



# St James's Conservation Trust

A Feasibility and Viability Report on Recreating a Gas Lamp Standard Island Feature

P01

10/03/2020

**ATKINS**

Member of the SNC-Lavalin Group



Preface

This report has been prepared by the instruction of The St. James's Conservation Trust (Trustee meetings September and December 2019) to prepare material for promoting the recreation of the original ornate lamp standard on the new island site of improvements to the setting of St. James's Palace. This has been an aim of the Trust since initiatives for improvements to the setting since 1999 and again, as part of the City of Westminster's restoration of two-way traffic in Pall Mall and St. James's Street. The island improvements at Pall Mall were finally completed in March 2019, together with improvements at the end of Cleveland Row.

In order to complement and further ornament the hard landscape of the new island, the recreation of a gas lamp, illustrated on the front cover is proposed by the Trust, when the approximate, £100,000 budget can be raised and approvals and implementation achieved with the Trust's regular project partner the City of Westminster highways teams.

Revision Table

Atkins Job Number:		Document Reference: St James's Feasibility and Viability Report				
Printing	A3 Double Sided					
Revision	Purpose Description	Originated	Checked	Reviewed	Authorised	Date
P01	Draft - Final	AS	PH	PH	NM	

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Front cover image: c.1896 courtesy of Metropolitan Archive Collection and [former] London Stereoscopic Co. original - George Newnes Ltd., Southampton Street, Strand : Photographer : Meisenbach

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Early computer model version of proposed site



# 1.0 Introduction and Background

## 1.1. Outline history of Pall Mall Street Lighting

In 1807 London's Pall Mall became the first London street to be illuminated by gaslight.

The gaslight was developed in the 1790s. The credit usually goes to Scottish engineer William Murdoch, but it was Friedrich Albert Winzer (née Winzler, sometimes anglicized to Frederick Winsor), a German entrepreneur living in London, who lit Pall Mall, using disputed French patents.

In 1804, the same year he patented coal-gas lighting, Winzer demonstrated the technology during a lecture at London's Lyceum Theatre. By 1807, he had moved into a house on Pall Mall, one of the city's most fashionable streets.

On 4th June 1807 his carbonising furnace in Pall Mall dispatched gas along small pipes to illuminate gaslights in the nearby Carlton House, the home of the Prince Regent and a new industry was born.

There had been instances of individual factories or houses using gas as a source of energy but these were one-offs. The kudos for creating widespread public lighting from a single central source must be given to Frederick Winsor.

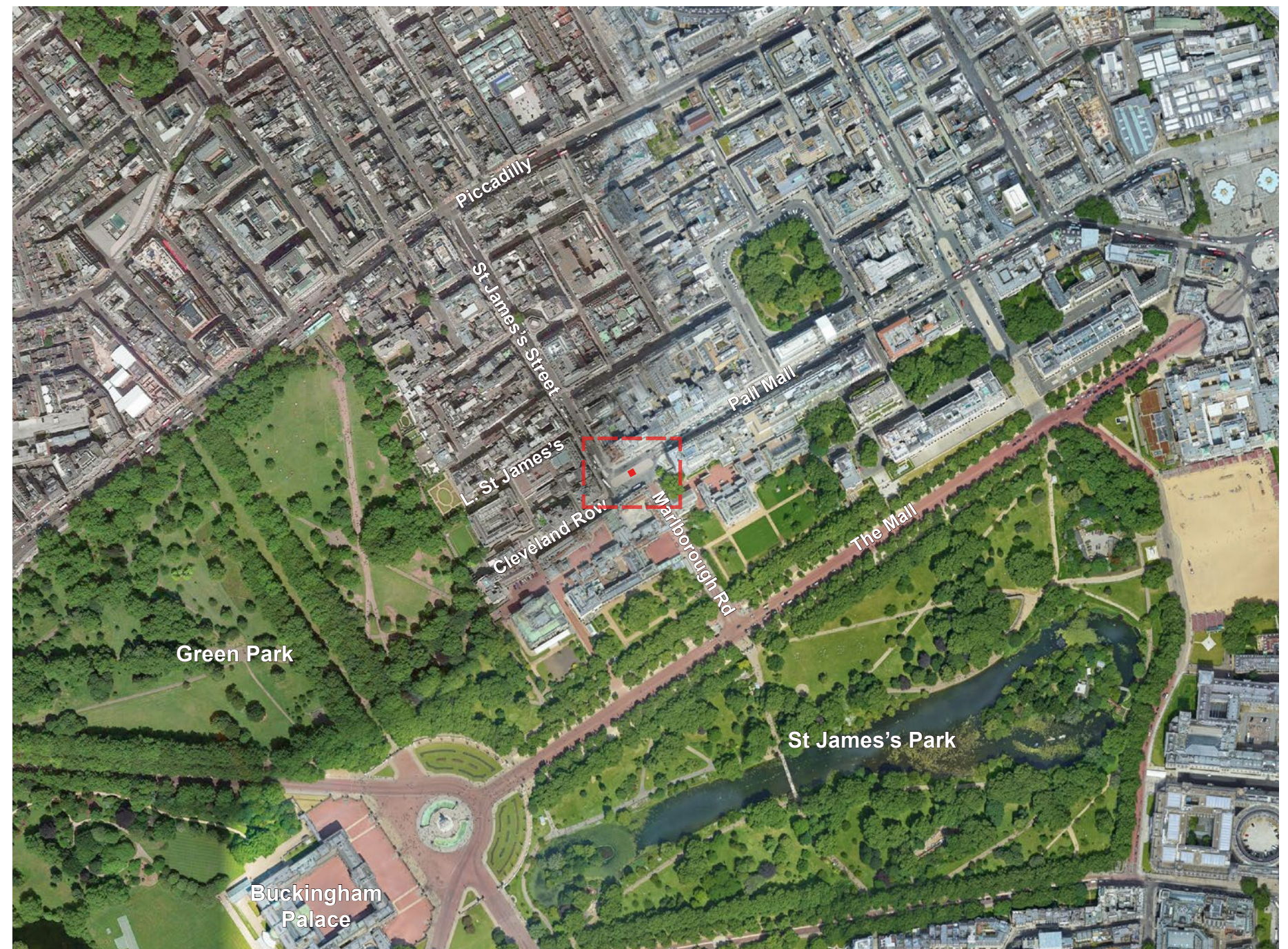
In May 1808 he issued a prospectus to raise money which gives a clear idea of his project, "providing streets, squares, and houses with gaseous lights, by means of lead conducting tubes underground from distant furnaces, on the principles as houses are now supplied with water".

The gaslights in Pall Mall burned brightly until they were replaced with electric sources as part of 'improvements' to the neighbourhood. But there are hundreds of working gaslights in Westminster. The nearest ones are in and around St James's Park.

Winsor died in Paris where he also worked and was buried in the Père Lachaise Cemetery but he is remembered by Winsor Terrace near Beckton Gas Works in east London as well as the gas lights that still light up parts of central London to this day.

He followed the illumination of Pall Mall with a special exhibition on June 4, 1807, in honor of the birthday of King George III, using gaslight to superimpose images against the walls of the buildings along his street.

The gaslight, meanwhile, took off. The Gas Light and Coke Co. – the first public gas company – was established, and by 1823, 40,000 lamps covered 215 miles of London's streets



Location Plan



# 1.0 Introduction and Background

## 1.2. Brief Outline of the Site and Planning Issues

Proposals for improvements that the St. James's Conservation Trust identified in the Trust's initial 1998 report ("St. James's – A Fragile Treasure"), included restoring two-way vehicle traffic operation in Pall Mall, St. James's Street and Piccadilly, with better settings for both Waterloo Place and St. James's Palace on Pall Mall. In addition, the Trust's advisors' researched historic images of the area and its surviving and lost historic street furnishings and street lighting types. Victorian and Edwardian era photographs showed the range of gas lamp standards and later electric arc lights across the area, most produced by the early lighting specialists, William Sugg (still in business as Sugg Lighting Ltd.) and in particular the lost landmark example outside St. James's Palace.

These wide-ranging, positive Conservation and Restoration ideas, for improving the public realm, were to be combined as aims for the support of the City of Westminster's Planning and highway authority and a Committee report, supporting the Trust's work, as material considerations, followed, in 1999. In 2010 the Trust reminded the City Council of the proposals and produced a short leaflet on the improvement opportunity for the improved setting of the Palace, incorporating the recreation of the original c. 1896 gas lamp standard as a central feature. The restored 2-way traffic operation was ready for the London 2012 Games, but the setting improvements to St. James's Palace with a new central island, safer crossings and improved street lighting, were only completed in March 2019.

Due to budget restrictions and site constraints from underground services, the recreation of the original gas lamp standard could not be included, although consistently supported by the adjacent Royal Household representatives, English Heritage and the Planning and Conservation teams at the City of Westminster.

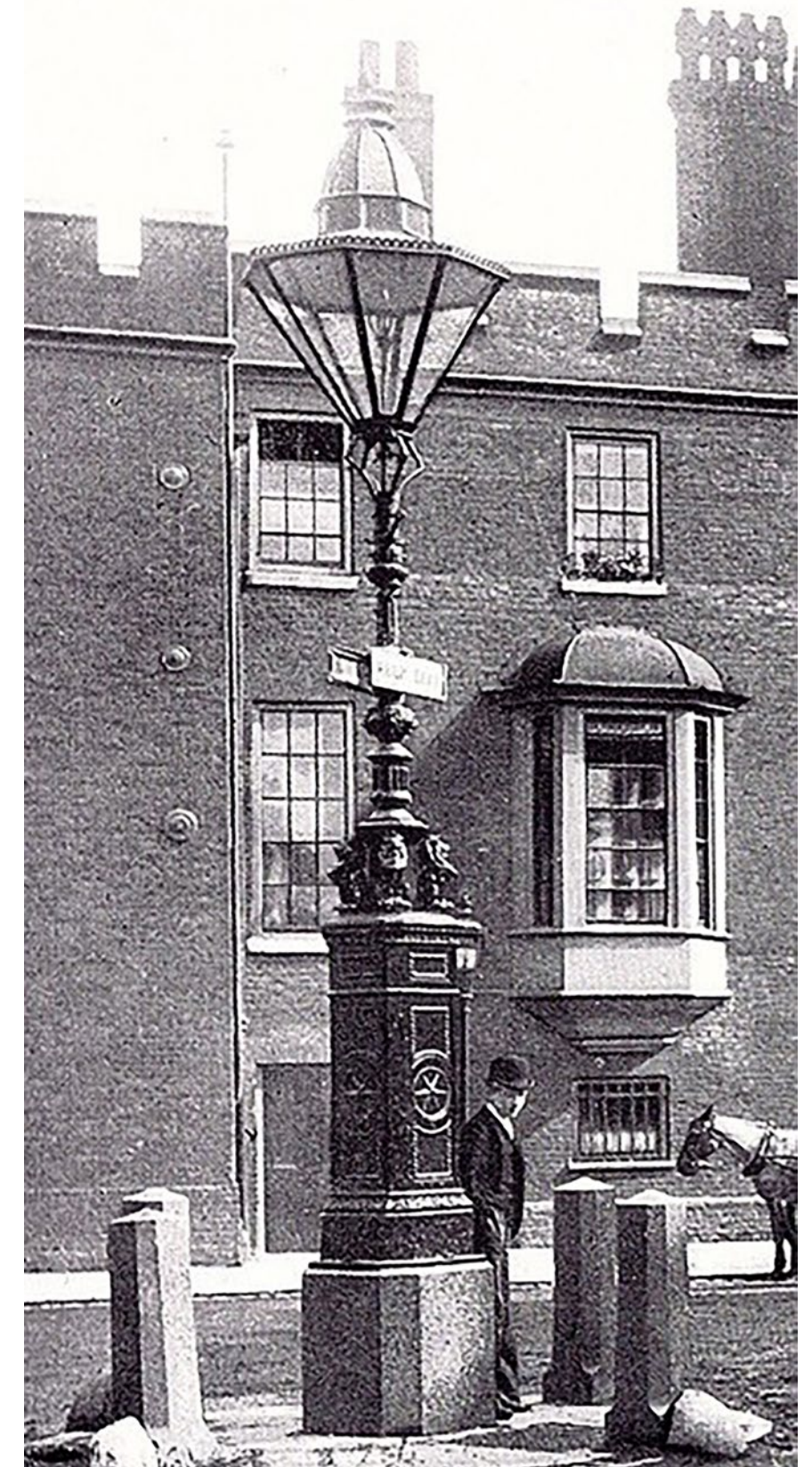
The outline budget and contingencies for design and construction in 2010/11, was estimated at over £60,000 but had to exclude the detailed costs of solutions, which would have to follow investigation into the constraints of the site and the unusual craftsmanship required to recreate this highly decorative civic ornament.

The City Council's improved knowledge and experience of the now completed island site, via information on services and on site excavations and local trial holes, make it possible for more accurate assessment of the practicality and viability of the project to restore the lamp standard.

These former unknown site issues, complemented together with an updated quotation by Sugg Lighting Ltd., who remain supportive of the project with help and detailed advice, notably drawing on their archives and store of original pattern moulds for decorative cast iron components, can now make a more robust budget for a new fundraising campaign.



The gas lamp detail photo shows cast iron and fabricated metal and stone elements, including bollard protections., each of these will need careful research and craftsmanship to recreate.





## 2.0 Constraints and Opportunities

### 2.1. Technical and Physical Constraints

Technical and physical constraints are significant as the survey drawing of utilities shows.

### 2.2. Survey Investigations

Survey investigations will be needed including up dated services and utilities alignments, as built drawings by City Council/s design and contractors' trial holes to confirm utilities underground and space and depth for foundations (for plinth, paving and bollards), without archaeological impacts, as well as means of connection for illumination.

### 2.3. Approvals of all frontages

Approvals of all frontagers and in particular the City Council Public Highway and Planning Authority and the Royal Household and Historic England and Palace teams.

### 2.4. Opportunities for Education and Information

Opportunities for education and information about the St. James's site/s, the Palace and the heritage of pioneering gas street lighting in Pall Mall, will all be benefits in digital or press and public relations activities that the project can stimulate. A physical plaque or engraved paved base or plinth can record information of public interest and record sensitively, public donations towards the project from all partners.

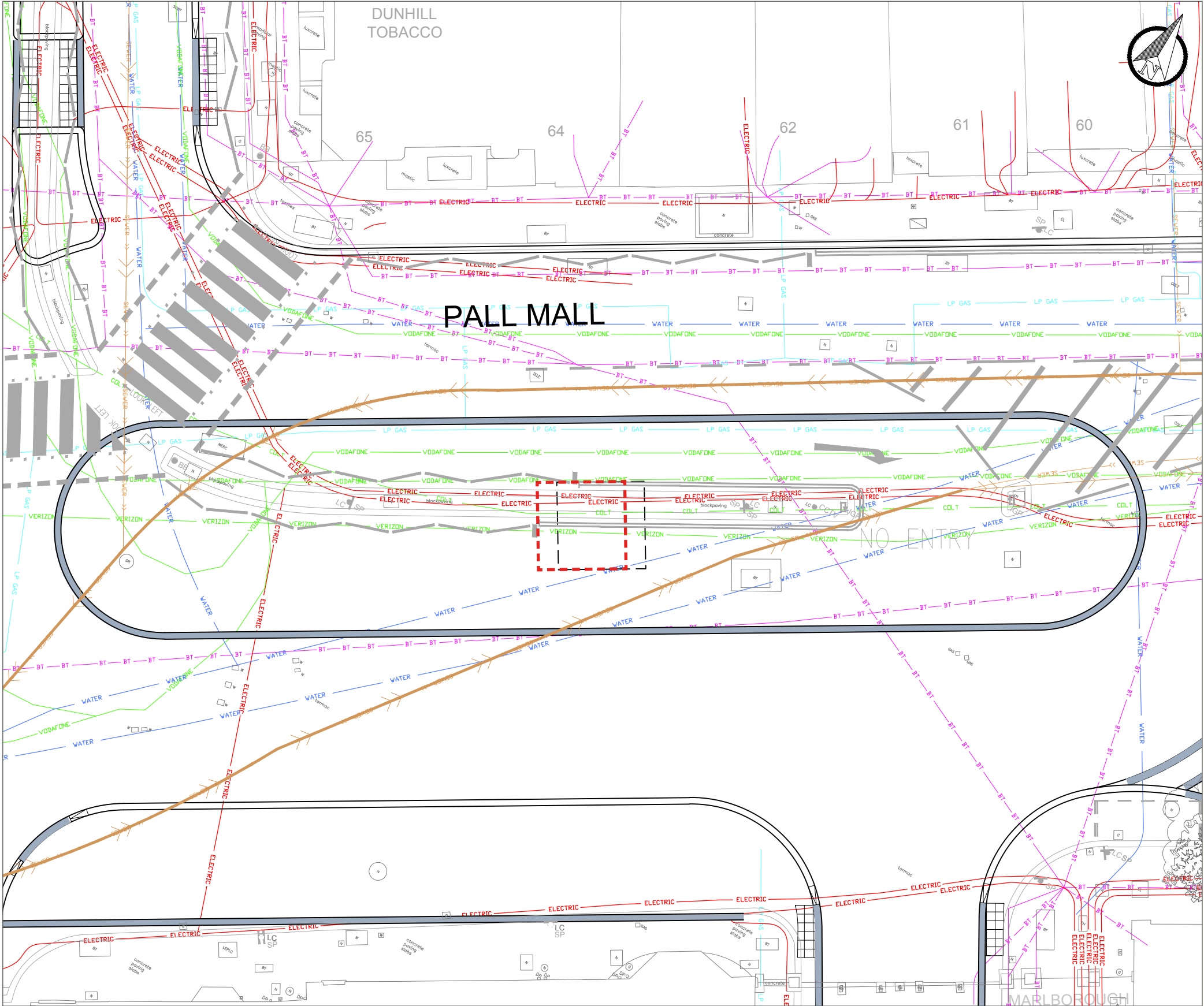
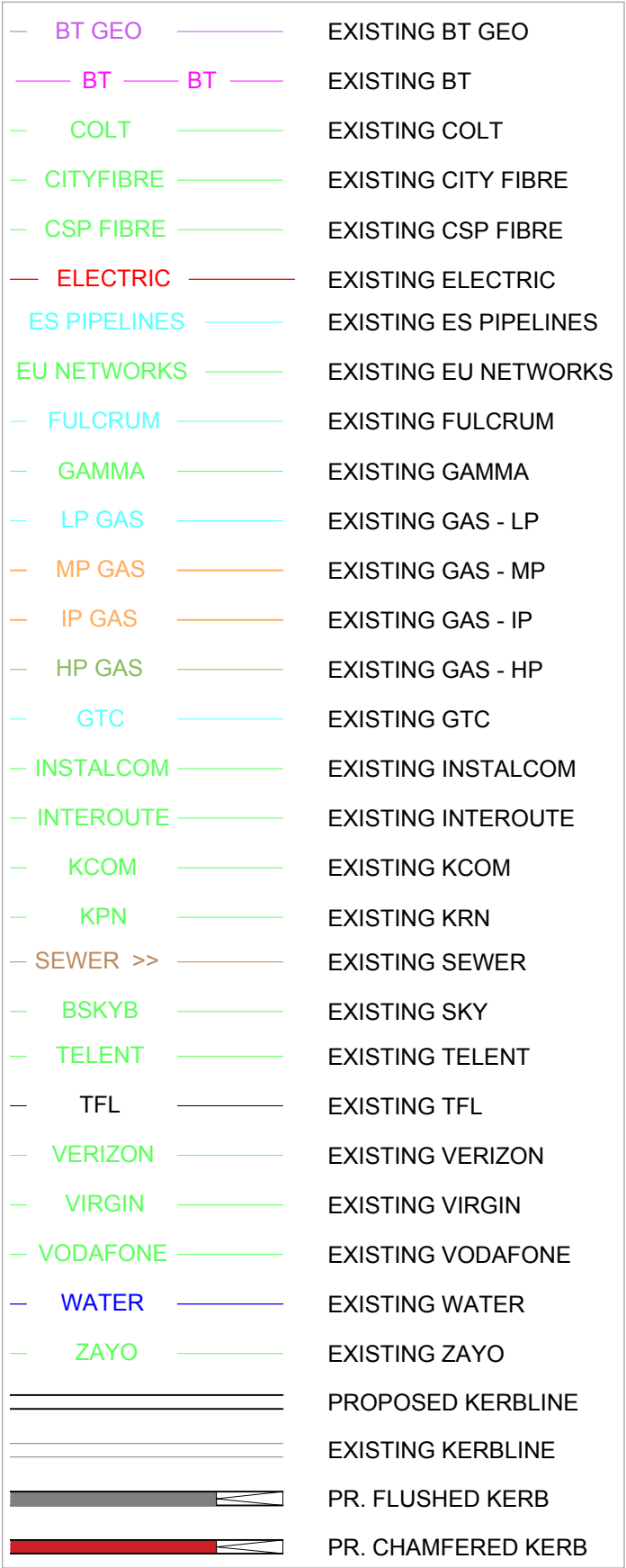
### 2.5. Site Exploration

Site exploration via trial holes and updated mapping may mean future plans for art and sculpture sites for foundations could be identified and even temporary installations for special events or celebrations with for example a Christmas Tree (as is already retrofitted at Waterloo Place, north island).

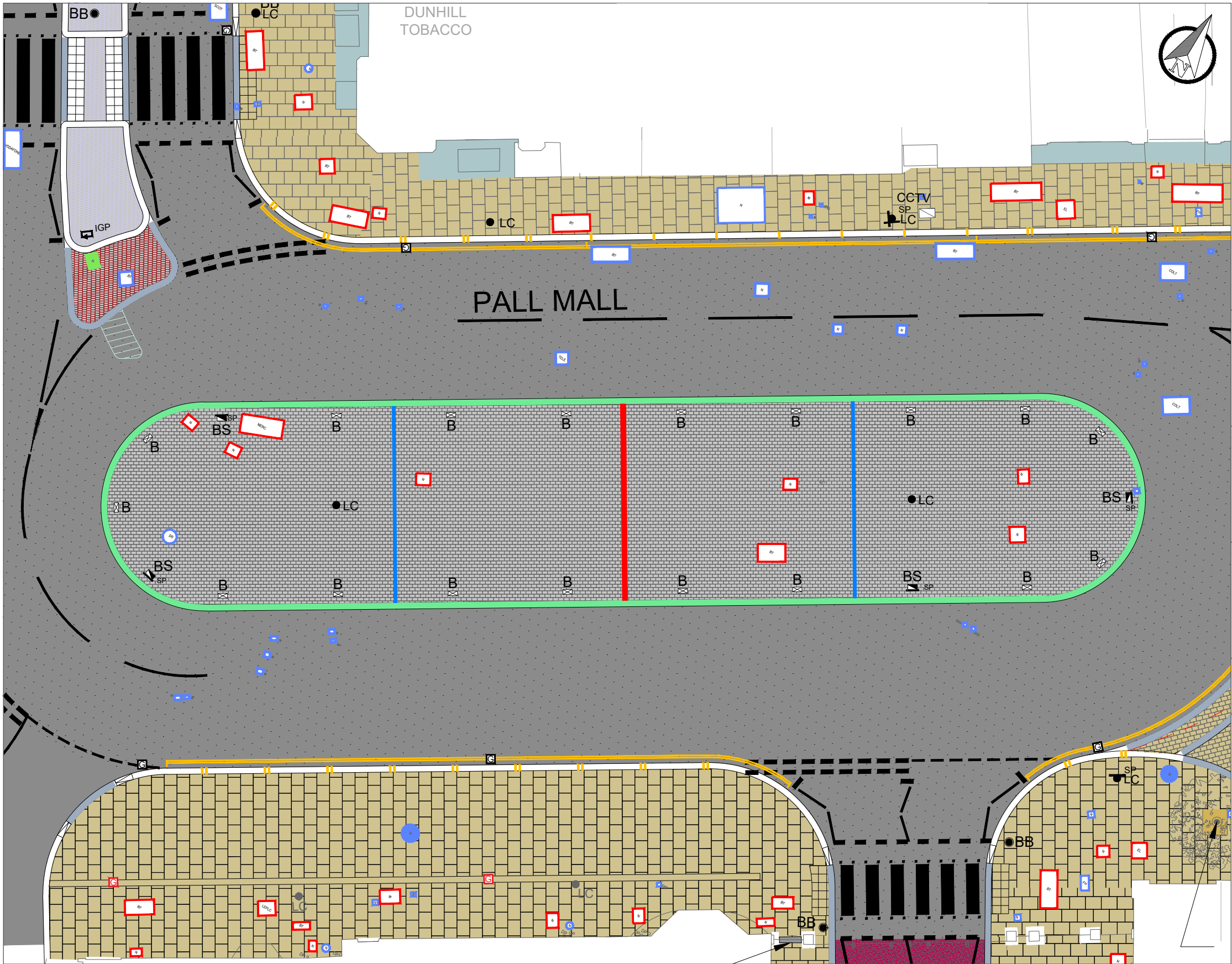
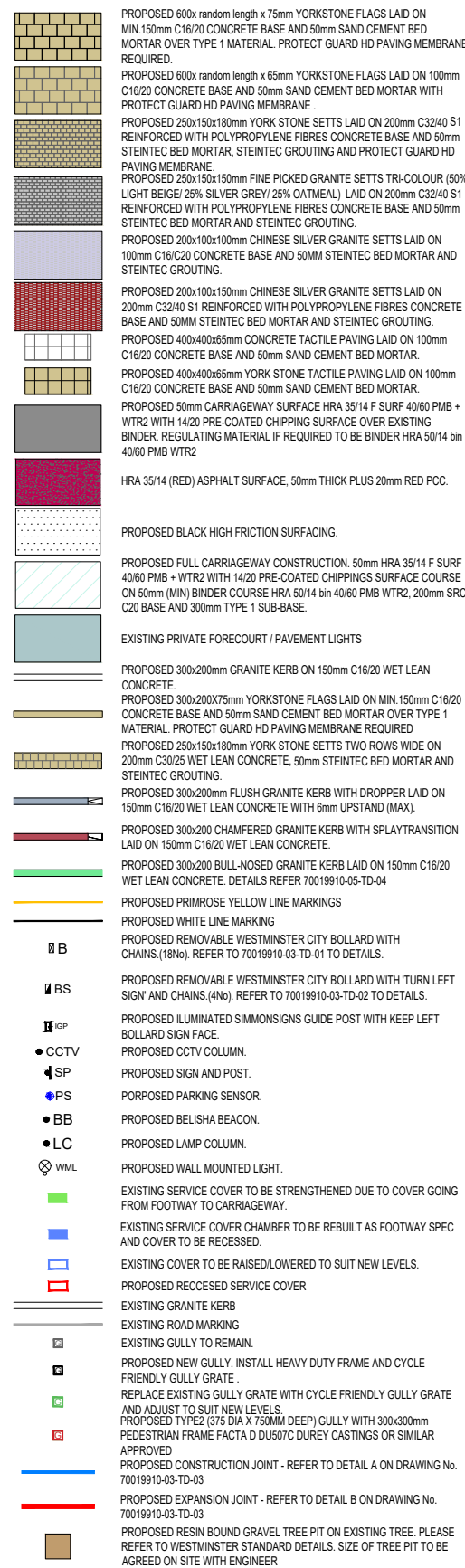
Outline of underground utilities identified by the City of Westminster survey, courtesy of FM Conway and WSP Engineers, overlaid with the island arrangements completed in March 2019. The dotted line at the island's centre was investigated for a large formation pad (approximately 4x4m) for any future public artwork or statues.







Utilities Survey Plan - 1:200@A3



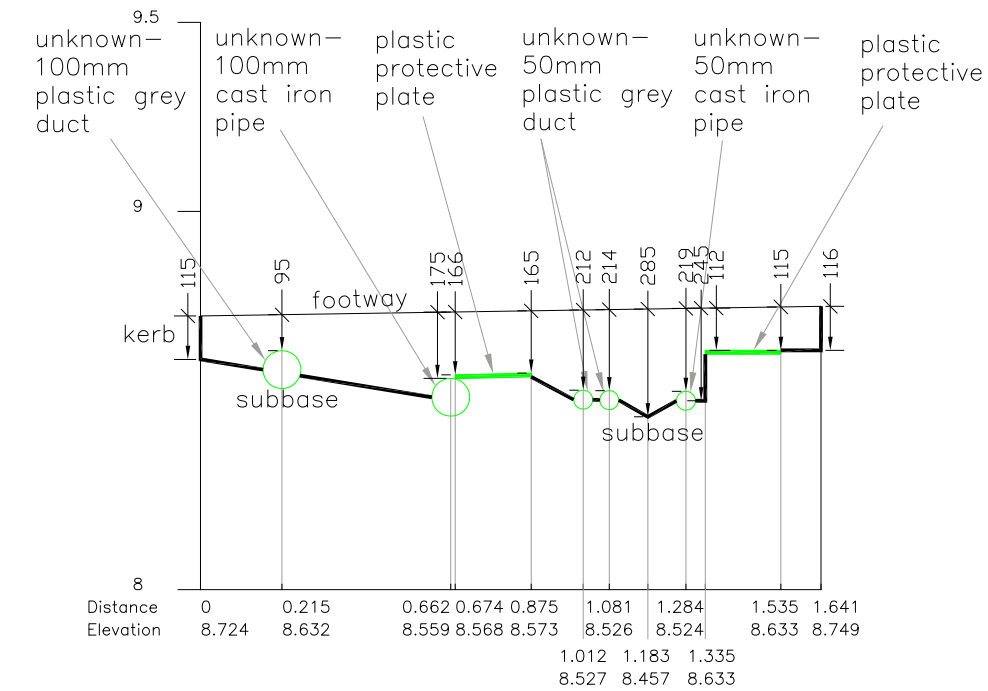
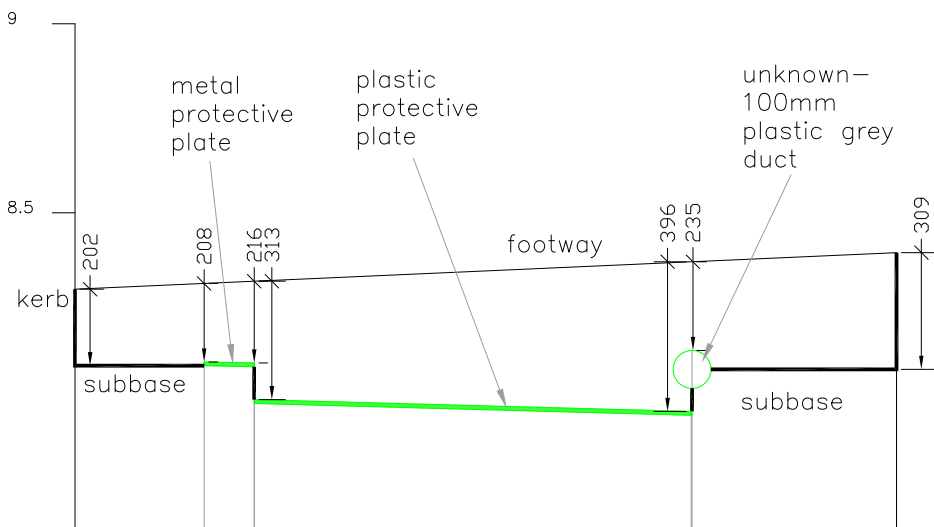
General Arrangement Plan - 1:200@A3



### 3.0 Detail Design and Development

#### 3.1. Trial Hole Investigation

Once the knowledge of the site from trial hole investigations is funded and concluded, detail design work can be progressed on technical matters including structural foundation design and utilities connections and equipment for accessible lighting controls etc. and any other utilities diversions that may be needed.



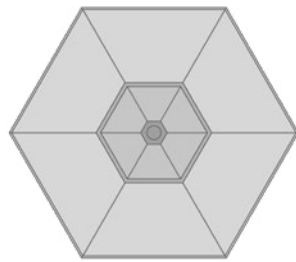
Drawings and trial hole photo examples courtesy of City of Westminster implementation teams : WSP and FM Conway.



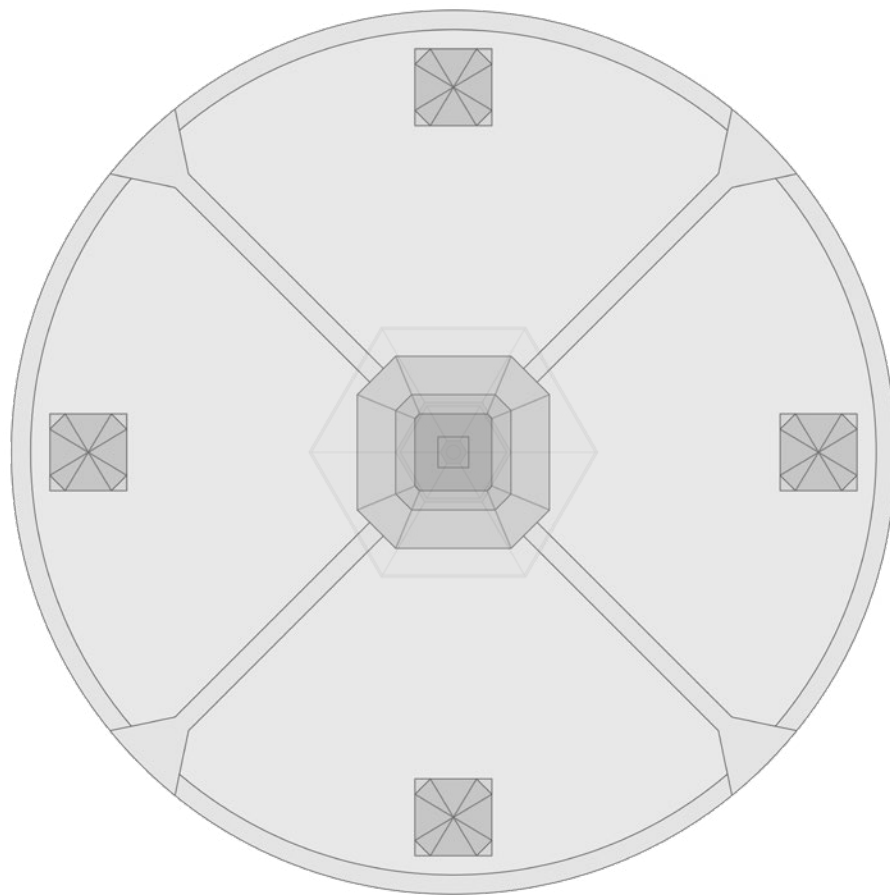
## 3.0 Detail Design and Development

### 3.2. Sketch Drawings and Surveys

Sketch drawings and surveys will need to be confirmed by the City Council and other stakeholders, in partnership with Sugg Lighting and related cast iron foundry craft workers and stone masons.



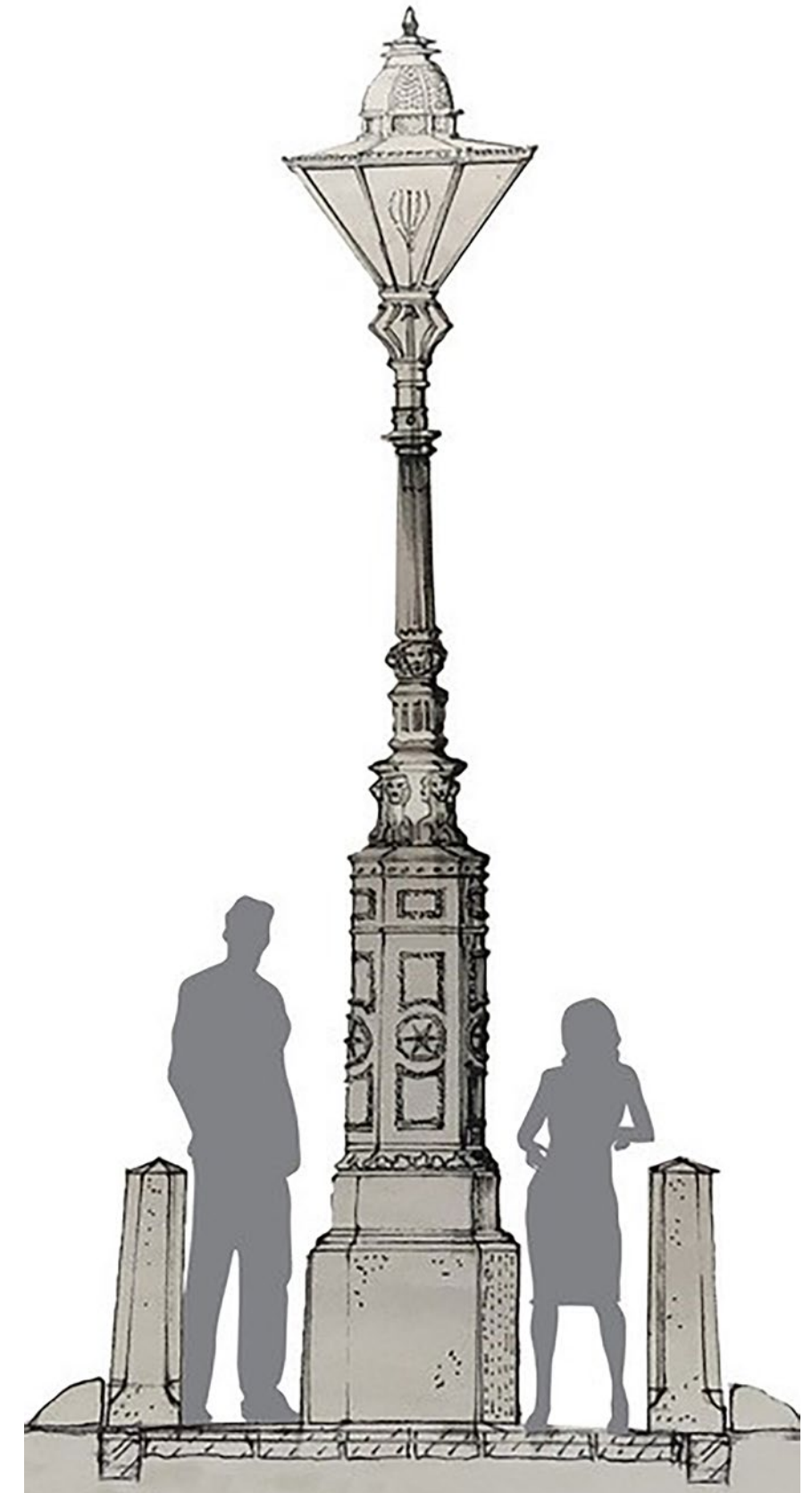
Lantern Plan



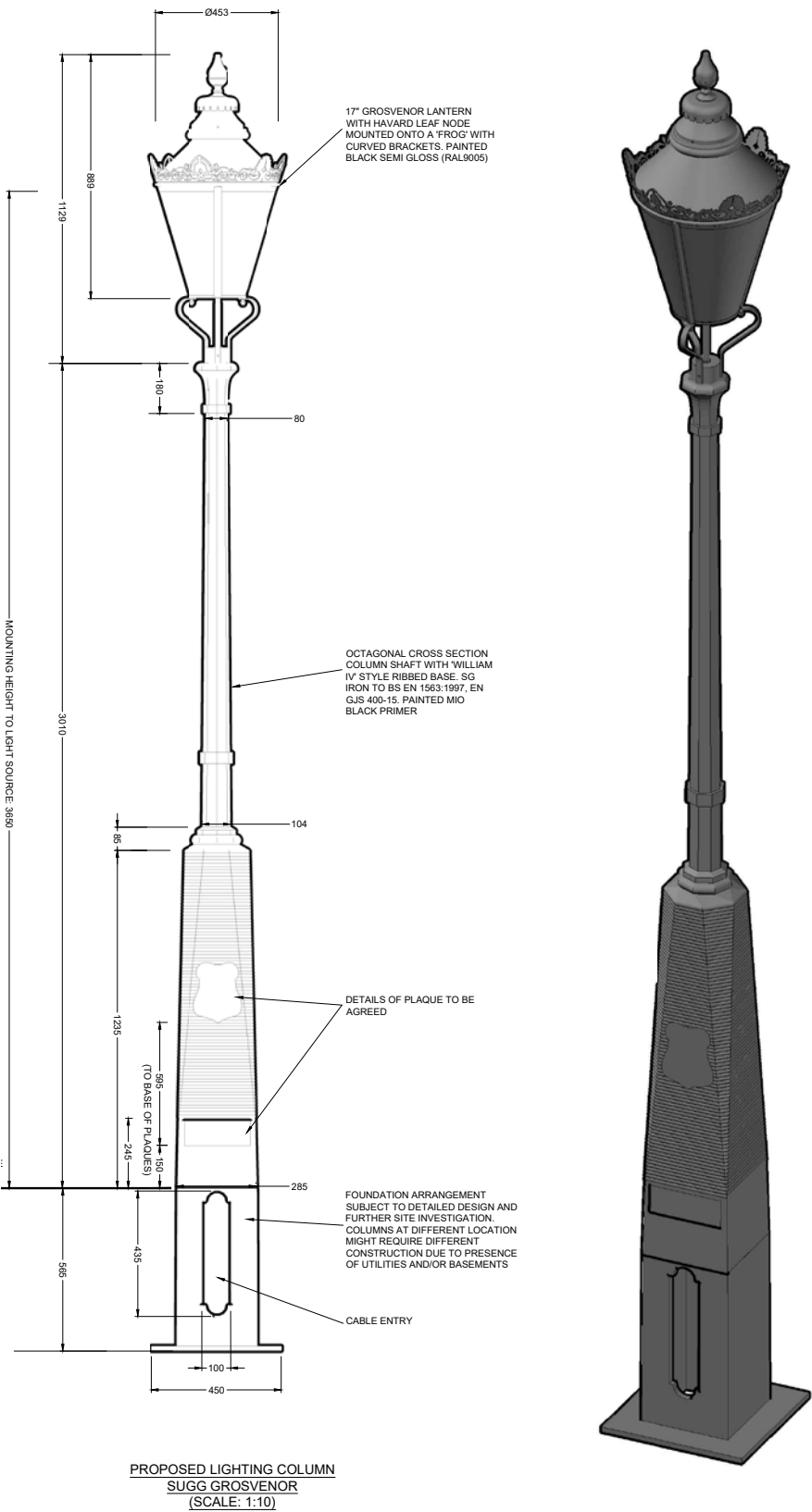
Lantern and Base Plan



Historic Photographs c.1896 courtesy of Metropolitan Archive Collection and [former] London Stereoscopic Co. original - George Newnes Ltd., Southampton Street, Strand : Photographer : Meisenbach



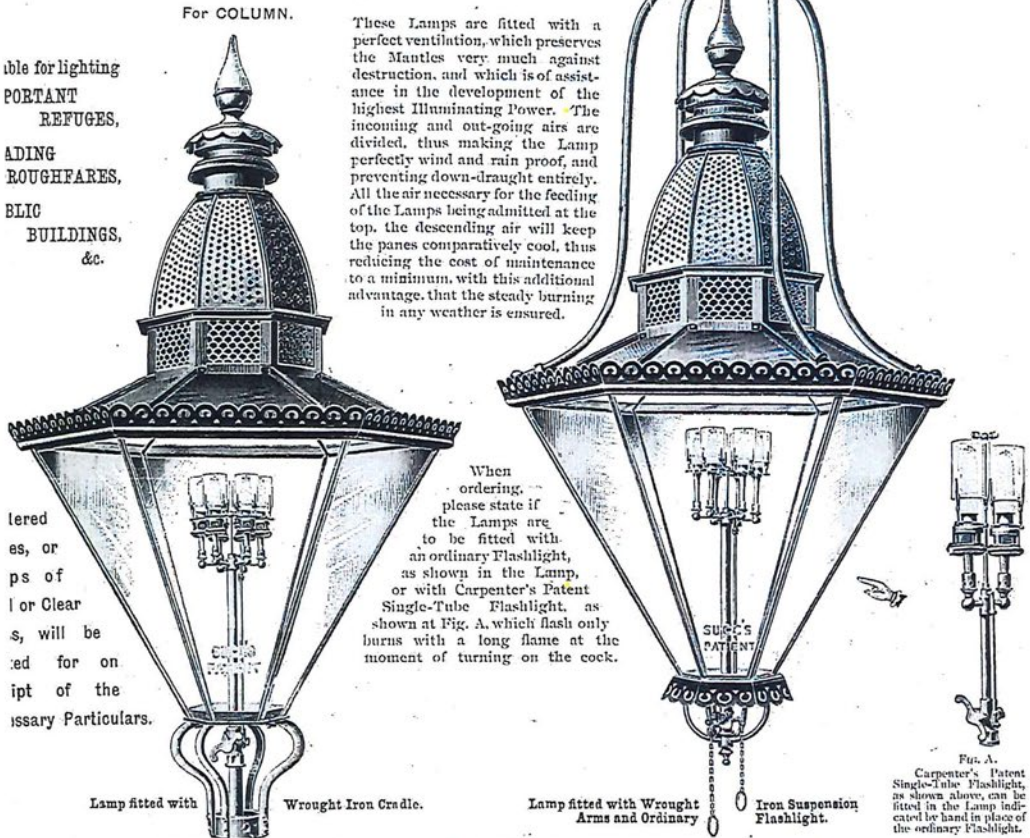




Existing St James's authentic recreated lamp columns on the existing island by Westminster Council

78 HIGHEST AWARDS IN OPEN COMPETITION.  
**William Sugg's Patent Incandescent Gas Lamps.**

**The "WESTMINSTER."**  
FOR COLUMN, FITTED WITH WROUGHT IRON CRADLE. For SUSPENSION.  
Can be supplied for Bracket and Suspension.



The Prices include the Lamp fitted with a Cluster of from six to eight of William Sugg's Patent No. 4 Incandescent Burners and Vertical Anti-Vibrators, Mantles, and Glass Mantle Protectors, Lever Cock, and ordinary Flashlight, or Carpenter's Patent Single-Tube Flashlight, with Wrought Iron Cradle if for Column, ~~or with Strengthened Shoulder Union Joint if for Bracket~~, or with Wrought Iron Suspension Arms, and Brass Cup and Ball Joint, if for Suspension, complete, ready for fixing.

DESCRIPTION.	Number of Burners, and Consumption of 10-c. Gas of each per Hour.	Effective Illuminating Power with Reflector.	DIMENSIONS.		PRICES.					
			High.	Wide.	Fitted with ordinary Flashlight.		Fitted with Carpenter's Patent Single-Tube Flashlight.			
For COLUMN ... (Fitted with Wrought-Iron Cradle.)	Six 5-feet Burners	840 Candles	6 feet 9 inches	46 inches	13	12	0	13	15	0
	Seven 5-feet "	980 "	6 " 9 "	46 "	13	18	9	14	1	9
	Eight 5-feet "	1,120 "	6 " 9 "	46 "	14	5	6	14	8	6
For SUSPENSION	Six 5-feet Burners	840 Candles	7 feet 0 inches	46 inches	14	17	0	15	0	0
	Seven 5-feet "	980 "	7 " 0 "	46 "	15	3	9	15	6	9
	Eight 5-feet "	1,120 "	7 " 0 "	46 "	15	10	6	15	13	6

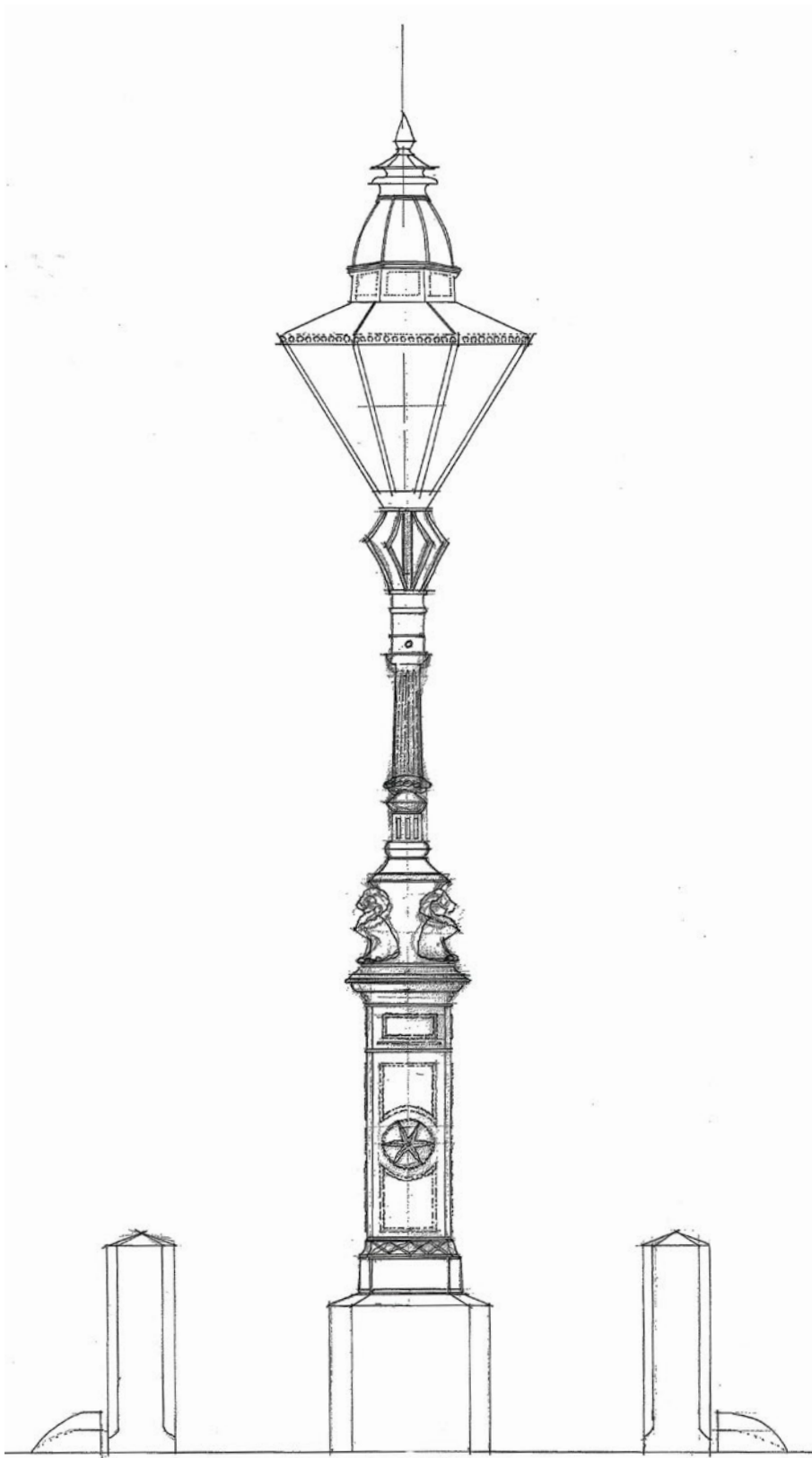
WILLIAM SUGG & CO., VINCENT WORKS, WESTMINSTER, S.W.  
LIMITED.

Examples of Sugg lighting's over 150 years of expertise in traditional and ornamental lamp standards





Precedent examples of the 'Large Westminster' lantern on an ornate column of the Charlotte Street Hotel.



Sketch scale drawing of proportions of proposed recreated gas lamp standard.



## 4.0 Programme of Implementation

The anticipated decision to proceed to investigate the site with trial holes, will depend on updating the City Council on the proposal, in terms of the past, in principle support of the modification of the island public realm. The Royal Household representatives will reassess the functional needs of the space and the look and authenticity proposed in the design and specification of gas or electric sources of light and details including any information panels or carved text.

This report aims to prepare the discussions of the next stage, by initiating a viability test of an initial fund raising campaign and promotion, by explaining the proposal at one-to-one meetings with relevant local interests and key stakeholders. This is likely to have a duration from March 2020 to June 2020 with a target for a report back to stakeholders and Trustees at the 18 June 2020 Trustees meeting. At this stage in principle funds can be confirmed for the first stages of work, comprising trial hole and survey investigation, (likely to be undertaken from Summer to October 2020 by the City Council). This should be able to confirm technical feasibility (and viability costs) issues. Further promotion in parallel and after trial hole results, can be undertaken to the local audience of commercial and public interests. The Trust may need to make use of a wider media campaign for funding to completion and new running costs and maintenance levels required by agreement of the City Council Highways Authority.

Highways and planning applications, checks and consents as well as the works licence agreements, will be required based on detailed information and works management plan and conditions. This may be prepared in partnerships with The Trust and City Council over a period from October 2020 (8 – 12 weeks) – with an implementation on site, subject to approval and weather conditions in late January/February 2021. Any opening ceremony/celebrations of stakeholder interests and local people could be on possible dates in March or April 2021, which may be the best for fair weather and night skies.





## 5.0 Cost and Benefits

The approximately £100,000 total cost is to cover the following outline of expenses for :

- Materials, fabrication and supply and delivery.
- Design and other fees for checks.
- Applications for consents.
- Connection charges.
- Contractors' site preliminaries and works.
- Contingencies.
- Running costs.
- Aftercare.

The benefits of the proposal are functional and aesthetic in improved quality and quantity of site lighting, general education in the public interest, of local history and also a local connection to the heritage of street lighting development.

For the Trust and City Council/supporters and funding partners this potentially award winning recreation could help promote respectively the area and the generosity of the funding partners and stakeholders in implementation via media exposure and support.

Since the new island has been installed various positive and negative issues have occurred at this site and lessons learnt. Some positives are that visitors now have an attractive daytime setting for the Palace and widened footways to pause in safety to admire. Some negatives have arisen by unsafe crossing to the island site, climbing over or via removed bollard and chain protections, and other temporary events and activities, including antisocial drivers racing, parades, marches and demonstrations, which have caused local disruption.

The new daytime and night-time setting of the Palace will in future be enhanced by this recreation of a Victorian gas light of function and civic pride in craftsmanship, rarely seen in modern street furnishings, which was sadly lost in the wartime disruption in the area.

Application costs =

Design Westminster City Council public highway checks and approvals/contractor notices works and traffic management orders = £5,000.00

Trial Holes for site and services confirmations/diversions/connections estimate = 5 No. = £5,000.00

Remove existing setts at identified location approx. 3x3m Area at : £20 x 10 sq.m = £200.00

Excavation for foundation 3 x 3m area at : £20 x 9 sq.m. = £180.00

Sub base material at : £50 x 10 sq. m. = £500.00

Reinforced concrete Foundation (assumed 3 x 3m) for plinth/column/connection to services(electric/gas) at : £500 x 9 sq.m = £4,500.00

Cast concrete plinth lamp standard base approx.

750 x 750 x 900mm item = £4,500.00

Screed, sand/cement 50mm bedding for be paving in 4 No. 65 mm deep stone (Scottish Caithness, Cornish granite, Irish Limestone, Welsh Slate), area approx. 3x3m comprising a Tudor Rose shape, around 4 faces of the clad plinth at : £600 x 8 sq.m = £4,800.00

4 No. Portland Stone bollards on Foundation, set into flush new plinth surround paving at : £1,000 x 4 No. = £4,000.00

Granite cladding anchored with angles and fishtail cramps to concrete plinth (with item : £750 recessed bronze 500x 500 mm plaque with lettering on one face and item : £1,000 : inscribed carved lettering on other face) at : £600 x 4 sq.m = £4,800.00

Site clearance and pointing/making good to existing paving/pointing at : £450 x 2 sq.m = £900.00

UKPN/other connection charges estimate = £1,000

Sub-total : highways/builders works = £37,130.00

Sugg Lighting Ltd. Supply as : finished painted/gilded and delivery and erection/connections on site :

Sub-total : lantern/light source and shaft/control gear/connections = £46,320.90

SUBTOTAL ALL WORKSLIGHT INSTALLATION CONNECTION = £82,450.90

WCC contractor's FM Conway preliminaries (excluding phasing) at: 18% = £14,841.00

Contractor Design Fees at : 3% = £2,473.53

Contractor's Overhead and Profit at : 5% = £4,122.55

Sub-total = £103,887.98

20% Professional/Specialists' Design and Construction Contingency = £20,777.60

Sub-total = £124,665.58

Inflation from 4Q2020 to mid-point of construction 3Q2021 at 5% = £6,233.28

Westminster City Council Agreement for future maintenance and repair in perpetuity, lump sum commuted payment by project promoters estimated as :

£10,000.00

ESTIMATED PROJECT COST (rounded up for reporting purposes/ excluding assumptions and exclusions) excluding VAT = £140,900.00



## 6.0 Contacts

### 6.1 The Trust

### 6.2 The City of Westminster

### 6.3 The Royal Household

### 6.4 Frontagers

### 6.5 The Crown Estate

- Peter Heath - Architect and Town Planner Advisor to The St. James's Conservation Trust
- Andrew Love – Chairman of The St. James's Conservation Trust
- Virginia Chichester Deputy Chairman of The St. James's Conservation Trust
- Jeremy Vaughan – Financial Secretary of The St. James's Conservation Trust
- Frank McDowell – FMC Accounting : Accountants to The St. James's Conservation Trust

## 7.0 Next Steps

This report will be followed by a fundraising leaflet version, in order to help Westminster City Council's key decisionmakers, Councillors, officers and their communications team, together with wider local and general media support and coordination, so that potential sponsors and funding partners will understand and want to donate to the project and the budget.

### "THE RETURN OF THE GAS LAMP STANDARD

#### – ST JAMES'S CONSERVATION TRUST RESTORATION PROJECT.

The long lost ornate Victorian Gas Lamp standard, that stood at the junction of Pall Mall and St. James's Street could be authentically recreated by the same British-based company William Sugg Lighting who first created it in the 1880s and restore this unique example of civic pride and lighting heritage.

An initiative by The St. James's Conservation Trust, who have promoted many improvements across the Neighbourhood Forum Area since 1998, is seeking funding partners and sponsors to implement this restoration project. The recently completed island and restored, original two way traffic system outside the historic St. James's Palace, the official home of the Monarch is where the lamp standard once stood until the second world war.

The project budget will cost approximately £140,000 and include the use of both modern technologies and traditional craft skills, in preparing patterns for the original decorative cast iron, carving natural stone components and installing the best quality and efficiency of gas mantle light source, all as shown in the 1896 photograph.

The Trust's representatives hope to start the budget rolling with their own fundraising Summer Garden Party in St. James's Square.

Other sources that have in the past enabled capital works improvement projects in the St. James's area, such as at St. James's Square, Waterloo Place and Jermyn Street have been partnerships comprising the City of Westminster, Transport For London, The Heart of London Business Alliance and The Crown Estate, also with local businesses and institutions.

Due to the high levels of craftsmanship involved in recreating this focal point in the history of the area, the Conservation Trust is confident that the public interest will stimulate:

- Grant aid from heritage bodies and trusts
- Local community funding sources
- Commercial organisations
- Landowners public and private donations
- Frontagers overlooking the site

More information on The St. James's Conservation Trust, its past projects and activities can be seen on its website at :

[www.stjamestrust.london](http://www.stjamestrust.london)



# 8.0 Appendices

## Appendix 1: QUOTATION

*William Sugg & Co Ltd*  
*Unit 23*  
*Blatchford Close*  
*Horsham*  
*West Sussex*  
*RH13 5RG*

Peter James Heath *BSc(hons)BArch DipTP RIBA MRTPI*  
Design Director, Public Realm, Landscape and Urban Design  
London  
Engineering, Design and Project Management  
Nova North,  
3rd floor,  
11,Bressenden Place,  
Westminster,  
London  
SW1E 5BY

Ref: Pall Mall Queens Column.

Dear Peter

Many thanks for the opportunity to quote for this bespoke and unique project. Please find the description for the items below, these can be changed to suit and modified as required to achieve the desired finished product.

Item	Qty	Description	Price
1	1	<p>To produce bespoke resin patterns to replicate the drawing supplied to our company, these will be handmade and crafted to the design shown on the drawing, these will then be mounted on wooden boards to be used for the casting process. The column will be cast in ductile iron. The column will be as follows.</p> <p>An octagonal base with decorative patterns on each face, as shown on drawing.</p> <p>The column will have a cast spigot to 76mm to take the bespoke custom frog, the frog will be made from steel, which is then galvanised, and powder coated in RAL 9005 black.</p> <p>The column height will be 4 meters, with a fluted shaft, and will have four lion boss faces in cast iron to the base of the fluted shaft section where it attached to the collar which has a fluted design.</p> <p>Below this is 4 seated lions again in cast iron. This will be on the base section of the column shaft where it attaches to the base section of the column.</p> <p>We will if approved either paint the decorative embellishments in a gold metallic paint to highlight them <b>or</b> gold leaf which will be charged at cost and carried out by one of the Queens gilding artists.</p>	

2	1	<p>Handcrafted bespoke Westminster Heritage style lantern circa late 1800s crafted from copper with steel re-enforcing rods and <b>glass</b> glazed, the lantern will incorporate the Sugg 6 mantle <b>3000k</b> LED CRI85+ unit with the decorative Horsmann clock and gas pipe to give the illusion of a working gas lantern. The lantern will have the decorative custom frog. <i>Dimensions for the lantern will be confirmed when the order is placed but we are basing the cost on the extra-large lantern as per the Firmdale Hotel Charlotte St London. This measures approximately 50 inches across the width at the widest point making it 20" wider than the standard Large Westminster.</i></p>
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£44397.42

Opt.	Extra Over	for gold leaf depending on total area.	£343.50- £1200.00
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3	1	Delivery to site by a dedicated HIAB lorry which will lift the column on to the pre-installed granite plinth.	£723.90
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**Delivery** is approximately **16** weeks, subject to confirmation at time of receiving official order or payment, if appropriate. If the delivery address is different form the address above then please notify us as soon as you are able, as the calculation of carriage is based on this information.

All above prices are net, ex-works, subject to VAT at the appropriate rate.

Validity: **Prices can be held firm for acceptance 60 days from date of this document.**

**Payment terms:** Payment due 30 days, from date of invoice where an account facility is available, otherwise we would trade on a pro forma basis and require cleared funds with the order. Account forms are available upon request and it should be noted that the account process may delay the processing of an order as no production will start ahead of an account or cleared funds.

The prices shown above do not include a cost for disposal of luminaires under the WEEE directive which will apply to many products supplied from 1<sup>st</sup> July 2007. William Sugg & Co Ltd will be able to arrange for a quotation, for waste material to be collected, at the time of its disposal. Alternatively you may choose to arrange disposal yourselves through an approved scheme.

William Sugg & Co Ltd does not supply lamps and any lamps purchased for the products, include a WEEE levy and will need to be disposed of by the relevant lamp manufacturer.

The above offer is made under our Standard Terms and Conditions of Sale

I trust you find the above satisfactory and if we can be of any further assistance please do not hesitate to contact me.

Yours sincerely,



Appendix 2: LED electric details as gas lookalike option for actual gas source

# WESTMINSTER



## Product Features

This traditional hexagonal lantern is hand crafted in copper and retains the Victorian Heritage styling of the original. This style of lantern has been in production since the 1880's when these luminaires were some of the largest ever used in street lighting.

The Westminster achieves an IP54 standard of ingress protection and with their superior optical control, meet present day lighting standards across a wide range of applications and lamp combinations. The design of the lantern provides a stylish profile, which has a distinctive profile and scale.

## Features

The small, medium and large Westminster, have glazing panels in polycarbonate as standard, with optional acrylic. They are secured to the lantern ribs with foam gaskets and glazing tags, giving the fitting an ingress protection rating of IP54. The hinged door provides easy access for maintenance and cleaning cycles. The lanterns are frog mounted, as standard, these being galvanised and powder coated. The Sugg lantern differs from its competitors as the side ribs are reinforced with stainless steel rods thus spreading the weight and wind loading across the structure of the luminaire which offers enhanced durability in service. A hinged version is also available, in medium, without a door the glazing in this instance is two piece folded for increased durability.

## Control Gear

The gear is mounted in the tent canopy either side of the optic and in this way we can accommodate the full range of discharge lamps. Also now available compact fluorescent lamps with gear. The table over gives details relative to the individual lantern.



Sugg Lighting Limited

Sussex Manor Business Park

Gatwick Road

Crawley

West Sussex

RH10 9GD

England

Telephone: +44 (0)1293 540 111

Fax: +44 (0)1293 540 114

E-mail: sales@sugglighting.co.uk

www.sugglighting.co.uk



2004

## Options

### Mounting Options

Frog mounted, galvanised steel, powder coated black polyester, for 76mm and 89mm shafts. Cast aluminium spigot, powder coated black polyester for 76mm shafts. Both of these options are suitable for column and bracket mounting. Cradle fitted luminaires are also available for wall, column and corner mounting.

### Variations

#### Photocell

Single and two part electronic photocells are available as standard.

#### Finish variations

Natural polished copper, that will age in the environment to a deep natural patina. Polished and lacquered copper, other RAL colours can be accommodated but this is subject to quantity.

#### Lantern construction

Can be produced without a door if required, with hinged top with tent stay, both will achieve IP54 rating.

## Materials

### Lantern

Copper frame and spinning sets. Copper hinges for the access door and two sliding locking mechanisms ensure easy access for re-lamping. Gear and photocell maintenance can be accessed by removing the lantern top, or hinging top upwards.

### Glazing

Polycarbonate as standard, or acrylic and glass options.

### Frog

Galvanised steel, which is powder coated.

© Sugg Lighting reserve the right to change the construction of their products without prior consultation. This ensures that product developments and continued improvements are maintained.

# WESTMINSTER

## Typical Specification

Westminster IP54 **Medium Hinged Top** Lantern: hand crafted octagonal copper frame with stainless steel reinforcing rods, secured in frame corners for improved frog fixings. Glazing, **two-piece folded polycarbonate** glazing panels which are secured in lantern frame by glazing tags and adhesive gasket. The Westminster **medium** lantern measures **550mm wide** across the flats, **1130mm in height** (including the frog). The frog is galvanised steel, then powder coated, and will accept a 76mm column shaft this is secured to the spigot with three equidistant sets of Allen screws thus ensuring a secure fixing. The lantern is fitted with the **Facet 7 optic** with integral gear, for a **100w HQI T lamp**. The **E27** lampholder is positioned for a tubular lamp in a horizontal position: Lamp not supplied. A **one-piece electronic photocell** is fitted in the tent canopy and is factory sealed to ensure the IP54 rating is not compromised. Manufactured with stainless steel fixtures and fittings. The lantern is painted in **Black RAL 9005**, polyester wet paint, and then stoved to ensure a durable high gloss finish is achieved.

Please note that items highlighted in bold can be changed using the options available.

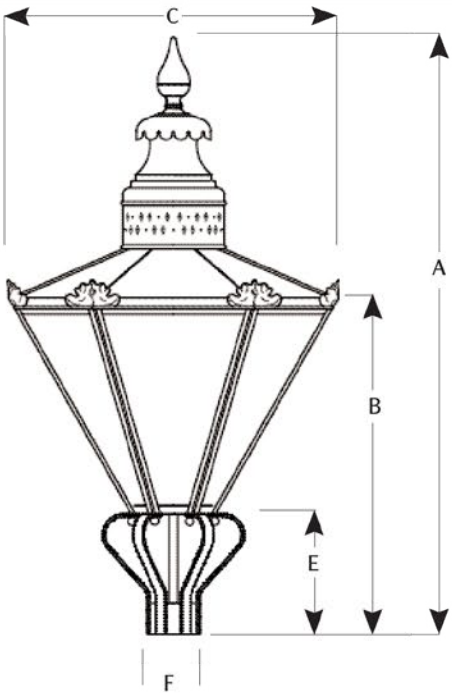
## Applications

The application shown is a Victorian Park revitalisation project at Arnot Hill in Nottinghamshire, this project had a variety of design considerations. The park consisted of a number of areas ranging from tree lined roadways, footpaths and open parkland area with a completely refurbished lake area with water features and new recreation areas with children's play equipment.

The lighting requirements were met with the medium Westminster Lantern mounted on the George the IV cast aluminium columns with the Sugg Glass Refractor as shown in the photograph. This combination provided a vertical aspect to the lighting output which provides attractive lighting within the proximity of the column, but also provided a vertical element giving an ability to see over the wide open grassed areas. The roads and pathways were lit with the Sugg Cycle Optic and a horizontal lamp which gave good spacing and an even controlled distribution for personal safety thus reducing the fear of crime for pedestrians who would be navigating the park after dark.



## Options



DIMENSIONS	SMALL	MEDIUM	LARGE	BOXED
A Lantern Height	1016mm	1130mm	1124mm	940mm
B Lamp Height	593mm	680mm	683mm	
C Diameter/Width	356mm	550mm	760mm	610mm
E Standard Entry	76mm	76mm	76mm	610mm
F Frog Height	225mm	225mm	225mm	
Windage	0.16m <sup>2</sup>	0.25m <sup>2</sup>	0.40m <sup>2</sup>	0.35m <sup>3</sup>
Weight	7kg	10kg	15kg	16.5kg

OPTICS	SMALL	MEDIUM	LARGE
Facet Twin Beam	×	✓	✓
Hellux Sm Twin Beam	×	✓	✓
Refractor	✓	✓	✓
E27 Lamp Holder only	✓	✓	✓
E40 Lamp Holder only	×	✓	✓

GLAZING OPTIONS	SMALL	MEDIUM	LARGE
Acrylic	✓	✓	✓
Polycarbonate	✓	✓	✓
Opal Acrylic	✓	✓	✓
Glass Panels	✓	✓	✓

WATTAGES & LAMP TYPES	35W	42W	50W	70W	80W	100W	125W	150W
HPS			✓✓✓	✓✓✓		✓✓✓		✓✓✓
HQI	✓✓✓		✓✓✓	✓✓✓		✓✓✓		✓✓✓
CDM	✓✓✓			✓✓✓				✓✓✓
MBF			✓✓✓		✓✓✓		✓✓✓	
CFL		✓✓✓						
KEY	✓ Small			✓ Medium			✓ Large	



5 years  
WARRANTY  
on the LED  
engine\*

## LED Replacement Kit for historical lanterns

Sugg Mantle LED

### The Sugg LED Mantle

LED-kit is specially developed for ease of integration into decorative lanterns, which are based on the special aesthetics of historic gas lighting.

– Up to 72% energy and CO<sub>2</sub> savings year-on-year from previously installed lamps.

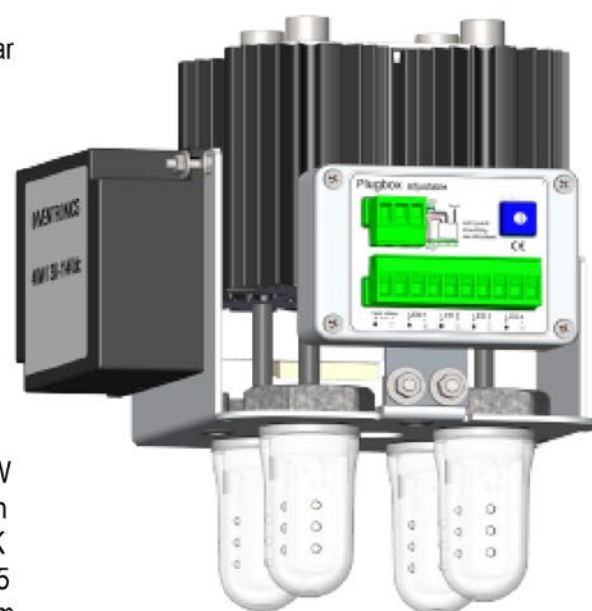
– Grade appropriate lighting  
– Maintenance of the LED engine

#### Optional features:

– Dimming the entire unit,  
– Event-triggered control  
(radar sensor, calendar module)

#### SPECIFICATIONS

System power ..... 36 W  
LED-lifetime ..... > 60.000 h  
Colour temperature ..... 2.700 K  
Colour rendering ..... CRI = 85  
Luminous lux ..... 2.225 klm  
Protection class ..... IP 65  
Application range ..... – 30° bis +55° C



### Conversion examples



Easy installation  
thanks to compact  
design



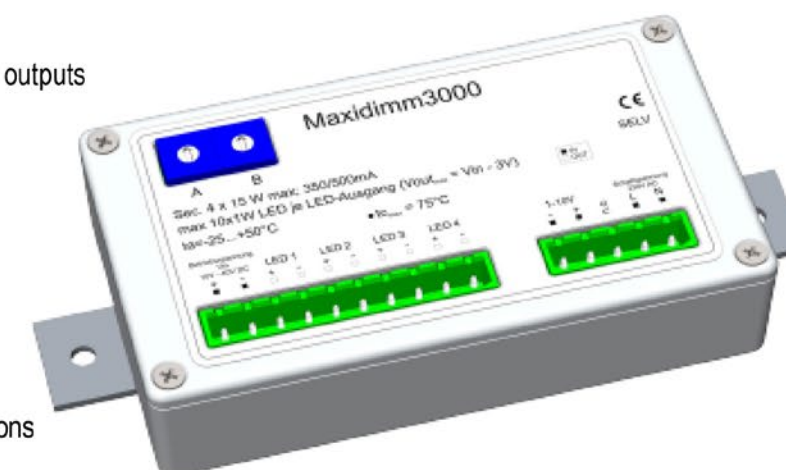
Sugg Lighting Ltd, Foundry Lane, Horsham, West Sussex, RH13 5PX England  
Tel: 01293 540111 Fax: 01293 540114 Email: [sales@sugglighting.co.uk](mailto:sales@sugglighting.co.uk) Web: [www.sugglighting.co.uk](http://www.sugglighting.co.uk)

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This ensures that product developments and continued improvements are maintained.

## Optional Accessories

### The MaxiDimm 3000 in the circuit and control of LED-lights

- Four separately controllable LED outputs
- Continuous LED current
- To adjust the basic brightness
- Setting the brightness
- Switching input 230 V AC
- 1 - 10 V interface
- LED current between 35 mA selectable up to 500 mA
- Dimming of the total light
- Dimming of sub-segments with different asymmetric light distributions (s.a. schematic diagrams below)
- Event-triggered control (radar sensor, Motion, calendar module)

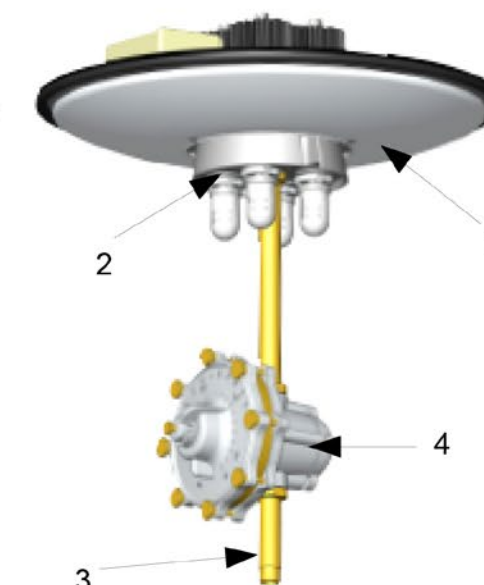


Sugg Mantle LED

This user-programmable module allows further significant energy savings over the basic usage of a LED lamp.

For light conversion in line with accepted conservation practice we offer the following accessories

- 1 - reflector
- 2 - combustion chamber
- 3 - brass tube
- 4 - remote ignition (replica)



Sugg Lighting Ltd, Foundry Lane, Horsham, West Sussex, RH13 5PX England  
Tel: 01293 540111 Fax: 01293 540114 Email: [sales@sugglighting.co.uk](mailto:sales@sugglighting.co.uk) Web: [www.sugglighting.co.uk](http://www.sugglighting.co.uk)

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