MILTON ROAD
REPLACEMENT TREE PLANTING

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Milton Road highway corridor reconfiguration

Opportunity

- With the reconfiguration of Milton Road we have an opportunity to improve planting conditions and replace the existing trees many of which are in poor condition.
Replacement tree choice

Process
1. Identify the current tree and planting issues,
2. Identify possible tree types that might suit the character of Milton Road (aesthetic and practical),
3. Clarify the improved planting conditions that might be achieved with the reconfiguration,
4. Identify a new approach to tree planting on Milton Road and possible tree types that would thrive given the new conditions.
Milton Road : Current situation
Milton Road : Current situation

Milton Road

- Tree planting areas are small and do not allow adequate space for roots,
- Tree health is poor due to ground conditions,
- Non porous surfaces prevent air and water getting to the roots,
- All of the above impact on the health and long term viability of the trees.
Milton Road : Current situation

Specific problems

- Poor cultivar which is prone to shedding branches,
- Opportunity missed in terms of species size.
Milton Road: Current situation

Specific problems

- Numerous underground services which have trenched through tree roots,
- Pruning by high sided vehicles.
What we can achieve...
What we can achieve...

Success on Metcalfe Road
(secondary road)
- Better ground conditions,
- Allowed for maturity of trees,
- Opportunity for betterment on Milton Road.
Considerations for street tree types that might suit Milton Road
Considerations for street tree types that might suit Milton Road

- Aesthetic considerations,
- Practical considerations,
Considerations for street tree types that might suit Milton Road

Aesthetic considerations:
- Tree form,
- ultimate tree height,
- ultimate canopy width,
- visual interest,
- leaf size and shape,
- leaf colour,
- flowering/non flowering,
- evergreen/deciduous
Considerations for street tree types that might suit Milton Road

Practical considerations:

- Available space,
- Presence of utilities,
- Pests and diseases,
- Robustness and vigour,
- Resilience to climate change (drought and heavy rain fall),
- Resilience to reflective heat,
- Consideration of property access and sight-lines,
- Light obstruction and property shading,
- Excessive leaf litter,
- Excessive fruit fall,
- Allergies to pollen.
Considerations for street tree types that might suit Milton Road

Practical considerations: Space

- How much space is there available above ground for maturing tree trunks and branches?
- How much space is there available below ground for an expanding root system?
Considerations for street tree types that might suit Milton Road

Practical considerations: Utilities

- Are there numerous drainage and other utilities present competing for rooting space?
Practical considerations:

**Pests, Diseases and Sensitivities:**

Avoidance of trees with known issues such as:

- Leaf Miner Moth (Horse Chestnut),
- Chalara (Ash die back),
- Sensitivity to drought (Cherry, Oak, Beech).
Planting conditions that might be achieved
Solutions for find rooting space for trees in the highway

- **Load bearing raft** above root zone and below hard paving.
Solutions for find rooting space for trees in the highway

- Load bearing soils in the root zone to accommodate hard paving above.
Solutions for find rooting space for trees in the highway

- **Rootcell** system in the root zone to accommodate hard paving above.

**Benefits**

- Interlocking recycled material panels give huge strength
- Open structure – fast filling and class leading soil void ratio – more soil for the tree
- Fast installation reduces labour costs
- Less plastic – reduces costs
- Unique patented Airflow lid – encourages movement of air allowing the soil to breathe
- Excellent space provision for integrating utilities
- Lid designed to allow fast re-excavation for utility emergencies
- Open lattice – high strength but maximum soil space
A new approach to tree planting on Milton Road and possible tree types
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- Milton Road is a major approach road into the city,
- Proposal is to plant both side of the road with trees forming an avenue where possible thereby safeguarding the avenue character.
A new approach to tree planting on Milton Road and possible tree types

- **Traditional Approach**: Historically the convention is to create uniform avenues with a single kind of tree at a regular spacing (e.g. Horse Chestnut trees on Victoria Avenue)

- **Contemporary Approach**: Genus and species diversity has become key to improving the resilience of tree populations in a changing climate and the increased threat from drought, pests and diseases.
A new approach to tree planting on Milton Road and possible tree types

- We need to strike a balance between diversity to avoid wholesale tree failure due to new pests and diseases and a sense of continuity along the road.
A new approach to tree planting on Milton Road and possible tree types

A variety of strategies to promote diversity are appropriate to do this:

- Identify logical points along the length of the road where the character changes and therefore it would be logical to change the genus and/or species,
- A mix of difference cultivars of the same species with similar form, height or other attributes,
- Tried and tested species for use in streets to lessen the risk of planting failure.
A new approach to tree planting on Milton Road and possible tree types

A variety of strategies to promote diversity are appropriate to do this:

- Large genus trees where possible (ultimate height of more than 15m),
- Use of narrow crowned forms only where necessary, i.e. where property set backs are less and highway corridor narrow,
- Positive Arboricultural characteristics, e.g. easy to prune, no basal suckers, excessive fruit, no recognised pest and disease issues, no structural issue, low subsidence risk.
Milton Road – principal characteristic

CHARACTER ZONE 1

Two conditions:

NARROWER

WIDER

CHARACTER ZONE 2
Proposed Tree Planting Size:
Semi mature

Height on planting
4m – 5m
Milton Road Palette of Trees

We have considered all the practical issues and have created a palette of trees that we feel will do well in Milton Road given the known practical constraints present.

- The Palette is divided into two basic tree types –
  Narrow Crowned for Milton Road south of Arbury Road (Character Zone 1).
- Broad Crowned for Milton Road north of Arbury Road (Character Zone 2).
Milton Road Palette of Trees

Character Zone 1 : Narrow Crowned for Milton Road south of Arbury Road
Narrow Crowned Trees

Betula ermanii
(Erman’s Birch)
Height – 12-17m
Crown – pyramid
Attributes - yellow lefted in autumn and yellow white flaking bark
Narrow Crowned Trees

Betula albosinensis
‘Fascination’
(Chinese Birch)

Height – 12-17m
Crown – columnar
Attributes - yellow leaved in autumn and orange/brown flaking bark
Narrow Crowned Trees

Betula utilis
‘Jacquemontii’
(Himalayan Birch)

Height – 12-17m
Crown – rounded
Attributes – distinct bright white bark
Narrow Crowned Trees

Prunus x Schmitii (Flowering Cherry)
Height – 15-20m
Crown – oval
Attributes – polished red-brown bark, autumn leaf colour and pink/white flowers
Narrow Crowned Trees

Pyrus chanticleer (Ornamental Pear)
Height – 10 -15m
Crown – pyramidal
Attributes – early white flowers, autumn leaf colour
Narrow Crowned Trees

Alnus incana (Grey Alder)
Height – 15 -20m
Crown – pyramidal
Attributes – Bright green foliage yellowing in autumn, pink/yellow catkins in early spring.
Milton Road Palette of Trees

Character Zone 2: Broad Crowned for Milton Road north of Arbury Road
Broad Crowned Trees

Liriodendron tulipifera (Tulip tree)
Height – 20m+
Crown – columnar
Attributes – unique leaf shape, green yellowing in autumn, large yellow/green flowers, fragrant
Broad Crowned Trees

Tilia cordata Winter Orange (Lime)

Height – 15m - 20m

Crown – rounded

Attributes - green leaf yellowing in autumn, distinct orange bark, fragrance in early summer
Broad Crowned Trees

Tilia tomentosa – (Silver lime)
Height – 20m+
Crown – rounded
Attributes – large leaf with pale underside yellowing in autumn, clusters of small yellow flowers, fragrance in early summer.
Broad Crowned Trees

Tilia americana
American Sentry
(American Lime)

Height – 10m – 15m
Crown – pyramidal

Attributes – large leaf with lighter green underside yellowing in autumn, clusters of small yellow flowers, fragrance in early summer.
TASK 1: AVENUE / STREET TREES

Two conditions:
NARROWER WIDER
NARROW TREE SELECTION

1. Japanese Birch
   - Betula gracilis
   - Height: 15-17m
   - Crown: pyramidal
   - Attributes: silvery white bark, grey bark

2. Chinese Birch
   - Betula platyphylla
   - Height: 15-17m
   - Crown: pyramidal
   - Attributes: yellow leaves in autumn

3. Himalayan Birch
   - Betula utilis
   - Height: 15-17m
   - Crown: pyramidal
   - Attributes: bright white bark

4. Flowering Cherry
   - Prunus x subhirtella
   - Height: 15-20m
   - Crown: oval
   - Attributes: pink flowers

5. Ornamental Pear
   - Pyrus calleryana
   - Height: 10-15m
   - Crown: pyramidal
   - Attributes: light pink flowers

6. Grey Alder
   - Alnus incana
   - Height: 10-15m
   - Crown: pyramidal
   - Attributes: light pink flowers

BROAD TREE SELECTION

7. Tulip Tree
   - Liriodendron tulipifera
   - Height: 20m
   - Crown: rounded
   - Attributes: green leaves, white flowers

8. lime
   - Tilia cordata
   - Height: 15-20m
   - Crown: rounded
   - Attributes: green leaves

9. Silver Lime
   - Tilia tomentosa
   - Height: 20m
   - Crown: pyramidal
   - Attributes: light green leaves

10. American Lime
    - Tilia americana
    - Height: 10-15m
    - Crown: pyramidal
    - Attributes: light green leaves


TASK 1

Identify preferences for Tree types along Milton Road, relative to:

- (a) From ‘Narrow’ Tree short list. Each Group asked to select top 3 preferred tree types (South of Arbury Road Junction)

- (a) From ‘Wider’ Tree short list. Each Group asked to select top 2 preferred tree types (South of Arbury Road Junction)
TASK 2
TASK 2: LANDMARK LANDSCAPES

1 Library
2 Parade
3 Woodhead
4 Golden Hind
Space to Meet?

Hornchurch, London, Studio Weave

Urban Physic Garden, Southwark, London, Wayward
Quiétude?
Identity?
Space to play?

Activating Street furniture; New Addington Central Parade, London, Assemble

Wild Kingdom; Three Mills Green, London, We Made That

Street gym; Beijing

Sand Pit, Queens Walk, London
Hard surfaces?
Different sorts of seating...
Spectacle. Time.
Ways of growing - additional involvement?
What’s it like at night? Dark or light?
Other Considerations

- Passive surveillance and self-policing.

- Myriad practical constraints - such as below ground services, budget, restrictions imposed by management and ownerships etc etc.

- Features should be robust and require little maintenance.

- BUT they should be of high design and visual quality (so as to encourage a sense of ownership, enjoyment and pride).
TASK 2

Based on key future ‘landscape landmark’ areas identified along Milton Road:

- Each group will be assigned a landmark area and asked to identify ideas for its use and design.

- Facilitators will lead groups through a structured proforma of questions to help generate ideas.

- Ideas from groups will then be fed back to all attendees to enable wider discussion of ideas for each landmark location.