TREE #2
7" TSUGA
CANADENSIS

TREE #1
13" MULTISTEM
TSUGA CANADENSIS

TREES #1 & #2 to be removed

TREE #3
5" PYRUS
CALLERYANA

TREE #3 to be removed

TREE #4
14" MALUS SP.

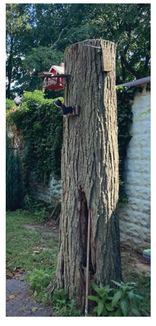
TREE #4 to be removed

TREE #4
14" MALUS SP.

TREE #4 to be removed

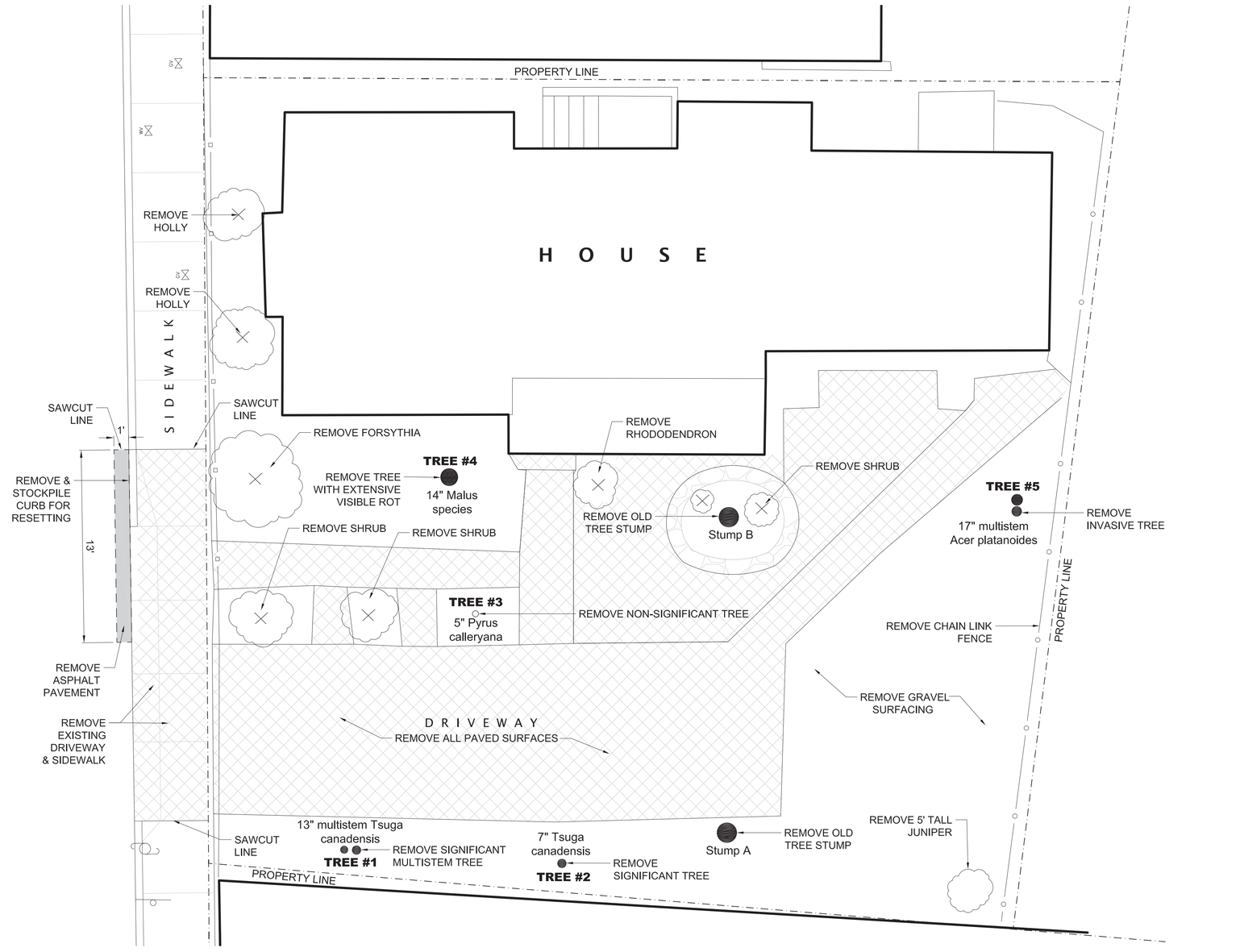
TREE #5
17" MULTISTEM
ACER PLATANOIDES

TREE #5 to be removed



STUMP A
to be removed

STUMP B
to be removed



Tree Removal Schedule

Tree #	Botanical Name	Common Name	DBH	Notes
1	Tsuga candensis multistem	Hemlock	13" caliper	
2	Tsuga candensis	Hemlock	7" caliper	
3	Pyrus calleryana	Pear	5" caliper	Exempt - No significant size
4	Malus species (visiible rot and decay)	Crabapple	14"	Exempt - Rot & Decay
5	Acer platanoides multistem	Norway Maple	17" caliper	Exempt - Invasive Species

Total DBH for Mitigation = 20" caliper inches

Tree Mitigation Schedule

New Plants

Quan	Botanical Name	Common Name	Caliper In.	
2	Carpinus betulus 'Fastigiata'	Fastigiate Hornbeam	2 1/2" caliper	B&B

Proposed Mitigation = 5 caliper inches
Required Mitigation = 20 caliper inches
Deficit = (-) 15 caliper inches

1/4"=1'-0"
0' 12'

Marc Mazzarelli Associates LLC
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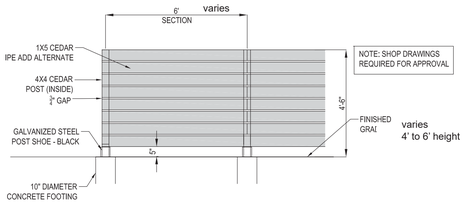
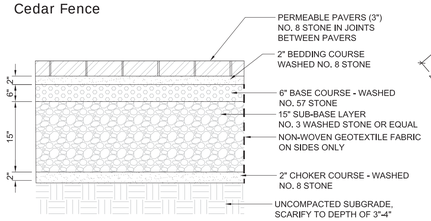
www.mmazz.com

44 White Street | Somerville, Massachusetts

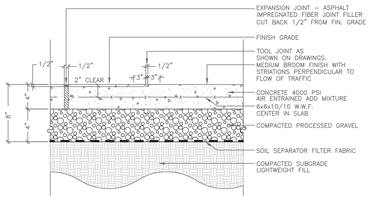
TREE REMOVAL PLAN L-1
October 9, 2025



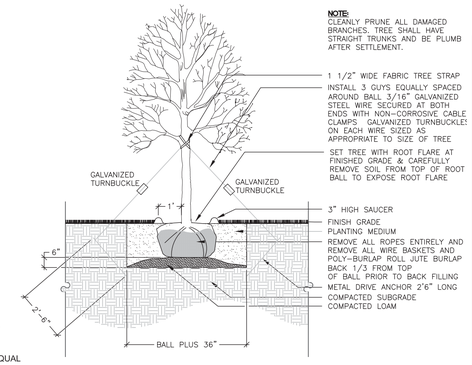
Cedar Fence



Permeable Paver Section

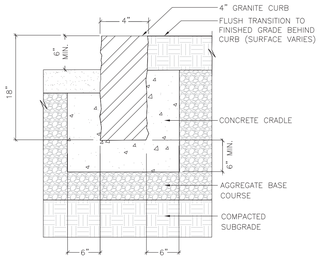


Concrete Walk Section



NOTE: Measure the height of the root ball and subtract 2 inches from this. Dig your planting hole to this depth. DO NOT go deeper than this measurement, as a hole too deep will bury the root flare and prevent your tree from taking root and growing successfully. Dig your hole 2 – 5 times wider than the size of the root ball as well to allow roots to spread once planted.

Typical Tree Planting Section



Vertical Curb Section

Somerville Green Score

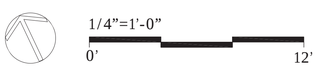
DIRECTIONS:

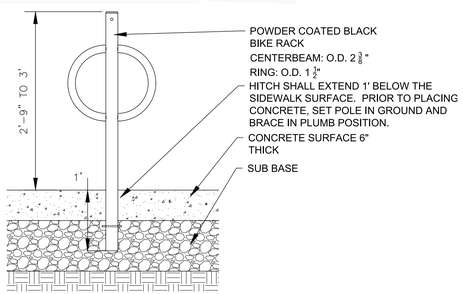
1. Enter the Lot Area in square feet to the right >>>
2. Enter the area in square feet or the number of landscape elements

Area or Number: 3,212

		Sq Ft Credit	Multiplier	Weighted Area	Score Value	% of Score
Soils						
Landscaped area with a soil depth less than 24 inches *(enter square feet)*	135	actual sq ft	**0.3**	40.5	**0.013**	5%
Landscaped area with a soil depth equal to or greater than 24 inches *(enter square feet)*	0	actual sq ft	**0.6**	0	**0.000**	0%
Pervious Paving with 6 to 24 inches of subsurface soil or gravel *(enter square feet)*	0	actual sq ft	**0.2**	0	**0.000**	0%
Pervious Paving with more than 24 inches of subsurface soil or gravel *(enter square feet)*	311	actual sq ft	**0.5**	155.5	**0.048**	19%
Groundcovers						
Turf grass, mulch, and inorganic surfacing materials *(enter square feet)*	228	actual sq ft	**0.1**	22.8	**0.007**	3%
Plants						
Vegetation less than two (2) feet tall at maturity *(enter square feet)*	30	actual sq ft	**0.2**	6	**0.002**	1%
Vegetation at least two (2) feet tall at maturity *(enter number of individual plants)*	10	12	**0.3**	36	**0.011**	4%
Trees						
Small Tree *(enter number of trees)*	0	50	**0.6**	0	**0.000**	0%
Large Tree *(enter number of trees)*	2	450	**0.6**	540	**0.168**	66%
Preserved Tree *(enter DBH)*	0	65	**0.8**	0	**0.000**	0%
Engineered Landscape						
Vegetated Wall *(enter square feet)*	0	actual sq ft	**0.1**	0	**0.000**	0%
Rain gardens, bioswales, and stormwater planters *(enter square feet)*	0	actual sq ft	**1.0**	0	**0.000**	0%
Green Roof with up to 6" of growth medium *(enter square feet)*	140	actual sq ft	**0.1**	14	**0.004**	2%
Green Roof with 6"-10" of growth medium *(enter square feet)*	0	actual sq ft	**0.4**	0	**0.000**	0%
Green Roof of 10"-24" growth medium *(enter square feet)*	0	actual sq ft	**0.6**	0	**0.000**	0%
Green Roof of over 24" growth medium	0	Calculate as if soils, groundcovers, plants, and trees				N/A

Green Score = 0.254





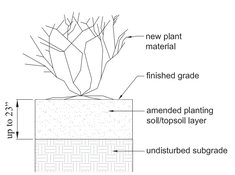
Bike Rack at Sidewalk

NOTE: There are double-doors for the two regular size bikes, and a separate door for the commuter-size bike. They're all stored in the same locker area.

Plant List

NEW PLANTS

Quantity	Botanical Name	Common Name	Size	Notes
5	Calamagrostis x 'Karl Foerster'	Feather Reed Grass	1 Gallon	Grows less than 2' + tall
5	Fothergilla gardenii	Fothergilla	5 Gallon	Grows more than 2' + tall
2	Carpinus betulus 'Fastigiata'	Fastigiate Hornbeam	2 1/2" caliper - 10' HT. Min.	LARGE TREE B&B, Grows more than 30' + tall
150	Pachysandra terminalis	Spurge	In flats of 50	Grows less than 2' + tall, 3 flats total



Typical Plant & Mulch Bed Section

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44 White Street | Somerville, Massachusetts

SITE LANDSCAPE PLAN L-2

October 9, 2025

Green Roof Maintenance

1.1. Maintenance immediately following installation (by roofing contractor)

Sedum roofs require care and attention in the weeks following their installation. After a period of 6 to 8 weeks during the growing season, the edges of the sedum blankets will knit together, and the roots of the sedum plants will extend into the growing media. All living roofs must be carefully monitored through their first summer flowering cycle.

1.2 Maintenance post-establishment (by client/building owner)

Inspect the roof at least twice yearly, in spring and autumn, and inspect all roofs after any severe storm. Make frequent inspections on buildings that house manufacturing facilities that evacuate exhaust debris onto the roof.

The following steps should be undertaken during each roof inspection:
• Clean roof drains of debris.
• Remove leaves, twigs, cans, balls, etc. which could plug roof drains.
• Bag and remove all debris from the roof as debris on the roof surface will be quickly swept into drains by heavy rains and drainage problems may occur.
• Notify the roofing contractor immediately if a roof leak occurs.

1.3 Safe Access
Appropriate measures should be taken at both design and construction stages to ensure safe access and passage over the planted roof areas for maintenance personnel.

1.4 Gutters and Outlets

The checking of gutters and outlets should be carried out routinely during any maintenance check to ensure drainage is not impeded.

1.5 Watering and Irrigation

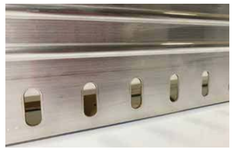
If an extended period of dry weather should occur (14 or more dry days), periodic checks should be made on the roof to examine the reservoir and drainage board to determine if all the water contained has been used by the plant layer. Apply water using a sprinkler attachment or porous or perforated pipe until the substrate is thoroughly saturated and the reservoir cups are filled.

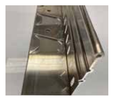
Greenrise Technologies

GRO METAL EDGING
SPECIFICATIONS

GRO METAL EDGING

GRO Metal Edging is a strong yet lightweight, bendable restraint that provides a great finished look for both modular systems and/ or intensive and extensive layered green roof systems. Our "L shaped" design retains green roof planting materials and can be an edging detail for paver and tiles on rooftop walkways. GRO Metal Edging accommodates design curves and angles and is easy to install, making it a great alternative to structural curbing.





MATERIAL	Aluminum Extruded 6063 Alloy
DIMENSIONS	Varying heights 4.5", 6.5" & 8.25" height x 8' lengths
FINISH	Mill Finish Anodized Black DuraFlex available by special order
TEMP. DISPLACEMENT	Extruded aluminum is not impaired by exposure to low temperatures
UV RESISTANCE	Aluminum reflects ultraviolet radiation and is not damaged by harmful UV rays
COMBUSTIBILITY	Extruded aluminum will not burn, making it safer than many materials such as wood, paper, or plastic in design applications. Extruded aluminum also does not emit any toxic, hazardous fumes when exposed to high temperatures.

Greenrise Technologies

GRO DRAIN COVERS AND LIDS
SPECIFICATIONS

GRO DRAIN COVERS and LIDS

GRO Drain Covers and Lids are lightweight for rooftop applications and provide a functional purpose with a polished look. They provide effective drainage of rainwater, retain green roof materials from entering the roof drains, and protect drains in the path of roof top walkways and decks. GRO Aluminum Drain Covers and Lids are designed to complement GRO Metal Edging in both modular and layered green roof applications. All aluminum GRO Drain Covers and Lids are from made recycled aluminum, are 100% recyclable, and may qualify for LEED points.

MATERIAL	Extruded 6063 Alloy Aluminum
DIMENSIONS	15" x 15" x 6" high (inside) Custom sizes available
FINISH	Mill finish anodized
UV PROTECTION	Reflects ultraviolet radiation
SECURITY	2 piece with lockable lid

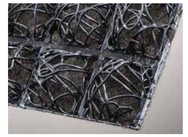
www.greenrisetech.com info@greenrisetech.com

Greenrise Technologies

GRO DRAIN MAT - 0.5"
SPECIFICATIONS

GRO DRAIN MAT - 0.5"

GRO Drain Mat 0.5" is a ½" thick drainage core with an extruded polymer matrix of tangled monofilaments, thermally bonded to a non-woven geotextile and molded into waffle patterns, for excellent compressive strength. The fleece is a lightweight non-woven, for excellent filtering performance, with high tensile and tear strength.



DRAIN MAT SPECIFICATIONS

MATERIAL	Core: Extruded Polymer Fleece: Non-Woven Geotextile
ROLL DIMENSIONS	4' x 100' x 0.45" high; 400 ft²/roll & 48" diameter
ROLL WEIGHT	56 lbs/roll
COMPRESSIVE STRENGTH	>30,000 psf (ASTM D1621 modified & ASTM D4716) (flow rate may be decreased)

FLOW RATES: ASTM D4716

COMPRESSION APPLIED (psf)	1.0 GRADIENT	.04 GRADIENT	.02 GRADIENT
50			2.12 gpm/ft
100		2.05 gpm/ft	
250			1.95 gpm/ft
500	16.30 gpm/ft	2.20 gpm/ft	1.17 gpm/ft
1,000	13.72 gpm/ft	1.89 gpm/ft	.97 gpm/ft
2,000	6.81 gpm/ft	.67 gpm/ft	.35 gpm/ft
30,000			.10 gpm/ft*

* 30,000 psi was applied for 1 hr. then able to relax for 24 hrs. before 1,000 psf was applied to sample and ASTM D4716 was run. Passed.

FABRIC SPECIFICATIONS

	NON-WOVEN	ASTM
WEIGHT	.5 oz/ft²	D5261
PUNCTURE STRENGTH	250 lbs	D6241
AOS (MAX. AVERAGE)	70 US Sieve	D4751
PERMEABILITY	0.21 cm/sec	D4491

www.greenrisetech.com info@greenrisetech.com

STANDARD SEMPERGREEN SEDUM-MIX BLANKET

100 % biodegradable vegetation blanket produced on a coir mat, a Sempergreen® substrate mix and a plant mix consisting out 12 to 16 varieties of succulents. Sempergreen® vegetation blankets are produced in accordance with FLL guidelines and ANSI-SPRI compliant.

- Sedum spurius 'Fuldaglut'
- Sedum spurius 'John Creech'
- Sedum spurius 'Red Carpet'
- Sedum kamtschaticum 'Variegatum'
- Sedum kamtschaticum
- Sedum kamtschaticum var. floriferum 'Weihenstephaner Gold'
- Sedum takesimensis 'Golden Carpet'
- Sedum x Immergrunchen
- Sedum subsp. rupestre 'Angelina'
- Sedum subsp. rupestre 'Blue Spruce'
- Sedum acre 'Aureum'
- Sedum acre 'Goldmoss'
- Sedum album 'Coral Carpet'
- Sedum album 'Murale'
- Sedum hispanicum
- Sedum sexangulare
- Sedum stefco

TECHNICAL DATA

Coverage:	85% - 95%
Weight dry:	Approx. 3 ½ -4 lbs/sq.ft
Weight saturated:	Approx. 4 ½ - 5 lbs/sq.ft Approx. 22-24 ½ kg/m²
Tensile strength:	N/A
Thickness:	0.50 – 0.75 inch (1.3 cm – 1.9 cm)
Sq.ft per roll:	25 sq.ft (2.32257 m²)
Width roll:	Approx 47" (119.38 cm)
Length roll:	Approx 77" (195.58 cm)
Square footage per pallet:	15-16 rolls per pallet space = 375-400 sft per pallet space

Maximum square footage per truck: Approx 9000 sft

Actual sft per truck depends on the moisture content (=weight) at the time of harvesting.

Moerings USA, LLC P.O. Box 60 Lignum, VA 22726 T: (540) 399-5055 F: (540) 399-9085 E: sales@moeringsusa.com W: www.sempergreen.com

Greenrise Technologies

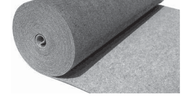
GRO ROOT BARRIER 20
SPECIFICATIONS

GRO ROOT BARRIER 20

GRO Root Barrier is a smooth polyethylene geomembrane film that acts as a waterproof seal, protecting the soil from moisture loss, and redirects soil roots as needed. For use when a root barrier is required.

MATERIAL	Black Polyethylene Geomembrane
THICKNESS	20 mil *Other thicknesses available upon request
DIMENSIONS & WEIGHT	53" x 136' ; 600 ft²/roll ; 85 lbs/roll 53" x 175' ; 773 ft²/roll ; 96 lbs/roll
TENSILE STRENGTH @ BREAK	96 ppi (ASTM D6693)
ELONGATION @ BREAK	900% (ASTM D6693)
TEAR RESISTANCE	12 lbs (ASTM D1004)
PUNCTURE RESISTANCE	60 lbs (ASTM D4833)
CARBON BLACK CONTENT	2.4% (ASTM D4128)
OXIDATIVE INDUCTION TIME	100 mins (ASTM D3895)

Product Data Sheet
Protection Mat SSM 45



Water and nutrient retention mat of recycled synthetic fibers, for the application as a protection layer under green roofs, gravel fills, slab pavings, etc.

Technical Data EDP No. 2046

Protection Mat SSM 45
High quality recycled fiber mat made of polyester/polypropylene.

Color:	brown mottled	
Thickness:	ca. 0.2 in.	(ca. 5 mm)
Weight:	ca. 0.1 lbs/sq. ft.	(ca. 470 g/m²)
Water retention capacity:	ca. 0.12 gal/sq. ft.	(ca. 5 l/m²)
Strength class:	3	
Protection efficiency according to EN ISO 13428:	Residual thickness ≥ 40 %	
Tensile strength lengthwise:	> 31.4 lbs/in.	(> 5.5 kN/m)
Extension lengthwise:	> 75 %	
Dimensions:	ca. 6.6 ft. x 32.8 ft.	(ca. 2.00 m x 10.00 m)

ca. 215 sq. ft. (ca. 20 m²), folded

Features

- resistant to mechanical stress
- with proven protective effect according to European Standard EN ISO 13428
- water and nutrient retention
- non-rotting
- biologically neutral
- bitumen and polystyrene compatible
- made of recycled fibers
- quick and easy installation

Installation Instructions

Install the Protection Mat SSM 45 above a waterproofing or root barrier with an overlap of 4 inch. The protection mat has to be taken above the Growing Media along edges and at roof penetrations. Cut the protection mat in situ at roof penetrations. Consider an allowance for overlap and wastage of ca. 10–15 %. Protection Mat SSM 45 is, included, but not limited to, to be installed according to manufacturer's instructions, not exposed to UV-light, completely covered. Call manufacturer for further options.

Health and Safety

This product does not require a material safety data sheet (MSDS) according to the OSHA Hazard Communication Standard (29 CFR 1910.1200). When used as recommended or under ordinary conditions, it should not present a health and safety hazard. However, an MSDS can be provided as a courtesy in response to a customer request.

Subject to technical alterations and printing errors • First edition 07/2007, Revised 08/2017

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info@zinco-usa.com · www.zinco-usa.com

Life on Roofs

NOTE:
SEE PLAN A-103 FOR LAYOUT

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