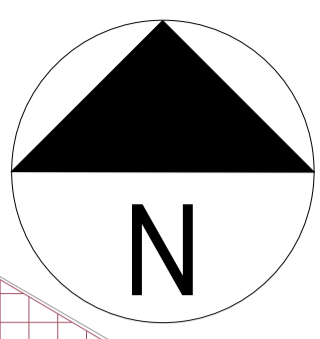
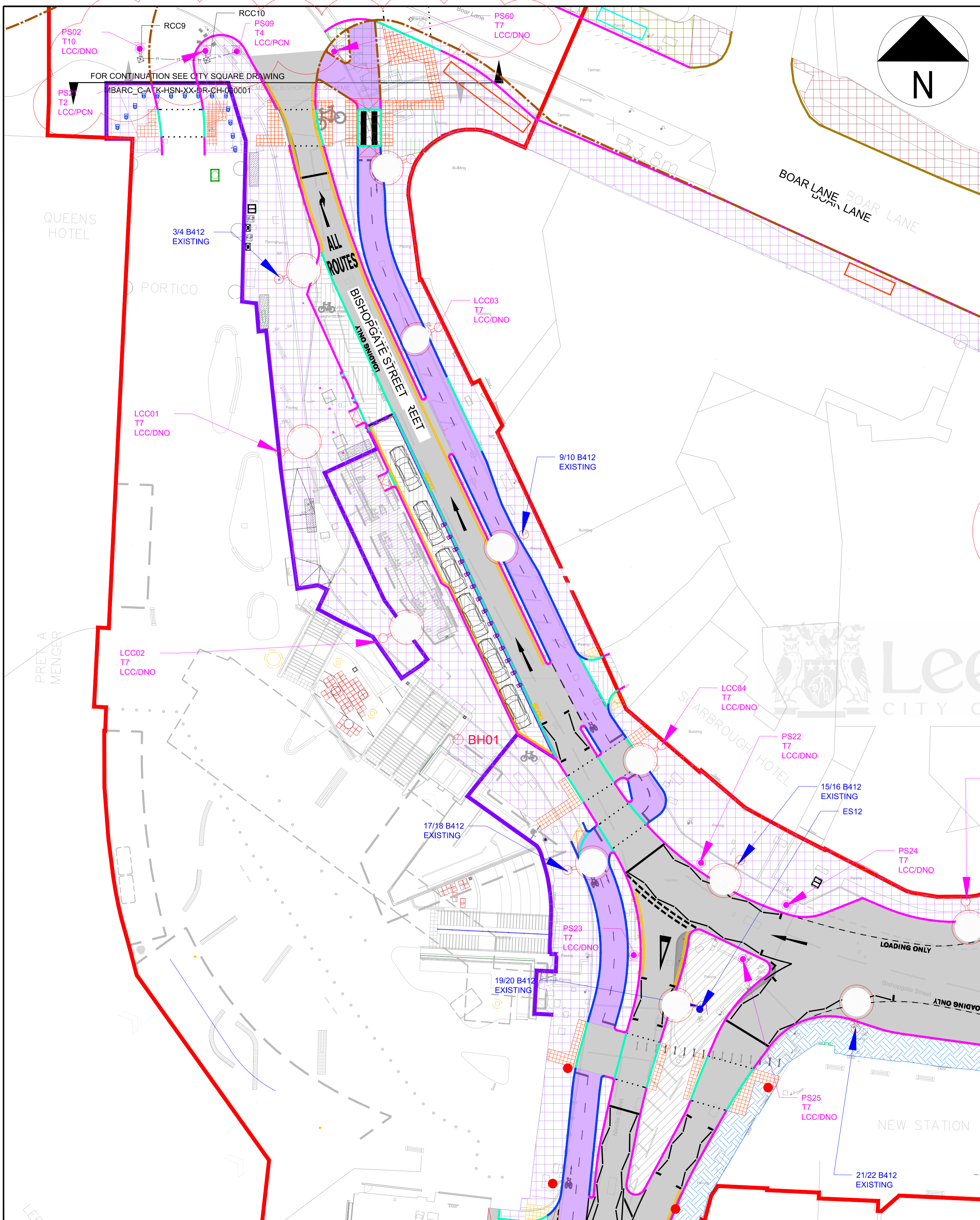


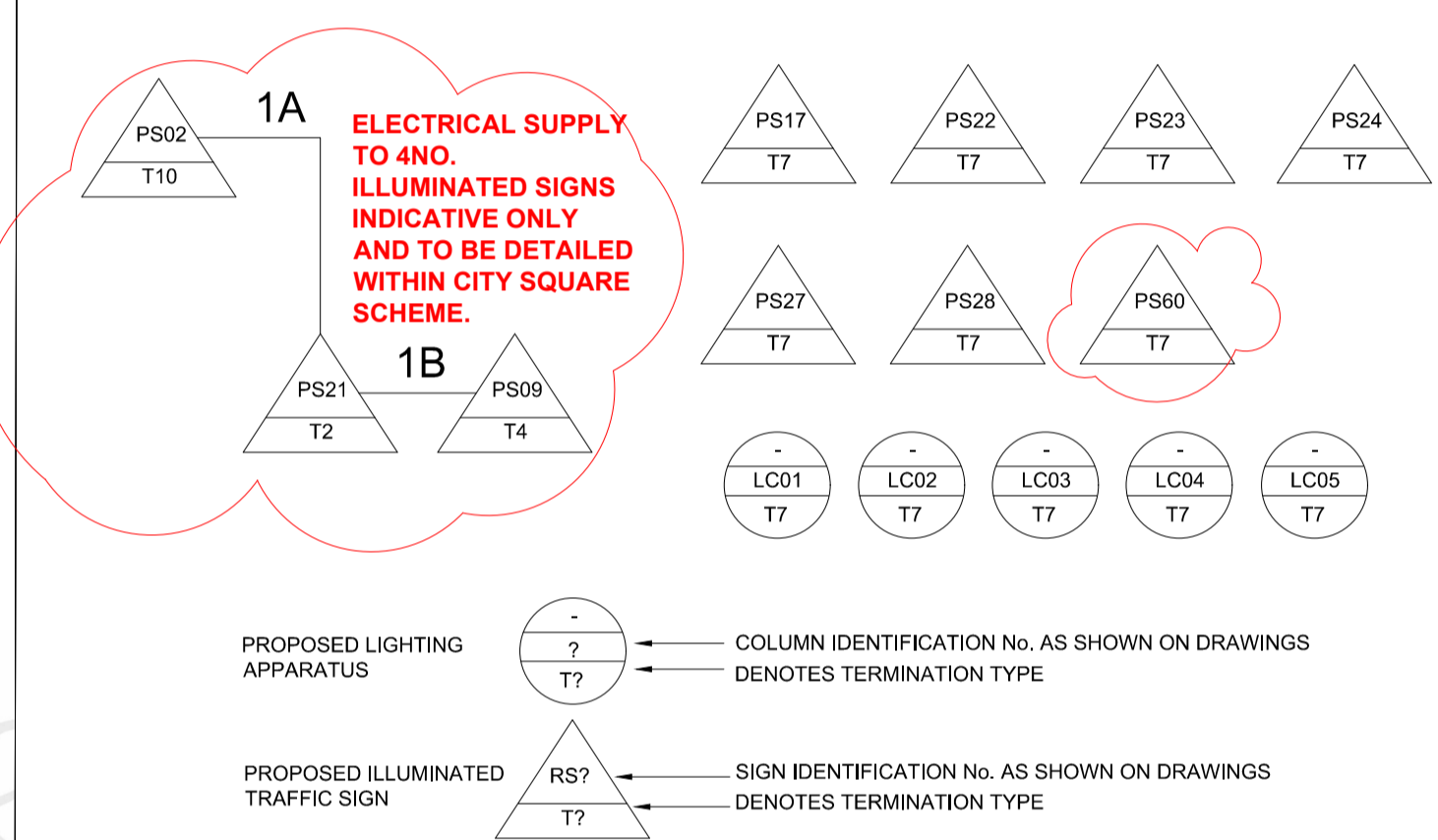
ELECTRICAL SUPPLY TO 4NO. ILLUMINATED SIGNS INDICATIVE ONLY AND TO BE DETAILED WITHIN CITY SQUARE SCHEME.



NOTES

- ALL EQUIPMENT AND INSTALLATION WORK SHALL BE IN ACCORDANCE WITH MBARC_B-ATK-GEN-XX-SP-EO-64107 LIGHTING GENERAL SPECIFICATION FOR STREET LIGHTING AND THE FOLLOWING:
 - ALL LIGHTING COLUMNS SHALL BE SUITABLE FOR THE FITMENT, WEIGHT AND WINDAGE OF THE LUMINAIRE SPECIFIED AND DESIGNED IN ACCORDANCE WITH THE SPECIFICATION.
 - LIGHTING COLUMN CONSTRUCTION NUMBERS SHOWN ON THE DRAWING, MAINTENANCE NUMBERS TO BE PROVIDED BY THE MAINTAINING AUTHORITY UPON REQUEST.
 - ALL COLUMN POSITIONS TO BE AGREED WITH THE MAINTAINING AUTHORITY PRIOR TO ERECTION.
 - ANY ON-SITE DEVIATIONS TO THE ORIGINAL COLUMN DESIGN POSITIONS WILL POTENTIALLY CAUSE A SHORTFALL IN THE LIGHTING LEVELS. ANY INSTANCES WHERE THE LIGHTING COLUMN CANNOT BE INSTALLED IN ACCORDANCE WITH THIS DRAWING MUST BE REPORTED TO THE DESIGN TEAM FOR RECALCULATION FOLLOWED BY SUBMISSION FOR APPROVAL.
 - ELECTRICAL WORK SHALL COMPLY IN ALL RESPECTS WITH THE 18TH EDITION OF THE I.E.T WIRING REGULATIONS BS:7671 AS AMENDED AND THE REQUIREMENTS OF LCC-SSC, NETWORK RAIL AND THE DNO.
 - ON COMPLETION AN ELECTRICAL INSTALLATION CERTIFICATE FOR EACH LIGHTING COLUMN, ASSOCIATED CABLE AND SWITCH GEAR SHALL BE COMPLETED AND RETURNED BY THE CONTRACTOR.
 - ELECTRICAL CALCULATIONS HAVE BEEN UNDERTAKEN ON THE ASSUMPTION THAT THE DNO WILL PROVIDE AN ELECTRICAL SUPPLY TO ALL FEEDER PILLARS WITH PROTECTIVE MULTIPLE EARTHING (TNC-S) AND A Z_s OF 0.35 OHMS. IF THE DNO SUPPLY DOES NOT COMPLY WITH THESE ASSUMPTIONS THE ENGINEER MUST BE CONSULTED BEFORE ANY EQUIPMENT IS ENERGISED.
 - THE CONTRACTOR SHALL INVESTIGATE PROPOSED LIGHTING COLUMN LOCATION TO ENSURE IT'S CLEAR OF ALL UNDERGROUND INFRASTRUCTURE. IF OBSTRUCTION IS FOUND, THEN REPORT THIS TO THE DESIGN TEAM.
 - ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE CONSTRUCTION, DESIGN AND MANAGEMENT REGULATIONS WHERE THE EXTENT OF THE WORKS IS SUCH THAT THE REGULATIONS APPLY. PRECAUTIONS MUST BE TAKEN TO ENSURE THAT NO DAMAGE IS CAUSED TO UNDERGROUND OR OVERHEAD SERVICES, BEFORE DIGGING OR ERECTING OR REMOVING EXISTING COLUMNS. REFERENCE SHOULD BE MADE TO:
 - THE I.P. CODE OF PRACTICE FOR ELECTRICAL SAFETY IN HIGHWAY ELECTRICAL OPERATIONS TOGETHER WITH THE I.P. SUPPLEMENT ENTITLED "SAFETY DURING THE INSTALLATION AND REMOVAL OF LIGHTING COLUMNS AND SIMILAR STREET FURNITURE IN PROXIMITY TO HIGH VOLTAGE OVERHEAD LINES"
 - HEALTH AND SAFETY EXECUTIVE BOOKLET HS(G47) "AVOIDING DANGER FROM UNDERGROUND SERVICES" AND HSE GUIDANCE NOTE GS6 "AVOIDANCE OF DANGER FROM OVERHEAD ELECTRIC LINES" AND
 - THE ELECTRICITY ASSOCIATION ENGINEERING RECOMMENDATION G39/1 SAFETY CODE OF PRACTICE E4 COVERING ELECTRICAL SAFETY AND PLANNING, INSTALLATION, COMMISSIONING AND MAINTENANCE OF PUBLIC LIGHTING AND OTHER STREET FURNITURE.
 - DRAWING TO BE READ IN CONJUNCTION WITH
 - MBARC_B-ATK-XX-ZZ-SC-EO-641004
 - MBARC_B-ATK-XX-XX-DR-EO-641007
 - MBARC_B-ATK-XX-XX-SC-EO-641011
 - MBARC_B-ATK-XX-XX-SC-EO-641012
 - MBARC_B-ATK-XX-XX-SC-EO-641013
 - MBARC_B-ATK-XX-XX-DE-EO-644014
 - MBARC_B-ATK-XX-XX-DE-EO-644015
 - MBARC_B-ATK-XX-XX-DE-EO-644016
 - MBARC_B-ATK-GEN-XX-SP-EO-641017
 - MBARC_B-ATK-XX-XX-DR-EO-641019
 - MBARC_B-ATK-XX-ZZ-DR-EO-641020
 - MBARC_B-ATK-XX-ZZ-DE-EO-641021
 - MBARC_B-ATK-XX-ZZ-SH-EO-645023
 - MBARC_B-ATK-XX-ZZ-SH-EO-645025
 - MBARC_B-ATK-XX-ZZ-SH-EO-645026
 - MBARC_B-ATK-XX-ZZ-SH-EO-645027
 - MBARC_B-ATK-XX-XX-SC-EO-641028
 - MBARC_B-ATK-XX-ZZ-DE-EO-641029
- ALL COLUMN FOUNDATIONS ARE TO BE PLANTED BASE UNLESS SITE CONDITIONS REQUIRE OTHERWISE. CONTRACTOR IS TO DESIGN FLANGE BASES IN CONJUNCTION WITH COLUMN MANUFACTURER.

PROPOSED DNO CONNECTIONS



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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

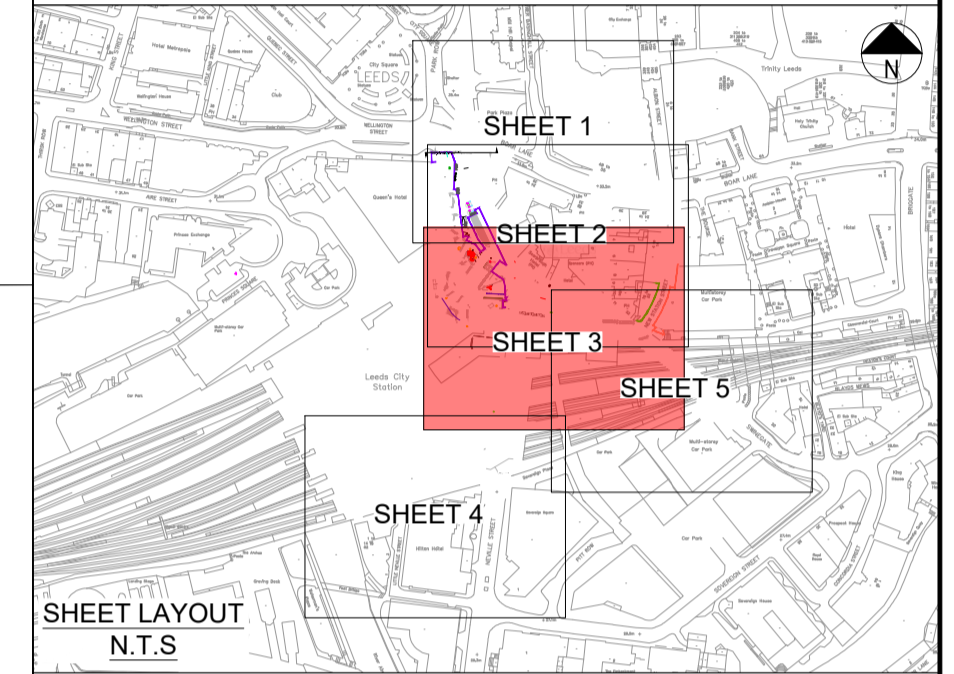
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

CONSTRUCTION
Live traffic & Utilities
Presence of soil contamination, asbestos, Hazardous tar and breaking of concrete not known.

MAINTENANCE/CLEANING
Live traffic & Utilities

DECOMMISSIONING/DEMOLITION
Live traffic & Utilities
Presence of soil contamination, asbestos, Hazardous tar and breaking of concrete not known.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement



KEY

- LIGHTING COLUMN. SEE FOLLOWING SCHEDULES FOR INFORMATION:
 - MBARC_B-ATK-XX-ZZ-SH-EO-645023
 - MBARC_B-ATK-XX-ZZ-SH-EO-645025
 - MBARC_B-ATK-XX-ZZ-SH-EO-645026
 - MBARC_B-ATK-XX-ZZ-SH-EO-645027
- PROPOSED ILLUMINATED SIGN
- PROPOSED 600X600 DUCT ACCESS CHAMBER WITH COVER LOADING OF 400 kN (D400 RATING)
1 No. 50mm INTERNAL DIAMETER ORANGE TWIN-WALL UPVC DUCT MARKED 'STREET LIGHTING'

PROPOSED LIGHTING APPARATUS	?	T7	COLUMN IDENTIFICATION No. AS SHOWN ON DRAWINGS	?	T7	DENOTES TERMINATION TYPE
PROPOSED ILLUMINATED TRAFFIC SIGN	RS7	T7 <td>SIGN IDENTIFICATION No. AS SHOWN ON DRAWINGS</td> <td>?</td> <td>T7 <td>DENOTES TERMINATION TYPE</td> </td>	SIGN IDENTIFICATION No. AS SHOWN ON DRAWINGS	?	T7 <td>DENOTES TERMINATION TYPE</td>	DENOTES TERMINATION TYPE

REV	DESCRIPTION	DATE	CHECKED	DATE	CODE
P04	FOR TECHNICAL APPROVAL	24.06.22	JA	RB	CF
C01	ISSUED FOR CONSTRUCTION	13.12.21	JA	RB	CF
P03	F003 RE-SUBMISSION	14.10.21	JA	IW	AJ
P02	FOR F003 SUBMISSION	16.07.21	JA	RB	CF
P01	FOR F003 IDR	18.06.21	BH	JA	CF

CREATED BY	DATE	CURRENT ISSUE	DATE	CHECKED	DATE	CODE
BH	09.06.21	RB	23.06.22	CF	24.06.22	

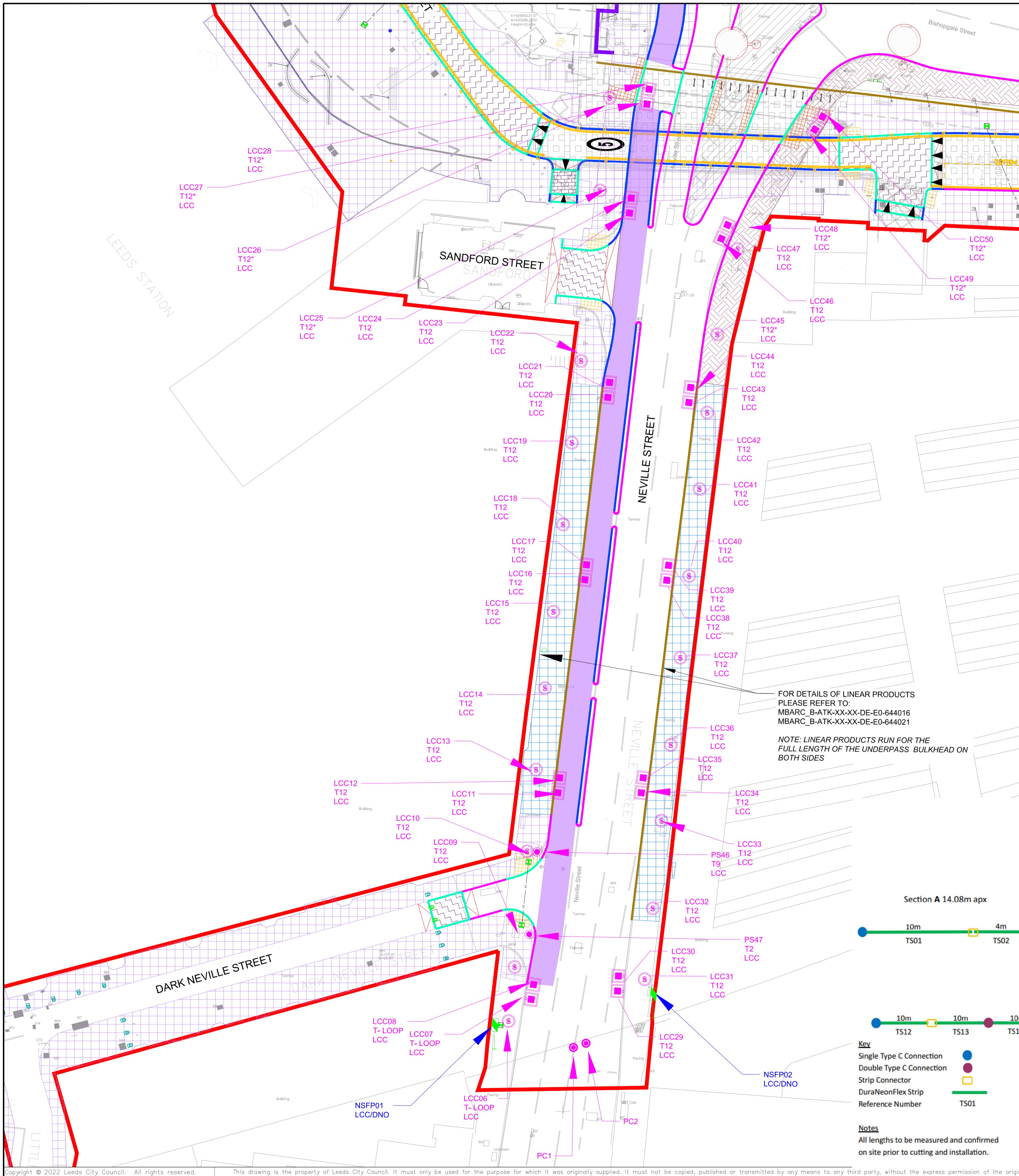
PURPOSE OF ISSUE: FOR TECHNICAL APPROVAL
APPROVAL STATUS: FOR APPROVAL
CDE STATUS: S3

LCC MBARC BISHOPGATE LIGHTING AND ELECTRICAL LAYOUT (BISHOPGATE STREET)



1:250 ORIGINAL SHEET SIZE A1
MBARC_B-ATK-XX-ZZ-DR-EO-641005 REV: P04

JUNE 2021



NOTES

- LUMINAIRE GEAR TRAYS TO BE REPLACED WITH LED ALTERNATIVE. CALCULATIONS HAVE ASSUMED LUMINAIRE SIZE/GEAR TRAY WATTAGE PLEASE REFER TO POINT 2. BELOW
- CONTRACTOR IS TO UNDERTAKE SURVEY OF CURRENT INSTALLATION NOTING THE FOLLOWING:
 - LUMINAIRE MAKE & MODEL
 - LUMINAIRE SIZE
 - CABLING ARRANGEMENT & SCHEMATIC
 - SUPPLY POINT
- REFER TO THE FOLLOWING DRAWINGS FOR ELEVATIONS:
 - EAST ELEVATION MBARC_B-ATK-XX-ZZ-DR-AR-012201
 - WEST ELEVATION MBARC_B-ATK-XX-ZZ-DR-AR-012205
- CONSTRUCTION NUMBERS ARE SHOWN ON THE DRAWING. MAINTENANCE NUMBERS TO BE PROVIDED BY LCC/SSE UPON REQUEST.
- LUMINAIRE ARE SHOWN IN EXISTING POSITIONS. ANY ON SITE DEVIATIONS TO THE ORIGINAL COLUMN DESIGN POSITIONS WILL POTENTIALLY CAUSE A SHORTFALL IN THE LIGHTING LEVELS. ANY INSTANCES WHERE THE LIGHTING COLUMN CANNOT BE INSTALLED IN ACCORDANCE WITH THIS DRAWING MUST BE REPORTED TO THE DESIGN TEAM FOR RECALCULATION FOLLOWED BY RESUBMISSION FOR APPROVAL.
- ELECTRICAL WORK SHALL COMPLY IN ALL RESPECTS WITH THE 18TH EDITION OF THE I.E.T WIRING REGULATIONS BS: 7671 AS AMENDED AND THE REQUIREMENTS OF LCC / NETWORK RAIL (AS APPLICABLE) AND THE DNO.
- ON COMPLETION AN ELECTRICAL INSTALLATION CERTIFICATE FOR EACH LIGHTING COLUMN, ASSOCIATED CABLE AND SWITCH GEAR SHALL BE COMPLETED AND RETURNED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL INVESTIGATE PROPOSED ILLUMINATED SIGN LOCATIONS TO ENSURE THEY ARE CLEAR OF ALL UNDERGROUND INFRASTRUCTURE. IF OBSTRUCTION IS FOUND REPORT THIS TO THE ENGINEER.
- ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE CONSTRUCTION, DESIGN AND MANAGEMENT REGULATIONS WHERE THE EXTENT OF THE WORKS IS SUCH THAT THE REGULATIONS APPLY. PRECAUTIONS MUST BE TAKEN TO ENSURE THAT NO DAMAGE IS CAUSED TO UNDERGROUND OR OVERHEAD SERVICES. BEFORE DIGGING OR ERECTING OR REMOVING EXISTING COLUMNS REFERENCE SHOULD BE MADE TO:
 - THE ILP CODE OF PRACTICE FOR ELECTRICAL SAFETY IN HIGHWAY ELECTRICAL OPERATIONS TOGETHER WITH THE ILP SUPPLEMENT ENTITLED "SAFETY DURING THE INSTALLATION AND REMOVAL OF LIGHTING COLUMNS AND SIMILAR STREET FURNITURE IN PROXIMITY TO HIGH VOLTAGE OVERHEAD LINES"
 - HEALTH AND SAFETY EXECUTIVE BOOKLET HS(G)47 "AVOIDING DANGER FROM UNDERGROUND SERVICES" THE ELECTRICITY ASSOCIATION ENGINEERING RECOMMENDATION G39/1 SAFETY CODE OF PRACTICE E4 COVERING ELECTRICAL SAFETY AND PLANNING, INSTALLATION, COMMISSIONING AND MAINTENANCE OF PUBLIC LIGHTING AND OTHER STREET FURNITURE.
 - ALL RELEVANT NETWORK RAIL DOCUMENTS
- CONTRACTOR TO INSPECT AND EVALUATE EXISTING FEEDER PILLAR FOR CONDITION, SIZE AND SUITABILITY FOR RE-USE.

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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

CONSTRUCTION

Live traffic & Utilities
Working at Height (Reduced Headroom in Neville Street)
Public - Pedestrians

MAINTENANCE/CLEANING

Live traffic & Utilities
Working at Height (Reduced Headroom in Neville Street)
Public - Pedestrians

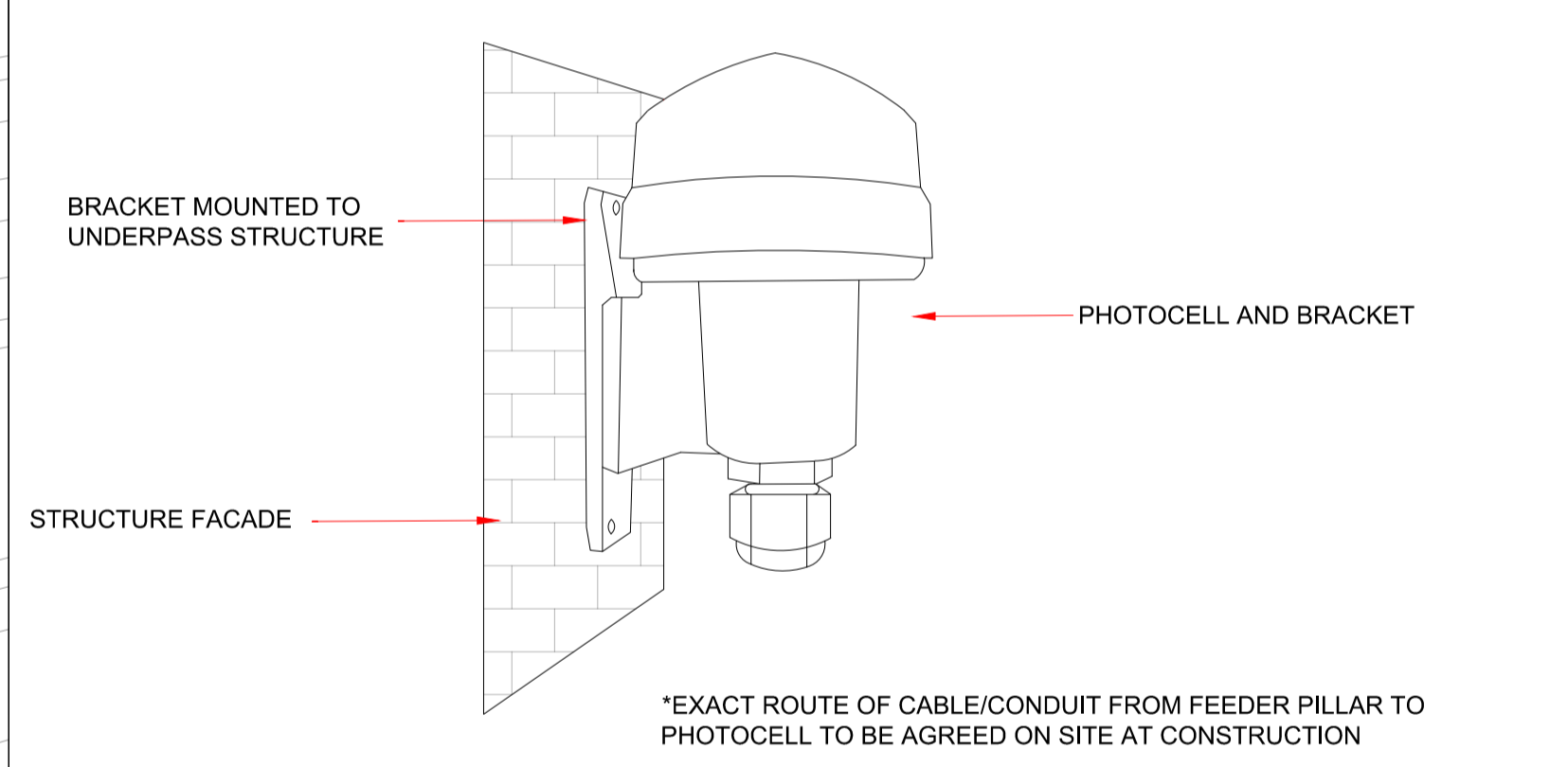
DECOMMISSIONING/DEMOLITION

Live traffic & Utilities
Working at Height (Reduced Headroom in Neville Street)
Public - Pedestrians

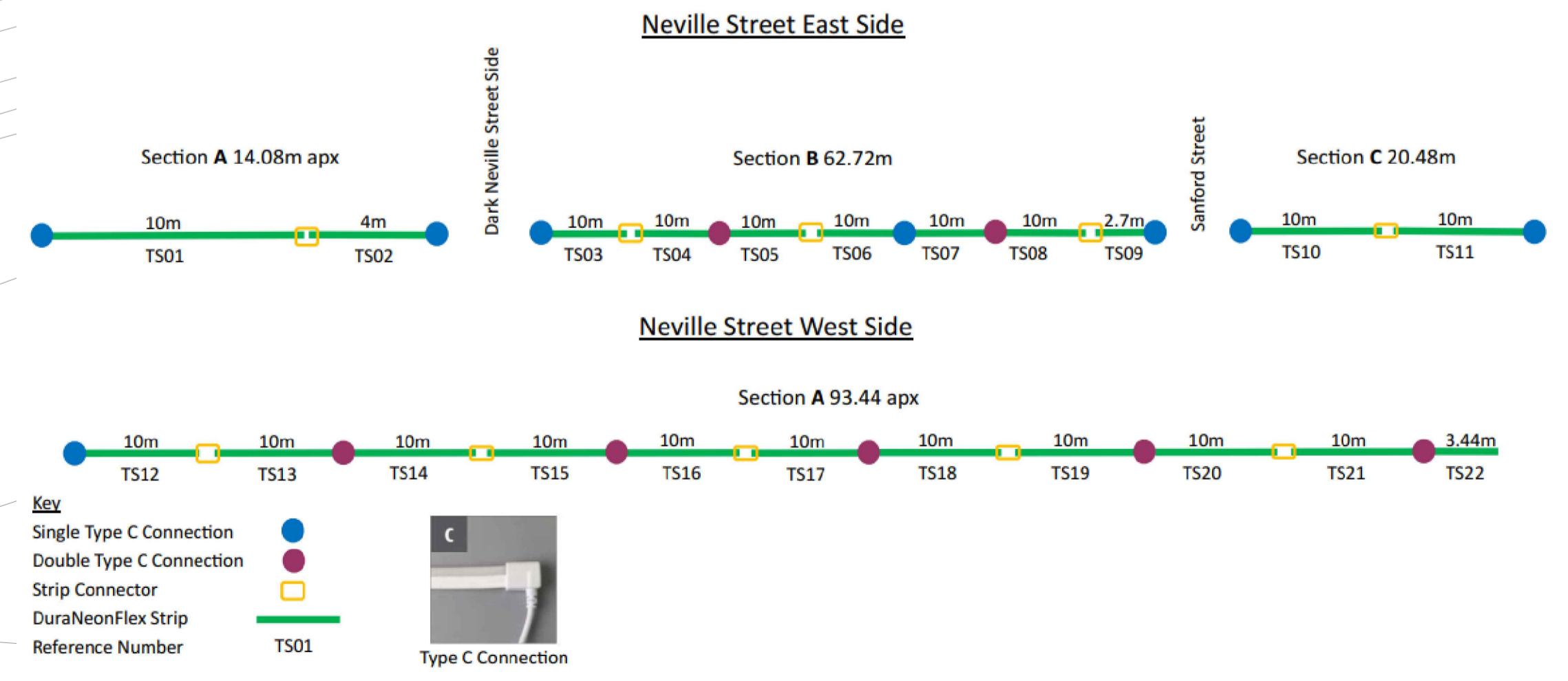
It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

SHEET LAYOUT
N.T.S

TYPICAL PHOTOCELL MOUNTED ON STRUCTURE DETAIL



Neville Street Underpass Linear Feature Lighting Indicative Setting Out



- KEY**
- PROPOSED DW WINDSOR SEPHORA LUMINAIRE INSTALLED AS PER STANDARD DETAIL DRAWING MBARC_B-ATK-XX-ZZ-DE-EO-644021. REFER TO FOLLOWING SCHEDULES FOR INFORMATION: MBARC_B-ATK-XX-ZZ-SH-EO-645023, MBARC_B-ATK-XX-ZZ-SH-EO-645025, MBARC_B-ATK-XX-ZZ-SH-EO-645026, MBARC_B-ATK-XX-ZZ-SH-EO-645027
 - PROPOSED DW WINDSOR KATANA LUMINAIRE INSTALLED AS PER STANDARD DETAIL DRAWING MBARC_B-ATK-XX-ZZ-DE-EO-644021. REFER TO FOLLOWING SCHEDULES FOR INFORMATION: MBARC_B-ATK-XX-ZZ-SH-EO-645023, MBARC_B-ATK-XX-ZZ-SH-EO-645025, MBARC_B-ATK-XX-ZZ-SH-EO-645026, MBARC_B-ATK-XX-ZZ-SH-EO-645027
 - PROPOSED ILLUMINATED SIGN
 - EXISTING FEEDER PILLAR
 - PROPOSED PHOTOCELL (PC1 & PC2) MOUNTED ON OUTSIDE OF STRUCTURE
 - PROPOSED 600X600 DUCT ACCESS CHAMBER WITH COVER LOADING OF 400 kN (D400 RATING)
 - 1 No. 50mm INTERNAL DIAMETER ORANGE TWIN-WALL UPVC DUCT MARKED 'STREET LIGHTING'

REV	DESCRIPTION	DRAWN	CHECKED	DATE	CDE
P04	FOR TECHNICAL APPROVAL	LGK	JA	05.10.22	RB
C02	UPDATED NEVILLE ST PROPOSALS	JA	RB	17.06.22	CF
C01	FOR CONSTRUCTION	JA	RB	13.12.21	CF
P02	F003 RE-SUBMISSION	JA	IW	14.10.21	AJ
P01	FOR F003 SUBMISSION	JA	RB	16.07.21	CF

CREATED BY	DATE	CURRENT ISSUE	DATE	CHECKED	DATE	CDE APPROVAL
JA	03.10.22	JA	04.10.22	RB	16.06.22	

PURPOSE OF ISSUE: FOR TECHNICAL APPROVAL

APPROVAL STATUS: FOR APPROVAL

CDE STATUS: S3

LCC MBARC BISHOPGATE LIGHTING AND ELECTRICAL LAYOUT NEVILLE STREET



1:250 ORIGINAL SHEET SIZE A1

MBARC_B-ATK-XX-ZZ-DR-EO-641007 REV: P04

OCTOBER 2022