INTERIM ENVIRONMENTAL DESKTOP REPORT

CARNMONEY – CASTLEREAGH 110KV

NI2248 SONI
Carnmoney –
Castlereagh 110kV
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Appendix 1 Constraints Mapping

1 INTRODUCTION

SONI have requested RPS provide a desktop environmental study in respect of the proposed works to the Carnmoney – Castlereagh section of the Ballylumford – Castlereagh 110kV double circuit.

The Ballylumford – Rosebank Main 110kV double circuit was constructed in 1943 to connect the Ballylumford Power Station to a number of 110kV supply points. The double circuit line formed part of the original transmission system for Northern Ireland. During the construction of the 275kV system, the double circuit was diverted in to Castlereagh in 1966. The double circuit currently serves to supply load at Eden Main and Carnmoney Main as well as provide a 110 kV feed to Castlereagh.

Due to the age of the double circuit, a number of condition issues have been identified including conductors being assessed as end of life, corrosion of sections of towers and foundation defects.

Due to the condition of the conductors and towers and issues around capacity of the line, a programme of works is to be proposed for the entirety of the double circuit.

Proposals are being considered for the section between Eden and Carnmoney and are in place for the section between Ballylumford and Eden.

The required environmental study and the subject of this scope of works is the remaining two sections, Carnmoney to Finaghy and Finaghy to Castlereagh, collectively referred to as Carnmoney to Castlereagh.

This report represents the interim findings of the environmental constraints study and an outline of the likely consenting requirements, associated environmental assessments and supporting information which may be required in delivering the project.

2 DEFINITION OF OPTIONS

SONI have provided RPS with the CARNMONEY TO CASTLEREAGH OPTIONS REPORT (28.05.20) which provides an assessment of Options which are intended to address the issues around the existing double circuit line.

The report assesses the feasibility of refurbishing the existing tower line and alternative Options which involve either the full or partial removal of the double circuit and construction of new substations and cable circuits which provide a connection between Hannahstown and Castlereagh.

The SONI report considers Options in the context of technical, economic, deliverability and socio-economic studies with a recommendation provided as the preliminary preferred Option.

A Long List of Options within the report were rationalised into a Short List of Options. It is these Options which will be taken forward in any environmental reporting to be undertaken as outlined within this proposed scope of works; the Options are defined as follows:

Option	Description
1	Refurbishment of entire circuit
2	Install 4th Inter Bus Transformer (IBTx) and remove Carnmoney to Castlereagh double circuit
3a	Sailortown reinforcement
3b	East City Centre reinforcement
3c	Belfast Central reinforcement
4	Blacks Road reinforcement (Dunmurry Link)
5 (2+3a)	Hybrid phasing of Options 2 and 3a (4th IBTx at Castlereagh and Sailortown Reinforcement)

SONI have provided GIS data in respect of the existing lines and proposed new elements as relevant to the Options noted above.

2.1 Description of Options

The Options include refurbishing the existing tower line and alternative Options which involve either the full or partial removal of the double circuit and construction of new substations and cable circuits which provide a connection between Hannahstown and Castlereagh.

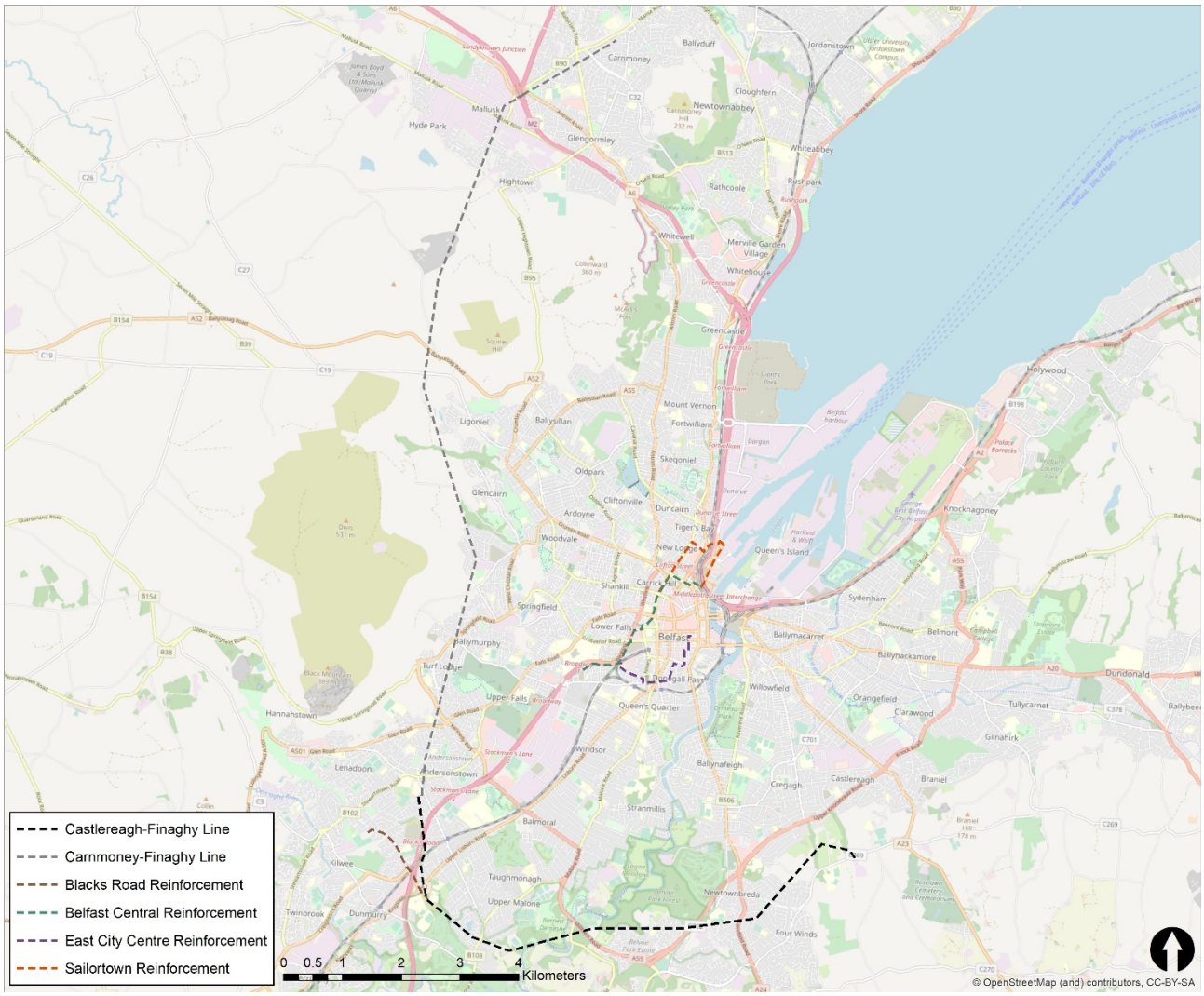


Figure 1 - Overview of Options

2.1.1 Option 1 Refurbishment of entire circuit

Option 1 consists of a refurbishment of the Carnmoney to Castlereagh section of the Ballylumford to Castlereagh 110kV double circuit. This will be done using Upas conductor, giving a minimum rating of 144 MVA.

This Option would include work to all the tower foundations as well as the replacement of sections of steel work.

The estimated cost of this Option is approximately £21.4m. The location of works for Option 1 is shown in Figure 2.

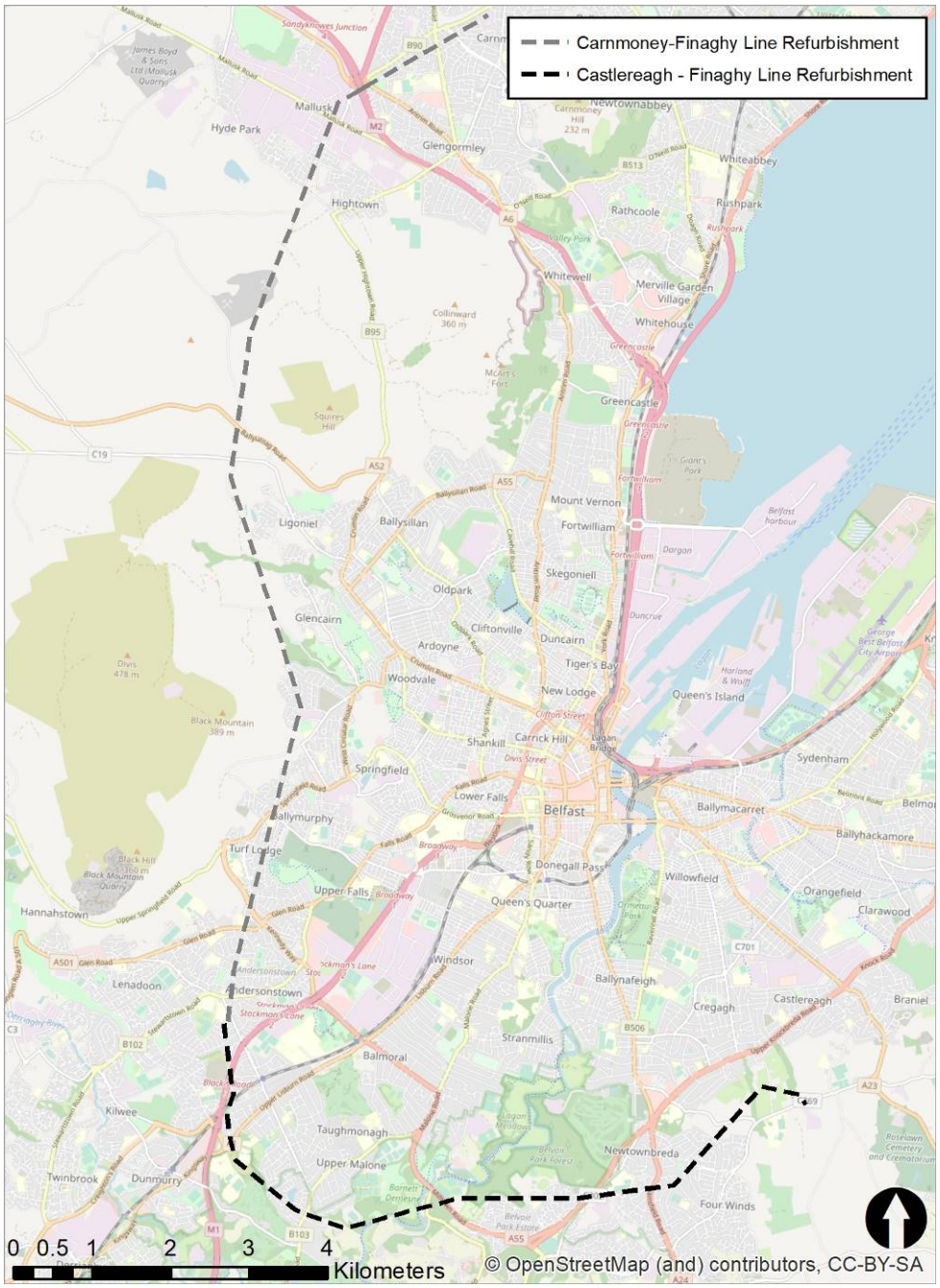


Figure 2 – Option 1 – Location of Works

2.1.2 Option 2 Install 4th Inter Bus Transformer (IBTx) and remove Carnmoney to Castlereagh double circuit

Option 2 includes the installation of 4th IBTx at Castlereagh and the removal of the Carnmoney to Castlereagh section of the Ballylumford to Castlereagh 110kV double circuit which will be decommissioned and recovered.

This Option will cost an estimated £11.5m. The location of works for Option 2 is shown in Figure 3.

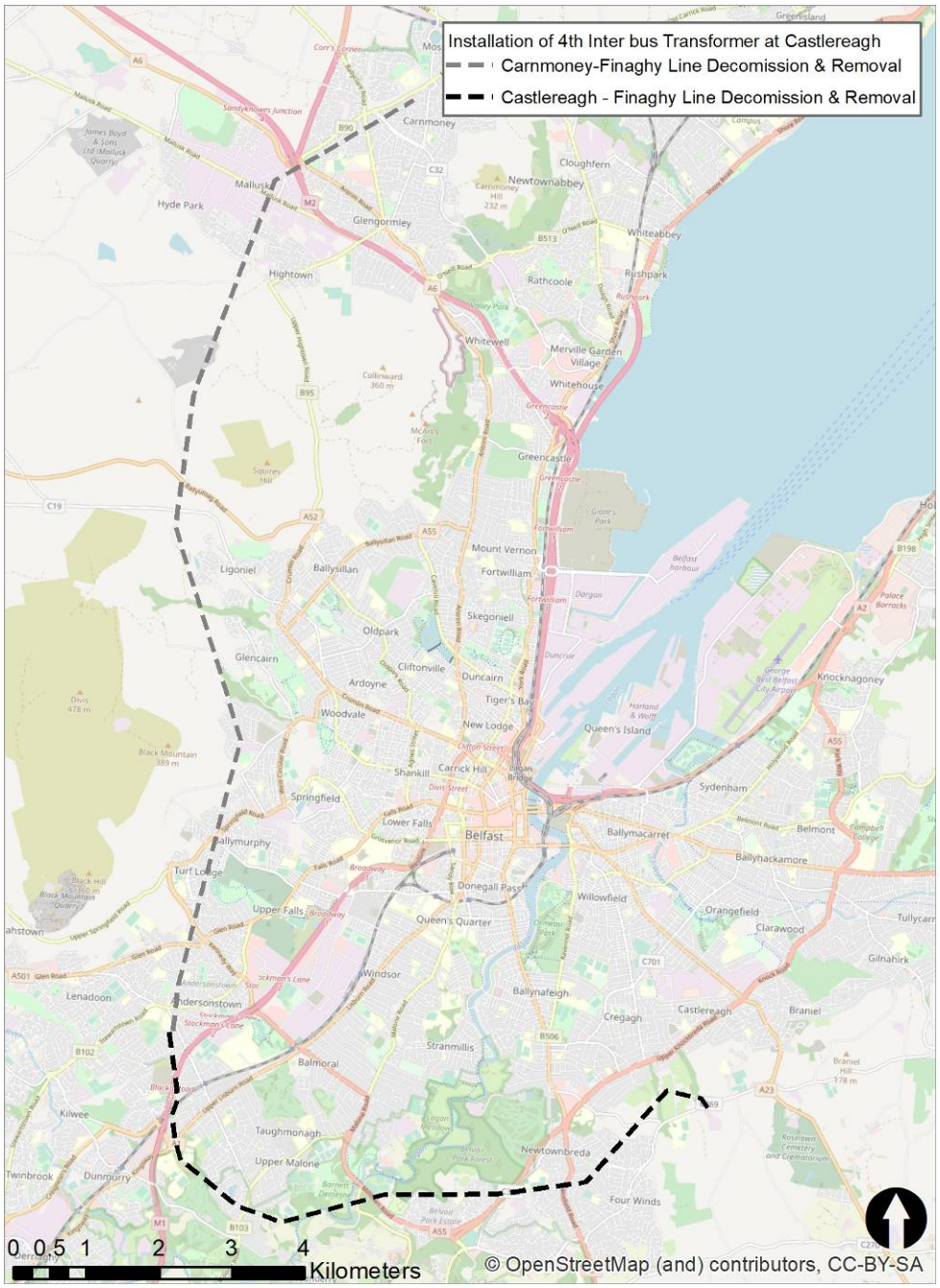


Figure 3 – Option 2 – Location of Works

2.1.3 Option 3a Sailortown reinforcement

Option 3a involves establishing an 110kV cable connection between Hannahstown and Castlereagh through the centre of Belfast.

This Option also involves: establishing new GIS double busbar 110kV switchboards at Belfast Central and Belfast North Main, installing a new double circuit cable between Donegall and Belfast North Main to replace the existing 75 MVA cables, installing a new double circuit cable between Belfast Central and Belfast North Main and the decommission and recovery of the Carnmoney to Castlereagh section of the Ballylumford to Castlereagh 110kV double circuit.

The estimated cost of this Option is £32.2m. The location of works for Option 3a is shown in Figure 4.

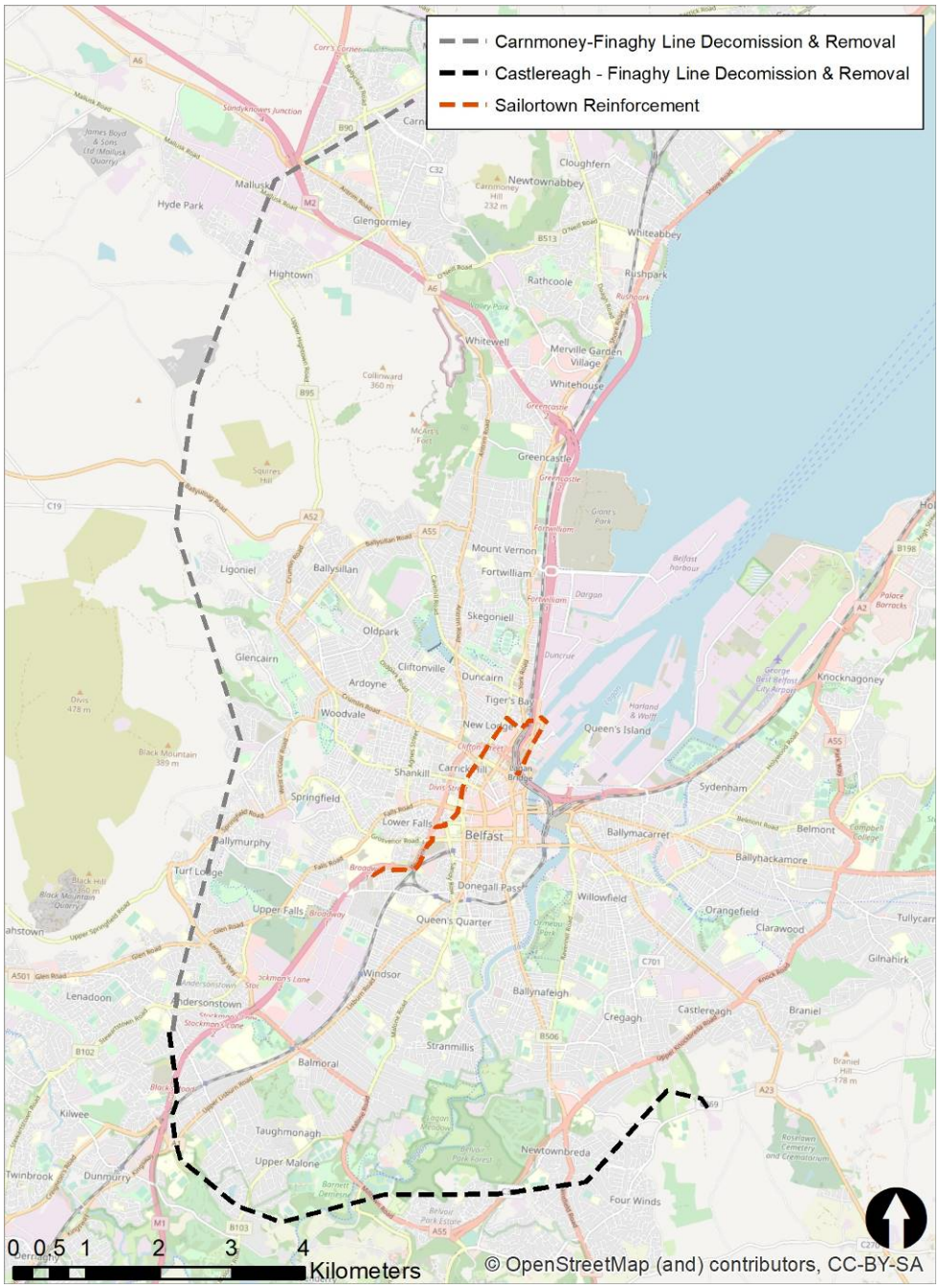


Figure 4 – Option 3a – Location of Works

2.1.4 Option 3b East City Centre reinforcement

Option 3b involves establishing an 110kV cable connection between Hannahstown and Castlereagh through the centre of Belfast.

This Option involves establishing a double busbar GIS substation at Donegall marshalling the existing Hannahstown to Donegall North and Finaghy to Donegall South double circuits and a new 110kV switching centre established close to the route of the existing Belfast Central to Cregagh 110kV cable circuits.

Option 3b would also include installing a new double circuit cable between the new Donegall double busbar and the new switching substation.

This Option also includes the decommission and removal of the Carnmoney to Castlereagh section of the Ballylumford to Castlereagh 110kV double circuit.

The cost of the Option is approximately £36.8m. The location of works for Option 3b is shown in Figure 5.

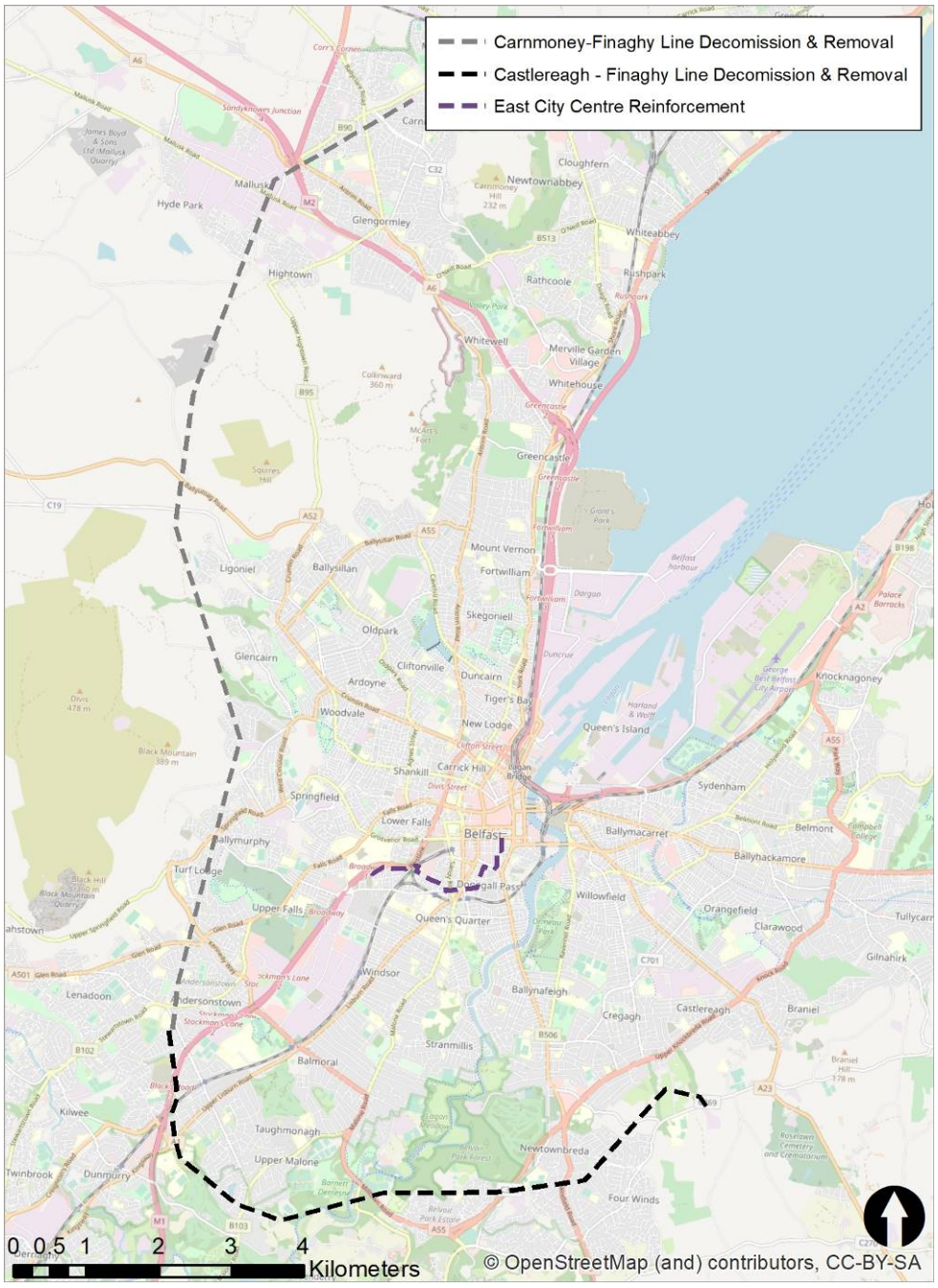


Figure 5 – Option 3b – Location of Works

2.1.5 Option 3c Belfast Central reinforcement

Similar to Option 3a and 3b, Option 3c includes establishing an 110kV cable connection between Hannahstown and Castlereagh through the centre of Belfast. This Option will include new GIS substations at Belfast Central and Donegall. Installing a new double circuit cable between Donegall and Belfast Central. Option 3c also includes the decommissioning and removal of the Carnmoney to Castlereagh section of the Ballylumford to Castlereagh 110kV double circuit.

The estimated cost of this Option is approximately £35.5m. The location of works for Option 3c is shown in Figure 6.

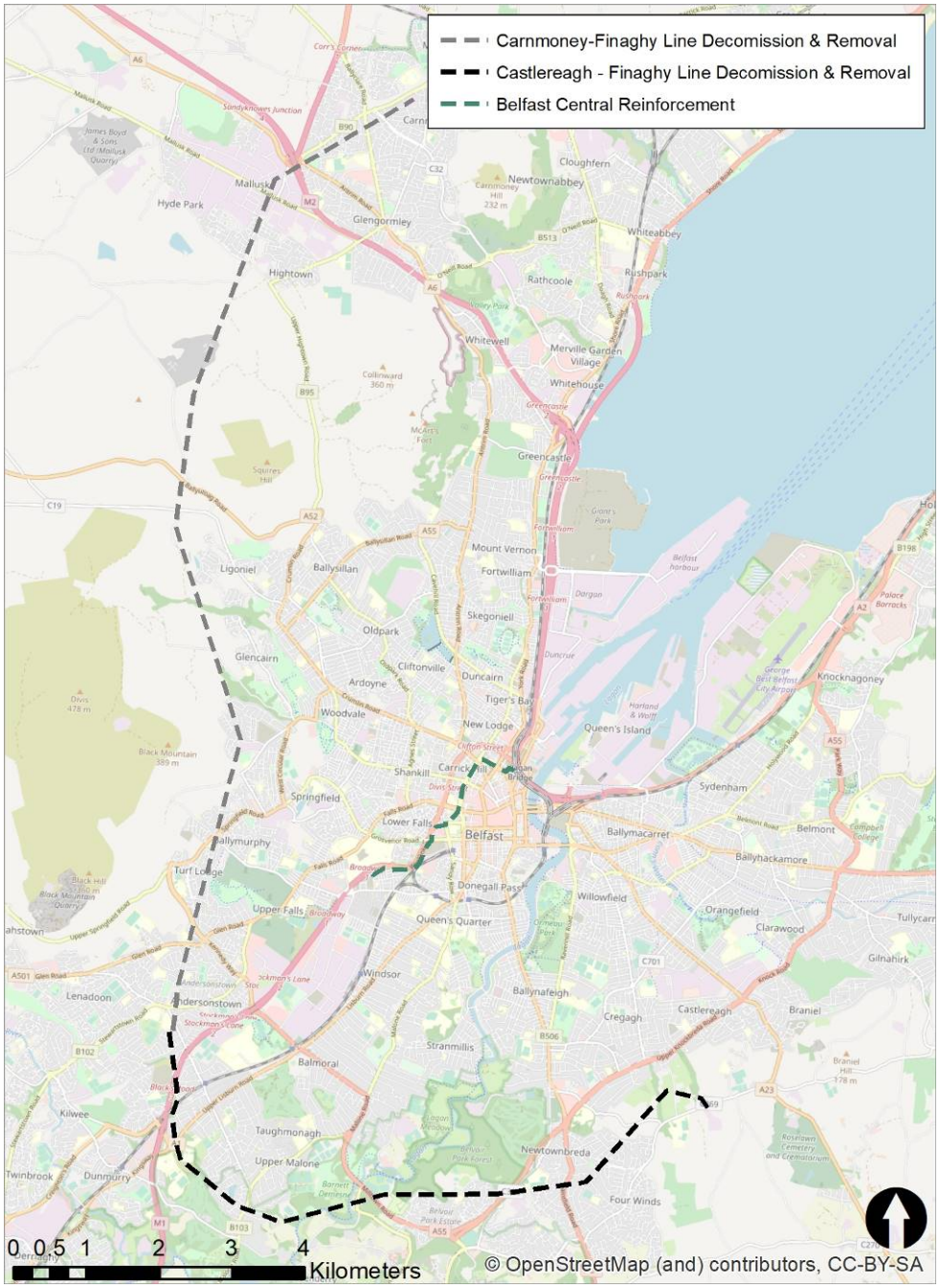


Figure 6 – Option 3c – Location of Works

2.1.6 Option 4 Blacks Road Reinforcement (Dunmurry Link)

Option 4 involves establishing an interconnection between Hannahstown and Castlereagh grid supply points. This Options uses a section of the existing Castlereagh to Finaghy tower line which would be restrung and refurbished.

The Option would also include developing a new GIS switching substation near Blacks Road with Lisburn and Hannahstown 110kV circuits being diverted to the new switching substations. The Castlereagh to Finaghy 110kV circuits would be cabled into the new switching substation. The Carnmoney to Finaghy section of the Ballylumford to Castlereagh 110kV double circuit is decommissioned and removed whilst most of the Castlereagh to Finaghy section would be retained and refurbished.

This Option would cost an estimated £24.6m. The location of works for Option 4 is shown in Figure 7.

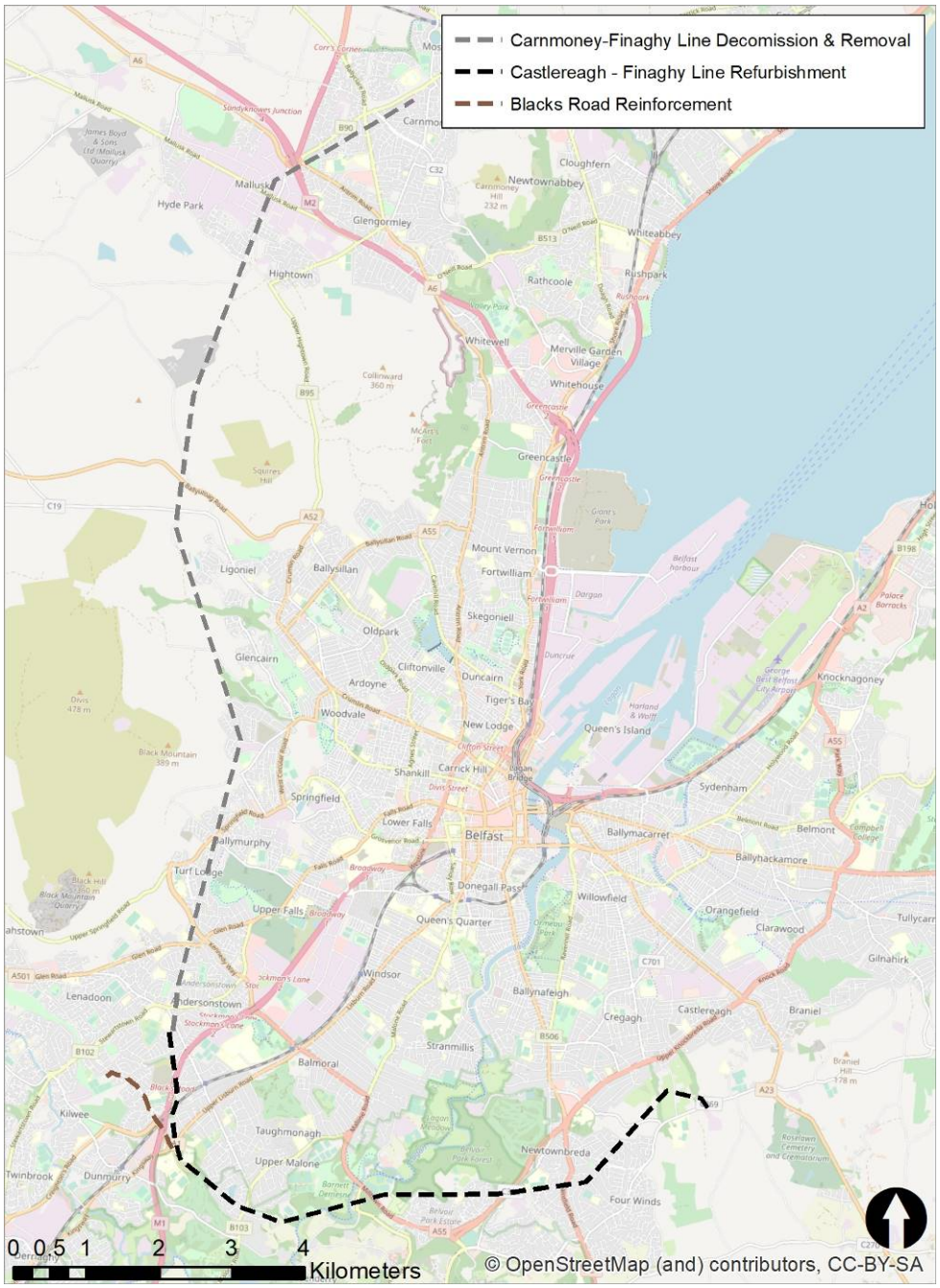


Figure 7 – Option 4 – Location of Works

2.1.7 Option 5 Hybrid phasing of Options 2 and 3a (4th IBTx at Castlereagh and Sailortown Reinforcement)

Option 5 involves a hybrid phasing of Option 2 and Option 3a. Phase 1 includes the connection and commissioning of the 4th IBTx at Castlereagh. A temporary connection between Castlereagh - Finaghy terminal tower and the Finaghy – Donegall terminal tower would be established at Finaghy Main. Finally the Carnmoney to Finaghy section of the Ballylumford to Castlereagh 110kV double circuit is decommissioned and removed. The section between Finaghy and Castlereagh would remain temporarily in service, with both circuits temporarily connected to Finaghy. Phase 2 involves developing new GIS substations adjacent to Belfast Central and Belfast North Main and installing a new double circuit cable between Donegall and Belfast North Main and replacing existing cables. A new double circuit would be installed between Belfast Central and Belfast North Main. Finally the Finaghy – Castlereagh section of the double circuit would be removed.

The estimated cost for this Option is approximately £36m. The location of works for Option 5 is shown in Figure 8.

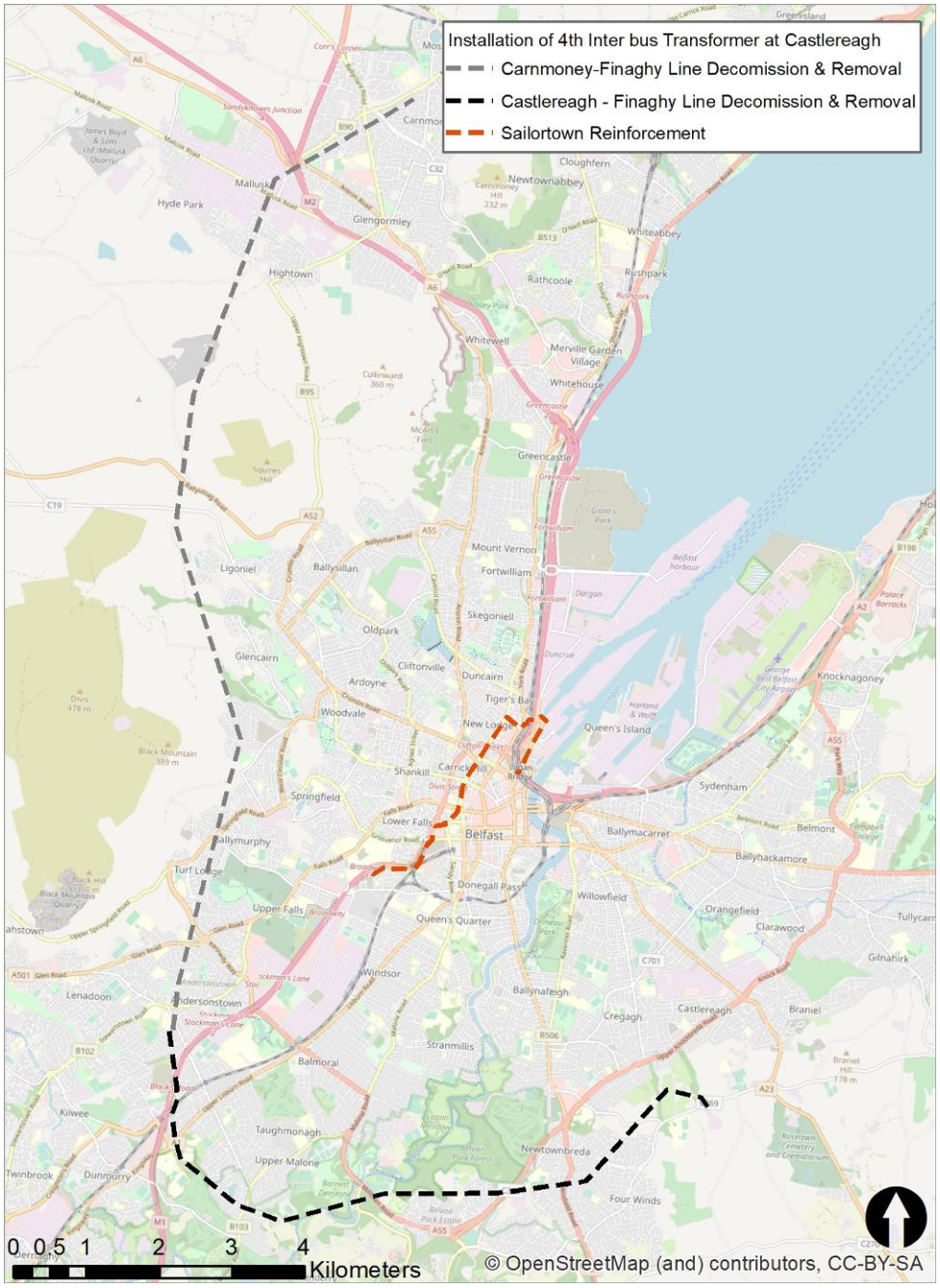


Figure 8 – Option 5 – Location of Works

3 SUMMARY OF CONSTRAINTS

3.1 Constraints Mapping

The potential constraints in the area of each Option are categorised into environmental, heritage, technical, social and visual. The Options have been illustrated in relation to these constraints in the drawings contained in Appendix 1 of this report:

- IBE1767 Environmental Constraints
- IBE1767 Heritage Constraints Overview
- IBE1767 Heritage Constraints Belfast
- IBE1767 Heritage Constraints Overview
- IBE1767 Social Constraints
- IBE1767 Technical Constraints and Opportunities Overview
- IBE1767 Technical Constraints and Opportunities Belfast

3.2 Option 1 Constraints

Option 1 involves the refurbishment of the entire Carnmoney to Castlereagh line and encounters a number of different constraints. The line is split into two sections, these are the Carnmoney to Finaghy section and the Castlereagh to Finaghy section.

Environmental constraints:

The environmental constraints along the Carnmoney to Finaghy section of line include the Belfast Hills SLNCI (Site of Local Nature Conservation Importance) which are designated due to their flora, fauna or earth science interest. The Castlereagh to Finaghy section of the tower line passes through the Clement Wilson Park SLNCI and the Lagan Meadows SLNCI. The Castlereagh to Finaghy section of line also passes through the Belvoir ASSI which is designated for special scientific interest for its parkland and wood pasture habitat and associated species. In the absence of a formal planning application, refurbishment works within the ASSI may require consent from DAERA. As the line already runs through these SLNCIs and ASSI any refurbishment work should be careful as not to cause any damage to these lands.

The Carnmoney to Finaghy section of line crosses two salmon rivers, this could prove to be a constraint to refurbishment works due to the legislative environmental protection for salmonids.

The section of tower line from Castlereagh to Finaghy also passes through Potential Ancient Woodland and Historic Parks and Gardens, these are protected areas and shouldn't be damaged during refurbishment works.

Heritage constraints:

Along the route of the tower line, both the Carnmoney to Finaghy and the Castlereagh to Finaghy section of tower line passes close to a number of heritage constraints. These constraints include Defence Heritage Record, Industrial Heritage Record, Scheduled Monument Record and Listed Buildings. These may prove to be a constraint as any work done during the refurbishment process would have to ensure no damage is done to any of these heritage constraints.

Technical constraints:

There are also a number of technical constraints which affect both sections of the tower line. The Carnmoney to Finaghy section of the tower line passes through upland area. These upland area exceeds elevations of 150m and may prove more difficult to develop on due to these areas being harder to access, having exposed steep slopes, shallower soils and poor ground conditions. Peat bogs are often more

prevalent in upland areas, which may be more difficult to build on, as well as often having legislative environmental protection. This could constrain refurbishment works making them more difficult.

The Castlereagh to Finaghy section of the tower line passes across the Lisburn railway line, the refurbishment of the line therefore could have an impact on transportation.

Both sections of the tower line are in close proximity to areas of historic land use and pollution prevention and control sites (PPC sites). As the line is already constructed these are not significant constraints however these sites should not be damaged or disturbed during the refurbishment works.

The line also passes through Pluvial and Fluvial flood extents which may be a potential constraint due to poor ground conditions and difficult construction conditions, which may make refurbishment work difficult and could affect the timing of these works.

Social constraints:

Along both sections of line the social constraints include settlements with a low – medium population density. This could act as a constraint as the refurbishment of the line could have a short term effect of residents as work could take as long as 4 weeks in some areas. During the refurbishment the work could also have an impact on traffic causing disruption.

Visual constraints:

Visual constraints include high and high/medium sensitivity to windfarm development, however as Option 1 involves the refurbishment of the tower line this would not pose a significant constraint as it would involve minimal change to the landscape. The Castlereagh to Finaghy section of the line also passes through the Lagan Valley which is an Area of Outstanding Natural Beauty. This would not be a significant visual constraint as the tower line already runs through the Lagan Valley and the refurbishment of the line would involve minimal changes to the landscape.

3.3 Option 2 Constraints

Option 2 involves the decommissioning and removal of the Carnmoney to Castlereagh section of the Ballylumford to Castlereagh 110kV double circuit. The section of the line is split into two sections, the Carnmoney to Finaghy section and the Castlereagh to Finaghy section.

Environmental constraints:

The environmental constraints along the Carnmoney to Finaghy section of line include the Belfast Hills SLNCI (Site of Local Nature Conservation Importance) which are designated due to their flora, fauna or earth science interest. The Castlereagh to Finaghy section of the tower line passes through the Clement Wilson Park SLNCI and the Lagan Meadows SLNCI. The Castlereagh to Finaghy section of line also passes through the Belvoir ASSI which is designated for special scientific interest for its parkland and wood pasture habitat and associated species. The removal of the line should be careful as not to cause any damage to these lands.

The Carnmoney to Finaghy section of line crosses two salmon rivers, this could prove to be a constraint to removal works due to the legislative environmental protection for salmonids.

The section of tower line from Castlereagh to Finaghy also passes through Potential Ancient Woodland and Historic Parks and Gardens, these are protected areas and shouldn't be damaged during removal process.

Heritage constraints:

Along the Carnmoney to Castlereagh line there is a number of heritage constraints in the vicinity of the line, these include Defence Heritage Record, Industrial Heritage Record, Scheduled Monument Record and Listed Buildings. As the line is already in place and this option involves the removal of the line these are not significant constraints however during the removal process would need to be cautious as to not damage or disrupt these heritage features.

Technical constraints:

There are also a number of technical constraints which may affect the removal of both sections of the tower line.

The Carnmoney to Finaghy section of the tower line passes through upland area. These upland area exceeds elevations of 150m, these areas are harder to access, and have exposed steep slopes, shallower soils and poor ground conditions. This could make the removal of the line difficult.

The Castlereagh to Finaghy section of the tower line passes across the Lisburn railway line. During the removal process of the line there could potentially be significant disruption to transportation.

Both sections of the tower line are in close proximity to areas of historic land use and pollution prevention and control sites (PPC sites). These do not constrain the removal of the line however these sites should not be damaged or disturbed during the removal process.

The line also passes through Pluvial and Fluvial flood extents which may be a potential constraint due to poor ground conditions and difficult construction conditions which may make removal difficult and could affect the timing of these works.

Social constraints:

Along both sections of line the social constraints include settlements with a low – medium population density. The removal process could be intrusive for some people and could cause traffic disruption, however the removal of the line would be a relatively quick process, causing less disruption than the refurbishment process.

Visual constraints:

Any visual constraints are minimal as Option 2 involves the removal of the tower line, therefore meaning any visual constraints will not be significantly impacted. Currently the Castlereagh to Finaghy section of the line also passes through the Lagan Valley which is an Area of Outstanding Natural Beauty. This option would remove the double circuit from the Lagan Valley AONB. There is the potential for long term visual benefits from removing these lines from the general landscape.

3.4 Option 3a Constraints

Option 3a involves new cables being laid close to Belfast city centre as well as the removal of the Carnmoney to Castlereagh section of the Ballylumford to Castlereagh 110kV double circuit. The removal of the Carnmoney to Castlereagh line of tower line would involve the constraints mentioned in section 3.3. The constraints affecting the new cables being laid in Belfast city centre include the following constraints.

Environmental constraints:

There are no significant environmental constraints impacting the Sailortown Link.

Heritage constraints:

There are a number of heritage constraints in close proximity to the Sailortown link, these include Areas of Archaeological Potential. The cables would need to be laid within this area of archaeological potential. The other heritage constraints within the vicinity of the Sailortown link cables includes Industrial Heritage Records and Listed Buildings. These heritage constraints may put planning restrictions on developments in their vicinity and any development should not damage or disrupt these heritage features.

Technical constraints:

The technical constraints which impact the Sailortown link includes pluvial and fluvial flood extents as well as some areas of fluvial and pluvial 200yr climate change flood extents. These may prove to be a constraint as the flood extents often have poor ground conditions and difficult construction conditions. Flooding could also have an impact of the timing of works. There is also historic land use within the vicinity of the proposed cable which should ideally not be disturbed when the cables are laid.

Social constraints:

The social constraints which impact the Sailortown link include settlements and population density. Whilst cables are being laid, disruption could be caused to traffic which could cause an issue in the city centre, however this disruption would be relatively short.

Visual constraints:

The Sailortown link is not significantly impacted by any visual constraints as the laying of cables would have minimal visual impact.

3.5 Option 3b Constraints

Option 3b also involves new cables being laid close to Belfast city centre as well as the removal of the Carnmoney to Castlereagh section of the Ballylumford to Castlereagh 110kV double circuit. The removal of the Carnmoney to Castlereagh line of tower line would involve the constraints mentioned in section 3.3. The constraints affecting the new cables being laid in Belfast city centre include the following constraints.

Environmental constraints:

There are no significant environmental constraints impacting the East City Centre Link.

Heritage constraints:

There are a number of heritage constraints in close proximity to the East City Centre link, these include Areas of Archaeological Potential. The cables would need to be laid within this area of archaeological potential. The other heritage constraints within the vicinity of the East City Centre link cables includes Industrial Heritage Records, Defence Heritage Records and Listed Buildings. These heritage constraints may put planning restrictions on developments in their vicinity and any development should not damage or disrupt these heritage features.

Technical constraints:

The technical constraints which impact the East City Centre link includes pluvial and fluvial flood extents as well as some areas of fluvial and pluvial 200yr climate change flood extents. These may prove to be a constraint as the flood extents often have poor ground conditions and difficult construction conditions. Flooding could also have an impact of the timing of works. There is also historic land use within the vicinity of the proposed cable which should ideally not be disturbed when the cables are laid.

Social constraints:

The social constraints which impact the East City Centre link include settlements and population density. Whilst cables are being laid, disruption could be caused to traffic which could cause an issue in the city centre, however this disruption would be relatively short.

Visual constraints:

The East City Centre link is not significantly impacted by any visual constraints as the laying of cables would have minimal visual impact.

3.6 Option 3c Constraints

Option 3c also involves new cables being laid close to Belfast city centre as well as the removal of the Carnmoney to Castlereagh section of the Ballylumford to Castlereagh 110kV double circuit. The removal of the Carnmoney to Castlereagh line of tower line would involve the constraints mentioned in section 3.3. The constraints affecting the new cables being laid in Belfast city centre include the following constraints.

Environmental constraints:

There are no significant environmental constraints impacting the Central Link.

Heritage constraints:

There are a number of heritage constraints in close proximity to the Central link, these include Areas of Archaeological Potential. The cables would need to be laid within this area of archaeological potential. The other heritage constraints within the vicinity of the Central link cables includes Industrial Heritage Records and Listed Buildings. These heritage constraints may put planning restrictions on developments in their vicinity and any development should not damage or disrupt these heritage features.

Technical constraints:

The technical constraints which impact the Central link includes pluvial and fluvial flood extents as well as some areas of fluvial and pluvial 200yr climate change flood extents. These may prove to be a constraint as the flood extents often have poor ground conditions and difficult construction conditions. Flooding could also have an impact of the timing of works. There is also historic land use within the vicinity of the proposed cable which should ideally not be disturbed when the cables are laid.

Social constraints:

The social constraints which impact the Central link include settlements and population density. Whilst cables are being laid, disruption could be caused to traffic which could cause an issue in the city centre, however this disruption would be relatively short.

Visual constraints:

The Central link is not significantly impacted by any visual constraints as the laying of cables would have minimal visual impact.

3.7 Option 4 Constraints

Option 4 involves the new cables being laid at Blacks Road as well the removal of the Carnmoney to Finaghy section of the Ballylumford to Castlereagh 110kV double circuit and the refurbishment of the Castlereagh to Finaghy section of the line. The constraints which impact the refurbishment of the line are mentioned in section 2.1 and the constraints impacting the removal of the line are mentioned in section 3.3.

Environmental constraints:

There are no significant environmental constraints impacting the Blacks Road Reinforcement.

Heritage constraints:

There are a number of heritage constraints in close proximity to the Blacks Road Reinforcement, these include Industrial Heritage Records, Defence Heritage Records, Scheduled Monuments and Listed Buildings. These heritage constraints may put planning restrictions on developments in their vicinity and any development should not damage or disrupt these heritage features.

Technical constraints:

The technical constraints which impact the Blacks Road Reinforcement includes pluvial and fluvial flood extents as well as some areas of fluvial and pluvial 200yr climate change flood extents. These may prove to be a constraint as the flood extents often have poor ground conditions and difficult construction conditions. Flooding could also have an impact of the timing of works. There is also historic land use within the vicinity of the proposed cable which should not be disturbed when the cables are laid.

Social constraints:

The social constraints which impact the Blacks Road Reinforcement include settlements and population density. Whilst cables are being laid, disruption could be caused to traffic which could cause an issue in the city centre, however this disruption would be relatively short.

Visual constraints:

The Blacks Road Reinforcement is not significantly impacted by any visual constraints as the laying of cables would have minimal visual impact.

3.8 Option 5 Constraints

Option 5 involved a hybrid phasing of Options 2 and 3a. As with option 2, this option would involve the removal of the Carnmoney to Castlereagh section of the Ballylumford to Castlereagh 110kV double circuit which would be done in two phases. Option 5 also involves new cables being laid near Belfast City Centre. The constraints impacting the removal of the Carnmoney to Castlereagh line are mentioned in section 3.3.

The constraints which impact the new cables being laid near Belfast City Centre are the same constraints which impact Option 3a, these are:

Environmental constraints:

There are no significant environmental constraints impacting the Sailortown Link.

Heritage constraints:

There are a number of heritage constraints in close proximity to the Sailortown link, these include Areas of Archaeological Potential. The cables would need to be laid within this area of archaeological potential. The other heritage constraints within the vicinity of the Sailortown link cables includes Industrial Heritage Records and Listed Buildings. These heritage constraints may put planning restrictions on developments in their vicinity and any development should not damage or disrupt these heritage features.

Technical constraints:

The technical constraints which impact the Sailortown link includes pluvial and fluvial flood extents as well as some areas of fluvial and pluvial 200yr climate change flood extents. These may prove to be a constraint as the flood extents often have poor ground conditions and difficult construction conditions. Flooding could also have an impact of the timing of works. There is also historic land use within the vicinity of the proposed cable which should ideally not be disturbed when the cables are laid.

Social constraints:

The social constraints which impact the Sailortown link include settlements and population density. Whilst cables are being laid, disruption could be caused to traffic which could cause an issue in the city centre, however this disruption would be relatively short.

Visual constraints:

The Sailortown link is not significantly impacted by any visual constraints as the laying of cables would have minimal visual impact.

4 CONSENTING REQUIREMENTS

4.1 Planning Considerations

The proposed Options comprise of a range of *built* elements including refurbishment works to existing tower foundations, re-stringing of conductors, extensions within and to existing substations, new substations and new 110kV cable connections. Whilst the detailed design information is not presently available, consideration is given below to the consent process which may be required in the delivery of the project.

Depending upon which Option is progressed, it is possible that the proposed works may be undertaken without requirement for planning permission, under the provisions of the Planning (General Permitted Development) Order (Northern Ireland) 2015, through which SONI, as statutory undertakers have permitted development rights.

The Order facilitates development of plant and equipment within *operational land* and the installation of underground cables without the need for a formal planning application and consent. Equally, refurbishment works at tower locations and restringing of conductors could potentially be facilitated under permitted development rights.

There are some caveats where permitted development rights do not apply (i.e. if the works are proposed within a site of archaeological interest) or the project is considered EIA development) but in broad terms, an Option which involved works within operational land and / or the installation of underground cable conductors, the works could qualify as permitted development and therefore not require planning permission.

For example, Option 2 involves the installation of a 4th IBTx at Castlereagh substation – on the basis that the IBTx would be located within the existing substation / operational lands (and would also meet some other criteria set out in the Planning (General Permitted Development) Order), the works could qualify as permitted development.

In the instance of Option 4 however, which would require a new substation *near Blacks Road*, (presumed to be) on a site which would not qualify as operational land, a full planning application would be required.

On the assumption of permitted development rights being applicable, SONI would have the option to deliver the works without requiring written consent from the planning authority. However, in order to provide a greater level of certainty prior to commencement of works, SONI may wish to avail of a Certificate of Lawful Proposed Use or Development (CoLPUD) which can be obtained from the relevant planning authority. Such a certificate is a legal document certifying the lawfulness of a proposed land use, buildings or operations.

In support of a CoLPUD application it will be necessary to demonstrate to the authority that the proposed development does not trigger any of the caveats that would result in permitted development rights being lost. Note also the implications of Environmental Impact Assessment (EIA) requirements in Section 4.2 in the consideration of permitted development matters.

In the event that an Option is progressed which involves development which would not be deliverable under permitted development rights, such as a new substation (not on operational land) or new 110kV overhead line, a full planning application would be necessary.

It is likely that any such planning application would be dealt with by the local planning authority, Belfast City Council and/or Lisburn City and Castlereagh Borough Council. It should be noted that the Planning (NI) Act gives the Department for Infrastructure (DfI) power to call in any application instead of letting it be assessed at local level.

Pre-application discussions with the planning authority are advisable from an early stage in the project. Depending on the consenting route, pre-application consultation with the local community / key stakeholders may be mandatory. Formal pre-application community consultation may be a requirement should the project be considered a *major application*.

4.2 Environmental Assessment

4.2.1 EIA / Environmental Screening

Permitted development rights do not apply to a proposal which is determined to be EIA development. The application of permitted development rights to the project, (under the provisions of a CoLPUD) is therefore

dependent on the determination that the project is not EIA development, as defined by the Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017.

The project does not automatically require an EIA under Schedule 1 of the Regulations; nor would the project fall under Schedule 2 as formally requiring an EIA determination as set out in the Regulations.

Equally, permitted development rights cannot automatically be applied where a development is located within a *sensitive area*, as defined by the EIA Regulations, without the project being determined as non-EIA development. As applicable to the project, sensitive areas include ASSIs and AONBs.

In consideration of the need for an EIA, clarification with the consenting authorities through a formal EIA screening determination is recommended. In the event that the project is determined as EIA development, permitted development rights can no longer apply, necessitating the submission of a full planning application and an accompanying Environmental Statement. In support of any EIA determination, it is suggested that a formal multi-disciplinary, EIA Screening and Scoping report are submitted.

Even with a negative determination for EIA, this process will help establish the nature and extent of the environmental assessment information required to support the consenting process. It will also identify all relevant consultees (statutory and non-statutory) and any other key stakeholders, and initiate discussions on specific topics.

Notably in respect of EIA, principles established by case law directs that, in considering whether any project constitutes EIA development, the consenting authority must consider the project in its entirety. In this instance, depending upon which Option is progressed, consideration must be given to all necessary works associated with the refurbishment of existing infrastructure (including access) or in the instance of an Option being progressed which includes the recovery of existing infrastructure, any such associated works would also be a consideration.

4.2.2 Habitats Regulation Assessment (HRA)

European Directives require assessment of the effects on designated sites (Natura 2000 network), including Special Protection Areas (SPAs) or Special Area of Conservations (SACs).

An Appropriate Assessment (AA) of the potential effects of a project on designated sites will be required in support of the consent applications. Surveys undertaken for the purposes of any EIA or environmental reporting will have a dual purpose, in that they will support the baseline assessment for the HRA also.

Whilst development of an Option may not directly impact upon one of the aforementioned designations, consideration must be given to *downstream* impacts which may arise where pathways to such sites are present, particularly in consideration of connections via watercourses which may connect into Belfast Lough which is both an SPA and SAC.

HRA is required to take into consideration the totality of the proposed development and is best done when there is sufficient certainty about the project technology, footprint and construction methods; the stage 1 and 2 AA would likely occur in parallel with EIA assessment.

It is good practice for a developer to submit a ‘shadow’ HRA report (or reports) along with a consent application to guide the competent authority on the range of potential effects and likely significant effects that may arise, and support a robust assessment under the relevant legislation.

4.2.3 Environmental Assessment

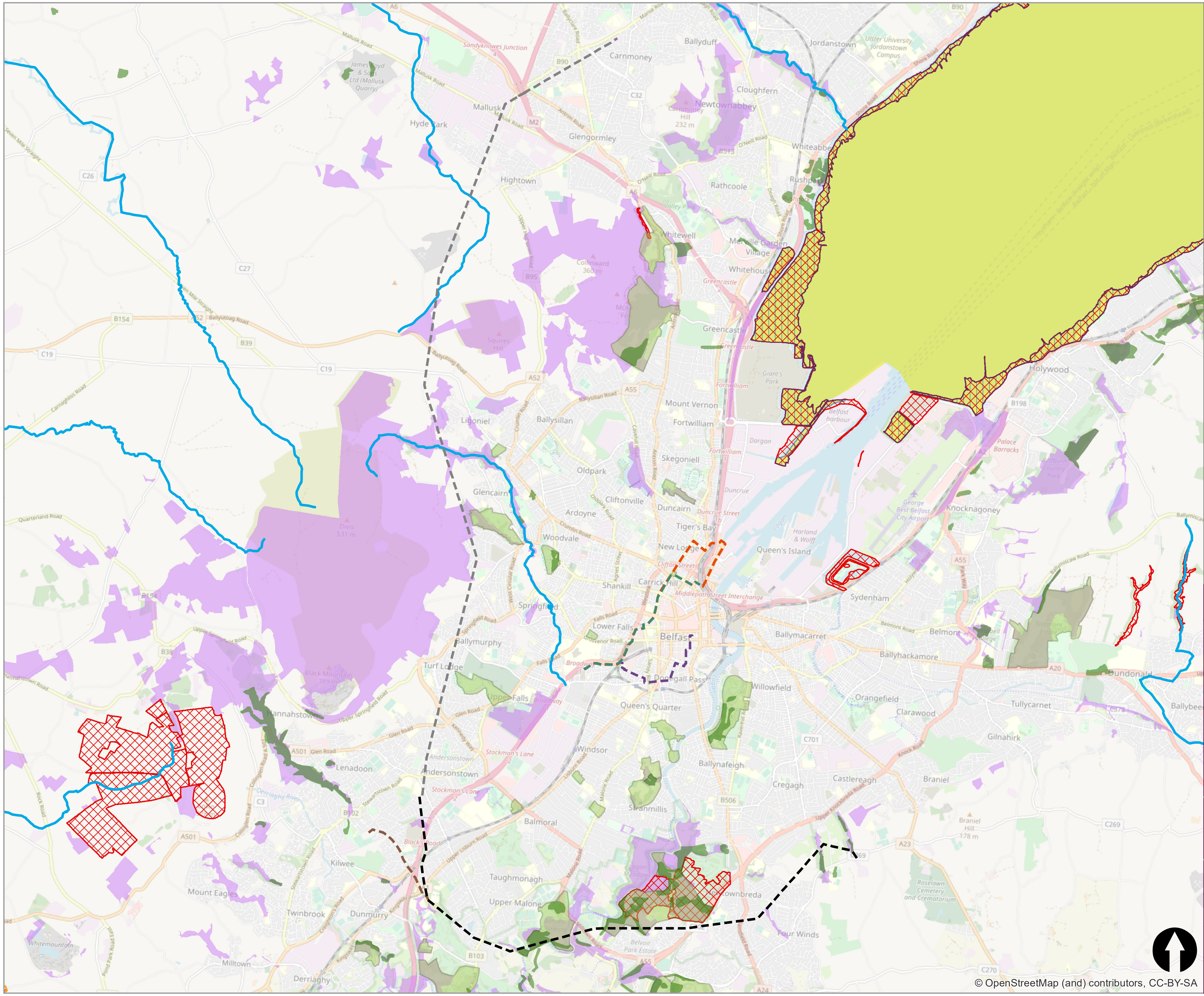
It is expected that the project will require a considerable level of environmental information, to support an application for consent – as demonstrated in the constraints study, there a wide range of constraints throughout the area within which the various Options are located.

The likely environmental effects and interactions with these constraints will largely be dependent upon which Option is progressed. As a result of the aforementioned EIA screening and scoping processes, it will be possible to establish the nature and extent of the supporting environmental information required in support of a consenting application.

Typical matters which will be the subject of EIA (or individual *standalone* assessment reports in the event of a negative EIA determination), may include the following (this list is not exhaustive):

- Terrestrial Ecology;
- Ornithology;
- Water Quality,
- Fisheries;
- Plans & Policies;
- Air Quality;
- Noise and Vibration;
- Construction and Traffic;
- Landscape and Visual;
- Cultural Heritage;
- Geology and Soils;
- Contamination (Preliminary Risk Assessment);
- Flood Risk.

Appendix 1 Constraints Mapping



Castlereagh-Finaghy Line
Carnmoney-Finaghy Line
Blacks Road Reinforcement
Belfast Central Reinforcement
East City Centre Reinforcement
Sailortown Reinforcement
Salmon Rivers
Salmon Lakes
Potenital Ancient Woodland
Historic Parks & Gardens
NNR & NR
Ramsar
ASSI
SLNCI
SPAs
SACs

rev	ammendments	drawn	date

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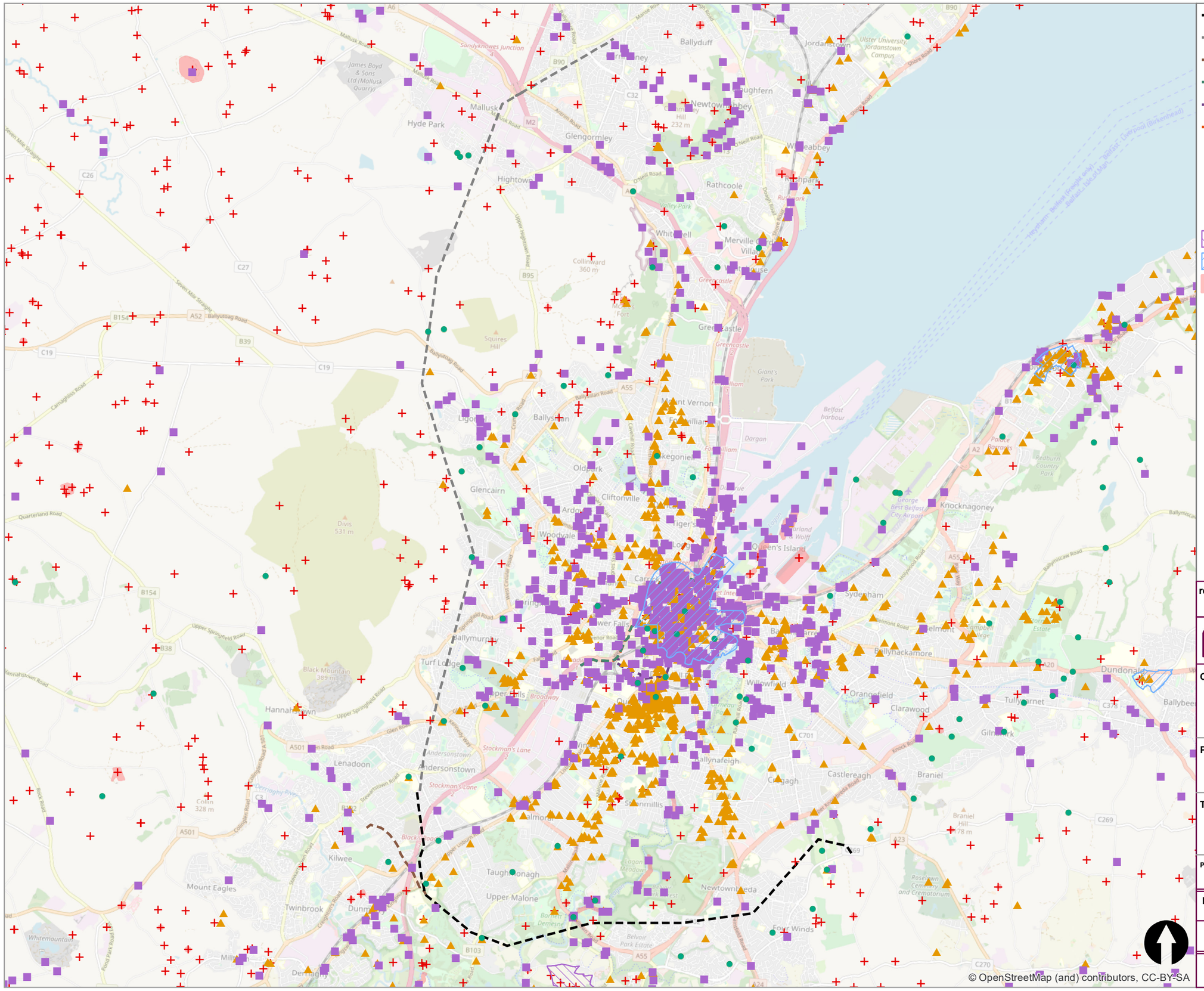
TITLE
Environmental Constraints

Project Number	Sheet Size	Drawing Scale
IBE1767	A3	1:62500

Drawing Number	Datum
IBE1767/Environmental	--

Drawn by	Status	Revision
KC	D	0

Checked By	Approved By	Date
RB	RB	13/10/2020



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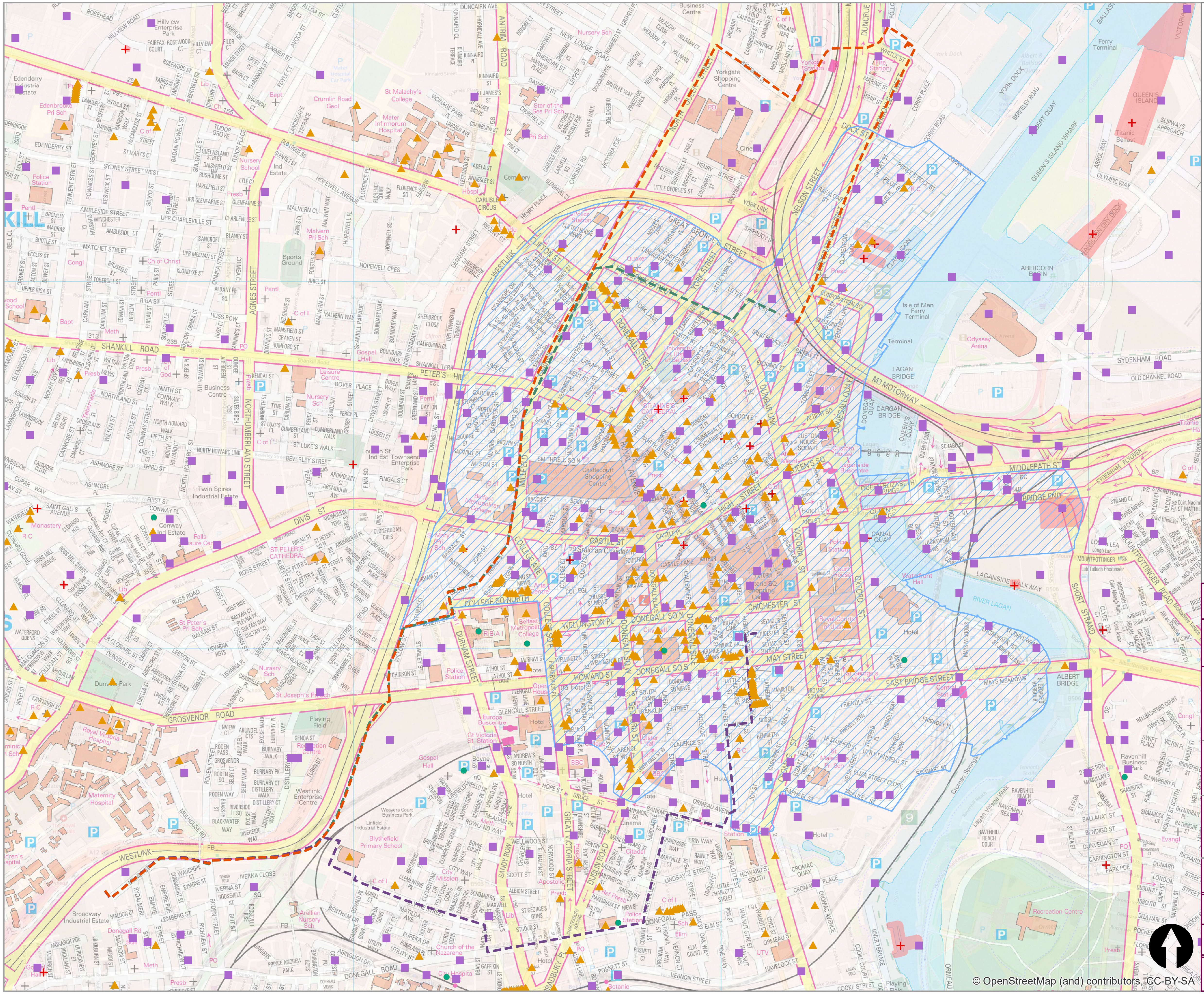

- Defence Heritage Record
- Industrial Heritage Record
- Listed Buildings
- Scheduled Monument Record
- Sailortown Reinforcement
- East City Centre Reinforcement
- Belfast Central Reinforcement
- Blacks Road Reinforcement
- Castlereagh-Finaghy Line
- Carnmoney-Finaghy Line
- Areas Archaeological Potential
- Areas Significant Archaeological Interest
- Scheduled Zones

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Drawing Number	Datum
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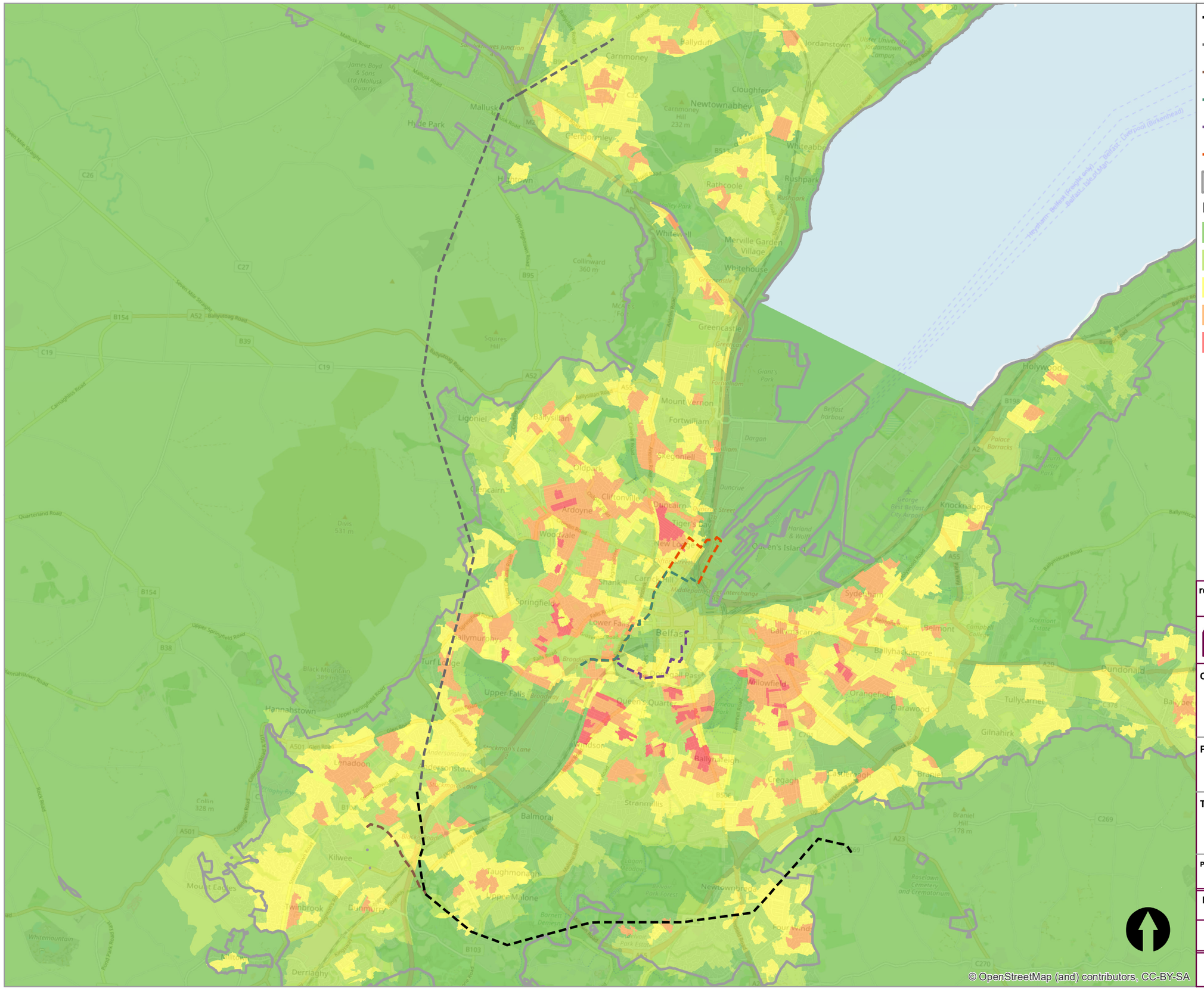

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Social Constraints

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Drawing Number	Datum
IBE1767/Social	--

Drawn by	Status	Revision
KC	D	0

Checked By	Approved By	Date
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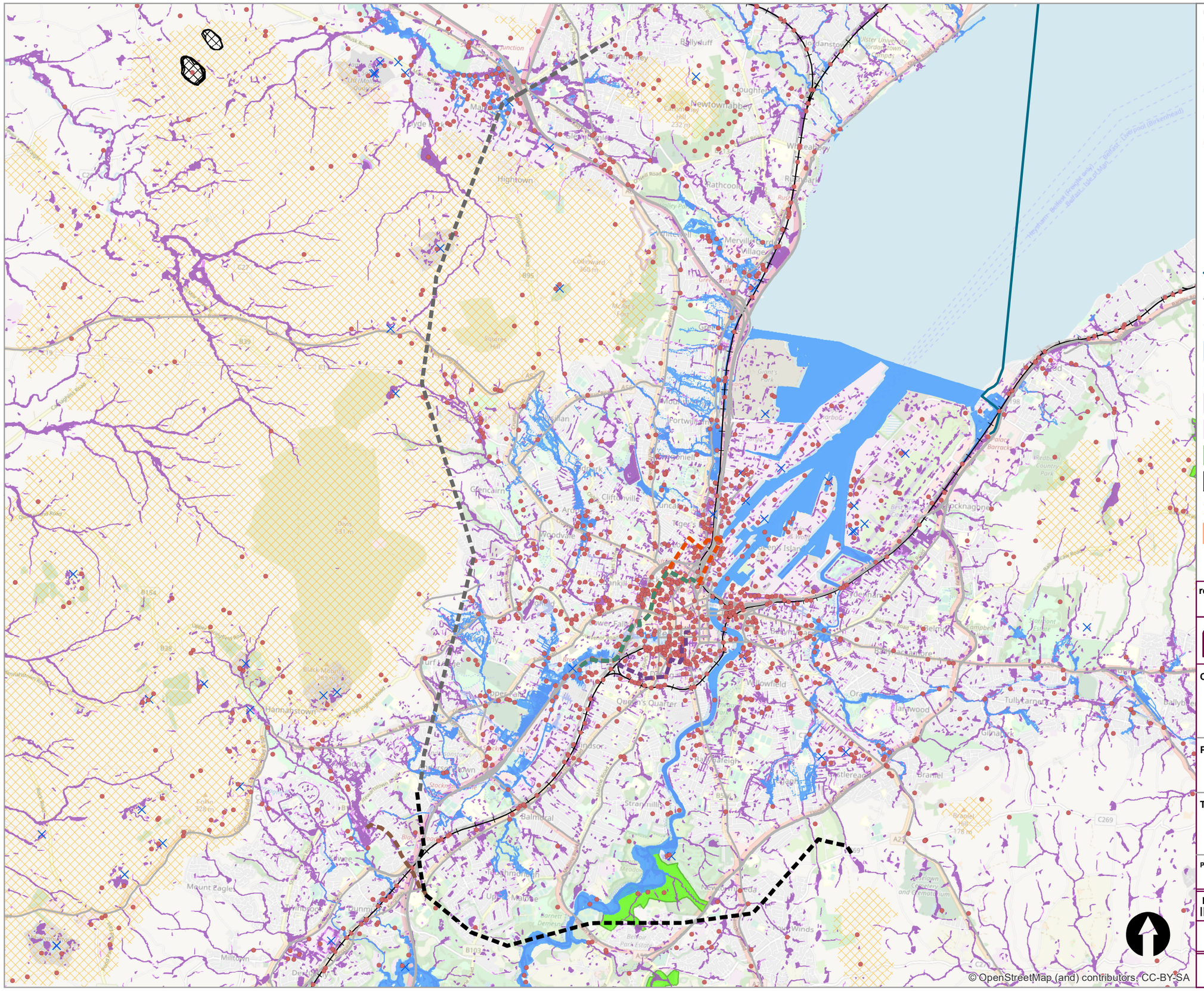

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Technical Constraints & Opportunities Overview

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IBE1767	A3	1:62500

Drawing Number	Datum
IBE1767/Technical Overview	--

Drawn by	Status	Revision
KC	D	0

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Technical Constraints & Opportunities Belfast

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Drawn by	Status	Revision
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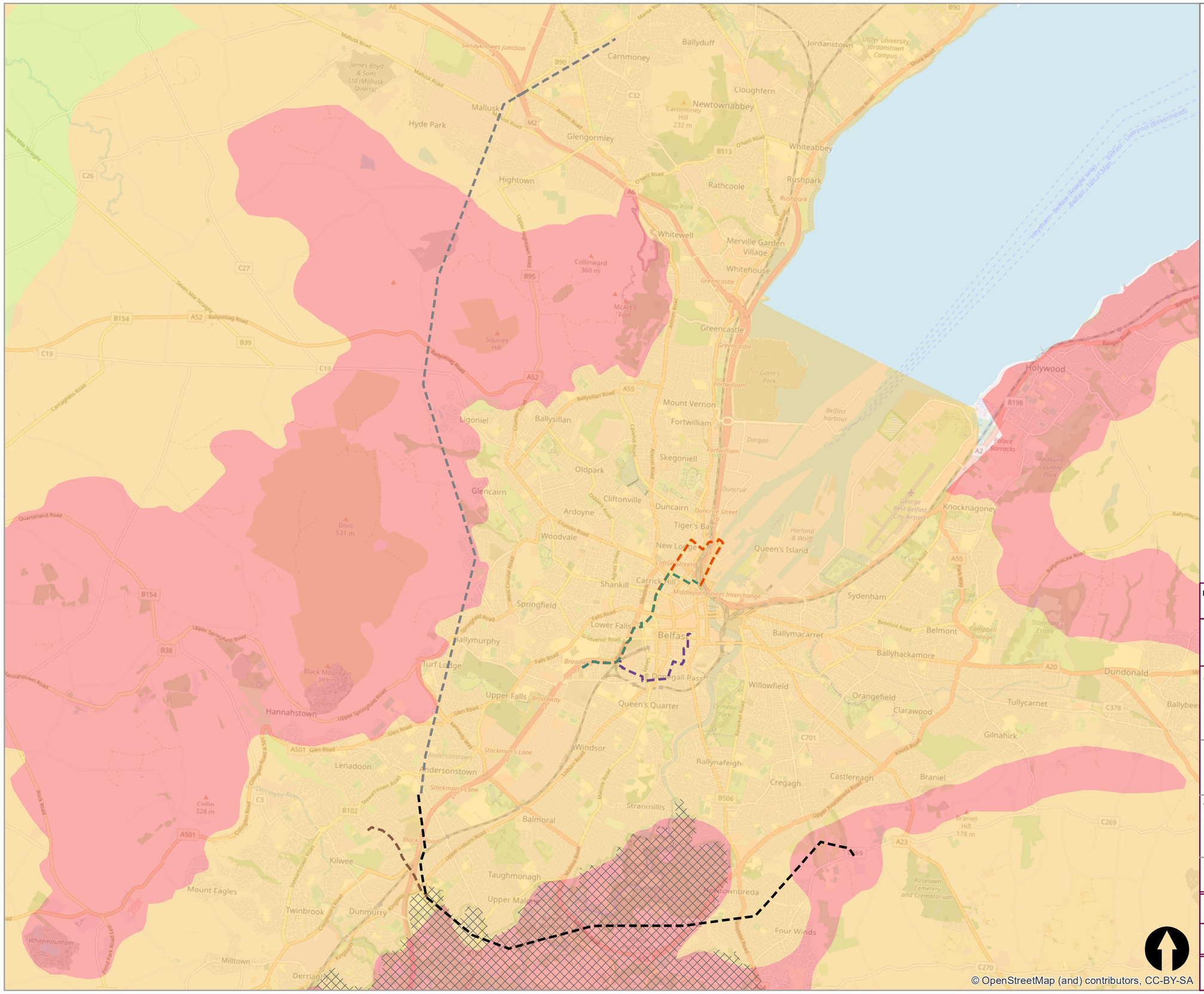

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Visual Constraints

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IBE1767	A3	1:62500

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