G.Network

100% FIBRE CONNECTIVITY

Installation Proposal of Telecommunications Apparatus

Location of Works

28 Old Queen Street SW1H 9HP

Surveyor

Satpal Lall

Reviewed by

Patrick De Rizzo

Version

V.1

Registered Office: G.Network Communications Ltd, 5 Swallow Place, London, England W1B 2AF
Registered in England and Wales with company number 10057745. VAT number: 242 5656 07

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Type of Order	R	**Service Appointment Number**	SA-350274	**Date Surveyed**	26/04/2023
Surveyed By		Satpal Lall		**Date Pack Generated**	26/04/2023
Work type	Single Connection	Standard Installation		**Other fibre providers in the building**	BT
Total Residential Premises	1	**Total Commercial Premises**	0	**Total Premises**	1

Customer Details

Customer Name	RE-SURVEY
Full Address	28 Old Queen Street SW1H 9HP
Contact Name	RE-SERVEY
Contact Number	Team 47 & 48
Building Manager/ Landlord	-

Nearest A&E Hospital Location

St Thomas'
Westminster Bridge Road
London
SE1 7EH

Welfare location	7 Swallow Place, London, W1B 2AF

Proposal of Works

This is a brand new survey. The toby will need to be relocated a mini civils will be needed. We will drill through the wall behind the new toby location into the basement which will then go into an FSB that will be wall mounted in the boiler room. From the FSB we will then run x1 2f cable in through a existing duct and pull it through from under the kitchen sink which has a access in the back wall. The 2f cable will then go up through the false wall behind passing each floor above till it gets to the 7th floor which then it will be terminated in the comms room in the back which a CSP/ONT. We would need to cut x1 access hatch in the comms room on the 7th floor to pull out the 2f cable to be terminated in the CSP/ONT.

Can we please have Team 47 & 48 on this install as they now have seen the route and know exactly what to do.

FSB Proposed/Installed Location	**Basement boiler room**
CSP Termination Location	**8th Floor comms room**

Attention

Please note, pictures are shown as an example of the cable routes, drill holes and equipment positions. These are not an exact location. Other factors may need to be taken into consideration at the time of installation.
All route changes will be discussed with Property owner before works continue

Time

Labour	Length of time
Length of time for 2 engineers to complete	Half Day
Out Of Hours	No

Asbestos

Was any Asbestos identified on site	N

Materials

Cable	Quantity (in metres)
Multi Core	40m
2f cable (white)	90m
2f cable (Black)	
Mayflex/Invisilight cable	
Micro-duct	

Terminating equipment	Quantity
BFP	
FSB	1
CSP	1
ONT	1

Access requirements (Pleases choose Height required in Meters)

Powered Access	N		
Ladders	Y	Step Ladder	2m
Roof Access required?	N		
Absailers	N	Safe system of works in place on the roof?	N

Additional Materials

Containment	Type	Quantity (in meters) / Size
Kopex		
Trunking		

Catenary Wire		Wire Rope (m)		Turnbuckles		Eye Bolts		Wire Eyes	
		Straight lengths		Clamps		Additionals			

Hatches	Y/N	Quantity
Cut and shut hatches required	N	
Access hatches required	Y	1

Checklist

Is the BFP/FSB located in a common area	Y	
Electrical socket available for the ONT	Y	
Risers in a common area	Y	
Are specific keys required for risers?	N	
Any possible issue with the risers	Y	Other LIVE services in them
Who has been informed of potential costs?	N	

Additional Comments or Equipment required for works

-

1

28 Old Queen Street SW1H 9HP

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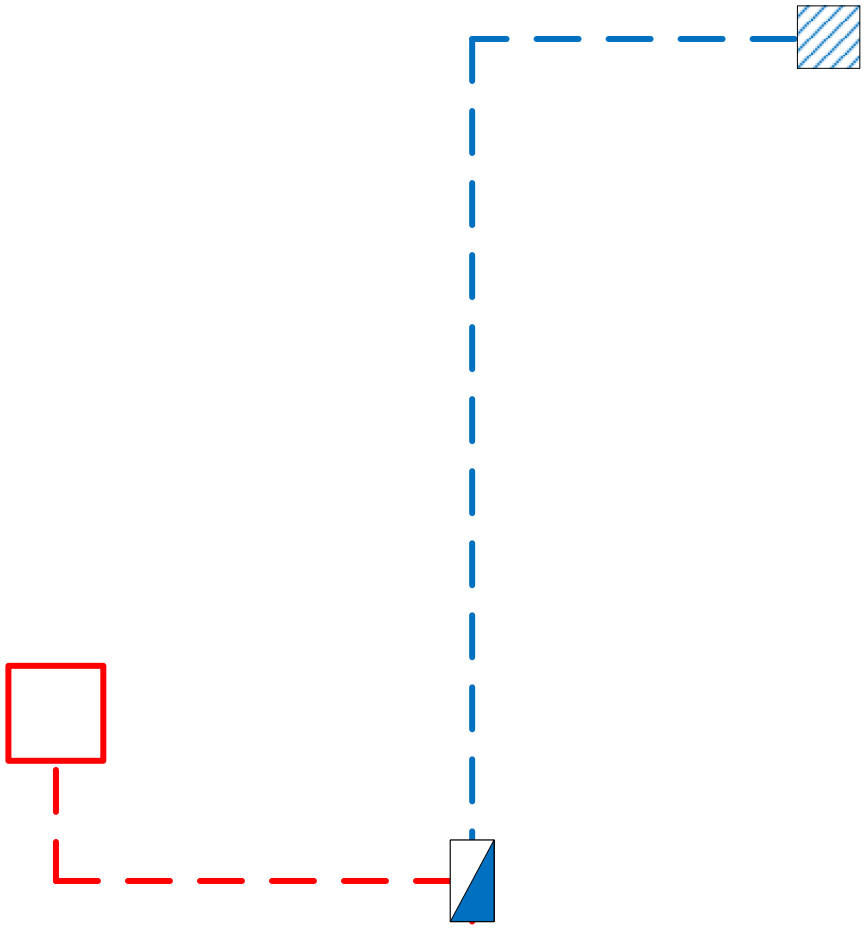
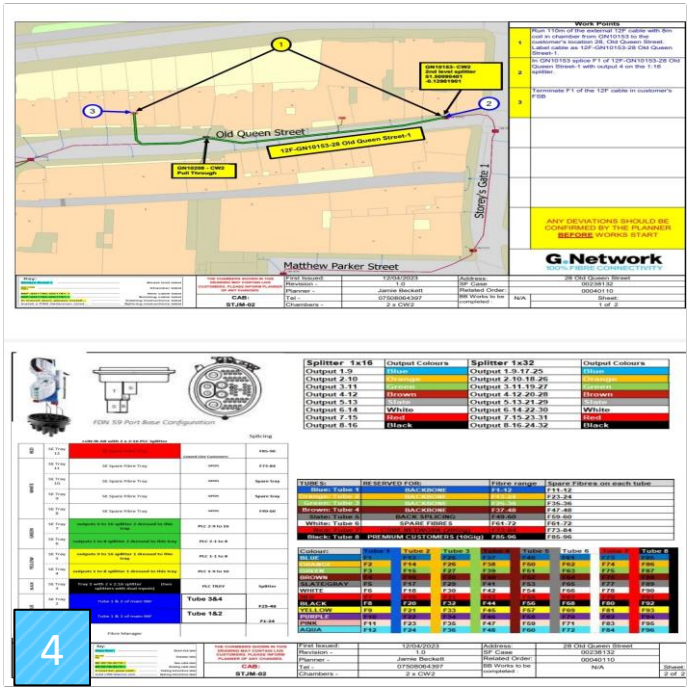
Route	Y/N
Was an internal route found?	Y
If No, give reason	
-	



x1	Seventh Floor	Bedroom &Comms Room
	Sixth Floor	Bedroom
	Fifth Floor	Bedroom
	Fourth Floor	Bedroom
	Third Floor	Bedroom
	Second Floor	Bedroom
	First Floor	Bedroom
	Ground Floor	Lounge
	Basement	Boiler Room & Kitchen

Cable Diagram

Chamber Information							
Local Council	City of Westminster	Street Built at time of survey	Y	Early Access Chamber	Y	Chamber in restricted space? E.g TFL Route, Parking Bay, Cycle Lane, Etc	N
		G Network Logo on Chamber	Y	Chamber in Carriageway or Footway	CW	PIA Required	N



Chamber Details

Toby Checklist					
Is there a Toby/poke out in place?	N	Mini Civil work required	Y	Fibre blowing equipment required?	N
Toby box duct checked with 5M rod	N	Mini Civil pack built	Y	Any potential issues drilling from the Toby box?	N

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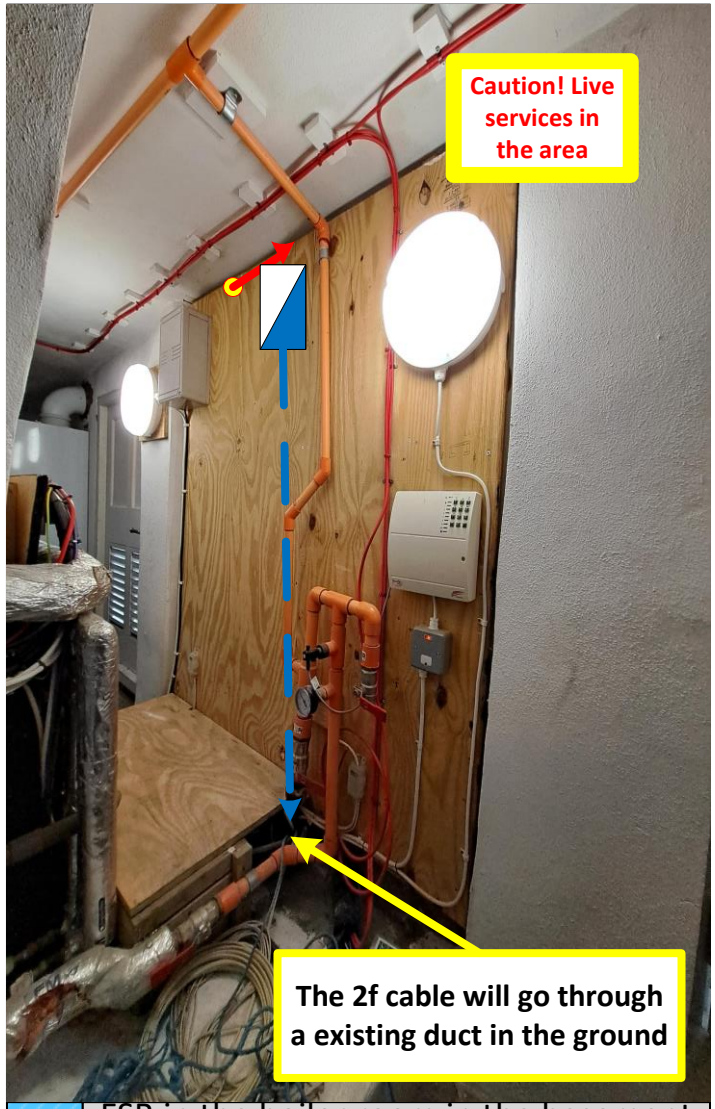
Toby Check

8 Cut & chase from existing toby to a new toby

9 12f cable going into boiler room from the basement level



10 FSB in the boiler room in the basement level

We will do a small cut & chase from the existing toby to the new toby and then the 12f cable will run through and in though a drill hole in the wall behind. The 12f cable will then go in through a drill hole in the wall in the basement level which will then come through to the boiler room where the FSB will be wall mounted there. From the FSB we will run x1 2f cable which will go through a existing duct which.

Cable run

11 Basement Kitchen – the 2f cable will be pulled through from the boiler room from here

12 Kitchen – the 2f cable will then go up through to the next floor from behind

13 Ground Floor Lounge

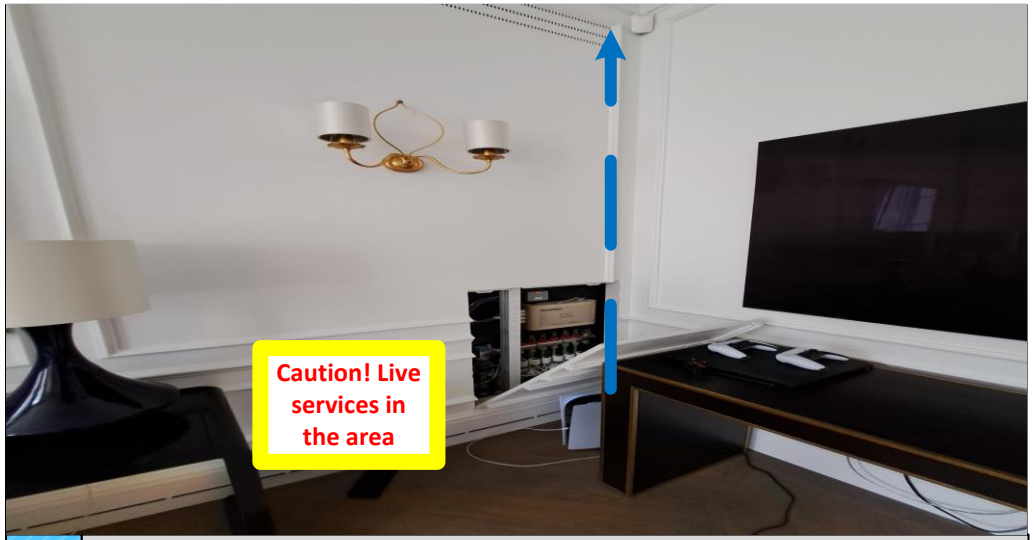
14 The 2f cable will go up to the 1st floor from the existing access panel in the wall

The 2f cable will be pulled through to the kitchen under the sink from the access in the back wall from the boiler room, and then fed up through to the 7th floor.

Cable run

15 1st Floor Bedroom

16 2f cable will continue going up to the 7th floor



17 2nd Floor Bedroom

18 2f cable will continue going up to the 7th floor

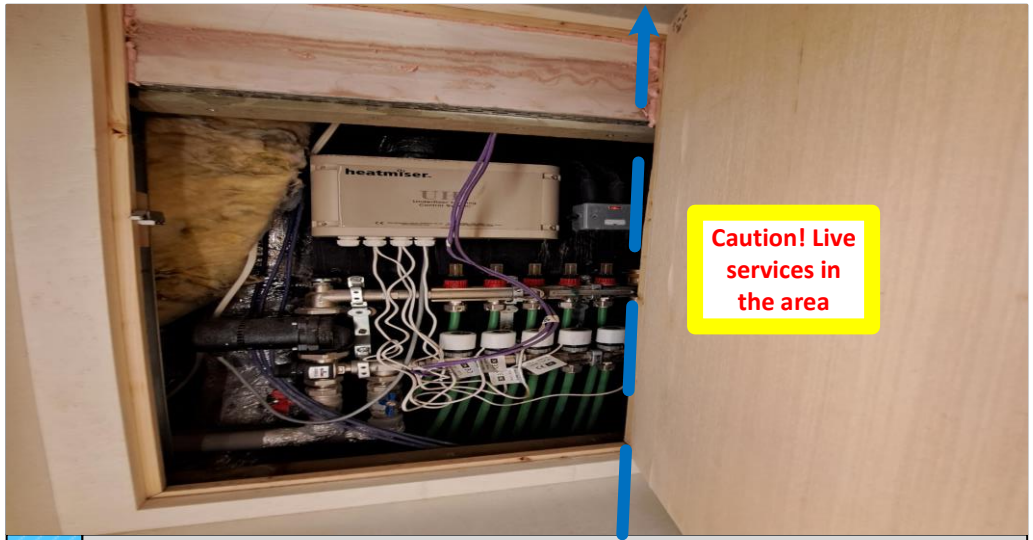
The 2f cable will continue going up through to the 7th floor by passing through from the 1st and 2nd floor from the existing access panel in the wall.

Cable run

19 | 3rd Floor Bedroom

20 | 2f cable will continue going up to the 7th floor

21 | 4th Floor Bedroom



22 | 2f cable will continue going up to the 7th floor

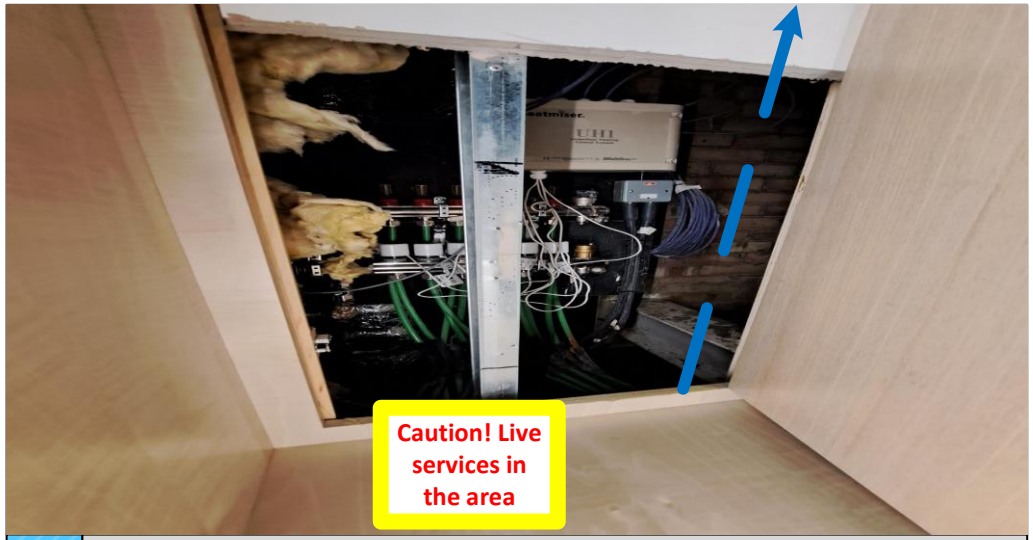
The 2f cable will continue going up through to the 7th floor by passing through from the 3rd and 4th floor from the existing access panel in the wall.

Cable run

23 | 5th Floor Bedroom

24 | 2f cable will continue going up to the 7th floor

25 | 6th Floor Bedroom



26 | 2f cable will continue going up to the 7th floor

The 2f cable will continue going up through to the 7th floor by passing through from the 5th and 6th floor from the existing access panel in the wall.

Cable run

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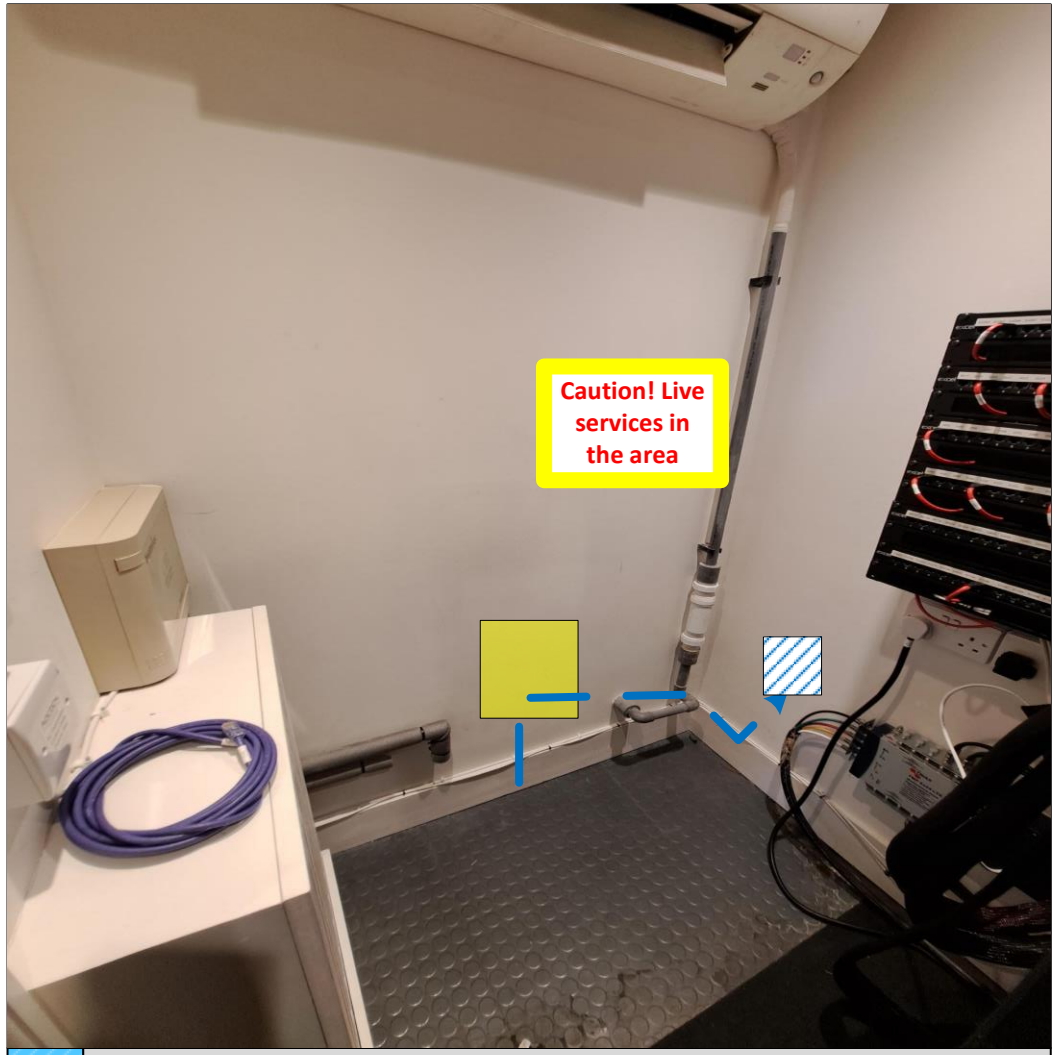
27 | 7th Floor Bedroom back of ensuite is a comms room



28 | Termination of CSP/ONT in the comms room

The 2f cable will come into the comms room via a new cut access panel and terminate in a CSP/ONT in the back of the ensuite room.

Cable run

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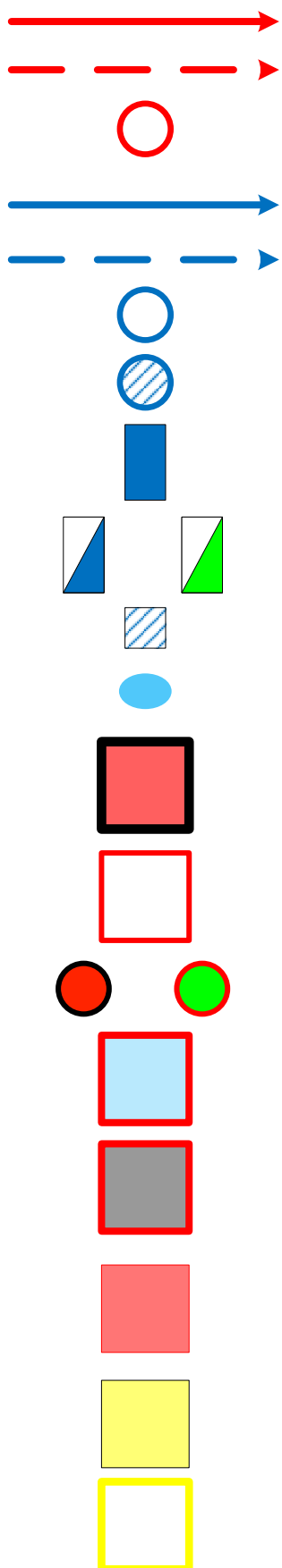
REBUILDING LONDON'S BROADBAND FROM THE FIBRE UP

Annotation Legend



Existing Multi Core Cable	Solid Red Line
New Multi Core Cable	Dotted Red Line
Existing Multi Core Coil	Empty Red Circle
Existing 2 Fibre Cable	Solid Blue Line
New 2 Fibre Cable	Dotted Blue Line
Existing 2 Fibre Coil	Empty Blue Circle
New 2 Fibre Coil	Striped Blue & White Circle
BFP (Building Flexibility Point)	Solid Blue Rectangle
FSB (Fibre Splice Box)	New - Blue & White Rectangle Existing - Green & White Rectangle
CSP (Customer Splice Box)	Striped Blue & White Square
New POE	Light Blue Oval
New Toby	Red Square with Black Boarder
Existing Toby	Empty Square with Red Boarder
Poke Out Duct	New – Red Circle with Black Border Existing - Green Circle With Red Border
Pull through chamber	Light Blue Square with Red Border
Chamber	Grey Square with Red Border
Proposed Cut & Shut Hatch	Faded Red Square
Proposed Access Panel	Faded Yellow Square
Existing Access Panel	Empty Yellow Square
Existing CAT5/6 Cable	Solid Green Line
Containment	Solid Yellow Line
Existing Duct	Solid Black Line

1) Site Rules

Specific site rules/instructions defined by the building management team/landlord/freeholder during the site survey will be included in the planning pack and followed by the installation operatives.

Contact with your building management team/landlord/freeholder will be conducted by a representative from G.Network prior to works being carried out.

2) Asbestos/ACM

Most recent information regarding Asbestos Containing Materials (ACM) must be provided by the building management team/landlord/freeholder to G.Network representatives prior to any work commencing or upon request, where available.

Any suspected ACM will be reported to building management team/landlord/freeholder along with samples being taken by UKATA accredited 3rd party sample tester for investigation. All test results will be shared with all parties as and when received.

If ACM is suspected of being present, all work will cease until an alternative route has been found or the affected area has been made safe by the building owner and removals report confirming of the removal and disposal of any ACM by an accredited body.

3) Continuing Liaison

Procedures for dealing with unforeseen eventualities and issues will be arranged through the nominated G.Network representative. Any damage caused by G.Network employees will be investigated by our in house maintenance team and repairs arranged with 3rd party accredited contractors if beyond their skillset. All this will be communicated with the building management team/landlord/freeholder as soon as possible.

4) Project Plan

Names and contact details for those Personnel undertaking this work will be advised when requested and prior to access date.

These details will be forwarded to the nominated customer, their site representative and/or the building management team/landlord/freeholder or their representative.

The prior route shows the best potential cable route from a quality and safety standard. Any deviation or change to the pack will require clearance from both G.Network Representatives and building management team/landlord/freeholder.

5) Risk Assessments

All operatives will conduct and Point of Works Risk Assessment before commencing any planned works on site. Any risks or hazards will be highlighted to the works supervisor and line manager.

The following pack contains a Site Specific RAMS which pertains to the activities and work to be carried out by G.Network or an agreed operator on behalf of G.Network.

3rd party contractors working for G.Network will work within the scope of our guidelines and RAMS but will also provide their own RAMS for works upon request.

6) Firestopping

All penetrations made by G.Network will be resealed with a 2 hour rated intumescent fire stop mastic (white in colour and paintable) internally Any and all external facing penetrations will be sealed with weather resistant silicone. These products will be used on any cavity up to 25mm wide and 50mm deep, as per product guidelines.

Any existing fire-stopping which is removed/penetrated/damaged during installation will be repaired/replaced to the appropriate standard and documented on our company system for future auditing.

G.Network will only seal holes made by their installers on the day of installation.

Anything larger (for example open risers, Existing fire batt or foam insulation, duct work between sealed rooms and open ceiling voids) are not within our scope of works and are to be managed by the building management team/landlord/ freeholder before or after work begins.

7) Working at Height

All working at height will be conducted under the rules and regulations set out in the Health and Safety at work Act as well as PUWER and LOLER.

We implement a TETRA safe climb system at G.Network, this may require the temporary installation of eyebolts to secure the ladders. These positions will be discussed with on site representative (customer, building management team/ landlord/freeholder, concierge, etc) prior to drilling. Holes will be plugged with gromit's to ensure no future water ingress may occur and allow future access if required.

Emergency rescue plans are available for review upon request.

All working at height areas will be guarded by barriers and grounds person at all time, all items will have a valid and clear inspection notice and will never be left unattended or unsecured if overnight.

Any and all works carried out over the public domain will be permitted and licenced. This may hold up installation activities if not granted by local authority in time.

8) Cable Works

All cabling works required will be installed and tested as per specification laid out in the description and following pictured route.

All bend radius should not be larger than 10x the cables diameter. The cable will be tie wrapped with fire resistant metal ties every 600m, plastic tie wraps will only be used in areas between 2 metal ties to ensure a neat finish and to reduce chance of sag.

Any cables running above or near points of access and egress will be secured with fire resistant metal ties, fire rated cable clips or specialist containment only, where structural material allows.

We may opt to install a thinner cable flexible internal cable (Mayflex/Invisilight) this would be surface mount and run along skirting boards or ceiling lines using a fire resistant resin and a metal retainer clip every 1m apart. Point of Entry (POE) boxes will be installed and best location for entry into the demise. From POE boxes a smaller, thinner fibre will be passed through the wall into the customers demise and run to nearest plug socket, utilising resin and metal retainer clips.

All containment used will be fire rated to a minimum of 1 hour and approved by the building management team/ landlord/freeholder before installation. Metal fire clips will be used every 600m in any PVC trunking utilised on site and pinned to the wall with fire resistant screws.

All Catenary wire will be installed with tension turnbuckles at either end with supporting brackets/eye bolts will be places above all entrances/exits, stairwells, lift access area and over communal areas of high foot traffic in case of break or fire related issues. All eye bolts to be installed every 3m (or as close to 3m as reasonably practicable).

Horizontally run catenary will not exceed 10m without turnbuckle installed to avoid sagging. Vertically run catenary to be no longer than 20m without turnbuckle installed to eliminate weight and side swing issues

Internal cables shall be clearly marked with **"GNET, cable ID [including origin and destination]"** at all points where the cable enters/exits a communal room or space within the building and at regular intervals (maximum 20m separation) along the entire internal cable route.

Instances where cut and shut hatches are being implemented to pass the cable through walls and ceilings, a specialist team will reinstate and "make good" on the day of installation. To ensure fire safety to adhered to they will use a combination of metal stud work and fire cement to seal all cut and shut hatches.

We will only re-paint the area a matt white colour unless prior agreements are made for colour matching. Please speak with G.Network representative if you have other requirements.

If Access hatches are to be installed they will be a minimum of 2 hour fire rated metal hatches, placed as per landlords agreed locations and sealed with 2 hour rated intumescent fire stop around the edges. If you have other requirements please speak to G.Network Representative.

Work areas and safety zones to be clearly marked at all times and the work areas safely guarded using appropriate signage and barriers where required.

All large/heavy pieces of furniture, specialist equipment or potential waste materials should be removed by tenant/ landlord/freeholder before Works are to begin.

All delicate/valuable pieces of furniture or equipment should be removed from work area by tenant/landlord/freeholder before installation.

The start date will be agreed with the customer contact and the building management team/landlord/freeholder before any installation works take place on site. Details will be forwarded to the customer and/or the building management team/landlord/freeholder prior to work commencing.

9) The Existing Environment

All works under this application are within the landlords demised area as detailed within the enclosed cable installation drawing.

Any works in the public domain will be outlined in a separate pack for internal use

Any possible health related issues from materials in existing structures will have been identified in this site survey stage with the building management team/landlord/freeholder and Customer representatives

No debris or site rubbish to be placed in communal bins. All rubbish and debris to be removed from site and secured away until safe disposal by trained operatives. Any liquids will be disposed of in accordance with COSSH guidelines and all sharps stored in secured sharps bin until safe disposal can be arranged off site.

10) For site specific cable route design and method statements please see the pictured route in survey pack

11) This pack consists of: Work locations, cable route, potential drill locations, potential access hatch/cut and shut positions.

5 x 5 Risk Matrix

Key

Severity	Likelihood
1. No Injury	1. Rare
2. Minor Injury or Illness	2. Unlikely
3. ≥ 7 Day Injury or Illness	3. Possible
4. Major Injury or Illness	4. Very Likely
5. Fatality, disabling Injury etc.	5. Almost certain

Likelihood \ Severity	1	2	3	4	5
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5

Risk Rating = Severity x Likelihood

High Risk = 15 – 25 (Intolerable) | **Medium Risk = 5 – 12 (Tolerable)** | **Low Risk = 1 – 4 (Acceptable)**

No.	Hazard	Risk	Risk Score L	S	RR	Control Measures	New Risk Rating L	S	RR
1	Chamber Works	Fatality or serious harm caused by collision with vehicles in carriageway	4	5	20	All operatives are to wear the correct PPE for working in the carriage way, These include hard hat, safety boots, clean long sleeve hi vis jacket/coat and clean hi vi trousers as per company guidelines. All necessary roadwork guarding and signage to be set out as per guidelines in the Safety at Street Works and Road Works Codes of practice and should adhere to the New Roads and Street Works Act (1991) before any works in the carriageway/footway are to be started. Engineer to face on coming traffic at all times Constant survey of road and weather conditions are to be carried out during works to ensure safety is maintained. All carriageway works are to carried out by a minimum of 2 engineers at one time.	2	5	10
		Explosion or exposure to noxious gases	3	5	15	GDU's to be used as soon as seal is broken and lid is lifted on any chamber. Once chamber is open the engineer should wait 2-3 minutes and retest with GDU at bottom of chamber and at each duct entry position. If no alarms raised then GDU is to be left within the chamber as works commence and removed once completed. If alarms are raised, engineer should check the readings and consult with supervisor or health and safety rep on best action to take. If Gas is suspected lid must not be replaced and National Gas Emergencies number must be called along with Supervisor or Health and Safety rep.	1	5	5
		Exposure to contaminated water	3	4	12	All water in chamber should be treated as contaminated and Engineers are to ensure they are wearing non-porous or latex gloves when handling any nodes or cables that may be submerged within. If water proves to be sewerage then Engineer to carefully close the chamber lid and to contact supervisor and Environmental Health and Safety rep for advice on next steps	2	4	8
		Muscular skeletal problems caused by lifting chamber lids in carriage way	4	5	20	All chamber lifts should be completed with manual handling guidelines laid out by both G.Network and the HSE. Carriage way chambers are to be lifted by 2 people at all times with the appropriately supplied G.Network tools. Footway boxes are to only be opened with box keys and roller bars	3	4	12
2	Assault on the workforce	Serious injury or fatality	3	5	15	Treat members of the public politely. All threats should be highlighted to your supervisors however minor. Staff must also ensure they progress their work accordingly and if issues occur, remove them selves form the area to a safe space	1	5	5
3	Manual Handling	Slip, trip or fall carrying sharp/heavy tools	3	5	15	Engineers to ensure they only carry/lift items that put little to no strain on their body and can be carried comfortable for the duration at hip height. Engineers to ensure route is clear of any debris or obstacles before making their journey and to consult G.Network manual handling training if necessary. If item is too heavy either a multiple person lift would be required or a specialist tool, to aid with pick up and transportation appropriate for the site and job at hand, should be sourced	2	5	10
		Pulling/pushing cables through voids/ risers/duct work	3	5	15	All engineers are to be trained and competent in rodding and roping techniques for all toby, chamber or riser works. Engineers must not twist or over exert their bodies to get the rod/cable/rope through the space. If required mechanical means can be utilised in areas where it is reasonably practicable	2	5	10
		Over reaching/Over stretching	4	4	16	All works and equipment required for works should be within a comfortable zone for the engineer to work safely. If item is out reach the engineer is to reposition themselves or the kit they are using to reach area comfortably	2	4	8
4	Working from Height (Ladders)	Falling off ladder	5	5	25	All Engineers to be trained and competent to use the right ladder for the job. Works on ladders to be limited to 30 minutes at a time and only as a last resort. They must also be wearing the appropriate PPE of gloves and hard hat with 5 point chin strap at all times whilst up a ladder. Tetra to be implemented in all ladder works where viable The engineer must not work upon or above the top 2 steps of the ladder at any time. Tetra to be implemented where possible Engineer to only use supplied G.Network ladder for working at height items and must ensure the ladder is fit for purpose and in good stead by checking the rungs, joints, support beams and treads at all times. Logging inspection before every use and ensuring ladder tag is in date	2	5	10
		Ladder Malfunction	3	5	15	All ladders to be inspected before each use and confirmed usable. Any issues to be flagged with supervisor and ladders to be condemned asap Engineers must work in groups of 2 incase of a malfunction to ensure if a ladder collapses there is some one to call for help or administer first aid.	2	5	10
		Incorrect use of ladder	3	5	15	All ladders used must be appropriate for the height being worked at and ground on which it is to stand. If required anti-slip foot plates must be used along with top tie system and eyebolts. Ladders must be used as intended by manufacturer, stored appropriately as to not create an obstacle or a trip hazard and footed at all times. All ladders to be guarded off and closed down when not in use	2	5	10
5	Using Power Tools	Ejected materials	4	4	16	Engineers to ensure they are wearing FFP3 face fitted dust masks at all times along with goggles and ear protectors. This is to ensure all orifices are protected from any dust and debris that could enter the body. All ejected materials will be allowed to settle and then cleaned with vacuum cleaner and wet wipes. If dust to too grand or area is too confined then respiratory equipment and dust suppression will be required	2	4	8
		Service Strikes (concealed services)	5	5	25	Site to be drilled will be checked with a service detector first for power and then for any ferrous metals. If clear engineer can drill. If not clear and no site can be found to drill through, the engineer must try to liaise with landlord/freeholder or building manager for plans of the property that detail where services are placed.	2	5	10
		Water ingress	3	4	20	All penetrations into the building will be done at a shallow angle and sealed both ends with weather resistant mastic. No drilling to take place through known "tanked" areas of the property	1	4	4
		White Hand Vibration, hearing loss, electrocution	3	4	20	Check tool is appropriate for the job and used in accordance with manufacturer's instructions. Users shall be trained in the correct use of portable tools. Inexperienced power tools users should be supervised or observed when first using an unfamiliar item of equipment or in an unfamiliar environment. Power tools should be securely stored when not in use. Check condition of lead and plug before use. Use 110v or battery tools or RCD where practicable. Check for hidden/buried cables before drilling etc. Do not work where water is present without specialist advice.	2	4	8
6	Slips, trips and falls (Common Areas)	Poor housekeeping and tool management	4	5	20	Remove waste and rubbish as it arises. Adequate barriers and equipment on site at all times. Cable will be run and neatly tucked to one side of property to create an appropriate pathway for the public. Barriers will be placed around work area to protect members of the public and engineers. Work area will be kept tidy to avoid any trips & slips and minor injuries	2	3	6
7	COSHH risks from use of Isopropyl Alcohol 70% abv	Dizziness/drowsiness	3	5	15	Manufacturer's Safety Data Sheet to be held with chemical in case of an emergency. Replace cap when not in use and dispose of used IPA soaked clothes frequently. Do not ingest. All chemicals to be stored securely if left unattended	1	5	5
8	Asbestos and ACM	Suspected ACM	4	4	16	If at anytime ACM is suspect all works must stop and supervisor/line manager contacted. If asbestos register is available this is to be consulted first, if not available speak to supervisor/line manager about getting a sample tested to confirm material. Prior to any works in a pre-2000 constructed building engineers are to wear supplied safety suits and RPE for site walk through and intrusive investigations. Once satisfied and logged on in house safety system there is no areas of potential ACM, work can commence. If ACM has been disturbed then anyone working in the vicinity must stop work immediately and try to seal the are disturbed carefully. Any ACM on clothing will need to be removed, so clothing items are to be carefully removed in a safe area and bagged up for testing or disposal. No attempts to continue works are to be made until a NADIS result is returned from sample or another route avoiding asbestos is sourced All people in the direct vicinity will be informed of the potential breach and outcome of survey check or test result. If proven materials prove to be asbestos, its is down to landlord/freeholder/building manager to remove as per HSE guidelines.	2	4	8
		Accidental penetration through ACM	3	5	15	Site must be closed down instantly and areas made safe with barriers and potential dust dampening equipment. Engineers will be given a change of clothing and specialist bag to store any contaminated materials. No one to enter site and any premises leading into affected areas will be informed in the first instance and either issued with replacement clothing and receptacle for any contaminated items. Asbestos test and recovery team to be contact asap to clear site or repair/manage damage and test samples.	2	5	10
9	Fire Escapes/Emergency Exits/Fire doors	Obstuction of emergency Entrance/exit during evacuation	5	5	25	Entrances/exits to be kept clear at all times for public use. Fire doors to be locked after use and to not be propped open and left unattended	2	5	10
10	Use of hand tools	Cuts & abrasions.	3	4	12	Hand tools are limited to side cutters, screwdrivers and termination tools. Terminating is limited to experienced operatives only. All hand tools to be used in accordance with training received and manufacturer's instructions. Ensure the correct tool is used for each task and that damaged, blunt or ineffective tools are replaced.	2	4	8
11	Fibre Optic Cables	Laser burn/blinding	3	5	15	Upmost care must be taken when handling live fibre's. If a fibre is cut or snaps engineer is to avoid looking directly into the center of the fibre and instead looks to remove the source feed where possible until work is completed. Direct contact with lasers can damage the eyes	2	5	10
		Sharps/fibre splinters	4	4	16	All fibre off cuts must be placed into a sharps bin supplied and disposed of in the correct manner and not placed into a public receptacle.	2	4	8
12	Fire stopping (passive)	Smoke inhalation can cause asphyxiation, various lung and respiratory complications and death. Smoke build up can be disorientating and blinding. Burns - from mild to fatal	5	5	25	All penetrations to be filled with 2 hour fire rated intumescent mastic. When applying mastic all sides to be smoothed down to ensure tight seal around penetration. All fire stopping to be documented once installed and inspected after job completion to confirm correct installation. If a fire starts during works, all operatives are to rally at fire point and contact emergency services. All burns to be treated by onsite first aider and appropriate emergency service to be called if applicable. Incidents to be reported to RIDDOR and logged in incident book for later investigation by line manager and Health and safety representative.	2	5	10
13	Nuisance dust (Silica)	Intake of nuisance dust and debris via respiratory system or other means	5	4	20	Dust masks to be worn by those carrying out task. Comfort masks should be sufficient subject to absence of other respiration risks. Others not directly involved in the task to be excluded from area of work whilst the risk of creating dust exists. Any person suffering a reaction to exposure must be removed to fresh air immediately. A 1st aider must be available on site at all material times.	2	4	8
14	Fusion Splicing	Electrocution	3	4	12	Slicer to be inspected before each use and PAT tested once every 6 months. Splicer will undergo routing calibration and maintenance once a year as per manufacturers guidelines. Any defects to be flagged at earliest opportunity	1	4	4
15	Lone Working	Mental and Physical health conditions	3	5	15	Regular contact between the worker and their supervisor/colleague. Access to adequate First Aid Kit must be made available. Ensuring progress is updated on Salesforce.	2	5	10
16	Inexperienced workforce member	Apprentices, Re-skillship, other non-fibre experienced engineers	4	5	20	Regular contact between the worker and their supervisor. Must not be left unsupervised for too long on tasks. Clear instructions to be given for each task	2	5	10

Site Specific Risk Assessment and Control Measures

SA Number

Relevant PPE

Appropriate Hard Hat	Appropriate Eye Protection	Appropriate Protective Footware	Appropriate Hand Protection	Appropriate Hi Visibility Workwear
X	X	X	X	X

Additional PPE – Mark as appropriate (x)

Specialist Eye Protection	Hearing Protection	Respiratory Protection (RPE)	Full Face Protection	Breathing Apparatus	Fall Protection	Specialist Workwear	Life Jacket Required	Any Other PPE requirements (please list below)

Other PPE requirements:

5 x 5 Risk Matrix

Key

Severity	Likelihood
1. No Injury	1. Rare
2. Minor Injury or Illness	2. Unlikely
3. ≥ 7 Day Injury or Illness	3. Possible
4. Major Injury or Illness	4. Very Likely
5. Fatality, disabling Injury etc.	5. Almost certain

Risk Rating = Severity x Likelihood

Likelihood \ Severity	1	2	3	4	5
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5

High Risk = 15 – 25 (Intolerable) | **Medium Risk = 5 – 12 (Tolerable)** | **Low Risk = 1 – 4 (Acceptable)**

No.	Hazard	Risk	Risk Score L	Risk Score S	Risk Score RR	Control Measures	New Risk Rating L	New Risk Rating S	New Risk Rating RR
	Working at Height (Long Ladders/Tetra)	Falling	5	5	25	Only trained and competent engineers will be able to work on the Long ladders. Ladders to use top ties where reasonably practicable and ladder stop at base. Engineer must not lean over the sides of the ladder to reach items. They must come down and reposition ladders in correct place for works to continue. If ladder will not work in space then this is to be raised to supervisor If Tetra system is available it must be used according to manufacturer specification and by fully trained and competent engineer Ladder to be placed on solid ground. Not loose, soft or tiled flooring. Wind speed to be measure frequently with an anemometer	2	5	10
		Malfunction	5	5	25	In instances of Malfunction grounds person will implement any first aid required if trained and competent. Once engineer is safe emergency services to be called and supervisor informed. All ladders to be checked before use and confirm ladder tag is in place with recent inspection and rubber feet are in good condition	2	5	10
		Debris	4	4	16	Work area direct under site to be guarded off with gate guards or cones. Grounds Person to act as attendant and help to clear debris. Engineer on ladder to minimise debris where possible and utilise toolbelt or other waste receptacle to ensure all off cuts and rubbish is not thrown to the ground or creates a trip hazard upon the ladder	2	4	8
		Lone working	3	5	15	**At no time will operations be carried out on a long ladder without a grounds person present. If Grounds person cannot be sourced work must cease until one is available**	2	5	10
	Working in riser space or intake rooms	Electrocution	3	5	15	Only skilled engineers are to open and operate within communal risers/intake rooms/service cupboards. Correct PPE to be worn at all times, these include but are not limited to FFP3 rated dust mask, hi-vis jerkin, disposable gloves, steel toe capped safety boots and clean uniform. Operatives are not to touch any other services in the in the in the communal risers/intake room/service cupboards. If other services are in line of route operatives are to either avoid services or work cautiously beside them. Any defects found on services must be logged prior to work and isolated if possible. Service provider and building manager/landlord/free holder to be informed and work to cease until made safe by qualified technician.	2	5	10
		Asphyxiation	3	5	15	Works to be limited within confided spaces and regular breaks taken for fresh air and to avoid MSD problems. GDU's to be used when first entering intake cupboards or risers to ensure harmful fumes are not present. If Any substances hazardous to health are identified then engineers are to leave area immediately and carefully seal the site. Calls to supervisor will then be made for next steps action	2	5	10
		Hazardous Particle inhalation/ Weil's Disease/Sharps	4	4	16	Any additional hazards found in location (for example biohazard's materials such as feces or used medical equipment) will cease work immediately until building manager/landlord/freeholder has arranged for is to be resolved.	2	4	8
	Installation and work with in Access Panels	Cuts, abrasions, severed limbs	4	5	20	All tools to be inspected before use and ensure they comply with all guidelines outlined in PUWER. All guards and protective items (e.g. cut off switches) must be on and confirmed working before use. Tools must be placed carefully in tool box/bag with any potential sharp/pointy items removed and placed in correct storage container	3	4	12
		Smoke ingress	3	5	15	All penetrations to be cut using supplied template. Once cut visible side of plaster board will be cleaned and a bead of intumescent fire mastic (rated 2 hours) will be run around the external edge of the access panel as per manufacture's specification and a minimum grade of 1 hour fire rate access panel will be installed and closed. All penetrations are to be closed and sealed on the day unless stated otherwise by freeholder/landlord/ building manager	1	5	5
		Service strikes	4	5	20	Area to be tested with service locater before any cuts are made. If still unsure pilot holes are to be drilled and inspection camera used to confirm safe to cut. If service is struck, supervisor to be informed and assess damage. If repairable or if able to make safe, engineer will do this with tools on the van until a time and accredited person can be available to complete repairs to satisfactory level.	2	5	10
		Damage/Collapse	3	5	15	Any damage to plaster work or other items with the remit of works will be inspected by in house hatch team and if viable will be repaired on the day. If further works are required this will be contracted out to an approved contractor from either G.Network or freeholder/landlord/building manager. If ceiling were to collapse during installation. All engineers will be required to leave site immediately and contact their supervisor who will attend site to confirm situation. Freeholder/Landlord/Building Manager will be informed. Any work for the repair will be carried out by an approved contractor from either G.Network or freeholder/landlord/building manager.	1	5	5
		Dust/debris	3	5	15	**Engineers to ensure dust sheets are down before entering voids, they are wearing appropriate long-sleeved clothing and FFP3 rate face masks that are to be worn in accordance with manufacturers instructions.** **All works to cease whilst tenants or members of the public pass. Area to be vacuumed and wiped down once work has finished be it for a break or at end of day.**	2	5	10

Fire stopping

Where the cable(s) require to pass through an area, G.Network Engineers will create and new penetration and seal it with intumescent mastic. This is a specially developed product created to be used to meet all current British Fire Regulation and performance requirements to ensure the integrity of the building.

G.Network are committed to ensuring all passive fire stopping undertaken on any client's site will be carried out by full trained operatives, using the correct products and installed as detailed by product manufacturers.

The products used are outlined here

Intumescent Mastic

Fisher Fire Stop Intumescent Sealant is an acrylic sealant that swells when exposed to temperatures in excess of 125°C to prevent the passage of fire and smoke and has a fire rating of up to 4 hours in certain joint configurations.

- Fire rated to EN1366-4 (2006). Acoustic rates to BS EN ISO 140/3
- Tested for air permeability to EN13141-1
- Swells more than 150% of its original size when exposed to heat
- No priming required for most construction substrates
- Permanently flexible
- Excellent acoustic properties
- Easy to apply and tool off
- Fast cure – tack free in 15 minutes
- Over paintable

Coated Batt Mineral Board and Panel Coating

Where building services such as pipes, ducts and cable trays, penetrate fire rated walls and structures, the Coated mineral board slabs are appropriate for reinstating the integrity and fire rating of those structures. They can be easily cut to the size and shape of any aperture, using a knife or saw, and inserted into voids around the services to form a smoke tight seal that is capable of holding back fire for up to four hours. **(This is currently installed by our accredited 3rd party fire stop contractors)**

- Fire rated for up to four hours
- Low smoke emission
- High density board - will not delaminate during installation
- Ablative - forms fire retardant crust on the board face
- Halogen free - coating contains no solvent or toxic products
- Water based coating that is easy to apply and clean off
- Coating is over paintable
- Easy to penetrate - for adding further surfaces

Metal Stud and Fire Cement

For use when creating cut and shut hatches, the metal studwork acts as a baton to hold the refitted plasterboard in place whilst the cement is used to fill the gaps and finish hatch to ensure a smooth and clean finish that can withstand high heats and restore compartment to relevant standards

Gypsum Fire board and Plaster

When new plasterboard is required to seal the ceiling we will reinstate a minimum of gypsum fire board and re plaster the area with the same smooth finish as before. This method cannot be used on Lath plaster work.

All firestopping will be accredited under the BM-TRADA Q Mark and a detailed log of all fire stopping will be created and stored on our internal systems as part of any as-built report once installation is completed and inspections have cleared work all works.

Only trained and competent engineers will be installing any passive fire stopping and will only install products as outlined by manufacturers in their best practice documentation.

Operatives will be supported and advised by their accredited Installer who will provide a level of supervision.

Internal periodic audits will be carried out by the accredited installer to ensure that standards are being maintained.

Standard Products

Below are examples of some of the products we use and their key attributes. Please note these are for guidance purposes and the final product installed may have some variances. If you wish to know more about the products please contact your connection representative

2 core fibre optic cable (2f)

This cable comes in 3 colours white, black or brown and can be used both internally and externally. The tension strip in the centre allows for a neater look when installing along with protection to the cable. We use this to feed from our FSB into the CSP.

Size	Fire Rating	IP rating	Product material
3mm (Diameter)	ECA	IP65	Polycarbonate with UV protective coating

Multicore fibre optic cable (12f)

This is our main feed cable from the street into the FSB. The standard size we use is 12 core (12f) but it can be any size up to 96 core (96f). Comes in Black as standard, but other colours maybe available.

Size	Fire Rating	IP rating	Product material
5-12mm (Diameter)	ECA	IP65	Polycarbonate with UV protective coating

Kopex

We use various types depending on the need for the task and the location it will be installed. The main one used is the metal with PVC coating as it gives greater protection. Usually installed externally.

Size	Fire Rating	IP rating	Product material
10-25mm (Diameter)	V-0	IP65	Galvanised Steel with PVC UV treated coating

Fibre Splice Box (FSB)

This is our standard Distribution box for buildings. It is used to convert the multicore to multiple 2f cables that then feed out to each premises.

Size	Fire Rating	IP rating	Product material
H 154mm, W 104mm, D 34mm	V-0	IP55	ABS Plastic

Customer Splice Point (CSP)

The CSP is used as the customers main connection in their premises to connect to the router (ONT). This is where the 2f cable terminates.

Size	Fire Rating	IP rating	Product material
H 85mm, W 85mm, D 16mm	V-0	IP55	ABS Plastic

Building Flexibility Point (BFP)

This is used for large buildings or where multiple multicores are required to feed various floors or blocks. We would normally use the mid size option but can use the larger or smaller one where needed.

Size	Fire Rating	IP rating	Product material
H 241mm, W 154mm, D 71.6mm	V-0	IP55	Polycarbonate with UV protective coating

Optical Network Termination (ONT or Router)

We currently operate with 2 different models. The one supplied to the customer is based on the product type feeding the network from the local street cabinet.

Huawei HG8245Q2

Size	Wi-Fi	Ethernet Ports	Product material
H 265mm, W 176mm, D 82mm	Dual Band (2.4GHz and 5GHz)	4	Polycarbonate

Nokia ONT G-2425G-B

Size	Wi-Fi	Ethernet Ports	Product material
H 265mm, W 176mm, D 82mm	Dual Band (2.4GHz and 5GHz)	4	Polycarbonate