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SECTION 32 94 43 – TREE GRATES

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DELETE ALL "SPECIFIER NOTES" WHEN EDITING THIS SECTION.

# GENERAL

## CONDITIONS AND REQUIREMENTS

### The General Conditions, Supplementary Conditions, and Division 01 – General Requirements apply.

## SECTION INCLUDES

## Section 32 94 43 – Tree Grates of the following types:

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SPECIFIER NOTES: DELETE OPTIONS THAT ARE NOT REQUIRED FOR THIS PROJECT.

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### Firework Tree Grates.

### Concentric Tree Grates.

### Wheel Tree Grates.

### Stargate Tree Grates.

### Pebble Hole Tree Grates.

### Large Tree Grates.

### Panel Tree Grates.

### ADA Tree Grates.

## RELATED SECTIONS

### Section 03 30 00 – Cast-in-Place Concrete.

### Section 22 14 00 – Facility Storm Drainage.

### Section 32 91 00 – Planting Preparation.

### Section 32 93 43 – Trees.

## REFERENCES

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### Reference Standards

### Americans with Disabilities Act (ADA).

### ASTM International (ASTM):

#### ASTM B117: Standard Practice for Operating Salt Spray (Fog) Apparatus.

#### ASTM C1371: Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.

#### ASTM D543: Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents,

#### ASTM D790: Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

#### ASTM E903: Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres.

#### ASTM E1980: Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces,

#### International Organization for Standardization (ISO):

#### ISO 9001:2015: Quality Management System Certificate Number FS 73051.

#### ISO 14001:2015: Environmental Management System Certificate Number EMS 670579.

#### Singapore Standards (SS):

#### SS485:2011: Specifications for Slip Resistance Classification of Public Pedestrian Surface Materials.

#### SS245:1995: Specifications for Water Absorption.

## SUBMITTALS

### Product Data:

#### Submit manufacturer's shop drawings and maintenance instructions.

#### Manufacturer Information:

#### Provide overview literature describing the manufacturer’s overall scope of products.

#### Provide URL of the manufacturer’s website. The website must provide access to technical data, images, and general product information.

#### Provide manufacturers shop drawings.

#### Provide manufacturer’s guide specifications.

## QUALITY ASSURANCE

### Qualifications:

### Manufacturer: Minimum of 20 years experience in the manufacturing of reinforced stone architectural products.

### Sustainability Standards Certifications.

### LEED: USGBC (United States Green Building Council): MR Credit 4: Recycled Content under LEED® (Leadership in Energy and Environmental Design).

### Singapore Green Building Product Certification: Product Leader (SGBP 2019-2728) from Singapore Environmental Council.

### Singapore Green Label Certification: 022-016-0270 Eco-Friendly Building Material from Singapore Environmental Council.

### United States Environmental Protection Agency: US EPA 1311 Toxicity Characteristic Leaching Procedure (TCLP) – Specifications for testing of inorganic contaminants.

### Heavy Metals Testing Standards: Heavy Metals Test Analysis: Specifications for Testing of Hazardous Substances.

## DELIVERY, STORAGE AND HANDLING

### Delivery: Deliver materials to the installation site in manufacturer’s original packaging.

### Storage:

### Store in a clean, dry location until installation.

### If grates are stored for prolonged periods on-site before use or installation, protect the grates from sunlight and rain.

### Handling:

### Handle products in accordance with the manufacturer’s instructions.

### Use provided lifting hooks for lifting high-performance grates. Care must be taken when lifting and moving grates.

### Grates should not be dropped, thrown, or dragged.

## WARRANTY

* + 1. Manufacturer’s Warranty:
       1. Provide manufacturer’s standard limited warranty in effect at the date of purchase.
          1. Jonite® warrants that the Product is suitable for the purpose for which it was made for a period of one year from the date the commercial invoice and packing list issued by Jonite® is endorsed by the purchaser. For the avoidance of doubt, a purchaser means a person, firm, or corporation, jointly and severally if there is more than one, acquiring the Product from Jonite®.

# PRODUCTS

## MANUFACTURERS

### Specified Manufacturer: Jonite®. Allentown, Pennsylvania. 484-224-2972. Email: [info@Jonite®.com](mailto:info@jonite.com). Web: [www.Jonite®.com](http://www.jonite.com).

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SPECIFIER NOTES: DELETE ONE OF THE FOLLOWING TWO PARAGRAPHS.

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### Substitutions: Not Permitted.

### Requests for approved substitutions will be considered in accordance with provisions specified in Section 01 62 00 – Product Options.

## DESCRIPTION

### Jonite® Tree Grates: Tree grates composed of reinforced stone. These grates are designed for tree protection suitable for any tree and to allow rainwater to seep through while preventing litter from falling through and smothering soil. They are reinforced to handle the loads required by pedestrian traffic. Jonite®’s tree grates absorb less heat than ferrous gratings and are an electrical insulator. These grates have a natural stone appearance that can be customized to match various design styles. These reinforced stone tree grates are available in a range of colors. Jonite®’s tree grates are available in ADA compliant and expandable models to allow for future tree growth. Customizable options include light ports and embossed insignia.

### Sustainability: Tree grates composed of at least 30 percent recycled materials.

### Core Materials: 95 percent agglomeration of natural stone substrates and mineral oxides formed under a proprietary vacuum and compression process. Composed of a proprietary structural polymer hybrid system of a heterogeneous blend.

### Physical:

#### Water Absorption: 0.09 percent.

#### Slip Resistance Classification: Very low notational contribution of the floor surface to the risk of slipping when wet.

#### Chemical Resistance: Achieved.

#### Rust and Corrosion: Resistant.

#### Finish: Natural stone matte.

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SPECIFIER NOTES: DELETE IF SUPPORTING FRAMES ARE NOT REQUIRED FOR THIS PROJECT.

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#### Support Frames: For ADA and larger tree grates that are usually more than 1200 millimeters (47.2 inches) in total span and consist of more than two panels.

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SPECIFIER NOTES: DELETE COLORS NOT REQUIRED FOR THIS PROJECT.

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#### Colors: [Ivory white], [ Wacky white], [Rosy beige], [Desert beige], [Champagne yellow], [Terracotta red], [Teak brown], [Mocca brown], [Granite gray], [Ash gray], [Steel gray], [Slate gray], [Bamboo green], [Smoky green], [Charcoal black], [Ebony black], or [Color to be customized according to the sample submitted to the manufacturer].

### Structural and Mechanical Properties:

#### Tensile Strength: 8 to 25 Megapascal.

#### Compression Strength: 47.8 Megapascal.

#### Flexural Strength: 21.1 Megapascal.

#### Modulus of Elasticity: 20 to 40 Gigapascals.

#### Standard Density: 20 to 2400 Kilograms per cubic meter.

#### Elongation at Rupture: 3 percent.

#### Thermal Coefficient of Expansion: 106C-1.

#### Loading Specifications: 5KN – Strictly for pedestrian application.

### Reference Standards

#### ADA compliant models comply with ADA.

#### Complies with ASTM B117-11: Salt resistance.

#### Complies with ASTM C1371-15: Determination of emittance.

#### Complies with ASTM D543:2014: Chemical resistance.

#### Complies with ASTM D790-92: Flexural properties.

#### Complies with ASTM E903-20: Solar absorptance, reflectance, and transmittance.

#### Complies with ASTM E1980: Solar Reflectance.

#### Complies with ISO 9001: 2015: Quality Management Systems.

#### Complies with ISO 14001:2015: Environmental Management Systems.

#### Complies with: SS245:1995 Appendix F - Water Absorption Test.

#### Complies with: SS485:2011: Slip Resistance.

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SPECIFIER NOTES: COLLECTIONS, MATERIALS, AND PRODUCTS ARE INDICATED IN THE FOLLOWING PARAGRAPHS. OPTIONS WITHIN ARE INDICATED BY SQUARE BRACKETS. DELETE PARAGRAPHS AND OPTIONS NOT REQUIRED FOR THIS PROJECT.

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## FIREWORK TREE GRATE MATERIALS

### Product Description: Firework Tree Grates manufactured by Jonite®: One of the most popular patterns available, this collection has broad profile openings with design patterns resembling enchanting bursts of fireworks. Optional reducers can be used to adjust the inner diameter of the tree wells.

### Product Basis of Design: Firework Tree Grate 81110: FIREWORK S1000/545.

#### Shape: Square.

#### Inner Well Diameter: 545 millimeters (21.5 inches).

#### Width: 1000 millimeters (39.4 inches).

#### Length: 1000 millimeters (39.4 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Firework Tree Grate 81111: FIREWORK S1100/600.

#### Shape: Square.

#### Inner Well Diameter: 600 millimeters (23.6 inches).

#### Width: 1100 millimeters (43.3 inches).

#### Length: 1100 millimeters (43.3 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Firework Tree Grate 81112: FIREWORK S1200/600.

#### Shape: Square.

#### Inner Well Diameter: 600 millimeters (23.6 inches).

#### Width: 1200 millimeters (47.2 inches).

#### Length: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Firework Tree Grate 81113: FIREWORK S1500/600 with Light Ports.

#### Shape: Square.

#### Inner Well Diameter: 600 millimeters (23.6 inches).

#### Width: 1500 millimeters (59.1 inches).

#### Length: 1500 millimeters (59.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Firework Tree Grate 81117: FIREWORK S1800/600.

#### Shape: Square.

#### Inner Well Diameter: 600 millimeters (23.6 inches).

#### Width: 1800 millimeters (70.9 inches).

#### Length: 1800 millimeters (70.9 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Firework Tree Grate 81118: FIREWORK S1800/750.

#### Shape: Square.

#### Inner Well Diameter: 750 millimeters (29.5 inches).

#### Width: 1800 millimeters (70.9 inches).

#### Length: 1800 millimeters (70.9 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Firework Tree Grate 81115: FIREWORK R1500/600.

#### Shape: Round.

#### Inner Well Diameter: 600 millimeters (23.6 inches).

#### Diameter: 1500 millimeters (59.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Firework Tree Grate 81119: FIREWORK R1800/600.

#### Shape: Round.

#### Inner Well Diameter: 600 millimeters (23.6 inches).

#### Diameter: 1800 millimeters (70.9 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Firework Tree Grate 81120: FIREWORK S1800/750.

#### Shape: Round.

#### Inner Well Diameter: 750 millimeters (29.5 inches).

#### Diameter: 1800 millimeters (70.9 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

## CONCENTRIC TREE GRATE MATERIALS

### Product Description: Concentric Tree Grates manufactured by Jonite®: This collection has the maximum expandability of tree wells, with a comprehensive combination that allows for various formulations. A modern ADA-compliant design with light ports and an optional fixed cover.

### Product Basis of Design: Concentric Tree Grate 83110: CONCENTRIC S800/350.

#### Shape: Square.

#### Inner Well Diameter: 350 millimeters (13.8 inches) expandable.

#### Width: 800 millimeters (31.5 inches).

#### Length: 800 millimeters (31.5 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Concentric Tree Grate 83113: CONCENTRIC S1000/350.

#### Shape: Square.

#### Inner Well Diameter: 350 millimeters (13.8 inches) expandable.

#### Width: 1000 millimeters (39.4 inches).

#### Length: 1000 millimeters (39.4 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Concentric Tree Grate 83116: CONCENTRIC S1200/350.

#### Shape: Square.

#### Inner Well Diameter: 350 millimeters (13.8 inches) expandable.

#### Width: 1200 millimeters (47.2 inches).

#### Length: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Concentric Tree Grate 83119: CONCENTRIC S2000/600.

#### Shape: Square.

#### Inner Well Diameter: 600 millimeters (23.6 inches) expandable.

#### Width: 2000 millimeters (78.7 inches).

#### Length: 2000 millimeters (78.7 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Concentric Tree Grate 83120: CONCENTRIC S2000/350 with Light Port Covers.

#### Shape: Square.

#### Inner Well Diameter: 350 millimeters (13.8 inches) expandable.

#### Width: 2000 millimeters (78.7 inches).

#### Length: 2000 millimeters (78.7 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Concentric Tree Grate 83111: CONCENTRIC R800/350.

#### Shape: Round.

#### Inner Well Diameter: 350 millimeters (13.8 inches) expandable.

#### Diameter: 800 millimeters (31.5 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Concentric Tree Grate 83114: CONCENTRIC R1000/350.

#### Shape: Round.

#### Inner Well Diameter: 350 millimeters (13.8 inches) expandable.

#### Diameter: 1000 millimeters (39.4 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Concentric Tree Grate 83117: CONCENTRIC R1200/350.

#### Shape: Round.

#### Inner Well Diameter: 350 millimeters (13.8 inches) expandable.

#### Diameter: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Concentric Tree Grate 83121: CONCENTRIC R2000/350 with Light Port Covers.

#### Shape: Round.

#### Inner Well Diameter: 350 millimeters (13.8 inches) expandable.

#### Diameter: 2000 millimeters (78.7 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

## WHEEL TREE GRATE MATERIALS

### Product Description: Wheel Tree Grates manufactured by Jonite®: The axle of the wheel inspired these elegant designs. Optional reducers can be used to accommodate the expandability of the tree well. They can be used individually or as a combined set for a smaller tree well.

### Product Basis of Design: Wheel Tree Grate 85113: WAGON WHEEL REDUCER R800/500.

#### Shape: Round.

#### Inner Well Diameter: 500 millimeters (19.7 inches).

#### Diameter: 800 millimeters (31.5 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Wheel Tree Grate 85112: WAGON WHEEL R1800/800.

#### Shape: Round.

#### Inner Well Diameter: 800 millimeters (31.5 inches).

#### Diameter: 1800 millimeters (70.9 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Wheel Tree Grate 85110: FIRE WHEEL R1000/400.

#### Shape: Round.

#### Inner Well Diameter: 400 millimeters (15.7 inches).

#### Diameter: 1000 millimeters (39.4 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Wheel Tree Grate 85111: FIRE WHEEL R2000/1000.

#### Shape: Round.

#### Inner Well Diameter: 1000 millimeters (39.4 inches).

#### Diameter: 2000 millimeters (78.7 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Wheel Tree Grate 87110: BURNING SUN R1200/400.

#### Shape: Round.

#### Inner Well Diameter: 400 millimeters (15.7 inches).

#### Diameter: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Wheel Tree Grate 87113: BURNING SUN R2000/1200.

#### Shape: Round.

#### Inner Well Diameter: 1200 millimeters (47.2 inches).

#### Diameter: 2000 millimeters (78.7 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Wheel Tree Grate 95110: THREAD-BALL R1500.

#### Shape: Round.

#### Inner Well Width: 560 millimeters (22 inches).

#### Inner Well Length: 560 millimeters (22 inches).

#### Diameter: 1500 millimeters (59.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Wheel Tree Grate 88111: CARRIAGE R1800/600.

#### Shape: Round.

#### Inner Well Diameter: 600 millimeters (23.6 inches).

#### Diameter: 1800 millimeters (70.9 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

## STARGRATE TREE GRATE MATERIALS

### Product Description: Stargrate Tree Grates manufactured by Jonite®: The designs in this collection express an explosion burst that resembles a star. Specific models come with optional light ports and inner ring expandability.

### Product Basis of Design: Stargrate Tree Grate 91110: STARGRATE R1500/700.

#### Shape: Round.

#### Inner Well Diameter: 700 millimeters (27.6 inches).

#### Diameter: 1500 millimeters (31.5 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Stargrate Tree Grate 91111: STARGRATE R1800/600.

#### Shape: Round.

#### Inner Well Diameter: 600 millimeters (23.6 inches).

#### Diameter: 1800 millimeters (70.9 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Stargrate Tree Grate 91112: STARGRATE R2000/700.

#### Shape: Round.

#### Inner Well Diameter: 700 millimeters (27.6 inches).

#### Diameter: 2000 millimeters (78.7 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Stargrate Tree Grate 91113: STARGRATE R2000/980.

#### Shape: Round.

#### Inner Well Diameter: 980 millimeters (38.6 inches).

#### Diameter: 2000 millimeters (78.7 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

## PEBBLE HOLE TREE GRATE MATERIALS

### Product Description: Pebble Hole Tree Grates manufactured by Jonite®: This collection comprises of different panels to form a variety of formations, with limited expandability. Well-suited for huge existing trees that are off-centre from the typical tree grate configurations.

### Product Basis of Design: Pebble Hole Tree Grate 92116: PEBBLE-HOLE R1000/450.

#### Shape: Round.

#### Inner Well Diameter: 450 millimeters (17.7 inches).

#### Diameter: 1000 millimeters (39.4 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Pebble Hole Tree Grate 92117: PEBBLE-HOLE S1200/450.

#### Shape: Square.

#### Inner Well Diameter: 450 millimeters (17.7 inches).

#### Width: 1200 millimeters (47.2 inches).

#### Length: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Pebble Hole Tree Grate 92118: PEBBLE-HOLE R1500/800 with Light Ports.

#### Shape: Round.

#### Inner Well Diameter: 800 millimeters (31.5 inches).

#### Diameter: 1500 millimeters (59.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Pebble Hole Tree Grate 92119: PEBBLE-HOLE S1600/800 with Light Ports.

#### Shape: Square.

#### Inner Well Diameter: 800 millimeters (31.5 inches).

#### Width: 1600 millimeters (63 inches).

#### Length: 1600 millimeters (63d inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

## LARGE TREE GRATE MATERIALS

### Product Description: Large Tree Grates manufactured by Jonite®: Beautiful reinforced stone grates with expandable tree-well created explicitly for large trees. Available in 2 types of designs: a minimalistic centrical design with simple lines, and ornate fallen leaves.

### Product Basis of Design: Large Tree Grate 94110: FALLEN LEAVES R2000/600.

#### Shape: Round.

#### Design: Fallen Leaves.

#### Inner Well Diameter: 600 millimeters (23.6 inches).

#### Diameter: 2000 millimeters (78.7 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Large Tree Grate 94111: FALLEN LEAVES R3000/2000.

#### Shape: Round.

#### Design: Fallen Leaves.

#### Inner Well Diameter: 2000 millimeters (78.7 inches).

#### Diameter: 3000 millimeters (118.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Centrical Grate 93110: CENTRICAL R4000/2400.

#### Shape: Round.

#### Design: Centrical.

#### Inner Well Diameter: 2400 millimeters (94.5 inches).

#### Diameter: 4000 millimeters (157.5 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: Large Tree Grate 94112: FALLEN LEAVES R5000/3000.

#### Shape: Round.

#### Design: Fallen Leaves.

#### Inner Well Diameter: 3000 millimeters (118.1 inches).

#### Diameter: 5000 millimeters (196.9 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

## PANEL TREE GRATE MATERIALS

### Product Description: Panel Tree Grates manufactured by Jonite®: These square and rectangular cut panel grates provide enhanced aesthetic flair. This collection comprises panels in various shapes and sizes to suit any formation.

### Product Basis of Design: Pebble Hole Panel Grate 92112: PEBBLE-HOLE 600.

#### Shape: Square.

#### Design: Pebble Hole.

#### Width: 600 millimeters (23.6 inches).

#### Length: 600 millimeters (23.6 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Pebble Hole Panel Grate 90110: SQUARE MOSAIC 500.

#### Shape: Square.

#### Design: Square Mosaic.

#### Width: 500 millimeters (19.7 inches).

#### Length: 500 millimeters (19.7 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

### Product Basis of Design: Starcut Panel Grate 89110: STARCUT 1200.

#### Shape: Rectangular.

#### Design: Starcut.

#### Width: 600 millimeters (23.6 inches).

#### Length: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Optional.

## ADA TREE GRATE MATERIALS

### Product Description: ADA Tree Grates manufactured by Jonite®: This wheelchair-friendly collection expands walking space for all pedestrians for greater accessibility. Available to suit a range of themes. All ADA models must have a supporting frame to which they are bolted.

### Product Basis of Design: ADA Tree Grate U41110: CHISELED S1200.

#### Shape: Square.

#### Design: Chiseled.

#### Inner Well Dimension: [390 millimeters (15.4 inches)], [460 millimeters (18.1 inches)], [530 millimeters (20.9 inches)], or 600 millimeters (23.6 inches)].

#### Width: 1200 millimeters (47.2 inches).

#### Length: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U41111: CHISELED S1500.

#### Shape: Square.

#### Design: Chiseled.

#### Inner Well Dimension: [390 millimeters (15.4 inches)], [460 millimeters (18.1 inches)], [530 millimeters (20.9 inches)], or 600 millimeters (23.6 inches)].

#### Width: 1500 millimeters (59.1 inches).

#### Length: 1500 millimeters (59.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U42110: KEYHOLES S1200.

#### Shape: Square.

#### Design: Keyholes.

#### Inner Well Dimension: [390 millimeters (15.4 inches)], [460 millimeters (18.1 inches)], [530 millimeters (20.9 inches)], or 600 millimeters (23.6 inches)].

#### Width: 1200 millimeters (47.2 inches).

#### Length: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U42111: KEYHOLES S1500.

#### Shape: Square.

#### Design: Keyholes.

#### Inner Well Dimension: [390 millimeters (15.4 inches)], [460 millimeters (18.1 inches)], [530 millimeters (20.9 inches)], or 600 millimeters (23.6 inches)].

#### Width: 1500 millimeters (59.1 inches).

#### Length: 1500 millimeters (59.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U43110: CROSS-STITCH S1200.

#### Shape: Square.

#### Design: Cross Stitch.

#### Inner Well Dimension: [390 millimeters (15.4 inches)], [460 millimeters (18.1 inches)], [530 millimeters (20.9 inches)], or 600 millimeters (23.6 inches)].

#### Width: 1200 millimeters (47.2 inches).

#### Length: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U43111: CROSS-STITCH S1500.

#### Shape: Square.

#### Design: Cross Stitch.

#### Inner Well Dimension: [390 millimeters (15.4 inches)], [460 millimeters (18.1 inches)], [530 millimeters (20.9 inches)], or 600 millimeters (23.6 inches)].

#### Width: 1500 millimeters (59.1 inches).

#### Length: 1500 millimeters (59.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U44110: INTERLACE S1200.

#### Shape: Square.

#### Design: Interlace.

#### Inner Well Dimension: [390 millimeters (15.4 inches)], [460 millimeters (18.1 inches)], [530 millimeters (20.9 inches)], or 600 millimeters (23.6 inches)].

#### Width: 1200 millimeters (47.2 inches).

#### Length: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U44111: INTERLACE S1500.

#### Shape: Square.

#### Design: Interlace.

#### Inner Well Dimension: [390 millimeters (15.4 inches)], [460 millimeters (18.1 inches)], [530 millimeters (20.9 inches)], or 600 millimeters (23.6 inches)].

#### Width: 1500 millimeters (59.1 inches).

#### Length: 1500 millimeters (59.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U45110: PALM S1200.

#### Shape: Square.

#### Design: Palm.

#### Inner Well Dimension: [390 millimeters (15.4 inches)], [460 millimeters (18.1 inches)], [530 millimeters (20.9 inches)], or 600 millimeters (23.6 inches)].

#### Width: 1200 millimeters (47.2 inches).

#### Length: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U45111: PALM S1500.

#### Shape: Square.

#### Design: Palm.

#### Inner Well Dimension: [390 millimeters (15.4 inches)], [460 millimeters (18.1 inches)], [530 millimeters (20.9 inches)], or 600 millimeters (23.6 inches)].

#### Width: 1500 millimeters (59.1 inches).

#### Length: 1500 millimeters (59.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U46110: SQUARE-SLOTS S1200.

#### Shape: Square.

#### Design: Square Slots.

#### Inner Well Width: 390 millimeters (15.4 inches).

#### Inner Well Length: 390 millimeters (15.4 inches).

#### Width: 1200 millimeters (47.2 inches).

#### Length: 1200 millimeters (47.2 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

### Product Basis of Design: ADA Tree Grate U46111: SQUARE-SLOTS S1500.

#### Shape: Square.

#### Design: Square Slots.

#### Inner Well Width: 390 millimeters (15.4 inches).

#### Inner Well Length: 390 millimeters (15.4 inches).

#### Width: 1500 millimeters (59.1 inches).

#### Length: 1500 millimeters (59.1 inches).

#### Thickness: 30 millimeters (1.2 inches).

#### Supporting Frame: Required.

## ACCESSORIES

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SPECIFIER NOTES: OPTIONAL ACCESSORIES ARE INDICATED IN THE FOLLOWING PARAGRAPHS. DELETE PARAGRAPHS NOT REQUIRED FOR THIS PROJECT.

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### Embossed Insignia: Contact Jonite® for custom embossed insignia.

### Maintenance Accessories:

#### Repair Kit: Repair Kit is a proprietary epoxy putty filler for repair of gaps, cracks, and large chips.

#### Colors: [Standard color: \_\_\_\_] or [Custom color].

#### Perform repairs on gaps, cracks, and large chips in accordance with manufacturer’s instructions.

#### SealFix™ 103: A two-part epoxy mortar formulated for fixing Jonite® components such as L-Trimmers™. It has high strength bonding, is impermeable, chemical-resistant, and suitable for dry fixing.

#### Perform repairs on Jonite® components in accordance with manufacturer’s instructions.

#### ArmorFix™ 108: All Jonite® products are impregnated with a coat of ArmorFix™ 108 for protection, strength, and wear resistance.

#### Apply ArmorFix™ 108 in accordance with manufacturer’s instructions.

#### Kleansol™ 511: A proprietary algae and stain removal solution for Jonite® products.

#### Use Kleansol™ 511 in accordance with manufacturer’s instructions.

#### Lifting Hooks: Recommended for lifting heavy-duty grates.

# EXECUTION

## EXAMINATION

### Examine Project conditions and completed Work and verify that the site is adequately prepared.

### Immediately correct all deficiencies and conditions which would cause improper execution of Work specified in this Section and subsequent Work.

### Proceeding with Work specified in this Section shall be interpreted to mean that all conditions were determined to be acceptable prior to start of Work.

## PREPARATION

### Clean the surface thoroughly before installation.

### Ensure the area is free of dirt and debris.

### Prepare the surface in accordance with manufacturer’s instructions.

## INSTALLATION

### Ensure the installation site is cleaned and prepared.

### Install in accordance with the manufacturer’s instructions and recommendations.

### Install grates after danger of damage from construction traffic is passed.

### Metal Support Frames from Jonite®:

#### Tree grates grater than 1200 millimeters (47.2 inches) and with 4 panels or more must be installed with a metal support frame.

### Tree grates must be flatly resting across the supporting frame, which must be securely bolted together.

### Tree grates with lockdowns must be installed with a metal support frame.

### Install metal support frames in accordance with manufacturer’s instructions and recommendations.

### Ensure tree grates are installed flat and level.

## CLEANING

### Clean promptly after installation in accordance with the manufacturer’s instructions.

### Clear dust and debris frequently.

### Dislodge dirt and grime with a high-pressure water jet spray.

### Use soap-less cleaners, mild soap, or neutral pH detergent, clean water, and a non-metal scrub brush. Remove stains with Kleansol™ 511. Apply Armorfix™ 108 after the grate is dry.

### Do not use harsh cleaning materials like an acid wash as this can damage the grates.

### Repair or replace the product if damaged.

### PROTECTION

### Protect grates in accordance with the manufacturer’s instructions.

### Perform regular visual checks of grates. Ensure grates are not structurally compromised and there are no visible cracks.

### Do not expose grates to:

### Heavy cleaning chemicals.

### Cement.

### Do not use grates as structural elements.

### Do not permit grates to contact construction debris, masonry, gravel, or organic material.

### Do not wash flooring with chemicals and permit waste to flow through grates.

### Cleaning Adjacent Floors:

### Remove gratings systematically to prevent confusion by stacking on raised timber or bricks.

### Place grates back only when floors are clean and dry.

END OF SECTION