



Gresford Road, Llay

Arboricultural Method Statement

February 2021

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Section 1

General

This Arboricultural Method Statement (AMS) is prepared on behalf of Aldi Stores Ltd for development at land adjacent to Gresford Road, Llay.

This document is intended to demonstrate the degree of protection to be undertaken and demonstrate the fact that, in arboricultural terms, the development is sustainable.

This AMS sets out proposed measures to minimise and mitigate construction impact on the trees and actions for the management of the site during the construction phase. The document provides certainty of outcomes, for example details of special engineering within tree Root Protection Areas.

It is intended that the AMS remains under review during the construction of the project. Sequencing of tree protection measures has been programmed with the contractors construction programme. The following text contains a series of considerations that Aldi and their appointed developer will follow whilst working on the project to completion.

Section 2

Description and Location of Project	
Author:	ACS Consulting, 272 Bath Street, Glasgow G2 4JR.
Project Title:	Aldi Llay.
Location:	Land adjacent to Gresford Road, Llay.
Nature of Project:	Erection of foodstore (Use Class a1), car park, access and landscaping.
Contract Period:	TBA

Section 3

Description of Project

Erection of foodstore (Use Class a1), car park, access and landscaping.

Section 4

Statutory Protections

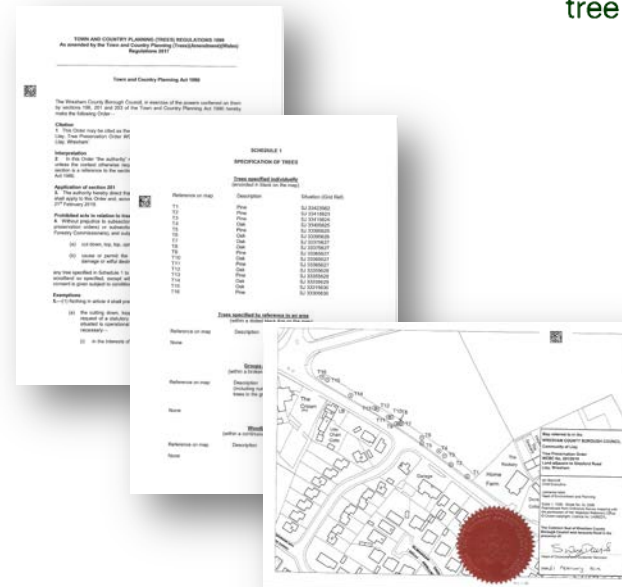
The trees along the boundary with Gresford Road are the subject of a Tree Preservation Order.

Planning Conditions

The consent has two Arboricultural Planning Conditions 19 and 20.

19. No part of the development shall commence until full details for the arboricultural supervision of tree protection measures and any ground works within retained tree(s) Root Protection Areas, as specified by BS5837:2012 or as shown on a Tree Protection Plan have been submitted to and approved in writing by the Local Planning Authority. The supervisory works shall be carried out in strict accordance with the details as approved.[sic]

20. No part of the development shall commence until a detailed Arboricultural Method Statement has been submitted to and approved in writing by the Local Planning Authority. No development or other operations shall take place except in strict accordance with Method Statement as is approved. The Method Statement shall include the following:



Section 4

Planning Conditions Cont....

- 1) *A specification for tree protection fencing and ground protection measures that comply with British Standard 5837:2012;*
- 2) *A Tree Protection Plan showing the location of the trees to be removed and retained with their crown spreads, Root Protection Areas, Construction Exclusion Zones, and location of protective fencing and ground protection measures accurately plotted;*
- 3) *A full specification for any access, driveway, path, underground services or wall foundations within retained tree Root Protection Areas or Construction Exclusion Zone , including any related sections and method for avoiding damage to retained trees;*
- 4) *Details of general arboricultural matters including proposed practices with regards to cement mixing, material storage and fires;*
- 5) *Details of the frequency of supervisory visits and procedures for notifying the findings of such visits to the Local Planning Authority;*
- 6) *Method for protecting retained trees during demolition works;*
- 7) *Details of all proposed tree works, including felling and pruning.[sic]*

Section 5

Tree Survey

The trees were surveyed for species type, age, height, crown spread, diameter-at-breast-height, condition, and their suitability for retention from ground level. The heights were measured with a Hypsometer and the stem diameters taken with a diameter tape to give an average stem measurement. Canopy spreads have been measured at the cardinal points or where they significantly extend in other directions.

The trees have been assessed using the BS 5837 2012 category ratings (a copy can be found in Appendix A). The data collection accords with the advice set out at Subsection 4.4.2.5 of BS 5837:2012

Section 6

Risks to and Impacts on Retained Trees

Overall, the proposed development impact is considered to be low/negligible.

As part of the development a footpath will be installed within the application site. The path passes through the Root Protection Area (RPA) of a number of the retained trees. The footpath will be installed using no-dig methodology as detailed. The installation of the path has no implications for the retention and physiology of the trees. The path accounts for less than 5% of the RPA for each tree.

The development retains the site's principal arboreal features in good spatial positions.

Section 7

Construction Methods and Sequence

A Construction Method Statement and Timetable is to be drafted on the appointment of a construction firm.

A typical schedule of works/inspection is produced below.

	Operation	Tree Protection Measures	Inspection	Reporting
Week 1	Install highway/entrance, compound, no-dig footpaths.	Compliance with AMS, Tree Protection fence to be installed as shown on adjusted co-ordinates (RED) on Tree Protection Plan (TPP) TPP/3926/Y/300 and supplementary sheets.	ACS twice weekly	Development team and LPA by email.
Week 2	Site clearance.	Compliance with AMS. Tree protection measures to be adjusted to GREEN line as shown on TPP and supplementary sheets.	ACS twice weekly	Development team and LPA by email.
Month 1	Construction.	Continuing compliance with AMS/TPP.	Monthly	Development team and LPA by email.
Month 2	Construction.	Continuing compliance with AMS/TPP.	Monthly	Development team and LPA by email.
Month 3 – 6	Construction.	Continuing compliance with AMS/TPP.	Bi-Monthly	Development team and LPA by email.
Month 6 - 18	Construction.	Continuing compliance with AMS/TPP. Site wind down, assess trees for pruning and make TPO application if necessary.	Quarterly	Development team and LPA by email.

Section 8

Conclusions

The development can be achieved with minimal impact to the retained trees using the tree protection methods as detailed.

Arboricultural Method Statement

Arboricultural Supervision

The general purpose is to ensure compliance with planning conditions. It is anticipated that arboricultural input is likely to be needed for the following operations:

- Pre-commencement meeting;
- Installation of protective fencing and surfaces;
- Installation of no dig path;
- Services (power, water, foul);
- Assess trees for pruning;
- Removal of protective measures.

All supervisory visits will be logged and a copy of the minutes circulated to all team members including the LPA. A number of the operations named above can be undertaken in a single visit.

The pre-commencement site meeting is to be held before any work is undertaken. All tree protection measures, haul routes, site storage, contractor parking, deliveries, working methods are to be freely discussed and agreed in writing. Initial site visits may be intense to ensure measures are implemented.

General site visits will be undertaken once the site is 'live' at intervals agreed with the team. Our role will be to initially to act in a compliance capacity to ensure the protective measures are fit for purpose and meet or exceed the council's requirements and the tree works are undertaken to the required standard. Once this has been completed, our role will be one of monitoring and 'troubleshooting'.

Actions

- Pre-commencement site meeting to agree roles, responsibilities and duties in relation to tree protection. Details to be minuted and distributed.
- Appointment of an Arboricultural Consultant to oversee works.

Arboricultural Method Statement

Construction Exclusion Zone Root Protection

Due to the nature of the works, standard BS 5837 fencing will be used. The Construction Exclusion Zone fence will be heras fence panels fixed to a scaffold framework. Alternatively, heras panels fixed to timber posts. The location will be marked on site by the Arboricultural Consultant and are also shown on the Drawing No. – TPP/3926/Y/300.

Actions

- Heras fencing fixed to a scaffold framework or timber posts as illustrated.
- Fencing installed at locations shown on the plan (TPP/3926/Y/300) and confirmed in the co-ordinate data shown on the plan and at Appendix B.
- Location and adequacy signed off by Arboricultural Consultant and LPA advised.
- Tool Box Talk – make construction staff aware of the importance of areas by site manager.
- Signs to be erected advising of the area's importance.
- Fence to be adjusted as noted in the Construction Timetable.



Arboricultural Method Statement

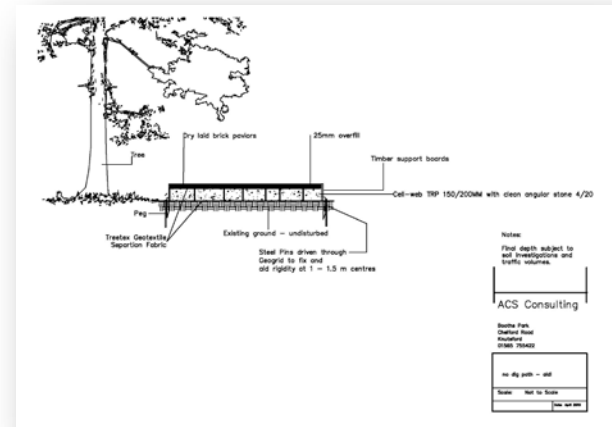
Construction Exclusion Zone No dig footpath

The contractor is required to meet with the ACS Consulting at the site prior to beginning work to review all procedures, access and haul routes, storage and tree protection measures. Tree contractors and not construction personnel must perform additional tree pruning required for clearance during construction.

Actions

- Major protrusions: Rocks, stumps to be removed under supervision. Major hollows: All significant hollows are to be filled with SHARP sand to give a level surface. All other vegetation shall be retained. Tree tex shall be laid directly on the site
- The geogrid may be placed on the sub-grade to the road centre line or transversely. The minimum overlap shall be 300 mm, the maximum overlap shall be 600 mm. Any overlap is to be maintained. This may be achieved by pinning the overlap in position with steel pins or placing local mounds of fill material on the overlap. Timber boards shall be placed along the sides of the area, overlapping the tree tex. The boards shall be fixed in place with timber pegs.
- A WASHED, graded aggregate is considered a suitable sub-base. Type 1 or Type 2 is recommended as described in Clauses 803 and 804 in the DoT Specification for Highway Works.

- Lorry loads of the sub-base material shall be tipped into stockpiles adjacent to the Tree Protection Area and NOT directly onto the geogrids. The sub-base shall be spread by suitable mechanical plant with due regard for the tree canopies. The sub-base shall be spread in such a manner that the material cascades onto the geogrids. The material will be spread in such a fashion that the material advances across the grids rather than along. The material shall be spread in layers of 100 mm thickness to the required depth.
- No compaction of the unbound sub-base is to take place.
- The final layer shall be placed over the stone. This may consist of dry laid block sets or tarmac.



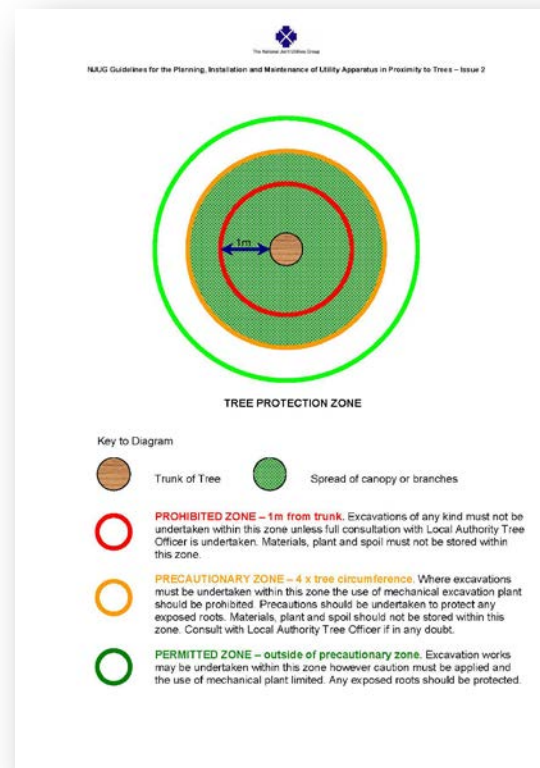
Arboricultural Method Statement

Services

Where the services are located in the Root Protection Area they will be installed in accordance with NJUG 4.2.

Actions

- The precautionary area is to be identified.
- Suitable method of service installation to be identified.
- Location and adequacy signed off by the Arboricultural Clerk of Works and the LPA advised.
- Works to be monitored by Arboricultural Consultant.



Arboricultural Method Statement

General Precautions

The retention of trees requires a number of general precautions to be taken. Compliance is to be maintained on site by the Arboricultural Consultant.

Actions

- Spoil from the foundation pits or other excavations shall not be placed within the Construction Exclusion Zone.
- No materials, equipment, spoil or washout water may be deposited, stored or parked within the Root Protection Area/ Construction Exclusion Zone.
- On-site inspections to be undertaken by the Arboricultural Clerk of Works with the Arboricultural Consultant visiting during critical operations. The aim of the visits is to maintain on-going liaison with all personnel involved in the site development, Local Planning Authority and its Tree Officer.
- Any defects requiring rectification shall be notified to the Contractor/Site Manager/Arboricultural Consultant and the client.
- A site logbook for tree protection measures is kept to record all stages of the development from the erection of the protective fencing, right through to the completion of the project. This will be made available to the Arboricultural Consultant and the Local Planning Authority, if required, to show evidence of continuous site monitoring.

Protection and Emergency Procedure/Contacts

Adherence to the method statement, appointment of the Arboricultural Consultant and their involvement, at the critical demolition and construction phases, should negate any incident. The contact page details those personnel who should be contacted if an incident involving a retained tree should take place.

Actions

- Spill kit available.
- On site fuels to be located away from RPA/CEZ and contained in a bunded tank at 110% capacity.
- All incidents involving trees to be reported by telephone and email.
- Bunded storage of oil/fuels.
- Refuelling points for machinery at distance to the watercourse.
- Use of drop trays under plant/machinery overnight.
- Availability of spill kits on site – and training of site staff in their use.
- No excavation during periods of heavy rain.
- Regular maintenance and inspection of plant – engines and hydraulic systems.

Arboricultural Method Statement

Contact List

Title	Name	Address	Telephone	Email
Arboricultural Consultant	I Murat	ACS Knutsford, WA16 8GS	01565 755422	mail@acsconsulting.co.uk
Design	M Simpson	THP Manchester M1 2HG	0161 238 8555	mail@harrispartnership.com
Project Manager	P Hamilton	CTM Management Ltd. Warrington WA3 6AE	01925 284100	mail@ctmmanagement.co.uk>
Arboricultural Consultant (Council)	J Brewin	Wrexham Council Wrexham LL11 1LG	01978 298763	Jon.Brewin@wrexham.gov.uk

Appendix A

Contents

Key

BS 5837 2012

Tree data

KEY

Age	Y – Young: Out-planted trees that have not yet established SM – Semi-mature: Established trees up to 1/3 of expected height and crown EM – Early mature: Between 1/3 and 2/3 of expected height and crown M – Mature: Between 2/3 and full expected height and crown FM – Fully mature: Full expected height and crown OM – Over mature: Crown beginning to break-up and decrease in size S – Senescent: Crown in advanced stage of break-up
Physiological Condition	Good – Very few defects a reasonable long life expectancy depending on age class Fair – Some defects giving the tree a shortened life expectancy Poor – Limited life with major problems
Structural Condition	Good – Very few defects Fair – Some defects rectifiable with minor tree surgery Poor – Significant defects rectifiable with major tree surgery or felling
#	Estimated dimensions.
(a)	Average stem diameter across a group of trees.
*	Tree subject to TPO.

Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria			Identification on Plan
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other U category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. <i>NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve; see 4.5.7</i>			RED
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation.	
Trees To Be Considered For Retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dormant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.	BLUE
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value, and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural benefits	GREY

Tree Ref No.	Species	Height	Stem Diameter	Branch Spread M				Height of Crown Clearance	Clear Branch Height	Age Class	Physiological Condition	Structural Condition	Comments/Preliminary Management Recommendations	Estimated Remaining Contribution Years	Category Grading
		M	MM	N	E	S	W	M	M						
H1	Hedge	1.5	M/S	0.5	0.5	0.5	0.5	0	0	M	Good	Good	Maintained by regular flailing. Of moderate quality and value in the landscape.	20+	B1/2
H2	Hedge	1.5	M/S	0.5	0.5	0.5	0.5	0	0	M	Good	Good	A hedge of moderate quality and value in the landscape.	20+	B1/2
H3	Hedge	1.5	M/S	0.5	0.5	0.5	0.5	0	0	M	Good	Good	A hedge of moderate quality and value in the landscape.	20+	B1/2
H4	Hedge	1.5	M/S	0.5	0.5	0.5	0.5	0	0	M	Good	Good	A hedge of moderate quality and value in the landscape.	20+	B1/2
1	Cypress	4	100	0.5	0.5	0.5	0.5	1	1	SM	Good	Good	Located in third party property. A tree of low quality and value in the landscape.	10+	C1/2
G1	Group	<9	<150	2	2	2	2	2	2	SM	Good	Fair	Mixed group of maple, spruce and willow. Located in third party property. Of low quality and value in the landscape.	10+	C1/2
2	Poplar	9	220	3	4	4	1	2	2	SM	Good	Good	Possibly located in third party property. Of low quality and value in the landscape.	10+	C1/2

Tree Ref No.	Species	Height M	Stem Diameter MM	Branch Spread M				Height of Crown Clearance M	Clear Branch Height M	Age Class	Physiological Condition	Structural Condition	Comments/Preliminary Management Recommendations	Estimated Remaining Contribution Years	Category Grading
				N	E	S	W								
G2	Group	<7	<200	2	2	2	2	0	0	SM/EM	Good	Fair	Group of poplar and cypress. Located in third party property. A group of low quality and value in the landscape.	10+	C1/2
3	Pine	16	550	2	5	5	5	5	5	M	Good	Good	Prominent in the landscape. Minor dead wood. A tree of moderate quality and value in the landscape.	20+	B1/2
4	Pine	16	#550	2	4	5	2	6	6 (S)	M	Good	Fair	Ivy on the stem and into the canopy. Possibly located off-site. A tree of low quality and value in the landscape.	10+	C1/2
5	Pine	16	450	3	3	2	4	10	10	M	Good	Fair	Leans north. Restricted root development due to ditch. Storm damage. A tree of low quality and value in the landscape.	10+	C1/2
1755	Oak	10	500	2	5	5	6	2	2	M	Fair	Fair	Storm damage. Cavities. A tree of low quality and value in the landscape.	10+	C1/2

Tree Ref No.	Species	Height M	Stem Diameter MM	Branch Spread M				Height of Crown Clearance M	Clear Branch Height M	Age Class	Physiological Condition	Structural Condition	Comments/Preliminary Management Recommendations	Estimated Remaining Contribution Years	Category Grading
				N	E	S	W								
1756	Oak	12	780	5	7	6	7	3	3	M	Good	Good	Dead wood - typical of species. Disturbance to the southern stem at ground level. Possibly a cavity forming. A tree of low quality and value in the landscape.	10+	C1/2
1757	Pine	16	550	2	5	6	4	5	5 (S)	M	Good	Good	A tree of moderate quality and value in the landscape.	20+	B1/2
1758	Ash	9	150	3	0	2	3	2	2	Y	Good	Good	Epicormic growth from a decaying stump. A tree of low quality and value in the landscape.	10+	C1/2
1759	Oak	14	720	7	4	2	5	3 (N)	4	M	Fair/Poor	Poor	Formally twin stemmed. Extensive scar on the eastern stem with brown rot. Scaffold limb in the upper canopy has a large scar. Possible roost potential.	10	C3
1760	Oak	16	555	6	6	5	6	2 (E)	3 (E)	M	Fair/Poor	Good	Die-back. Poor distribution of buds and twigs in the upper canopy. A tree of low quality and value in the landscape.	10+	C1/2

Tree Ref No.	Species	Height M	Stem Diameter MM	Branch Spread M				Height of Crown Clearance M	Clear Branch Height M	Age Class	Physiological Condition	Structural Condition	Comments/Preliminary Management Recommendations	Estimated Remaining Contribution Years	Category Grading
				N	E	S	W								
1761	Pine	16	505	2	3	5	5	6	6 (S)	M	Good	Good	A tree of moderate quality and value in the landscape.	20+	B1/2
1762	Oak	16	680	3	5	7	6	2	2	M	Fair	Good	Poor distribution of buds and twigs in the upper canopy. A tree of low quality and value in the landscape.	10+	C1/2
1763	Pine	15	460	0	2	4	3	8	8	M	Fair	Fair	Extensive storm damage. Root exposure. Incongruous feature. A tree of low quality and value in the landscape.	10+	C1/2
1764	Oak												Oak stump.	-	U
1765	Oak	16	720	6	8	#8	6	2 (W)	2 (W)	M	Good	Good	Storm damage. Poor structural features in branches. If retained will require crown cleaning. A tree of moderate quality and value in the landscape.	20+	B1/2
1768	Pine	16	415	0.5	2	3	3	7	7	M	Good	Good	A tree of moderate quality and value in the landscape.	20+	B1/2

Tree Ref No.	Species	Height M	Stem Diameter MM	Branch Spread M				Height of Crown Clearance M	Clear Branch Height M	Age Class	Physiological Condition	Structural Condition	Comments/Preliminary Management Recommendations	Estimated Remaining Contribution Years	Category Grading
				N	E	S	W								
1767	Oak	16	870	4	6	8	6	2 (S)	2 (S)	FM	Good	Good	A tree of high quality and value in the landscape. Work Remove dead wood.	40+	A1/2
1768	Elm	12	395, 170	4	4	4	4	2	2	SM/ EM	Good	Good	Typically short-lived. A tree of low quality and value in the landscape.	10+	C1/2
1769	Thorn	5	250	3	2	4	3	0 (N)	2	M	Good	Good	A tree of low quality and value in the landscape.	10+	C1/2
1770	Thorn	6	a 150	2	1	4	3	1	2	M	Good	Good	A tree of low quality and value in the landscape.	10+	C1/2
1771	Oak	15	950	5	6	8	7	2	3	M	Fair	Good	Reasonable distribution of buds and twigs. Thin in the upper canopy. Dead wood. A tree of moderate quality and value in the landscape.	20+	B1/2
1772	Pine	16	510	3	2	3	3	6	6	M	Good	Fair	Extensive injury to the north – possibly from cattle browsing. Poor wound wood. A tree of low quality and value in the landscape.	10+	C1/2

Appendix B

Contents

Tree Protection Fence Co-ordinates

Tree Protection Stations		
Name	Easting	Northing
TP1	333396.474	356250.842
TP2	333402.350	356252.573
TP3	333404.619	356262.826
TP4	333402.919	356265.893
TP5	333397.442	356271.178
TP6	333391.404	356271.155
TP7	333386.577	356277.024
TP8	333368.616	356287.087
TP9	333356.593	356293.914
TP10	333353.475	356295.148
TP11	333349.913	356295.204
TP12	333346.431	356294.783
TP13	333343.788	356300.825
TP14	333341.354	356303.753
TP15	333338.172	356305.507
TP16	333334.893	356306.629
TP17	333328.065	356305.242
TP18	333325.781	356311.614
TP19	333321.168	356317.104
TP20	333318.371	356319.279
TP21	333300.909	356319.693
TP22	333349.084	356340.922
TP23	333349.562	356340.020
TP24	333413.400	356357.729
TP25	333437.478	356311.446
TP26	333464.769	356259.784
TP27	333463.267	356257.053
TP28	333437.377	356231.293
TP29	333435.072	356232.647
TP30	333431.631	356232.487
TP31	333426.662	356230.763

Tree Protection Stations - Adjusted		
Name	Easting	Northing
TPA1	333312.017	356319.471
TPA2	333313.634	356313.763
TPA3	333314.315	356312.498
TPA4	333323.099	356306.351
TPA5	333342.245	356293.968
TPA6	333343.032	356292.797
TPA7	333342.539	356288.689
TPA8	333341.232	356286.490
TPA9	333343.506	356285.331
TPA10	333345.261	356288.139
TPA11	333347.000	356289.342
TPA12	333348.800	356289.625
TPA13	333354.002	356288.971
TPA14	333382.636	356272.789
TPA15	333383.962	356270.566
TPA16	333384.227	356268.792
TPA17	333381.396	356263.739
TPA18	333380.040	356264.266
TPA19	333379.557	356263.693
TPA20	333383.071	356261.058
TPA21	333385.905	356265.967
TPA22	333389.617	356270.214
TPA23	333398.249	356274.445

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