



Llywodraeth Cymru
Welsh Government



Ffordd Osgoi'r Drenwydd A483/A489

Adroddiad Asesu Cynllun
Cam 3

Tachwedd 2014

A483/A489 Newtown Bypass

Stage 3
Scheme Assessment Report

November 2014

Cynnwys

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Diben y Ddogfen hon

Mae Gweinidogion Cymru yn cynnig y dylid darparu Cefnffordd 6.5km o hyd i'r de o'r Drenwydd ym Mhowys, a fyddai'n cysylltu Cefnffordd yr A489 a'r A483. Enw'r cynllun arfaethedig yw Ffordd Osgoi'r Drenwydd A483/A489 (cyfeirir ato fel y "Cynllun").

Mae'r ddogfen hon, sef Adroddiad Asesu Cynllun Cam 3 (yr Adroddiad), yn disgrifio'r agweddau ar y cynigion nad ydynt yn ymwneud â'r amgylchedd. Mae'r Adroddiad yn ategu'r Gorchmynion drafft a gyhoeddwyd ar gyfer y Cynllun, sef:

- **Gorchymyn Cefnffordd Abertawe i Fanceinion (yr A483) a Chefnffordd y Drenwydd i Aberystwyth (yr A489) (Ffordd Osgoi'r Drenwydd a thynnu statws Cefnffordd) 201-**
- **Gorchymyn Cefnffordd Abertawe i Fanceinion (yr A483) a Chefnffordd y Drenwydd i Aberystwyth (yr A489) (Ffordd Ymyl Ffordd Osgoi'r Drenwydd) 201-**
- **Gorchymyn Prynu Gorfodol Gweinidogion Cymru (Cefnffordd Abertawe i Fanceinion (yr A483) a Chefnffordd y Drenwydd i Aberystwyth (yr A489) Ffordd Osgoi'r Drenwydd) 201-**

Mae Datganiad Amgylcheddol (DA) wedi'i baratoi sy'n nodi'r prif effeithiau amgylcheddol ar yr amgylchedd artiffisial a'r amgylchedd naturiol a sy'n disgrifio'r mesurau arfaethedig i osgoi, unioni neu leihau'r effeithiau a gwella'r amgylchedd lle y bo'n berthnasol.

Mae Crynodeb Annhechnegol (CA) yn crynhoi'r Datganiad Amgylcheddol (DA) yn syml. Dylid darllen yr Adroddiad hwn ar y cyd â'r CA. Diben y dogfennau hyn yw sicrhau bod pawb sydd â diddordeb yn y Cynllun yn deall y cynigion ac yn cael y cyfle i fynegi barn arnynt, gan alluogi Gweinidogion Cymru i benderfynu a ddylid bwrw ymlaen â'r Cynllun

Purpose of this Document

The Welsh Ministers propose to provide a 6.5km long Trunk Road to the south of Newtown in Powys, which would link the A489 and A483 Trunk Roads. The proposed scheme is entitled the A483/A489 Newtown Bypass (hereinafter referred to as the "Scheme").

This document, the Stage 3 Scheme Assessment Report (SAR), describes the non-environmental aspects of the proposals. The SAR supports the draft Orders published for the Scheme, namely:

- **The Swansea to Manchester Trunk Road (A483) and the Newtown to Aberystwyth Trunk Road (A489) (Newtown Bypass and de-trunking) order 201-**
- **The Swansea to Manchester Trunk Road (A483) and the Newtown to Aberystwyth Trunk Road (A489) (Newtown Bypass Side Roads) Order 201-**
- **The Welsh Ministers (the Swansea to Manchester Trunk Road (A483) and the Newtown to Aberystwyth Trunk Road (A489) (Newtown Bypass) Compulsory Purchase Order 201-**

An Environmental Statement (ES) has been prepared which identifies the main environmental effects on both the manmade and natural environment and describes the proposed measures to avoid, remedy or reduce impacts and provide environmental enhancement where relevant.

A Non-Technical Summary (NTS) summarises in a non-technical language the Environmental Statement (ES). This SAR should be read with the NTS. The purpose of these documents is to ensure that all those with an interest in the Scheme, understand the proposals and are given the opportunity to express an opinion, enabling the Welsh Ministers to decide whether to proceed with the Scheme.

Cyflwyniad

Gweinidogion Cymru sy'n gyfrifol am gefnffyrdd yng Nghymru ac maent yn cynnig y dylid darparu cefnffordd i'r de o'r Drenewydd ym Mhowys, a fydd yn cysylltu Cefnffyrdd yr A489 a'r A483.

Cynhaliwyd cryn dipyn o waith yn y gorffennol i nodi problemau traffig yn y Drenewydd, gan ddechrau yn 1969. Cyhoeddwyd y Llwybr Dewisol yn 1973. Comisiynwyd astudiaeth bellach gan Lywodraeth Cymru i asesu'r problemau trafndiaeth a oedd yn gysylltiedig â'r A483(T) a'r A489(T) drwy'r Drenewydd yn 2006. Daeth i'r casgliad ei bod yn debygol mai gwella'r ffordd neu adeiladu ffordd osgoi, a fyddai'n osgoi'r cyfyngiadau uchdwr isel ac yn lleihau tagfeydd traffig yn y dref, fyddai'r unig ateb derbyniol i'r problemau dan sylw. O ganlyniad, cyhoeddwyd y Llwybr Dewisol yn 2010. Yn dilyn ymchwiliadau pellach, cyhoeddwyd y Llwybr Dewisol wedi'i addasu ym mis Mawrth 2014, sef yr aliniad y cyfeirir ato yn y Gorchmynion drafft ac a ddisgrifir yn y DA.

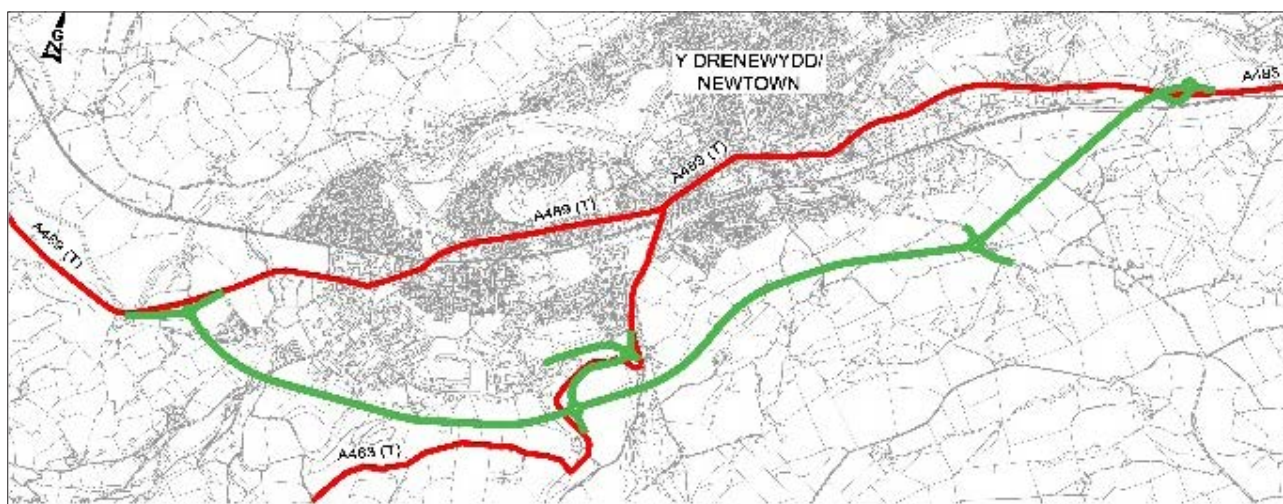
Os caiff y gweithdrefnau statudol eu cwblhau'n foddhaol ac os bydd arian ar gael, disgwylir i'r gwaith adeiladu ddechrau yn ystod Haf 2015 a byddai'n cymryd tua dwy flynedd a hanner i'w gwblhau.

Introduction

The Welsh Ministers are responsible for trunk roads in Wales and propose to provide a bypass to the south of Newtown in Powys, which will link the A489 and A483 Trunk Roads.

Historically, extensive work has been undertaken to identify traffic problems in Newtown, dating back to 1969 and a Preferred Route was announced in 1973. A further study was commissioned by the Welsh Government to assess the transport issues associated with the A483(T) and A489(T) through Newtown in 2006. It concluded that a road improvement or bypass option, which avoids the low headroom restrictions and reduces congestion within the town, was likely to be the only acceptable solution to the problems experienced. This resulted in a Preferred Route announced in 2010. Following further investigations a modified Preferred Route was announced in March 2014 which is the alignment referred to in the draft Orders and described in the ES.

Subject to the satisfactory completion of the statutory procedures and the availability of finance, detailed design and construction is scheduled to start in Summer 2015 and would take approximately two and a half years to complete.



Maint y Cynllun

Extent of Scheme

Amodau ar Hyn o Bryd

Ffordd unffrwd drefol yw'r ffordd bresennol drwy'r Drenewydd a cheir eiddo preswyl wrth ochr y ffordd sy'n cynnwys sawl mynedfa. Mae saith cyffordd ag arwyddion a dwy gylchfan sydd hefyd yn gwasanaethu tair ystad ddiwydiannol ac allfeydd adwerthu mawr. Nid oes unrhyw gyfleoedd i oddiweddyd ar hyd y gefnffordd 6.1km o hyd drwy'r dref ac yn gyffredinol, mae cerbydau yn teithio ar gyflymder cyfartalog o 20mya (30cya).

Mae'r tagfeydd traffig presennol wedi cael effaith andwyol ar ansawdd yr aer ar hyd Pool Road a New Road. Mae dau eiddo o fewn yr Ardal Rheoli Ansawdd Aer ac maent yn fwy na'r amcan ansawdd aer Llywodraeth Cymru.

Byddai'r Cynllun yn cael ei adeiladu ar hyd tir amaethyddol bryniog â golygfeydd o safon uchel ar y cyfan i'r de o'r Drenewydd. Mae Afon Hafren gerllaw'r A489(T) bresennol ar ei phen gorllewinol ac yn agos at yr A483(T) i'r dwyrain o'r Drenewydd. Mae llednentydd Afon Hafren gan gynnwys Nant Mochdre, y Nant Werdd a Nant Dolfor yn mynd drwy'r Drenewydd o'r de.

Mae safleoedd dynodedig ar gyfer cadwraeth natur a daeareg o fewn 2km ond ni fyddai'r Cynllun yn effeithio'n uniongyrchol ar yr un ohonynt.

Mae Ffordd Rufeinig yn mynd drwy'r Drenewydd a byddai rhan ohoni yn croesi aliniad y Cynllun yn ei ben gorllewinol. Ceir bryngaer o'r Oes Haearn i'r de o'r Cynllun, gerllaw Coedwig Castell-y-Dail. Mae 10 adeilad rhestredig o fewn 200m i'r Cynllun.



Ffyrdd presennol yn y Drenewydd

Existing Conditions

The existing road through Newtown is an urban single carriageway with residential properties located adjacent to the road and with multiple accesses. There are seven signalised junctions and two roundabouts which also serve three industrial estates and large retail outlets. There are no overtaking opportunities along the 6.1km length of trunk road through the town and average speeds are generally in the order of 20mph (30kph).

The existing traffic congestion has caused poor air quality along Pool Road and New Road. Two properties are within the Air Quality Management Area and these exceed the Welsh Government air quality objective

The Scheme would pass through pre-dominantly undulating agricultural land of high scenic quality to the south of Newtown. The River Severn lies close to the existing A489(T) at its western end and near to the A483(T) to the east of Newtown. Tributaries to the River Severn including the Mochdre, Green and Dolfor Brooks pass through Newtown from the south.

There are designated sites for nature conservation and geology within 2km but none of these are directly affected by the Scheme.

A Roman Road passes through Newtown and a section of this would cross the Scheme alignment at its western end. An Iron Age hill fort is located just south of the Scheme, adjacent to Castell-y-Dail Woods. There are 10 listed buildings within 200m of the Scheme.



Existing roads in Newtown

Pam ae Angen y Cynllun

Mae Cefnffyrdd yr A483/A489 yn y Drenewydd yn rhan o'r coridorau trafniadaeth rhwng y gogledd a'r de a'r dwyrain a'r gorllewin gan gysylltu ardaloedd megis Canolbarth Cymru a Gorllewin Canolbarth Lloegr. Mae'r Drenewydd yn fan cyfyng yn y rhwydwaith ac mae tagfeydd traffig yn digwydd yn rheolaidd ar gyffordd yr A483(T) a'r A489(T). Credir hefyd fod problemau traffig a thagfeydd yn rhwystro datblygiad diwydiannol pellach yn y Drenewydd.

Mae rhai o'r prif broblemau a wynebir yn y Drenewydd yn deillio o uchdwr isel/lled is ar drosbontydd Ffordd Dolfor ar yr A483(T) a Rheilffordd Nantoer ar yr A489(T), tagfeydd traffig ar hyd New Road ar yr A483(T) a Pool Road ar yr A483(T) ac achosion o wrthdaro rhwng cerddwyr a cherbydau ar gyffordd Ffordd Dolfor ar yr A483(T) a Ffordd Llanidloes ar yr A489(T).

Er mwyn osgoi'r pontydd lle ceir uchdwr isel, mae Cerbydau Nwyddau Trwm a cherbydau amaethyddol ag ochrau uchel yn teithio drwy ardaloedd preswyl Garth Owen a Threowen. Mae hyn, yn ei dro, yn peryglu diogelwch preswylwyr lleol, ac yn arbennig blant ysgol sy'n mynd i Ysgolion Treowen a Chedewain.



Pontydd Rheilffordd isel yn y Drenewydd

Why the Scheme is Needed

The A483/A489 Trunk Roads at Newtown form part of the north-south and east-west transport corridors linking areas such as Mid Wales and the West Midlands in England. Newtown is a pinch point on the network and the junction of the A483(T) and A489(T) regularly suffers from traffic congestion. Further industrial development of Newtown is believed to be hampered by transport and congestion issues.

Some of the main problems experienced in Newtown arises from low headroom/reduced width on the A483(T) Dolfor Road and A489(T) Nantoer Railway overbridges, congestion along A483(T) New Road and A483(T) Pool Road and conflicts between pedestrians and vehicles at the A483(T) Dolfor Road/ A489(T) Llanidloes Road junction.

To avoid the low headroom bridges high sided Heavy Goods Vehicles and high sided agricultural vehicles divert through the residential areas of Garth Owen and Treowen. This in turn compromises the safety of local residents, and in particular school children attending the Treowen and Cedewain Schools.



Low Railway Bridges in Newtown

Polisiau ac Amcanion

Nodwyd saith Amcan Cynllunio Trafnidiaeth penodol ar gyfer y Cynllun. Fe'u cyflawnir drwy'r Cynllun a thrwy fentrau cysylltiedig eraill a roddir ar waith gan gyrff cyhoeddus eraill. Mae'r amcanion fel a ganlyn:

Amcan 1 – Cynnal sylfaen economaidd

Amcan 2 – Cyrraedd targedau amgylcheddol perthnasol

Amcan 3 – Gwyo traffig oddi ar ffordd lleol

Amcan 4 – Cynyddu'r defnydd o fathau o dtrafnidiaeth nad ydynt yn ymwneud â'r car

Amcan 5 – Integreiddio trafnidiaeth gyhoeddus

Amcan 6 – Gwellu cysondeb amser teithio (Gogledd-De Cymru, Dwyrain-Gorllewin Cymru):

Amcan 7 – Lleihau nifer y damweiniau y yn Drennewydd

Dewisiadau Amgen a Ystriwyd

Arfarnwyd opsiynau ar gyfer y Cynllun a mesurau trafnidiaeth cysylltiedig eraill fel rhan o astudiaeth 2006, gan arwain at y Llwybr Dewisol a gyhoeddwyd yn 2010 ar gyfer y Cynllun.

Arfarnwyd opsiynau eraill yn erbyn Amcanion Cynllunio Trafnidiaeth y cytunwyd arnynt, meini prawf yn ymwneud â Meysydd Effaith Cymru a meini prawf eraill yn ymwneud â'u derbynioldeb i'r cyhoedd a rhanddeiliaid, dichonoldeb, risg a fforddiadwyedd. Mae Meysydd Effaith Cymru yn cynrychioli'r tair elfen o gynaliadwyedd sy'n ategu polisi yng Nghymru:

- Yr economi,
- Yr amgylchedd,
- Cymdeithas

Policies and Objectives

Seven specific Transport Planning Objectives (TPOs) have been identified for the Scheme. These will be delivered through the Scheme and through other associated initiatives to be delivered by other public bodies. These are:

Objective 1 – Maintain economic base

Objective 2 – Meeting relevant environmental targets

Objective 3 – Removing through traffic from local roads

Objective 4 – Increasing level of usage for non-car forms of transport

Objective 5 – Integration of public transport

Objective 6 – Improve journey time consistency (North-South, East-West)

Objective 7 – Reduction in accidents in Newton

Alternatives Considered

Options for the Scheme and other associated transport measures were appraised as part of the 2006 study. This resulted in the 2010 Preferred Route for the Scheme.

Options were appraised against agreed Transport Planning Objectives, criteria relating to the Welsh Impact Areas and other criteria relating to public and stakeholder acceptability, feasibility, risk and affordability. The Welsh Impact Areas represent the three elements of sustainability which underline policy in Wales:

- The economy,
- The environment, and
- Society

Ystyriwyd 21 o opsiynau fel rhan o'r astudiaeth a oedd yn cynnwys ffordd osgoi i'r gogledd ac i'r de fel cynlluniau annibynnol ac wedi'u cyfuno hefyd â gwelliannau ar-lein i ffyrdd presennol yr A483(T)/A489(T) drwy'r Drenewydd a mesurau trafndiaeth lleol.

Fel rhan o gcontract ECI, adolygwyd dyluniad y Llwybr Dewisol 2010 drwy broses Arfarnu Opsiynau fanwl.

Nodwyd meysydd allweddol lle yr ystyriwyd opsiynau amgen a allai ychwanegu budd i'r Cynllun cyffredinol. Roedd y rhain yn cynnwys:

- Cylchfan Ffordd Llanidloes
- Cyffyrdd Ffordd Dolfor a ffyrdd cyswllt
- Cyffordd Ffordd Ceri
- Croesfan rheilffordd/Cylchfan Pool Road
- Dau aliniad i'r de-orllewin o Barc Cartrefi Gwyliau Glandulas
- Fersiwn ddiwygiedig o'r Llwybr Brown yn Astudiaeth 2006 drwy Ystad Ddiwydiannol Mochdre

Ystyriwyd bod yr opsiynau amgen a aseswyd ar gyfer y pedwar maes allweddol cyntaf uchod yn well na'r Llwybr Dewisol 2010 ac o ganlyniad, cyhoeddwyd y Llwybr Dewisol 2014, sydd wedi mabwysiadu'r newidiadau canlynol:

- Mae Cylchfan Ffordd Llanidloes ar yr A489 wedi cael ei symud tua 100m ymhellach i'r gogledd. Byddai hyn yn cael llai o effaith ar y coetir llydanddail a'r rhywogaethau y mae'r cynefin hwn yn gartref iddynt, byddai angen llai o waith daear, byddai'n fwy derbyniol i'r eiddo a'r busnesau sy'n union gerllaw, byddai'n cael llai o effaith ar wasanaethau, a byddai'n golygu llai o gyfyngiadau ar y rhaglen a gwell fforddiadwyedd ariannol.
- Mae aliniad y brif ffordd i'r dwyrain o Gylchfan Ffordd Dolfor ar yr A483 wedi cael ei symud 250 metr i'r de. Byddai hyn yn cael llai o effaith ar ardal breswyl Garth Owen ac unedau Ystad Ddiwydiannol Mochdre, llai o effaith ar draffig yn ystod

Twenty one options were considered as part of the study comprising a northern and southern bypass as stand-alone schemes and also combined with online improvements to the existing A483(T)/A489(T) through Newtown and local transport measures.

As part of the ECI contract the 2010 Preferred Route design was reviewed through a detailed Options Appraisal process.

Key areas were considered where alternative options could add benefits to the overall Scheme. These included:

- Llanidloes Road Roundabout
- Dolfor Road Junctions and link roads
- Kerry Road Junction
- Railway crossing/Pool Road Roundabout
- Two alignments to the south west of Glandulas Holiday Home Park
- An amended version of the 2006 Study Brown Route through the Mochdre Industrial Estate

Alternative options assessed for the first four of the above key areas were found to perform better than the 2010 Preferred Route and this resulted in the 2014 Preferred Route, which has adopted the following changes:

- A489 Llanidloes Road Roundabout has been moved approximately 100m further north. This would reduce impact on the broadleaved woodland and the species that this habitat supports, reduce earthworks, be more acceptable to the immediately surrounding properties and business, reduce impact on services, have less programme constraints and increase financial affordability.
- The main carriageway alignment east of the A483 Dolfor Road Roundabout has been moved 250 metres to the south. This would reduce the impact upon the Garth Owen residential area and Mochdre Industrial Estate units, reduced impact on traffic during construction, greatly reduce impact

y gwaith adeiladu, a llawer llai o effaith ar wasanaethau a chostau cysylltiedig. Byddai'n golygu bod llai o gyfyngiadau ar y rhaglen, llai o risg, a gwell fforddiadwyedd ariannol.

- Mae Cyffordd Ffordd Ceri wedi'i had-drefnu o fod yn gyffordd aml-lefel fach i gylchfan pedair cangen. Byddai'n lleihau'r effaith weledol, yn achosi llai o dagfeydd traffig yn ystod y gwaith adeiladu, yn ei gwneud hi'n haws goddiwedd i gyfeiriad y gorllewin, ac yn cael llawer llai o effaith ar wasanaethau a chostau cysylltiedig. Byddai'n golygu llai o gyfyngiadau ar y rhaglen, llai o risg, a gwell fforddiadwyedd ariannol.
- Mae'r groesfan rheilffordd a Chylchfan Pool Road ar yr A483 wedi'u had-drefnu gyda'r ffordd sy'n mynd dros Rheilffordd Cambrian i gylchfan tair cangen newydd wedi'i lleoli i'r gogledd o ffordd bresennol Pool Road ar yr A483. Byddai hyn yn lleihau'r effaith ar wasanaethau a Network Rail yn sylweddol. Byddai hyn yn arwain at arbedion cost ac yn dileu'r risgiau mawr i'r rhaglen. Byddai'r manteision hefyd yn cynnwys osgoi cloddiad hir a dwfn gan wella'r cydbwysedd cloddio, gyda llai o risgiau posibl o lifogydd dŵr daear a llygredd wrth y groesfan rheilffordd. Byddai hefyd yn osgoi'r angen i ddargyfeirio cyrsiau dŵr ar hyd rhan sylweddol o'r cloddiad.
- Yn ogystal â'r newidiadau uchod, cafodd croestoriad y ffordd osgoi ei ddiwygio i ddarparu cynllun Ffordd 2+1 Sengl Lydan ar ei hyd. Byddai pwyntiau newid eiledol yn rhoi mwy o gyfleoedd i oddiwedd i gyfeiriad y dwyrain a'r gorllewin.

Cafodd y ddau opsiwn a aseswyd i'r de-orllewin o Barc Cartrefi Gwyliau Glandulas eu gwrthod oherwydd yr angen i ddymchwel Hafren View, y gwaith cloddio helaeth a maint y gwastraff y byddai angen ei waredu a'u heffeithiau niweidiol mawr cysylltiedig ar yr ecoleg a'r dirwedd.

on services and associated costs. It would have less programme constraints, reduce risks and increase financial affordability.

- The Kerry Road Junction has been reconfigured from a compact grade separated junction to a four arm roundabout. It would reduce visual impact, reduce disruption to traffic during construction, substantially increase westbound overtaking facilities, greatly reduce impact on services and associated costs. It would have, less programme constraints reduce risks and increase financial affordability.
- The railway crossing and A483 Pool Road Roundabout have been reconfigured with the route passing over the Cambrian Railway to a new three arm roundabout located north of the existing A483 Pool Road. This would greatly reduce impact on services and Network Rail. These would contribute cost savings and remove major programming risks. Advantages would also include avoiding a long deep cutting thereby improving the earthworks balance with less potential groundwater flood risks and pollution at the railway crossing. It would also avoid the need to divert watercourses for a significant length of the cutting.
- In addition to the above changes, the bypass carriageway cross section was amended to provide a Wide Single 2+1 Road layout throughout its length. Alternating changeover points would provide balanced and improved eastbound and westbound overtaking facilities.

The two options assessed to the south west of Glandulas Holiday Home Park were rejected due to the need to demolish Hafren View, their extensive earthworks excavation and disposal volumes and their associated major detrimental ecological and landscape impacts.

Cafodd y fersiwn ddiwygiedig o'r Llwybr Brown yn Astudiaeth 2006 drwy Ystad Ddiwydiannol Mochdre ei gwrthod oherwydd y byddai angen dymchwel chwe uned ffatri neu rannau ohonynt er mwyn adeiladu'r Llwybr a'r ffordd gwasanaeth cysylltiedig. Byddai hefyd yn golygu bod llai o gyfleoedd i oddiweddyd, yn cynyddu amseroedd teithio cyffredinol, yn lleihau traffig ar y ffordd osgoi ac yn cynyddu'n sylweddol maint y deunydd wedi'i gloddio y byddai angen cael gwared arno.

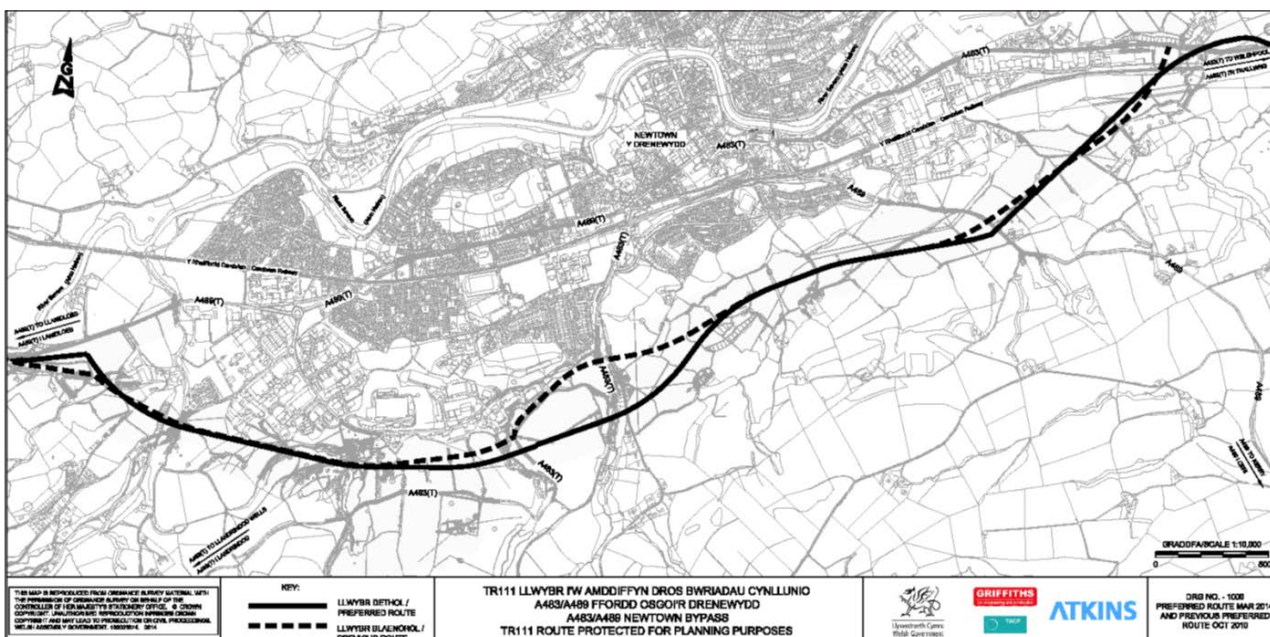
Opsiynau amgen eraill a gafodd eu hystyried cyn cael eu gwrthod oherwydd eu heffeithiau negyddol ar waith peirianeg a'r amgylchedd roedd:

- Ail-leoli'r Cylchfan arfaethedig ar Ffordd Llanidloes ar yr A489 ger Castell-y-Dail;
- Darparu Cyffordd Aml-lefel ger Castell-y-Dail;
- Tri aliniad yn mynd dros Rheilffordd Cambria gyda lleoliadau amgen ar gyfer Cylchfan Pool Road ar yr A483

The amended version of the 2006 Study Brown Route through the Mochdre Industrial Estate was rejected due to the need to demolish all or part of six factory units to construct the route and associated service roads. It would also reduce overtaking facilities, would increase overall journey times, reduce traffic use on the bypass and substantially increase the volume of excavated material that would need to be disposed of.

Other alternatives considered before being rejected due to their negative engineering and environmental impacts were:

- Repositioning the proposed A489 Llanidloes Road Roundabout near Castell-y-Dail;
- Providing a Grade Separated Junction near Castell-y-Dail;
- Three alignments passing above the Cambrian Railway line with alternative locations for the A483 Pool Road Roundabout.



Llwybr Dewisol 2010 a 2014

Preferred Route 2010 and 2014

Y Cynllun

Disgrifiad o'r Cynllun

Byddai'r Cynllun yn 6.5km o hyd a byddai'n cynnwys 5.8km o Ffordd 2+1 Unffrwd Llydan. Byddai hyn yn darparu dwy lôn i un cyfeiriad ac un lôn i'r cyfeiriad arall, wedi'u gwahanu gan ddwy linell wen solet, 1 metr ar wahân, gyda chroeslinellau ar arwyneb coch rhwng y llinellau. Yn ogystal, byddai'r cefnffyrdd ffordd unffrwd canlynol yn cael eu darparu: 0.3km yn y derfynfa orllewinol; 0.1km yn y derfynfa ddwyreiniol; ac 0.1km yn Ffordd Dolfor er mwyn cysylltu'r Cynllun â'r rhwydwaith Cefnffyrdd presennol.



Enghraifft o Ffordd 2+1 Unffrwd Lydan

Byddai pum cyffordd cylchfan un lefel a 2.7km o ffyrdd ymyl unffrwd gwell a newydd hefyd yn cael eu darparu. Ar hyd y ffordd osgoi, dim ond ar y cylchfannau y byddai goleuadau ffordd. Bydd rhannau newydd neu gwyriadau o Hawliau Tramwy Cyhoeddus a Mynedfeydd Preifat yn cael eu rhoi yn lle rheini a effeithir gan y Cynllun.

Byddai systemau draenio'r ffyrdd yn cael eu darparu drwy systemau pibellau a fyddai'n gollwng i wyth pwll ar hyd y Cynllun. Byddai'r pyllau hyn yn lleihau ac yn trin y dŵr wyneb a gasglwyd cyn ei ollwng i gyrsiau dŵr sy'n bodoli eisoes

Byddai'r Cynllun yn dechrau yn ei gysylltiad gorllewinol â'r A489(T) 0.3km i'r gorllewin o Gylchfan tair cangen Ffordd Llanidloes ar yr A489. Byddai cangen ddwyreiniol y cylchfan yn cysylltu â ffordd bresennol Ffordd Llanidloes sy'n arwain i'r Drenewydd. Byddai'r Cynllun yn parhau i'r de-ddwyrain ac yn teithio drwy Barc Cartrefi Gwyliau Glandulas. Câi trosbont ei hadeiladu er mwyn rhoi mynediad i ran orllewinol y Parc ac er mwyn i lwybr ceffylau a gaiff ei wro allu mynd drosti.

The Scheme

Scheme Description

The Scheme would be 6.5km in length and would comprise 5.8km of Wide Single 2+1 Road. This would provide two lanes in one direction and one lane in the opposite direction, separated by double solid white lines, 1 metre apart, with cross hatching on red surfacing between the lines. In addition, the following single carriageway trunk roads would be provided: 0.3km at the western terminal; 0.1km at the eastern terminal; and 0.1km at Dolfor Road to connect the Scheme into the existing Trunk Road network.

Example of a Wide Single 2+1 Road

Five at-grade roundabout junctions and 2.7km of single carriageway new and improved side roads would also be provided. Along the bypass only the roundabouts would be lit. New or diverted lengths of Public Rights of Way and Private Means of Access would replace those affected by the Scheme.

Road drainage would be provided through piped systems which would discharge into eight ponds along the Scheme. These ponds would attenuate and treat the collected surface water prior to discharging it into existing watercourses.

The Scheme would commence at its western connection with the A489(T) 0.3km west of the three-arm A489 Llanidloes Road Roundabout. The eastern roundabout arm would link into the existing Llanidloes Road leading to Newtown. The Scheme would continue south eastwards and pass through the Glandulas Holiday Home Park. An overbridge would be provided to access the western section of the Park and to carry a diverted bridleway.



Cylchfan Ffordd Llanidloes A489 o'r awyr (Blwyddyn 15)

Byddai'r Cynllun yn mynd drwy gloddïad hyd at 15m o ddyfnder cyn mynd dros Nant Mochdre ar hyd pont rychwant clir. Byddai'r strwythur hwn hefyd yn croesi Lôn Mochdre a Lôn Mochdre Uchaf. Câi dwy danffordd eu darparu i'r dwyrain o Bont Mochdre er mwyn hwyluso mynediad i'r de o'r Cynllun i Goleg Powys. Byddai llwybr ceffylau wedi'i wro hefyd yn mynd ar hyd y danffordd ddwyreiniol.

Aerial view of A489 Llanidloes Road Roundabout (Year 15)

The Scheme would enter a section of cutting up to 15m deep before passing over the Mochdre Brook on a clear span bridge. This structure would also cross Mochdre Lane and Upper Mochdre Lane. Two underpasses would be provided to the east of the Mochdre Bridge to facilitate access south of the Scheme for Coleg Powys. The eastern underpass would also accommodate a diverted bridleway.



Tanbont Glandulas (Blwyddyn 15)

Wedyn byddai'r Cynllun yn croesi caeau amaethyddol ar argloddiau hyd at 16m o uchder yn cynnwys cloddïadau wrth iddo fynd ar hyd y tirffurf fryniog.

Yng Nghoedwig Castell y Dail, byddai cloddïad hyd at 28m o ddyfnder ar yr ochr ddeheuol. Byddai hyn i'r gogledd o'r fryngaer o'r Oes Haearn ac i'r de o Dŷ Castell y Dail (Strwythur Rhestredig). Câi cilfan ei darparu ar y ffordd dwyreiniol i'r dwyrain o Goedwig Castell y Dail.

Glandulas Overbridge (Year 15)

The Scheme would then cross agricultural fields on embankment up to 16m high and in cutting as it traverses the undulating landform.

At Castell y Dail Wood there would be a cutting up to 28m deep on the southern side. This would lie to the north of the Iron Age fort and to the south of Castell y Dail House (Listed Structure). An eastbound lay-by would be provided east of Castell y Dail Wood.

Byddai'r Cynllun yn parhau i'r de o Ystad Ddiwydiannol Mochdre hyd at y Gylchfan pedair cangen newydd ar Ffordd Dolfor ar yr A483 ger Fferm Black Hall. Byddai cangen ogleddol y gylchfan hon yn cysylltu â Chylchfan pedair cangen newydd Ffordd Dolfor Isaf. O'r gylchfan hon, byddai modd cael mynediad i Ystad Ddiwydiannol Mochdre ar hyd Heol Ashley, i'r Drenewydd ar hyd ffordd bresennol Ffordd Dolfor ac i Ffordd Dolfor Ganol.

The Scheme would continue to the south of Mochdre Industrial Estate to the new four-arm A483 Dolfor Road Roundabout located near Black Hall Farm. The northern arm of this roundabout would link to the new four-arm Lower Dolfor Road Roundabout. Access would be provided from this roundabout into the Mochdre Industrial Estate along Heol Ashley, into Newtown along the existing Dolfor Road and into Middle Dolfor Road.



Cylchfan Ffordd Dolfor A483 o'r awyr (Blwyddyn 1)

Aerial view of A483 Dolfor Road Roundabout (Year 1)

I'r dwyrain o Gylchfan Ffordd Dolfor yr A483, byddai'r Cynllun yn torri drwy ardal o dir uchel mewn cloddiad hyd at 23m o ddyfnder cyn croesi Ffordd Dolfor Ganol ar bont tri rhychwant. Wedyn byddai'n mynd o dan Ffordd Dolfor Uchaf a fyddai'n croesi dros y Cynllun gan ddefnyddio trosbont.

East of the A483 Dolfor Road Roundabout, the Scheme would cross through an area of high ground in a cutting up to 23m deep prior to going over Middle Dolfor Road on a three span bridge. It would then pass under Upper Dolfor Road which would cross over the Scheme via an overbridge.

Byddai'r Cynllun yn parhau i'r gogledd-ddwyrain mewn cloddiad hyd at 21m o ddyfnder drwy dir amaethyddol ac wedyn ar arglawdd 21m o uchder gan groesi dros Danffordd Fferm Brimmon a Thanffordd Lôn Brimmon. Byddai llwybr troed cyhoeddus a llwybr ceffylau wedi'u gwyro yn mynd trwy y strwythurau hyn. I'r dwyrain o'r strwythurau hyn, byddai'r Cynllun yn mynd ar hyd cloddiad isel cyn Cylchfan pedair cangen newydd Ffordd Ceri ger Fferm Brimmon Isaf.

The Scheme would continue north-eastwards in cutting up to 21m deep through agricultural land and then on embankment 21m high crossing over Brimmon Farm Underpass and Brimmon Lane Underpass. These structures would accommodate a diverted public footpath and a bridleway. East of these structures the Scheme would pass in slight cutting prior to the new four-arm Kerry Road Roundabout located near Lower Brimmon Farm.

Byddai'r gylchfan hon yn cysylltu â ffordd bresennol Ffordd Ceri gan arwain i'r Drenewydd i'r gogledd ac â Ffordd Ceri sef ffordd bresennol yr A489 i'r de o Ceri. Byddai'r Cynllun yn parhau i'r gogledd-ddwyrain mewn cloddiadau o dan Drosbont Wern Ddu. Câi cilfan ei darparu ar y ffordd gorllewinol i'r dwyrain o Lôn Wern Ddu.

The roundabout would connect to the existing Kerry Road leading to Newtown to the north and with the existing A489 Kerry Road south to Kerry. The Scheme would continue north-eastwards in cutting passing under Wern Ddu Overbridge. A westbound lay-by would be provided east of Wern Ddu Lane.



Cylchfan Ffordd Ceri o'r awyr (Blwyddyn 15)

Byddai'r Cynllun yn teithio dros Rheilffordd Cambria drwy Bont y Rheilffordd ar arglawdd hyd at 13m o uchder. Wedyn byddai'n troi i'r dwyrain gan groesi dros Danbont Pool Road cyn cysylltu â Chylchfan tair cangen Pool Road yr A483. Byddai cangen ddeheuol y gylchfan hon yn troi i'r gorllewin ac yn cysylltu â ffordd bresennol Pool Road gan arwain i'r Drenewydd. Byddai'r gangen ddwyreiniol 0.1km o hyd yn cysylltu â ffordd bresennol yr A483(T) gan arwain i'r Trallwng yn nherfynfa ddwyreiniol y Cynllun.

Aerial view of Kerry Road Roundabout (Year 15)

An embankment up to 13m high would take the Scheme over the Cambrian Railway via the Railway Bridge. It would then curve eastwards crossing over Pool Road Underbridge before connecting into the three-arm A483 Pool Road Roundabout. The southern arm of this roundabout would curve westwards and connect with the existing Pool Road leading to Newtown. The 0.1km long eastern arm would connect into the existing A483(T) leading to Welshpool at the Scheme's eastern termination.



Cylchfan Pool Road A483 o'r awyr (Blwyddyn 1)

Aerial view of A483 Pool Road Roundabout (Year 1)

Strwythurau – Pontydd

Byddai angen 11 o bontydd newydd ar gyfer y Cynllun, sef:

- Byddai Trosbont Glandulas yn bont gyfansawdd dur hindreulio/concrid rychwant sengl 35m o hyd a fyddai'n darparu mynediad i'r parc gwyliau a gwyriad o'r llwybrau ceffylau a effeithiwyd gan y Cynllun.
- Byddai Bont Mochdre yn bont gyfansawdd dur hindreulio/concrid rychwant sengl 45m o hyd a fyddai'n mynd â'r Cynllun dros Nant Mochdre, Lôn Mochdre a ffordd annosbarthedig leol.



Pont Mochdre (Blwyddyn 1)

Structures – Bridges

Eleven new bridges would be required along the Scheme length as follows:

- Glandulas Overbridge would be a 35m long single span weathering steel/concrete composite bridge providing access for the holiday park and a diverted bridleway over the Scheme.
- Mochdre Bridge would be a 45m long single span weathering steel/concrete composite bridge carrying the Scheme over the existing Mochdre Brook, Mochdre Lane and a local unclassified road.

Mochdre Bridge (Year 1)

- Byddai Tanffordd Coleg Powys yn danffordd bocs concrid cyfnerthedig 40m o hyd, 4.5m o led a 4.5m o uchder a fyddai'n darparu mynediad i Fferm Coleg Powys i'r caeau yr effeithiwyd arnynt gan y Cynllun.
- Byddai Tanffordd y Llwybr Ceffylau yn danffordd bocs concrid cyfnerthedig 34m o hyd, 4.5m o led a 4.5m o uchder a fyddai'n darparu mynediad i Fferm Coleg Powys i'r caeau yr effeithiwyd arnynt gan y ffordd osgoi a llwybrau ceffylau dargyfeiriedig BW 253/N5 a BW 253/N6.
- Byddai Tanbont Dolfor yn bont dur hindreulio/concrid tri rychwant 80m o hyd a fyddai'n mynd â'r Cynllun dros Nant Dolfor a Ffordd Ganol Dolfor.

- Coleg Powys Underpass would be a 40m long reinforced concrete box underpass 4.5m wide, 4.5m high providing access for Coleg Powys Farm to the fields which are severed by the Scheme.
- Bridleway Underpass would be a 34m long reinforced concrete box underpass 4.5m wide, 4.5m high providing access for Coleg Powys Farm to the fields which are severed by the bypass and the diverted bridleways BW 253/N5 and BW 253/N6.
- Dolfor Underbridge would be an 80m long, three span composite weathering steel/concrete bridge carrying the Scheme over the existing Dolfor Brook and Middle Dolfor Road.



Tanbont Dolfor

- Byddai Trosbont Dolfor Uchaf yn bont gyfansawdd dur hindreulio/concrid rhychwant sengl 35m o hyd a fyddai'n mynd â Ffordd Uchaf Dolfor dros y Cynllun.
- Byddai Tanffordd Fferm Brimmon yn danffordd bocs concrid cyfnerthedig 31m o hyd, 4.5m o led a 4.5m o uchder a fyddai'n mynd â'r Cynllun dros y mynediad i Brimmon Uchaf a llwybr troed dargyfeiriedig FP 253/N14
- Byddai Tanffordd Lôn Brimmon yn danffordd bocs concrid cyfnerthedig 40m o hyd, 5.0m o led a 5.3m o uchder a fyddai'n mynd â'r Cynllun dros Lôn Brimmon a llwybr ceffylau dargyfeiriedig BW 253/N15.
- Byddai Trosbont Wern Ddu yn bont gyfansawdd dur hindreulio/concrid rhychwant sengl 35m o hyd a fyddai'n mynd â Lôn Wern Ddu dros y Cynllun.
- Byddai'r Bont Reilffordd yn bont gyfansawdd dur hindreulio/concrid rhychwant sengl 19m o hyd ac 11m o led a fyddai'n mynd â'r Cynllun dros linell bresennol Rheilffordd Cambrian.
- Byddai Thanbont Pool Road yn bont gyfansawdd rhychwant sengl 21.5m o hyd a 12.6m o led a fyddai'n mynd â'r Cynllun dros ffordd ddargyfeiriedig Pool Road.

Bydd graddiant y pedair tanffordd yn amrywio o 1:8 i 1:15. Bydd rhain yn cyfateb a lefelau a graddiant y ffyrdd bresennol, y mynediadau a'r caeau y naill ochr i'r Cynllun a'r llall

Dolfor Underbridge

- Upper Dolfor Overbridge would be a 35m long single span weathering steel/ concrete composite bridge carrying Upper Dolfor Road over the Scheme.
- Brimmon Farm Underpass would be a 31m long reinforced concrete box underpass 4.5m wide, 4.5m high carrying the Scheme over the access to Upper Brimmon and the diverted footpath FP 253/N14
- Brimmon Lane Underpass would be a 40m long reinforced concrete box underpass 5.0m wide, 5.3m high carrying the Scheme over Brimmon Lane and the diverted bridleway BW 253/N15.
- Wern-Ddu Overbridge would be a 35m long single span weathering steel/ concrete composite bridge carrying Wern-Ddu Lane over the Scheme.
- Railway Bridge would be a 19m long, 11m wide single span weathering steel/ concrete composite bridge carrying the Scheme over the existing Cambrian Railway line.
- Pool Road Underbridge would be a 21.5m long, 12.6m wide single span weathering steel/concrete composite bridge carrying the Scheme over the diverted Pool Road.

The gradients of the four underpasses would range from 1:8 to 1:15. These would tie in to the existing road, access or field levels and gradients either side of the Scheme.



Tanbont Pool Road (Blwyddyn 15)

Pool Road Underbridge (Year 15)

Defnyddwyr Heblaw Modurwyr

Byddai'r Cynllun yn effeithio ar nifer o hawliau tramwy cyhoeddus i'r de o'r Drenewydd. Câi gwyradau a mannau croesi dros dro eu darparu yn ystod y cam adeiladu, nes bod y llwybrau dargyfeirio parhaol ar gael i'w defnyddio.

Ar ben gorllewinol y Cynllun, câi'r hawliau dramwy gyhoeddus ei ail drefnu gyda llwybrau dargyfeirio'n cael eu darparu ar hyd ffiniau'r Cynllun. Câi croesfan llwybr ceffyl ei darparu ar Drosbont Glandulas a châi croesfan llwybr troed ei darparu o dan bont Mochdre. Byddai pob llwybr dargyfeirio yn 3m o led er mwyn cydymffurfio â gofynion Deddf Teithio Llesol (Cymru).

Lleoliadau eraill, lle y byddai cysylltedd â hawliau tramwy cyhoeddus yn cael ei ddarparu o dan y Cynllun, fyddai drwy'r Thanffyrdd y Llwybr Ceffylau ger Coleg Powys, Fferm Brimmon a Lôn Brimmon fel y'u disgrifir uchod.

Unwaith y byddai'n weithredol, byddai'r Cynllun yn symud traffig o ffyrdd presennol yr A483/A489 sef Ffordd Llanidloes, New Road a Pool Road. Byddai llifau traffig a cherbydau ochrau uchel yn lleihau traffig hefyd ar hyd Plantation Lane a Heol Treowen. Byddai hyn o fudd mawr i ddefnyddwyr heblaw modurwyr drwy leihau lefel y traffig ar y ffyrdd.

Non Motorised Users

The Scheme would affect a number of public rights of way to the south of Newtown. Temporary diversions and crossing places would be provided during the construction phase, until the permanent diversion routes were available to use.

At the western end of the Scheme the public rights of way would be rationalised with diverted routes provided along the Scheme fenceline. A Bridleway crossing would be provided via the Glandulas Overbridge and a Footpath crossing would be provided beneath the Mochdre bridge. All diverted routes would be 3m wide to comply with the requirements of the Active Travel (Wales) Act.

Other locations where public rights of way connectivity would be provided under the Scheme would be via the Bridleway near Coleg Powys, Brimmon Farm and Brimmon Lane Underpasses as described above.

Once operational, the Scheme would remove traffic from the existing A483/A489 Llanidloes Road, New Road and Pool Road. Traffic flows and high sided vehicles would also reduce along Plantation Lane and Heol Treowen. This would greatly benefit non motorised users by reducing road traffic severance.

Y Costau

Amcangyfrif o'r costau

Mae'r amcangyfrif canlynol o gostau yn seiliedig ar brisiau yn Chwarter 4 2012.

Elfen	Amcangyfrif
Paratoi	£2.0M
Goruchwylio	£1.5M
Adeiladu	£49.6M
Tir	£5.3M
Cyfanswm (heb gynnwys TAW a chwyddiant) i gwblhau'r gwaith	£58.4M

Tabl 1: Amcangyfrif o'r Costau

The Costs

Cost Estimate

The following cost estimate is based upon Quarter 4 2012 prices.

Component	Estimate
Preparation	£2.0M
Supervision	£1.5M
Construction	£49.6M
Land	£5.3M
Total (excluding VAT and inflation) to completion	£58.4M

Table 1: Cost Estimate

Asesiad Peirianeg

Safonau Peirianeg

Dyluniwyd y Cynllun gan ystyried yr holl bolisiâu, cynlluniau a safonau cynllunio cenedlaethol a lleol. Yn gyffredinol, 100cya (60mya) fyddai Cyflymder Dylunio'r Cynllun. Fodd bynnag, byddai'n rhaid gwyro oddi wrth y Safonau o ran geometreg priffyrdd ar adegau er mwyn lleihau'r effaith ar yr amgylchedd. Câi terfyn cyflymder o 40mya ei osod ar y tair cefnffordd sy'n arwain at y Cynllun, ffordd gyswllt y Drenewydd o Gylchfan Ffordd Llanidloes ar yr A489, y ffordd gyswllt rhwng Cylchfan Ffordd Dolfor ar yr A483 a Chylchfan Ffordd Dolfor Isaf a'r ffyrdd arweiniol o'r gogledd a'r de i Gylchfan Ffordd Ceri. Câi terfyn cyflymder o 30 mya ei osod ar bob un o'r pum cylchfan, y ffyrdd cyswllt â Heol Ashley, Ffordd Dolfor a Ffordd Ganol Dolfor o Gylchfan Ffordd Isaf Dolfor a ffordd gyswllt y Drenewydd o Gylchfan Pool Road ar yr A489.

Defnydd Tir

Mae'r Cynllun yn rhedeg drwy gymysgedd o dir amaethyddol, masnachol a phreswyl a choetir a byddai angen tua 83 hectar o dir i gyd (gan gynnwys tir dros dro ar gyfer adeiladu a mesurau lliniaru amgylcheddol). Byddai'r Cynllun yn golygu dymchwel tri adeilad, sef Kinsale, Ffordd Ganol Dolfor, Gelli, Pool Road ac ysgubor fferm wrth ymyl Pool Road ar yr A483.

Engineering Assessments

Engineering Standards

The Scheme has been designed taking into account all relevant national and local planning policies, plans and standards. Generally, the Design Speed of the Scheme would be 100kph (60mph). However, there would be some Departures from Standards in terms of highway geometry to reduce the impact on the environment. A 40mph speed limit would be imposed on the three trunk road approaches to the Scheme, the Newtown link from the A489 Llanidloes Road Roundabout, the link between the A483 Dolfor Road Roundabout and the Lower Dolfor Road Roundabout and the north and south approaches to Kerry Road Roundabout. A 30 mph speed limit would be imposed on all five roundabouts, the connections to Heol Ashley, Dolfor Road and Middle Dolfor Road from the Lower Dolfor Road Roundabout and the Newtown link from the A489 Pool Road Roundabout.

Land Use

The Scheme runs through a mixture of agricultural, commercial and residential land and woodland and would require approximately 83 hectares of land in total (including temporary land for construction and environmental mitigation). Three buildings would require demolition as a result of the Scheme. These are at Kinsale, Middle Dolfor Road, Gelli, Pool Road and a farm barn alongside the A483 Pool Road.



Golygfa o dirwedd i'r de o'r Drenewydd

View of landscape to the south of Newtown

Amodau Tir

Cynhaliwyd arolwg ymchwiliol o'r ddaear i ddarparu gwybodaeth ar gyfer dyluniad rhagarweiniol y Cynllun a helpu i sicrhau y gellir aildefnyddio cymaint â phosibl o'r pridd a'r cerrig a gaiff eu cloddio yn y Cynllun.

Ystyrir nad oes llawer o risgiau geodechnegol a hynny yn dilyn asesiad rhagarweiniol o ansefydlogrwydd y tir ar ôl y gwaith adeiladu yn yr ardaloedd tirlithriadau creiriol i'r dwyrain o Gastell-y-Dail, i'r gorllewin o Gwm Dolfor ac i'r dwyrain o Great Brimmon. Ardaloedd bach o ddaear artiffisial a ganfuwyd yn ystod yr ymchwiliad daear ac nid yw'r deunyddiau hyn yn debygol o gael eu nodi fel rhai peryglus.

Mae'r amodau tir yn amrywio ar draws y safle. Fodd bynnag, yn gyffredinol, darganfuwyd cerrig llaid 1m o dan y ddaear. Yr eithriad i hyn oedd i'r gorllewin o Gwm Dolfor lle darganfuwyd cerrig tua 30m islaw'r ddaear. Mae'r haenau nodweddiadol yn ardal y Cynllun, gan ddechrau ar lefel y ddaear a gweithio tuag i lawr, fel a ganlyn:

- Uwchbridd
- Isbridd
- Cerrig llaid

Byddai'n rhaid cloddio tua 1.0 miliwn m³ o uwchbridd, isbridd a cherrig llaid, a byddai'n rhaid defnyddio'r cyfan o fewn ffiniau'r Cynllun neu mewn ardaloedd a nodwyd ar gyfer ail-raddio.

Ground Conditions

A ground investigation survey has been carried out to provide information for the Scheme's preliminary design and to help optimise the amount of excavated soils and rock that can be reused in the Scheme.

Geotechnical risks on the Scheme are considered to be minimal following the preliminary assessment on the risk of residual post-construction ground instability at the relict landslip areas east of Castell-y-Dail, west of the Dolfor Valley and east of Great Brimmon. Minimal areas of made ground were encountered throughout the ground investigation and these materials are unlikely to be classified as hazardous.

The ground conditions throughout the site vary. However mudstones were generally encountered at 1m depths. The exception to this was west of the Dolfor Valley where rock was only encountered approximately 30m below ground level. The typical layers throughout the Scheme, starting at ground level and working down, consist of:

- Topsoil
- Subsoil
- Mudstone

Approximately 1.0 million m³ of topsoil, subsoil and mudstone rock would have to be excavated, all of which would be reused within the Scheme boundaries or in areas identified for re-grading.

Draenio

Byddai'r Cynllun yn croesi Nant Mochdre a Nant Dolfor, y mae'r naill a'r llall yn llednentydd sy'n llifo i Afon Hafren.

Câi'r ffordd newydd ei draenio drwy systemau cwrw a draenio cyfunol, draeniau hidlo a systemau cyrb a gyli. Byddai'r rhain i gyd yn casglu dŵr glaw ac yn ei gario i ffwrdd mewn pibellau.

Byddai pibellau draenio ffyrdd yn gollwng i wyth pwll a gâi eu hadeiladu ar hyd y Cynllun. Byddai'r pyllau yn lleihau llif y dŵr wyneb ffo drwy gyfyngu ar faint o ddŵr a gâi ei ollwng i gyrsgiau dŵr sy'n bodoli eisoes fel bod cyfnodau byr o lif uchel yn cael eu hymestyn dros gyfnod hwy o amser. Byddai'r pyllau hefyd yn trin y dŵr wyneb a gasglwyd. Byddant yn cynnwys falfiau diffodd er mwyn lleihau'r risg o lygredd drwy ollyngiadau drwy gyfyngu arno mewn argyfwng.



Enghraifft o Bwll Prifffordd

Câi llifau cyrsiau dŵr presennol eu cynnal drwy ddarparu cwlfertau o dan y Cynllun. Câi ardal o orlifdir Afon Hafren ei cholli o ganlyniad i adeiladu arglawdd i'r gorllewin o Gylchfan Ffordd Llanidloes ar yr A489. Fodd bynnag, câi unrhyw effeithiau posibl yn sgil y perygl o lifogydd eu lliniaru drwy ostwng lefel y caeau i'r gogledd-orllewin o Gylchfan Ffordd Llanidloes ar yr A489.

Mae astudiaethau llifogydd ac asesiadau risg wedi dod i'r casgliad nad yw'r Cynllun yn cynyddu'r risg o lygredd na llifogydd.

Cyfleustodau Cyhoeddus

Ymgynghorwyd â holl berchenogion a gweithredwyr yr amrywiol gyflenwadau dŵr, carthffosydd, llinellau telathrebu, nwy a thrydan i ganfod sut y byddai'r Cynllun yn effeithio ar eu hoffer a rhoi cyfle iddynt gynllunio unrhyw wyriadau sydd eu hangen.

Drainage

The Scheme would cross the Mochdre Brook and the Dolfor Brook which are both tributaries to the River Severn.

Drainage of the new road would be through combined kerb and drainage systems, filter drains and kerb and gully systems. These would all collect rainwater and carry it away in pipes.

The road drainage pipes would discharge into eight ponds that would be constructed along the Scheme. The ponds would attenuate the surface water run-off flows by restricting the amount of water discharging into existing watercourses to smooth out short periods of high flows over a longer period. The ponds would also treat the collected surface water. They would include emergency shut off valves so that the risk of pollution from spillages would be reduced through containment.



Example of a Highway Pond

Existing watercourse flows would be maintained by providing culverts beneath the Scheme. An area of the existing River Severn flood plain would be lost through the construction of an embankment west of the A489 Llanidloes Road Roundabout. However, any potential flood risk impacts would be mitigated by lowering the field levels north west of the A489 Llanidloes Road Roundabout.

Flood studies and risk assessments have concluded that there is no increased risk of pollution or flooding from the Scheme.

Public Utilities

All owners and operators of the various water mains, sewers, telecommunications, gas and electricity services have been consulted to establish how their equipment would be affected by the Scheme and to allow them to plan any diversions required.

Adeiladu

Yn gyffredinol, byddai'r prif fynedfeydd i'r safle oddi ar Ffordd Llanidloes ar yr A489, Ffordd Dolfor ar yr A483, Ffordd Ceri ar yr A489 a Pool Road ar yr A483 lle mae'r Cynllun yn croestorri â'r priffyrdd cyhoeddus hyn. Câi'r rhan fwyaf o'r Cynllun ei adeiladu all-lein ac felly nid yw'n debygol o darfu llawer ar y rhwydwaith ffyrdd lleol, gyda'r gwaith yn cael ei gyfyngu i leoliadau cyswllt.

Câi mesurau rheoli traffig eu darparu mewn lleoliadau cyswllt er mwyn sicrhau diogelwch y gweithlu a'r cyhoedd. Fel arfer, byddai hyn yn cynnwys terfyn cyflymder dros dro a chyfyngiad i un lôn wedi'i reoli gan goleudau traffig dros dro. Y nod fyddai cyfyngu ar y gwaith hwn er mwyn sicrhau bod cyn lleied o darfu â phosibl ar y llwybrau presennol.

Ar ddechrau'r cam adeiladu, byddai ffens yn cael ei chodi o amgylch y safle a byddai'r gwaith o glirio'r safle yn dechrau. Byddai pob rhan o'r gwaith yn cael ei rheoli'n ofalus a'i rhaglennu yn unol â'r cyfyngiadau amgylcheddol perthnasol. Bydd hyn yn sicrhau y caiff materion amgylcheddol, gan gynnwys dŵr arwynebol, sŵn, llwch a rheoli gwastraff safle, eu rheoli'n briodol.

Byddai gwaith ar y prif bontydd a'r cwlffertau yn cael blaenoriaeth er mwyn sicrhau y byddai'r prif waith daear yn dechrau yn ystod Gwanwyn 2016.



*Gweithrediadau Cloddio Tir
Earthwork Operations*

Construction

The main site access points would generally be off the A489 Llanidloes Road, A483 Dolfor Road, A489 Kerry Road and the A483 Pool Road located where the Scheme intersects these existing main public highways. The majority of the Scheme would be constructed offline and therefore disruption to the local road network is likely to be minimal and limited to tie-in locations.

At tie in locations traffic management would be provided to maintain the safety of the workforce and the public. Typically this would involve a temporary speed restriction and single lane working controlled by traffic signals. The aim would be to keep these works to a minimum to limit disruption to the existing routes as far as possible.

At the start of construction the site would be fenced and site clearance would commence. All works would be carefully managed and programmed in accordance with the relevant environmental constraints. This will ensure that environmental issues such as surface water runoff, noise, dust and site waste management would all be controlled and managed appropriately.

Works on the main bridges and culverts would be prioritised so that the main earthworks would commence in the Spring of 2016.



*Adeiladu Pont dros Reilffordd
Construction of a Bridge over a Railway*

Beth sy'n digwydd i'r ffordd bresennol?

Byddai'r rhan fwyaf o'r gwaith adeiladol ar y Cynllun yn digwydd all-lein a byddai'r ffordd bresennol yn parhau i ddarparu mynediad i'r Drenewydd ac oddi yno. Câi'r cefnffyrdd presennol rhwng lleoliadau terfynol y Cynllun eu hisraddio o dan y cynigion a châi perchnogaeth y rhannau hyn a'r gwaith cynnal a chadw eu trosglwyddo o Weinidogion Cymru i Gyngor Sir Powys.

Byddai'r israddio yn cynnwys y canlynol:

- Cefnffordd yr A483 o bwynt tua 122 metr i'r gogledd-orllewin o'i chyffordd â Ffordd Ganol Dolfor am tua 3.41 cilometr i bwynt tua 440 metr i'r dwyrain o'r fynedfa i Ystad Ddiwydiannol Dyffryn.
- Cefnffordd yr A483 o bwynt tua 7 metr i'r gorllewin o'i chyffordd â Ffordd Ganol Dolfor am tua 60 metr i bwynt tua 53 metr i'r gogledd-orllewin o'r gyffordd honno.
- Cefnffordd yr A489 o bwynt tua 102 metr i'r gogledd-ddwyrain o'i chyffordd â'r fynedfa i eiddo Glanrhyd a Neuadd Glanhafren am tua 2.42 cilometr i bwynt lle mae Cefnffordd yr A489 yn cysylltu â Cefnffordd yr A483.

Asesiad Traffig ac Asesiad Economaidd

Modelu

Fe gaeth gwaith cyfrif traffig, cyfrif symudiadau troi, arolygon o hyd ciwiau ac arolygon o amseroedd teithio eu gwnaed rhwng mis Mai a mis Gorffennaf 2013.

Cafodd y wybodaeth hon, ar y cyd â data arolwg traffig blaenorol. ei phrosesu a'i defnyddio i ddatblygu model traffig cyfrifiadurol o'r ardal.

Rhagamcanu

Defnyddiwyd y model i lunio rhagolygon traffig ar gyfer 2017 a 2032, fel y dangosir yn Nhabl 2 isod:

What happens to the existing road?

The majority of the Scheme would be constructed off-line and the existing road would remain to provide access to and throughout Newtown. The existing trunk road lengths between the Scheme terminal locations would be de-trunked under the proposals and ownership and maintenance of these lengths would be transferred from the Welsh Ministers to Powys County Council.

The extents of the de-trunking would be:

- A483 Trunk Road from a point approximately 122 metres northwest of its junction with Middle Dolfor Road for approximately 3.41 kilometres to a point approximately 440 metres east of the Dyffryn Industrial Estate access.
- A483 Trunk Road from a point approximately 7 metres west of its junction with Middle Dolfor Road for approximately 60 metres to a point approximately 53 metres northwest of that junction.
- A489 Trunk Road from a point approximately 102 metres northeast of its junction with the access leading to the properties Glanrhyd and Glanhafren Hall for a distance of approximately 2.42 kilometres to a point where the A489 Trunk Road connects with the A483 Trunk Road.

Traffic and Economic Assessment

Modelling

Traffic counts, turning movement counts, queue length surveys and journey time surveys were undertaken between May and July 2013.

This information was processed and used to develop a computer traffic model of the area, in conjunction with previous traffic survey data.

Forecasting

The model was used to produce traffic forecasts for 2017 and 2032, as shown in the Table 2 below:

Rhagamcan o Lifau Traffig Dyddiol Cyfartalog Blynnyddol				
Lleoliad	Blwyddyn Agor 2017		Blwyddyn Ddylunio 2032	
	Rhwydwaith Presennol	Gyda Gwelliannau	Rhwydwaith Presennol	Gyda Gwelliannau
I'r Gorllewin o Gylchfan Ffordd Llanidloes ar yr A489	8203	9764	8778	10532
Y Cynllun i'r Dwyrain o Gylchfan Ffordd Llanidloes ar yr A489	-	8739	-	9385
I'r Gogledd o Gylchfan Ffordd Dolfor ar yr A483	3759	6294	4035	6294
Plantation Lane	2734	1328	3079	1432
Ffordd Llanidloes ar yr A489 i'r Gorllewin o Ffordd Dolfor ar yr A483	15338	5593	16262	6073
Y Cynllun i'r Dwyrain o Gylchfan Ffordd Dolfor ar yr A483	-	11115	-	12037
New Road ar yr A483 i'r Gorllewin o Ffordd Cambrian	18947	10721	19821	11528
Heol Treowen	3225	1905	3888	2055
I'r Gogledd o Gylchfan Ffordd Ceri	5724	9155	6153	9790
Y Cynllun i'r Dwyrain o Ffordd Ceri ar yr A498	-	12480	-	13440
I'r Dwyrain o Gylchfan Pool Road ar yr A483	11401	12761	12101	13729

Forecast Annual Average Daily Traffic Flows				
Location	Opening Year 2017		Design Year 2032	
	Existing Network	With Improvement	Existing Network	With Improvement
West of A489 Llanidloes Road Roundabout	8203	9764	8778	10532
The Scheme East of A489 Llanidloes Road Roundabout	-	8739	-	9385
North of A483 Dolfor Road Roundabout	3759	6294	4035	6852
Plantation Lane	2734	1328	3079	1432
A489 Llanidloes Road West of A483 Dolfor Road	15338	5593	16262	6073
The Scheme East of A483 Dolfor Road Roundabout	-	11115	-	12037
A483 New Road West of Cambrian Way	18947	10721	19821	11528
Heol Treowen	3225	1905	3888	2055
North of Kerry Road Roundabout	5724	9155	6153	9790
The Scheme East of A489 Kerry Road	-	12480	-	13440
East of A483 Pool Road Roundabout	11401	12761	12101	13729

Tabl 2: Rhagolwg o Lifau Traffig

Table 2: Forecast Traffic Flows

Perfformiad economaidd y Cynllun

Aseswyd perfformiad economaidd y cynllun drwy gymharu costau'r Cynllun â'r buddiannau a gyflawnir. Mae'r costau yn cynnwys y costau adeiladu a'r costau cynnal a chadw yn y dyfodol. Y buddiannau a ystyriwyd oedd yr amser teithio a arbedir, costau rhedeg cerbydau a newidiadau o ran costau damweiniau.

Caiff buddiannau economaidd y Cynllun, a gyfrifwyd yn unol â dulliau Llywodraeth Cymru, eu crynhoi yn Nhabl 3. Mae'r rhain yn ystyried effeithiau economaidd uniongyrchol y Cynllun ar gostau trafnidiaeth h.y. gwelliannau o ran amser teithio a lleihad mewn damweiniau.

Canlyniadau'r Asesiad (prisiau 2010, wedi'u disgowntio i 2010)	
Gwerth Presennol Buddiannau (GPB)	£111.1M
Gwerth Presennol Costau (GPC)	£61.7M
Gwerth Net Presennol (GPB – GPC)	£49.4
Cymhareb Cost a Budd	1.8

Tabl 3: Perfformiad Economaidd

Economic performance of Scheme

The economic performance of the Scheme has been assessed by comparing the costs of the Scheme with the benefits that would be achieved. The costs include both the construction costs and the future maintenance costs. The benefits considered include journey time savings, vehicle operating costs and changes in accident costs.

The economic benefits of the Scheme, calculated in accordance with Welsh Government methods, are summarised in the Table 3. These take into account the direct economic effects of the Scheme on transport costs i.e. improvements in travelling time and reduction in accidents.

Assessment Results (2010 prices, discounted to 2010)	
Present Value of Benefits (PVB)	£111.1M
Present Value of Costs (PVC)	£61.7M
Net Present Value (PVB – PVC)	£49.4
Benefit Cost Ratio	1.8

Table 3: Economic Performance

Beth sy'n digwydd nesaf?

Bydd Gweinidogion Cymru yn ystyried unrhyw sylwadau cyn penderfynu a ddylai'r Cynllun fynd ymlaen neu pheidio, a hynny gyda neu heb addasiadau.

Yn ddibynol ar niferoedd a natur y gwrthwynebiadau a sylwadau a geir mewn perthynas â'r Gorchmynion drafft cyhoeddedig, efallai y caiff Ymchwiliad Cyhoeddus ei gynnal gerbron Arolygydd annibynnol.

Os bwriedir cynnal Ymchwiliad Cyhoeddus, caiff pawb sydd wedi ymateb ei hysbysu fel arfer o fewn pedair wythnos i ddiwedd y cyfnod gwrthwynebu a chaiff yr Ymchwiliad ei gynnal o fewn 22 wythnos i'r hysbysiad hwnnw. Caiff manylion llawn unrhyw Ymchwiliad Cyhoeddus eu cadarnhau a chaiff hysbysiadau eu rhoi yn y wasg leol.

What Happens Next?

The Welsh Ministers will take into consideration any representations before deciding whether or not to proceed with the Scheme, with or without modifications.

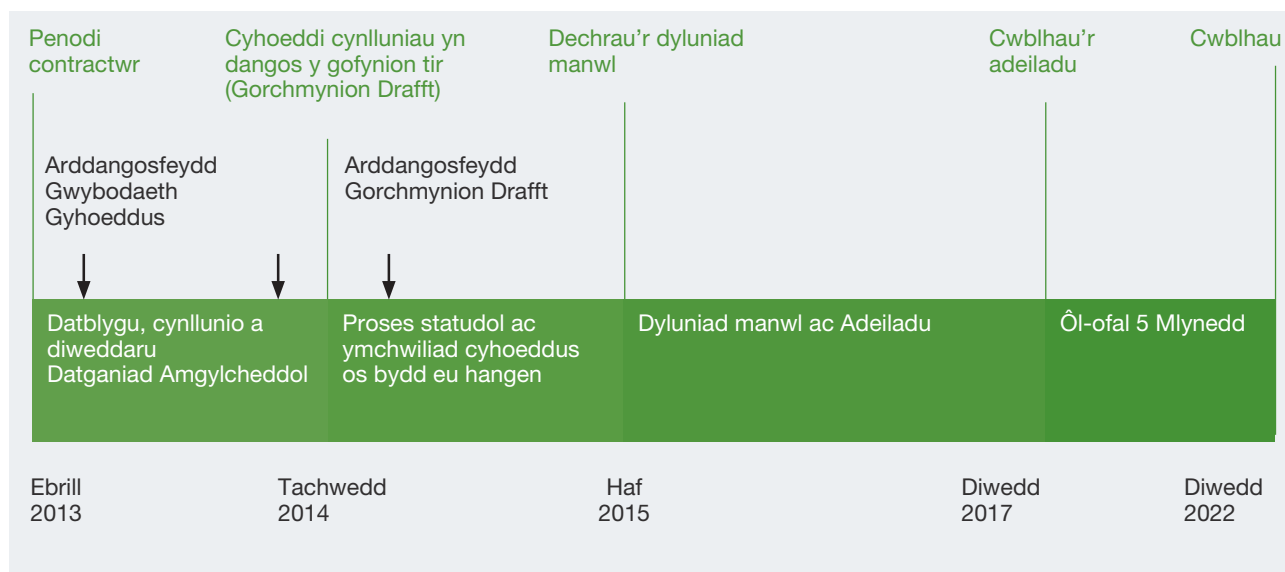
Depending on the nature and number of any objections and comments received to the published draft Orders, a Public Inquiry may be held before an independent Inspector.

If a Public Inquiry is to be held, all those who have responded would normally be notified within 4 weeks of the end of the objection period and the Inquiry held within 22 weeks of that notification. Full details of the Public Inquiry will be confirmed and notices will appear in the local press.

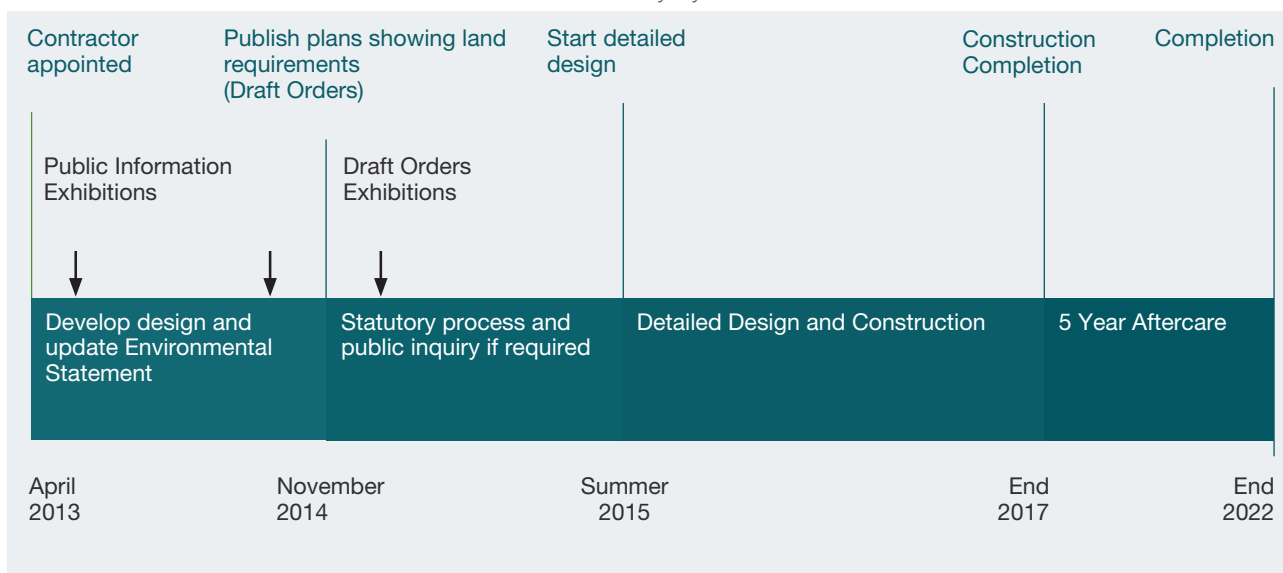
Caiff copïau o'r holl ohebiaeth eu hanfon at yr Arolygydd ac fe'u cedwir yn Llyfrgell yr Ymchwiliad sydd ar agor i'r cyhoedd. Rhoddir cyhoeddusrwydd i unrhyw gynnig amgen ymarferol a geir o fewn terfyn amser i'w bennu yn yr Hysbysiad o'r Ymchwiliad Cyhoeddus. Os bydd Gweinidogion Cymru yn penderfynu bwrw ymlaen â'r Cynllun y mae'r DA wedi'i gyhoeddi ar ei gyfer, yna mae'n rhaid iddynt gyhoeddi gwybodaeth am yr ymgynghoriad a gynhaliwyd, yn unol â Rheoliad Priffyrdd (Asesu Effaith Amgylcheddol) 2007, y sylwadau a gafwyd ac unrhyw newidiadau a wnaed o ganlyniad i'r sylwadau hynny.

All correspondence will be copied to the Inspector and kept in the Inquiry Library which is available to the public. Publicity would be given to any feasible alternative proposal received within a time limit to be specified in the Public Inquiry Notice.

If the Welsh Ministers decide to proceed with the Scheme for which the ES has been published, they then must publish information about the consultation carried out, in compliance with The Highways (Environmental Impact Assessment) Regulation 2007, the representations received and any changes made as a result.



Llinell Amser y Cynllun



Scheme Time Line

Rhagor o Wybodaeth

Gellir edrych ar gopïau o'r DA a'r Gorchmynion drafft am ddim yn ystod oriau swyddfa arferol yn ystod y cyfnod gwrthwynebu yn y manau canlynol:

- Swyddfeydd Llywodraeth Cymru, Parc Cathays, Caerdydd, CF10 3NQ
- Swyddfeydd Llywodraeth Cymru, Tŷ Ladywell, Y Drenewydd, Powys SY16 1JB
- Cyngor Sir Powys, Neuadd y Sir, Llandrindod, Powys, LD1 5LG
- Cyngor Sir Powys, Neuadd Maldwyn, Ffordd Hafren, Y Trallwng, Powys SY21 7AS
- Llyfrgell y Drenewydd, Park Lane, Y Drenewydd, Powys SY16 1EJ

Gellir prynu copïau o'r DA o'r cyfeiriad canlynol:

Cangen Gorchmynion, Trafnidiaeth, Llywodraeth Cymru, Parc Cathays, Caerdydd, CF10 3NQ

Y gost yw:

Cyrol 1 (Adroddiad Asesu Technegol) – £50
Cyrol 2 (Ffigurau) – £50
Cyrol 3 Rhannau 1 i 4 (Atodiadau Technegol) – £50 (fesul rhan)

Gellir prynu copïau electronig o'r DA am £5. Gellir cael rhagor o gopïau o Adroddiad Asesu Cynllun Cam 3 am ddim gan Lywodraeth Cymru yn y cyfeiriad a nodir uchod neu drwy'r wefan ganlynol:

www.cymru.gov.uk/trafnidiaeth
www.newtownbypass.co.uk

Eich Barn

Os hoffech gefnogi'r Gorchmynion drafft neu'r Gorchmyn Prynu Gorfodol, cynnig sylwadau arnynt, neu eu gwrthwynebu, cyflwyno cynigion amgen, neu gynnig sylwadau ar y Datganiad Amgylcheddol, dylech ysgrifennu at Lywodraeth Cymru yn y cyfeiriad isod.

**Cangen Gorchmynion,
Trafnidiaeth,
Llywodraeth Cymru,
Parc Cathays,
Caerdydd CF10 3NQ**

Dylid anfon pob gohebiaeth o'r fath fel ei bod yn cyrraedd Llywodraeth Cymru cyn diwedd y cyfnod a nodir yn yr Hysbysiad Cyhoeddus.

Further Information

Copies of the ES and draft Orders may be inspected free of charge during normal office hours during the objection period as set out in the Public Notice, at the following premises:

- Welsh Government Offices, Cathays Park, Cardiff, CF10 3NQ
- Welsh Government Offices, Ladywell House, Newtown, Powys SY16 1JB
- Powys County Council, County Hall, Llandrindod Wells, Powys, LD1 5LG
- Powys County Council, Neuadd Maldwyn, Severn Road, Welshpool, Powys SY21 7AS
- Newtown Library, Park Lane, Newtown, Powys SY16 1EJ

Copies of the ES can be purchased from the following address:

Orders Branch, Transport,
Welsh Government, Cathays Park, Cardiff,
CF10 3NQ

These are as follows:

Volume 1 (Technical Assessment Report) – £50
Volume 2 (Figures) – £50
Volume 3 Parts 1 to 4 (Technical Appendices) – £50 (each part)

Electronic copies of the ES can be purchased at a cost of £5. Further copies of this Stage 3 Scheme Assessment Report may be obtained free of charge from the Welsh Government at the address shown above or via the following website:

www.wales.gov.uk/transport
www.newtownbypass.co.uk

Your Views

If you wish to support, comment or object to the draft Orders or Compulsory Purchase Order (CPO), put forward alternative proposals, or comment on the Environmental Statement you should write to the Welsh Government at the address below.

**Orders Branch,
Transport,
Welsh Government,
Cathays Park,
Cardiff CF10 3NQ**

All such correspondence should be sent to arrive at the Welsh Government no later than the end of the period as set out in the Public Notice.

