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Okehampton Town Council

Okehampton Charter Hall

Structural Specification

Tender

A

17-06-2022

New steel platform to support air handling unit over existing flat roof. New maintenance walkway within existing roof space to allow infrequent access for inspections, duct cleaning etc.

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B50
General structural requirements

Tendering - Not Used

General

110 Eurocodes

1. National Annexes: Reference to a Eurocode, or to an execution or a material standard referenced therein, is deemed to include the appropriate United Kingdom National Annex, to the Eurocode or referenced standard. Nationally determined parameters shall apply. Non-contradictory complementary information: Applies when referenced in the National Annex.
2. Substitution of alternative design rules for Eurocode Application Rules: Permitted. Demonstrate that the alternative rule is in accordance with the relevant principles and that structural safety, serviceability and durability of the resulting structure will be at least that required by the Eurocode

120 Structural work

1. Designated codes of practice: To the Eurocodes appropriate to the nature of the structure
2. Design working life: Category 2 to BS EN 1990
3. Completed structure generally: To comply with the requirements of the designated codes of practice and the standards referenced therein. Deflections and other structural movements at serviceability limit state to be compatible with requirements of the building fabric, movement joints and weathertightness.

130 Contractor's design

1. Engineer responsible for overall stability of structure: The person named as structural engineer in Preliminaries
2. Maintenance: Make provision for and submit details of requirements to ensure the safety and serviceability of the structure, including:
   - 2.1. Critical parts that should be regularly inspected, with recommendations for the frequency of inspection.
   - 2.2. Elements susceptible to corrosion, mechanical wear or fatigue that may need to be reconstructed or replaced during the design working life of the structure.
   - 2.3. Means of safe access for maintenance and repair.

Performance - Not Used

Execution - Not Used

Completion - Not Used

Ω End of Section

C20
Demolition

To be read with preliminaries/ general conditions.

25 Location of services

1. Services affected by deconstruction/ demolition work: Locate and mark positions.
2. Mains services marking: Arrange with the appropriate authorities for services to be located and marked.
   2.1. Marking standard: In accordance with National Joint Utilities Group 'Guidelines on the positioning and colour coding of underground utilities' apparatus'.

30 Services disconnection arranged by contractor

1. General: Arrange with the appropriate authorities for disconnection of services and removal of fittings and equipment owned by those authorities prior to starting deconstruction/ demolition.

35 Live foul and surface water drains

1. Drains and associated manholes, inspection chambers, gullies, vent pipes and fittings
   1.1. Protect and ensure normal flow during deconstruction/ demolition work.
   1.2. Make good any damage arising from deconstruction/ demolition work.
   1.3. Leave clean and in working order at completion of deconstruction/ demolition work.
2. Other requirements: None

55 Site hazards

1. Precautions: Prevent fire and/ or explosion caused by gas and/ or vapour from tanks, pipes, etc.
2. Dust: Reduce airborne dust by periodically spraying deconstruction/ demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris.
   2.1. Lead dust: Submit method statement for control, containment and clean-up regimes.
3. Site operatives and general public: Protect from health hazards associated with vibration, dangerous fumes and dust arising during the course of the Works.

60 Adjoining property

1. Temporary support and protection: Provide. Maintain and alter, as necessary, as work proceeds. Do not leave unnecessary or unstable projections.
2. Defects: Report immediately on discovery.
3. Damage: Minimize. Repair promptly to ensure safety, stability, weather protection and security.
4. Support to foundations: Do not disturb.

76 Asbestos-containing materials – unknown occurrences

1. Discovery: Give notice immediately of suspected asbestos-containing materials when discovered during deconstruction/ demolition work. Avoid disturbing such materials.
2. Removal: Submit statutory risk assessments and details of proposed methods for safe removal.

78 Unforeseen hazards

1. Discovery: Give notice immediately when hazards, such as unrecorded voids, tanks, chemicals, are discovered during deconstruction/ demolition.
2. Removal: Submit details of proposed methods for filling, removal, etc.

Ω End of Section

E10
Mixing/ casting/ curing in situ concrete

Clauses

15 Specification

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

20 Designated concrete

1. Description: Pad Foundations
2. Designation: GEN3
3. Fibres: Not required.
4. Aggregates
   - 4.1. Size (maximum): 20 mm.
   - 4.2. Coarse recycled aggregates: Contractor's choice
   - 4.3. Additional aggregate requirements: None
5. Special requirements for cement/ combinations: None None
6. Consistence class: Contractor's choice
7. Chloride class: Normal
8. Admixtures: None
9. Additional mix requirements: None

35 Substitution of standardized prescribed for designated concrete

1. General: Conform to BS 8500-2, clause 9.
2. Substitution: In accordance with BS 8500-1, Table A.14.
   - 2.1. Proposals: Submit for each substitution, stating reasons.
3. Site mixing: Conform to BS 8000-2.1, subsections 2, 3 and 4.
   - 3.1. Restrictions: None

45 Properties of fresh concrete

1. Adjustments to suit construction process: Determine with concrete producer. Maintain conformity to the specification.

70 Curing and protecting

1. Evaporation from surfaces of concrete: Prevent throughout curing period.
2. Surfaces covered by formwork: Retain formwork in position and, where necessary to satisfy curing period, cover surfaces immediately after striking.
   - 2.1. Top surfaces: Cover immediately after placing and compacting. Replace cover immediately after any finishing operations.
3. Curing periods
   - 3.1. Surfaces which in the finished building will be exposed to the elements, and wearing surfaces of floors and pavements: 10 days (minimum).
   - 3.2. Other structural concrete surfaces: 5 days (minimum).
4. Protection: Protect concrete from shock, indentation and physical damage.

Ω End of Section

G10
Structural steel framing

Clauses

10 Design

1. Design standard: The structural steelwork has been designed to BS EN 1993-1-1.
2. Completion of design: Detail steelwork and design and detail joints to BS EN 1993-1-8.
   2.1. Loading requirements: As specified or otherwise calculable.
3. Fixings to foundations/ walls: As per drawings

15 Specification standard

1. Standard: Comply with latest edition of National Structural Steelwork Specification.
2. References to Engineer in NSSS: For the purpose of this contract, interpret such references as being to the person named as administering the Contract on behalf of the Employer.

17 General steel sections

1. Description: All Steelwork
2. Certification: Provide European Technical Assessment (ETA) with CE marking and a Declaration of Performance (DoP)
3. Grade: S355J0 S275JR
4. Source: Obtain steel from a source accredited to a national or internationally accepted quality standard.

50 Column bases

1. Levels: Adjust using steel shims or folding wedges no larger than necessary, positioned symmetrically around perimeter of base plate. Do not use a single central pack.
2. Accuracy of erection: Check, and correct errors before filling and bedding beneath bases and carrying out other adjacent work.

60 Galvanizing

1. Use/ location: External Steelwork
2. Preparation: Chemical cleaning.
3. Galvanizing: To BS EN ISO 1461.
   3.1. Minimum mean coating thickness: 85 micrometres.

Ω End of Section

G12
Isolated structural metal members

Clauses

10 Steel sections and plate

1. Section properties and dimensions: To BS EN 10055, BS EN 10056, BS EN 10210-2 or BS EN 10365, as appropriate.
    1.1. Steel: To BS EN 10025-2 or BS EN 10210-1, as appropriate.
        1.1.1. Grade: S275JR
    1.2. Surface condition: Free from heavy pitting and rust, burrs, sharp edges and flame cutting dross.
2. Cuts and holes: Accurate and neat.
3. Welding: Metal arc method to BS EN 1011-2.
    3.1. Welded joints: Fully fused, with mechanical properties not less than those of the parent metal.
    3.2. Site welding: Obtain approval.

35 Bolt assemblies

1. Description: All
2. Designation: Hexagon head bolts to BS EN ISO 4014, grade A
3. Property class: To BS EN ISO 898-1, class 8.8
4. Manufacturer: Contractor's choice
    4.1. Product reference: Contractor's choice
    4.2. Size: As shown on drawings
5. Nuts and washers: Material grade and finish to suit bolts.
6. Coating applied by manufacturer: Galvanized

40 Installation

1. Accuracy: Members positioned true to line and level using, if necessary, steel packs of sufficient area to allow full transfer of loads to bearing surfaces.
2. Fixing: Use washers under bolt heads and nuts.
    2.1. Tapered washers: Provide under bolt heads and nuts bearing on sloping surfaces. Match taper to slope angle and align correctly.

Ω End of Section

L30
Stairs/ ladders/ walkways/ handrails/ balustrades

To be read with preliminaries/ general conditions

45 Ramps/ walkways

1. Description: Roof void walkway
2. Manufacturer: Contractors Choice
   2.1. Product reference: Submit proposals
3. Component material, grade and finish as delivered
   3.1. Flooring: Moulded GRP
   3.2. Edge protection: Not applicable

75 Priming/ Sealing/ Painting

1. Surfaces inaccessible after assembly/ installation: Before fixing components, apply full protective/ decorative treatment/coating system.

80 Installation generally

1. Fasteners and methods of fixing: To Section Z20.
2. Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
3. Temporary support: Do not use stairs, walkways or balustrades as temporary support or strutting for other work.
4. Applied features (finishes, inserts, nosings, etc.): Substrates to be even, dry, sound and free from contaminants. Make good substrate surfaces and prepare/ prime as applied feature manufacturer's recommendations before application.

Ω End of Section

Z20
Fixings and adhesives

Products

310 Fasteners generally

1. Materials: To have:
   1.1. Bimetallic corrosion resistance appropriate to items being fixed.
   1.2. Atmospheric corrosion resistance appropriate to fixing location.
2. Appearance: Submit samples on request.

320 Packings

1. Materials: Non-compressible, corrosion proof.
2. Area of packings: Sufficient to transfer loads.

Execution

610 Fixing generally

1. Integrity of supported components: Select types, sizes, quantities and spacings of fixings, fasteners and packings to retain supported components without distortion or loss of support.
2. Components, substrates, fixings and fasteners of dissimilar metals: Isolate with washers/ sleeves to avoid bimetallic corrosion.
3. Appearance: Fixings to be in straight lines at regular centres.

630 Fixing packings

1. Function: To take up tolerances and prevent distortion of materials and components.
2. Limits: Do not use packings beyond thicknesses recommended by fixings and fasteners manufacturer.
3. Locations: Not within zones to be filled with sealant.

Ω End of Section

Specification created using NBS Chorus