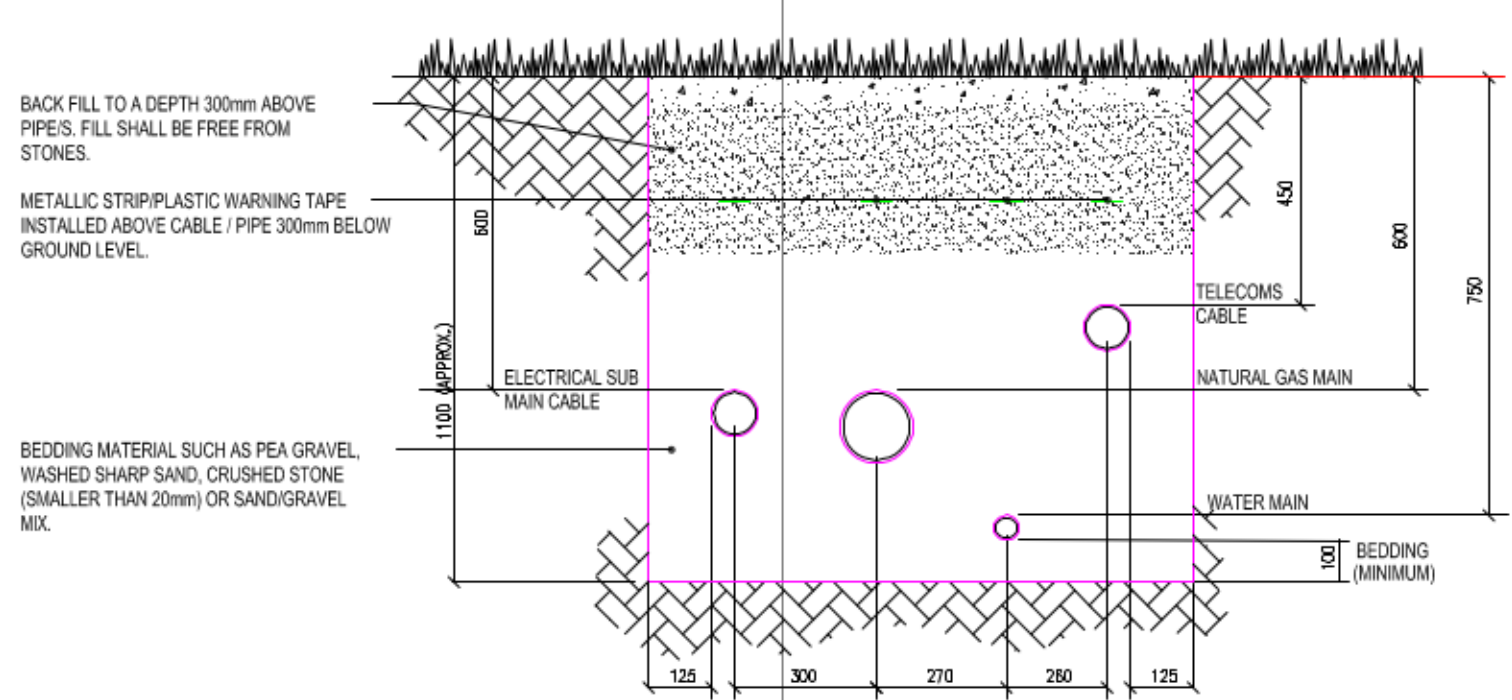
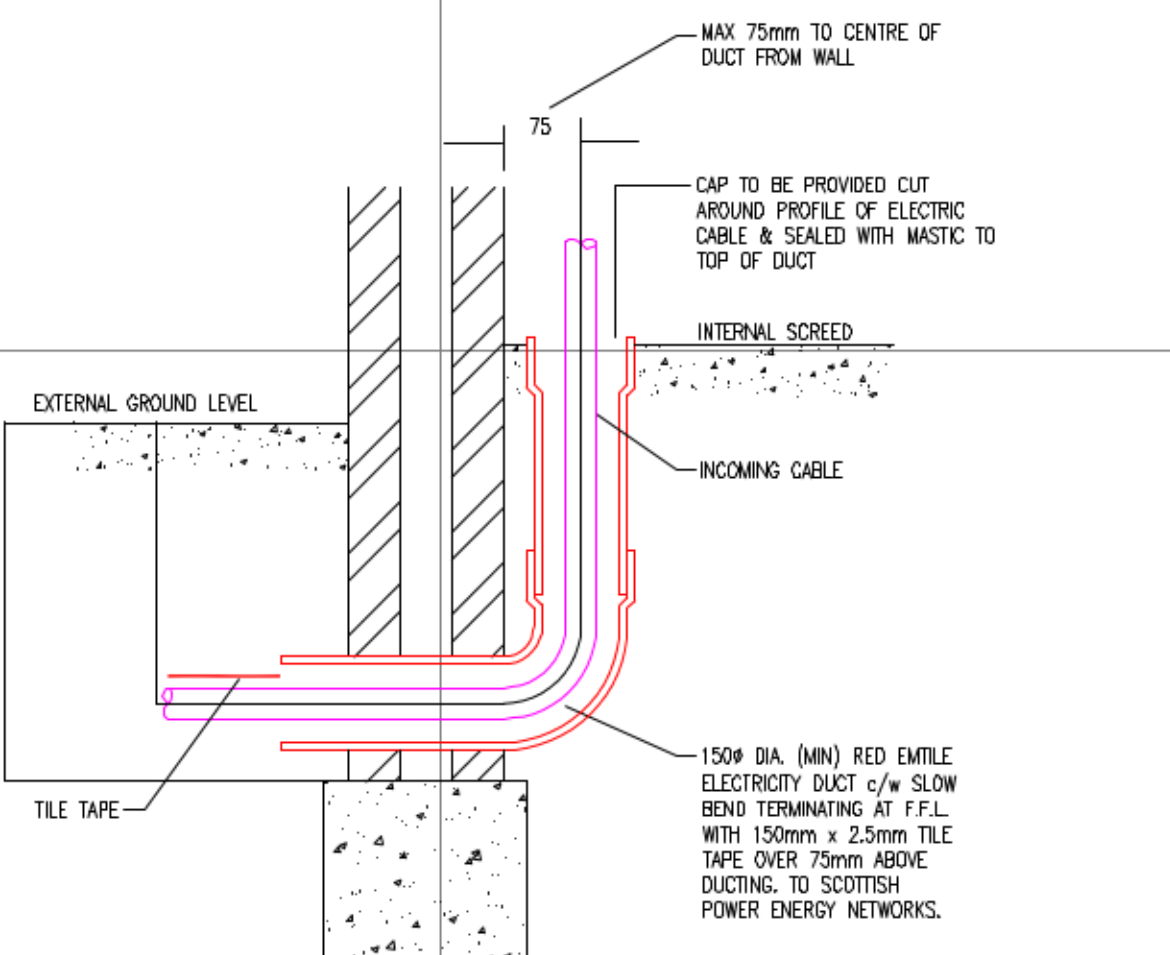


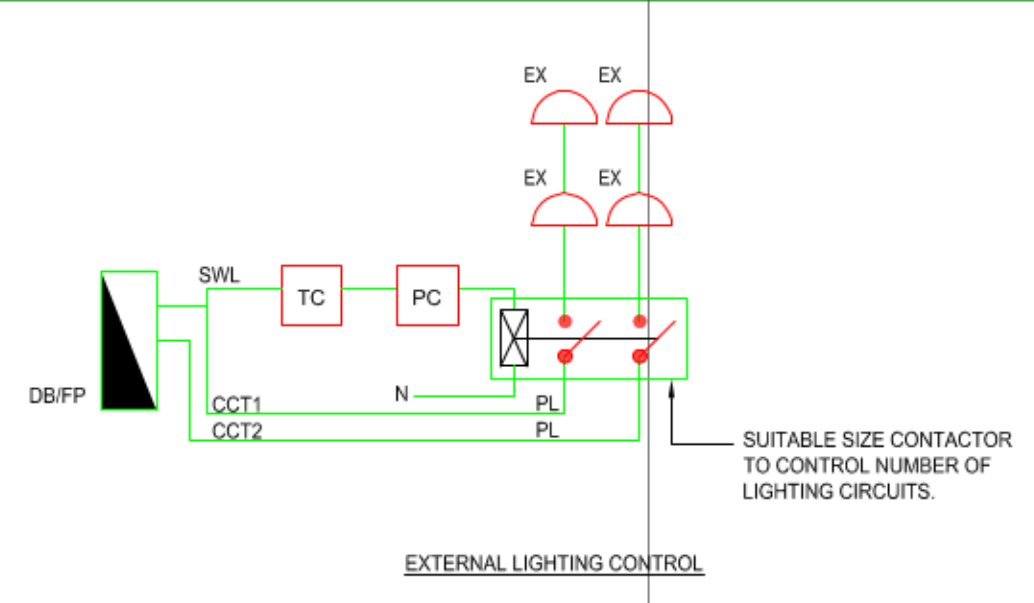
DETAIL A
TYPICAL DETAIL OF UNDERGROUND SERVICES TRENCH WITHIN ROADWAY /
CARRAGEWAY
N.T.S.



DETAIL B
TYPICAL DETAIL OF UNDERGROUND SERVICES TRENCH WITHIN FOOTPATH
N.T.S.



DETAIL C
TYPICAL DETAIL OF CABLE DUCT BUILDING ENTRY
N.T.S.



EXTERNAL LIGHTING CONTROL

NOTES
THIS IS A DESIGN DRAWING, NOT AN INSTALLATION DRAWING. DIMENSIONS SHOULD NOT BE SCALED.
SITE DIMENSIONS TO BE CHECKED BEFORE PRODUCTION OF CRITICAL MANUFACTURING DRAWINGS.
THE DRAWING IS COPYRIGHT AND NO PART MAY BE REPRODUCED WITHOUT WRITTEN CONSENT.

- NOTES
- THE MAIN CONTRACTOR SHALL PROVIDE ALL ON SITE EXCAVATIONS AND DUCTING AS INDICATED. THE INCOMING ELECTRIC SUPPLY CABLE SHALL BE PROVIDED AND INSTALLED BY OTHERS UTILISING THE DUCTS / EXCAVATIONS PROVIDED.
 - THE MAIN CONTRACTOR SHALL PROVIDE ALL EXCAVATIONS AS INDICATED ON THE DRAWINGS. THE MAIN CONTRACTOR SHALL PROVIDE TILE TAPE ABOVE DUCTS WITHIN THE CARRIAGEWAYS PRIOR TO BACK FILLING.
 - ALL EXTERNAL LIGHTING CIRCUITS TO BE SUPPLIED FROM LOCAL DISTRIBUTION BOARDS VIA A CONTACTOR. THE CONTRACTOR SHALL PROVIDE A SUITABLE SIZE CONTACTOR TO SUIT THE NUMBER OF EXTERNAL LIGHTING CIRCUITS DERIVED FROM THE DISTRIBUTION BOARD. THE CONTACTOR SHALL BE CONTROLLED VIA A CENTRAL TIMECLOCK AND PHOTOCELL.
 - EXTERIOR CABLES / DUCTS TO BE LAID AT A MINIMUM DEPTH OF 450mm IN SOFT/DIG FOOTINGS AND 600mm MINIMUM DEPTH WITHIN CARPARK / ROADWAY AREAS. DUCTS TO BE COMPLETED WITH DRAW ROPES.
 - WHERE POSSIBLE THE LIGHTING COLUMNS SHALL BE SET BACK A DISTANCE OF 1.5m FROM THE KERB LINE. THE MINIMUM RECOMMENDED DISTANCE FROM THE KERB LINE IS 500mm IF THE MINIMUM GAP CANNOT BE MAINTAINED THE MAIN CONTRACTOR / GROUND WORKER SHALL PRIOR TO SETTING OUT/INSTALLATION, OBTAIN CLARIFICATION OF THE POSITIONS FROM THE ENGINEER / ARCHITECT.
 - DRAW PIT POSITIONS INDICATED ON THE DRAWING ARE INDICATIVE ONLY. THE CONTRACTOR SHALL ALSO PROVIDE DRAW PITS IN ACCORDANCE WITH THE FOLLOWING:
 - AT EACH SIGNIFICANT CHANGE OF DIRECTION.
 - AT INTERVALS NOT EXCEEDING 20m IN STRAIGHT RUNS.
 - AT EACH CHANGE IN DEPTH. I.E. EACH SIDE OF ROAD CROSSINGS.
 - WHERE OTHERWISE REQUIRED TO FACILITATE DRAWING IN.

- SCHEDULE OF SYMBOLS
- EX1 1000mm LIGHTING BOLLARD DAY/ NITE 4000K 14 SW 3100mm LED BOLLARD LUMINAIRE AS ERCO MODOLO BOLLARD (GRAPHITE FINISH)
 - EX2 EXTERNAL IP68 RATED TWIN SOCKET OUTLET AS INDICATED
 - MAIN SECTION BOARD: FURTHER TO LV SCHEMATIC FOR FURTHER DETAILS
 - TRANS RCBO / MCB DISTRIBUTION BOARD: SEE LV SCHEMATIC FOR DETAILS
 - FEEDER PILLAR: SPAN RCBO / MCB DISTRIBUTION BOARD: CONTAINED WITHIN PWT ENCLOSURE. SEE LV SCHEMATIC FOR DETAILS
 - IP68 ISOLATOR RATING & USE AS INDICATED
 - DRAW PIT
 - PROPOSED 100mm PVC DUCT FOR LV CABLEING USE AS INDICATED ON THE DRAWING (NO DUCT REQUIRED IN SOFT DIG / BELOW FOOT PATH FOR LV CABLES. ELY CABLED TO BE DUCTS FOR ENTIRE LENGTH)
 - PROPOSED 100mm PVC DUCT FOR ELY CABLEING USE AS INDICATED ON THE DRAWING
 - PROPOSED 100mm PVC DUCT FOR ELY CABLEING FOR BMS SPECIALIST EXTERNAL WIRING
 - WIRELESS ACCESS POINT: TYPE AS INDICATED ON DRAWING
 - SINGLE CAT 6e RJ45 OUTLET AS IN LOGIC PLUS REF: K181 WH + 1m. 450mm
 - EXTERNAL E3A GENERATOR CONNECTION POINT
 - CONTACTOR
 - TIMECLOCK

- Payment kiosk
- ANPR Camera



ALL OTHER EXTERNAL LIGHTING SOURCES TO BE PROVIDED AND INSTALLED BY OTHERS

DUCTS FOR EXTERNAL LIGHTING TO BE CONFIRMED

001	Revised Following Variation Instruction	08.06.16
02	AS	05
002	Amended Following Comments	N.T.
03	AS	05
003	Construction Issue	26.02.16
04	AS	26m
004	Pre Construction Issue	23.01.16
05	AS	26m
005	General Amendments	26m
06	AS	26m
006	Amendments	26m
07	AS	26m
007	AS	26m

CONSTRUCTION	
Client:	Northumberland National Park Authority
Project:	The Sill
Drawing:	Electrical Engineering External Services Layout
CAD21	
BUILDING SERVICES & ENERGY CONSULTING ENGINEERS	
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Tel: 0191 282 2211 Fax: 0191 282 2191 Email: info@cad21.co.uk Website: www.cad21.co.uk	
Scale: 1:500 @ A0 Engineer: Date: June 2015	
Drawing Number: 3736_00_XX_DR_E_201	
Rev: C03	
Notes:	