

D20 Excavating and filling

To be read with Preliminaries/General conditions

GENERALLY/THE SITE

CLEARANCE/EXCAVATING

164 TREE ROOTS

- Protected area: Do not cut roots within precautionary protection area.
 - Size of area: As defined by the Arboriculturalist.
- Excavation in protected area:
 - Method: By hand.
 - Backfill as soon as possible or temporarily line with polyethylene sheet to reduce evaporation.
- Outside protected area: Give notice of roots exceeding 25 mm and do not cut without approval.
- Cutting:
 - Make clean smooth cuts with no ragged edges.
 - Pare cut surfaces smooth with a sharp knife.
 - Treatment of cut roots: As per Arboricultural Method Statement.
- Backfill: As dug material, enriched with amelioration as section Q31.

166 TREE ROOT BARRIERS

- Trench: Sever all roots.
 - Depth: Below adjacent services.
- Root barrier: Terram Root Guard or similar and approved.
- Cutting roots: As clause 164.
- Root barrier installation: Full depth of excavation. Fit closely to trench wall nearest the tree.
- Backfill material: As dug material excavated from trench.
- Backfilling: Lay and compact thoroughly in layers not more than 300 mm thick.

170 REMOVING SMALL TREES, SHRUBS, HEDGES AND ROOTS

- Identification: Clearly mark trees to be removed.
- Small trees, shrubs and hedges: Cut down
- Roots: Grub up and dispose of without undue disturbance of soil and adjacent areas
- Safety: Comply with HSE/ Arboriculture and Forestry Advisory Group safety leaflets.

175 FELLING LARGE TREES

- Definition: Girth over 600 mm.
- Identification: Clearly mark trees to be removed.
- Safety: Comply with HSE/ Arboriculture and Forestry Advisory Group safety leaflets.
- Felling: As close to the ground as possible.
- Stumps: Remove mechanically to a minimum depth of 300 mm below ground level. Obtain approval before removing by winch. Do not use other trees as supports or anchors.
- Work near retained trees: Take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained, where tree canopies overlap and in confined spaces generally.

180 CHIPPING AND SHREDDING

- General: Client to confirm whether permitted or not, remove arisings from site.

- 225 HANDLING TOPSOIL
- Standard: To BS 3882.
 - Aggressive weeds:
 - Species: Included in the Weeds Act, section 2 or the appropriate Wildlife and Countryside Act for the relevant jurisdiction.
 - Give notice: Obtain instructions before moving topsoil.
 - Contamination: Do not mix topsoil with:
 - Subsoil, stone, hardcore, rubbish or material from demolition work.
 - Other soil or material containing aggressive weeds, sharps, plastics and non soil forming materials and notifiable animal or plant diseases.
 - Oil, fuel, cement or other substances harmful to plant growth.
 - Other classifications of topsoil.
 - Multiple handling: Keep to a minimum. Use topsoil immediately after stripping.
- 370 UNDERGROUND STRUCTURES IN LANDSCAPE AREAS
- Generally: Remove walls, roads, foundations, disused services, drains, manholes and the like to minimum depth.
 - Minimum depth below finished levels:
 - Grass, ground cover and perennial planting: 500 mm.
 - Shrub planting: 750 mm.
 - Within 2 m of tree planting: 1000 mm.
 - Walls and slabs remaining: In every 10 m² of wall or slab, make a drainage hole at least 600 mm diameter.

DISPOSAL OF MATERIALS

- 410 EXCAVATED TOPSOIL STORAGE
- Storage: Stockpile in temporary storage heaps Locations to be agreed .
- 420 TOPSOIL STORAGE HEAPS
- Location: to be agreed.
 - Standard: To BS 3882.
 - Height (maximum): 1.5M.
 - Protection:
 - Do not place any other material on top of storage heaps.
 - Do not allow construction plant to pass over storage heaps.
 - Prevent compaction and contamination.
- 421 TOPSOIL STORAGE HEAP TREATMENT
- Treatment: Apply a suitable herbicide at appropriate times to prevent seeding of weeds .
- 441 SURPLUS SUBSOIL
- Excavated material: Stockpile in temporary storage heaps.
 - Retained material: Spread and level surplus subsoil on site.
 - Locations: to be agreed .
 - Protected areas: Do not raise soil level within root spread of trees that are to be retained.
 - Remaining material: Remove from site.

E

In situ concrete/Large precast concrete

E10

Mixing/casting/curing in situ concrete

E10 Mixing/casting/curing in situ concrete

To be read with Preliminaries/General conditions.

CONCRETE MIXES

101A SPECIFICATION

- For any structural concrete refer to Engineers information.
- Concrete generally: To BS 8500-2.
- Exchange of information: Provide concrete producer with information required by BS 8500-1, clauses 4 and 5.

106 DESIGNATED BLACK TERRAZZO CONCRETE TO COURTYARD WATER FEATURE

- To specialist water feature designers specification, finish to match adjoining seats.

312 PROPRIETARY AGGREGATE

- Manufacturer: Contractor to submit proposals.
 - Product reference: Angular granite aggregate in white and grey (50:50) samples to be provided for approval.
- Standard: To BS 8500-2: .
 - Permitted deviations from standard: none.
- Other requirements: Submit proposals.

PROJECT TESTING/ CERTIFICATION

505 PROJECT TESTING OF CONCRETE - GENERAL

- Testing: BS EN 206-1, Annex B.
 - Nonconformity: Obtain instructions immediately.
- Recording: Maintain complete correlated records including:
 - Concrete designation.
 - Sampling, site tests, and identification numbers of specimens tested in the laboratory.
 - Location of the parts of the structure represented by each sample.
 - Location in the structure of the batch from which each sample is taken.

630 PREMATURE WATER LOSS

- Requirement: Prevent water loss from concrete laid on absorbent substrates.
 - Underlay: Select from:
 - Polyethylene sheet: 250 micrometres thick.
 - Building paper: To BS 1521, grade B1F.
 - Installation: Lap edges 150 mm.

840 PROTECTION

- Prevent damage to concrete, including:
 - Surfaces generally: From rain, indentation and other physical damage.
 - Surfaces to exposed visual concrete: From dirt, staining, rust marks and other disfiguration.
 - Immature concrete: From thermal shock, physical shock, overloading, movement and vibration
 - In cold weather: From entrapment and freezing expansion of water in pockets, etc.

E41

Worked finishes to in situ concrete

E41 Worked finishes to in situ concrete

To be read with Preliminaries/ General conditions.

150A FINISHING

- For specification of any Structural concrete refer to Engineers specification.
- Timing: Carry out at optimum times in relation to setting and hardening of concrete.
- Prohibited treatments to concrete surfaces:
 - Wetting to assist surface working.
 - Sprinkling cement.

310 SMOOTH FLOATED FINISH

- Surface on completion: Even, with no ridges or steps.

F
Masonry

F10
Brick/ block walling

F10 Brick/ block walling

To be read with Preliminaries/ General conditions.

TYPES OF WALLING**110 CLAY FACING BRICKWORK TO COURTYARD WALLS**

- Bricks: To BS EN 771-1.
 - Manufacturer: Brick type to match internal courtyard building facades, refer to Architects specification .
 - Product reference: Refer to Architects specification.
 - Recycled content: Refer to Architects specification.
 - Special shapes: Refer to Architects specification.
- Mortar: As section Z21.
 - Standard: To BS EN 998-2.
 - Mix: Refer to Architects specification.
 - Additional requirements: Refer to Architects specification.
- Bond: Refer to Architects specification.
- Joints: Refer to Architects specification.
- Features: Brick capping as detailed.

345A CONCRETE COMMON BRICKWORK THROUGHOUT

- Engineers to design and specify all concrete blockwork elements, refer to Engineers information.

357 CONCRETE THERMAL BLOCKWORK TO ROOF FOUNDATIONS FOR VARIOUS ROOF FIXED ELEMENTS

- Blocks: To BS EN 771-3.
 - Manufacturer: Marmox (UK) Ltd or similar as approved
Caxton House
101 - 103 Hopewell Drive
Chatham
Kent
ME5 7NP
UK
 - TEL: 01634 835290.
 - Product reference: Thermoblock.
 - Configuration: Group 1.
 - Compressive strength:
Mean value: 6.5 N/mm².
Characteristic value: 5.9 N/mm².
Category: I.
 - Freeze/ Thaw resistance: Not applicable.
 - Thermal properties: Thermal conductivity: 0.032-0.072 W/mK.
 - Recycled content: Not applicable
 - Work sizes (length x width x height): 600x140x65mm.
Tolerance category: D1.
 - Special shapes: None.
 - Additional requirements: None.
- Mortar: As section Z21.
 - Standard: To BS EN 998-2.
 - Mix: 1:1:6 cement:lime:sand.
 - Additional requirements: None.
- Bond: Half lap stretcher.

WORKMANSHIP GENERALLY

- 430 CONDITIONING OF CLAY AND CALCIUM SILICATE BRICKS AND CLAY BLOCKS
- Bricks and blocks delivered warm from manufacturing process: Do not use until cold.
 - Absorbent bricks in warm weather: Wet to reduce suction. Do not soak.
- 440 CONDITIONING OF CONCRETE BRICKS/ BLOCKS
- Autoclaved concrete bricks/ blocks delivered warm from manufacturing process: Do not use.
 - Age of nonautoclaved concrete bricks/ blocks: Do not use until at least four weeks old.
 - Avoidance of suction in concrete bricks/ blocks: Do not wet.
 - Use of water retaining mortar admixture: Submit details.
- 500 LAYING GENERALLY
- Mortar joints: Fill vertical joints. Lay bricks, solid and cellular blocks on a full bed.
 - AAC block thin mortar adhesive and gypsum block adhesive joints: Fill vertical joints. Lay blocks on a full bed.
 - Clay block joints:
 - Thin layer mortar: Lay blocks on a full bed.
 - Interlocking perpend: Butted.
 - Bond where not specified: Half lap stretcher.
 - Vertical joints in brick and concrete block facework: Even widths. Plumb at every fifth cross joint.