



TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Application and Report

Property Location: Needham Town Common **Date:** 5/24/22

Owner: Town of Needham

Address: 1471 Highland Avenue, Needham, MA 02492

Street City State Zip

Telephone: 781-455-7500

Applicant: Town of Needham Department of Public Works

Address: 500 Dedham Ave, Needham, MA 02492

Street City State Zip

Telephone: 781-455-7550

Designer/Installer: BETA Group Inc.

Address: 315 Norwood Park South, Norwood, MA 02062

Street City State Zip

Telephone: 781-255-1974

Type of Application
☐ Sign
☐ Minor Project
☒ Exterior Alterations
Major Project (Site Plan Review)
☐ - preliminary
☐ - final
☐ Flexible Subdivision
☐ Planned Residential Development
☐ Residential Compound

Brief description of sign or project:

Substitute the exposed aggregate concrete walkway material, with concrete pavers by Ideal.

Please email completed application to elitchman@needhamma.gov



Andover Collection StoneCleft with GrandStone - Chatham Blend,
BullNose Coping - Quarry Blend, CT Gray Mosaic Veneer, American
Granite Slab

Andover Collection™ & Andover 5511™ Traditional & Permeable



Andover Collection



Andover 5511 Smooth

Andover Collection & Andover 5511 - Traditional & Permeable

INTRODUCTION

Our Andover Collection and Andover 5511 pavers offer a choice of profiles and finishes in traditional shapes scaled to complement the trend for larger paving units. Smooth has a clean classic profile making it ideal for contemporary projects. StoneCleft embossed surface has a natural stone appearance replicating a timeless classic stone pavement.

COMPOSITION & PERFORMANCE

Our Andover family of pavers offers dependable quality, strength and lasting durability. The units are dimensionally accurate, slip and skid-resistant, and resistant to properly applied NaCl-type deicing chemicals. Made with our Advanced 4D Technology, the Andover family have deeper, richer colors fortified with superior performance against the elements. Andover Collection and 5511 are ideal for pedestrian applications such as walkways, patios, pool decks, courtyards and plazas and are suitable for vehicular pavements limited to personal vehicles. If underground repairs are required, the pavers can be lifted and reinstated without leaving an unsightly patch.

PHYSICAL CHARACTERISTICS

Our Andover pavers meet or exceed North American industry standards, including the strength, absorption, and freeze-thaw requirements. Andover 5511 falls under *ASTM C 936 Solid Concrete Interlocking Paving Stones*. Andover Collection classifies under *ASTM C1782 Standard Specification for Utility Segmental Concrete Paving Slabs*. Our strict quality control ensures consistent strength, color and size.

Compressive Strength:	ASTM C936 - 8000 psi minimum
Modulus of Rupture:	ASTM C1782 - 725 psi minimum
Water Absorption:	5% maximum
Freeze Thaw:	No Effect
Slip and Skid Resistance:	Excellent to ADA

Andover 5511™

Andover 5511 is available in a Smooth surface. It can be installed in a number of patterns and is ideal for banding and border courses.

Packaged Separately: 5½" x 11" • 2¾" (7cm) thick

Coverage: 2.38 pcs/sf

Percentage of Open Area: 7.5%

Andover Collection™ Smooth & StoneCleft

5-Piece Set: (2) 5½" x 11" • (2) 11" x 11" • (1) 11" x 16½" • 2¾" (7cm) thick

Coverage: 3.8 sf/set

Percentage of Open Area: 5.5%

Always comply with OSHA requirements on PPE and exposure limits when cutting or sawing concrete products.

DESIGN & CONSTRUCTION

Andover pavers can be used as traditional or permeable pavement.

Traditional Pavement - Place the Andover style chosen on a 1" thick setting bed of coarse sand screeded atop a compacted base comprised of dense-graded aggregate. Typical thickness of the base is a minimum 8" for pedestrian use and a minimum 12" for driveways.

Permeable Pavement - Place the Andover style selected on a 2" thick setting bed of 3/8" open-graded crushed, angular stone that has been screeded atop a compacted base comprised of open graded, crushed stone conforming to ASTM #467 or ASTM #2. Minimum thickness is typically 8" - 12". Please see www.PaversbyIdeal.com for a copy of *ICPI TechSpec #18 Construction of Interlocking Permeable Pavement Systems* for detailed information on installation.

All styles are installed with spacer tabs touching. Select pavers from several different cubes and different layers within each cube to evenly distribute inherent color shades. Use care not to scuff/scratch the embossed and clefted surfaces when transporting and installing.

A urethane pad MUST be used when compacting and compactor must be run at low amplitude to avoid cracking. Advise clients to protect the surface during snow removal including the use of polyurethane blades on plows.

PATTERNS

The Andover Collection can be placed randomly or in our "Set-Stone" pattern that creates easy to place, impressive arrangements with little or no waste. Each set, consisting of 5 pieces (Figure A), is placed as a module in a herringbone pattern. Stones within the module can be rearranged to vary the design as shown in Figure B.

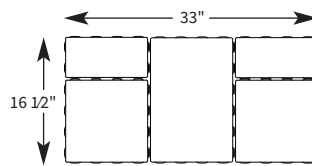


Fig. A

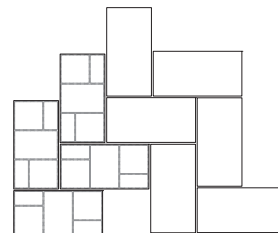


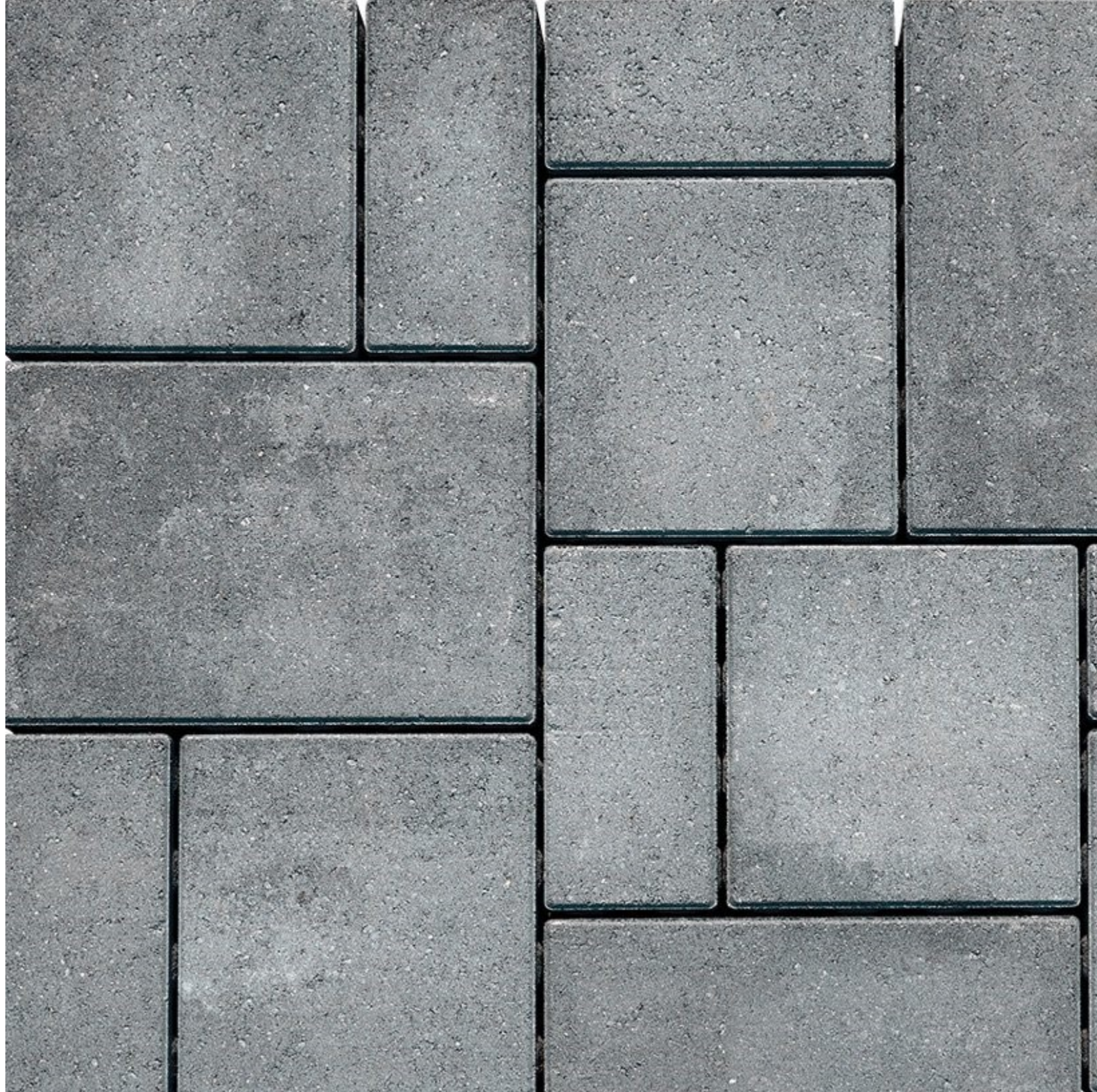
Fig. B

TECHNICAL SERVICES

Contact our sales offices or visit www.PaversbyIdeal.com for comprehensive technical information and literature. We also offer design consultation, specification assistance, and job-site quality review upon request.

A white haze known as efflorescence may randomly appear on the surface of units. It does not affect structural integrity and will dissipate over time. Because efflorescence is a natural by-product of cement hydration, its presence is not indicative of a flawed product and not covered under our warranty. For more information, please ask for our Efflorescence Advisory.

Magnesium, Potassium and Calcium Chlorides, including products that contain a blend of these chemicals, are NOT considered suitable deicers for concrete pavers. Please see our Deicing Advisory for detailed information.





Boston Colonial Pavers[®]



 **Pavers by**
Ideal[®]
IDEAL CONCRETE BLOCK CO.



Boston Colonial Pavers®

INTRODUCTION

The traditional shape and finish of Boston Colonial Pavers are timeless in style and popularity. From the look of classic New England architecture to the sophisticated appeal of modern contemporary design, the lasting beauty of Boston Colonial Pavers will complement and enhance your landscape environment.

Boston Colonial Pavers are available in a full palette of rich, distinctive colors authentic to New England. Please refer to our *Come Home to Style* catalog to view the wide array of eye-catching colors we offer.

COMPOSITION & PERFORMANCE

Boston Colonial Pavers are made by blending pure iron oxide pigments with a rich concrete mixture. Utilizing extreme pressure and vibration, specialized equipment molds this special mix into high-density concrete pavers with exceptional strength and durability.

Boston Colonial Pavers are dimensionally accurate, have distinct beveled edges and offer a slip-resistant surface. When properly installed, they interlock to form a strong, segmental pavement capable of withstanding heavy loads. Boston Colonial Pavers are suitable for residential, commercial and municipal applications. Typical uses include walkways, driveways, patios, pool decks, sidewalks, plazas, parking lots, cross-walks and low-speed vehicular roadways.

PHYSICAL CHARACTERISTICS

Boston Colonial Pavers meet or exceed North American industry standards, including the requirements of ASTM Specification C 936 for Solid Concrete Interlocking Paving Stones and CSA Standards for freeze-thaw performance. Our strict quality control ensures consistent strength, color and size.

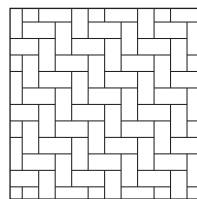
Nominal Size/Coverage	4" x 8" (100x200mm) • 4.5 pcs/sf
Thicknesses	2 ³ / ₈ " (6cm) 3 ¹ / ₈ " (8cm)
Compressive Strength	8500 psi minimum
Water Absorption	5% maximum
Freeze Thaw	No Effect
Slip Resistance	Excellent to ADA

TECHNICAL SERVICES

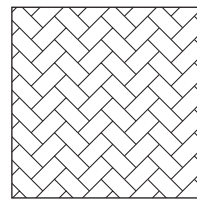
Please call our sales office or visit our website for complete technical information and literature. We also offer design consultation, specification assistance, and job-site quality review upon request.

INSTALLATION & PATTERNS

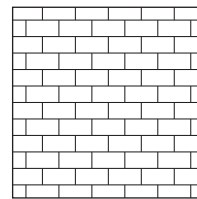
Boston Colonial Pavers can be installed in a number of interesting patterns, including herringbone, running or stretcher bond, and a variety of basket weave designs. Herringbone patterns are recommended for vehicular traffic or heavy loads due to superior interlock. For residential driveways and other light-duty applications, Boston Colonial Pavers may be installed in running bond or basket weave patterns. Stack bond patterns should only be considered for pedestrian areas. Boston Colonial Pavers are also popular for use in a soldier or sailor course as a border for other paver shapes.



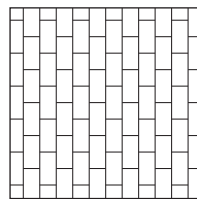
90° Herringbone



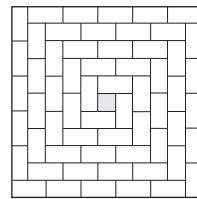
45° Herringbone



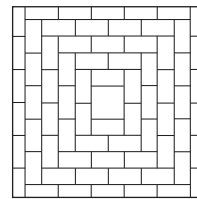
Running Bond



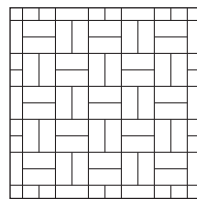
Running Bond
Head On



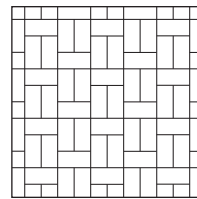
Whorling Square
w/ cut 4x4



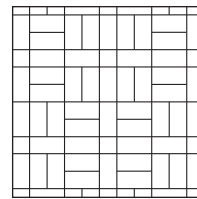
Whorling Square
w/ 8x8 Plaza Insert



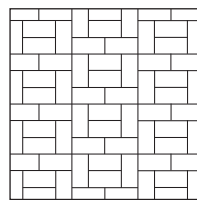
Basket Weave
Traditional #1



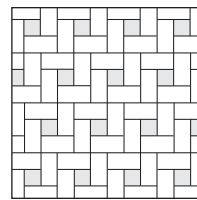
Basket Weave
Traditional #2



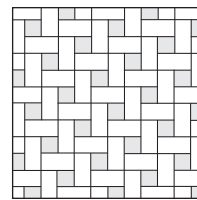
Basket Weave
& Stack Bond



Basket Weave
Variation



Basket Weave
Offset w/ cut 4 x 4



Herringbone
Variation w/ cut 4 x 4

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45-55 Power Road, Westford, MA 01886
232 Lexington Street, Waltham, MA 02452

Main Phone: (781) 894-3200 • Main Fax: (978) 692-0817
www.IdealConcreteBlock.com





TOWN HALL



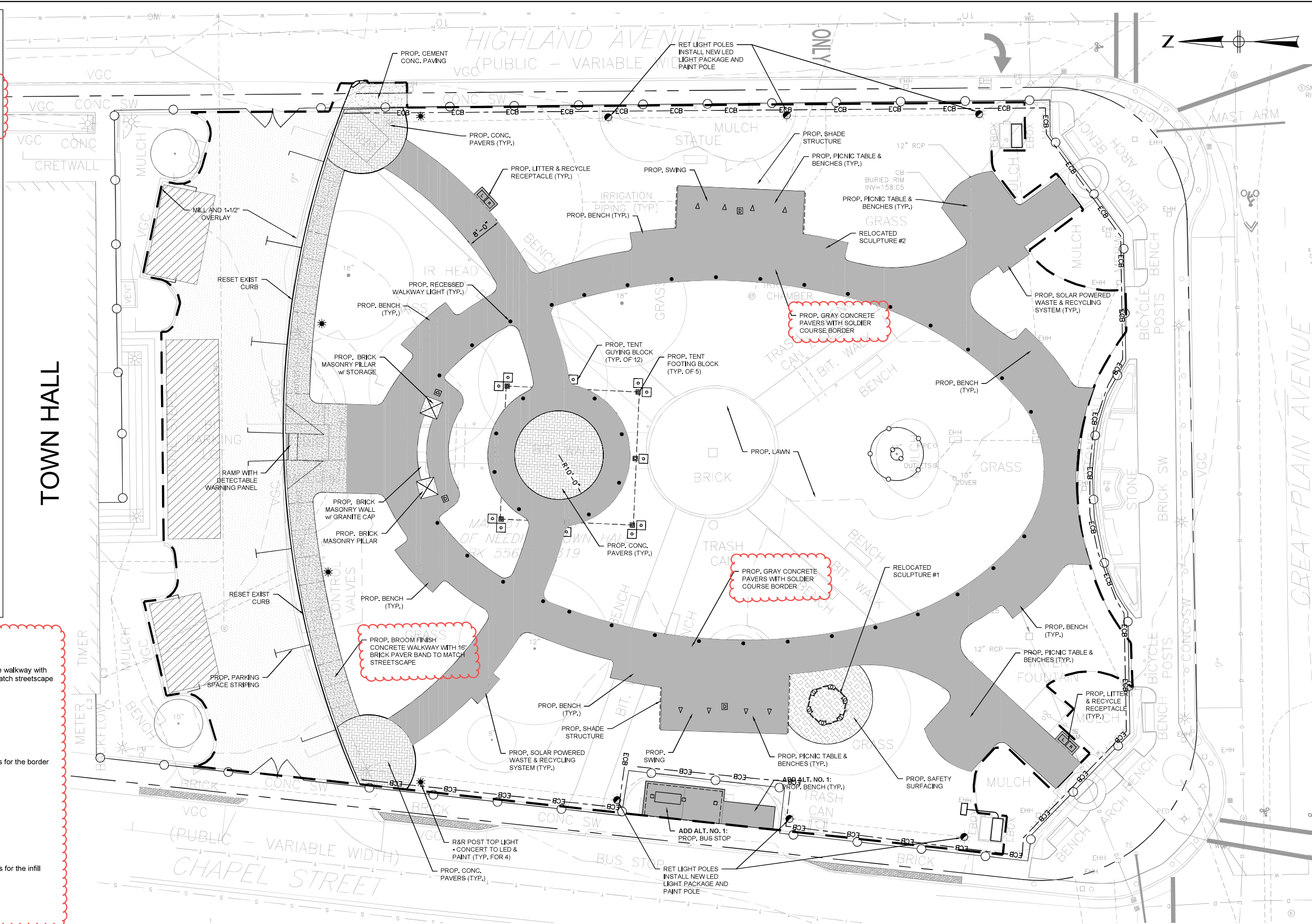
Example of Concrete walkway with
16" paver band to match streetscape



Gray concrete pavers for the border
course pattern



Gray concrete pavers for the infill pattern



1	5/25/2022	ESM	MLR & NS	Value Engineering and Final Construction Details
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

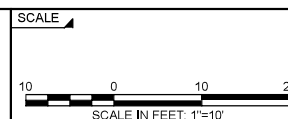
DRAWN BY:	SR/NS/
DESIGNED BY:	SR/NS/
CHECKED BY:	SR/RM

REGISTERED PROFESSIONAL



www.BETA-inc.com

SUBCONSULTANT



UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

TITLE

TOWN COMMON RENOVATION

LAYOUT & MATERIALS PLAN

NEEDHAM, MASSACHUSETTS

BETA JOB NO.	7185
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ISSUE DATE Nov 4, 2021

SHEET NO. 4



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☐ Sign
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☐ Residential Compound

Brief description of sign or project:

Reduce the proposed 3.5" diameter trees with 2" diameter trees.

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Tree Species



Acer rubrum 'October Glory'
October Glory Red Maple



Ulmus americana 'Valley Forge'
Valley Forge American Elm



Ulmus americana 'Princeton'
American Elm



Ulmus parvifolia 'Allee'
Allee Chinese Elm



Liquidambar styraciflua 'Slender Silhouette'
Slender Silhouette Sweetgum



Zelkova serrata 'Musashino'
Musashino Japanese Zelkova



Malus Prairifire
Prairifire Crabapple



Syringa reticulata 'Ivory Silk'
Japanese Tree Lilac



Chamaecyparis obtuse
Hinoki Falsecypress



Tree Species

Town Common Renovations | Town of Needham

December 2021

Needham, Massachusetts



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