

THIS DRAWING IS FOR INFORMATION ONLY DO NOT SCALE CDM REGULATIONS

DRAWING SUITABILITY CODES: S0 - WORK IN PROGRESS S1 - SUITABLE FOR COORDINATION

S2 - SUITABLE FOR INFORMATION S3 - SUITABLE FOR REVIEW & COMMENT S4 - SUITABLE FOR STAGE APPROVAL

> S7 - SUITABLE FOR AIM AUTHORISATION D1 - SUITABLE FOR COSTING D2 - SUITABLE FOR TENDER D3 - SUITABLE FOR CONTRACTOR DESIGN D4 - SUITABLE FOR MANUFACTURE / PROCUREMENT

> > THIS DRAWING TO BE READ IN CONJUNCTION WITH THE M&E SPECIFICATION AND ALL LATEST ARCHITECTS AND ENGINEERS

ALL EXTERNAL LIGHTING WILL BE DESIGNED AND INSTALLED IN

ACCORDANCE WITH: CIBSE LIGHTING GUIDE, BS EN 12464-2,
BS EN 13201,

BS 5489,BS 8300 • ILP GN01: 2011

ALL EXTERNAL LIGHTING IS TO BE CONTROLLED BY A PHOTOCELL, AND TIME SWITCH ARRANGEMENT WITH A MANUAL OVERRIDE SWITCH.

THE EXTERNAL LIGHTING TIME CLOCK IS SET SO THAT ALL

EXTERNAL LIGHTING IS TO BE OFF BETWEEN 2300HRS AND

ALL LIGHTING COLUMNS TO BE SITED TO SUIT LOCATION FROM TREES LANDSCAPE AND EXTERNAL FURNITURE.

WHERE EXTERNAL LUMINAIRE POSITIONS SHOWN ON THIS DRAWING ARE INDICATIVE ONLY SHOWING DESIGN INTENT. THE NORMAL PEDESTRIAN ESCAPE ROUTES SHALL BE PROVIDED WITH EMERGENCY LIGHTING TO THE SAME

PUBLIC PREMISES IN ACCORDANCE WITH BS5266-1. ABOVE ALL FINAL EXITS, SUITABLY IP RATED WALL MOUNTED LUMINAIRE COMBINED WITH 3 HOUR EMERGENCY PACK. DESIGNATED PARKING SPACED AND ANY ACCESS FROM SUCH SPACES TO THE BUILDING ENTRANCE SHALL BE LIT

ARTIFICIALLY TO ACHIEVE A MINIMUM ILLUMINANCE OF 20 LUX, BUT WITH AN ILLUMINANCE OF 100 LUX IN RAMPS OR STEPS. 0. THE LIGHTING IS TO BE DESIGNATED AS AN INTEGRAL ELEMENT OF THE DEVELOPMENT.

 ALL EXTERNAL LIGHTING SHALL UTILISE LOW ENERGY FITTINGS WHERE PRACTICALLY POSSIBLE. THE ALIGNMENT OF LAMPS AND PROVISION OF SHIELD SHALL BE POSITIONED IN A MANNER TO MINIMISE SPILLAGE AND GLOW INCLUDING INTO THE NIGHT SKY.

THE LIGHTING IS TO BE DESIGNED THAT NO SIGNIFICANT LOSS OF PRIVACY OR AMENITY TO NEARBY RESIDENTIAL PROPERTIES AND IN A MANNER THAT WILL CAUSE NO DANGER TO PEDESTRIANS AND ROAD USERS.

14. THE EXTERNAL LIGHTING TO BE INSTALLED IN A MANNER TO MINIMISE HARM TO NATURAL ECOSYSTEMS. THE EXTERNAL LIGHTING SHALL BE DESIGNED WITH TABLES 1 &

DARK SKY CRITERIA COMPLIANCE WITH LOCAL AUTHORITY DARK SKY CRITERIA IS TO BE ACHIEVED USING PRECISE LIGHT CONTROL FROM LUMINAIRE

2. LUMINAIRES INSTALLED SHALL HAVE NO UPWARD LIGHT COMPONENT. THE LOCAL AUTHORITYS DARK SKY POLICY SHALL BE CONSULTED PRIOR TO INSTALLATION OF EXTERNAL

CONTROL OF EXTERNAL LIGHTING SHALL BE VIA TIME BLOCK AND PHOTOCELLS. A MANUAL OVERRIDE FACILITY SHALL ALSO

. THE FOLLOWING DESIGN PRINCIPLES SHALL BE FOLLOWED:-

LIGHT WHAT IS NECESSARY ONLY
LIGHT THE AREAS WE NEED TO ONLY LIGHT ONLY WHEN IT IS NECESSARY EXTERNAL LIGHTS AND THEIR LIGHT DISTRIBUTION SHALL BE

POSITIONED SO AS TO AVOID LIGHT SPILL INOT THE SKY INTO THE SKY AND ONTO NEIGHBOURING PROPERTIES.

AT NIGHT TIME, THE SENSITIVITY OF THE EYE IS SHIFTED TOWARDS THE BLUE REGION OF THE VISUAL SPECTRUM. AS A RESULT, LAMPS WITH POOR COLOUR RENDERING INDEX, SUCH AS SOME SODIUM LAMPS THAT EMIT LIGHT BETWEEN THE

MORE LUMINOUS TO LIGHT AN OBJECT WITH THE SAME LEVEL OF BRIGHTNESS THAN A SOURCE WITH BETTER COLOUR RENDERING INDEX. SOURCES WITH A POOR COLOUR RENDERING INDEX ALSO MAKE THE DIFFERENTIATION OF COLOURED OBJECTS MORE

DIFFICULT FOR INDIVIDUALS.

IN BS 5489-1:2003 CODE OF PRACTICE FOR THE DESIGN OF ROAD LIGHTING - PART 1: LIGHTING OF ROADS AND PUBLIC AMENITY AREAS, THIS IS ACKNOWLEDGED BY ALLOWING A RELAXATION OF THE LIGHTING LEVELS (ILLUMINANCE LEVELS) REQUIRED WHEN THE SOURCE SPECIFIED AS A COLOUR RENDERING

INDEX Ra GREATER THAN OR EQUAL TO 60.1. THE COLOUR RENDERING INDEX REQUIREMENTS MEANS COMPLIANCE WITH THIS ISSUE USING SOURCES OF LIGHT WITH A POOR COLOUR RENDERING INDEX IS HARDER TO ACHIEVE THAN THOSE WITH AN INDEX GREATER THAN OR EQUAL TO 60.

OTHER BENEFITS OF USING SOURCES WITH AN INDEX GREATER THAN 60 INCLUDE AN INCREASED FEELING OF SAFETY FOR INDIVIDUALS, MAKING RECOGNITION OF SPACES AND OTHER INDIVIDUALS EASIER. IN AREAS WHERE CCTV IS USED, THE COLOUR RENDERING

INDEX OF LIGHTING SOURCES IS CRITICAL; AN Ra VALUE OF AT LEAST 80 IS RECOMMENDED.

CP3 28.04.21 SITE PLAN UPDATED. COVERED DINING AREA KAS SHADDED. CP2 23.03.21 UPDATED FOLLOWING COMMENTS. KAS SH
CP1 18.03.21 ISSUED FOR CONTRACTORS PROPOSALS. KAS SH

## **CONTRACTORS PROPOSALS**

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WATES CONSTRUCTION

WHITWORTH COMMUNITY HIGH SCHOOL

ELECTRICAL SERVICES

EXTERNAL LIGHTING STRATEGY LAYOUT

5.4.6 (v)

STATUS: S3 - SUITABLE FOR REVIEW & COMMENT CSD REF: CSD 1201 ENGINEER: KAS STARTED: MAR '21 ISSUED: APR '21 APPROVED: SH

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