

Highway Works Agreements

10.1 General Introduction

The purpose of this annexure is to provide information for developers about the different, most common types of highway works agreements, when each is applicable, and the procedures to be followed in each case to ensure matters can be dealt with expeditiously.

A condition or conditions imposed on a planning consent may require alterations or improvements to the public highway to be completed before a development is occupied or, in some instances, before it is commenced. For the necessary works to be executed the developer must enter into an appropriate form of highway works agreement with the Highway Authority.

In some cases, where a condition has not been imposed, the requirement may be in the form of a planning obligation contained in an agreement made between the developer and Local Planning Authority under Section 106 of the Town and Country Planning Act 1990 relating to the planning consent.

The highway works agreements discussed are;

- 10.2 Section 38 Highway Agreement
- 10.3 Section 278 Highway Agreement
- 10.4 Section 219/200 Agreement (Advanced Payments Code)
- 10.5 Section 278 Minor Works and Section 184 Agreements

This document also includes details on how commuted sums are calculated.

10.2 Section 38 Agreement

Section 38 is a power allowing Highway Authorities to adopt newly constructed roads by agreement with landowners and developers. To facilitate adoption, Warwickshire County Council (WCC) requests that all new roads on developments are constructed to standards suitable for adoption.

Areas for adoption will always include the following elements where these are provided: carriageways; cycleways; footways; verges; service strips, and highway drains where no public sewer is provided. For WCC's requested standards developers should refer to the guidance contained within all parts of the Warwickshire Design Guide and [County Surfacing Strategy](#).

10.2.1 Section 38 Submission

To secure the adoption of roads it will be necessary, once the relevant planning consent has been issued, for the developer to apply in writing to the Highway Authority to enter into an agreement under Section 38 of the Highways Act 1980. The application form can be found at [WCC's Estate Roads for Adoption](#).

The developer will be required to deposit a secured bond with the Highway Authority to the value of the highway works. Where a developer deposits a bond or payment with the Highway Authority for the construction of the roads under Section 219 of the Highways Act 1980 - the Advance Payments Code - then such a bond or payment may be transferable to the Section 38 Agreement.

Under the terms of the agreement the Authority will, amongst other things, undertake regular site inspections and issue such instructions as may be appropriate regarding construction materials and procedures. However, it should be noted that design changes should be approved in writing by WCC's Approving Engineer.

A staged release of the bond will be in accordance with the agreement:

- A reduction at completion of binder within the carriageway, subject to satisfactory material testing.
- A reduction at completion of the binder course within the footway.
- A reduction at completion (maintenance period).

At the end of the maintenance period, subject to the satisfactory completion of any remedial works which may in the opinion of the Highway Authority be necessary, the highways will be adopted and therefrom will be maintainable at public expense.

Within your Section 38 submission, you should provide:

- A cheque for £1500.00 made payable to Warwickshire County Council to cover technical approval. Note, a charge of £500 will be made for every set of comments made above the first three.
- A completed application form.
- A copy of the planning permission.
- A coloured layout, using the convention detailed below.
- Results from a full ground investigation, to include, in situ CBR's and Plasticity Index testing. Without this information the submission will not be considered as this information is crucial to ascertaining the 'design' CBR of the roads. Should the PI testing not be carried out, then a sub-base layer of 600mm will need to be specified as per the guidance in County Surfacing and Structural Maintenance Strategy.

WCC require the technical approval drawings to contain the following;

- A coloured layout, using the following colours:

Carriageways (asphalt and blocks)	Brown
Footways and drive crossings	Yellow
Verges and service strips; Trees	Green
Cycleways (shared or segregated)	Grey
Highway drains and gully connections	Blue
Land ownership boundary	Edged red
Works within the highway	Edged and hatched pink above carriageway, footway or verge colouring

- The coloured plan should detail chainages, annotated drainage (manholes, pipe runs, etc)
- The coloured drawing should also include a table, detailing the adoptable linear and square metreage of the carriageway, the footway, and the verge

- A drainage plan, clearly marking the difference between highway drainage and Section 104 drainage, and any other drainage within the adoptable highway and its status i.e., Private/Water Authority adopted
- An engineering layout
- A contour plan
- Longitudinal sections, detailing channel levels, horizontal and vertical curves, drainage details etc.
- Construction details
- A manhole schedule
- A kerbing and surfacing plan
- A Stage 2 Road Safety Audit (RSA2) (and accompanying Designer's Response)

10.2.2 Technical Approval

Technical approval will not be granted until the various consultations, i.e., street lighting, drainage and highway landscaping have been agreed.

At this stage, the bond will be calculated at 110% of the total cost of works plus commuted sums, using WCC rates. The inspection fees will be calculated as follows:

- 8.5% of the bond (excluding commuted sums) should the developer agree to not commence Section 38 works until technical approval has been granted.
- +1% over and above the 8.5% every calendar month, that the developer wilfully constructs Section 38 works without the benefit of technical approval.

It is possible that a Section 38 inspector may be released to site prior to technical approval being granted, but the following conditions must be met:

- The long sections are required to be approved.
- The construction details are required to be approved.
- CBR's and PI testing are to have been carried out, and the design CBR and construction depths agreed with the Engineer. (N.B. If PI testing has not been carried out then a capping layer of 600mm will be assumed).
- The 8.5% fees will have been paid (with the balance to be paid on signing of the agreement).

Provisional commuted sums will be calculated using the method below, with the final balance to be paid prior to adoption.

10.2.3 Site Inspections

Upon receipt of the inspection fees, a pre-start meeting should be arranged with the relevant site inspector, and then regular inspections will be carried out.

10.2.4 Material Testing

Details for the material testing, along with GI information outlined above, can be found within [WCC's County Road Construction Strategy](#). However, further to the information held within this document, relating to cores (973AR Compaction Requirements), given the large number of singular cul-de-sacs generally within developments, the developer is also required to take three pairs of cores per cul-de-sac.

The core information provided by the developer, should be shown within a full 'Field Test', i.e.

- Nuclear Density readings
- Temperatures (arrival and laid)
- A laying plan showing what material was laid on what day and where. If a different plant was used within a day, then this should be shown on the plan. (If this information cannot be provided, then maximum density's will be required for each core pair).

Subject to satisfactory core results, along with satisfactory highway drainage air testing, the bond will be reduced to 70% of the total bond value.

Following construction of the footway up to binder course, a further 15% of the total bond value will be released.

Upon completion of the development the Provisional Certificate of Completion will be issued and the bond may be reduced further, at the discretion of the engineer. During this time, known as the 'maintenance period', the developer is expected to arrange the adoption of both the foul and storm sewers with the relevant Water Authority. Please note the Provisional Certificate of Completion will only be issued if evidence is provided that the foul and storm sewers have either been adopted or are on maintenance with the Water Authority.

10.2.5 Adoption as Highway Maintainable at Public Expense

Following on from the maintenance period, which shall last a minimum of twelve months, and the developer has secured the adoption of the sewers, the Highway Authority, at the request of the developer, will undertake a final inspection to agree any remediation works required prior to the Final Sign Off. Once these works have been completed, and agreed, the developer shall provide:

- A set of as built drawings (both as pdf and Autocad)
- Health and Safety files
- Street light test certificates
- Confirmation from Warwickshire Fire and Rescue, that they have approved the firefighting provisions (in line with the Section 38 agreement)
- CCTV of any (if applicable) highway drainage
- A Stage 3 Road Safety Audit (RSA3)

At this point, the Final Certificate of Completion will be issued, the remainder of the bond released, and the scheme will be considered as Highway maintainable at public expense.

Unless the Section 38 Agreement has been sealed, then it is not acceptable for the developer to use this agreement as a means of accessing the development. A separate Section 184 Agreement must be entered into, details of which can be found below.

Dedicated parking areas for residents, businesses and visitors will not be adopted, but defined on- street parking spaces for all users will.

10.3 S278 Agreement

Section 278 of the 1980 Highways Act is a power allowing Highway Authorities to secure improvements to existing roads by agreement with landowners and developers. This type of agreement will be required where the execution of the highway works will have a significant impact on the day-to-day operation of the public highway either during the construction of the works or upon completion of the development. Typical examples are where road widening, roundabouts or traffic signals are proposed, or where construction requires significant temporary traffic management.

Before making an application to enter into an Agreement, the developer or their consultant should be entirely satisfied as to the scope of the works involved. If required, they may request a meeting at a mutually acceptable time and location with an appropriate County Council Officer and/or engineer to discuss such matters. Fees will not normally be charged for this service but, where a meeting is particularly protracted or more than one meeting is requested, the Highway Authority reserve the right to consider their Officer's or engineer's attendance as part of the design process and will advise the developer in writing that fees may as such be retrospectively levied.

It is recommended therefore, where a developer considers time to be of the essence, they request a pre-Agreement meeting with an appropriate Highway Officer and/or engineer at the earliest practicable date to enable the legal formalities and technical review to proceed as expeditiously as possible.

10.3.1 Section 278 Submission

Detailed requirements for developers required to enter into a Section 278 Agreement with the Authority are contained within [WCC's S278 Developer Guidance Document](#) which can be found on www.warwickshire.gov.uk/roaddesigns.

10.4 Section 219/220 Agreements (Advanced Payments Code) (Highways Act 1980)

Under Part XI of the Highways Act 1980, the Advanced Payment Code (APC), Section 219/220 requires that anyone proposing to build houses served by a private street must deposit enough money with the Highway Authority, to cover the eventual cost of making up the street to an adoptable standard.

The aim of this is to relieve house buyers fronting these streets of road charge liabilities under the Private Street Works Code, should the developer default.

A street is considered to be private until such time as it is adopted as public highway, or subject of a legal agreement which provides for it to become highway maintainable at public expense.

The Highway Authority is required to serve the appropriate Notice, detailing the sum required under Section 220, within six weeks of formal notification of Building Regulation Approval being granted.

Where a charge has been issued, it is an offence to do work in contravention of the Code, which is to start building the houses before depositing the funds or securing a bond.

The Highway Authority will use the appropriate legal system to recover the outstanding monies.

10.4.1 Section 219/220 Exemptions

There are certain exemptions to the operation of the APC, one of which is an agreement under Section 38 of the Highways Act.

The Highway Authority encourages developers to enter into a Section 38 agreement as an alternative to the deposit of money required by Section 219. However, the Highway Authority is aware that the sealing of the Section 38 agreement can often far exceed the timeframe of the APC, and the developer should be aware that they would be in breach of the APC should building work commence prior to the Section 38 agreement being sealed.

Where it is the applicant's or developer's intention not to offer roads for adoption this should be made clear when submitting the planning application in order that appropriate conditions can be recommended to the Local Planning Authority. It is still recommended that roads are constructed to adoptable standards to ensure that durability will be guaranteed for both public and private roads and mitigate the need at a later date for the Authority to use powers under the Private Street Works Code. Developers must note that the APC will still apply.

10.4.2 Section 219/220 Submission

As part of the APC process, the developer is encouraged to have early discussions with the engineer. The developer is required to pay inspection, administration and legal fees, as part of the appraisal in line with the current rate.

To reduce the on-going APC liability, the requirements are as follows:

1. All drawings, specifications etc must be submitted to the Highway Authority for technical approval.
2. The construction, on site, to be in accordance with the approved drawings, inspected and approved by the relevant Highway Authority Inspector.
3. Provisions for the on-going maintenance of the street to be considered, and details of the legal mechanism, or management company will be required, along with the planned maintenance regime, including an Operations and Maintenance Schedule.
4. Details of the legal mechanism to prevent the developer/Management Company/Resident from asking the Highway Authority to adopt the road via Section 37 of the Highways Act 1980.
5. An APC appraisal fee of 8.5% of the estimated cost of the works will be charged for these services. Should the highway works commence on site prior to technical approval being granted, then an appraisal fee of 10% will be charged.
6. An exemption notice under 219 (4)e will be served once the roads have been certified acceptable by the Highway Authority, and the appropriate legal mechanisms are in place to secure its future maintenance. Any secured monies will be returned, or if bonded, this will be cancelled. Part refund of the deposits will not be permitted.

10.5 Section 278 Minor Works and Section 184 Agreements

This type of agreement will be required where the execution of the highway works will not have a significant impact on the day-to-day operation of the public highway either during the construction of the works or upon completion of the development.

Section 184 clauses may be incorporated into a Minor Highway Works Agreement where the construction of, or improvements to, the site access or accesses is included as part of the works.

Section 38 clauses may be incorporated into a Minor Highway Works Agreement where the developer is dedicating land as highway maintainable at public expense in connection with the works, such as making provision for a public highway footway to be constructed outside the limits of the existing highway.

10.5.1 Section 278 Minor Works and/or Section 184 Submission

The developer should appoint a qualified consultant to produce a full suite of drawings to include:

1. An Ordnance Survey based land plan to a suitable standard scale to clearly show:
 - The name and number of the relevant public highway.
 - All relevant land within the developer's ownership edged red.
 - Any land proposed to be dedicated by the developer as highway maintainable at public expense shaded pink.
 - Any areas of the existing public highway required to be stopped up to enable the works hatched red.
 - The route and number of any public right of way affected or adjacent to the proposed works.
 - A north point.
 - The name of the site, name of the applicant, date and scale in a title box.

2. A topographical survey to an appropriate scale to clearly show:
 - All surface details of the relevant highway and adjacent land including existing ground levels extending beyond the proposed limits of the works for a sufficient distance in all relevant directions to ensure horizontal and vertical carriageway alignments can be checked appropriate to the design speed along all approached.
 - The locations and details of all piped ditches, culverts, voids and underground watercourses.
 - The locations and details of all underground and over-ground services, cables, ducts, inspection chambers and manholes etc.
 - The positions and details of all sewers and drains including gullies and manholes and invert level information.
 - Locations of trees and any root protection area, or a tree survey.
 - Survey control information.
 - A north point.

3. A layout plan to clearly show the following proposals or information:
 - The horizontal design of the highway works including carriageway, cycleway and footway alignments together with tie-in details.
 - Verges and landscaping.
 - Carriageway markings, traffic signs and other street furniture.
 - Street, footway and footpath lighting.
 - Highway drainage including gully, interceptor, catch-pit and manhole positions, gully connections, pipe runs and outfalls.
 - Alterations required to existing sewers and underground or over-ground services and equipment.
 - Works required to any public rights of way including gates, stiles, surfacing etc.
 - A north point.

4. A vertical section drawing or drawings clearly showing the following proposals or information:
 - The longitudinal vertical design of the highway works including carriageway, cycleway and footway alignments providing both existing and proposed level information, together with tie in details.
 - The longitudinal vertical design of underground sewers including manhole locations, invert levels and ground cover details.
 - Cross sectional vertical design of the highway works including carriageway, cycleway and footway cross falls.

5. Full construction details including:
 - Carriageway, cycleway, footway and verge, kerbing, gullies and manholes (in compliance with the Highway Authority's standard construction details, and material specification).

The following additional information should also be provided:

- All trial pits and survey details.
- An independent RSA Stage 2, with accompanying designer's response.
- Copies of correspondence with STATS detailing costs of relocating both underground and overground services, plant or other equipment.
- A draft bill of quantities.
- Copies, where appropriate, of any application made to the Government Office for the West Midlands, and related correspondence to stop-up any areas of existing public highway under Section 274 of the 1980 Highways Act which is required to enable the proposed highway works.
- Copies, where appropriate, of any application made to the LPA (Local Planning Authority) and related correspondence to stop-up or divert any existing public right of way under Section 257 of the 1980 Highways Act which is required to enable the proposed highway works.

- A cheque for £1500.00, made payable to Warwickshire County Council, to cover technical review. Note, a charge of £500 will be made for every set of comments made above the first three.

This submission, along with the payment (to cover the technical review), a copy of the relevant planning permission and a completed application form, should be forwarded to:

Planning, Development and Flood Risk Group
Warwickshire County Council
Shire Hall
Market Place
Warwick
CV34 4RL

10.6 Commuted Sums

Commuted sums are financial contributions made by third parties to Highway Authorities as compensation for taking on the future maintenance responsibility for newly created highways or highway improvements. Section 38 (Highways Act 1980) (sub-section 6) and Section 278 (sub-section 3) provides for making payments to the Highway Authority for maintaining the works the relevant agreement relates to.

Circular 1/97 Planning Obligations refers to the payment of commuted maintenance sums where specifically provided for in legislation (the Highways Act 1980).

10.6.1 Calculation

A commuted sum is a single payment that is invested over an agreed period. From this sum, the cost of maintenance is drawn down and at the end of the agreed period the commuted sum is £0.

WCC has adopted the generally accepted application and method of calculation.

$$\sum Mp/(1+D/100)^T$$

Mp = Estimated periodic maintenance cost

D = Discount rate (effective annual interest rate) (%)

T = Time period before expenditure will be incurred (years)

- Maintenance unit costs (Mp) - Maintenance unit costs are based on contract rates current at the time of calculation and the frequency of treatment or intervals of replacement, based on planned frequencies or historic information. A sum of 10% of the works costs will be added to cover our design and supervision costs.
- Discount rate (D) - The discount rate (effective annual interest rate) is worked out as follows:
 - $D = (1.045/1.0225) - 1 = 2.2\%$
where 1.045 is the interest rate (4.5% based on long-term neutral base rate) 1.0225 is the inflation rate (2.25% based on RPI-X that is RPI excluding mortgage payments)
- Time period (T) There is a case for using a time period equal to the expected life of the development in the case of development roads. However, for the time being, a time period of 60 years (maximum) will be used to calculate the commuted sums, with the exception of highway structures when a 120-year period will apply, in accordance with the standard design life requirement. The 60 year period reflects the recommendation of the CSS publication 'Commutated Sums for Maintaining Infrastructure Assets'.

Developers must be aware that items considered as 'non-standard' by WCC may incur requirement for commuted sums.

For the avoidance of doubt, the following items are considered to be 'standard' items by WCC and will not incur requirements for commuted sums.

Standard Items
Carriageways surfaced in accordance with WCC's County Road Construction Strategy, excludes block/modular and tegula paving and high friction/psv paving
Footway surfaced in accordance with WCC's County Road Construction Strategy, excludes block/modular and tegula paving
Cycleways surfaced in in accordance with WCC's County Road Construction Strategy
Pre-cast concrete kerbing
Gully drainage and connection pipes
Standard highway lighting layouts, columns and lanterns
Standard illuminated and non-illuminated highway signs
Passively safe sign posts where required for road safety
Road markings
Grass verges

Table 10.1.1 - WCC 'Standard' Items

The following items within Warwickshire that incur requirement for commuted sums are:

Traffic Signals	Commuted Sum
Traffic signal junction	Actual sum depends upon detail but will be based upon the annual maintenance cost over a 30-year period together with a full refurbishment after 15 years. A provisional estimate of £91,590 can be used for budget purposes.
Vehicle Activated Signs	Whole life costs including replacement after 15 years - £12,600.
Puffin and Toucan crossings	Actual sum depends upon detail but will be based upon the annual maintenance cost over a 30-year period together with a full refurbishment after 15 years. A provisional estimate of £39,325 can be used for budget purposes.
CCTV camera infrastructure	Actual sum depends upon detail. A provisional estimate of £14,980 can be used for budget purposes.
Counting device	Actual sum depends upon detail. A provisional estimate of £6,955 can be used for budget purposes.
Traffic and Road Safety	Commuted Sum
Gateway features	To be determined on a site by site basis
Raised Tables	To be determined on a site by site basis
Chicane	To be determined on a site by site basis
Speed Cushion	To be determined on a site by site basis
Safety Inspections	To be determined on a site by site basis
Sign Cleaning	To be determined on a site by site basis
Vehicle Activated Signs (VAS)	Whole life costs including replacement To be determined on a site by site basis
Drainage	Commuted Sum
Attenuated highway drainage system	Annual maintenance costs over a 60 year period
Soakaways	Annual maintenance costs over a 60 year period
Retention ponds	Annual maintenance costs over a 60 year period
Other SuDs features (subject to adoption)	Annual maintenance costs over a 60 year period

Connection to highway drains	Additional annual maintenance costs to reflect increased liability
Highway carrier drains	Annual maintenance costs over a 60 year period
Highway drainage chambers	Annual maintenance costs over a 60 year period
Jetting	To be determined on a site by site basis
Gully Emptying	To be determined on a site by site basis
Combined Kerb Drainage	To be determined on a site by site basis
Green Landscaping	Commuted Sum
Tree	To cover cost of pruning per tree
Tree grille	To cover cost of replacement
Hedges	Annual maintenance cost per sqm
Soft Landscaping	Annual maintenance cost per sqm
Verge Maintenance	Annual maintenance cost per sqm
Weed Spraying	To be determined on a site by site basis
Bridges and Structures	Commuted Sum
Bridges	Whole life costs including replacement after 120 years
Culverts and trash screens	Whole life costs including replacement after 120 years
Subways	Whole life costs including replacement after 120 years
Retaining Walls	Whole life costs including replacement after 120 years
Head Walls	Whole life costs including replacement after 120 years
Sign/signal gantries and cantilever road signs	60 year life – maintenance and replacement
Street Lighting	Commuted Sum
Non-standard columns	Dependent upon type
Non-standard fixings	Dependent upon type
Illuminated street furniture	Dependent upon type
High lighting mast	Dependent upon type
Street Lighting Bulk Lamp Cycle	Dependent upon type
Surfacing	Commuted Sum
Surface Dressing	Overlay per sqm
Hot or cold applied coloured surfacing	Overlay per sqm

and high friction surfacing	
Modular/Tegula paving	To be determined on a site by site basis
Footways	Commuted Sum
Modular/Tegula paving	To be determined on a site by site basis
Fencing and barriers	Commuted Sum
Vehicle Restraint System (VRS)	Replacement
Acoustic Fencing	Dependent on type
Pedestrian guard railing	Dependent on type
Knee rail fencing	Replacement
Boundary fencing	Dependent on type
Street furniture	Commuted Sum
Bollards	Dependent on type
Retro reflective bollards and marker posts	Dependent on type
Public Transport	Commuted Sum
Bus Shelters	To be determined on a site by site basis
RTI equipment	To be determined on a site by site basis
Transport Monitoring	Commuted Sum
ATC, ANPR or Active Travel/AI monitoring equipment	Actual sum depends upon detail. A provisional estimate of £8,000 per monitoring site can be used for budget purposes, to cover 10 years maintenance, communications and support costs. Transport monitoring infrastructure requirements should be scoped prior to submission of Section 278 Technical Review

Table 10.1.2 - WCC 'Non-Standard' Items

This list is not exhaustive, but it reflects the most common occurrences of commuted sums being required. The developer/consultant is advised to approach the Highway Authority at an early stage to agree when a commuted sum will be required.

It may be that we do not know the full cost implications of the site at this stage; therefore, we will calculate the final value immediately before we adopt the development. The agreement will contain provision for re-calculating commuted sums based on actual quantities used, and a price fluctuation factor specified within the agreement.

The 'provisional' commuted sum will be included in the bond requirement under the Section 38/Section 278 but will be taken out of the inspection fee calculation.

The actual commuted sum will be payable before the Highway Authority agree to issue the Final Certificate.