From Darkness to Light

Norwich Cathedral Lighting Project
For over 900 years Norwich Cathedral has dominated the city’s skyline. Loved by the local community, it was recently voted Norfolk’s favourite building.

The Cathedral’s architecture is justly famous, its history fascinating and its collection of art and objects outstanding. To celebrate and preserve this rich heritage, we are now looking to invest in a new, sustainable lighting system that will replace the existing installation. This has reached the end of its life and is energy hungry and expensive to maintain, and will also improve the flexible use of the building for all.

For centuries, the Cathedrals of England were lit by natural daylight and candlelight alone, with oil lamps later improving night-time illumination and, by the latter part of the 19th century, mantel-type gas lamps. At that time, the use of electricity to provide light for Norwich Cathedral was a long way off, with notes from a Chapter meeting on 6 December 1881 stating: ‘A proposal made to them to adopt the Electric light in the Cathedral was not entertained’.
The new Cathedral Lighting Scheme is only the third installation since the introduction of electric light. It will offer sustainability for the next 50 years through the use of new technology, reducing our carbon footprint by decreasing electricity consumption.

Norwich Cathedral is used on a daily basis by a vast range of people. In addition to the thirty services every week, there is a host of concerts, special events, youth and children’s activities, school visits and an ever increasing range of services for various organisations. All this is in addition to receiving many thousands of visitors every year.

A good deal of this activity happens after dusk. The existing lighting is inadequate and does not serve the range of communities using our Cathedral well.

The building is glorious and is perhaps in better condition than at almost any time in its history. A modern lighting system would make it even more inspirational and safer for the disabled and elderly while enabling everyone to participate fully in all Norwich Cathedral has to offer.

The Rt. Revd. Graham James, Lord Bishop of Norwich

Light is associated with all that is good - illuminating, comforting and bringing warmth to our lives.

And God said, “Let there be light”.

The opening verses of the first creation story in the book of Genesis remind us that light is essential to life.

Our lighting project will bring new life to our Cathedral - enhancing its magnificent architecture; providing the means to worship in new and imaginative ways, enabling the wider community to gain even more enjoyment from its varied spaces, helping us to play our part in securing the future of the planet and, in all this, giving greater glory to God who has given us the gift of light.

We hope that you will support this project and so help take forward the future mission of our Cathedral.

The Very Revd. Jane Hedges, Dean of Norwich
Project Overview

Phase One (2010) £80,000
Remedial Measures (completed)

After major health and safety concerns with the Cathedral’s electrical system were reported, rapid action was taken by the Dean and Chapter. In 2010 the Chapter and the Friends of Norwich Cathedral raised over £80,000 to fund the urgent works required. The necessary repairs were successfully undertaken in early 2011 to restore the safe and ongoing use of the Cathedral’s current lighting installation. Much of the work that has been carried out would be re-used as part of any new lighting initiative.

Phase Two (2012) £211,000
Cloister Pilot Project (completed)

The Chapter, working with the Cathedral Architect and lighting designer, agreed and implemented a new lighting scheme for the Cloisters. The Cloisters Lighting Project was completed at a cost of £211,000 funded by a legacy and the generous support of the Friends of Norwich Cathedral. The finished scheme is very successful and was formally dedicated at Evensong on Sunday 4th November 2012. A standard of excellence has been set and a firm foundation upon which to build has been laid.

Phase Three £1,735,000
From Darkness to Light (2012 to 2018)

Speirs and Major were appointed as Lighting Designers to the Chapter in 2012. They have since made detailed recommendations with regard to the interior re-lighting required in the various discrete areas of the building. Having recently worked on the award winning re-lighting of the interior of St Paul’s Cathedral we are confident that they have the necessary skills and experience to achieve our objectives. Having developed a detailed concept we were visited by The Cathedrals Fabric Commission for England. They witnessed a mock-up of the proposed solution and looked into the details of the scheme with the view to a more formal planning application being made.

The aim of the new lighting scheme is to achieve ‘unselfconscious’ lighting, to enhance or complement the objects of liturgical significance and improve and adapt the electrical infrastructure to facilitate concerts, events and broadcasts.

It is clear that the new technology will offer long term cost savings. Sophisticated dimming systems will enable options to light specific areas of the Cathedral whilst improving energy management. LED (light emitting diodes) will offer longer service life and higher energy efficiency (the same light for less power) than the current more traditional fittings. Health and safety issues will be addressed in so far that the changing of light bulbs at high level will be far less frequent due to the longevity of the LEDs.

A very generous donation from the Friends of Norwich Cathedral has enabled the project to move forward, providing preliminary works and a mock-up prior to formal tendering processes.

We now need your help to raise £1,602,000 to complete this project, fulfilling our vision of bringing darkness to light.
Environmental Sustainability

Carbon reduction

‘There is no question that climate change is happening; the only arguable point is what part humans are playing in it.’

- Sir David Attenborough

Climate change is a worldwide cause for concern and so we must consider the reduction of energy usage as a priority when commissioning the Cathedral’s new lighting system.

At present, the traditional lighting methods used mean that about 20% of the electrical energy is converted to light, while around 80% is lost and converted into other forms of energy such as heat. By converting to LED lighting the statistics swap around (80% efficiency) and Norwich Cathedral will be significantly reducing its carbon footprint.

The present light bulbs are very energy hungry and will be phased out under the requirements of EU directives.

Our current lighting system also means that many of our lights cannot be switched on and off independently from other sections of the Cathedral space. The new lighting system, however, will enable us to have full control over which sections are lit, dimmed or switched off, leading to optimal energy conservation.

The benefits of LED lighting

- **Long life** - this investment will potentially offer 11 years of continuous life, saving on maintenance and replacement. After installation, our core costs well into the future will be significantly reduced.

- **Energy efficiency** - Up to 90% when compared with existing systems.

- **Environmentally friendly** - 100% recyclable.

- **Low heat, low UV** - results in better conservation of the Cathedral’s treasures and fabric.

- **Weather proof and durable** - able to deal with extreme temperatures, shock and vibration.

- **Versatility** - variable, dimmable lighting will make for a variety of visual effects to suit specific events.

- **Maintenance** - significantly lower staff costs for regular maintenance.

Social Sustainability

Community and social engagement

Cathedrals throughout the world have provided a place for worship, hospitality and learning. This long tradition of providing the oldest and largest “community centres” has continued for over 900 years at Norwich Cathedral.

A welcoming place for all

As we look to the future, it is important to make sure that the Cathedral remains accessible and enjoyable for all. Benedictine principles encourage us to welcome many individuals, schools and groups to the Cathedral. The new lighting has the potential to make the Cathedral more accessible and more welcoming, both day and night, for worship, entertainment and tourism.

Artefacts, which are centuries old, and the spectacular fabric of the building will be seen at its best, worship and services will be enhanced by the new lighting.

Education, entertainment and tourism visits will increase because of the flexibility of the lighting system.

The future stewardship of the scheme will enable a cultural shift in maintaining lower energy consumption. Norwich Cathedral will lead by example, providing a regionally visible and high quality model for others to follow.
Heritage & Conservation

‘A new lighting scheme with low UV levels is an important factor in conserving the Cathedral for future generations.’

- Peter Griffiths, Chairman, Norfolk Archaeological Trust

Cathedrals have an air of permanence and can give a visitor the impression of time standing still. However the Cathedral Architect and his team face a constant challenge to maintain this historic building and to balance the needs of conservation with the demands of a living community of worshippers, visitors and staff.

Norwich Cathedral houses many treasures and beautiful objects created by those skilled in a wealth of different arts and crafts. These treasures range from the fine workmanship and creativity of stone and wooden carvings to stained glass and paintings in our side chapels as well as gold and silverware in our Treasury. It is vital to conserve this heritage for future generations, and a new lighting system is one way to achieve this.

The effect of lighting on historic collections:

Ultraviolet (UV) light, both natural and electric, is known to cause damage, such as fading and other forms of deterioration, to historic collections. Paper, leather and fabrics are particularly susceptible, but wood and painted surfaces will also show damage over time. In addition, heat produced by lights can also have an effect on humidity, making collections more vulnerable to damage from damp or excessive dryness.

Controllable lighting with low heat emission would help greatly with the conservation issues at stake. A new UV-free LED lighting system is the ideal solution, controllable by dimmers and/or with the possibility of switching lights on and off, either individually or in small groups. With the use of sensors and timers collections would not be exposed to unnecessary amounts of light. Lights would be turned on when a person enters a certain area, and turned off automatically after a set period of time.

Cost savings

When considering that the lamp life of an LED is up to 100,000 hours compared to that of a traditional tungsten bulb (1000 hours), it is clear that there are substantial financial savings to be made in implementing a new LED lighting scheme throughout Norwich Cathedral.

The case is further strengthened, when taking into account that LEDs consume just 10% of the electricity used by traditional light bulbs to produce the same level of light. It is estimated that if 100% of the Cathedral’s light bulbs were replaced with LEDs, savings of £13,129 per year could be made.

There will be a 50% manpower cost saving on the time involved in replacing bulbs (on a regular basis) and general lighting maintenance. The savings in labour costs, safety testing and replacing bulbs is estimated at £4,000 per year.
Support our future – be part of the Cathedral’s 900 year history

The total project cost is £1,735,000 and will offer donors a unique opportunity to support the Cathedral’s economic, environmental and community sustainability for future generations.

Thanks to a generous donation of £133,000 from the Friends of Norwich Cathedral, we are able to complete a majority of the preliminary work necessary to take our project forward to the next important stage of tendering for the operational works.

The Dean and Chapter of Norwich Cathedral will work closely with the Cathedral charities, The Friends of Norwich Cathedral and Norwich Cathedral Trust who will be assisting in securing the necessary investment from a variety of voluntary, corporate and statutory donors.

We now need to raise £1,602,000 to complete the project.

The beauty of this project is that, as a donor, you will have a unique opportunity to sponsor a specific area of the Cathedral, which may have particular significance to you, and have your name connected with it.

It is intended to document the progress and produce a record book of the project. All donors will be recorded in this book thus becoming part of the Cathedral’s rich history.

The estimated costs of some of the individual areas available for exclusive sponsorship are as follows:

- **Aisles & Ambulatory** £420,000
- **Choir** £400,000
- **Nave** £320,000
- **Presbytery** £210,000
- **Transsepts** £137,000
- **Crossing** £115,000

Your sponsorship will fund the planning and installation of equipment to your chosen area, and you will have perpetual acknowledgement of your support as an exclusive sponsor.

Alternatively, you can contribute to purchasing particular elements of the lighting equipment, items such as:

- **Aisle lighting** - 164 surface-moulded LED spotlights £49,200
- **Aisle lighting** - 82 surface-moulded LED spotlights £24,600
- **Music lighting** - 34 track-mounted spotlights £14,500
- **Clerestory lighting** - 22 fixtures £11,000
- **Clerestory lighting** - 11 fixtures £5,500
- **Lighting control panel/timers** £2,000
Corporate Donations or Gifts

You may wish to make a tax efficient gift as part of your corporate responsibility policy.

Please contact the Director of Development for a personal tour or discussion.

☎ 01603 218304
directorofdevelopment@cathedral.org.uk

Trusts and Foundations, Government and European Departments

The Cathedral is fully compliant with EU tendering regulations, operates as an exempt and registered charity, has a trading arm, and is able to accept grants from statutory philanthropic, UK and EU sources.

For more information, please contact:
The Director of Development.

☎ 01603 218304
directorofdevelopment@cathedral.org.uk

Many Thanks
We look forward to working with you!

We’ve Come a Long Way

1881
6 December. Notes from a Chapter meeting on 6 December 1881 stated: ‘A proposal made to them to adopt the Electric light in the Cathedral was not entertained’.

2011
Urgent works carried out to undertake repairs to restore the safety and ongoing use of the Cathedral’s lighting installation.

1914
22 December. It was asked whether it might be ‘possible to have more frequent patrol of the Cathedral Precinct by the Police after dark, as many complaints have been made of cases of immorality’.

2014
The Friends of Norwich Cathedral donate £133,000 towards the project.

1951
Spire floodlit during the Norwich ‘Festival of Britain Fortnight’.

2018
Lighting fully installed.
Norwich Cathedral Lighting Project

From Darkness to Light
Help us assure the future of Norwich Cathedral by investing in new technology to light the interior of one of the largest and best preserved Cathedrals in England.

The benefits will be

.students Economic: Lowering our core costs through the installation and use of new technology

.<students Social: Improving and protecting access to our precious and important heritage items and interiors

.students Environmental: reducing our carbon footprint for future generations

Your sponsorship or donation will make a difference and assure the future of Norwich Cathedral for decades to come.

Visit Our Website

cathedral.org.uk/darknesstolight

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Norwich Cathedral Lighting Project

Design Farrow, farrows.co.uk
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