

| Size (mm) | Number of fragments | Weight (g) | Percentage by weight |
|--------------|---------------------|--------------|----------------------|
| <5 | 4,350 | 302 | 13.1 |
| 5-10 | 2,092 | 242 | 10.5 |
| 10-15 | 1,059 | 343 | 14.9 |
| 15-25 | 604 | 445 | 19.3 |
| 25-40 | 294 | 576 | 25.0 |
| >40 | 79 | 398 | 17.2 |
| Total | 8,478 | 2,306 | 100 |

Overall the sample was not highly crushed with over 40% consisted of large fragments more than 25mm in length. Only around a quarter of the sample consisted of small fragments less than 10mm in length. The evidence from the layers within the pot suggests that relatively large pieces of bone were deposited and that crushing was not part of the ritual. Any crushing that occurred must have occurred as a result of post-depositional factors.

It was possible to identify 1004 fragments (43.5%) of the bone. This is a good percentage of identification and it reflects the fact that the bones were not highly crushed. The bones identified are given in the table below.

| Bone | No. of fragment | Weight (g) | Percentage of Identifiable Bone |
|----------------------|-----------------|------------|---------------------------------|
| Skull/Mandible | 211 | 358 | 35.7 |
| Vertebrae | 95 | 102 | 10.2 |
| Pelvis | 23 | 30 | 3.0 |
| Femur | 61 | 18 | 1.8 |
| Ribs | 37 | 167 | 16.6 |
| Tibia | 40 | 113 | 11.2 |
| Fibula | 10 | 20 | 1.9 |
| Tarsals/MT/Phalanges | 18 | 12 | 1.2 |
| Humerus | 30 | 96 | 9.6 |
| Radius | 7 | 28 | 2.8 |

| | | | |
|----------------------|------------|-------------|------------|
| Ulna | 14 | 27 | 2.7 |
| Scapulae/Clavicles | 15 | 15 | 1.5 |
| Carpals/MC/Phalanges | 45 | 18 | 1.8 |
| TOTAL | 596 | 1004 | 100 |

Virtually every part of the skeleton is represented and the results from the various layers suggest that most bones were present throughout the pot indicating that it was unlikely that there was any attempt at differential deposition.

The proportions of various parts of the skeleton should be the same regardless of the number or size of the individuals present in a cremation.

In a normal cremation the proportions are:

| | | |
|------------|-------|-------------------|
| Skull | 18.2% | |
| Axial | 23.1% | |
| Upper limb | 20.6% | |
| Lower limb | 38.1% | (Mc Kinley 1989). |

In this cremation the proportion of the various parts of the skeleton were:

| | |
|----------------|-------|
| Skull | 35.7% |
| Axial skeleton | 15% |
| Upper limb | 18.4% |
| Lower limb | 30.9% |

It can be seen therefore that although the proportions of the upper and lower limbs are similar to what they should be, the skull seems to have been collected at the expense of the axial skeletons. Vertebrae are usually very delicate and may not survive the collection process or may not be thought to be important enough to collect. However in this sample, although the vertebral column was not complete, there was a good amount of vertebrae present. There appeared to be much less pelvic bones than expected and this seems to be the reason why the overall percentage of axial skeleton is low. It is not known why the pelvis was not present to the normal degree but as it is a relatively thin flat bone it may have suffered more from the post-depositional crushing.

Skull: large fragments of the occipital bone with most of the external occipital protuberance were present. The external occipital protuberance was of the male type.

There were large fragments of parietal and squamous frontal bone. The sagittal suture and part of the coronal suture were visible. Some of the bone was split through the diploe but most of the larger fragments were not.

Also present from the frontal bone was a fragment with the frontal crest visible. Part of a left orbit was also identified.

There were a left and a right petrous portion of the temporal bones present as well as part of the left temporal bone from around the external auditory meatus and two mastoid processes. The mastoid processes were also large and of the male type. Part of the root of the zygomatic arch was visible on both sides and they were also of the male type.

The left greater wing of sphenoid was present and part of a right and left zygomatic bones also survived.

Most of the mandible was present with a large section of the right side and of the left side present as well as two mandibular angles and two mandibular condyles. Most of the left side of a maxilla was present and also part of the right side.

Dentition

Sockets for the following teeth were observed:

| | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|
| 14 | 13 | 12 | 11 | 21 | 22 | 23 | 24 | 25 | 26 | | |
| 47 | 46 | 45 | 44 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 |

There were complete or partial tooth roots present from a minimum of eighteen teeth and there were a few shattered tooth crowns. The teeth included six molars, five premolars and seven incisors or canines. Some of the teeth appeared to be intact because the crowns were virtually all worn down.

One tooth appeared to have a caries cavity and there was an external abscess opening in the left side of the maxilla at the root of the first premolar, 24.

Vertebrae: At least one lower cervical vertebral body was present and was virtually complete and there were a few fragments of arches. The right side of an axis vertebra and a dens were also present.

There were at least five neural arches from the thoracic vertebrae as well as a few fragmented articular surfaces but there was only one upper vertebral body as well as fragments from two others. Most of the bodies of the lumbar vertebrae were present and there were a few partial arches and articular surfaces present.

Most of the vertebral bodies, including the cervical vertebra had evidence of osteophytosis. There was also severe osteoarthritis of the posterior lumbar articular surfaces with large marginal osteophytes and areas of eburnation on at least two facets.

Pelvis: the pelvis was very fragmented and there were only a few small fragments of ilium although a small area of the iliac crest was visible. The left and right ischium were almost complete. The bodies of two sacral vertebrae and a large section from the dorsal surface of a sacrum were present.

Ribs: Several small fragments of shaft and a few fragments from near the neck area remained. There were at least two ribs from the left side and two from the right side present.

Femurs: the fragments were mostly all fragments of shaft including fragments from near the proximal and distal ends. There were fragments only of a proximal joint surface and a distal joint surface. The shaft fragments were thick, from an adult bone with a well defined linea aspera.

Tibiae: several large fragments of shaft were present including two fragments from the proximal posterior surface. The anterior tubercles from a left and a right bone were also present.

Fibulae: there were several fragments of shaft and a large fragment with the distal joint surface of a right bone.

Patellae: an almost complete left patella was present.

Foot bones: fragments of a talus, a navicular and a cuneiform all survived from the tarsal bones. There were fragments from six metatarsal shafts and the first proximal phalange from a big toe was present as well as two distal phalanges.

Humerus: there were several fragments of shaft from the proximal and distal halves as well as fragments of proximal joint surfaces and a small amount of a distal joint surface.

Radius: there were large fragments of shaft from at least two bones present.

Ulnae: the fragments were mainly from the middle of the shaft but there was also a distal end of a shaft.

Clavicles: the lateral end of a clavicle was present and a few other fragments of shaft.

Scapulae: part of the body of a right scapula including the lateral border and part of the glenoid fossa were present. There were also a left and a right acromial spine present.

Hand bones: several carpal bones were present including a left and right lunate and trapezoids, a right capitate, right trapezium and a pisiform. There were also five metacarpal shafts including a first metacarpal and at least six proximal and five distal phalanges as well as some other phalange fragments.

Number of individuals

As there was no duplication of any of the skeletal features the remains appear to represent one individual. There were many features of the skull that indicated that this was a male individual. From the osteoarthritis and degenerative joint disease present in the spine it is likely that this was an older adult, probably over 45 years of age.

Summary and Conclusions

The cremated bone from this cist represents the remains of an older adult male. Cremation had been

efficiently carried out and the remains carefully collected from the funeral pyre, as all skeletal elements were present. However there was slightly less bone than expected from the axial skeleton and this may be due to poor collection of the ribs, pelvis and vertebrae from the pyre or it may be because they are so fragile they did not survive in large enough fragments to be identified. Most of the fragments recovered were very large suggesting that no ritual crushing of the bones was carried out at the time of interment. There did not appear to be any attempt to put the bones in any particular order in the pot although larger bone fragments were present at the bottom of the pot.

The individual had suffered from degenerative joint disease and osteoarthritis of the spine during his lifetime. He also had a dental abscess possibly arising as a result of excessive attrition and from at least one dental cavity.

13.A.8 Plant Remains, author Penny Johnson

13.A.8A Introduction

This short report presents the analysis of the plant remains recovered from a cremation burial F6, excavated by Claire Walsh of Archaeological Projects Ltd. The burial was found associated with a funerary urn and the entire deposit was examined for the remains of charred plants.

13.A.8B Methodology

The soil samples were collected in large bags after the pottery was removed by a conservator. The soil was sorted quickly by eye to remove the large fragments of cremated bone. Following this, it was processed using a simple flotation technique. The soil was saturated in a bucket, agitated, and the carbonised plant remains floated to the top. These were then poured off into sieves (the smallest mesh measuring 300µm to ensure that even the tiniest plant remains were recovered). This process was repeated until no more plant material floated to the surface. The floated material ("flot") collected in the sieve meshes was then dried. The remaining heavy residue left in the bucket was sieved using a 1mm sieve. This residue ("retent") was also dried. The flots were sorted using a low powered binocular microscope (magnification x 4.8 – x 56) to retrieve the charred seeds. The retents were sorted by eye, to recover the remaining bone in the samples.

13.A.8C Results

The large flot generated by processing the entire bulk of the cremation sample was rich in plant remains, although much of it appeared to be burnt stalk and root material. A few seeds were recovered. These were identified as seeds from the dock family (Rumex/Polygonum), fragments of stones from the fruit of rose family plants (Rosaceae), one seed from the grass family (Poaceae), a buttercup seed (Ranunculus spp.) and a few nut shell fragments (one being possibly from hazel, *Corylus avellana*). In addition, one cereal grain of indeterminate type was also recovered from the cremation sample. These plant remains give an inconclusive picture of the origin of the plant material. There is no pattern to the material. It appears that the stalk, root and charcoal are remnants of the fuel that was used to light the cremation pyre. Nut and fruit stones may have been on the wood used, and thereby were incorporated into the deposit. The weed seeds are common field weeds and may have been on the field surface, along with the discarded cereal grain, where the funeral pyre was lit. When the pyre was raked out, perhaps these were unknowingly

included in the burial deposit.

Table of Seeds from Kilmainham 02E067

| | |
|--|----|
| Cereal indeterminate | 1 |
| Grass seed (Poaceae) indeterminate | 1 |
| cf Hazel (<i>Corylus avellana</i>) nut shell fragments | 1 |
| Indeterminate nut shell fragments | 2 |
| Dock/Knotgrass seeds (<i>Rumex/Polygonum</i>) | 19 |
| Buttercup seeds (<i>Ranunculus</i> spp.) | 1 |
| Indeterminate seed fragments from the rose family (Rosaceae) | 11 |
| Indeterminate weed seeds | 7 |

13.A.9 Charcoal Identifications, author Lorna O'Donnell

13.A.9A Introduction

A charred sample (F6) from a cremation pit excavated in Kilmainham, Co. Dublin was submitted for analysis by Claire Walsh. A representative portion of charcoal was identified from the sieved flot.

13.A.9B Methodology

Sampling and processing

The samples were taken on site as bulk soil and were processed by flotation, whereby each sample was soaked in water in order to suspend the carbonised material; this was then poured off and trapped in a sieve (mesh size 300µm). This "flot" (i.e. the floated material) was dried and stored in sealed plastic bags.

Identification of the charcoal

Each piece of charcoal was examined and orientated first under low magnification (10x-40x). They are then broken to reveal their transverse, tangential and longitudinal surfaces. Pieces are mounted in plasticine, and examined under a binocular microscope with dark ground light and magnifications generally of 200x and 400x. The charcoal was identified by comparing their relevant characteristics to keys (Schweingruber 1978; Hather 2000 and Wheeler et al 1989) and authenticated comparative material.

Results

Five wood types were identified from the sample, these were willow (*Salix* spp), pomaceous fruitwood (Pomoideae), blackthorn (*Prunus spinosa*), ivy (*Hedera helix*) and oak (*Quercus* spp). The heaviest and most frequently occurring wood was oak. Some insect holes were present in the willow pieces, which is

an indication that they may have been gathered as deadwood. The pieces were quite small, all having ca. three to six rings present, and were of medium growth.

13.A.9C Origins of the trees

The analysis of charcoal from archaeological sites is based on the assumption that firewood will be gathered from the nearby vegetation, and therefore should be representative of the local environment. However, there will always be some cultural biases. It is probable that oak grew near to the site. There are two types of native Irish oak, the sessile (*Quercus petraea*) and the pedunculate (*Quercus robur*). The sessile oak is the most common today, and will grow on less fertile, acidic soils than the pedunculate (Hickie 2002, 60). The pomaceous fruitwood type (which includes whitethorn, rowan, pear and crab apple) and blackthorn are more representative of marginal woodland. The presence of willow suggests some nearby wet areas, as they will flourish near a stream or lake.

13.A.9.D Discussion

An early Bronze Age date has been received from the cremation pit (C. Walsh, pers comm.). In Bronze Age Ireland, the actual process of cremation would have been a long one, probably requiring some community effort given the amount of wood required for successful cremation (a ton of dry timber (Parker Pearson 1981, 48)). Various sources suggest a similar type of pyre structure was used throughout time and geographical space (Mc Kinley 1997). Most of the pyres seem to have been assembled on the ground, with small variations to control the level of draught (Dubois and Beauchamp 1943; Hiatt 1969). Research from over forty cremation contexts from excavations along the Gas Pipeline to the West has demonstrated prevalence in the use of oak (O'Donnell forthcoming). Other trees were also identified from the cremation deposits, yet in very low quantities compared to oak. It is possible that oak may be over-represented in the cremation samples, as it has a robust heartwood, and is quite resistant to insect decay. However, when a similar survey was conducted by the author on the charcoal remains from *fulachta fiadh*, oak, though well represented, was present in consistently equal quantities as other trees such as ash, hazel and alder. The charcoal results from the Kilmainham deposit compare well to those from the gas pipeline excavations, as it is primarily composed of oak, with smaller amounts of other trees. Therefore, it does appear that oak was consistently selected for the cremation process in different areas of Ireland, throughout the Bronze Age. The particular use of oak for this purpose may shed some light on the rituals associated with human cremation in the Bronze Age.

13.A.9E Summary

Charcoal from an Early Bronze Age cremation sample was analysed by the author. The prevalent tree identified was oak, which suggests the site was close to some oak woodland, probably with blackthorn and pomaceous fruitwood at its margins. The results compare well with a regional study by the author on charcoal from cremations in Leinster and Munster. The repeated choice of oak is probably due to its burning characteristics, it produces excellent firewood characterised by slow combustion and short flames (Marguerie 2000, 191).

Table 1 Total results of charcoal identifications from Kilmainham

| Sample | Site | Species | Common name | Score | Grams |
|--------|---------|-----------------------|---------------------|-------|-------|
| 1 | 02E0067 | <i>Salix spp.</i> | Willow | 3 | 0.22 |
| 1 | 02E0067 | Pomoideae | Pomaceous fruitwood | 7 | 0.3 |
| 1 | 02E0067 | <i>Prunus spinosa</i> | Blackthorn | 1 | 0.08 |
| 1 | 02E0067 | <i>Hedera helix</i> | Ivy | 1 | 0.06 |
| 1 | 02E0067 | <i>Quercus spp.</i> | Oak | 40 | 2.83 |

References

Dubois, J.A. and Beauchamp, H.R. 1943. Hindu Manners, Customs and Ceremonies. Oxford: Clarendon Press.

Hather, J.G. 2000. The Identification of the Northern European Woods. A guide for archaeologists and conservators. London: Archetype Publications Ltd

Hiatt, B. 1969. Cremation in Aboriginal Australia. *Mankind* 7 (2), 104-15.

Hickie, D. 2002. Native trees and forests of Ireland. Gill & Macmillan Ltd: Dublin.

Marguerie, D., 2002. Fuel from protohistorical and historical kilns in north-western France. In S. Thiebault ed. Charcoal analysis: Methodological approaches, palaeoecological results and wood uses: proceedings of the Second International Meeting of Anthracology, Paris, September 2000. Oxford: Archaeopress, 187-191.

Mc Kinley, J. 1997. Bronze Age 'Barrows' and Funerary Rites and Rituals of Cremation. *Proceedings of the Prehistoric Society* 63, 129-145.

O'Donnell, L. forthcoming. Synthesis of charcoal results from the Gas Pipeline to the West. In E. Grogan (ed) Archaeological excavations along the Gas Pipeline to the West. Bray: Wordwell.

Parker Pearson, M. 1981. The Archaeology of Death. Cambridge: Cambridge University Press.

Schweingruber, F.H. 1978. Microscopic wood anatomy. Birmensdorf: Swiss Federal Institute for Forest, Snow and Landscape Research.

Wheeler, E.A, Bass, P. & Gasson, P.E. 1989. IAWA list of microscopic features for hardwood identification. IAWA Bulletin nos. 10 (3): 219-332. Rijksherbarium: Leiden.

APPENDIX 13. B

13.B INVENTORY OF EXCAVATION WORK IN THE AREA OF THE SITE

Published information on all licensed archaeological work in the locality of the site is available on www.excavations.ie, searchable by site location, year, licence number and mapping.

War Memorial Park

The most extensive archaeological remains are burials recovered from works relating to the construction of the railway line from the late 1830s on (S and O' Floinn 2015). Many of the burials, both male and female, were accompanied by artefacts which indicate a settled community. The evidence has been reinterpreted by O' Brien (1998) who has plotted the location of the burials (fig. 2). She concludes that Norse burials from the 9th century were inserted into an existing Christian burial ground. This argues for the existence of a sizable settlement of Norse in the area of Kilmainham in the 9th century. The find locations of the burials is extensive (see fig. 2), and many of the recorded finds and burials cannot be precisely provenanced. The Norse settlement may have been close to the confluence of the rivers Camac and Liffey, or may have reused the ecclesiastic Cill Maighnainn, whose location is thought to be at the Royal Hospital. O'Brien argues further that the name Ath Cliath may derive from an important fording point on the river close by Islandbridge. There is a strong possibility of encountering related material on the development site.

Royal Hospital

Kenny (1995, 89) cites records in the National Museum, which indicate that excavations between the Royal Hospital and Bully's Acre were undertaken by Bersu in 1948. A stone lined well, pavement, and medieval floor tiles were unearthed.

In 1976, excavation was undertaken in the gardens of the Royal Hospital to try and verify the accuracy of Rocque's map of 1773 (as revised by Scales). The remains of cobbled garden paths were uncovered in the south-east quadrant of the gardens, dated by a small number of clay pipes and late 18th century pottery sherds.

Con Colbert Road

The widening of the road was monitored by the late Paddy Healy between November 1988 and October 1999. Several pits produced flints and two 8th- 9th century metal finds. The artefacts may have been redeposited by more recent cultivation activity. Further work was undertaken by B. O' Brien in 1999, who concluded that the area had been extensively disturbed by modern cultivation. Inconclusive evidence for Norse activity.

Bow Lane/ Kennedy's Villas

Assessment was undertaken at this site by A. Halpin in 1992. This site is bounded on the west by the river Cammock. Layers of 18th/ 19th century soil were uncovered in the trenches, and no archaeological material was uncovered.

Bow Lane West

Trenches dug for assessment by Alan Hayden in 1994 uncovered no deposits of archaeological significance.

St Patrick's Hospital

Assessment was undertaken at this site by Alan Hayden. No archaeological deposits were uncovered in the areas tested, which extended to the banks of the Cammock river.

Mount Brown Mills

Assessment of this site was undertaken by Leo Swan in 1994. No deposits of archaeological significance were uncovered.

James St/ 16- 24 Bow Lane West

Assessment of this site in 1996 by Dominic Delany uncovered no deposits of archaeological interest.

1996: Bow Bridge/ Irwin St

No deposits earlier than the 18th century were uncovered on this site.

1997: 144-150 James St/ 35-38 Bow Lane West

Assessment of this site uncovered no deposits of archaeological significance.

1998: 7-9 Kilmainham Lane

Assessment of this site did not uncover any deposits earlier than the last cottages which occupied the site.

1999: 4-8 Bow Bridge

Assessment of this site did not uncover any deposits of archaeological significance.

1998-9: Deputy Master's House, Royal Hospital

The refurbishment of this mid 18th century house was monitored for archaeological purposes. Floor tiles from 13th- 14th century were recovered from test trenches, but no further features were noted.. The evidence indicates that a considerable amount of soil of recent deposition, was brought in to level up a steep slope north- eastward.

1999-2000: Islandbridge/ War Memorial Park

Test excavation and monitoring of a new development at Mill Island concluded that no deposits predating the late 18th century were present on this site. The access road through the north end of the War Memorial Park also proved negative in archaeological terms.

2002: Islandbridge/ St John of Gods

Test excavation in the south- east corner of the school complex concluded that the ground here had been

extensively disturbed both by market gardens of 19th century date, and recent road construction.

2004: Old Kilmainham

Excavation of this site on the south side of the Camac uncovered 12th-13th century stone building remains, along with five substantial tanneries from the later 17th to early 19th centuries.

2004 Old Nestle Factory, Inchicore Road

No archaeological remains here.

2005: Kilmainham Lane

No archaeological Significance.

2006: Military Road

Excavation of early Bronze age cremation cemetery (see appendix 13.1).

2007 St John's Road

The site for an ESB substation was tested, with no archaeological finds.

2007: Clancy's Barracks, Islandbridge

A post- and- wattle fence along the old shoreline of the river Liffey to the north of this site extended for 130m. The skeleton of a horse, Dickie Bird, who had served through the Crimean campaign, was excavated.

2008: War Memorial Gardens, Islandbridge

A Norse burial, accompanied by an iron sword and spearhead, was uncovered in the excavation of an electricity trench. The burial was badly disturbed by a wall constructed over it only ten years previously.

2008 Irish Museum of Modern Art

Monitoring for the placement of some installations did not uncover any finds or features of archaeological significance.

2008: Pensioner's Graveyard

Testing to a depth of 600mm below present ground level was carried out prior to a survey and proposal to reinstall headstones. No archaeological features, apart from two gravecuts, were exposed in the fifteen test trenches.

2012 Irish Museum of Modern Art

Trenches for ducting and other works were monitored. The trenches were up to 800mm deep. Two articulated burials were uncovered in the area of Bully's Acre, and left in situ. Disarticulated bone was also recovered.

2013 Irish Museum of Modern Art

Monitoring of the construction of a lift shaft at the West Wing of the museum uncovered two sherds of medieval pottery but no archaeological features.

2018 Royal Hospital Kilmainham, Pensioner's Graveyard.

No archaeological features were uncovered in the installation of seven new-cast plinths to act as headstones.

2018 8 Lady's Lane, Kilmainham

Monitoring at this site did not uncover any archaeological remains.

2018 Military Road

Further testing was undertaken at this site on the east side of Military Road, in the form of 15 more test trenches (originally tested in 2002). Thin soils of comparatively recent date overlay a thick layer of sandy garden soil- no date attributed, which overlay subsoil with no finds or features of archaeological significance uncovered.

APPENDIX 13B
EXCAVATIONS IN THE VICINITY

APPENDIX 13. B. Inventory of excavation work in the area of the site

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APPENDIX 14A
PHOTOMONTAGES

Verified Photomontages

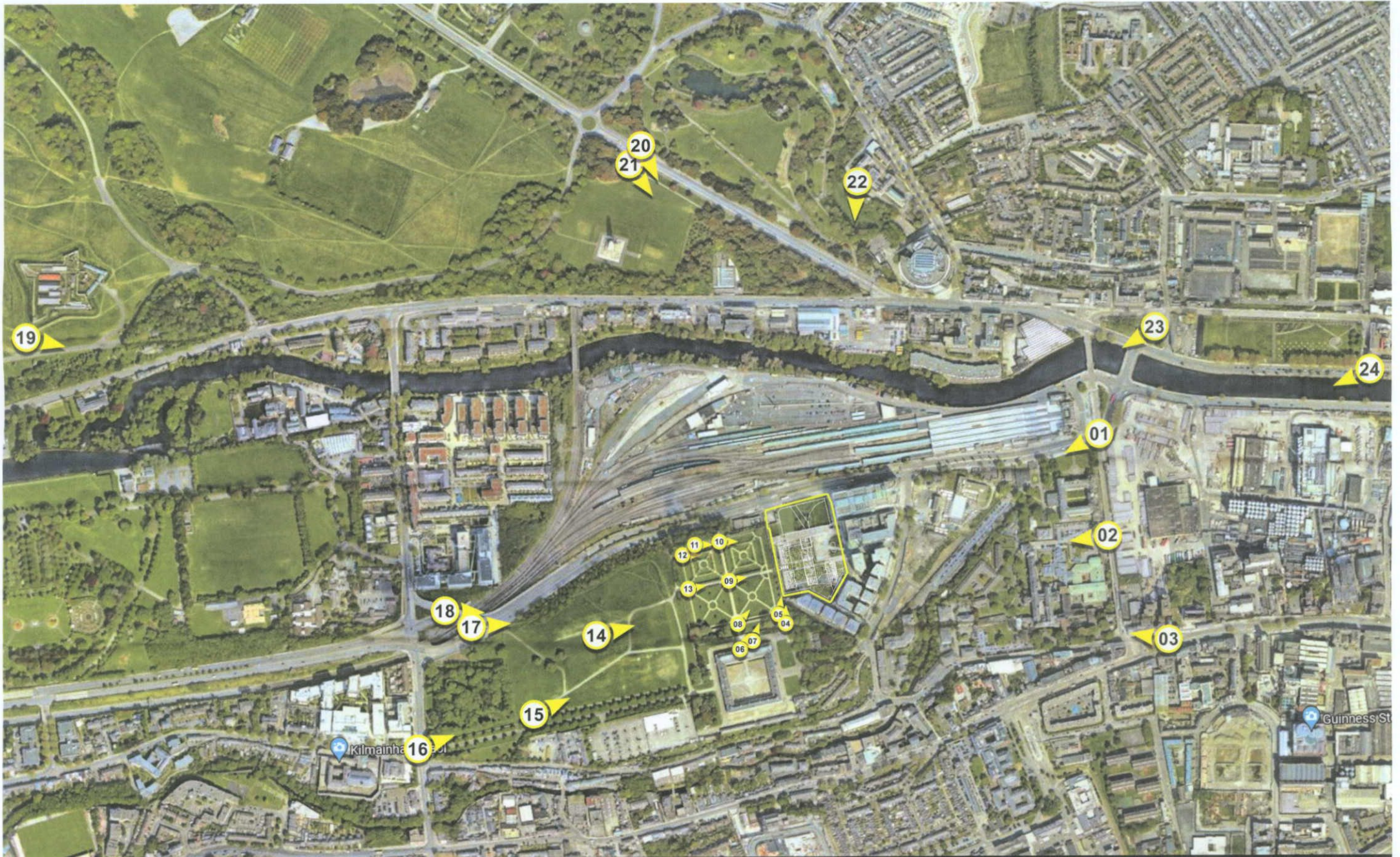
To be read in conjunction with
Townscape and Visual Impact Assessment Report

Proposed Heuston South Quarter Commercial

Prepared by Model Works Ltd
for HPREF HSQ Investments Limited

July 2022

**.MODEL
WORKS**





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)



**MODEL
WORKS**

project: Heuston South Quarter
Commercial

photography: 04-05-2021 11:56
Canon 5D Mark II
24 mm Lens

location:

viewpoint: **View 01s Existing**
issued: 21-04-2022



◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens) .



**MODE
WORKS**

project: Houston South Quarter
Commercial

photography: 04-05-2021 11:56
Canon 5D Mark II
24 mm Lens

location:

viewpoint: **View 01s Proposed**

issued: 21-04-2022



◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





Angle of View 73° Horizontal (24 mm Lens)

Angle of View 39° Horizontal (50 mm Lens)



◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀◀ Angle of View 39° Horizontal (50 mm Lens)



**MODEL
WORKS**

project: Heuston South Quarter
Commercial

photography: 06-08-2020 11:14
Canon 5D Mark II
24 mm Lens

location:

viewpoint: **View 02s Proposed**

issued: 21-04-2022



◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens) ▶▶

**MODEL
WORKS**

project: Heuston South Quarter
Commercial

photography: 09-10-2020 12:19
Canon 5D Mark II
24 mm Lens

location:

viewpoint: **View 03s Proposed**

issued: 21-04-2022



◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens) ▶▶

**MODEL
WORKS**

project: Heuston South Quarter
Commercial

photography: 29-03-2021 12:10
Canon 5D Mark II
24 mm Lens

location:

viewpoint: **View 03w Existing**

issued: 21-04-2022



◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀◀ Angle of View 39° Horizontal (50 mm Lens)



DCC PLAN NO: 4610/22
RECEIVED: 04/08/2022

**MODEL
WORKS**

project: Heuston South Quarter
Commercial

photography: 29-03-2021 12:10
Canon 5D Mark II
24 mm Lens

location:

viewpoint: **View 03w Cumulative**

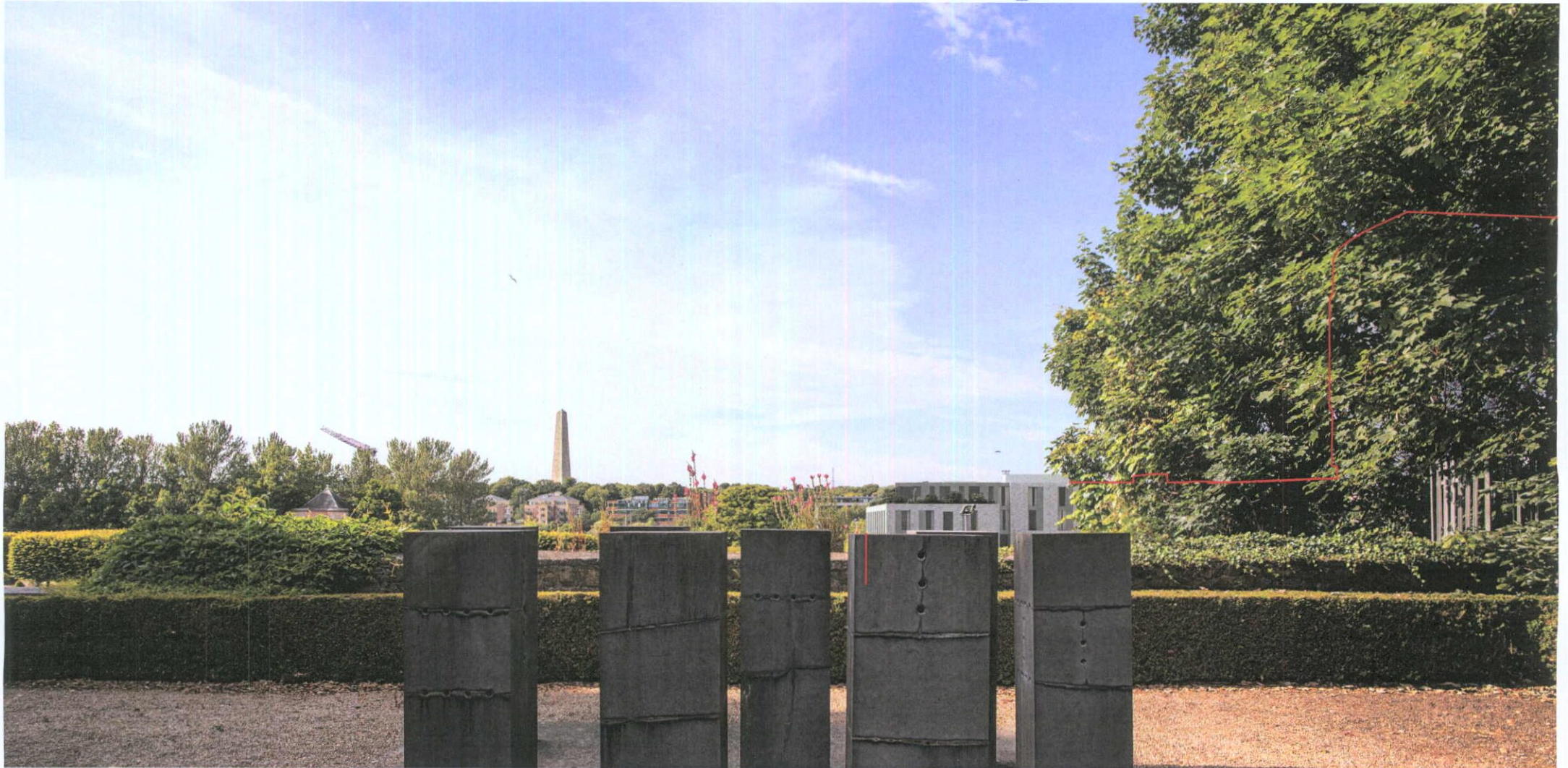
issued: 21-04-2022



◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)

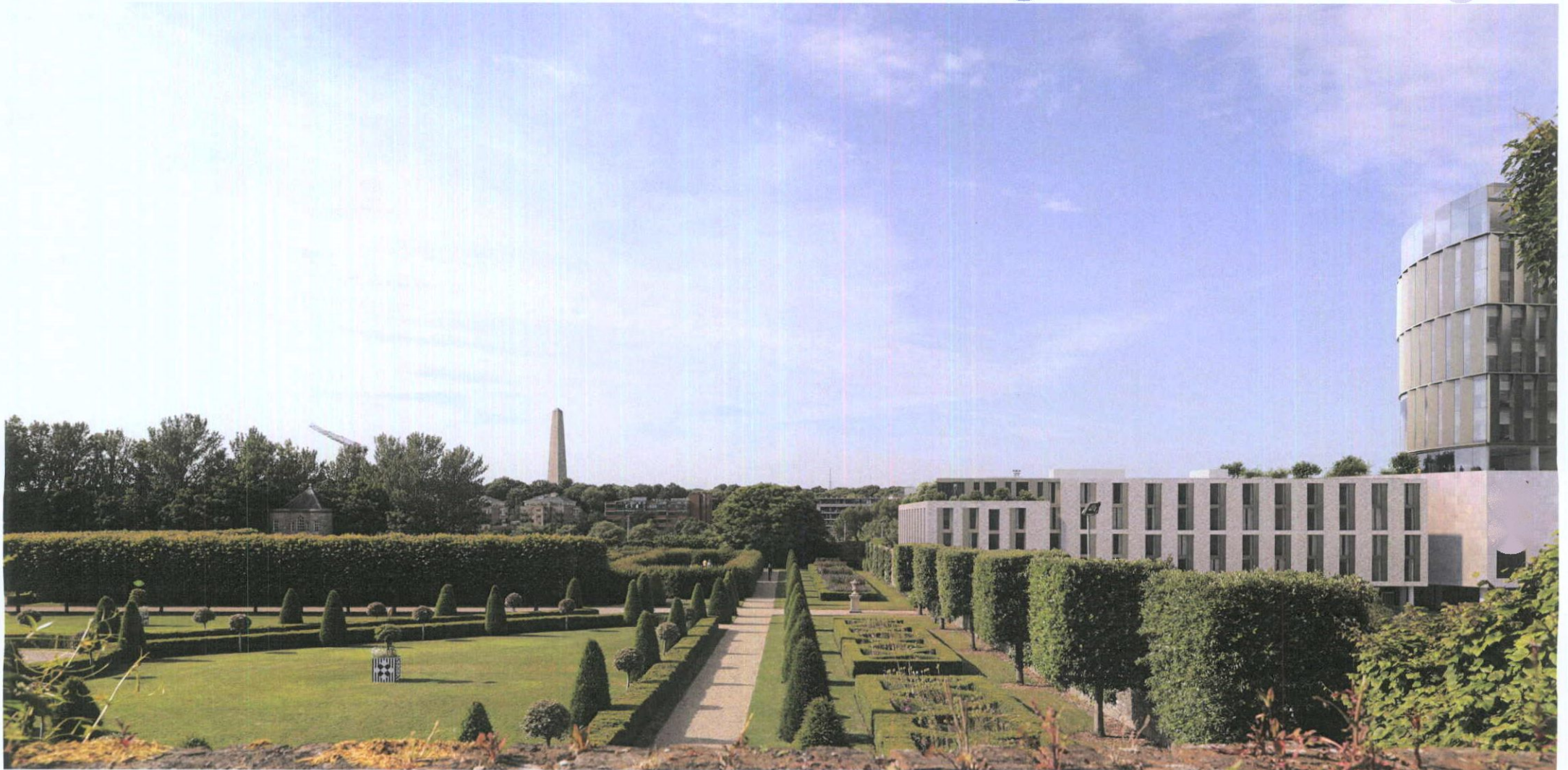




◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)



**MODEL
WORKS**

project: Heuston South Quarter
Commercial

photography: 29-03-2021 14:51
Canon 5D Mark II
24 mm Lens

location:

viewpoint: **View 05w Existing**
issued: 21-04-2022



◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens) ▶▶



◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)





◀◀ Angle of View 73° Horizontal (24 mm Lens)

◀ Angle of View 39° Horizontal (50 mm Lens)

