, or alley intersects with the street curb.

c. Administrative Exception. Subsections a. and b. above notwithstanding, where it can be demonstrated that a lesser fence clear vision area would be required utilizing the standards of subsection 35-506(d)(5) intersection sight distance, an administrative exception may be granted to allow a lesser fence clear vision area than otherwise would be required for a similarly situated property.

d. Variances. Variances to this section may be permissible in accordance with section 35-482.

e. Review. All fence clear vision areas are subject to review by the development services department.

(3) Freestanding walls, not an integral load bearing portion of a structure, whether constructed of masonry or wood framing, shall be considered fencing. Walls connected to a building and designed as a visual and noise barrier between a loading dock or similar use and a residential use, shall not be considered fencing and may extend to a height of sixteen (16) feet and a distance of fifty-five (55) feet from the building. Walls to be constructed in excess of eight (8) feet in height shall require certification by a licensed engineer that the foundation and support structure are designed to sustain wind loads in accordance with the International Building Code.

(4) All solid screen fences allowed to be constructed in excess of eight (8) feet in height shall require certification by a licensed engineer that the foundation and support structure are designed to sustain wind loads in accordance with the International Building Code.

(5) If the subject property is within a historic district, corridor overlay or a neighborhood conservation district the historic preservation officer (or their designee) or the director of development services (or their designee) shall make a finding of compliance and compatibility with the provisions of the historic, corridor and/or neighborhood conservation district prior to issuance of a building permit for any fence.

(6) All fences shall be constructed of wood, chain link, stone, rock, concrete block, pre-cast concrete panels, masonry brick, brick, decorative wrought iron or other material(s) which are similar in durability.

(c) Height Limitation.

(1) Except for the provisions in section (b) above no fence shall exceed the following table of heights. In addition, the maximum permitted fence height shall not exceed that of the maximum permitted fence height for the abutting property except as provided in subsection (c)(2). The board of adjustment may allow fences of greater height by special exception, subject to section 35-399.04 of this chapter or by variance subject to Section 35-482 if the height of the fence exceeds that height allowances for a special exception. The height shall be the vertical distance measured from the lowest adjacent ground level (either inside or outside the fence) to the top of the tallest element of the fence material, excluding decorative

features affixed to the top of any column, pillar or post. The height of any existing retaining walls, either an integral part of a fence or upon which a fence may be erected, shall be calculated in the height of the fence, except in the following instances:

A. The retaining wall is necessary for structural soundness/integrity of building construction on the lot; or

B. The retaining wall is abutting a drainage easement or drainage infrastructure. (2)

Notwithstanding the provisions of subsection (c)(1), above, a fence may be erected or altered up to a height of eight (8) feet where:

A. The ground floor elevation of either the principal dwelling on the property or the principal dwelling on an abutting lot is at least four (4) feet higher than the elevation at the shared lot line; or

B. The fence is erected along a side or rear lot line which abuts an alley or a street with a classification other than a local street; or

C. The fence is a sound barrier or a security fence for a public or institutional use; or

D. The additional fence height is permitted by the city council pursuant to a rezoning or specific use authorization; or

E. The fence is located on a side or rear lot line of a single-family, duplex, or mixed-residential use which abuts a multi-family residential, commercial, industrial, or park use.

F. In any side or rear yard where a slope is present, the height of a fence may be adjusted to allow the top of the fence to be level, and perpendicular to the support posts at a height greater than six (6) feet, provided that the height of the fence at the highest elevation does not exceed eight (8) feet. In order to maintain a uniform appearance, whenever a fence higher than six (6) feet is allowed by this subsection, all side and rear yard fences may be allowed up to eight (8) feet in height above grade.

Permitted Use	Front Yard	Side Yard	Rear Yard
Single-Family or Mixed Residential Use	3'0" solid fence 5'0" combined or predominantly open fence Except as provided by (b)(2)	6'0"	6'0"
Multi-Family Use (see also subsection_ <u>35-57-5</u> (f) below)	3'0" solid fence 5'0" combined or predominantly open fence	6'0"	6'0"
Commercial & Office Use	3'0" solid fence 5'0" combined or predominantly open fence	6'0"	6'0"
Industrial Use ¹	8'0"	8'0" 1	8'0" 1
Government Facilities, Churches, Schools, Swimming Pools, Stormwater Management Facilities, & Parks (Public property, including parks, require HDRC review)	8'0"	8'0"	8'0"

Vacant Lots, Parking Lots	3'0" solid fence 6'0" combined or predominantly open (see also subsection 35- 57-4(b)(3) above	6'0"	6'0"
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FINDINGS:

- a. The primary structure located at 130 North Dr is a 1-story single family structure constructed in approximately 1935 in the Tudor Revival style. The home features a stone façade, a steeply pitched side gabled roof with two front gables, ganged wood windows, and a prominent side stone chimney. The home is contributing to the Monticello Park Historic District. The property also contains a 1-story rear accessory structure, also constructed in approximately 1935. The structure features woodlap siding and a non-original front addition constructed in approximately 1984. The accessory is contributing to the Monticello Park Historic District.
- b. ROOF REPLACEMENT The applicant has requested to replace the existing composite shingle roof on the primary and accessory structure with either a new standing seam galvalume metal roof or wood shingle roof. In general, the proliferation of the Tudor Revival Style in the United States represents a movement which rejects industrialization in favor of a more hand-crafted aesthetic. Tudor Revival homes, such as the one at 130 North Dr, often featured intricate detailing and local material. Roofs were typically shingled (usually with wood, slate or composition shingles). According to the Guidelines for Exterior Maintenance and Alterations 3.B.vi., metal roofs should only be installed on structures that historically had a metal roof or where a metal roof is appropriate for the style or construction period. Staff finds that a metal roof is not appropriate for this style of house or within the context of the Monticello Park Historic District, regardless of whether this application of materials is regionally popular. Staff finds the installation of wood shingles to be appropriate.
- c. RIBBON DRIVEWAY The applicant has proposed to replace the existing concrete ribbon driveway with new Geoblock ribbons to match the existing configuration per the submitted site plan. According to the Historic Design Guidelines for Site Elements, historic driveway configurations, such as ribbon drives, should be retained and repaired or replaced in kind in terms of materiality and configuration. Staff does not find the proposed Geoblock appropriate and finds that the driveway should be repaired or replaced in-kind to be more consistent with the Guidelines.
- d. FENCING The applicant has proposed to install an 8 foot tall fence along the east and south property lines. According to the Historic Design Guidelines, new fences or walls should be constructed of materials similar to fence materials historically used in the district. Materials should be similar in scale, texture, color, and form as those historically used in the district, and that are compatible with the main structure. Additionally, the Unified Development Code Section 35-514 states that single-family side and rear yards are permitted a 6 foot tall fence only. Staff does not find the proposed fencing consistent.
- e. REMOVAL OF NON-ORIGINAL ADDITION TO REAR ACCESSORY The applicant has proposed to remove the non-original front addition on the rear accessory structure. Based on Sanborn Maps and archival data, the addition was added in approximately 1984. The addition is inconsistent with the development pattern of the Monticello Park Historic District and the Historic Design Guidelines. Staff finds its removal appropriate.
- f. REAR ACCESSORY STRUCTURE MODIFICATIONS The applicant has requested approval for various modifications to the rear accessory structure, including the modification of the front elevation and removal of existing woodlap siding to install horizontal wood slat siding. According to the Historic Design Guidelines, existing garage materiality and configuration should be retained or replaced in-kind wherever possible. The woodlap siding appears to be original to the site or the era of significance of the Monticello Park Historic District. While staff finds the proposed new front configuration, which resembles a simple two bay carport, to be appropriate, staff does not find the removal of the existing woodlap siding to install horizontal wood slat siding to be appropriate.

RECOMMENDATION:

Item 1, Staff recommends approval of the roof replacement based on finding b with the following stipulation:

i. That the applicant installs wood shingles. The installation of a standing seam galvalume metal roof is not appropriate. The applicant is required to submit a final material specification to staff prior to receiving a Certificate of Appropriateness.

Item 2, Staff does not recommend approval of the installation of a Geoblock ribbon drive based on finding c. Staff recommends that the existing concrete ribbon driveway be repaired or replaced in-kind.

Item 3, Staff does not recommend approval of the proposed rear fencing based on finding d. Staff recommends that the applicant installs a 6 foot tall fence utilizing a material that is more consistent with the fencing patterns in the district. The installation of privacy fencing with an appropriate height and material is eligible for administrative approval.

Item 4, Staff recommends approval of the removal of the non-original front addition on the rear accessory structure based on finding e.

Item 5, Staff recommends approval of the rear accessory structure modifications with the following stipulation:

i. That the existing woodlap siding on the west elevation be retained.

CASE MANAGER:

Stephanie Phillips





Flex Viewer

Powered by ArcGIS Server

Printed:Nov 20, 2018

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FRONT OF HOME



CHIMNEY & BACK PORCH STRUCTURE TO BE REMOVED

Sheet: A8

November 4, 2018



Sheet: A7

2018

November 4,

EXTERIOR IMPROVEMENTS TO 130 NORTH DRIVE

METAL CANOPY & PATIO TO BE REMOVED































17 1

Area to be demolished enclosed by bold dashed line

November 19, 2018 **130 NORTH DRIVE GARAGE IMPROVEMENTS**

Sheet: A5



Area to be demolished enclosed by bold dashed line



Sheet A7

November 19, 2018

130 NORTH DRIVE GARAGE IMPROVEMENTS

Area to be demolished enclosed by bold dashed line





Sheet: A9

November 4, 2018

EXTERIOR IMPROVEMENTS TO 130 NORTH DRIVE

EXAMPLE OF NEW BACKYARD FENCE & DRIVEWAY GATE DESIGN





PAGE 1 OF 2



McNICHOLS[®] WIRE MESH

Rectangular, Carbon Steel, Cold Rolled, Welded - Trimmed, 2" x 1" Mesh (Rectangular), 1.8800" x 0.8800" Opening (Rectangular), 0.120" Thick (11 Gauge) Wire Diameter, 84% Open Area

McNICHOLS[®] Wire Mesh, Rectangular, Carbon Steel, Cold Rolled, Mill Finish, Welded - Trimmed, 2" x 1" Mesh (Rectangular), 1.8800" x 0.8800" Opening (Rectangular), 0.120" (11 Gauge) Thick Wire Diameter, Long Way of Opening (LWO) Parallel to Width of Sheet, 84% Open Area

ITEM 3621200048 - 48" x 96"

ITEM SPECIFICATIONS

Item Number Product Line Mesh Type Construction Type Primary Material Alloy, Grade or Type Weave or Trim Type **Mesh Size Mesh Shape Opening Size Opening Shape** Wire Diameter/Wire Gauge Long Way of Opening (LWO) Parallel to **Material Finish Percent Open Area** Weight **Product Form**

3621200048 Wire Mesh Rectangular Welded Carbon Steel (CS) Cold Rolled (CR) Welded - Trimmed 2" x 1" Rectangular 1.8800" x 0.8800" Rectangular 0.120" Thick (11 Gauge) Width of Sheet Mill Finish 84% 0.70 Lbs./Square Foot Sheet

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GEOBLOCK[®] POROUS PAVEMENT SYSTEM SPECIFICATION SUMMARY

Table 1 Geoblock[®] Porous Pavement Unit

Item	Specification & Details
Material	Up to 97% Recycled Polyethylene *
Color	Ranges Dark Shades Gray to Black
Chemical Resistance	Superior
Carbon Black for Ultraviolet Light Stabilization	1.5% - 2.0%
Unit Minimum Crush Strength (Empty) @ 70°F (21°C)	420 psi (2,900 KPa)
Unit Minimum Crush Strength (Sand-Filled) @ 70°F (21°C)	5,980 psi (41,285 KPa)
Flexural Modulus @ 70°F (21°C)	35,000 psi (240,000 kPa)
Nominal Dimensions (width x length)	20 in x 40 in (0.5 m x 1.0 m)
Nominal Unit Depth	1.2 in (30 mm)
Nominal Coverage Area	5.3 ft² (0.5 m²)
Cells per Unit	128
Cell Size	2.25 in x 2.25 in (57 mm x 57 mm)
Top Open Area per Unit	88%
Bottom Open Area per Unit	56%
Weight per Unit (nominal)	4.7 lb (2.1 kg)
Runoff Coefficient @ 2.5 in/hr (64 mm/hr) Rainfall	0.15
Units per Pallet	92

• * The percentage of recycled content may vary depending on availability of recycled materials.

- Dimensions and weight are subject to manufacturing tolerances and are influenced by recycled components.
- End-to-end or side-to-side warp of the Geoblock unit shall not be greater than 0.5 in (6 mm).
- Avoid specifications that state material compressive strength only. Material compressive strength, with applied factors of safety must be sufficient to resist compressive and lateral loads. In addition, ultra-high compressive strength adds little value to a porous pavement system.



Figure 1 Geoblock Unit Nominal Dimensions



Figure 2 Geoblock Cell and Interlocking Offset Tab

PRESTO GEOSYSTEMS

670 N PERKINS STREET, APPLETON, WISCONSIN, USA 54914 Ph: 920-738-1328 or 800-548-3424 ■ Fax: 920-738-1222 e-mail: INFO@PRESTOGEO.COM 1 JUNE 2014



GEOBLOCK[®] POROUS PAVEMENT SYSTEM SPECIFICATION SUMMARY

Table 2 Base Recommendations for Geoblock®

Lood Departmention ¹	Depth of Engineered Base		
	$CBR^2 2 - 4^3$	$CBR^2 > 4^3$	
Heavy Fire Truck Access & H/HS-20 loading. Typical 110 psi (758 kPa) maximum tire pressure. Single axle loadings of 32 kips (145 kN), tandem axle loadings of 48 kip (220 kN). Gross vehicle loads of 80,000 lbs (36.3 MT). Infrequent passes ⁴ .	14 in (350 mm)	10 in (250 mm)	
Light Fire Truck Access & H/HS-15 loading. Typical 85 psi (586 kPa)	10 in (250 mm)	6 – 10 in	
loads of 60,000 lb (27.2 MT). Infrequent passes ⁴ .	10 m (250 mm)	(150 – 250 mm)	
Utility & Delivery Truck Access & H/HS-10 loading. Typical 60 psi (414 kPa)	6 – 10 in	4 – 8 in	
loads of 40,000 lbs (18.1 MT). Infrequent passes ⁴ .	(150 – 250 mm)	(100 – 200 mm)	
Cars & Pick-up Truck Access. Typical 45 psi (310 kPa) maximum tire	4 – 8 in	2 – 4 in	
(3.6 MT). Infrequent passes ⁴ .	(100 – 200 mm)	(50 – 100 mm)	
Trail Use. Loading for pedestrian, wheelchair, equestrian, bicycle, motorcycle	2 – 4 in	0 – 2 in	
and ATV traffic.	(50 – 100 mm)	(0 – 50 mm)	
1			

¹ The Geoblock system can be applied in areas where loading is greater than those listed above. In these situations, call Presto Geosystems or an authorized Presto Geosystems' representative for specific recommendations.

² CBR is the abbreviation for California Bearing Ratio. Methods for determining CBR vary from more sophisticated laboratory methods to simple field identification methods that use hand manipulation of the soil. Presto does not recommend one method over the other; however, the user must have a high degree of confidence in the results produced by the chosen method.

³ If other-than-CBR soil strength values exist, use available correlation charts to relate the value to CBR.

⁴ Infrequent passes is defined as the number of passes over any period of time that causes no lasting damage to the vegetation. This number will be a function of vegetation type and age, climatic conditions, and maintenance practices. This number is not a function of the Geoblock material.