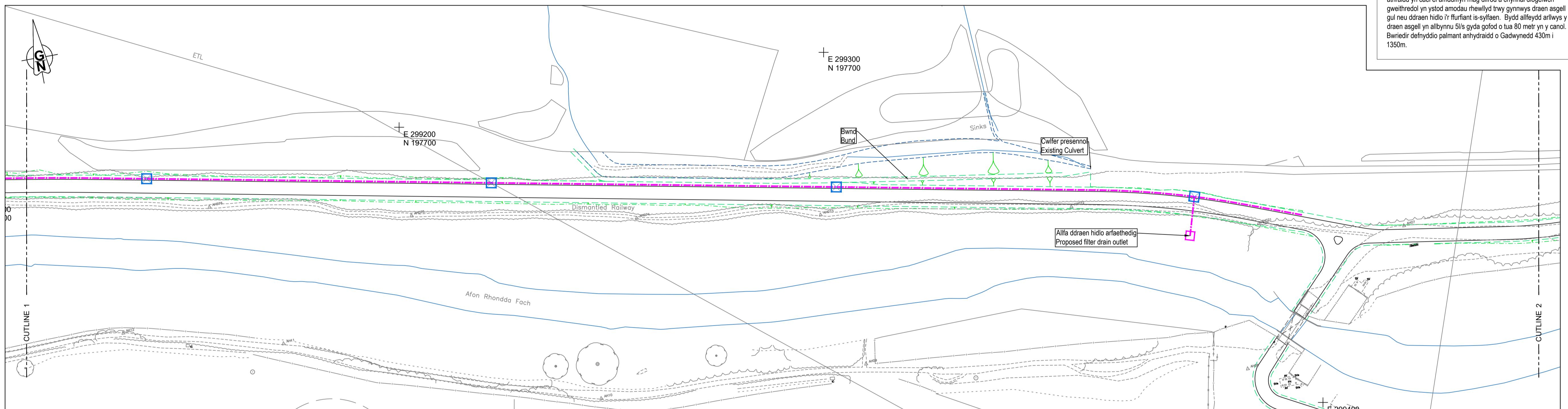
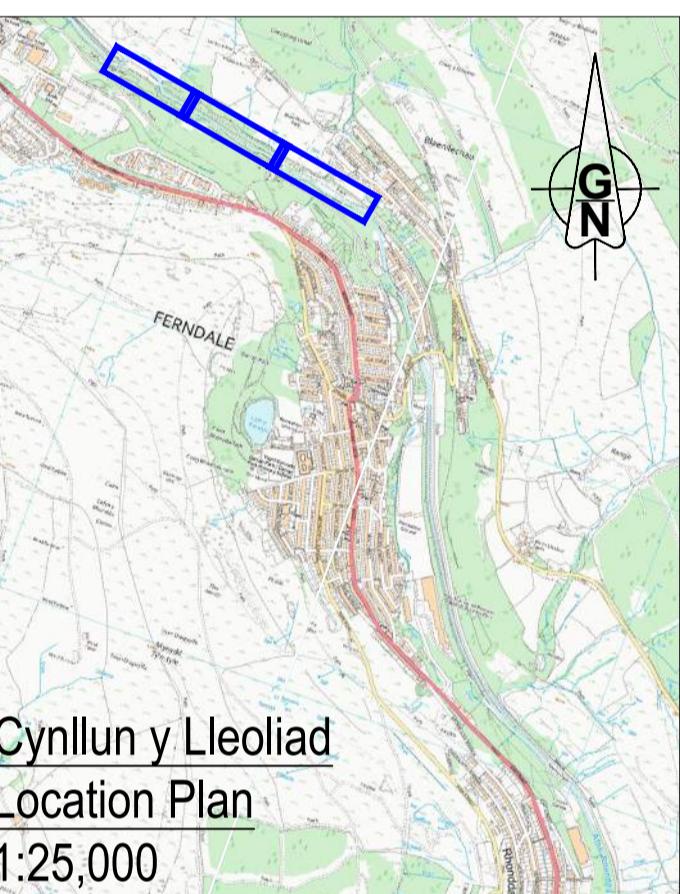
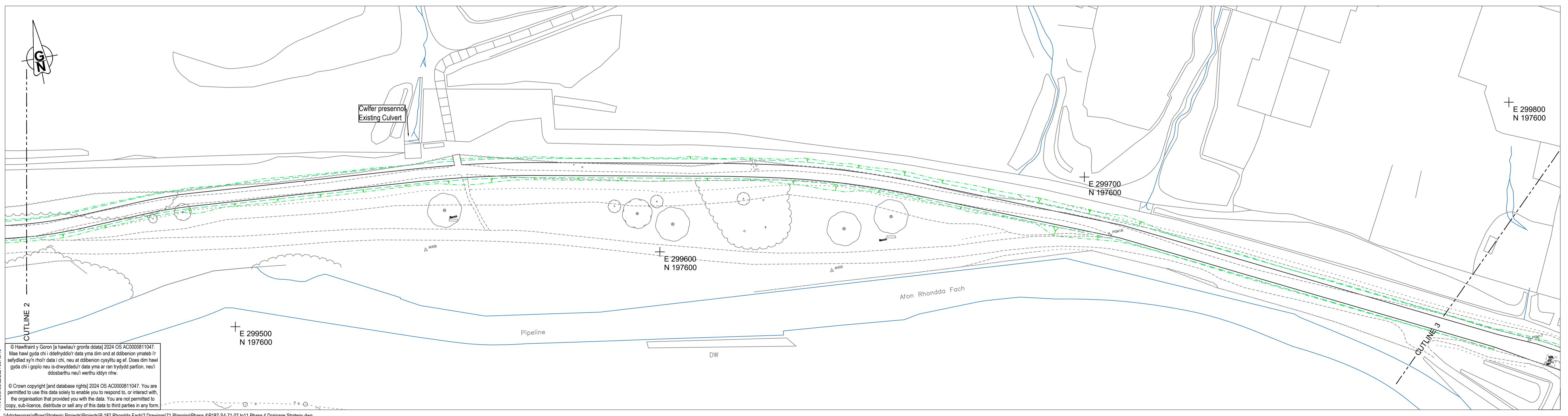


Draen asgell (fin drain) 100mmØ arfaethedig - cyfeiriwch at nodyn 3		Proposed 100mmØ fin drain - refer to note 3
Pibell allfa 100mmØ arfaethedig - cyfeiriwch at nodyn 5		Proposed 100mmØ outlet pipe - refer to note 5
Draen hidlo 300mmØ arfaethedig - cyfeiriwch at nodyn 4		Proposed 300mmØ filter drain - refer to note 4
Wal ben allfa arfaethedig - cyfeiriwch at nodyn 5		Proposed outlet headwall - refer to note 5
Siambr archwilio / twll archwilio arfaethedig		Proposed inspection chamber / manhole
Nodiadau		
1. Rhaid darllen y lluniad ar y cyd â lluniadau P187-S4-71-02, 03 a 04 Trefniadau Cyffredinol, ac Adroddiad Ymchwiliad Tir - GC3569-RED-74-ATR-RP-D-0004 P01 RFATR P3,4 a 5 GIR.		
2. Ar gyfer cynnwys y gwagle aer, ymdreiddiad dŵr ac anystwythder y palmant asffalt hydraidd arfaethedig, cyfeiriwch at y manylion.		
3. Mae draen asgell wedi'i darparu ar ochr isel y palmant i ddraenio palmant hydraidd mewn sefyllfaoedd lle mae'r tir gwaadol presennol yn ddirlawn yn hydrolog / llaif o athreiddedd. Cyfeiriwch at y manylion.		
4. Mae draen hidlo wedi'i darparu er mwyn casglu dŵr ffo dros y tir sy'n rhedeg ar draws y llwybr ar hyn o bryd.		
5. Bydd union leoliad a lefelau'r siambrâu, allfeydd draeniau a waliau blaen yn cael eu pennu unwaith y bydd y gwaith clirio llystyfiant wedi'i gwblhau a'r topograffi presennol wedi'i asesu.		
6. Rhaid i orchuddion a fframiau siambr fod yn y dosbarth D400 yn y rhwydwaith priffydd ac yn y B125 mewn ardaloedd i gerddwyr, ymylon a thirwedd.		
Notes		
1. Drawing shall be read in conjunction with drawings P187-S4-71-02, 03 and 04 General Arrangement, and Ground Investigation Report - GC3569-RED-74-ATR-RP-D-0004 P01 RFATR P3,4&5 GIR.		
2. For the air void content, water infiltration and stiffness properties of the proposed permeable asphalt pavement refer to detail.		
3. Fin drain provided at low side of pavement to drain permeable paving in situations where existing underlying ground becomes hydraulically saturated / reduced permeability. Refer to detail.		
4. Filter drain has been provided for interception of overland runoff that currently issues across the route.		
5. The exact location and levels of chambers, drain outlets and headwalls shall be determined once vegetation clearance has been completed and existing topography assessed.		
6. Chamber covers and frames shall be D400 loading in highway network and B125 loading in pedestrian, verge and landscape areas.		

<u>Strategaeth Ddraenio Arfaethedig</u>	<u>Proposed Drainage Strategy</u>
Cynigir y bydd arwynebau asffalt athraidd yn cael eu defnyddio o Gadwynedd 0m i 430m ac o 1350m i 2490m. Mae hyn yn caniatáu i'r cynnig terfynol gopio'r dŵr ffo naturiol presennol. Mae ymchwiliad tir, gan gynnwys profion athreiddedd daear BRE365, wedi'i gynnal ar hyd y llwybr. Mae'r cyfraddau ymdreiddiad isaf i'w gweld yn y llun hwn ac fe'u hystyrir yn addas ar gyfer arwynebau hydraidd. Mae'r canlyniadau llawn wedi'u cynnwys yn yr Adroddiad Ymchwiliad Tir. Pan fo gan yr arwyneb athraidd gyfradd ymdreiddiad uwch na'r tir presennol gwaelodol, bydd yr arwyneb athraidd yn cael ei amddiffyn rhag difrod a chynnal diogelwch gweithredol yn ystod amodau rhewllyd trwy gynnwys draen asgell gul neu ddraen hidlo i'r ffuriant is-sylfaen. Bydd allfeydd arllwys y draen asgell yn allbynnu 5l/s gyda gofod o tua 80 metr yn y canol. Bwriedir defnyddio palmant anhydraidd o Gadwynedd 430m i 1350m.	It is proposed that permeable asphalt surfacing will be utilised from Chainage 0m to 430m and from 1350m to 2490m. This allows the final proposal to mimic current natural runoff. A ground investigation including BRE365 ground permeability testing has been undertaken along the route. The minimum infiltration rates are shown on this drawing and are deemed suitable for permeable surfacing; full results are included in the Ground Investigation Report. Where the permeable surfacing has a higher infiltration rate than the underlying existing ground, the permeable surfacing will be protected from damage and maintain operational safety during freezing conditions by the inclusion of a narrow fin drain or filter drain to the sub-base formation. The discharge outlets of the fin drain will be outputting 5l/s spaced at approximately 80m centres. It is proposed to use impermeable paving from Chainage 430m to 1350m.



Llanylion Adolygiad/Revision Details		Gan/By	Dyddiad/Date	Adolygiad/ Revision
Prosiect/ Project				
<h1>Lwybr Teithio Llesol Rhondda Fach</h1> <h2>Luniadau Cynllunio Cam 4</h2>				
<h1>Rhondda Fach Active Travel Route</h1> <h2>Phase 4 Planning Drawings</h2>				
Reitil y Llun/ Dwg Title				
<h3>Strategaeth Ddraenio</h3> <h3>(Taflen 1 o 4)</h3>				
<h3>Drainage Strategy</h3> <h3>(Sheet 1 of 4)</h3>				
Rhif y Prosiect/ Project No.	Graddfa/ Scale @ A1		Dyddiad/ Date	
P187	1:500		02/24	
Rhif y Llun/ Dwg No.			Adolygiad/ Revision	
P187-S4-71-07			P00	
Paratowyd gan/ Prepared by:	Gwiriwyd gan/ Checked by:	Cymeradwywyd gan/Approved by:		
JS	LK	NM		
 RHONDDA CYNON TAF PRIFYRDD, GOFAL Y STRYDOEDD A THRAFNIDIAETH		RHONDDA CYNON TAF HIGHWAYS, STREETCARE AND TRANSPORTATION		
PROSIECTAU STRATEGOL/ STRATEGIC PROJECTS Tŷ Sardis/Sardis House, Heol Sardis/Sardis Road, Pontypridd, CF37 1DU Efn/Tel: 01443 425001, Ffacs/Fax: 01443 490411				





Allwedd Key	Proposed 100mmØ fin drain - refer to note 3
Pibell alfa 100mmØ arfaethedig - cyfeirwch at nodyn 5	Proposed 100mmØ outlet pipe - refer to note 5
Draen hidlo 300mmØ arfaethedig - cyfeirwch at nodyn 4	Proposed 300mmØ filter drain - refer to note 4
Wal ben alfa arfaethedig - cyfeirwch at nodyn 5	Proposed outlet headwall - refer to note 5
Siambr archwilio / twll archwilio arfaethedig	Proposed inspection chamber / manhole

Nodiadau

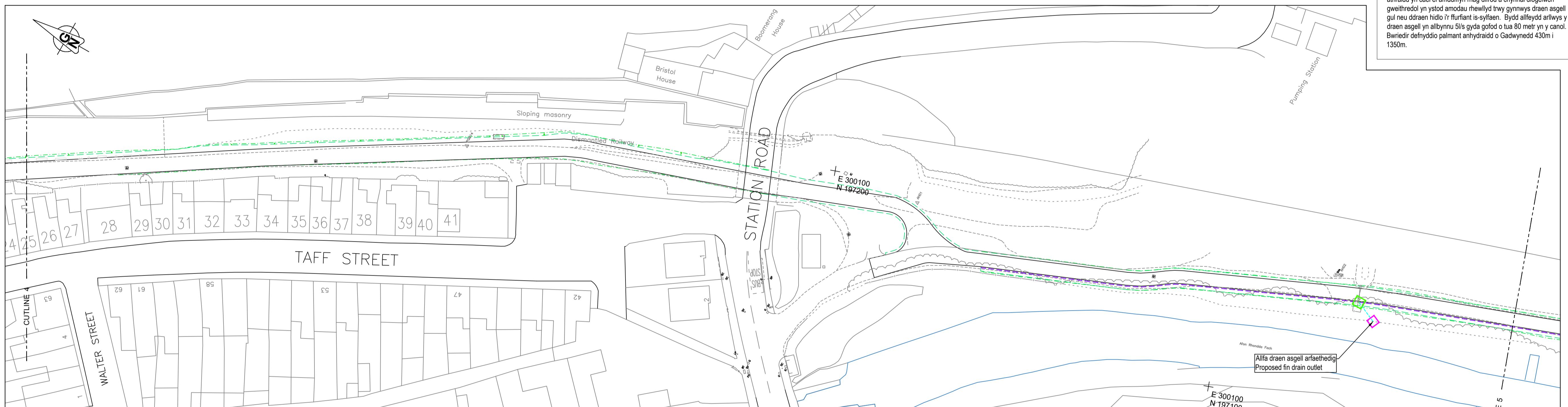
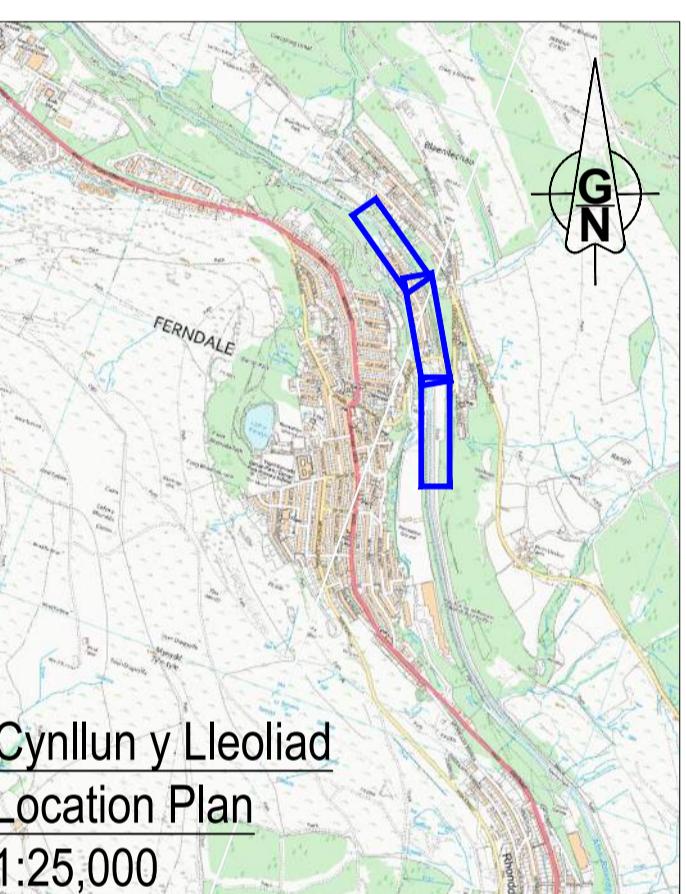
- Rhaid darllen y lluniau ar y cyd a lluniadau P187-S4-71-02, o 04 Trefnadau Cyfrelinol, ac Adroddiad Ynchwiliad Tir - GC3569-RED-74-ATR-RP-D-0004 P01 RFATR P3.4 a 5 GIR.
- Ar gyfer cynwys y gwylle aer, ymredid iwr dŵr ac anystyflod y palmaent asfalt arfaethedig, cyfeirwch at y manylion.
- Mae draen asgell wedi darparu ar ochr isel y palmaent i ddraeno i palmaent hydriaddi mewnw sefyldiaseo lle mae'r tir gwaelod presennol yn ddiwrfa'n ymholig / lla o aethrededig. Cyfeirwch at y manylion.
- Mae draen hidlo wedi darparu er mwyn casglu dŵr ffo dros yr sy'n rhedeg ar draws y llywbr hyn o bryd.
- Bydd union leolad a lefelau'r siambrau, a liffeidd draenau a wallau blaen yn cael ei pennu unwaith y bydd y gwaith cirio llwyfiant fanwl a'u gwylfi a'u topograff presennol wedi'i asesu.
- Rhaid i orchuddion a fframiau siambrau fod yn y dosbarth D400 yn y rhwydwaith prifdydd ac yn y B125 mewn ardaloedd i gerddwr, ymylon a thirwedd.

Strategaeth Ddraeni Arfaethedig
Cynllig y bydd arwynnebau asfalt aethraidd yn cael eu defnyddio o Gadwynedd 0m i 430m ac o 1350m i 2490m. Mae hyn yn caniatá i'r cynllig terfynol gopio'r dŵr fro naturiol presennol. Mae ymchwiliad tir, gan gynnwys profon aethrededig daear BRE365, wedi' gynnwys ar hyd y llywyr. Mae'r cyfraddau ymredid iaf i w gweld yn y llun hwn fe'i hystyr yn addas ar gyfer arwynnebau hydriaddi. Mae'r canlyniaid llawn wedi'i cynwys yn yr Adroddiad Ynchwiliad Tir. Pan fo gan yr arwynyb aethraidd gyfraddi ymredid iach na'r tir presennol gweledol, bydd yr arwynyb aethraidd yn cael ei amddiffyn mag dirfod a chynnal diogelwch gweithredol yn ystod amodau rheilwyd twy gwynnws draen asgell gul neu dræen hidlo i'r furlant-is-yfelaen. Bydd aiffeyd arallwys y draen asgell yn albwnnu 5l's gyda gofod o tua 80 metr yn y canol. Bwriedir defnyddio palmaent anhydriadd o Gadwynedd 430m i 1350m.

Notes

- Drawing shall be read in conjunction with drawings P187-S4-71-02, 03 and 04 General Arrangement, and Ground Investigation Report - GC3569-RED-74-ATR-RP-D-0004 P01 RFATR P3.4&5 GIR.
- For the air void content, water infiltration and stiffness properties of the proposed permeable asphalt pavement refer to detail.
- Fin drain provided at low side of pavement to drain permeable paving in situations where existing underlying ground becomes hydraulically saturated / reduced permeability. Refer to detail.
- Filter drain has been provided for interception of overland runoff that currently issues across the route.
- The exact location and levels of chambers, drain outlets and headwalls shall be determined once vegetation clearance has been completed and existing topography assessed.
- Chamber covers and frames shall be D400 loading in highway network and B125 loading in pedestrian, verge and landscape areas.

Proposed Drainage Strategy
It is proposed that permeable asphalt surfacing will be utilised from Chainage 0m to 430m and from 1350m to 2490m. This allows the final proposal to mimic current natural runoff. A ground investigation including BRE365 ground permeability testing has been undertaken along the route. The minimum infiltration rates are shown on this drawing and are deemed suitable for permeable surfacing; full results are included in the Ground Investigation Report. Where the permeable surfacing has a higher infiltration rate than the underlying existing ground, the permeable surfacing will be protected from damage and maintain operational safety during freezing conditions by the inclusion of a narrow fin drain or filter drain to the sub-base formation. The discharge outlets of the fin drain will be outputting 5l/s spaced at approximately 80m centres. It is proposed to use impermeable paving from Chainage 430m to 1350m.



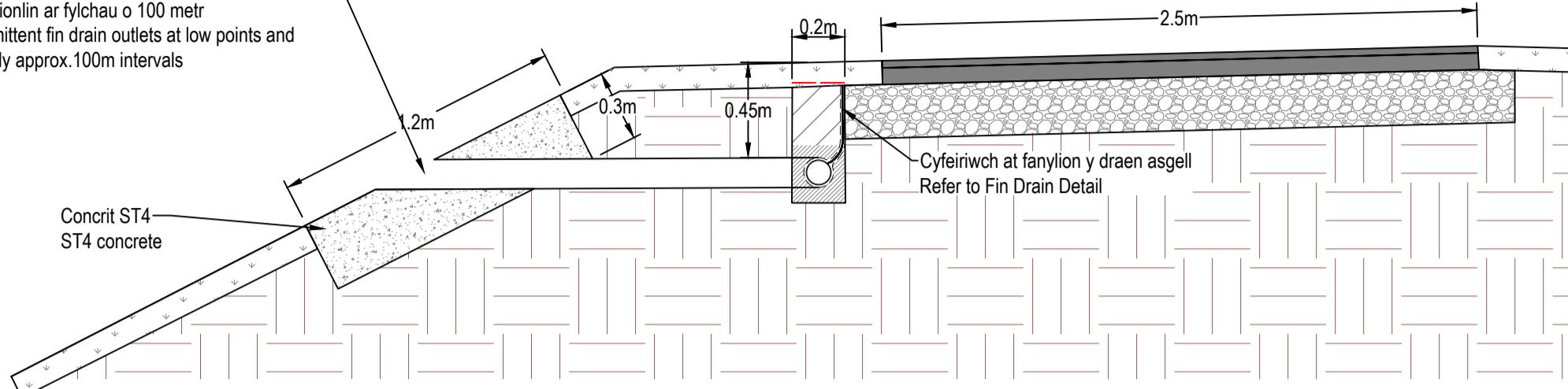
Manylion Adolygiad/Revision Details	Gan/By	Dyddiad/Date	Adolygiad/ Revision
Project/Project			
Llwybr Teithio Llesol Rhondda Fach Lluniadau Cynllunio Cam 4			
Rhondda Fach Active Travel Route Phase 4 Planning Drawings			
Tell y Llun/ Drawing Title			
Strategaeth Ddraenio (Taflein 2 o 4)			
Drainage Strategy (Sheet 2 of 4)			
Rhif y Prosiect/ Project No.	Graddiad Scale @ A1	Dyddiad/ Date	
P187-S4-71-08	1:500	02/24	
Rhif y Llun/ Drawing No.			
P187-S4-71-08			
Paratowyd gan/ Prepared by:	Gwirwyd gan/ Checked by:	Cymraegwyd gan/Approved by:	
JS	LK	NM	
<p><small>© Hawliaint yr Goron (a hawliau'r gronfa ddata) 2024 OS AC0000811047. Mae hawl gyda chi i ddefnyddio'r data yma dim ond iddeben ymateb i'w sefydlad sŵn i'n hawl data i chi, neu i ddebenion cysylltu ag ef. Does dim hawl gyda chi i gopio neu i si-drydeddu'r data yma'n ran tryddyf part, neu i ddebarthu neu i werthu i'w ddydd nhy.</small></p> <p><small>© Crown copyright (and database rights) 2024 OS AC0000811047. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-license, distribute or sell any of this data to third parties in any form.</small></p> <p>RHONDDA CYNON TAF PRIFYRDD, GOFAL & STRYDOEDD A THRAFNIDIAD</p> <p>RHONDDA CYNON TAF HIGHWAYS, STREET CARE AND TRANSPORTATION</p> <p>PROSIECTAU STRATEGOL / STRATEGIC PROJECTS</p> <p>Tŷ Sardis/Sards House, Heol Sardis/Sards Road, Pontypridd, CF37 1DU Ffur Tel: 01443 425001 Plača/Fax: 01443 490414</p>			

Adeiladwaith Palmant Hydraidd Nodweddiaid
Arwyneb 30mm
Rhwympwr 60mm
Cwrs malurion 50mm
200mm Is-sylfaen Math 3 Agored Wedi'i Raddio
(Yn rhagdybio 5% yn ôl y CBR)
Cyfanswm Dfyndwr 340mm

Typical Permeable Pavement Construction

30mm Surfacing
60mm Binder
50mm Crush course
200mm Type 3 Sub Base Open Grade
(Assumes 5% CBR)
Total Depth 340mm

Allfeydd draen asgell ysbeidiol ar bwyntiau isel ac yn unionlin ar fylchau o 100 metr
Intermittent fin drain outlets at low points and linearly approx. 100m intervals



Manylion yr arwyneb hydraidd ar hyd rhan wastad y llwybr \ Permeable Surfacing Detail Along Flat Section of the Road

- Nodiadau

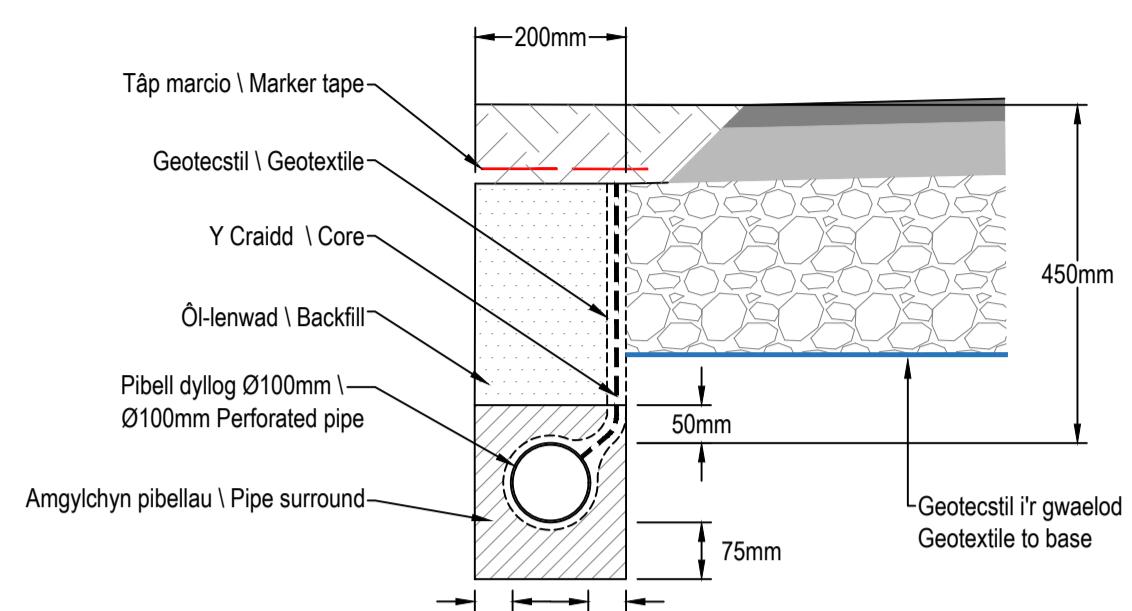
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 2. Darperir draen asgell a allffeydd ar ochr isel y palmant i ddraenio palmant hydraidd mewn sefyllfaeodd lle mae'r tir gwaelodol presennol yn ddirlawn yn hydrolig / llai o hydreddedd.
 3. Llygaid rhodio i fyny'r afon i'w darparu ar ddraen asgell ar fylchau o tua 25 metr.

- Notes

 1. The drain shall be constructed with one geotextile face in contact with the side of the excavation. The side having the greater permeability shall be facing towards and be in contact with the pavement construction where appropriate.
 2. Fin drain and outlets provided at low side of pavement to drain permeable paving in situations where existing underlying ground becomes hydraulically saturated / reduced permeability.
 3. Upstream rodding eyes to be provided on fin drain at approx. 25m intervals.

Manylion Draen Cul

Fin Drain Detail



- Draen asgell (fin drain) 100mmØ arfaethedig - cyfeiriwch at nody
- Pibell allfa 100mmØ arfaethedig - cyfeiriwch at nodyn 5
- Draen hidlo 300mmØ arfaethedig - cyfeiriwch at nodyn 4
- Wal ben allfa arfaethedig - cyfeiriwch at nodyn 5
- Siambr archwilio / twll archwilio arfaethedig

Allwedd
Key

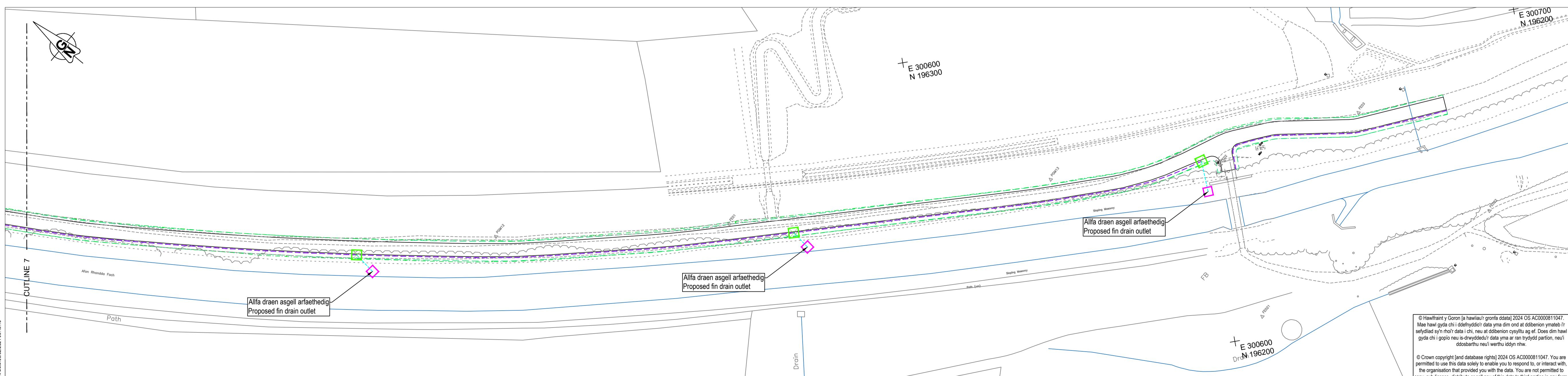
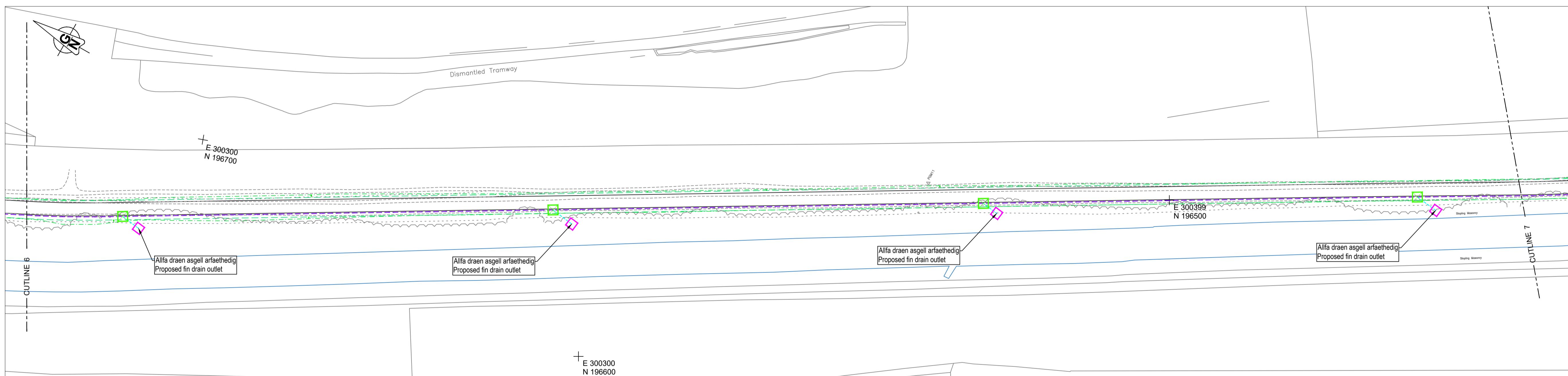
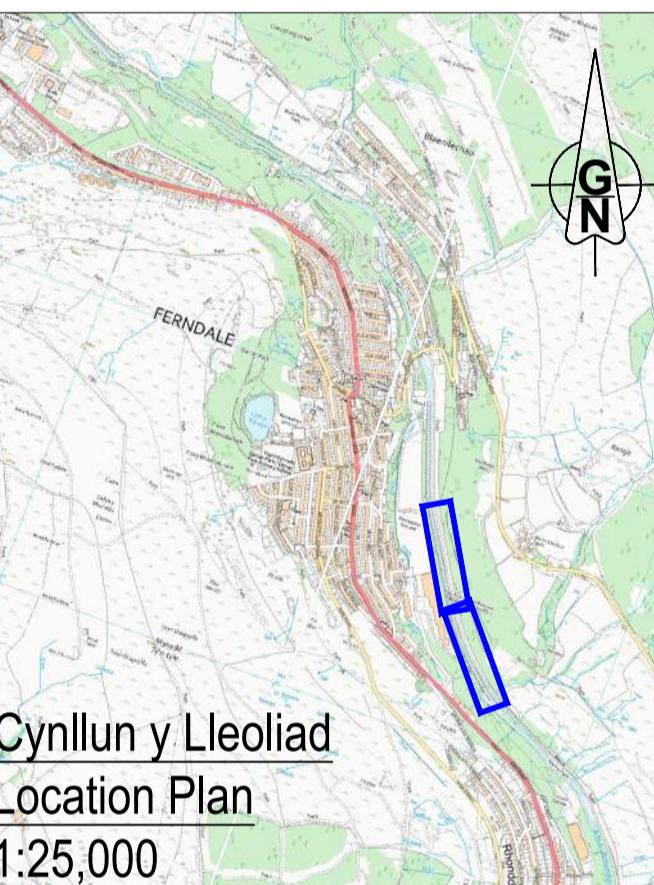
- Proposed 100mmØ fin drain - refer to note 3
- - - Proposed 100mmØ outlet pipe - refer to note 5
- - - Proposed 300mmØ filter drain - refer to note 4
- Proposed outlet headwall - refer to note 5
-   Proposed inspection chamber / manhole

- Notes

 1. Drawing shall be read in conjunction with drawings P187-S4-71-02, 03 and 04 General Arrangement, and Ground Investigation Report - GC3569-RED-74-ATR-RP-D-0004 P01 RFATR P3,4&5 GIR.
 2. For the air void content, water infiltration and stiffness properties of the proposed permeable asphalt pavement refer to detail.
 3. Fin drain provided at low side of pavement to drain permeable paving in situations where existing underlying ground becomes hydraulically saturated / reduced permeability. Refer to detail.
 4. Filter drain has been provided for interception of overland runoff that currently issues across the route.
 5. The exact location and levels of chambers, drain outlets and headwalls shall be determined once vegetation clearance has been completed and existing topography assessed.
 6. Chamber covers and frames shall be D400 loading in highway network and B125 loading in pedestrian, verge and landscape areas.

Proposed

It is proposed that permeable asphalt surfacing will be utilised from Chainage 0m to 430m and from 1350m to 2490m. This allows the final proposal to mimic current natural runoff. A ground investigation including BRE365 ground permeability testing has been undertaken along the route. The minimum infiltration rates are shown on this drawing and are deemed suitable for permeable surfacing; full results are included in the Ground Investigation Report. Where the permeable surfacing has a higher infiltration rate than the underlying existing ground, the permeable surfacing will be protected from damage and maintain operational safety during freezing conditions by the inclusion of a narrow fin drain or filter drain to the sub-base formation. The discharge outlets of the fin drain will be outputting 5l/s spaced at approximately 80m centres. It is proposed to use impermeable paving from Chainage 430m to 1350m.



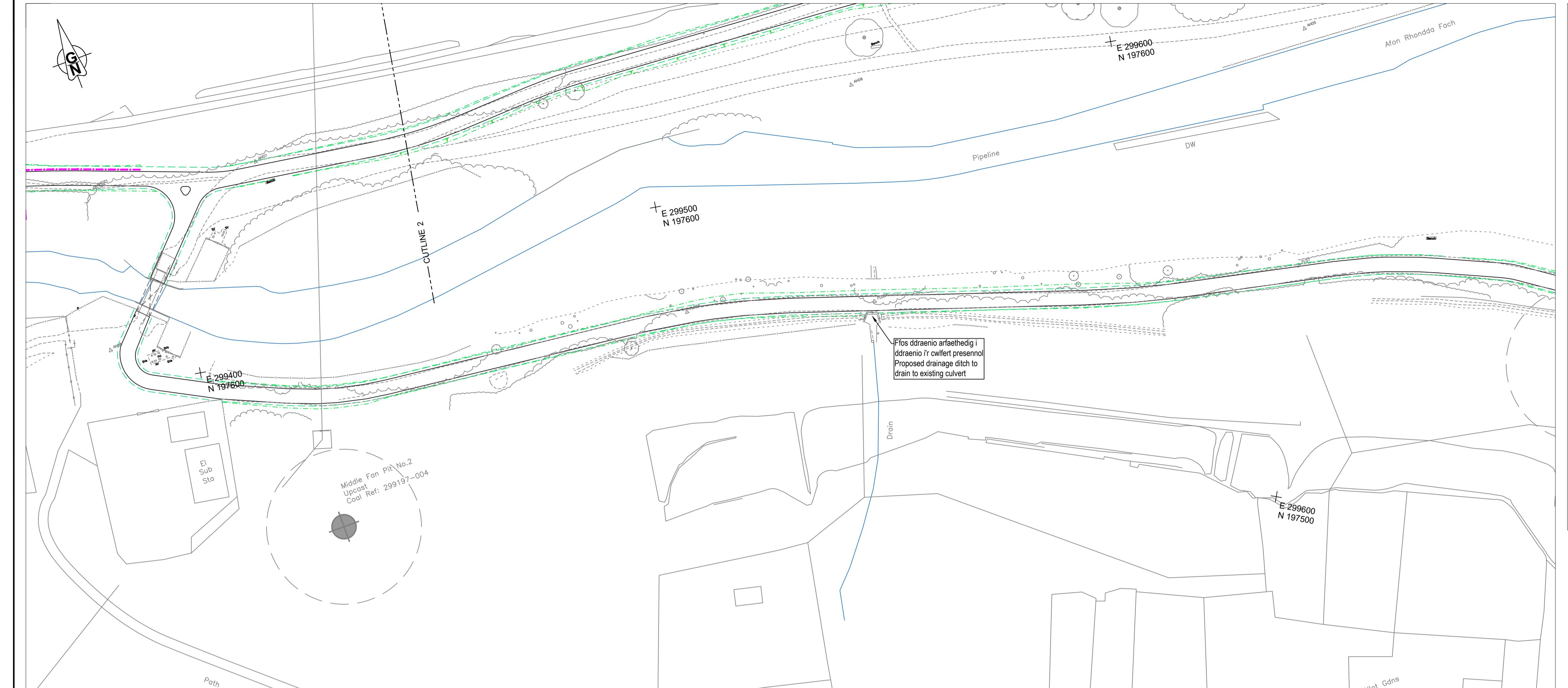
Llawnion Adolygiad/Revision Details	Gan/By	Dyddiad/Date	Adre/Rev
Project/ Project			
Iwybr Teithio Llesol Rhondda Fach Juniadau Cynllunio Cam 4			

Rhondda Fach Active Travel Route Phase 4 Planning Drawings

Strategaeth Ddraenio (Taflen 3 o 4)

Drainage Strategy (Sheet 3 of 4)

Rhif y Prosiect/ Project No.	Graddfa/ Scale @ A1	Dyddiad/ Date
P187	1:500	02/24
Rhif y Llin/ Dwg No.		Adolygiad/ Ref
P187-S4-71-09		P00
Paratowyd gan/ Prepared by:	Gwiriyd gan/ Checked by:	Cymeradwywyd gan/Approved by
JS	LK	NM



Allwedd Key

- Proposed 100mmØ fin drain - refer to note 3
- Proposed 100mmØ outlet pipe - refer to note 5
- Proposed 300mmØ filter drain - refer to note 4
- Proposed outlet headwall - refer to note 5
- Proposed inspection chamber / manhole

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