

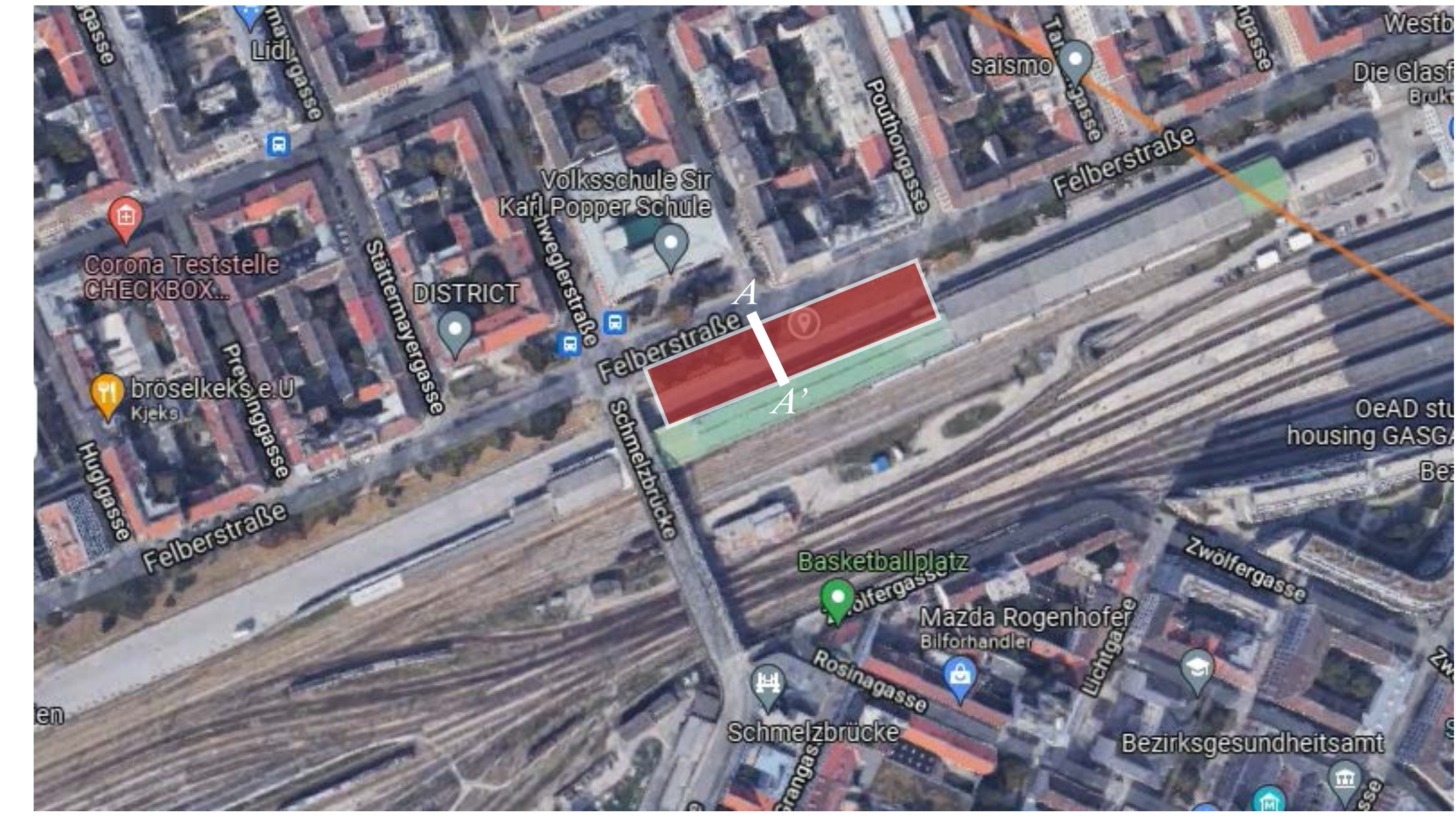
# Design for health

- a suggestion for planting design aiming at maximized effects on the health of the city and its population in an urban redevelopment area; Westbahnhof in Vienna

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In Westbahnhof we have one existing "wall" of grass at a south facing slope with a row of trees at the upper level in an ocean of concrete and train rails. In this exercise in planting design I wanted to investigate how one could design health-boosting outdoor rooms for both environment and people. I wanted to combine research about grass being the most efficient stress relieving type of green (1), forest and shrub covers having the only association with for less Medicare costs (2) and higher effects on population health (3), lower chances for mental health issues (4) and less criminality (5). I also wanted to include herbaceous plants that stimulate the senses when looking, smelling or touching them to increase the healing effect as well as the aesthetic value of the planting design. I chose to focus on 2 layers to maximise the health effect in the great landscape; the wood structure and the field layer with herbaceous plants being flowers or meadows. I aimed at providing the area with more ecosystem services such as pollen for pollinating species, increase of biodiversity and shelter, provide fresh air and recreational areas to mention some.

An exploration of the different design options possible for the area gave a clear view of how different design principles affect the atmosphere, if the space is open or sheltered and the role and style of the place; would it be representative, focused towards one or more focus points, a place for walking or relaxing, directed with axes or open. Following are different design options with a description.



Lageplan with section line, Westbahnhof

Natural borders with perennials along the edges frames and shelters the flat walking plane. Single trees stand in the grass with a pathway slinging in between. Open, airy, aesthetically pleasing. Plantings in the edges also invite people from the walking path to experience the plants or the shadow from the canopies with a rest in the grass. Representative, nice for movement and stay. Frames, several focuspoints along the way, axes along the edges.



Suggestion 1a

- Groups with trees create a bigger sensation of a natural woody landscape. More playful and exciting. Shorter view, more happening. Invites for play behind the tree trunks or for climbing. - less noticeable axes along the edges.



Suggestion 1b

Single trees standing in grass or perennial plantings. Closer contact with the plantings that follow the pathway, allowing for easier interaction. More airy, free and open landscape without clear borders. Nice for movement, more focused. Several focuspoints along the pathway, less noticeable axes.



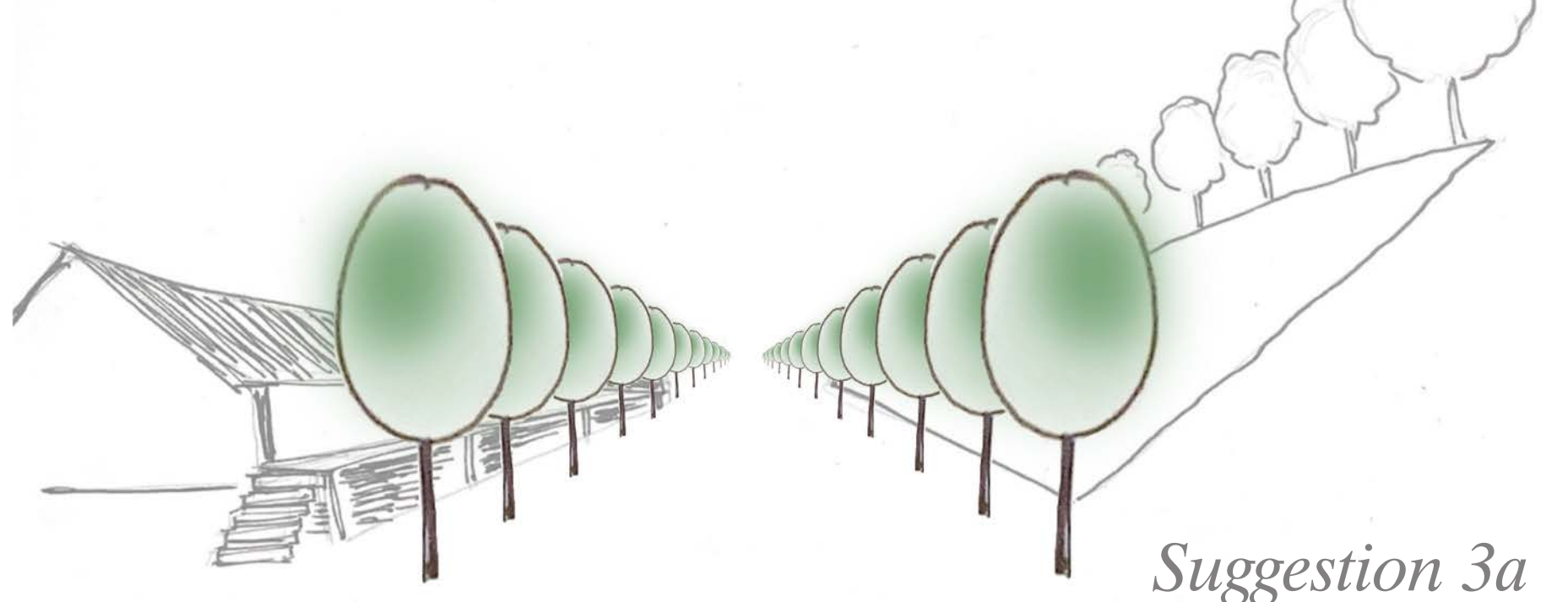
Suggestion 2a

- Groups with trees in plantings create a denser vegetation that is also less available to interact with. Less interactive design for trees and play. Nice for movement, more focused. Representative, more to look at than to interact with. Frames, several focuspoints along the way, less noticeable axes along the edges but centered focus following the pathway.



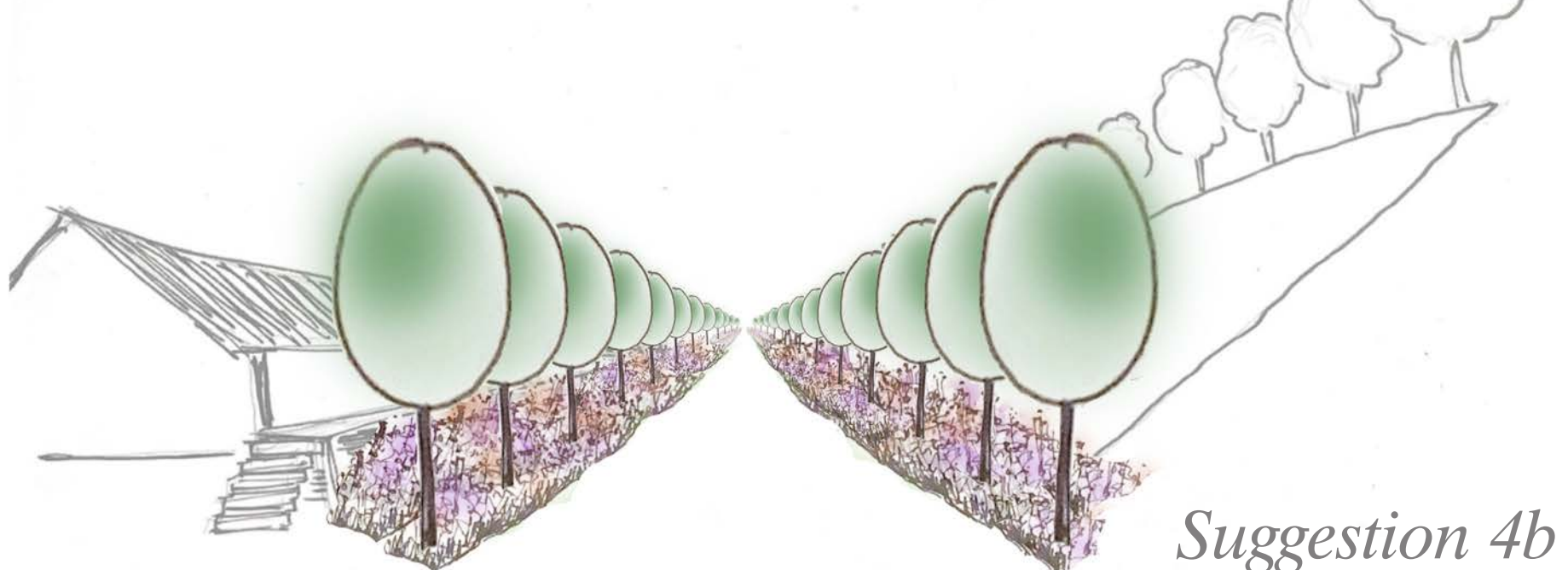
Suggestion 2b

Allees create clear borders and sheltering frames. Formal and representative, nice for movement. Clear axis. Calming and leading design. Strict frames, one strong focuspoint which drags you along the axis.



Suggestion 3a

Plantings soften up the allees and make them more appealing with two layers and more expressions. Nice for slower movement. Clear axis. Calming and leading design. Strict frames, one strong focuspoint at the end, several focuspoints along the way with the plantings.



Suggestion 3b

I chose to work with suggestion 1b for further development of planting design. I wanted to achieve plantings with wide seasonal aspects and a design that would function the whole year round. Structural plants and perennials with sensory qualities and winter aspects became prioritized as well as trees with great canopies for aesthetic value and climbing possibilities.

The south facing slope would also be included in the design and because of the optimal conditions I chose to plant fruit trees in the slope with a wild meadow based on a seed mixture for a flowering meadow that can be left to develop wild after planting. The seed mixture is from Austrosaat and is called BLUMENWIESE „Paradiesgarten“ with a mixture of grasses and herbaceous plants. The meadow shall not be cut, hence become a shelter for insects and wild animals and this will also mean that the fruit from the trees will not be bothersome in the meadow when it falls. The meadow will contribute to many ecosystem services and play a natural looking role in the area, also possible to play in if the angle allows for it.



The flat plane today covered in concrete will be opened up leaving a 1.5m wide gravel pathway that slings in between the vegetation. The rest of the flat plane will be covered with kept grass that can be used as public lawn to walk over, rest in, picnic at, play on or simply to look at. At the edges 2m wide plantations with perennials decorate and attract insects and people, pulling them in from the pathway to explore. In between 3 tree types of trees are placed in groups, two singlestem trees being Acer platanoides and Aesculus hippocastanum and one multistem tree being Tilia tomentosa. These trees are chosen for their good performance in urban environments and well suited aesthetics for the area. The trees are spread like in the old landscape gardens, some in clumps and some standing alone. This to make the system natural like and not rigid.

The planting design is inspired by Piet Oudolf and his natural looking mixed plantings. The planting plan is to be used as a matrix for the whole length of the area, with the dimension of 2x10m for the planting belts that are repeated on both sides of the flat plane. The design principle is based on a combination of matrix plants in blocks with scattered plants in between. For the planting belts there are 4 blocks with different plant combinations. This to create a airy, loose, natural looking planting with plant combinations inspired by those Piet Oudolf uses and others that create nice colour and structure combinations.

Plantplan, M 1:20 (A0)  
2m

## Plantlist

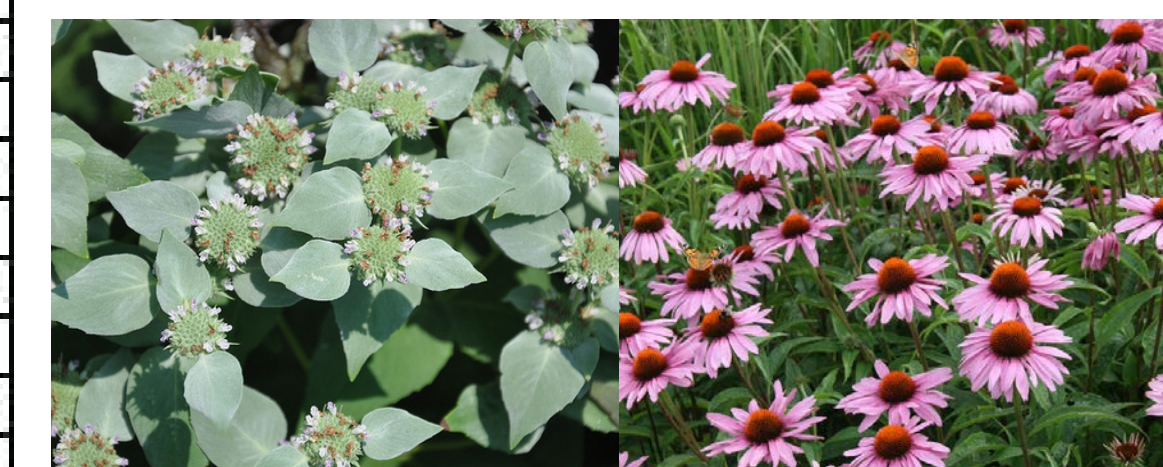
Block no.	Block area m2	Latin name	English name	Kultivar	Plant type	Height, m	Width, m	Plant tolerance, m	SL/m2	Group distribution %	Group distribution m2	Amount per group	Lebenseroleth	Seasonal interest	Profitability in city	With aspect
Ap		Acer platanoides	Norway maple		Singlestem tree	20	15	7.5						V	X	
Ah		Aesculus hippocastanum	Horse chestnut		Singlestem tree	20	20	8						V	X	
M		Malus x domestica	Apple tree		Singlestem tree	3-10	4-5	5						V-VI	X	
Pd		Prunus domestica	Plum tree		Singlestem tree	5-6	5	5						V-VI	X	
Pa		Prunus avium	Cherry tree		Singlestem tree	12-20	8-12	8						V-VI	X	
Tl		Tilia tomentosa	Silver Linden		Multistem tree	20	20	12						V-VI	X	
<b>Matrix plants, blocks</b>																
Dc #1	2	Deschampsia cespitosa	Tufted Hair Grass	'Goldschleier'	Perennial	0.6-1	0.4-0.8	0.4	3-5	40	0.8	4	GnFr2-3	VI-VIII	X	X
Km		Kneiffia macedonica	Macedonian scabious		Perennial	0.6-1	0.45-0.6	0.6	2	40	0.8	2	FnGr-2	VII-IX	X	X
Ka		Knautia arvensis	Field scabious		Perennial	0.3-1	0.45-0.6	0.5	4	20	0.4	2	Fr1-2Gr2	V-VIII	X	X
Dc #2	2	Deschampsia cespitosa	Tufted Hair Grass	'Goldschleier'	Perennial	0.6-1	0.4-0.8	0.4	3-5	30	0.6	3	GnFr2-3	VI-VIII	X	X
Td		Thalictrum delavayi	Chinese meadow Rue		Perennial	1.2-1.8	0.45-0.6	0.6	2	70	1.4	3	GnG2	VII-VIII	X	X
Ep #3	1,6	Echinacea purpurea	Eastern Purple Coneflower		Perennial	0.8-1	0.4-0.5	0.35	7-9	60	0.9	8	BFr1-2	VII-IX	X	X
Pm		Phycanthemum multum	Mountain mint		Perennial	0.7-1	0.6-0.9	0.4-0.6	3-6	40	0.6	4	Fr1-2Gr1-2	VIII-IX	X	X
Eb #4	1,8	Echinops bannaticus	Globe Thistle	'Blue glow'	Perennial	0.9-1.2	0.3-0.6	0.6	7	30	0.54	4	FnBGR1-2	VII-VIII	X	X
Hh		Helianthus Hybrid	Sunflower	'Kanaria'	Perennial	1-1.2	0.3-0.5	0.7	2	70	1.26	3	BFr2	VII-VIII	X	X
<b>Total m2 blocks</b>																
																7,3
<b>Scattered plants</b>																
Aa		Allium sphaerocephalum	Round headed onion		Perennial	0.7-1	0.3-0.45	0.25	16	16	1,91	30	FnB1-2	VII	X	X
Al		Aspenula tinctoria	Dyers Woodruff		Perennial	0.3-0.4	0.4	0.4	6	36	4,45	27	GnFr1-2	VI-VII	X	X
Ea		Echinacea purpurea	Eastern Coneflower	'Alba'	Perennial	0.8-1	0.4-0.5	0.35	7-9	20	2,54	23	BFr1-2	VII-VIII	X	X
Sh		Sporobolus heterolepis	Prairie Dropseed		Perennial	0.4-0.7	0.4-0.8	0.5	4	30	3,81	16	FR1-3	VII-IX	X	X
<b>Total m2 scattered pl.</b>																
																12,7
<b>Total m2 planting</b>																
																20

## Section AA', M 1:50 (A0)

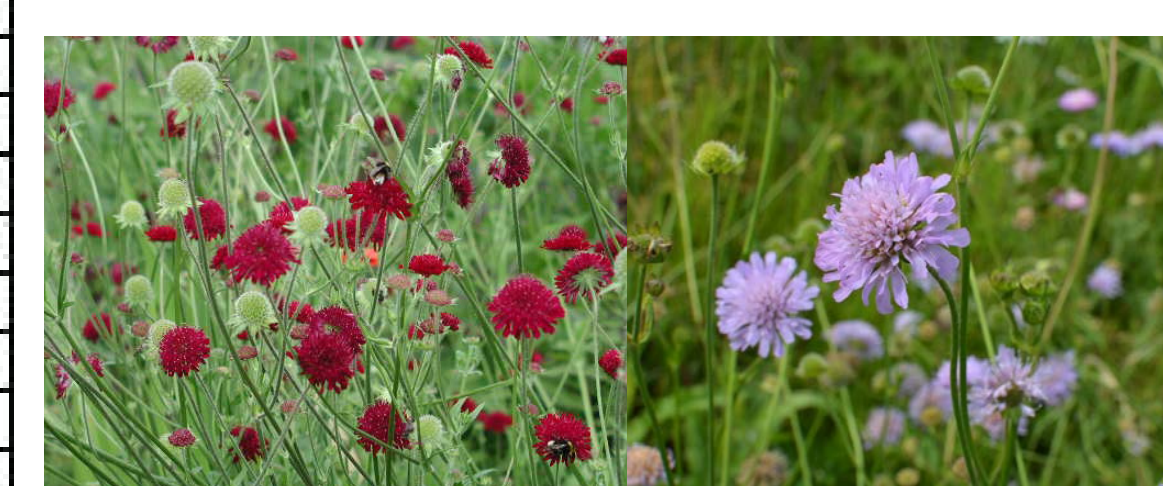


## Illustrations of plants

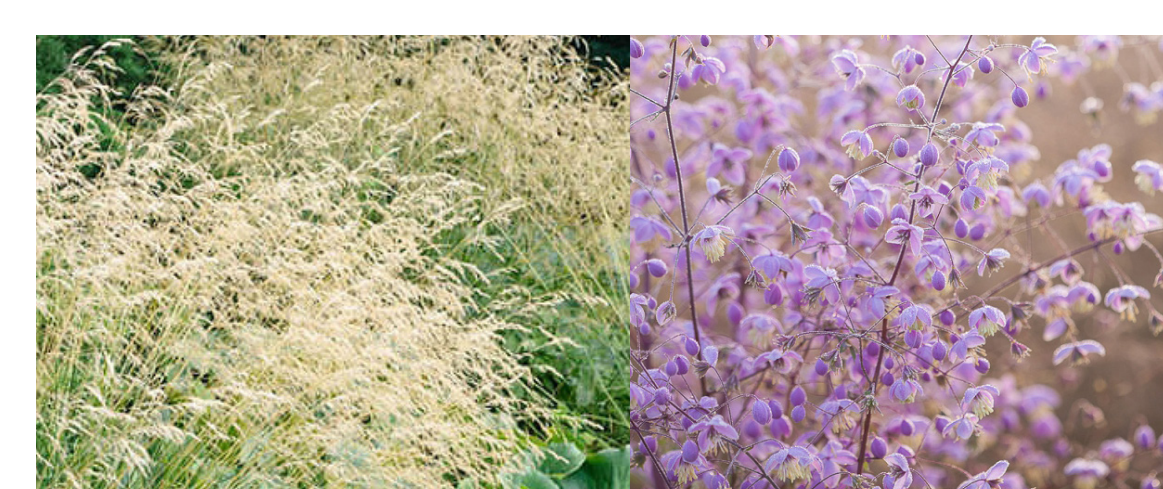
#3



#1



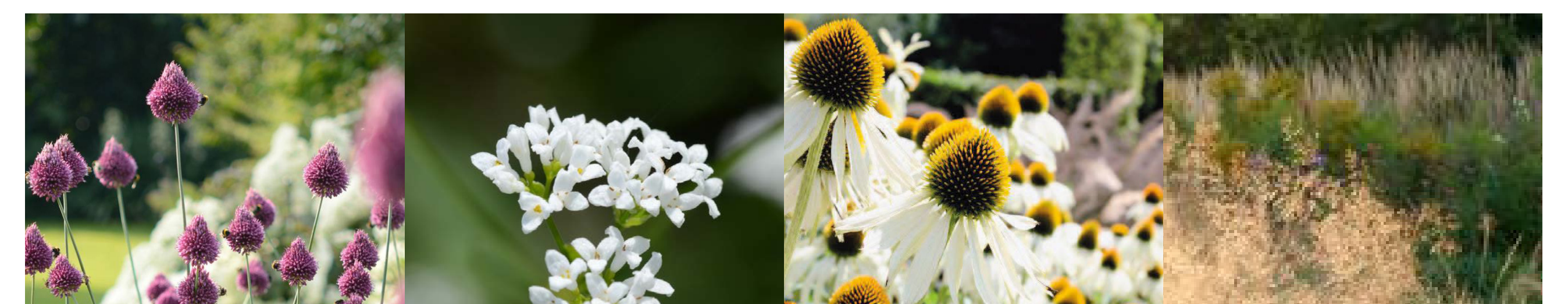
#2



#4



## Scattered plants



## SOURCES:

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