

KEW GARDENS

2279-7_W1

THE JAPANESE GATEWAY CONDITION SURVEY REPORT

March 2021



MAA survey 19th March 2021.

Japanese Gateway Chokushi-Mon or Gate of the Imperial Messenger

Extract below from Historic England, List Entry:

Heritage Category: Listed Building

Grade: II

List Entry Number: 1251790

Date first listed: 10-Jan-1950

Statutory Address: Japanese Gateway Chokushi-Mon or Gate of the Imperial Messenger, Royal Botanic Gardens Kew, Richmond Upon Thames, TW9 3AB

National Grid Reference: TQ 18345 76142

DETAILS

A replica of the famous gateway in Japan. It was made for an exhibition in London in 1910, and presented to the Gardens. Six piers in rectangular formation, with gates hung within centre pair. Timber, with thatched roof (now copper shingles), gabled on all four sides. Rich carving within gables, and to screens and corbels below

Survey carried out on Friday 19th March 2021. The weather was fair with a light wind. MEWP access was available from the East and West sides of the building to review the roof and carved elements.



Photo from Kew.org website, circa 1910.

CONSTRUCTION AND MATERIALS

The building is softwood timber framed construction, probably Cedar with elaborate carving and applied copper repousse details. The structure comprises six substantial posts with rails at mid height on the North and South sides. Gablets present to the North and South and contain iconographic carving set above a timber sill. The roof is clad with small, welted copper shingles with very heavy metallic glazed terracotta ridge tiles.

Except for the slight change of roof covering details, the terracotta ridge and finials appear exactly as they did in 1910 as do white painted corbel and all of the carpentry below.



OBSERVATIONS AND RECOMMENDATIONS

The overall condition of the structure and finishes appears very good, but there are a few issues:

- Ridge finial brackets are secured with threaded stainless-steel studding hung/balanced from the central finial. It is unclear if the fixing in the finial is to the terracotta or to a fixing beneath it. The brackets can be moved by hand, but their fixing appears as intended.
- High level carvings: Weak details such as wings and Crane necks have been subject to previous repair and should be checked at intervals.
- Gable sills subject to weather and could be considered for copper cladding subject to suitable detailing.
- Lacquered timber has degraded in some of the more exposed locations and requires refinishing.
- The ridge tiles may not have achieved a good bond with their bedding mortar due to the impervious and smooth glazed surface. One tile could be lifted away behind West finial. No tiles are missing or slipped.
- Lightning strike risk: The building is of low height and sits on a low mound and has no lightning protection measures in place. The roof is covered with electrically conductive copper. If not already



- carried out, a lightning strike risk assessment is recommended to confirm if a lightning protection is or is not required.
- Carvings suspended from the underside of the North and South Barge boards were found generally to be slightly loose. They appear to be fixed by two pegged tenons.
- Highly elaborate carvings within the gateway move quite easily and some have some developed splits – scaffold access, examination and remedial fixing would probably be prudent.
- A bat box is mounted in the North West corner beside the top of the post. Works will need to be coordinated and mitigated accordingly.
- Pigeon roosting under the cover of the roof has caused detracting guano over some of the highly elaborated carvings. Pigeon spikes have been installed, but are not able to eliminate the problem. A fine black nylon netting suspended across between wall plates within the roof and backing up the East and West gable carvings will substantially reduce if not eliminate the problem. A few targeted pigeon spire or wires may also be required – natural patina bronze wire may be a suitable material for this.
- The gate bottom iron hinge journals are severely decayed and should be dismantled and repaired.
- The North gate hanging stile has split where the journal has decayed. Repair should be progressed to avert any possibility of the gate coming loose/toppling over.
- The gate leaves have slightly sagged towards the centre – support wedges when closed could alleviate this.
- Some of the fine copper repousse details have started to work loose as shown by some projecting nail heads. This may be due to a springiness in the copper or thermal movement. Removal, annealing, refinishing and refixing the details concerned may help reduce the springiness and working loose.



WEST ELEVATION

- There are no apparent issues with water affecting the bottom of the posts where they meet the paved surface, but this is a vulnerable location for a timber structure – it would be prudent to check this at intervals to ensure the timber remains sound.
- Water run off from above is causing copper staining to stone paving below, mostly along the East and West sides. There is little that can be done to avoid this, cleaning and stain blocking could be considered to slow its effect.
- Some of the steps and paved surfaces are slightly proud and may present a slight trip hazard.
- The perimeter balustrade is suffering patches of local decay and should be repaired or replaced.



SOUTH ELEVATION



NORTH ELEVATION



EAST ELEVATION



ROOF PLAN VIEW



Paint flaking to sculpture



Weak details such as wings and Crane necks have been subject to previous repair and should be checked at intervals.



Gable sills subject to weather and could be considered for copper cladding subject to suitable detailing



Areas of damage to lacquer, repair and refinish.



The steps are suffering from copper staining all around the roof perimeter

General Note:

There are no apparent issues with water affecting the bottom of the posts where they meet the paved surface, but this is a vulnerable location for a timber structure - it would be prudent to check this at intervals to ensure the timber remains sound.

Water run off from above is causing copper staining to stone paving below, mostly along the East and West sides.

There is little that can be done to avoid this, cleaning and stain blocking could be considered to slow its effect.

WEST FACADE ELEVATION
As Existing, NTS

GENERAL NOTES:

1. Do not scale from this drawing. Use figured dimensions only. Contractor to check dimensions on site prior to construction and notify CA of any discrepancy.
2. This drawing is to be read in conjunction with all other relevant contract drawings, specifications & Schedules.
3. If in doubt: Ask
4. Martin Ashley Architects shall be notified in writing of any discrepancies.

Rev	Date	Reason For Issue	Chk.
-	26.03.21	First issue	AH

Status
Preliminary

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Client
ROYAL BOTANICAL GARDENS KEW

Project
JAPANESE GATE
CONDITION SURVEY

Title
WEST FACADE
ELEVATION
As Existing

Date	Scale
March 2021	NTS @ A3
Checked By	Drawn By
AH	EM

Drawing Number	Revision
2279-07/00/04	-



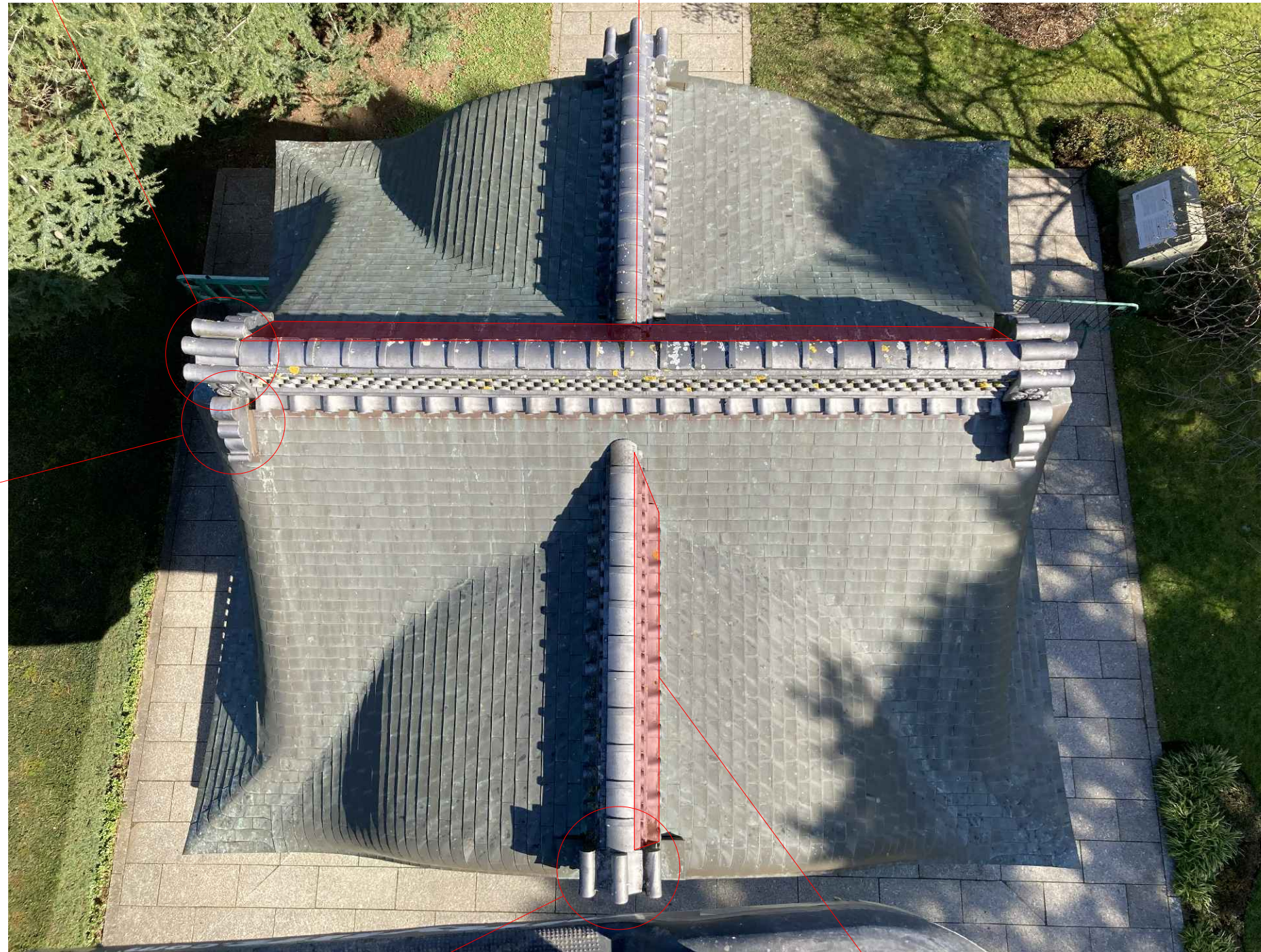
Moss growth to north face of ridge



Ridge element slipping slightly



Ridge element slipping slightly



Ridge finial brackets are secured with threaded stainless steel studding hung/balanced from the central finial. The brackets can be moved by hand, but their fixing appears as intended.

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ROOF
PLAN
As Existing

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March 2021

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AH

Drawn By
EM

Drawing Number
2279-07/00/05

Revision
-

The ridge tiles may not have achieved a good bond with their bedding mortar due to the impervious and smooth glazed surface. One tile could be lifted away behind the finial. No tiles are missing or slipped.



Maker's mark



Moss growth to south east of lower ridge

ROOF PLAN
As Existing, NTS