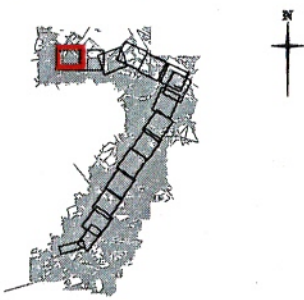


SAFETY HEALTH AND ENVIRONMENTAL INFORMATION	
IN ADDITION TO THE HAZARD/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING RISKS AND INFORMATION.	
IDENTIFIED RISKS ARE NOTED IN ETYN-SEF-XXX-XX-DR-001 RISK REGISTER. REFER TO RISK REGISTER FOR MITIGATION MEASURES. RISKS ASSOCIATED WITH THIS WORKS ELEMENT ARE AS FOLLOWS	
REF.	NAME
21+22	UNFORESEEN UTILITIES
41-48	CONTAMINATED GROUND
49+50	DAMAGE CAUSED TO BUILDINGS DUE TO EXCAVATIONS
54-56	RISK OF DAMAGE TO PEDESTRIANS / ROAD VEHICLES IN CITY CENTRE
FOR INFORMATION RELATING TO USE, CLEANING AND MAINTENANCE SEE THE HEALTH AND SAFETY FILE	
IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.	



SPECIFICATION

All operations will be carried out by a competent and qualified landscape contractor in line with best practice methods suitable for the works as outlined below:

In addition to those standards listed within the specification, all works to conform to the following British Standards:-

- BS 3882:2007 - Specification for Topsoil
- BS 3989 - Recommendations for Turf for General Purposes
- BS 3998 - Recommendations for Tree Work
- BS 4428:1989 - General Landscape Operations excluding hard surfaces
- BS 5837 - Trees in Relation to Construction - Recommendations 2012
- BS 7370: Part 1: 1991 - Grounds maintenance soft landscaping
- BS 3936 - Nursery Stock

The plants/ trees to be planted shall be either British grown or at least grown in the UK for at least one growing season, unless otherwise agreed with the Project Manager.

Vegetation Sizes

Proposed specimen trees shall be either 'Semi-mature' (SM) or Selected Standard (SS) to the following specifications:

Semi-Mature:	Selected Standard:	Standard:
• Girth: 25-30cm	• Girth: 10-12cm	• Girth: 8-10cm
• Height: 550-600cm	• Height: 300-350cm	• Height: 250-300cm
• Root-Balled	• Root-Balled	• Root-Balled
• 4x transplanted	• 2x transplanted	• 2x transplanted
• Min. 200cm clear stem	• Min. 175-200cm clear stem	• Min. 175-200cm clear stem

Shrubs shall be a minimum of 40cm high, supplied in 3L containers, and a density of 5 plants per square metre.

Vegetation Protection

All existing vegetation to be retained in line with the recommendations of BS 5837 and shall remain in place until the site works are complete.

Time of Planting

Trees to be supplied root-balled, to be planted between November and April.

Conifers and evergreen trees shall be treated with a suitable anti-desiccant prior to delivering on site as well as soon after planting.

Hedge planting

Hedge species will be planted in a double staggered row at 7plants per linear metre. Evergreen hedging to be treated with anti-desiccant prior to delivering on site, as well as soon after planting. New hedges shall be supported by suitable post and wire fencing for protection during establishment.

Site Preparation

Existing soil to be utilised on site where possible. The existing soils (subsoil and topsoil) are expected to be adequate for planting and should be to the following minimum depths:-

- Trees - 600-1000mm (max. 400mm topsoil)
- Shrubs - 600mm (300mm topsoil)
- Seeding - 300mm (150mm topsoil)

The Urban Pollinator Mix (wildflower seeding) is to be sown in 300mm of a 50:50 subsoil and topsoil mix. Subsoil alone can be used, but if the structure is poor and the fertility very low there will be a very slow establishment of seeding and dominated by unwanted plants. Soil testing to be undertaken to verify topsoil fertility prior to site preparation. Seeding should take place in spring (March to June) or autumn (Mid-August to last September).

Should depths of soils not fall within these minimum standards soils depths will be increased using imported soil to BS 3882 or existing approved soil from elsewhere on site. Any topsoil brought onto site must conform to BS 3882 and be approved by the Landscape Architect.

The top 300mm layer of compacted topsoil in planting beds shall be broken up prior to planting. Compacted topsoil in areas to be grass seeded shall be broken up to full depth. No digging or soil cultivation shall be carried out within the root spread of trees and shrubs to be retained.

Preparation of tree pits

Excavations for tree pits shall be at least twice the diameter of the root spread and 1.5m times the depth of the roots of the stock to be planted to BS 4428 Section 7.

Tree pits are shown in dashed black lines on the drawings. For proposed new semi-mature trees shall be no less than 2100 x 2100 x 1000mm and tree pits for standard trees shall be 1500x1500x1000mm. These dimensions may need to be increased to ensure that pits are at least 250mm deeper and 600mm wider than the root ball.

In all cases the Contractor shall ensure and demonstrate that sufficient soil volume is available to support the long-term establishment of trees within paved surfaces, and appropriate provision is made for tree pit drainage.

All tree pits shall be backfilled with a previously prepared mixture of topsoil excavated from the pit and additional topsoil as required.

For trees in hard surfacing it is recommended that Green Blue Urban Root Cells are used in order to create sufficient soil volume. The size of the area required is shown on the drawings. Outside of the tree pit dimensions to accommodate the root ball (as above) existing and proposed utilities can be accommodated within this larger pit area.

Underground Cabling (to all trees)

All proposed new semi-mature trees shall be secured with appropriate underground cabling, and incorporate a suitable root irrigation/ventilation system.

Root Barriers

Root barriers shall be provided at the time of planting, in order to constrain the growth of roots where there is a risk that proposed trees or shrubs would damage, or prevent the normal operation/maintenance of, adjacent utilities, buildings or other susceptible structures.

Root barriers shall be supplied and installed in accordance with the manufacturer's instructions.

All plants in containers will be watered prior to planting. All planting areas will be hand stone picked before planting commences.

Mulch

All trees (other than in hard surfaces) and ornamental shrubs to a coarse grade contract bark mulch spread over the entire soil area. A minimum mulch thickness (75mm) in accordance with recommendations of BS 7370: Part 4, shall be applied to protect root systems, prevent surface crust, and suppress weeds, to all areas of planting after watering in.

Care shall be taken to avoid covering low growing species.

Mulch shall have a natural appearance, and shall not deplete the nitrogen content of the soil.

Watering

All trees and planted areas will be watered as appropriate after planting.

Preparation for turf and seeding.

The Contractor shall ensure that all grass seeded areas develop into a healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease. They shall form a closely knit, continuous ground cover of even density, height and colour.

The Contractor shall ensure that all areas to be grass seeded are prepared for seeding with the application of suitable herbicide and pre-seed fertilizer. Compacted topsoil shall be broken up to full depth.

No digging or soil cultivation shall be carried out within the root spread of trees and shrubs to be retained.

Areas to be seeded with the Urban Pollinator Wildflower Mix require all existing vegetation to be removed from the area. Seeds should be mixed with an equal amount of sand due to low sowing rate. Sowing information can be found at: <https://www.scotseeds.co.uk/shop/urban-pollinator-mix/>

All seeded areas will be rotary cultivated to at least 300 mm, stone picked and raked level prior to seeding/ turfing. Any areas where machinery cannot gain access will be prepared by hand. Seeded and turfed areas will be rolled with a lawn roller, to ensure a level surface after establishment of the grass as set out in the guidance given in BS 4428.

Bench Schedule

Benches: For concrete and timber bench 2540x590mm, as supplied by Furnitures, or similar approved. Colour and finish: Dark grey (FCH1), acid etched.

B1: Bench with 2 person platform (no arms) side to side large slot arrangement. Product code FIB 22L B2: Seat with 4 person platform and arms. Product code FTS 4L 4S

Existing / Proposed Lindsay Road Retaining wall - refer to drawing ETYN-SEF-17X-06-DR-S-2400-C01 Lindsay Road Location Plan.

Proposed Lindsay Road Retaining wall - refer to drawing ETYN-SEF-17X-06-DR-S-2400-C01 Lindsay Road Location Plan.

Existing road, footway and planting to be retained.

Existing / Proposed Lindsay Road Retaining wall - refer to drawing ETYN-SEF-17X-06-DR-S-2400-C01 Lindsay Road Location Plan.

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Do not scale from this drawing.

EDINBURGH

THE CITY OF EDINBURGH COUNCIL

SFN

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Key

- Existing Trees/vegetation to be retained
- Existing Trees/vegetation to be removed
- Existing/ Proposed walls
- Proposed
- Pre-cast concrete flags 450x600x63mm, laid in a staggered band at 90° to the kerb with 5-10mm joints. Laid in accordance with BS 7533-4*
- Coltiness natural stone paving flags (castle blend), 450xrandom lengthsx65mm, laid in a staggered band with 5-10mm joints. Laid in accordance with BS 7533-4, as supplied by BBS (or similar approved)*
- Scoutmoor sandstone natural stone paving (diamond sawn finish), 450x450x63mm, laid in a staggered band with 5-10mm joints. Laid in accordance with BS 7533-4 as supplied by BBS (or similar approved)*
- *For vehicle crossover locations and details / paving buildups please refer to Engineer's roadworks package and construction detail drawings.
- Asphalt footpath, to engineers detail
- Pedestrian deterrent paving: Estanhon Grey Granite setts, flamed finish, 200x100mm with deep recessed joints. As supplied by BBS (or similar approved).
- Separator strip: width <0.5m Estanhon Grey Granite setts, flamed finish 200x100mm with deep recessed joints, width >0.5m paving to match adjacent areas
- Cycle route, to engineers detail
- Grosscrete: Grossgrid product as supplied by Aggregate Industries (or similar approved), 366x274x100mm
- Tactile paving
- Ladder tactile paving
- Specimen trees: refer to planting schedule and outline specification on sheet 1 for further details
- Tree grille (to semi mature trees in hard landscape); Castle grille 1800x1800mm infilled with paving to match surroundings, as supplied by GreenBlue Urban (or similar approved) Orientation of grille to match surrounding paving direction
- Linear root barrier: installed for trees in soft adjacent to pavements or utilities. ReRoot1000 as supplied by GreenBlue Urban (or similar approved)
- Gross seeding: refer to outline specification on sheet 1
- Ornamental shrub/ herbaceous planting: refer to planting schedule and outline specification on sheet 1 for further details
- Raised planter: 3mm Cor-Ten steel 2500(0)x950(0)x950(h) as supplied by IOTA (or similar approved)
- Cycle stands: galvanneal steel 'Sheffield' stands (700-1000mm in length and 750 high), 8no. at each location, as supplied by Broxap (or similar approved)
- Litter bin: to match the existing type currently deployed by City of Edinburgh Council within the boundaries of the site
- Bench: refer to bench schedule on sheet 1 for further details
- Pedestrian wayfinding
- ACD Mullidrain channel - Please refer to drainage drawings for further details
- Kerbs - Please refer to engineers drawings for further details

Rev.	Date	Description	Drawn	Chkd.	Appd.
C01	20/03/20	DD+ UPDATES BASED ON UPDATED ENGINEERING INFO, DRN COMMENTS & ISSUE FOR CONSTRUCTION	SDR	ER	ER
P04	20/03/20	DD+ UPDATES BASED ON UPDATED ENGINEERING INFORMATION AND DRN COMMENTS	SDR	ER	ER
P03	20/03/20	DD+ UPDATES BASED ON DRN AND WORKSHOP COMMENTS AND UPDATED SCHEME ELEMENTS	SDR	LF	ER
P02	20/03/20	REVISED FOLLOWING SFN COMMENTS	SDR	LF	ER

SENER FAIRHURST

Project Title: **EDINBURGH TRAM YORK PLACE TO NEWHAVEN**

Drawing Title: **LANDSCAPE PROPOSALS DETAILED DESIGN SHEET 1 OF 15**

Scale at A1: **1:500**

Status: **FOR CONSTRUCTION**

Drawn: **SDR** Checked: **LF** Approved: **ER**

Date: **20/03/20** Date: **01/05/20** Date: **01/05/20**

Project: **ETYN-SEF-XXX-XX-DR-L-0016**

Subsidiary: **A1** Revision: **C01**

Wildflower Seeding Mix - See sheet 2 and 3

Urban Pollinator Meadow Mix (SCM11) or equivalent sown to Scotiaseeds recommendations:

Species	Common name	%
20	wildflowers	
ANNUALS		
Centaurea cyanus	Cornflower	2
Glebionis segetum	Corn Marigold	1
Papaver rhoeas	Corn Poppy	1.5
Tripleurospermum inodorum	Mayweed	1
Rhinanthus minor	Yellow Rattle	2
BIENNIALS		
Daucus carota	Wild Carrot	0.7
Echium vulgare	Vipers Bugloss	1.4
PERENNIALS		
Achillea millefolium	Yarrow	1.1
Hypochaeris radicata	Cats-ear	0.1
Knautia arvensis	Field Scabious	0.6
Leontodon hispidus	Rough Hawkbit	0.5
Leucanthemum vulgare	Ox-eye Daisy	1
Primula veris	Cowslip	0.2
Primula vulgaris	Primrose	0.1
Prunella vulgaris	Selfheal	1.7
Ranunculus acris	Meadow Buttercup	1.3
Stachys sylvatica	Hedge Woundwort	0.5
Succisa pratensis	Devils-bit Scabious	0.5
Taraxacum officinale	Dandelion	0.1
Vicia cracca	Tufted vetch	1.5
80	% grasses	
Alopecurus pratensis	Meadow Foxtail	2
Anthoxanthum odoratum	Sweet Vernal Grass	4
Agrostis capillaris	Common Bent (c)	8
Cynosurus cristatus	Crested-dogs Tail (c)	14
Poa pratensis	Smooth Stalked Meadow Grass (c)	17
Festuca rubra commutata	Chewings Fescue (c)	35

Planting Specification

Trees					
Abbreviation	Species	Height	Girth	Specification	Number
A ca 'E'	Acer campestre 'Elegant'	300-350cm	10-12cm	Selected Standard: 4 brks: 2x: RB: Clear Stem min. 200cm	11
A ca 'E'	Acer campestre 'Elegant'	550-600cm	25-30cm	Semi-Mature: 4x: RB: Clear Stem min. 200cm	9
A ca 'S'	Acer campestre 'Streetwise'	550-600cm	25-30cm	Semi-Mature: 4x: RB: Clear Stem min. 200cm	15
C be 'F F'	Carpinus betulus 'Frans Fontaine'	300-350cm	10-12cm	Selected Standard: 4 brks: 2x: RB: Clear Stem 175-200cm	44
P c 'Ch'	Pyrus calleryana 'Chanticleer'	550-600cm	25-30cm	Semi-Mature: 4x: RB: Clear Stem min. 200cm	9
S ari 'L'	Sorbus aria 'Lutescens'	500-600cm	25-30cm	Semi-Mature: 4x: RB: Clear Stem min. 200cm	36
SaF	Sorbus aucuparia 'Fastigiata'	250-300cm	8-10cm	RB :2x :Standard :Clear Stem 175-200 :3 brks	9
					Total :1333

Shrubs					
Abbreviation	Species	Height	Specification	Diameter	Pot Size
A can	Amelanchier canadensis	175-200cm	2x: Feathered: 5 brks :B		Counted
B m	Brachyglottis monral	40-60cm	Branched: 4 brks: C	3L	5/m²
H 'R E'	Hebe 'Red Edge'		Bushy: 5 brks: C	20-30cm	3L
H a	Hebe albicans		Bushy: 5 brks: C	20-30cm	3L
L an 'H'	Lavandula angustifolia 'Hidcote'	40-60cm	Bushy: 9 brks: C	8L	5/m²
P t 'Y'	Pachysandra terminalis 'Variegata'	40-60cm	Several Shoots: 6 brks: C	3L	5/m²
P ten 'T T'	Pittosporum tenuifolium 'Tom Thumb'	40-60cm	Bushy: 7 brks: C	10L	5/m²
PRULA	Prunus laurocerasus	40-60cm	C :Bushy :3 brks	3L	7/m
*Hedge to be planted at 7 plants per linear meter in a double staggered row.					Total :13621

Herbaceous					
Abbreviation	Species	Specification	Pot Size	Density	Number
E a r	Euphorbia amygdaloides rabbioc	Full Pot: C	3L	5/m²	1841
					Total :1841

Seed Mix - for use along the track

Germinal A22 grade 'A' Low Maintenance Grass Seed Mixture or equivalent sown at 50 gm per sqm:

- 40% Promotor Perennial Ryegrass
 - 35% Abercharm Slender Creeping Red Fescue
 - 20% Cabrio Perennial Ryegrass
 - 5% Highland Browntop Bentgrass
- Cut seeded areas when the sward reaches 75mm reducing to 50mm and removing cuttings from site. Seeding prices shall include the first two cuts and any overseeding necessary to achieve a continuous sward.

Seed Mix - for grass verges

- Germinal A18 Road Verge and Embankments or equivalent sown at 35 gm per sqm:
- 40% Dipper Strong Creeping Red Fescue
- 20% Tetra Smooth Stalked Meadow Grass
- 12.5% Pillar Perennial Ryegrass
- 10% Joanna Chewings Fescue
- 10% Zurich Perennial Ryegrass
- 5% Highland Browntop Bentgrass
- 2.5% Aberc (small) W Clover

NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (m AOD) UNLESS NOTED OTHERWISE.
- FOR DETAILS OF CARRIAGEWAY AND PAVED AREAS SITE CLEARANCE REFER TO DRAWINGS ETYN-SEF-XXX-09-DR-D-0101 TO 0115
- INFORMATION ON THIS DRAWING IS FOR THE DISCIPLINE INDICATED IN THE DRAWING TITLE AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE OR DESIGN.
- HATCHING SHOWN ON PLANS AND KEY IS A GRAPHICAL REPRESENTATION OF PRODUCT ONLY AND IS NOT TO DEMARK LAYING PATTERN OF PAVING, NOTES AND OR DETAILS WILL STATE LAYING PATTERN.
- THE LANDSCAPE PROPOSAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ENGINEERING PACKAGES INCLUDING: ROADWORKS; KERBS; FOOTWAYS AND PAVED AREAS; ROAD MARKINGS; ROAD SIGNS AND SIGNALS; STREET LIGHTING; DRAINAGE WORKS AND TRAM ALIGNMENT. THEY SHOULD ALSO BE READ IN CONJUNCTION WITH THE ACCOMPANYING WORKS PACKAGE.
- DRAWING TO BE READ IN CONJUNCTION WITH LANDSCAPE CONSTRUCTION DETAIL DRAWINGS ETYN-SEF-XXX-XX-DR-L-0031-0034.