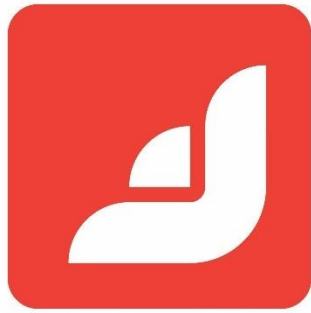




Jones

Construction Method Statement

52 Units Eaglebush, Neath

Contract No:

Document Ref: JP/CMS – Eaglebush, Neath

CONTENTS

Section	Topic
1.0	Introduction
2.0	Site Location & Project Description
3.0	Construction Programme
4.0	Air Quality
5.0	Construction Site Waste
6.0	Housekeeping & Security

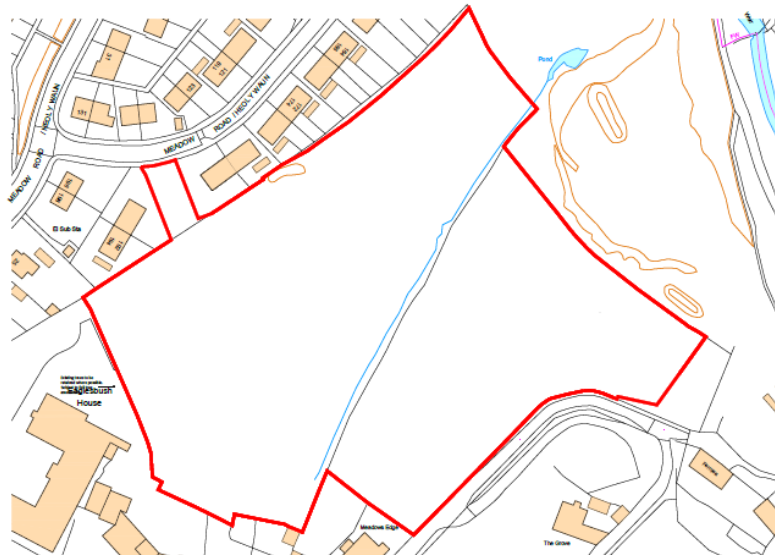
1.0 Introduction

- 1.01 The aim of the Construction Method Statement (CMS) is to set out the responsibilities regarding compliance with legislation and to implement any mitigation measures.
- 1.02 This document should be read in conjunction with the approved CEMP (Ref: JP/CEMP/ /REV 0).
- 1.03 This document has been developed to avoid, minimise, and mitigate against any construction effects on the environment and surrounding community. It should be considered a living document with reviews being undertaken at set intervals and new information added as appropriate.
- 1.04 For the purposes of this document, the working area is defined as any area where there will be a requirement for temporary or permanent works to facilitate the construction of the development. This includes areas required for access, temporary construction, and temporary storage areas.

2.0 Site Location & Project Description

- 2.01 The Site is dominated by species poor agriculturally modified grassland which is horse grazed. Previously heavily grazed it is less so in the last year, the lack of grazing has confirmed the poor species quality of the sward with areas of woodland and individual trees. The Site is effectively a relatively steep sided valley draining to the east with a culvert at the lowest point that drains to a pond outside the development area and from there to the Nant Cryddan. To the north is a large housing estate from which the access breakthrough is proposed.
- 2.02 To the east is Eaglesbush Valley Site of Importance for Nature Conservation (SINC), a Local Authority site designated for its local value for wildlife. This is principally a wooded valley along the Nant Cryddan containing areas of semi-natural ancient woodland. This woodland is contiguous with woodland on Site which is to be retained. Green corridor connectivity is limited with the Site being a 'terminus' of green space before the built conurbation of Neath. However, there are mature gardens and trees local to the Site so consideration to ongoing connectivity is important. The tidal Afon Nedd lies approximately 900 metres to the west and the Nant Cryddan drains into this.
- 2.03 The Site was of generally low biodiversity value but has potential to support roosting and foraging bats and breeding birds in the wooded areas.

Site Location Plan



Site key

— Site Boundary

Proposed Scheme



2.04 Please see Site Set Up Plan Overleaf (to be reviewed as construction progresses.) Site cabins and compound have been located at site entrance and in a location that they should not have to be moved until the latter stages of the job. The site layout has been developed to consider the various environmental aspects of the project:

- Site pollution control of silt, dust, mud, noise, chemicals and fuel.
- Tree protection
- Waste management
- Ecological protection
- Parking for contractors
- Site security
- Traffic management
- Welfare arrangements for operatives

Delivery Routes – All Deliveries Outside School Commuting Hours



3.0 Construction Programme

3.01 The detailed Construction Programme will be available for review in the site office.

3.02 The key dates presented in the programme are as follows.

Key Dates	Date
Tree Clearance & Bat Boxes	February 22
Demolitions & Entrance Formation	April 22
Set Up Main Site Compound	June 22
Start of Construction	April 21
Completion	Nov 23

4.0 Air Quality

- 4.01 The site entrance will be maintained and kept clean and clear. A wheel washing facility will be used on site for vehicles exiting the site and along with a road sweeper in operation when required to ensure no mud is left on Meadow Road.
- 4.02 All materials will be unloaded within the site boundary to minimise congestion.
- 4.03 All plant should come to site with a current and up to date record of service and an annual inspection sheet. An onsite weekly inspection will be carried out by the Site Manager of all operated plant and recorded. All plant maintenance is to take place in the site compound only. Refuelling of all plant is to take place in the compound designated area and drip trays are to be employed during the fuelling process.
- 4.04 **Management of Dust** – The application of standard dust control measures included in the British Research Establishment guidance (Building Research Establishment 2003) are normal working practice on all well managed construction sites in the UK. Standard measures will be applied during the construction phase to mitigate dust.
- i. Staff will ensure the site is monitored for levels of surface dust. In dry weather dust, build up will be dampened down with hosepipes and a water tanker to minimise contamination to the surrounding areas. Particular care will be taken during the demolition stage where handheld hoses will be used to direct water in the required areas.
 - ii. Soft strip will be undertaken first with doors and windows in place to contain dust as long as practical.
 - iii. We will record all dust and air quality complaints, identifying cause(s); respond appropriately to reduce emissions in a timely manner, and record the measures taken.
 - iv. Record any exceptional incidents that cause dust and/or air emissions, either on or offsite, and the action taken to resolve the situation in the log book.
 - v. The access road into and out of the site will be monitored for excessive dust build up. Should surface dust build up the road will be dampened down and swept.
 - vi. Bonfires and burning of waste material on site is prohibited

5.0 Construction Site Waste

- 5.01 It is our policy that all construction projects will comply with the current and applicable waste regulations.
- 5.02 The Construction Site Waste Management Plan (SWMP) will be completed and maintained on site by the Project/Site Manager. It should be made available to all personnel on site as appropriate.

Construction and Waste Management

- 5.03 The principal types of material to be disposed of will be aggregate, blacktop, contaminated topsoil, subsoil and vegetation, which will be, removed via sheeted muck away wagons to a licensed tip. Waste Acceptance Criteria tests will be undertaken for all excavated materials leaving the site to ensure it is suitably classified and directed to the correct licenced tip.
- 5.04 In addition to excavated material, quantities of other waste types will be generated during construction of the proposed development.
- 5.05 Quantities of general construction and demolition wastes are made up of waste such as wood, packaging, metals, plastics, bricks, blocks, canteen waste, hazardous waste (e.g. Oils, paints and adhesives), site clearance and residual waste, which are generated during the construction phase.
- 5.06 A review of these wastes including their respective European Waste Catalogue (EWC) Codes are outlined below:

EWC Code	Waste Description
17.01.07	Concrete, bricks, tiles and ceramics
17.02.01/02/03	Wood, glass, plastic
17.03.01/02	Bituminous mixtures, coal tar and tarred products
17.04.07	Metal
17.05.03	Soil (inc. excavated soils from contaminated sites), stones and dredging soil
17.06.05	Insulation materials and asbestos containing construction materials
17.08.02	Gypsum-based construction materials
17.09.04	Other construction and demolition waste
16.02.13/14	WEEE
16.06.04/01	Batteries
13.07.01	Liquid Fuels
17.05.03	Soils and stones containing hazardous substances
17.05.04	Soils and stones other than those mentioned in 17.05.03

- 5.07 The Waste Hierarchy which should be implemented on site are as follows:



- Prevention/Reduction
- Re-use: Products and material can sometimes be used again, for the same or different purpose
- Recycling and composting- resources can often be recovered from waste
- Energy recovery- Value can also be recovered by generating energy from waste
- Disposal- Only if none of the above options offer an appropriate solution should waste be disposed of.

Site Management Plan (SWMP)

5.08 A SWMP should identify the personnel and their roles and responsibilities. This includes maintaining records of waste transfers. The appointed site manager should also ensure compliance within any permits and record keeping.

- Only transfer controlled waste to an “authorised person” (Waste Collection Authority, the holder of an Environmental Permit, Registered Water Carrier or Waste Disposal Authority)
- Ensure that non-hazardous waste is transferred under a Waste transfer Note which must be retained for two years.
- Hazardous waste moved under a waste consignment note that provides a clear description of the waste material. The consignment note must be retained for three years.
- The waste is the responsibility of the company until it has been fully recovered or finally disposed of.

Waste Segregation

5.09 Wherever possible, different types of waste should be segregated as they are produced to allow for correct disposal. Each type must be stored separately and securely to prevent pollution and cross-contamination and each waste container should be clearly labelled.



- 5.10 Waste Electrical and Electronic Equipment (WEEE) includes battery powered items and must be recycled by an authorised recycling centre. Some WEEE can be considered hazardous and must be moved under hazardous waste such as fluorescent tubes and Lithium batteries.

Re-use

- 5.11 Possibilities for re-use of clean non-hazardous excavation material as infill on the site or in landscaping works will be considered following appropriate testing to ensure material is suitable for its proposed end use.
- 5.12 In the event of excavation material which may not be re-used being found, the sub-contractor will endeavour to send material for recovery or recycling so far as it reasonably practicable. The sub-contractor will ensure that any off-site interim storage facilities for excavated material have the appropriate waste licences or waste facility permits in place.

Material Management

- 5.13 The amount of waste material on site will be reduced as far as reasonably practicable, through waste-minimisation, re-use and recycling. This shall be implemented by the following measures;
- Storage- material shelf life is not exceeded, damage and contamination is prevented including loss, theft and vandalism.
 - Delivery – Damage during unloading, delivery to the correct location on site, acceptance of materials and components only in accordance with the order.
 - Handling – Materials and components are handled using correct methods in minimal fashion.
 - Protection – Damage is avoided by provision of temporary protection where applicable.

Waste Auditing

- 5.14 We will record the quantity in tonnes and types of waste and materials leaving the development site during the construction phase. The name, address and authorisation details of all facilities and locations to which and materials from the construction phase are

delivered will be recorded along with the quantity of waste in tonnes to each facility. Records will show material which is recovered and disposed of.

Waste Types

Excavated clay, soil and stones

- 5.15 This will be loaded directly to vehicles and removed by sheeted wagon from site unless it can be used as fill on the proposed scheme if deemed fit for reuse.

Concrete

- 5.16 Waste is to be sent back to the supplier for re-use. Where this is not possible, the concrete will be removed from site and recycled for construction use. A designated area will be set up on site as a concrete wash out area and protected accordingly.

Metals

- 5.17 One of the primary sources of metal waste is rebar and this will be reduced by ordering made to measure rebar from the manufacturer and detailed scheduling of all Reinforced Concrete (RC) structural elements. Skips may be provided and when full should be sent to a metals recycling facility.

Timber

- 5.18 Any pallets will be returned to the supplier for re-use. Off cuts and trimmings will be used in formwork where at all possible. Any remaining timber waste will be placed in a skip for recycling or use within a Community Wood Recycling Scheme
- 5.19 Treatment of timber with chemicals and the over use of nails will be minimised and avoided as this will make it difficult to reuse/recycle the timber afterwards. The utilisation of reclaimed timber products will also be investigated.

Packaging and Plastic

- 5.20 Double handling will be avoided by segregating packaging wastes immediately after unwrapping. It is intended that where possible materials with recycled packaging will be purchased. Waste packaging will be segregated and stored in separate containers, preferably covered for collection and/or returned to the supplier.

Blocks, Bricks and Tiles

- 5.21 The most likely wastes products will be from off-cuts, trimmings and waste arising from breakages. Every effort will be made to use broken bricks and off cuts. Final quantities of these wastes will be stockpiled (possibly crushed and/or screened) and used at the site as subbase material for roads, hardstanding etc.

Hazardous Wastes & Contaminated Ground

- 5.22 Any hazardous wastes that are identified during the course of the works will be investigated and a Remediation Strategy will be agreed with the LPA, Building Control and the Structural Insurers for the Homes. Hazardous waste will be removed and kept separate from other

construction and demolition waste materials to avoid cross contamination. Specific method statements detailing the necessary mitigation measures required during excavation, handling, transportation, and disposal of hazardous waste encountered on the site would be prepared as required in accordance with a detailed Remediation Strategy.

- 5.23 Receptor pathways for future occupants will be addressed in any Remediation Plans.

Japanese Knotweed

- 5.24 There is no Japanese Knotweed on site.

Hazardous Liquids

- 5.25 Oils, paint, bitumen adhesives and chemicals will be kept in a separate container storage area which will be locked when not in use. Lids will be kept on containers to avoid spillage or waste by evaporation. These will be stored in a containment tray with a capacity to contain 110% of the volume of the largest container.
- 5.26 Fuels and chemicals will be stored in double skinned containers or within a bund i.e. an impervious structure with the capacity to contain 110% of the volume of the largest tank stored within it. All containers will be carefully labelled. Spill kits will be available on site adjacent to fuel stores.

Canteen Waste

- 5.27 Staff canteens have the potential to generate food waste and packaging waste. Designated receptacles will be provided at the canteen to allow for the segregation and storage of individual waste streams. Those will include receptacles for food waste (e.g. brown bin for waste foods, peelings etc.) dry recyclables (e.g. green bin for packaging, plastics, metals, wood, paper, cardboard, tetra pack etc.) and residual bin (e.g. black bin for mixed food and packaging waste). Separate receptacles for the recyclable fractions may be provided such as plastics, metals, glass.

Other Wastes (Residual)

- 5.28 This waste is normally made up of residual non-recyclable waste such as soiled paper, cloth, cardboard or plastics as well as canteen waste to include food as above and general waste found on the sites including plastic bottles, bags, cans etc. Given the heterogeneous nature of this material it is most important that residual waste is kept separate from the other waste streams to avoid contamination. This material will be stored in a dedicated container in the Waste Segregation Area.
- 5.29 Container size and collection frequency will be assessed with the waste management contractors as works proceed. All residual wastes will be dispatched to a suitably licenced facility for disposal. Other construction and demolition waste material will be collected in receptacles with mixed construction and demolition waste materials for subsequent separation and disposal at a segregation facility

6.0 Surface Water Management

6.01 The perceived risk to surface water in the form of silt will be managed throughout the project. Our Approach is outlined below and in Appendix 1

- The project has been split into three zones, top soil strip and imported granular fill will be undertaken progressively to ensure the site is capped as soon as practicable to minimise any soil erosion.
- There is about 12000m³ of imported granular fill that will assist with site drainage and slowing any run off during construction.
- A Silt Fence and settlement pond will be established early in the project at the low end of site an inspected regularly for silt build up.
- Wheel wash jetting facilities will be provided for the vehicles moving from the Site at the exit point. Silty water from wheel wash facilities will be filtered to ground on site through a gravel medium to prevent unacceptable levels of suspended solids entering nearby surface water bodies.
- Ultra Drain Guards will be placed on gullies adjacent to the site entrance off West Link to reduce the risk of any oil or sediment entering surface water drains.

Silt Fence

Hy-Tex Terrastop™ - Silt Fences for Stormwater Run-Off Control

1

- Find where erosion may occur.
- Look for areas where soil has been disturbed or vegetation removed.

2

- Maximum 50° slope angle
- Not suitable for channels or ditches

Use Ultra Erosion Guards for steeper slopes

3

- Check where water is running
- Position fence central and at right angles to flow
- Curve fence ends up slope to form 'smiles' or 'J' shapes so water ponds behind fence

4

- Maximum 35m fence runs
- Maximum 30m between fence rows
- Add extra fences above and to the side for larger areas

5

- Dig 100mm trench or use a trenching machine.
- Bury fence up to the red line.
- Make sure backfill is on upslope side of fence.
- Firmly compact.

6

- Position posts on downslope side of fence
- Max 1.50m post spacing
- Min 0.50m in ground.
- Secure with 3 nails and washers per post or use cable ties
- Post size minimum 1.20m long and 50mm diameter

7

- Tension top edge by looping ribbon band over post.
- Add additional bracing posts for poor ground conditions

8

- Regularly check site
- Reassess for new areas of erosion and add extra fences as needed
- Repair any damage.
- Remove trapped silt when reaches top of white band or install additional fences.

Terrastop Silt Fence Installation Guidelines

Tying-off and tensioning top ribbon

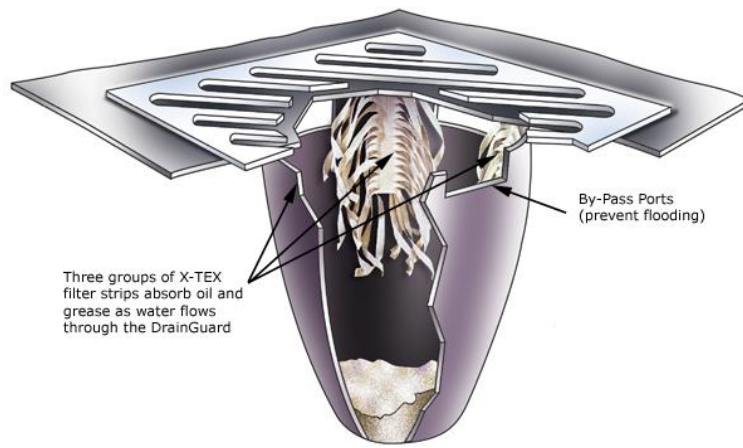
Maximum silt accumulation marker guide

RUN-OFF

Red burial marker line

100 x 100mm trench backfilled and compacted, burying 150mm of silt fence in "L" shape

Drain Guard Silt Protection



7.0 Housekeeping and Security

- 7.01 The site compound plan and the material storage plan highlight key areas such as;
- Main office & welfare facility's
 - Tool stores
 - Material store
 - Waste skips
- 7.02 Security fencing consisting of a Heras type fence shall be provided.
- 7.03 Pollution Prevention Guidelines by Environment Agency set out basic environmental management guidance regarding housekeeping and will be used to set up stores etc.

Appendix 1

Construction Methodology and Site Set Up Pictorial



Jones Brothers (Henllan) Ltd

Proposed Construction Methodology

Eaglebush Housing Scheme

Neath

For Tai Tarian

C607 MS Rev E (May 22)

Issued By James Player BSc (Hons), MCIQB

A handwritten signature in black ink, consisting of a large, stylized 'J' or 'P' shape, is written over a horizontal dotted line.

Delivery Routes – All Deliveries Outside School Commuting Hours

There will be no deliveries made by vehicles in excess of 3.5 tonnes between 8am & 9:30am and between 2:30pm & 4pm.



Site Access & Safety Signage (Excludes Section 278 Works)

Expected Average Vehicle Movements
Cars & Operative Vans = 15
Deliveries (typical) = 9 deliveries

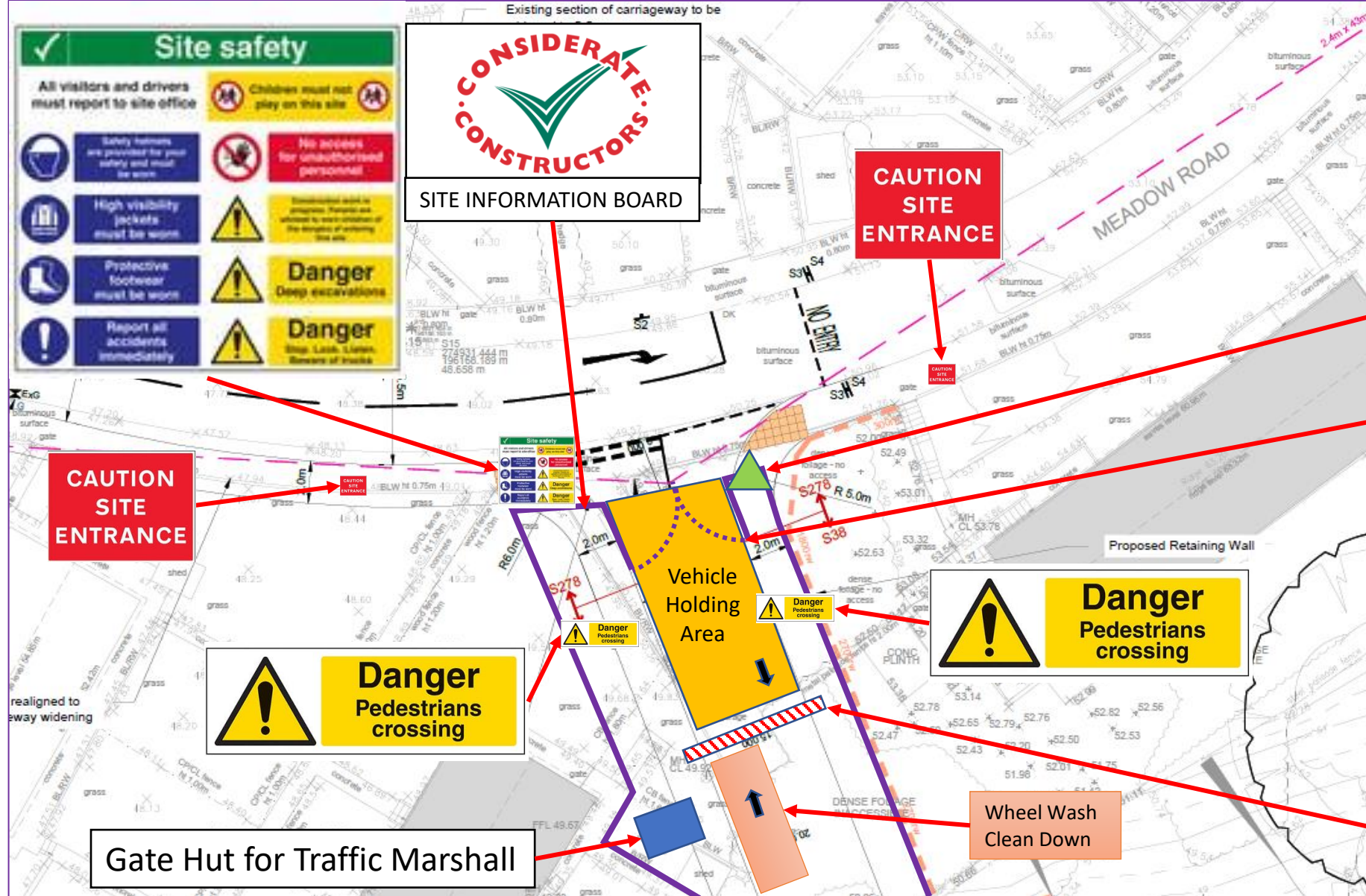
10 Site Speed Limit

Pedestrian Access

Security Gates Left Open During Shift

Section 278 Street Works will be in accordance with the New Works & Street Works Act and Approved by Street Works Officer before start of works.

Manned Security Barrier



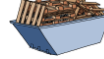
SITE SET UP & WELFARE

Basecourse laid Week 10 (following enabling works)
Holding Area for Delivery Vehicles.

Silt Barrier &
Settlement
Pond

Site Hours:
Monday – Friday: 8am-6pm
Saturday: 9am-1pm

TPZ = Tree Protection Zone

- Heras Fencing
- Solid Hoarding
- Solid Hoarding
-  Waste Recycling Point
- Mortar Silo
- Materials Storage
- Site Cabins / Welfare
- ◇ Fuel Store



See 2430-630 for Site

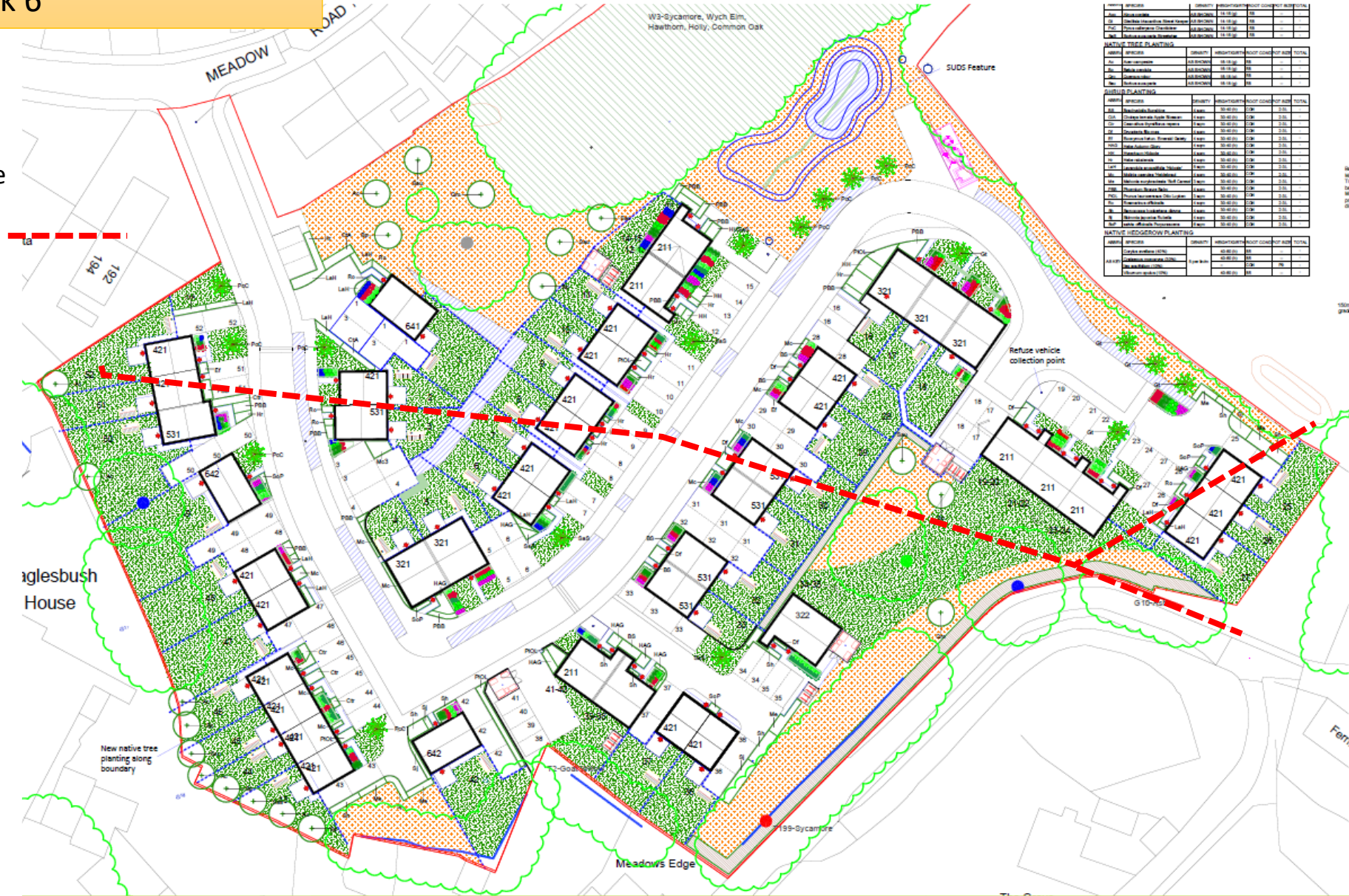


Tree Protection Zones:
Established Weeks 1-3 of
Construction Phase



HV Diversion Week -7 to Week 6

Overhead HV To be cleared off site prior to start of main earthworks.



Services lowering to main entrance to be complete as part of Enabling Works

Services lowering to main entrance to be complete as part of Enabling Works

- Solid Hoarding

Temp
Oasis
Unit

Week 4/5 – Section 185 Diversion Works Existing Sewer

- Solid Hoarding

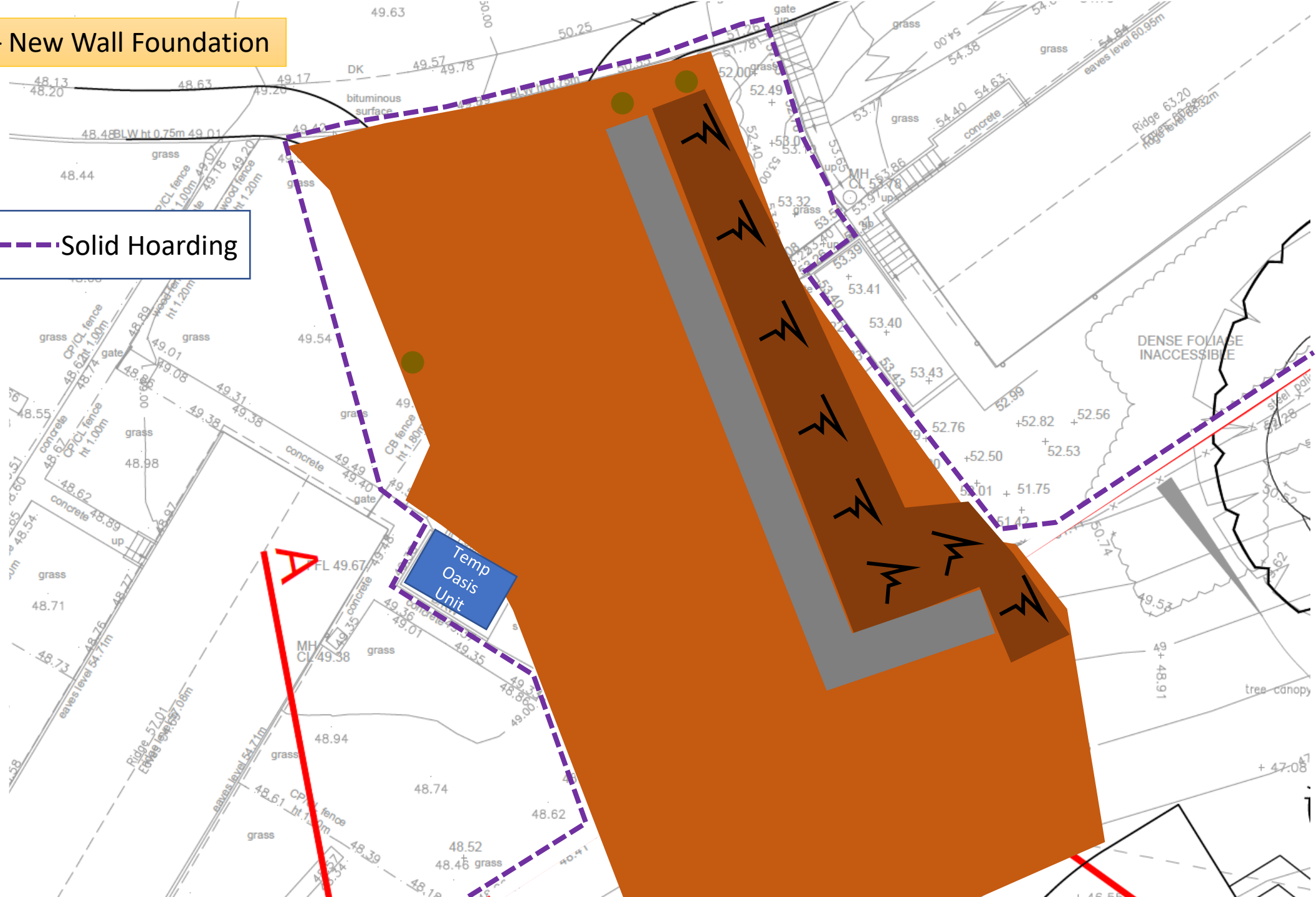
Temp
Oasis
Unit

Week 6 – Reduced level dig (arising retained on site)

- Solid Hoarding

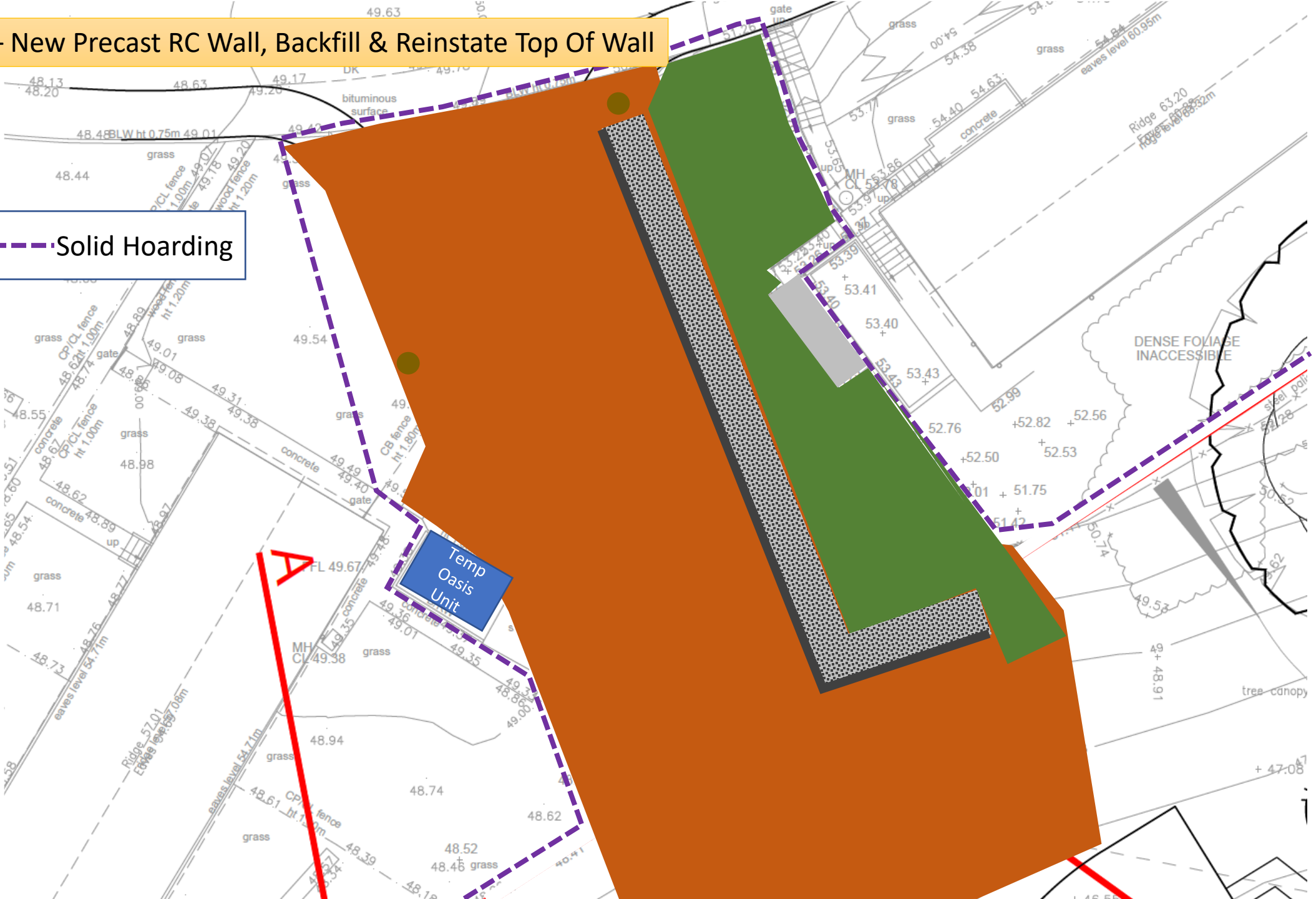
Temp
Oasis
Init

Week 7 – New Wall Foundation



Week 8 – New Precast RC Wall, Backfill & Reinstall Top Of Wall

----- Solid Hoarding

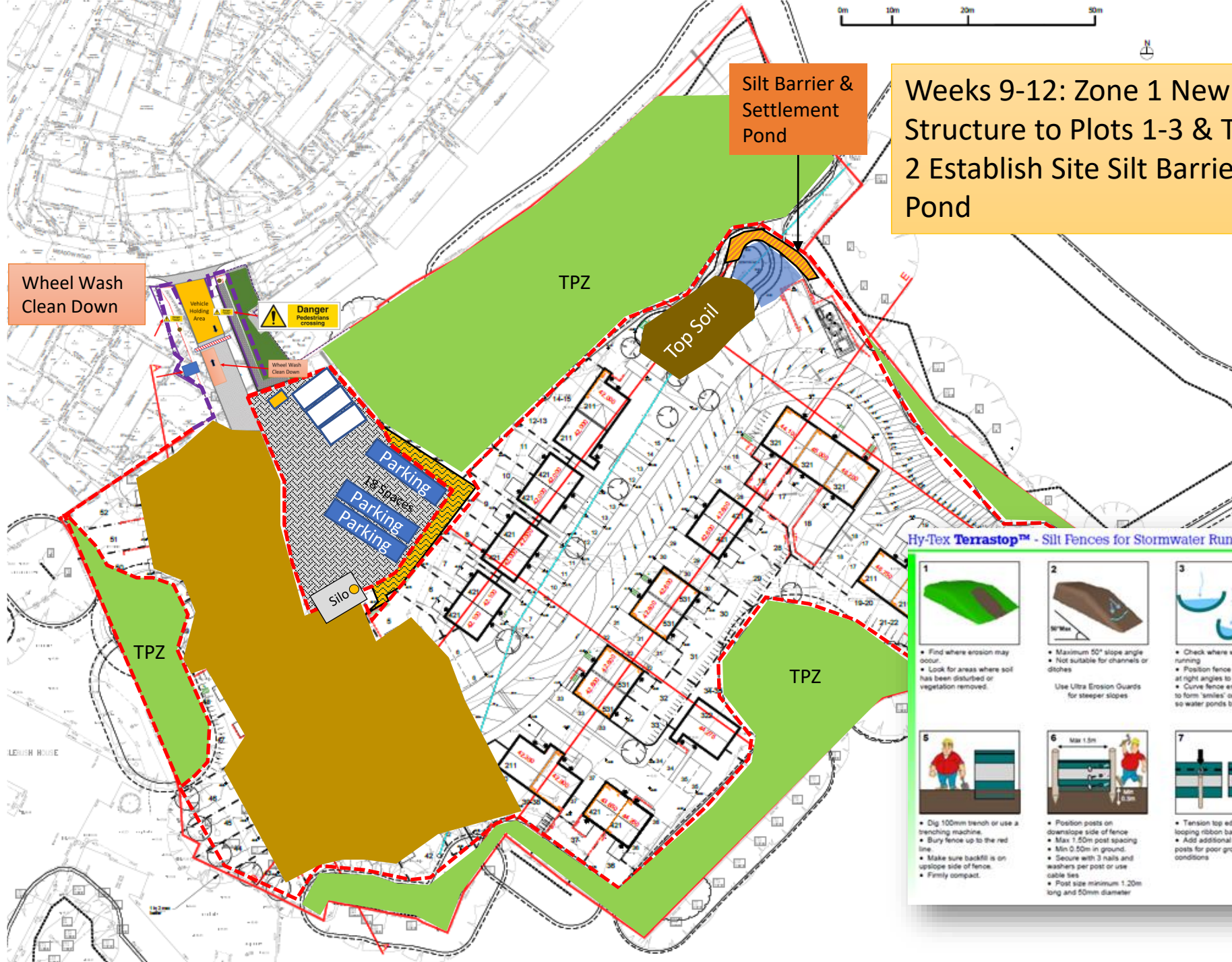


Weeks 9-10 – Sub-base, kerb brace and base course entrance

----- Solid Hoarding



Temp
Oasis
Unit



Weeks 9-12: Zone 1 New Retaining Structure to Plots 1-3 & Topsoil Strip; Zone 2 Establish Site Silt Barrier & Settlement Pond

Hy-Tex Terrastop™ - Silt Fences for Stormwater Run-Off Control

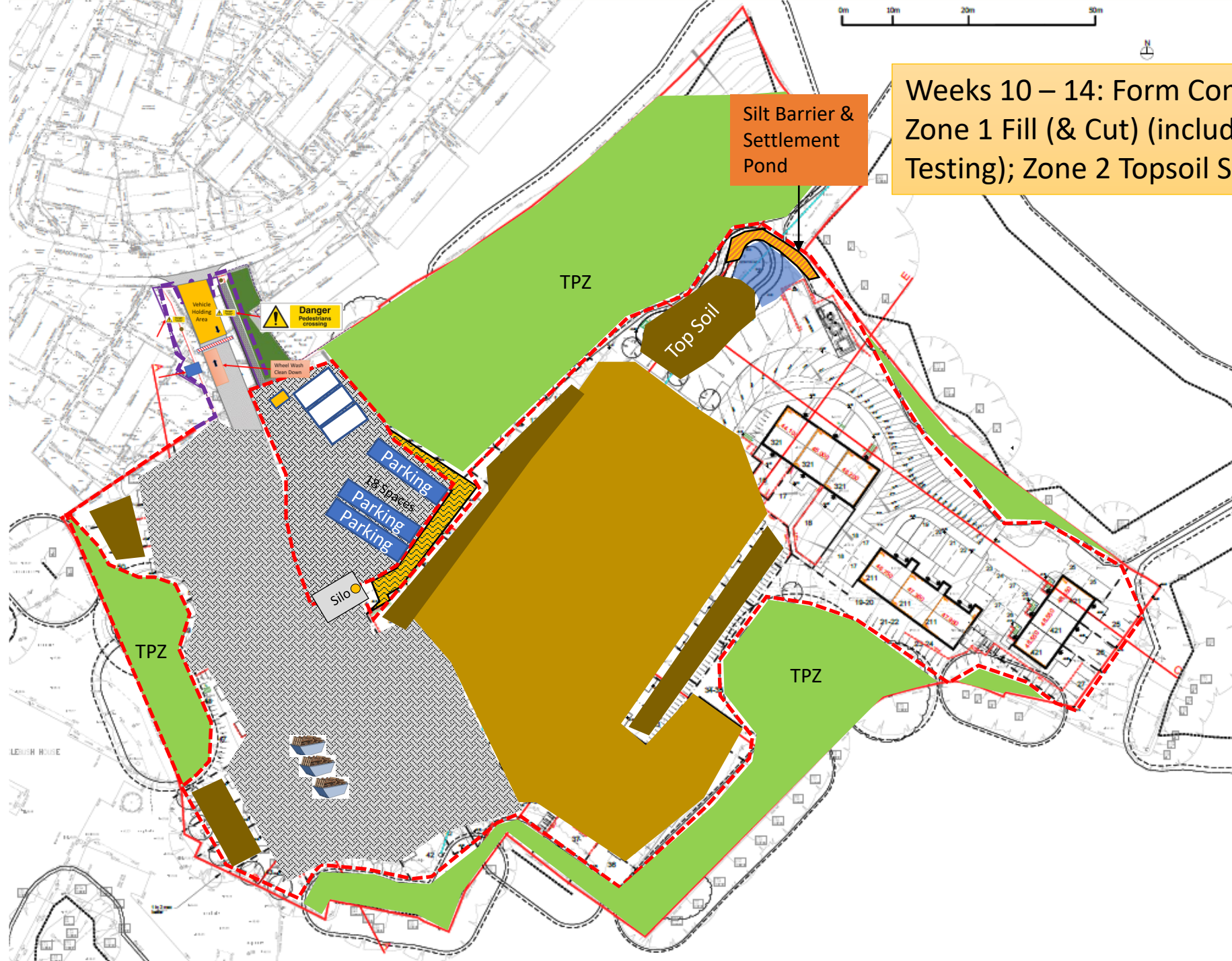
Terrastop Silt Fence Installation Guidelines							
1 Find where erosion may occur. • Look for areas where soil has been disturbed or vegetation removed.	2 Maximum 50° slope angle. • Not suitable for channels or ditches. Use Ultra Erosion Guards for steeper slopes.	3 Check where water is running. • Position fence central and at right angles to flow. • Curve fence ends up slope to form 'smiles' or 'J' shapes so water ponds behind fence.	4 Maximum 35m fence runs. • Maximum 30m between fence rows. • Add extra fences above and to the side for larger areas.	5 Dig 100mm trench or use a trenching machine. • Bury fence up to the red line. • Make sure backfill is on upslope side of fence. • Firmly compact.	6 Position posts on downslope side of fence. • Max 1.50m post spacing. • Min 0.50m in ground. • Secure with 3 nails and washers per post or use cable ties. • Post size minimum 1.20m long and 50mm diameter.	7 Tension top edge by looping ribbon band over post. • Add additional bracing posts for poor ground conditions.	8 Regularly check site. • Reassess for new areas of erosion and add extra fences as needed. • Repair any damage. • Remove trapped silt when reaches top of white band or install additional fences.

Terrastop Silt Fence Installation Guidelines

Tying-off and tensioning top ribbon

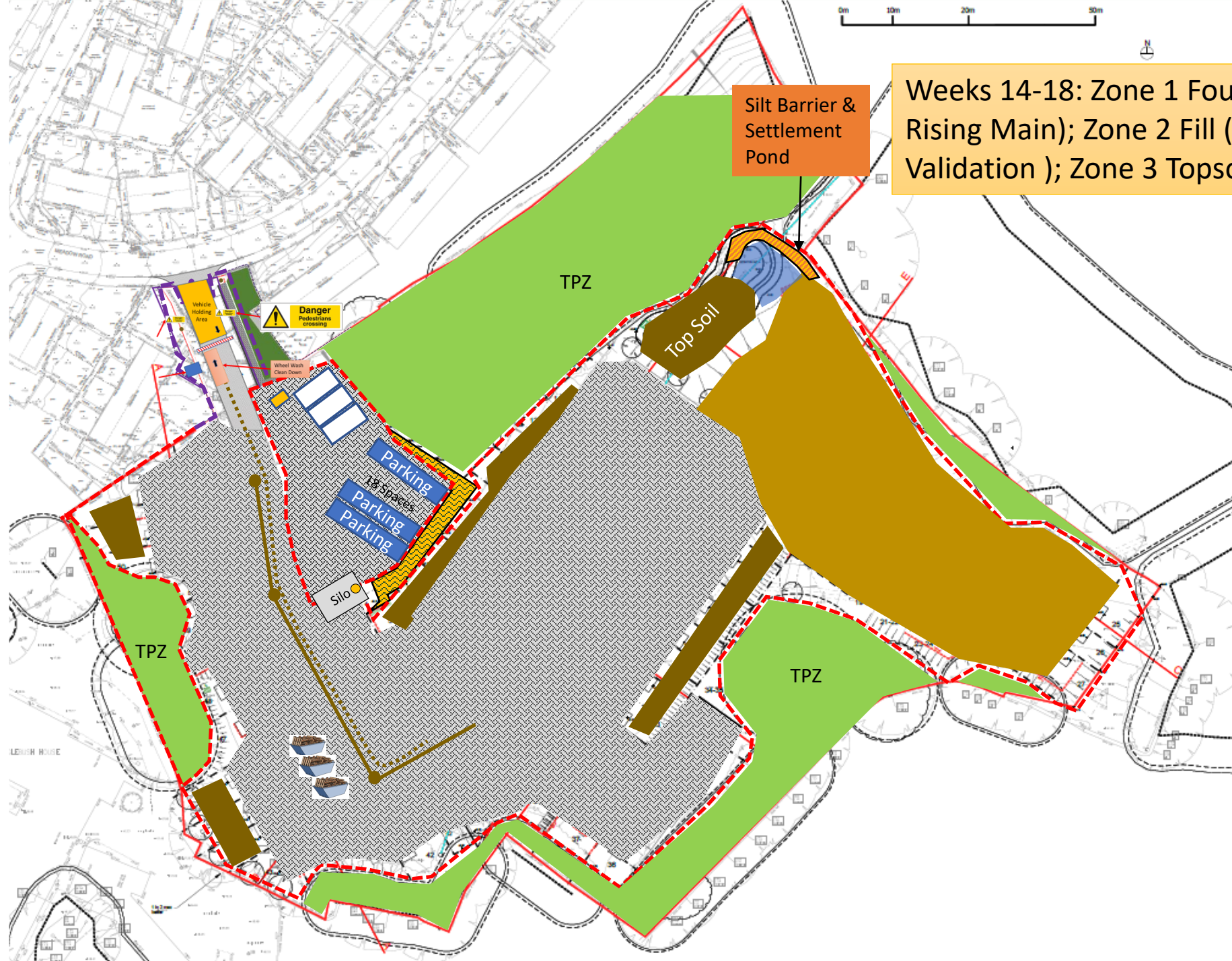
Maximum silt accumulation marker guide

100 x 100mm trench backfilled and compacted, burying 100mm of silt fence in "J" shape



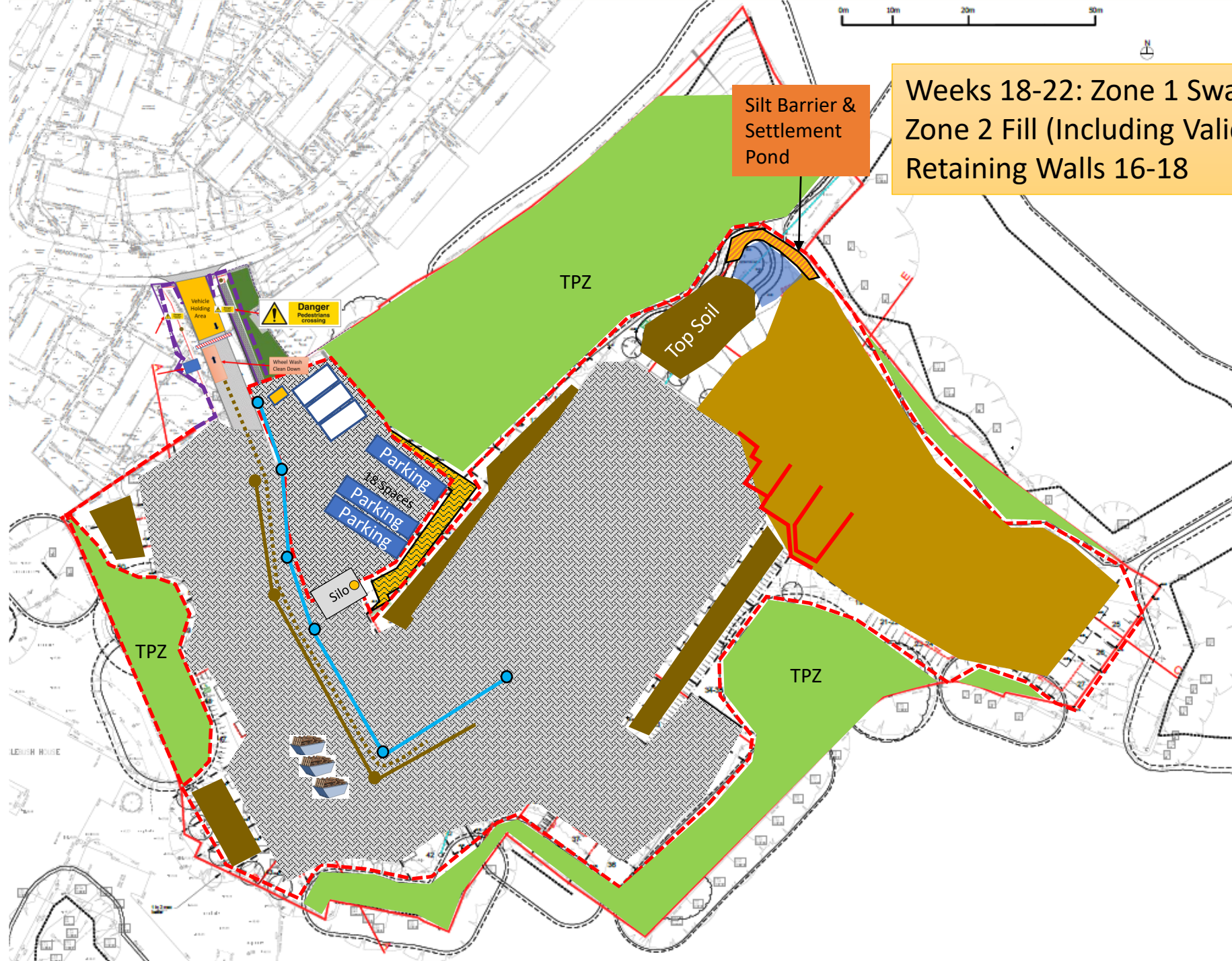
Weeks 10 – 14: Form Compound Area; Zone 1 Fill (& Cut) (including Validation Testing); Zone 2 Topsoil Strip.

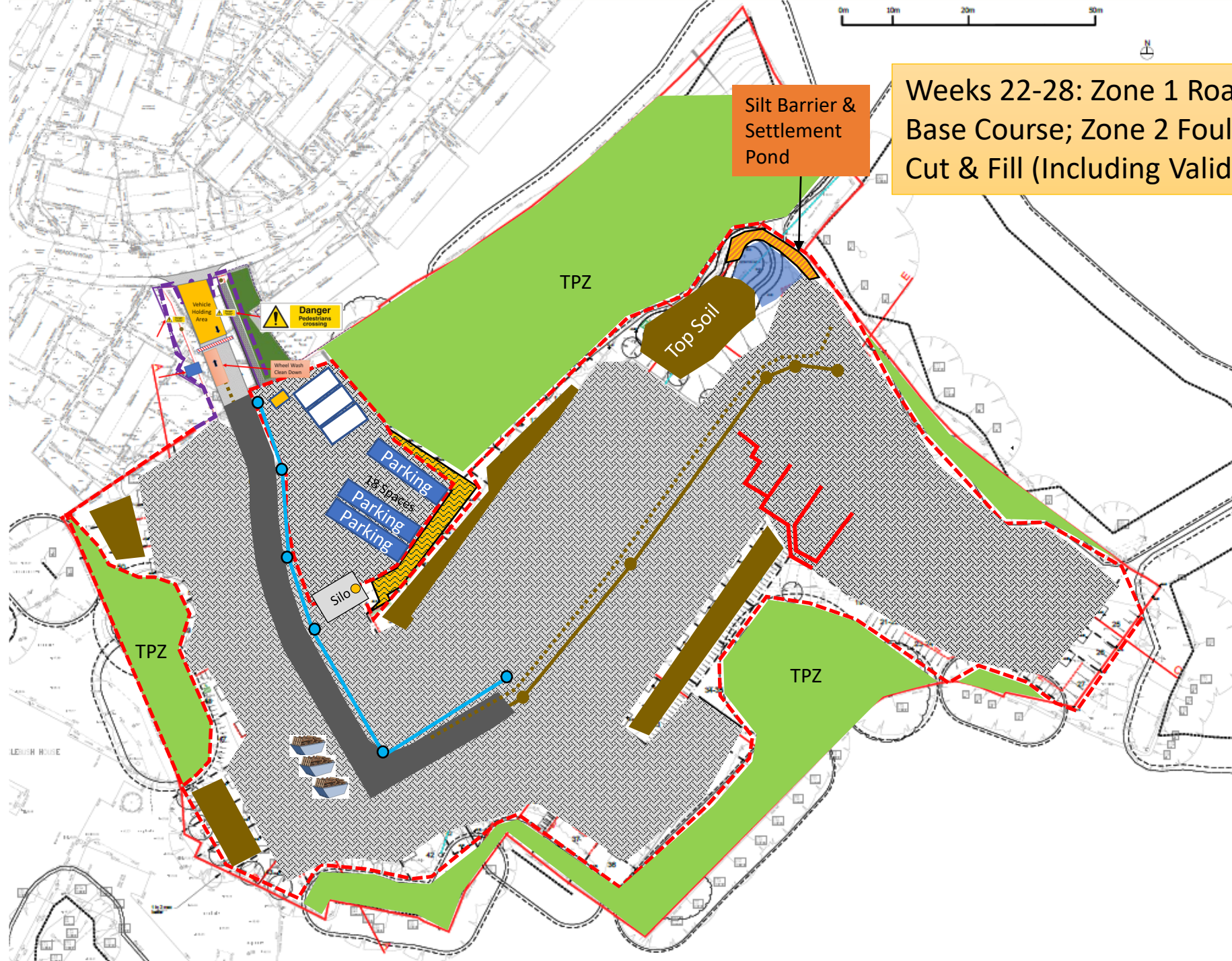
Notes:
1. This drawing and all information contained herein are for planning purposes only. NOT FOR CONSTRUCTION.
2. All highway geometry, gradients and all approvals of the Local Highway Authority.
3. Proposed carriageway widths within street impact zones shall be 10m or higher than 10m.



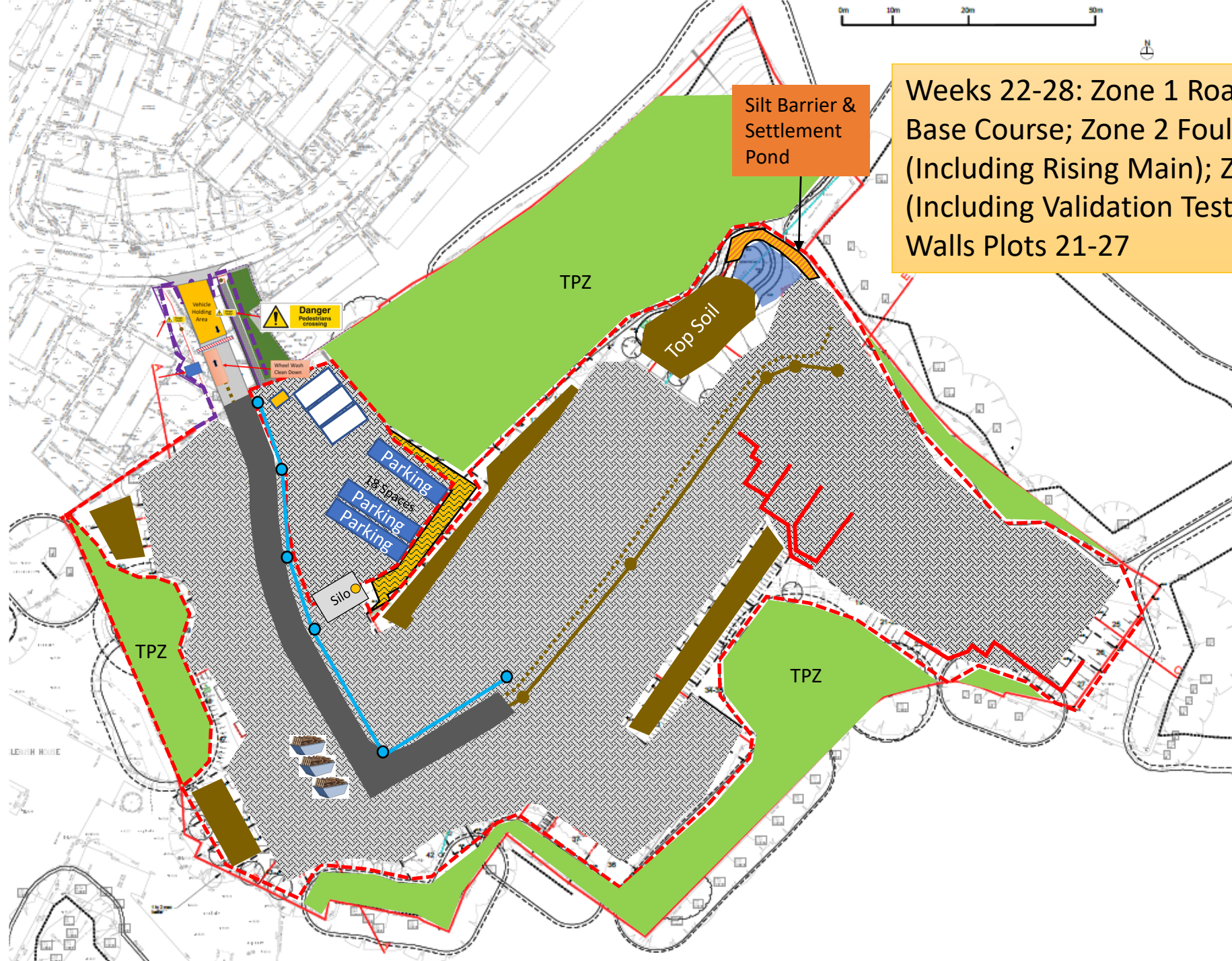
Weeks 14-18: Zone 1 Foul Drainage (Incl Rising Main); Zone 2 Fill (Including Validation); Zone 3 Topsoil Strip

Notes:
1. This drawing and all information contained herein are for planning purposes only. NOT FOR CONSTRUCTION.
2. All highway geometry, gradients and all other details are subject to the approval of the Local Highway Authority.
3. Proposed carriageway widths within street frontage shall be 12.0m higher than 11.0m.

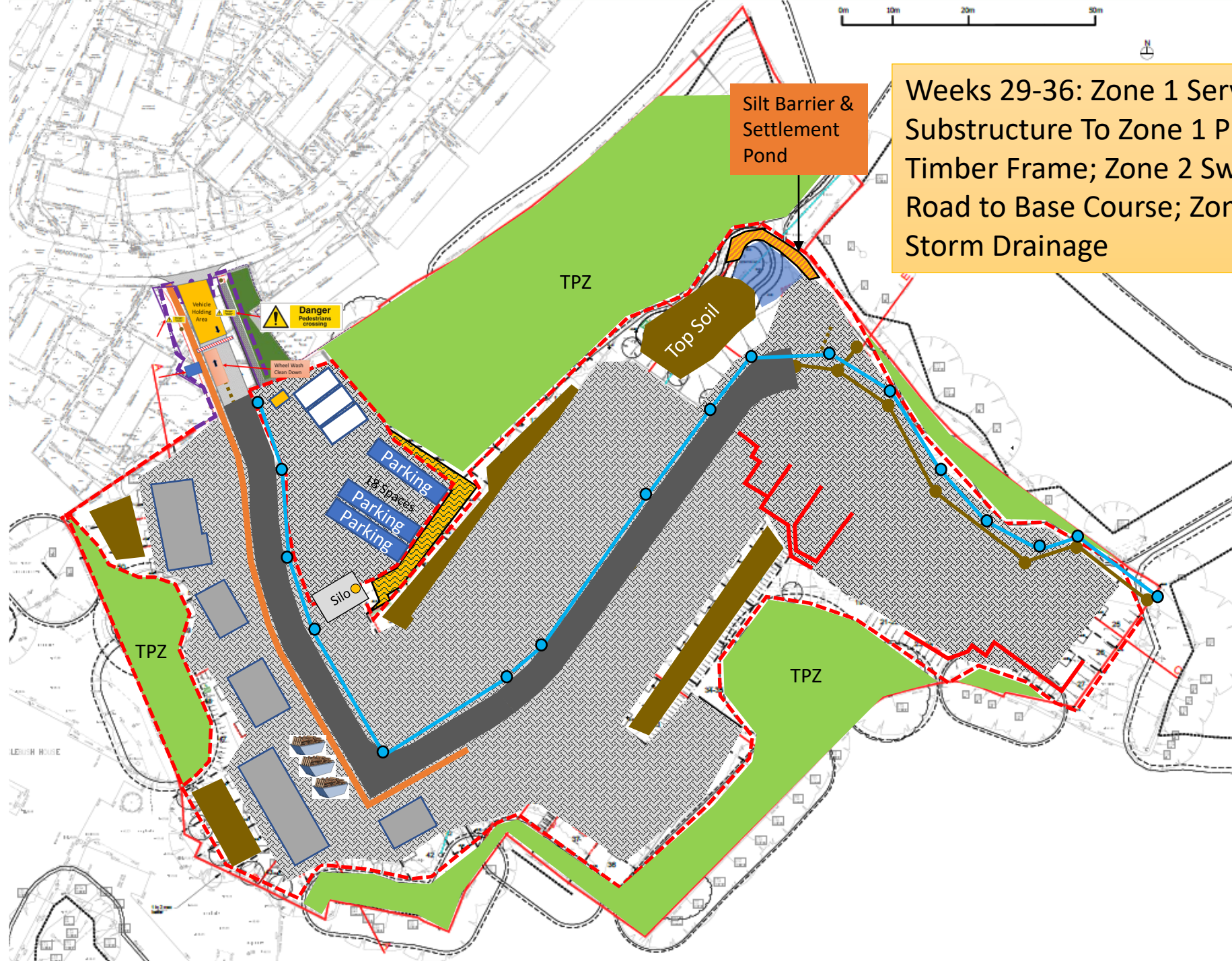




Weeks 22-28: Zone 1 Road Construction to Base Course; Zone 2 Foul Drainage; Zone 3 Cut & Fill (Including Validation Testing)

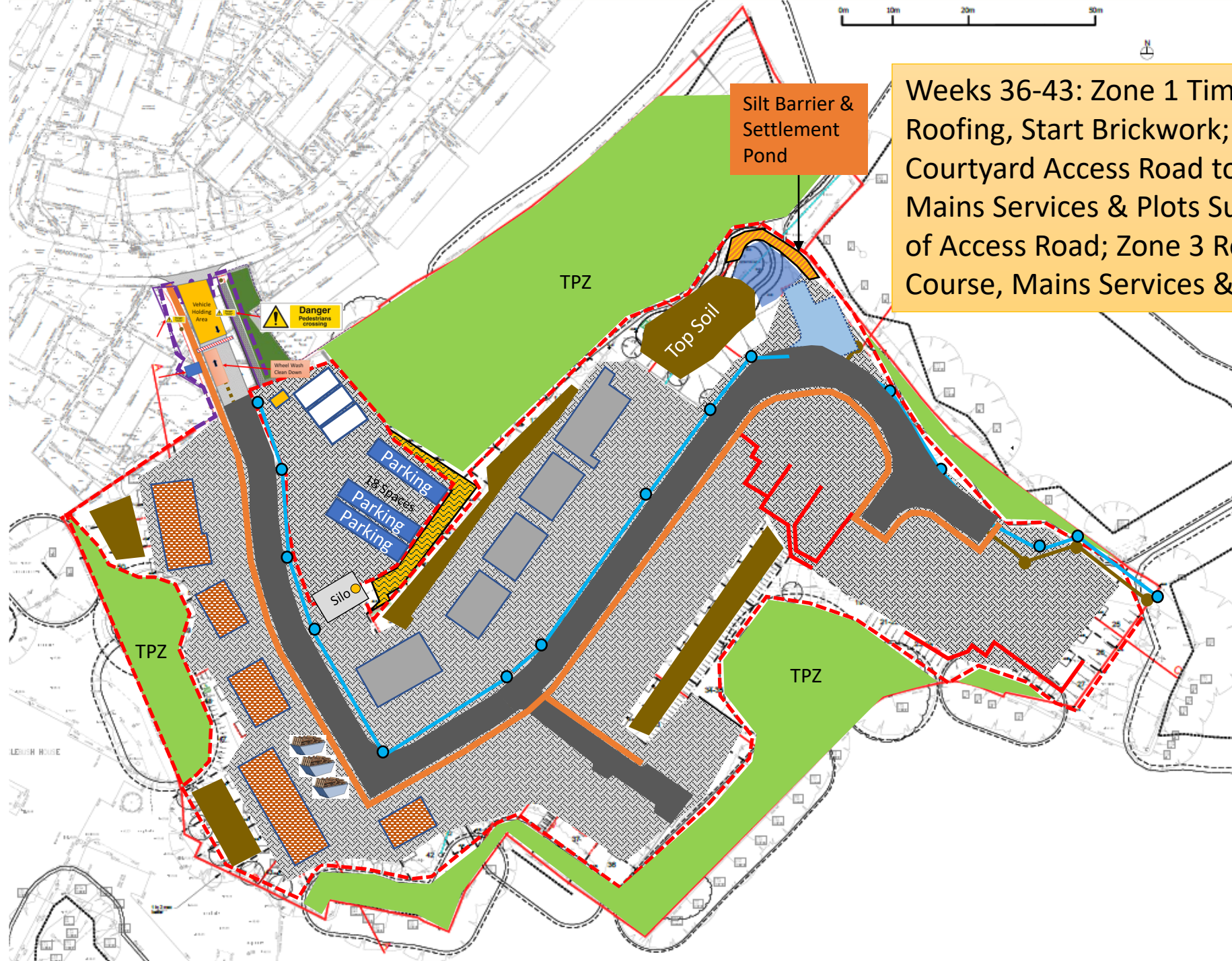


Weeks 22-28: Zone 1 Road Construction to Base Course; Zone 2 Foul Drainage (Including Rising Main); Zone 3 Cut & Fill (Including Validation Testing) & Retaining Walls Plots 21-27



Weeks 29-36: Zone 1 Service Mains, Substructure To Zone 1 Plots & Start Timber Frame; Zone 2 Swale Drainage & Road to Base Course; Zone 3 Foul and Storm Drainage

Notes:
1. This drawing and all information contained herein are for planning purposes only. NOT FOR CONSTRUCTION.
2. All highway geometry, gradients and all approvals of the Local Highway Authority.
3. Finished carriageway levels within street impact zones shall be 100mm higher than it shows.
4. A series of section cuttings will be provided.

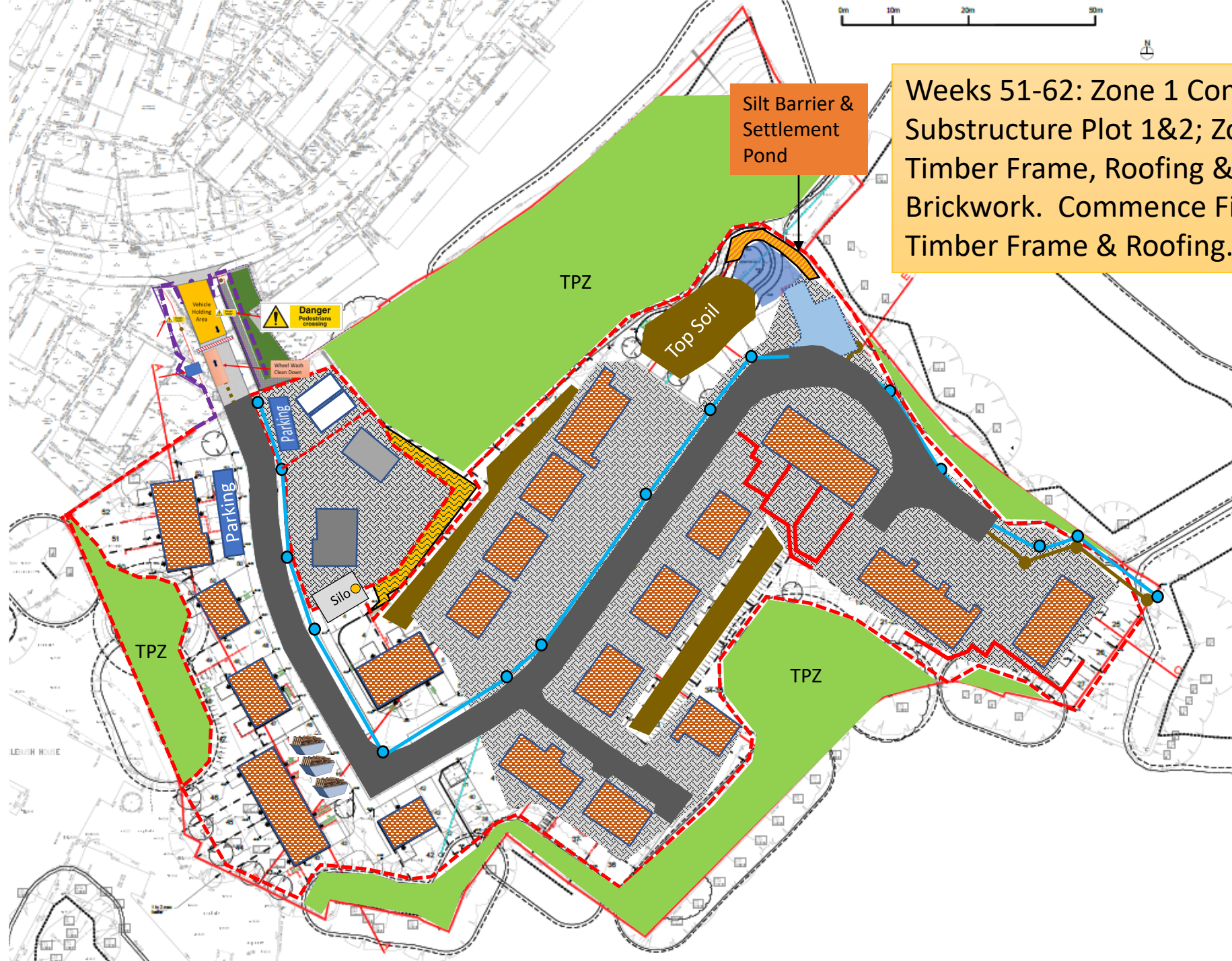


Weeks 36-43: Zone 1 Timber Frame & Roofing, Start Brickwork; Zone 2 Courtyard Access Road to Base Course & Mains Services & Plots Substructure North of Access Road; Zone 3 Road to Base Course, Mains Services & Pumping Station



Weeks 44-50: Zone 1 Complete Brickwork & Commence Finishes to Plots; Zone 2 Timber Frame, Roofing & Complete Substructure to Plots; Zone 3 Plot Substructure

Notes:
1. This drawing and all information contained herein are for planning purposes only. NOT FOR CONSTRUCTION.
2. All highway geometry, gradients and all other details are subject to the approval of the Local Highway Authority.
3. Finished carriageway levels within street frontage shall be 100mm higher than 11 shown.
4. A scale of 1:1000 for the site plan.



Weeks 51-62: Zone 1 Complete Plots & Substructure Plot 1&2; Zone 2 Complete Timber Frame, Roofing & Continue Brickwork. Commence Finishes; Zone 3 Timber Frame & Roofing.



Weeks 63-82: Zone 1 Snag & Finals; Zone 2 Complete Plots, Snag & Finals, Construct Swale; Zone 3 Complete Plots.

Notes:
 1. This drawing and all information contained herein are for planning purposes only. NOT FOR CONSTRUCTION.
 2. All highway geometry, gradients and all other details are subject to the approval of the Local Highway Authority.
 3. Proposed carriageway widths within street frontage shall be 10m or 12m higher than 10m.



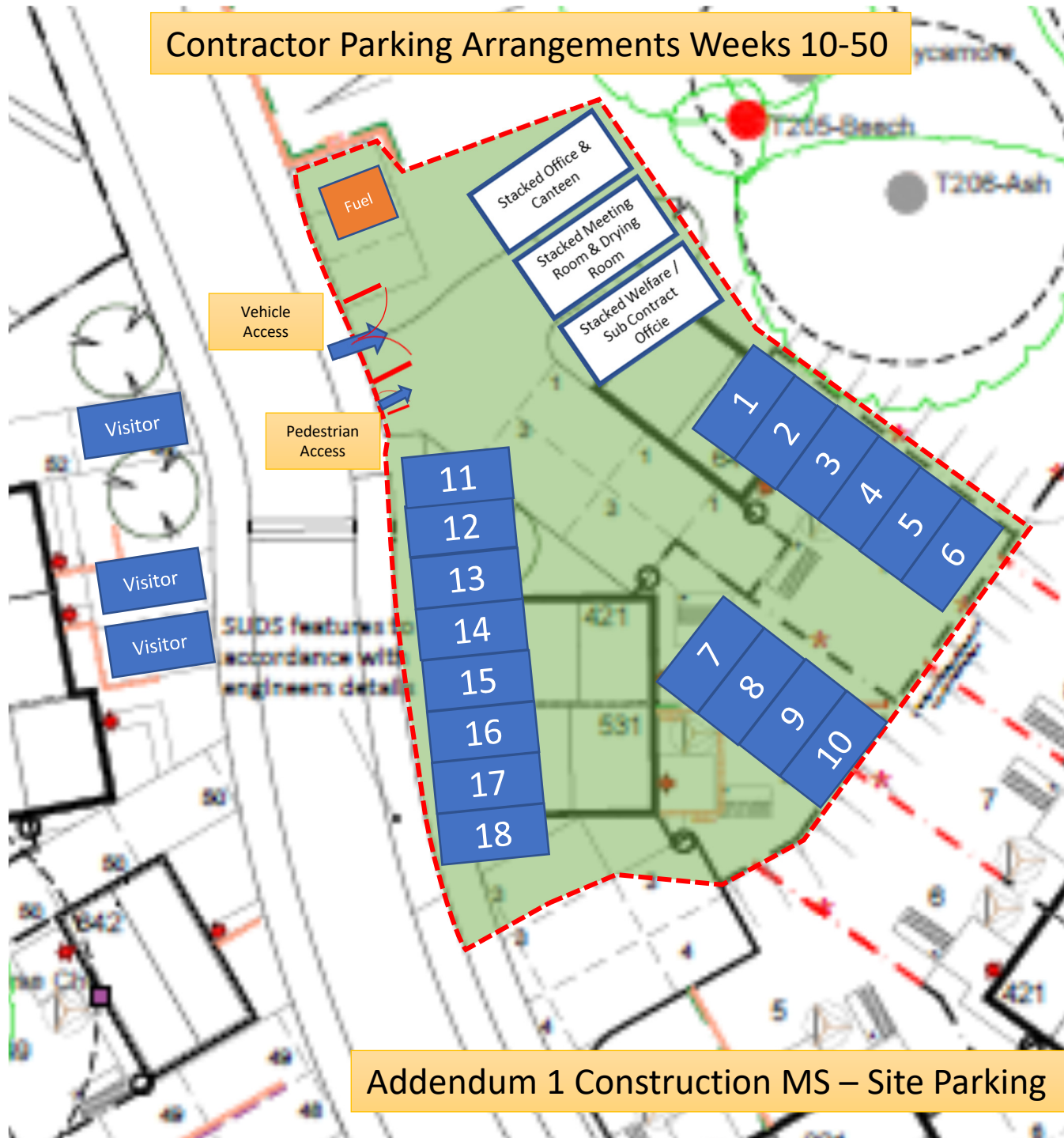
Weeks 63-82: Zone 1 Snag & Finals; Zone 2 Complete Plots, Snag & Finals, Construct Swale; Zone 3 Complete Plots.

Notes:
1. This drawing and all information contained herein are for planning purposes only. NOT FOR CONSTRUCTION.
2. All highway geometry, gradients and all other details are subject to the approval of the Local Highway Authority.
3. Proposed carriageway widths within street frontage shall be 10m or 12m higher than 10m.

Week 86:
Clear Site &
Handover



Contractor Parking Arrangements Weeks 10-50



Addendum 1 Construction MS – Site Parking