EPICENTRE
CONSULTING ENGINEERS

Planning Proposal
36-42, 42A & 44 Short St, Mudgee
Infrastructure Services Review

2-14 Vine St
Redfern NSW 2016
ABN: 48 645 997 780

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1. Introduction

1.1. Purpose

This document is to form the basis of the infrastructure review to support a planning proposal for the site located at 36-42, 42A & 44 Short St Mudgee.

1.2. Site location

Figure 1.1 Proposed site – 36-42, 42A & 44 Short St Mudgee

1.3. Proposed development

The Planning Proposal seeks an increase in the maximum height of the building to 10.5m in order to accommodate approximately 28 apartments over three (3) levels with a level of basement parking.

Figure 1.2 Proposed development – 36-42, 42A & 44 Short St Mudgee

All assessments within this report have taken this configuration as a base case.

1.4. Author Details

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1.5. Information Sources

- Information provided through DBYD
- David Webster (Development & Design Engineer, Operations Mid-Western Regional Council)
- Meredith Mitchell (Administration, Water & Sewer Operations Mid-Western Regional Council)

1.6. Disclaimer of Liability

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1.9. Abbreviations

AS	Australian Standards
DBYD	Dial Before you Dig
CI	Cast Iron
CICL	Cast Iron Concrete Lined
DA	Development Application
Dia	Diameter (distance)
DICL	Ductile Iron Concrete Lined
kL	Kilolitres (volume)
kPa	Kilopascals (pressure)
L/s	Litres per second (flow)
LPG	Liquified petroleum gas
m	Meters (distance)
m^2	Meters squared (area)
mm	Millimetres (distance)
NY	Nylon
PE	Polyethylene

SGV	Salt Glazed Ware
ST	Steel
uPVC	Unplasticised polyvinylchloride
VC	Vitrified clay

1.10. Revision History

Revision	Date Issued	Comment
A	**31/07/2023**	**Draft Review**
B	**09/08/2023**	**Draft Review**
C	**11/08/2023**	**Client Issue**
D	**27/10/2023**	**Client Issue - Revised**

2. Hydraulic Services

2.1. Existing infrastructure

The following outlines the existing hydraulic services adjacent to the proposed sites:

2.1.1. Water Supply

Based on the Mid-Western Regional Council mains plans, the site is serviced by a water main which runs along the northern side of Short St. This line is a 200mm DICL service.

We have made an application for a Statement of Pressure and Flow for the Mid-Western Regional Council 200mm mains. At the time of this report we were still awaiting a response from Council with the pressure and flow results.

The services map from Mid-Western Regional Council is included in Appendix A.

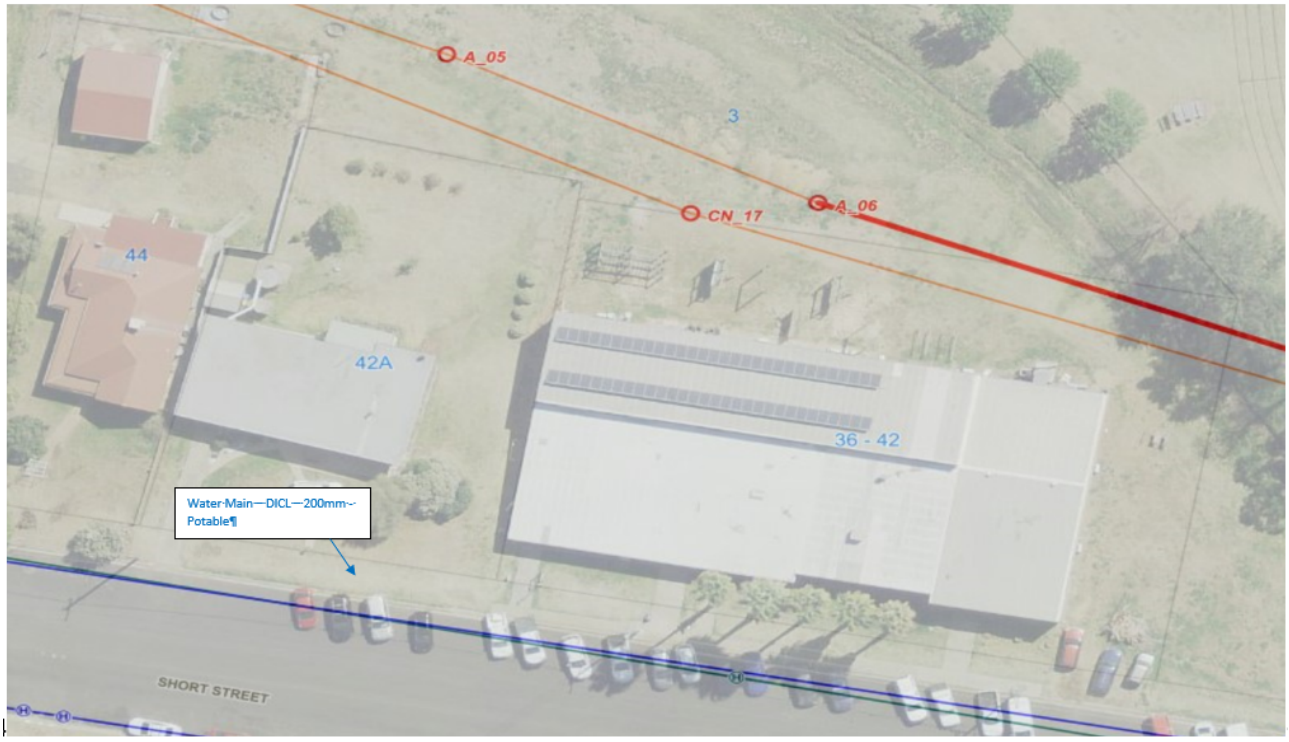

Figure 2.1 – Water main - 200mm pipework location shown in blue

2.1.2. Irrigation

Based on the Mid-Western Regional Council mains plans, the site is flanked by an irrigation main which runs along the northern side of Short St. This line is a 300mm DICL service. This service is for Council only and not for connection as part of this development.

The services map from Mid-Western Regional Council is included in Appendix A.

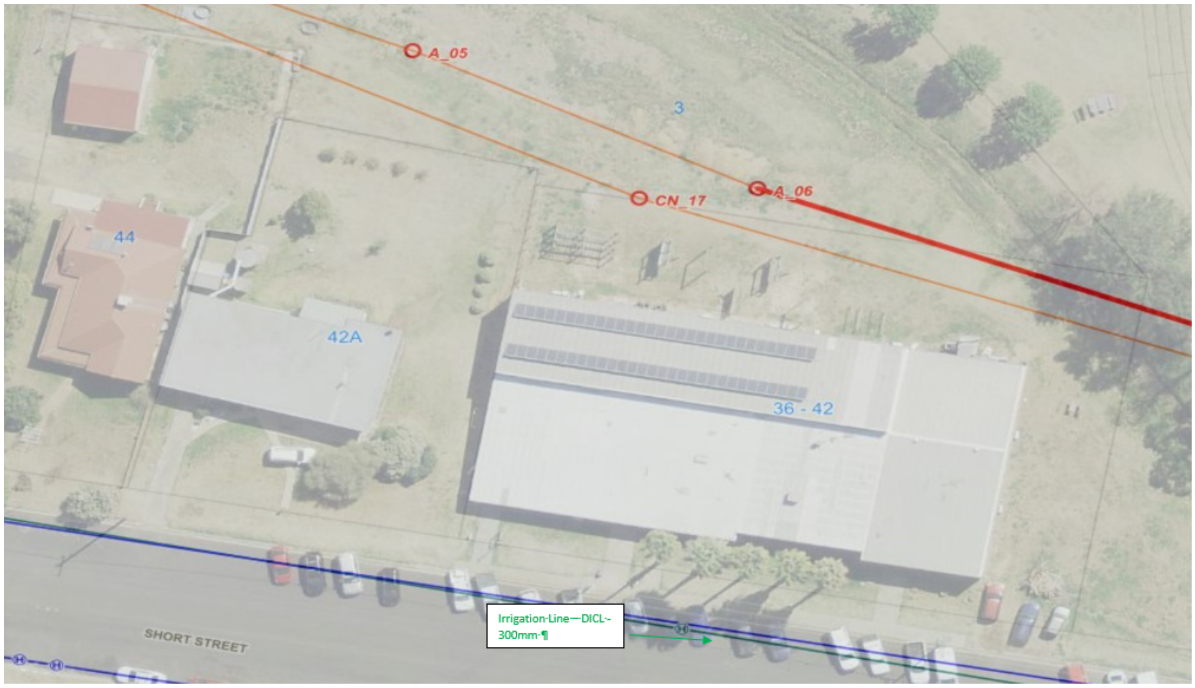

Figure 2.3 – Irrigation main - 300mm pipework location shown in green

2.1.3. Gas Supply

There is no gas supply within the vicinity of the site. Any gas required for the site will need to be provided as a LPG supply.

2.1.4. Sanitary

Based on the Mid-Western Regional Council mains plans, the sewer reticulates on the northern side of the site, entering the site just east of the boundary between 36-42, 42A & 44 Short St. There are two lines which roughly run in parallel, cutting the northeastern corner of the site diagonally.

The line closest to the south is a 450mm concrete trunk gravity sewer main. This line is not permitted for connection and while there is no formal easement, there is still an implied easement in relation to the proximity of construction near the asset. From information provided by David Webster of Mid-Western Regional Council, no construction can occur within 1.5m of the trunk main. It should be further noted that the zone of influence will apply for any below ground structure that may affect the ground on which the trunk main sits.

The line closest to the north is a 375mm concrete gravity sewer main. This line is permitted for connection. On enquiries with Council, chamber A06 (located at the rear of 36-42 Short St) is 2.55m deep to invert. Chamber A05 (located at the rear of 42A Short St) is 2.15m deep to invert.

Image 2.1 – Sewer access chambers

Image 2.2 – Sewer access chambers

Chamber CN16 (located on the trunk main, has a 4.0m depth to invert. At this depth there shouldn't be an impediment to crossing the line to connect to the service main, but this will require confirmation on site.

A full Mid-Western Regional Council mains map is available in Appendix A.

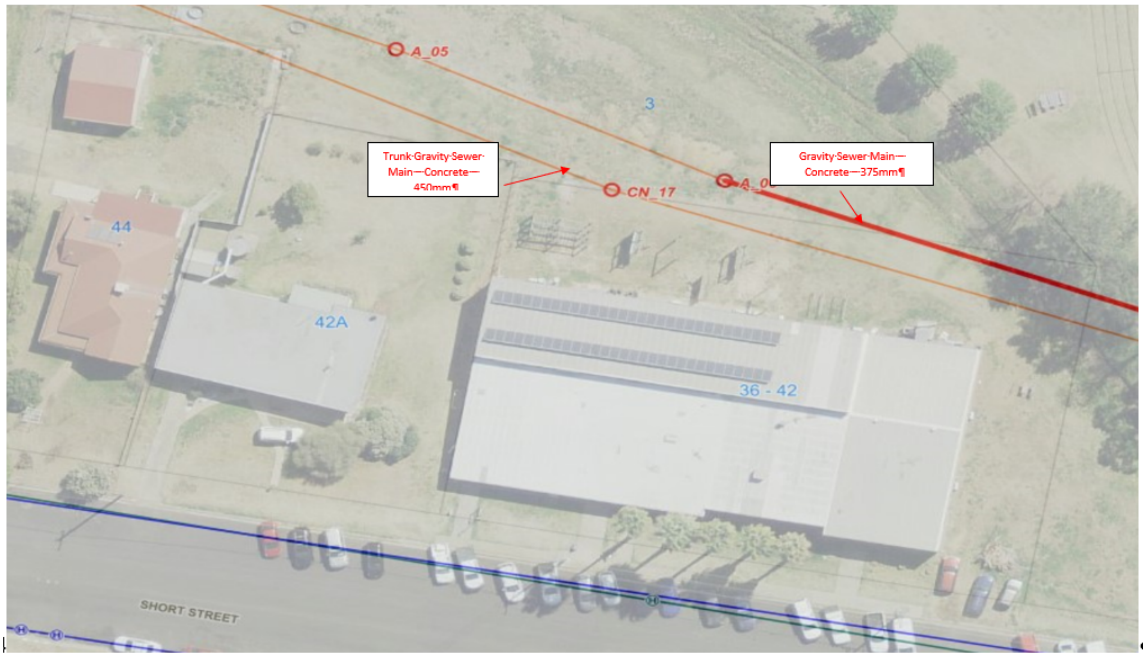

Figure 2.4 – Sewer main

3. Telecommunications

3.1. Existing infrastructure

The following outlines the existing telecommunications services adjacent to the proposed site:

3.1.1. NBN Network

Based on the NBN dial before you dig plans, there is existing NBN infrastructure in the vicinity the project site. There are a number of NBN pits provided around the site along Short St and Court St. Final connection arrangement to be determined by formal application to NBN Co.

The figure below depicts NBN pits and pipes infrastructure is available on Short St and Court St along the development.

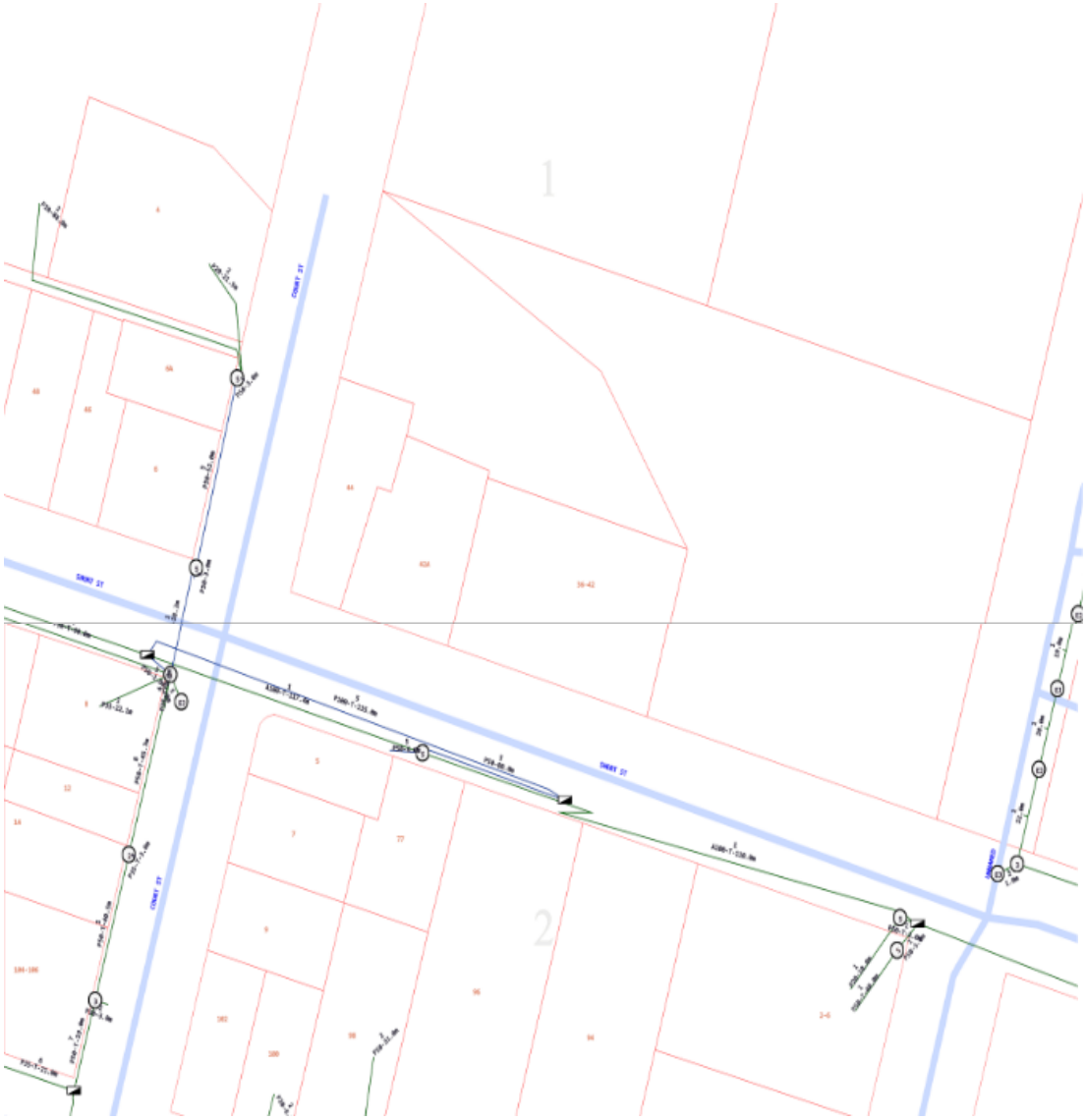

Figure 3.1 –NBN services located near development

Refer to Appendix B for NBN network in proximity to the development.

3.1.2. Telstra Network

Based on the Telstra dial before you dig plans, there is existing Telstra infrastructure entering the project site. There are a number of Telstra pits provided around the site along Short St and Court St which are now utilised by NBN to run fibre Optic cabling. Final connection arrangement to be determined by formal application to NBN Co.

The figure below depicts existing Telstra pits and pipes infrastructure is available on Short St and Court St along the development.

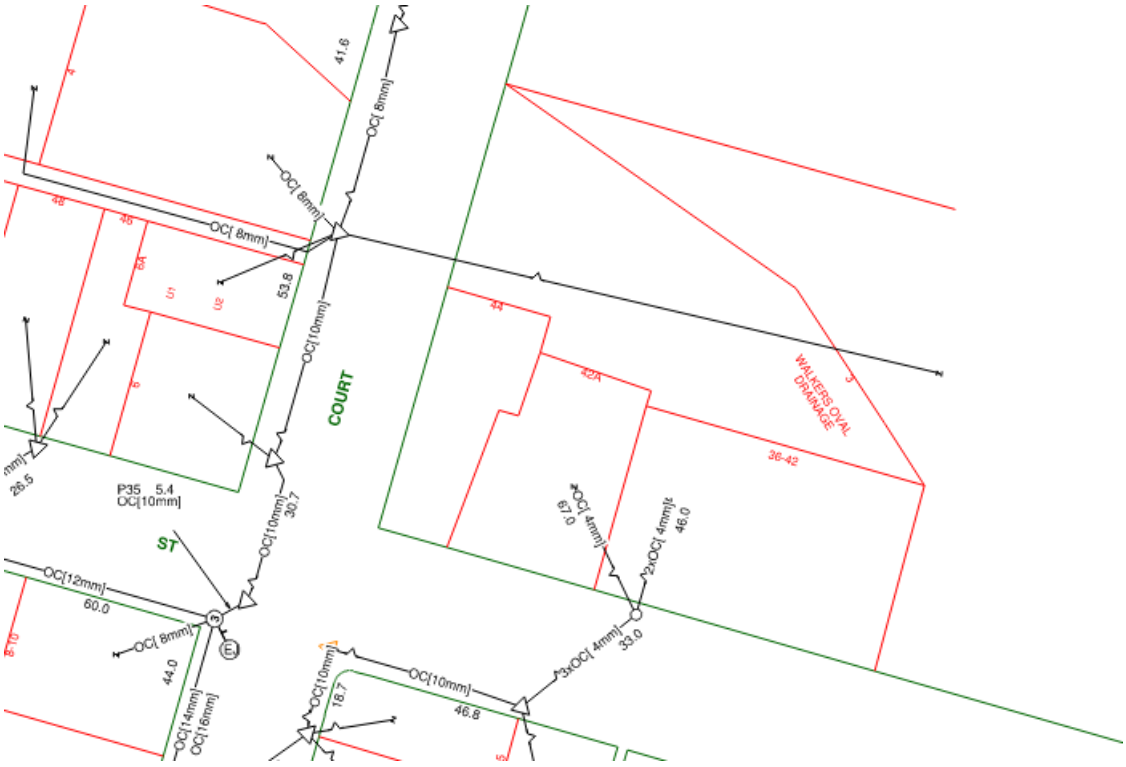

Figure 3.1 –NBN services located near development

Refer to Appendix C for Telstra network in proximity to the development.

4. Electrical Services

4.1. Existing infrastructure

The following outlines the existing power services adjacent to the proposed site:

4.2. Essential Energy

Based on the Essential Energy DBYD data there are existing services available within the vicinity of the site.

An application for a new load connection will have to be submitted with a maximum demand calculation (Approx. 250A – 400A per phase) to determine the exact method of supply and the power supply arrangement.

The following figure shows the presence of existing overhead high voltage and low voltage infrastructure running along the project site on Short Street.

Refer to Appendix D for Essential Energy network in proximity to the development.

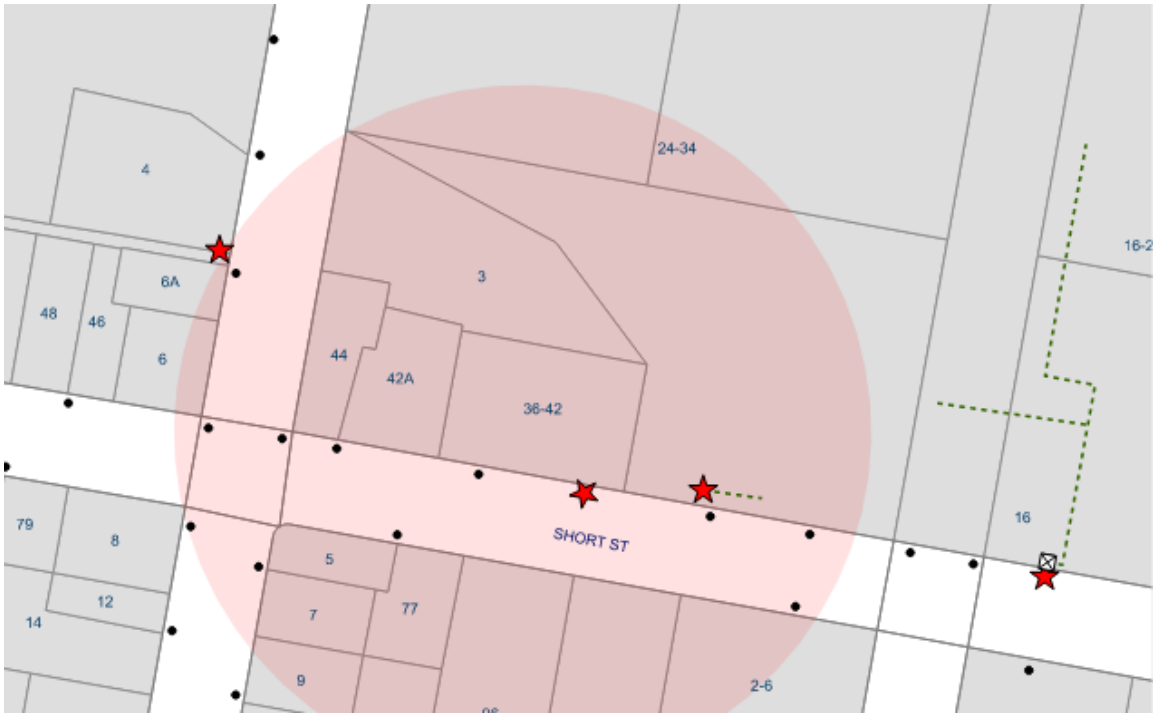

Figure 4.1- Essential Energy services located on Short Street

5. Recommendations

5.1. Mid-Western Regional Council Applications

Prior to the submission of the Development Application, A full set of your development plans (including a site plan) need to be submitted to Mid-Western Regional Council for approval to ensure there is no impact on assets prior to the submission of a DA.

Further details on the Application requirements are available at https://www.midwestern.nsw.gov.au/Services/Water-services

5.2. Water Supply

Based on the information provided, and on discussion with our Mid-Western Regional Council, the connection may be made from the 200mm water service to the site. For a development as proposed, generally a 200mm main should be sufficient for the site as 40mm incoming water service would cater for the probable simultaneous demand to the apartments.

Further assessments will need to be conducted with Mid-Western Regional Council once the full extent of the development is known. This will allow us to confirm the requirements of any amplification or connections.

5.3. Sanitary

Based on the information provided, and on discussion with a Mid-Western Regional Council, the 375mm service will be the sewer line that the development will connect to. Based on the size of the development, we estimate a connection size of 150mm. The existing 375mm should be sufficient for a project of this size. Further assessments will need to be conducted with Mid-Western Regional Council once the full extent of the development is known to determine the line capacity. This will allow us to confirm the location of any amplification or connections.

The existing 450mm trunk main which runs parallel with the sewer service will need to be considered as part of the design. There will be a requirement to either locate any building clear of this line or protect the service depending on the final configuration of the proposed development. Protection of the service to allow for development closer to the service will need to be confirmed with Mid-Western Regional Council prior to the commencement of any design works.

5.4. NBN

There is NBN available within the vicinity of this development, therefore, can be easily reticulated into this development. Final application, confirmation, and liaison with NBN is required.

5.5. Telstra

Due to the availability of NBN, other network provider services to be confirmed by the developer.

5.6. Essential Energy

HV & LV network are available along the development and further investigation needs to occur to determine the power supply arrangement to site whether via a new pad mount substation on site or a pole mount transformer or via a LV distributor for the new development once a formal application is made to Essential Energy.

An application for a new load connection will have to be submitted with a maximum demand calculation.

6. Appendix A – Mid-Western Regional Council Mains Maps

Main·Information·-·36·-42a·Short·Street,·Mudgee¶

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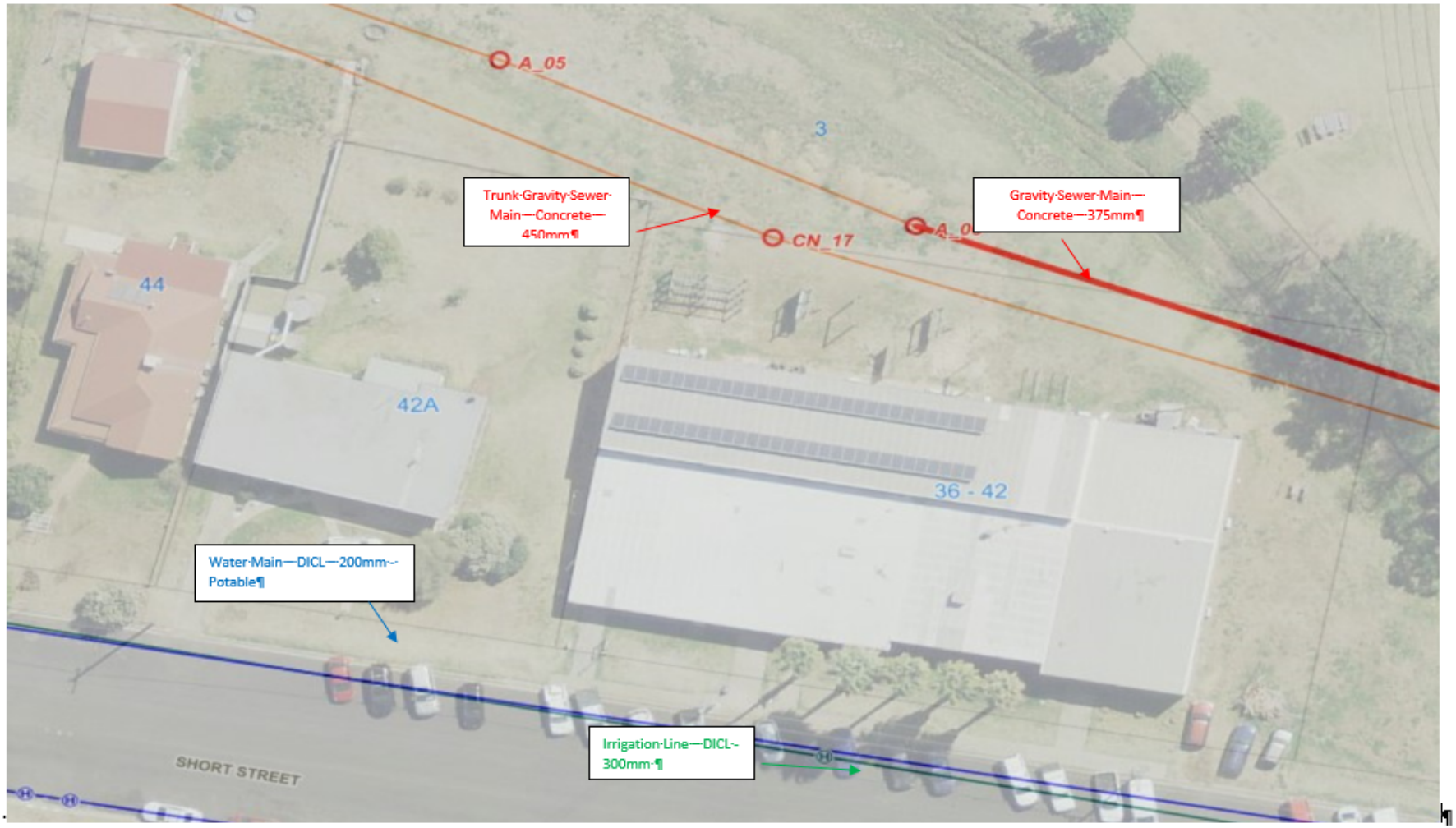

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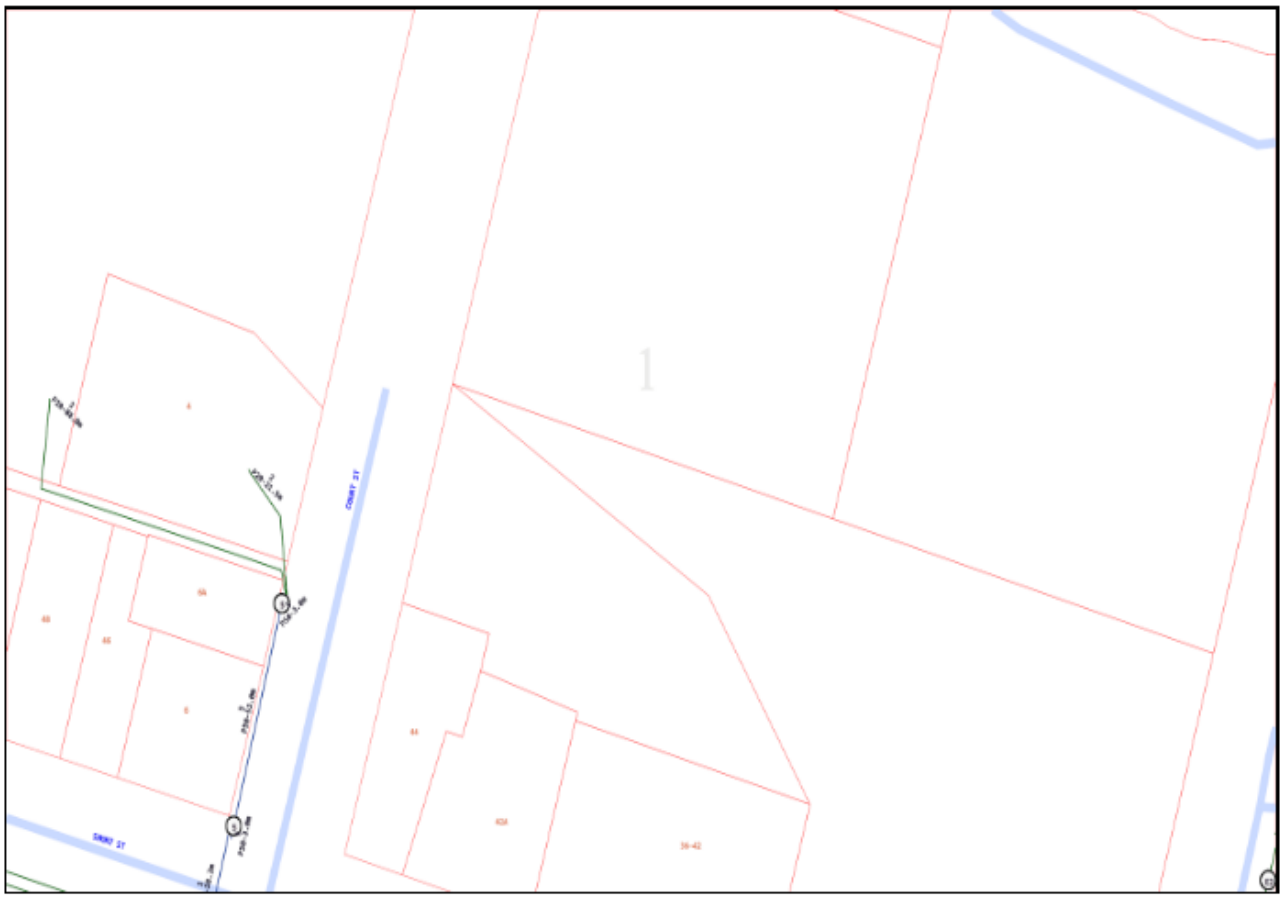
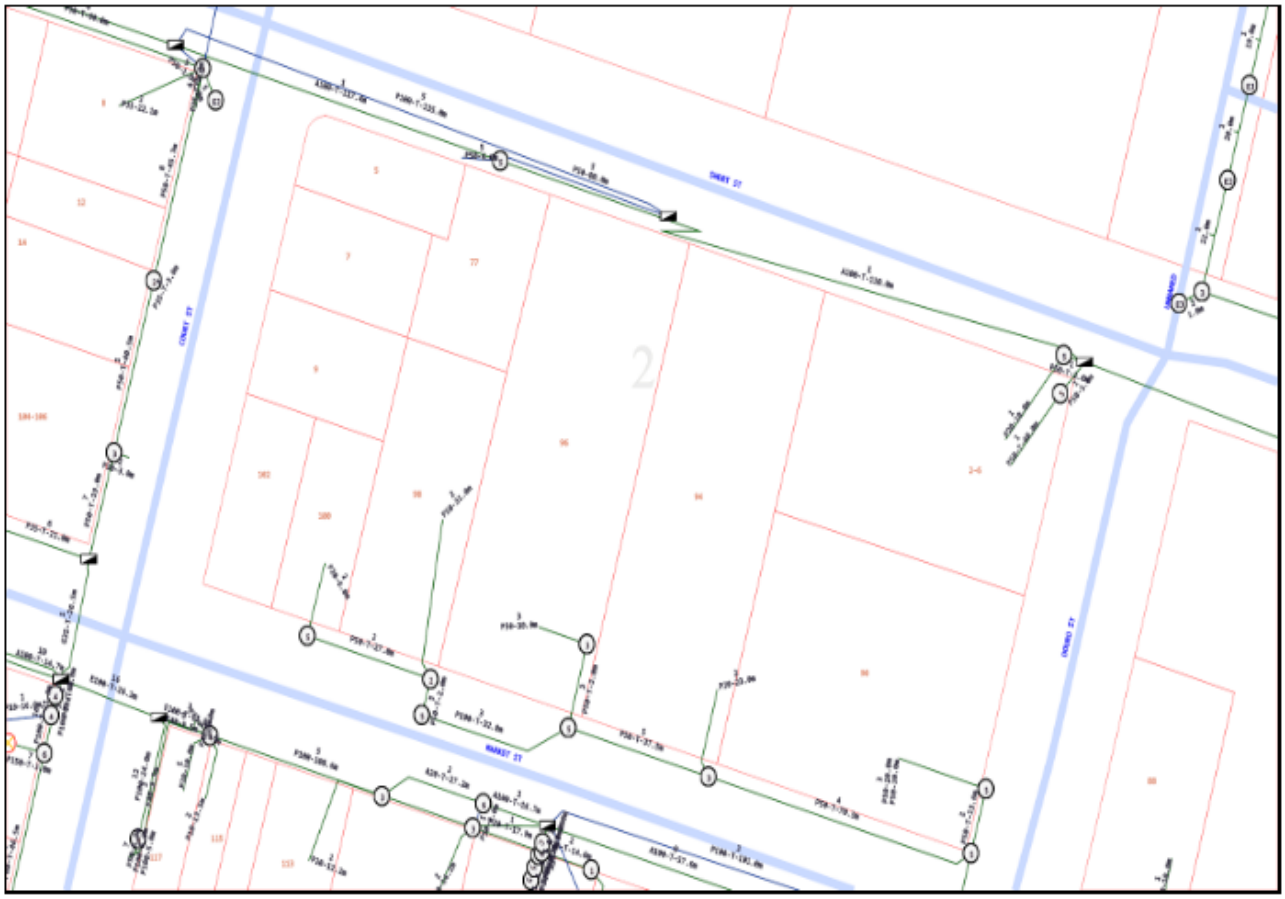
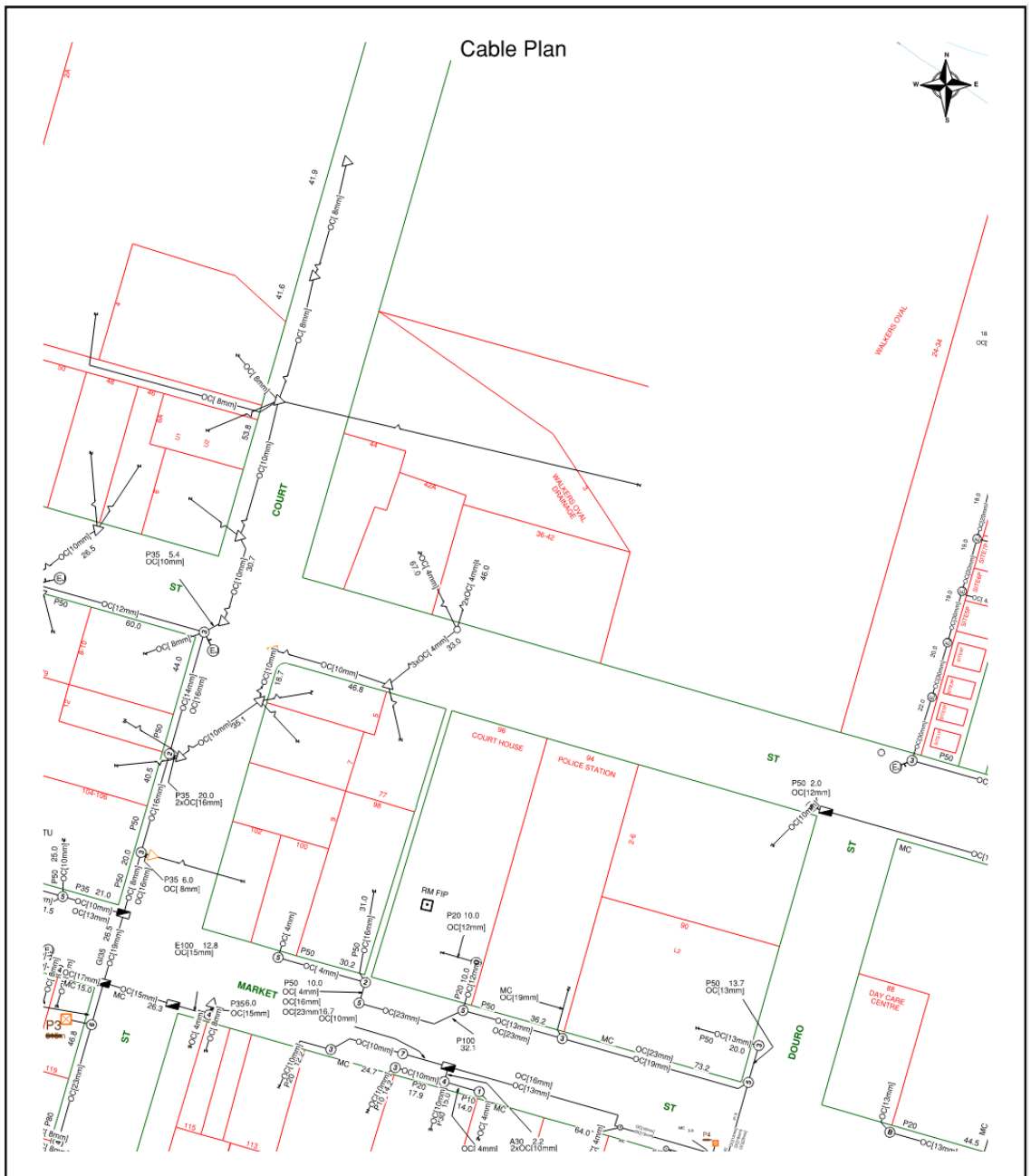
7. Appendix B – NBN Co Map





8. Appendix C – Telstra Maps



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The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

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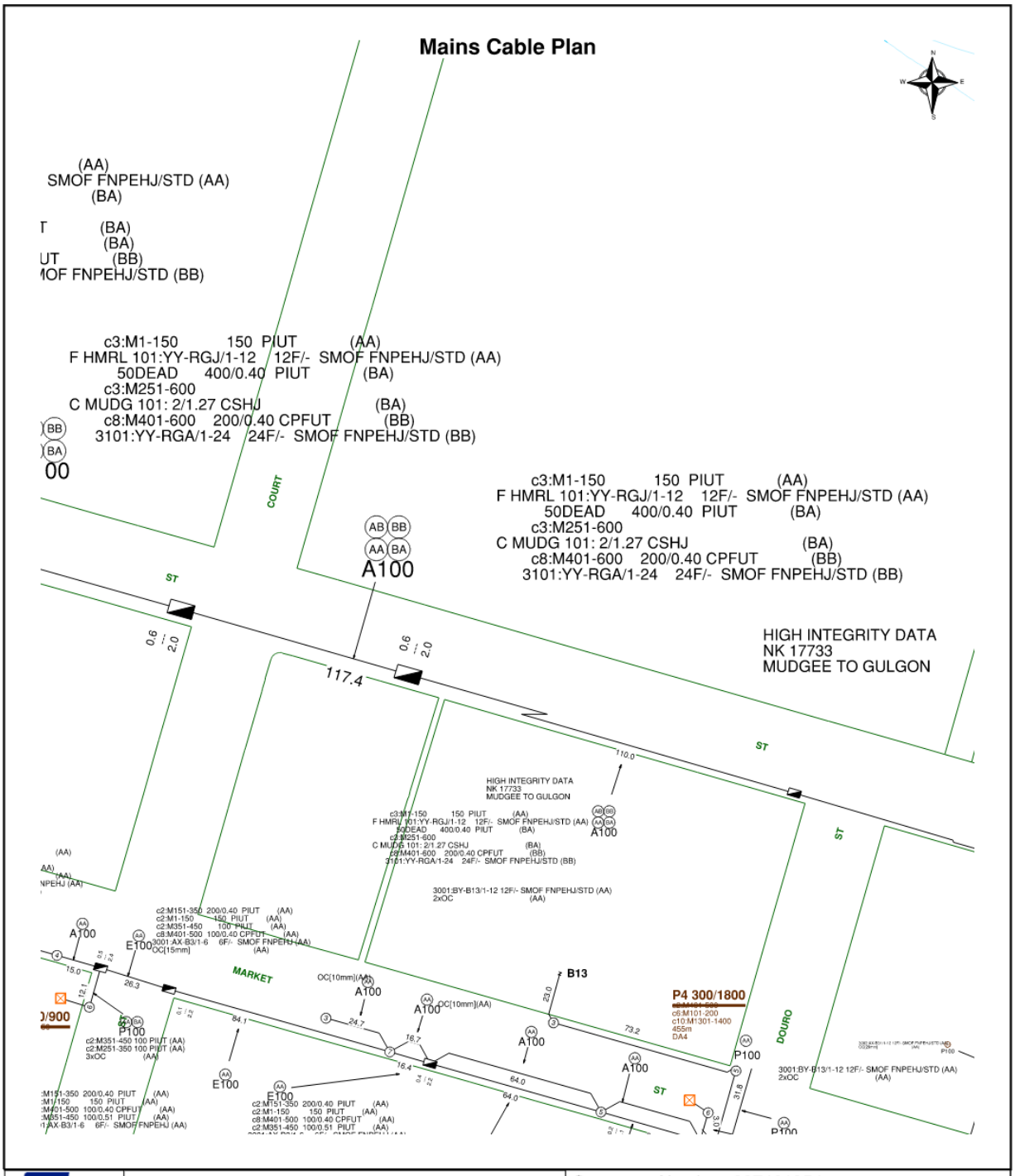
See the Steps- Telstra Duty of Care that was provided in the email response.



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9. Appendix D – Essential Energy Maps