Project No.	445
Project Name	The Courtauld. Stone Repairs
Address	Somerset House, Strand, London WC2R 0RN
Survey Location	Strand Façade
Survey Number	1
Revision	A
Date	24.08.20; 26.08.20; 16.09.2020
Survey carried out by	Peter Baynes, Brendan Higgins
Access	Scaffold. Limited access to East and West ends of elevation and chimney stacks.
Weather	Sunny and warm
General notes	Visual and non intrusive survey. Carried out with reference to Chichester Stoneworks Condition Survey Report, undated. Repair works based on above survey begun and halted. Some repairs complete, others underway. Scaffold does not currently extend to ends of elevations, preventing full inspection and future undertaking of works. Likewise, scaffolding does not currently encompass all chimney stacks.

SUMMARY

Ref	ltem	Note/Action
-	Brick chimney	Failed bricks and pointing. Repointing and replacement bricks.
2	Stone chimney	Repairs to scaffold fixing points. I stone indent req.
3	Brick chimney	Failed bricks and pointing. Repointing and replacement bricks.
4	Stone chimney	Repairs to scaffold fixing points.
5	Brick chimney	Failed bricks and pointing. Repointing and replacement bricks.
6	Stone chimney	Repairs to scaffold fixing points. Stone indents req & repointing.
7	Brick chimney	Leaning off vertical. Structural engineer to inspect.
8	Brick chimney	Leaning off vertical. Structural engineer to inspect.
9	Stone chimney	Repairs to scaffold fixing points. Stone indent req & repointing.
10	Statue	Cleaning, pointing and minor patch repair.
11	Lead parapet joint	Repointing req.
12	Bottle and parapet capping	Stone indent and reinforcement of joint req.
13	Statue	Cleaning, leadwork, pointing and minor patch repair.
14	Statue	Cleaning, pointing and minor patch repair.
15	Statue	Cleaning, pointing and minor patch repair.
16	Statue	Cleaning, leadwork, pointing and minor patch repair.
17	Main cornice	Adjustment to lead drip.
18	Dental course	Cleaning, minor patch repairs.
19	Dental Course	Cleaning.
20	Large Stain	Cleaning trials. Investigative works as to cause.
21	Staining from scaffold	Cleaning.
22	Stone damage from scaffold	Mortar repairs. Further analysis on removal of scaffold.
23	Corinthian capital(s)	I no. intricate new stone repair req. Cleaning to remainder.
24	Window pediment	Stone indent and mortar patch repairs.
25	Pilaster bases	Note. No action
26	Joints around eliptical window	Repointing req.

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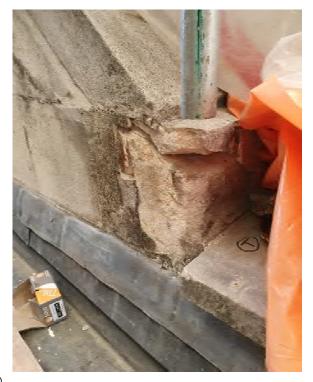
Item Reference	
ltem	Brick chimney, North East
Observations	A: Eroded and failed bricks and pointing. Existing pointing visually and materially inconsistent. B: Use of innapropriate cement mortars, potentially including recent leadworks as part of re-roofing.
Recommended Action	A/B: Cut out existing mortar and failed bricks. Repoint chimney with lime mortar and replace bricks with matching. Check pots and flaunching for defects and loose material.



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Item Reference	2
ltem	Stone chimney East of centre, North
Observations	 A: Numerous holes in stonework & redundant metal fixings. B: Scaffold fixed to stonework. C: Cornice eroded on South West corner. D: Face of stone at abutment of chimney and parapet to South West damaged, possibly by scaffold construction.
Recommended Action	 A: Remove redundant fixings and repair all holes with lime mortar. B: Repair with lime mortar as scaffold removed. C: Inspect closer for resulting damage from water run off. Leave if none observed. D: Cut away damaged area and install new stone indent. General: Check pots and flaunching for defects and loose material.





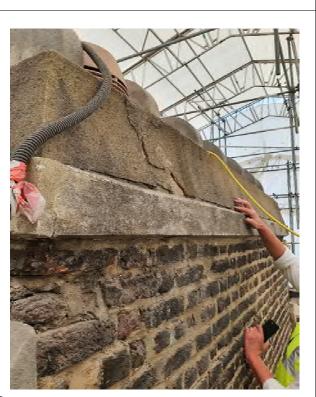
A/B/C

D

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Item Reference	3
ltem	Brick chimney East of centre, middle of roof
Observations	A: Damaged coping stone, West side at base B: Eroded pointing C: Damaged coping stone with existing cement repair.
Recommended Action	A: No proposed repair. B: Cut out existing mortar and repoint C: Remove existing cement repair and replace with lime patch repair. General: Check pots and flaunching for defects and loose material.



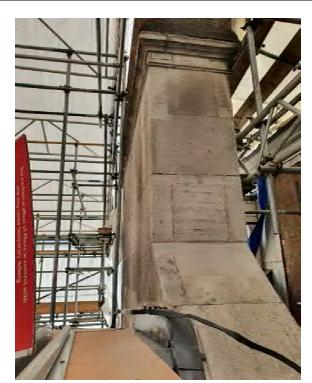


А

B/C

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Item Reference	4
ltem	Stone chimney East of centre, South
Observations	A: Numerous holes in stonework & redundant metal fixings. B: Scaffold fixed to stonework.
Recommended Action	A: Remove historic fixings and repair all holes with lime mortar (approx 20 no.) B: Repair with lime mortar as scaffold removed. General: Check pots and flaunching for defects and loose material.

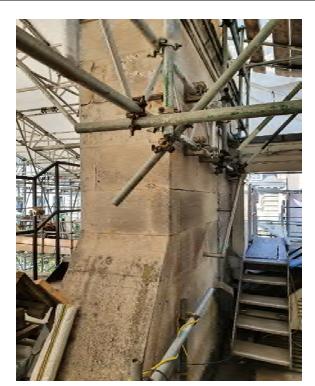


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Drawing Reference	445 03

Item Reference	5
ltem	Brick chimney South East
Observations	A: Eroded and failed bricks and pointing. Existing pointing visually and materially inconsistent. B: Use of innapropriate cement mortars, potentially including recent leadworks as part of re-roofing.
Recommended Action	A/B: Cut out existing mortar and failed bricks. Repoint chimney with lime mortar and replace bricks with matching. Check pots and flaunching for defects and loose material.

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Item Reference	6
ltem	Stone chimney West of centre, North
Observations	A: Joints opening up due to suspected movement caused by scaffold. B: Numerous holes in stonework & redundant metal fixings. C: Splitting and spalling on South East and South West corners. Rusting cramp evident.
Recommended Action	 A: Amend scaffold attachments and monitor movement. Once scaffold removed and stonework settled, repoint joints with lime mortar. B: Remove redundant fixings and repair all holes with lime mortar. C: Cut away damaged area to agreed line and remove rusting cramps. Fit 2 no. new stone indents on SE corner and SW face C using SS pins as required. Repoint in lime mortar as req. General: Check pots and flaunching for defects and loose material.





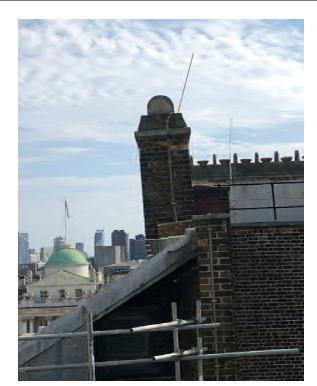
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Item Reference	7
ltem	Brick chimney North West
Observations	A: Slight lean on chimney stack eastwards
Recommended Action	A: Structural Engineer to inspect.
	General: Check pots and flaunching for defects and loose material.

Photographs and additional information		

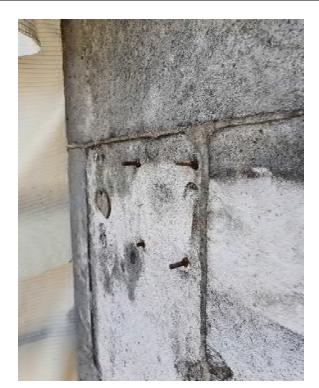
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Drawing Reference	445 03

Item Reference	8
ltem	Brick chimney South West
Observations	A: Slight lean on chimney stack eastwards
Recommended Action	A: Structural Engineer to inspect. General: Check pots and flaunching for defects and loose material.



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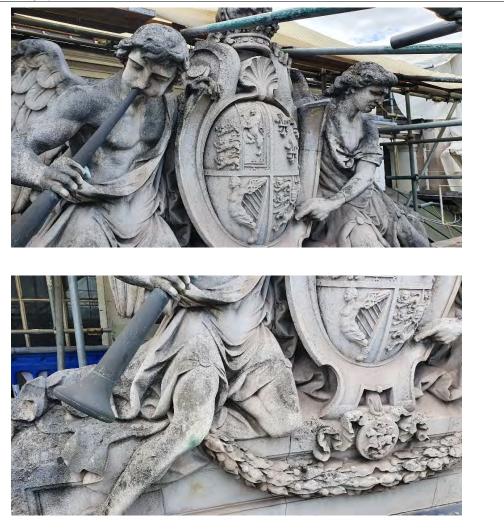
Item Reference	9
ltem	Stone chimney West of centre, South
Observations	A: Numerous holes in stonework & redundant metal fixings. B: Splitting and spalling of stone at base. Rusting cramp evident. Loose pointing.
Recommended Action	A: Remove redundant fixings and repair all holes with lime mortar B: Remove rusting cramp. Cut away damaged material to agreed line and insert new stone indent using SS pins as required. Rake out loose mortar to base and repoint in lime. General: Check pots and flaunching for defects and loose material.





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Item Reference	10
ltem	Statue I, central, top.
Observations	 A: Minor staining due to water run off from copper elements. General discoulouration on most exposed areas, (heads and shoulders) including some stone detoriation. B: Minor cracks where stonework particularly intricate - pinkie finger on angel holding horn, and index finger on angel pointing to horse. C. Stone joints absent of mortar.
Recommended Action	A: Light cleaning. Test on small areas and agree total scope. Refer to method statement 445 MS1. B: Patch repair with lime mortar. C. Repoint in lime mortar.



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Item Reference	
ltem	Lead parapet below central statue
Observations	A: Failed sealant to lead flashing has been removed. Open joint now visible.
Recommended Action	A: Point open joint with lime mortar.



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Item Reference	12
ltem	Bottle and Parapet Capping
Observations	A: Movement at parapet capping joint B: Spalling to top of bottle, probably as a result of item A. Evidence of historic repair, since failed.
Recommended Action	 A: Peel back leadwork and fix adjacent parapet cappings together with 2 no. SS brackets and resin anchors to prevent movement. Point joint in lime mortar. Replace leadwork. B: Cut damaged stone to agreed line, minimising amount of stone removal. Piece in new stone section to match existing profile with SS dowels as req.



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Item Reference	13
ltem	Statue 2
Observations	 A. Leadwork at connection to balustrade coping has been tapped up and into joint in attempt to prevent previously recorded water ingress. B. Minor staining and dirt collection, especially within more intricate areas of stone carving. C. Some loose pointing at stone junctions.
Recommended Action	 A. Form lead upstand at junction and apply lime mortar haunching over. B. Light clean. Carry out prior to any repairs. Refer to method statement 445 MSI. C. Rake out joints where loose/failing and repoint with lime mortar.

