total-play

Sports surface design and construction

Proposal, Specification & Costs ECB Approved Non Turf Cricket Practice Facility

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Date: 16 July 2020
Proposal No: AB1560720

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CONTENTS

1. INTRODUCTION TO TOTAL-PLAY

CONCEPTION

total-play (TP) was founded by David Bates, former Head Groundsman at Northamptonshire County Cricket Club and Chairman of the First Class Grounds Committee. David utilised his practical and technical knowledge to design a non-turf surface suitable for both grass roots and high performance cricket. This system was subsequently branded as 'tp365' to reflect both the full width carpet and the ability to use the system all year round.

ECB APPROVED SYSTEMS

total-play are constantly innovating and driving the synthetic market forward. We now have a range of six ECB Approved Systems. Our 'tp365, 'tp5t' and 'tpB1' systems, can now be installed in a 'Natural Pitch Colour 'NPC' playing surface carpets. Giving our clients varying colour options in both a woven and turfed carpets. Our range of carpets also incorporate a navy blue yarn for surrounds and training lines. No other supplier offers such a bespoke range of systems and design options. We believe all our ECB approved systems are of a unique, modern design offering a balanced game between bat and ball and are proven to stand up to the rigours of modern usage for a wide range of clients and environments.

'TP365' Incorporating **'TP365 NPC'** for a professional Natural Pitch Colour carpet.

Our ultimate system, designed following intensive research using the highest quality materials, construction techniques and the latest methods in performance testing to provide a prestigious non-turf solution. The 'tp365' system incorporates a dynamic unbound aggregate base, unique 'tp2' shock-pad and our exclusive premium grade 'tp1' Wilton Woven playing surface to replicate a well prepared natural grass cricket surface for performance conscious usage. The dynamic base has excellent drainage, optimum performance characteristics and with minimal maintenance. Originally gaining ECB system approval status in 2007, the flagship 'tp365' synthetic cricket pitch design's accreditation was renewed in 2012 and again in 2015. A further enhancement in 2019 has led to the ECB approved '*tp365 NPC'* system which features our new 'Natural Pitch Colour' playing surface carpets. 'tp365' can be found across the country; from village clubs to county grounds and leading independent schools. Designed by cricketers, for cricketers it offers a balanced game between bat and ball and encourages turn; improving the playing experience more than any other artificial surface. Suitable for both match play and cricket practice net facilities it performs to the correct pace and bounce to promote every aspect of the modern game, providing a safe and consistent surface that replicates a well prepared natural league pitch.

'TP5T' Incorporating **'TP5T NPC'** for a professional Natural Pitch Colour carpet.

In 2015 we added a second ECB approved non turf pitch system design to the range – the 'tp5t'. Built using the same trusted techniques and base materials as 'tp365', the 'tp5t' system has been designed to sit alongside our established 'tp365' brand to provide clients with a premium quality tufted synthetic surface solution. 'tp5t' also comprises a dynamic unbound aggregate base and 'tp2' shock-pad but incorporates a bespoke quality tufted playing surface, delivering a balanced system for practice and recreational use. Carrying the same performance guarantees and warranties as the 'tp365', the dynamic base of the 'tp5t' system has excellent drainage, performance characteristics and with minimal maintenance. Further enhancements in 2019 has led to the ECB approved '*tp5t NPC'* system which features our new 'Natural Pitch Colour' playing surface carpets. The 'tp5t' system replaces 'tp365's Wilton Woven carpet with a tufted carpet manufactured using the same high quality yarn. Due to the streamlined manufacturing process, the 'tp5t' tufted component comes in more affordably than 'tp365' woven. This tufted carpet is laid on the same exacting base construction as 'tp365'. We believe this to be the ultimate specification for an unbound base design, so have simply changed the playing surface carpet to compete with systems offering more price-sensitive options; offering a great solution on a budget, or where the more expensive woven option is not required.

'TPB1' Incorporating **'TPB1 NPC'** for a professional Natural Pitch Colour carpet.

In 2016 we added a third ECB approved non turf pitch system design to the range – the 'tpB1', which utilises tried and tested components from our flagship 'tp365' design with the inclusion of an engineered asphalt base layer. This addition to the range offers the client even greater choice and options when selecting a system to meet specific demands or site characteristics. 'tpB1' comprises an aggregate base, bound engineered asphalt layer with a 'tp2' shock-pad and premium quality Wilton Woven surface, delivering a system specifically capable of withstanding regular flooding, high usage with ultra low maintenance. Due to the bound asphalt layer, a static 'synthetic' playing characteristic is derived during a more definitive base lifespan and maintenance expectation. Further enhancements in 2019 has led to the ECB approved '*tpB1 NPC'* system which features our new 'Natural Pitch Colour' playing surface carpets. 'tpB1' has been developed to complement our existing 'unbound' systems; the 'tpB1' system is now one of only two ECB accredited systems which incorporate a 'bound' asphalt / bitumen layer. Developed drawing on experience gained from designing and constructing cricketing and other sporting facilities all over the country, the 'tpB1' system is designed to fulfil a specific market demand and also the increased risk of flooding faced by many sites. The bound system's benefits add to total-play's existing range of approved systems; meaning it simply covers all bases when it comes to client needs and ground conditions. As with all total-play systems, 'tpB1' will be installed by our in-house groundworks team to ECB Code of Practice standards.

OUR PHILOSOPHY:

TP has three core selling points, these are:

- Highest quality components
- Long lasting warranties - carpets, netting, steelwork, sub base etc.
- Quality control - achieved by having in-house staff using company owned plant

QUALITY ASSURED:

- TP was the first contractor to achieve the coveted ECB Code of Practice for non-turf installations and is proud to continually be accredited under this kite mark for both quality and performance.
- TP installations are designed to meet England & Wales Cricket Board technical guidelines and wider Performance Quality Standards (PQS).
- TP has achieved ISO 9001 and 14001 accredited status and actively participates in the CHAS scheme, recently achieving 'Accredited' status, further endorsing our commitment and compliance with important aspects of Health & Safety law.

These accreditations reinforce TP's credibility and offers additional assurance to all clients that attention to detail and correct procedure are highly regarded by our entire team.

TP MANAGEMENT STRUCTURE:

DEVELOPING A PROJECT WITH TOTAL-PLAY

'Getting together is a beginning,
Working together is progress,
Developing together is success'

Developing strong working relationships with clients is what we constantly aspire to at total-play. We don't sub-contract our works. All our projects are managed in house, from design through to construction and aftercare. We employ full time company installation operatives and company owned plant. We offer detailed un-rivalled system and product warranties giving the reassurance that we will be there for our client over the lifespan of the facility and beyond.

2. PROJECT BRIEF

WHY IS A NEW NTP PRACTICE FACILITY IMPORTANT?

1. A new practice system will help increase the attractiveness of the club to prospective junior and senior players.

2. A new practice system will assist the clubs retention of junior and senior players by providing increased on-site facilities and subsequently allowing coaches and leaders to provide year round coaching sessions.

3. NTP areas can be used during wet weather offering excellent activity options when rain has interrupted play.

When applying for funding it is vital that applicants show that they have considered how to maximise the lifespan of a new sports facility by implementing a regular maintenance regime from the onset. As part of our hand over process we will provide clients with an extensive operation and maintenance manual detailing in-house and specialist tasks, frequency and associated costs.

From experience of working with grant funders we actively encourage potential clients to include a maintenance cost as part of any grant applications, this part of the project can be discussed in more detail prior to placing an order.

PROPOSED DESIGN:

total-play (TP) has been invited by Mal Swift to provide build specifications and costs for ground improvements at Ainsdale CC.

This document will outline design specifications and costs for the following project:

- The installation of a fully carpeted 2 lane 33m enclosed 'tp365' non-turf cricket practice facility.

Ainsdale CC an aspiring club with an increasing junior section requires improved off field space for development of junior and senior cricket sections. An ECB approved two lane 33m enclosed facility will meet the demands of the club, providing a safe, performance led facility in which to hold warm ups, coaching, drills, skills and net practice. The increase in players at both senior and junior level combined with recent success has spurred intentions to continue raising standards. Subject to securing funding and planning permission, the proposed development will aim to be completed Summer 2021.

SITE VISIT REPORT:

To gain a full understanding of client requirements and an appreciation of the conditions on site, a visit was conducted Monday, 6 July 2020 by Anthony Burton with Mal Swift.

The potential design and position of a new facility was discussed at length. The proposed specification is therefore a bespoke design to suit the needs of Ainsdale CC and engineered to work with the local ground features.

The positioning of an artificial practice facility needs to allow for several design elements including:

- Orientation
- Topography
- Dimensions
- Local Features

Throughout this proposal these four critical elements will be explored in detail to ensure we create a practice system that is high performing, player / coach focused and bespoke to Ainsdale CC.

ORIENTATION:

Sport England & the ECB have published guidance on optimum pitch orientation for a range of sports. For cricket, the limits of orientation for cricket pitches are 305^{o} and 55^{o}. Please refer to Figure 1.

The orientation of the planned system is within the limits of the stated Performance Quality Standards (PQS) of a maximum angle of 55^{0} from a true North / South.

The setting sun can cause health & safety concerns when the facility is used in the evenings. As such, orientation can be an important factor and is one of the ECB's pre-requisites for awarding capital grant funding.

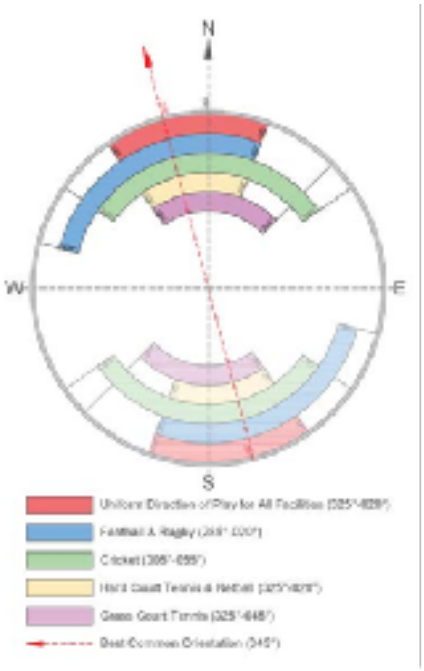


FIGURE 1: ORIENTATION

Sport England & the ECB has published guidance on optimum pitch orientation for a range of sports.

TOPOGRAPHY:

The playing surface gradients of a non-turf pitch practice facility are very important. To prevent surface ponding and aid drainage, sports surfaces should not be constructed with a level gradient, however playing performance will be affected by surfaces with too steep a gradient. Practice facilities which are not constructed to conform to the correct performance gradients might suffer from the following issues:

- Player comfort
- Loss of player traction
- Lateral movement of the ball
- Exaggerated ball bounce (low or high)

The formation layer upon which the system base will be built, will be prepared by completing a rough grade of the indigenous soil. Upon completion of these initial excavations, the identified area site gradients are surveyed using a laser guided level. The sites gradients before total-play begin system installation must be within Design tolerances set against Performance Quality Standards (PQS) and the current ECB design guidelines for playing surface gradients. Preferably no greater than 1:100 to 1:250 (1 % - 0.4 %) in the direction of play and 1:100 to 1:150 (1 % - 0.67 %) across the line of play.
The original ground levels can be regarded as relatively level and within design tolerances set by the ECB.

DIMENSIONS:

We propose installing a 33m system which is within the limits set out by England & Wales Cricket Board Approved Non-Turf Pitch Codes of Practice.

LOCAL FEATURES:

The club has an existing 2 lane open NTP in situ. The system believed to have been installed in 2006. The facility is now beyond effective serviceable repair and the club would benefit by increasing the existing facility to

a 33m long enclosed facility. This would create a much safer experience and also allow the club to control access and usage. The current steelwork and netting are of particular concern, now a health and safety issue, as it has leant severely due to poor initial construction.

IMAGES OF BUILD SITE:

ACCESS:

Access from the main road through locked gate is possible directly into site. The haulage route is across approximately 50m of natural turf, around the boundary edge. The construction must go ahead during drier part of the year when ground conditions are firm enough. If construction goes ahead during a wet period, a contingency cost for remediation of haulage route may need to be considered by the client.

PLAN OF ACCESS ROUTE:

total-play propose establishing an unloading area on the car park and using part of the car parking area as a site compound.

ENABLING WORKS:

The club requires the existing facility surface, steelwork and netting to be dismantled and removed from site. The existing facility timber framework will also be excavated and removed from site. Costs will be shown for these enabling works waste removal.

SPOIL (WASTE MATERIAL FROM EARTHWORK):

The client has stated that the spoil (waste material bought up during the course of excavation/earthworks) generated by the grounds works will need to be taken off site. A cost will be put forward to remove spoil off site on a per load basis. We will determine the approximate volume of waste to be removed off site based on the assumed stone depth. We suggest that TP put forward an estimated number of loads and a cost per load. In the event of more or less material leaving site, this part of the project is completed as an 'open book' exercise. We will provide our best estimate for spoil removal with the actual number of loads paid for by the client.

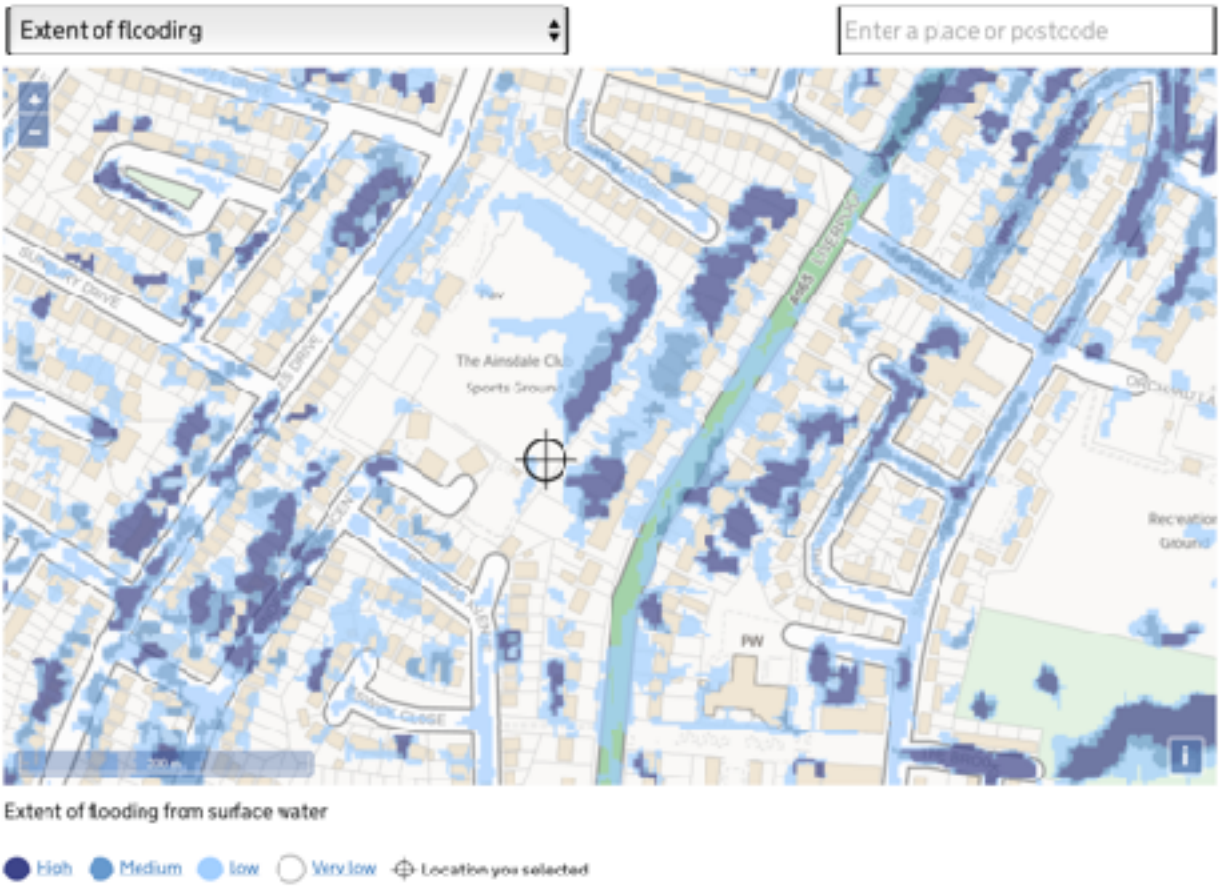
GROUND SERVICES:

Discussions on site with the client indicate there are no ground services within the works area, A scan of the area will be undertaken before any work commences, but it is the responsibility of the client to highlight any possible ground utility services before works commence.

FLOOD RISK ASSESSMENT:

The proposed build site is not regarded to be at limited low risk of flooding from either 'Surface Water or 'Rivers or the Sea'.

FLOOD RISK MAP:



DRAINAGE:

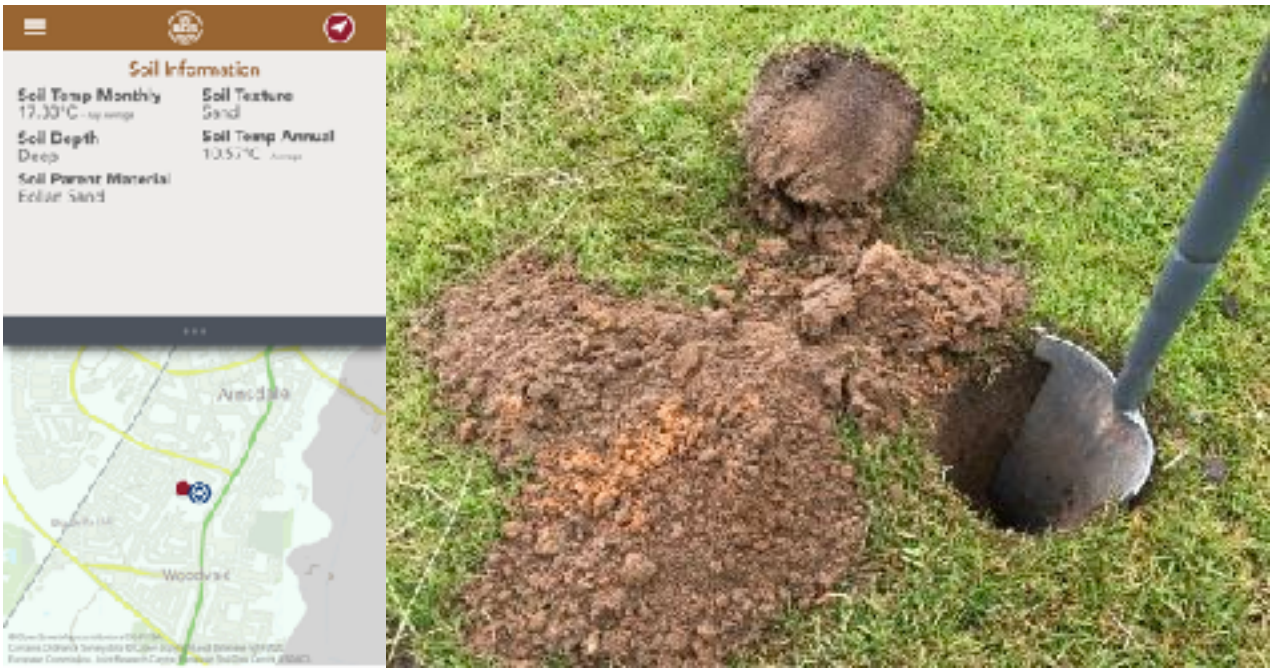
No additional drainage is deemed necessary. The proposed location of the new system is believed to not be at direct risk of a water course running through it.

LOCAL SOILS:

The local soil profile and soil characteristics determine the build depth of the new systems stone profile. Therefore, understanding soil mechanics is a vital part of designing a new system.

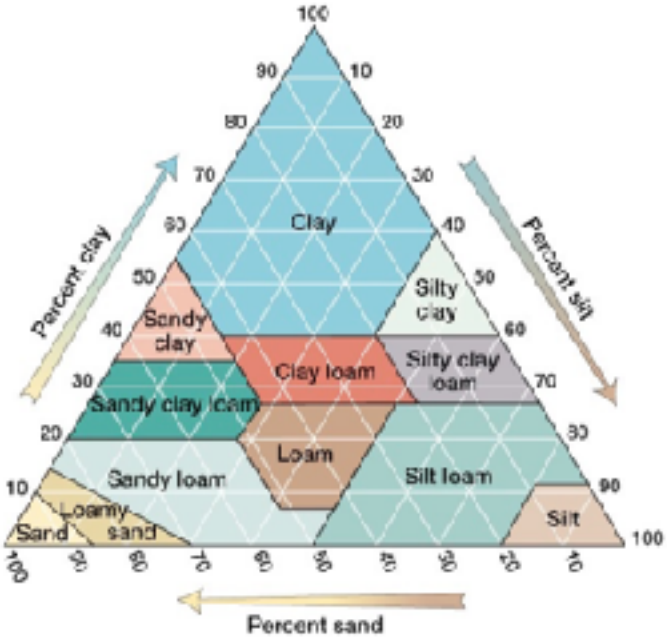
The TP investigation process explores the local ground conditions to determine its drainage capabilities, the height of the water table, soil stability and soil strength. To establish these key details a trial hole was taken to determine the make up of the indigenous soil.

GEOLOGY INFO & TRIAL HOLE IMAGE:



The depth of this top soil layer was between 200-250 mm. The top soil is a Sandy loam soil.
The sub base is made up of a Sandy soil parent material.
The soil profile showed no signs of continual water logging.
Further on-site discussion with the client highlighted that the existing practice area / proposed works area doesn't suffer from regular flooding or water logging.
The depth of the base construction will be increase to 220mm to provide a stable base for future generations of use.

FIGURE 2: TEXTURAL CLARIFICATION OF SOILS



SOIL STRENGTH - CALIFORNIA BEARING RATIO (CBR):

As part of our site investigation process, we record the California Bearing Ratio (CBR) of the sub-grade. The CBR is a measurement of the resistance of the sub-grade to deform under load. Within the UK a CBR of 5% or above is regarded as acceptable and a standard 'total-play' design can be used. In this case the CBR could not be measured due to the adverse soil/weather conditions.

TOTAL-PLAY DYNAMIC POROUS BASE

The dynamic porous aggregate profile will be increased from a standard build depth to a profile constructed to a minimum depth of 220 mm. This depth of aggregate will provide a substantial base capable of retaining high levels of tolerance over a sustained period, this will result in high levels of performance being maintained despite continuous use. The proposed design also incorporates concrete and cement kerb frame work giving maximum stability and longevity to the facility.

All designs will comply with the Institute of Groundsmanship (IOG) Performance Quality Standards (PQS) and England & Wales Cricket Board Approved Non-Turf Pitch Codes of Practice. (Please view the total-play product information documentation for more information).

SIMILAR TOTAL-PLAY LTD INSTALLATIONS:

1. Calday Grange Grammar School - design and construction of a 2 lane 33 m enclosed non-turf practice system, works completed Summer 2020
2. Longridge Cricket Club - design and construction of a 3 lane 33 m enclosed non-turf practice system, works completed Summer 2015
3. Haslingden CC - design and construction of a 4 lane 33 m enclosed non-turf practice system, works completed Spring 2017
4. Edgeworth CC - design and construction of a 2 lane 27 m open non-turf practice system, works completed Summer 2019
5. Nantwich CC - design and construction of a 4 lane 40 m enclosed non-turf practice system, works completed Summer 2019
6. Lady Barnhouse School - design and construction of a 2 lane 25 m open non-turf practice system, works completed Summer 2019
7. Pontblyddyn CC - design and construction of a 2 lane 33m Enclosed non-turf practise system, works completed Summer 2019

To view further case studies please click **HERE** or go to our website: **http://total-play.co.uk/case-studies/**

CALDAY GRANGE GRAMMAR SCHOOL- 2 LANE ENCLOSED 'TP5T'



3. PROJECT DESIGN SPECIFICATIONS

PROPOSED DESIGN ELEMENTS OF A 2 LANE, 33 M ENCLOSED 'TP365' NTP FACILITY:

The construction of a new two lane non-turf pitch facility includes:

1. SITE PREPARATION:

1. Confirm suitable access routes, offload area and site compound with the client
2. Preparation of all required paperwork (e.g. method statements, risk assessments etc.)
3. Break-down, removal and disposal of the previous system
4. Initial excavations and groundworks
5. Spoil Removal: A cost will be put forward to remove spoil (waste material bought up during the course of excavation/earthworks) off site on a per load basis. We will determine the approximate volume of waste to be removed off site based on the assumed stone depth. We suggest that TP put forward an estimated number of loads and a cost per load. In the event of more or less material leaving site, this part of the project its completed as an 'open book' exercise. We will provide our best estimate for spoil removal with the actual number of loads paid for by the client.

2. PLAYING SURFACE DIMENSIONS:

1.	Individual lane width	3.65 m	(12 FT)
2.	Length of playing area	33 m	(108 FT)
3.	Width of facility:		
	Two lanes	7.3 m	(24 FT)

3. SYNTHETIC PLAYING SURFACE CARPETS & SHOCK PADS- PER LANE:

'tp365' ECB approved system 33 m in length: two-tone green & blue

A fully carpeted playing surface utilising:

4. 'tp1' premium grade woven two-tone carpet (green with blue borders): 27 m (89FT) by 3.65 m (12FT)
5. 'tp5' premium tufted carpet run-up / skills area: 6 m (20FT) by 3.65 m (12FT)
6. 'tp2' batting area pace modifying shock pad: 19 m (62FT) by 3.4 m (11FT)
7. 'tp3' bowling area & run-up load absorbing shock pad: 14 m (46FT) by 3.65 m (12FT)

DESIGN OPTIONS- 'TP1' PLAYING SURFACE CARPET IS AVAILABLE WITH THE FOLLOWING:

8. Two-tone: Green with blue borders or natural 'NPC' borders
9. Two-tone: Natural 'NPC' with green or blue borders
10. Single-tone: Green or natural 'NPC'
11. Training Aid**:** three stump lines woven into the carpet to identify stumps positions and aid junior practice. Available alongside either of the above 'tp1' carpet choices. For further information on this innovative design feature please see design option product sheet for more details.
12. Cost reductions available by using 'tp5' tufted playing surface carpet in lieu of 'tp1' woven. Creating an ECB approved 'tp5t' System.

4. GEO-GRID:

To ensure a stable sub-base, the total-play system could incorporate a flexible geo-grid. This is manufactured from polypropylene and offers bi-axial high strength and low elongation. The grid interlocks with the granular sub-base materials and allows the granular material to partially penetrate and project through the aperture; this creates a rigid and positive interlock, not only between the geo-grid and the granular material but also with the sub-grade. This prevents any migration of base aggregate in to a soft sub-grade and therefore stabilising the whole non-turf facility.

5. 'TP365' DYNAMIC POROUS AGGREGATE BASE:

TP playing surface carpets are laid onto dynamic porous aggregate performance base. The system is constructed with NO internal frameworks within the playing area. The performance base is constructed as one block using laser guided machinery to provide a trip and ridge free playing area. A unique design which creates consistency, stability and longevity for a practice facility. The system DOES NOT use materials that degrade. Following a site investigation and considering on site conditions and the size of the facility the minimal depth of the dynamic porous aggregate base profile will be: 200 mm

6. EDGE STABILISATION:

To increase the longevity of the installation, a concrete kerb perimeter edge is included in the construction. This supports and anchors the aggregate profile and prevents structural degradation at the surface edge.

7. STEELWORK SYSTEM DIMENSIONS- PER LANE:

33 m enclosed facility

1.	Height	4 m	(13FT)
2.	Length	25.55 m	(84FT)
3.	Width	3.65 m	(12FT)

Run up / bowling area:

4. Side walls - 7.45 m long x 4 m high
5. Back net - 7.3 m wide x 4 m high
6. Access - TP will leave an opening in one of the side walls to allow for pedestrian access, exact position to be confirmed
7. Overhead roof netting - the run up area will not include any over head roof bars or netting

8. STEEL TUBULAR FRAMEWORK COMPONENTS:

1. 48 mm galvanised steel tubes connected with Fast-Clamps
2. Upright poles are placed into a 52 mm galvanised steel tube sockets 500 mm in length
3. Sockets are installed to a depth of 500 mm and secured using concrete
4. A 5 mm steel tension wire and metal Fast-Clamp hooks are used to secure netting components

FRAMEWORK DESIGN OPTIONS:

5. Tubular galvanised steelwork can be 'Powder Coated' in a range of colours including **GREEN** or **BLACK**
6. The opening on an enclosed facility can be fitted with a pedestrian netted gate to help prevent casual access

9. NETTING SYSTEM:

1. The installation of the exclusively designed and manufactured 'HD Protection Tunnel'
2. Created using one seamless piece of netting
3. Protection Tunnels include an integrally fixed 5 mm tension wire to hold up and secure down the revolutionary system to the associated steel framework
4. TP Protection Tunnels are built using 3mm diameter, heavy duty (HD) braided polyethylene (PE) finished in a 50 mm mesh knotted configuration
5. Supplied with a '**Five Year Warranty**'*

NETTING DESIGN OPTIONS:

6. TP 'HD' netting comes in a choice of **GREEN** or **BLACK.** (please view samples prior to selection)
7. TP 'Protection Skirt' - 500 mm high PVC or Dense Mesh Netting can be fixed to the outside of the system. This protects the netting at ground level against animals and other damage. PVC or Mesh skirts are hung from 5 mm tension wire held and metal hooks fixed to the steelwork. The skirts come in **GREEN** or **BLACK.** (please view samples prior to selection)
8. Cost saving option available to use 'HD Panel' netting in lieu of 'HD Protection Tunnels'

10. BATTING CURTAINS:

1. Batting curtains provide an additional physical and visual barrier, protecting the batsman from the adjacent lanes
2. Our batting curtains are made from dense white mesh netting. As standard are 1.5 m or 2 m by 7.2m high
3. The mesh curtains are hung from 5 mm tension wire and metal hooks fixed to the steelwork
4. Your facility will incorporate 'Single' fixed mesh curtains between the lanes. It is possible to upgrade these to incorporate the sides 'Double' or also the sides and back 'Wrap'. Please see design options in project costs

11. REINSTATEMENT OF THE BUILD SITE:

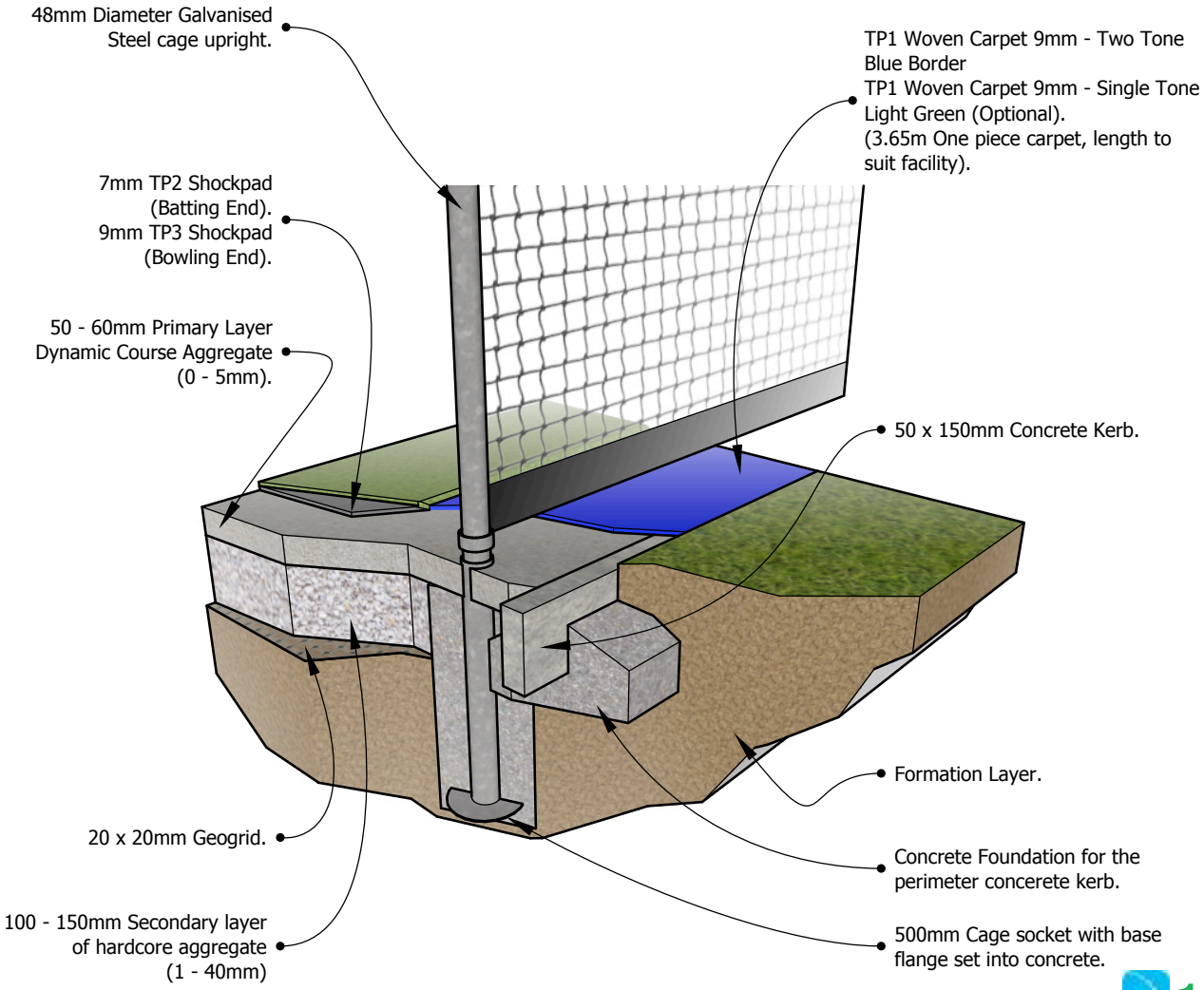
The immediate area surrounding the system will be graded with on site soil and seeded. A cost is not included to import graded top soil for remediation of the area surrounding the facility or haulage route. These remediation works will need to be cultivated and irrigated on a continued basis by the client to establish full growth.

SYSTEM COMPONENT SPECIFICATIONS AND SAMPLES:

System component samples available on request:

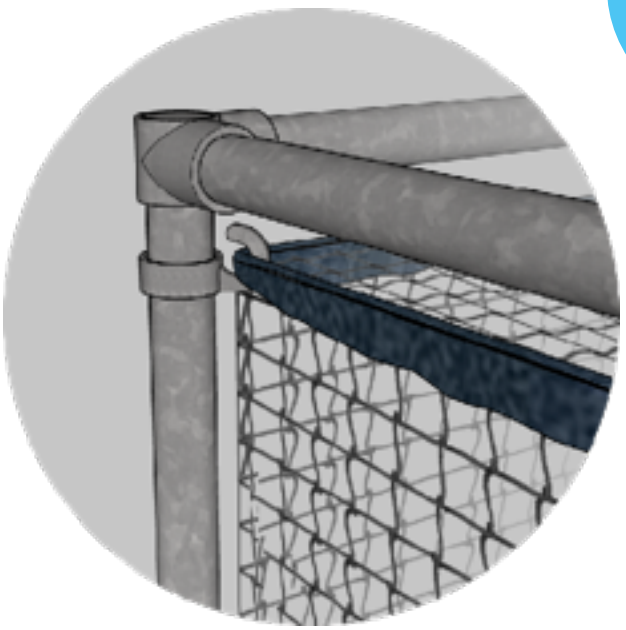
- 'tp1' Premium grade woven playing surface carpet
- 'tp5' Premium grade tufted playing surface carpet
- 'tp2' Batting area pace modifying pad
- 'tp3' Bowling area & run-up load absorbing shock pad
- 'tp4' Bowling and skills area multi-use games carpet
- Dynamic Porous Aggregates
- Netting 'HD Protection Tunnel'
- Design Plans

'TP365' PRACTICE FACILITY CROSS SECTIONAL DRAWING



HD PROTECTION TUNNEL NETTING

Our proposed design includes the innovative total-play Protection Tunnel netting system, this will ensure that each individual lane is enclosed, protecting the batsman and preventing balls from escaping into adjacent lanes or out of the system. The HD Protection Tunnel netting system comes with a 5 year warranty covering any damage caused solely by use. Any damage caused by a third party (i.e. rabbits, pests, mowers, vandalism etc.) can be repaired at a cost by TP.



Our exclusively designed and manufactured HD 'Protection Tunnel' netting design creates an individual tunnel for each for lane, providing a double layer of net between each lane.

HD 'Protection Tunnel' netting is proven to be easier to install and take down than other netting systems currently being used by a number of our rivals. a significant advantage for clubs with limited ground staff / groundsman.

Another major advantage of the HD 'Protection Tunnel' netting system is the innovative fixing mechanism. We use a 5mm high tension wire, encapsulated within a 90 mm PVC sleeve at the top and bottom of the steelwork, fixed using metal hooks onto our 4 m steel uprights, this means there is no need for cable ties or yarn and therefore less wear and pinch points. This significant advantage ensures the netting is much more sustainable than traditional netting

WHY CHOOSE AN ENCLOSED FACILITY?

In contrast to traditional 'open' non-turf practice facilities, our proposed 'enclosed' system will provide a bespoke facility offering a number of benefits:

- Enclosed systems provide the client with a large multi-use / skills area inside the facility that can be used for a range of activities including throw-down drills, stretching, warm ups and fielding practices.
- The system is effectively 'an indoor practice area built outside'. This allows the practice area to stay as a clean facility ensuring the playing surface carpet can remain usable for a longer period of time
- Enclosed practice systems offer an enhanced steel framework which significantly helps ensure that the ball cannot escape and hit neighbouring cars / spectators / general public etc.
- Enclosed practice systems come complete with a white netting wall at the bowlers end. This ensures the practice facility is usable at all times of the day regardless of the sun position and associated glare.
- Enclosed systems offer an increased level of security to both users and the Club. An enclosed system design may negate the need for installing additional security fencing - this could be a significant cost saving to this project.

‘NPC’ NATURAL PITCH COLOUR CARPETS

Our ‘NPC’ Natural Pitch Colour carpets offer a professional looking alternative to our traditional green carpets. The carpets resemble a well prepared, dry, natural grass cricket surface, whilst retaining the exact same playing characteristics of our tried and trusted green carpets. We can incorporate green or blue borders into the full width carpet, and also contrasting training lines.

12.PERFORMANCE STANDARDS

Please refer to the table highlighted below to compare the standards proposed for this installation. The information also allows clients to compare the proposed TP standards against current guide lines set by the ECB for both recreational and first class cricket.

Test	Method of Test	Pitch Area	ECB Performance Standard		total-play Standards	Note
			Recreational	CoE*/First Class Cricket		
Ball Rebound (mm)	BS EN 12235: 2004		240 - 520	320 - 560	**240 - 520**	max variation +/- 50 mm of mean
Surface Hardness (g)	BS EN 14954: 2005	pitch of ball	>100	>100	**>100**	2.25 kg Clegg Hammer
		Bowler's run up	<300	<300	**<300**	2.25 kg Clegg Hammer
Traction (Nm)	B S E N 15301-1:2007		25 - 50	25 - 50	**=>20**	-
Surface Regularity (+/-)	B S E N 15330-2:2008	Playing surface	6 mm	6 mm	**4 mm**	over a 2 m length
			4 mm	4 mm	**3 mm**	over a 30 cm length
		Transition	10 mm	10 mm	**10 mm**	over a 2 m length
			4 mm	4 mm	**4 mm**	over a 30 cm length
		Surrounds	6 mm	6 mm	**6 mm**	over a 2 m length
Gradient**		In line with Pitch	1.25% max	1.25% max	**1% max 0.4% min**	-
		Across Pitch	2% max	2% max	**1% max 0.4% min**	-

* Centre of Excellence

** Where ground conditions allow, 'total-play' endeavour to install levels with tighter tolerances than those set out by Performance Quality Standards (PQS), British & European Standards and current ECB design guidelines; this ensures that the playing surface will perform to the highest standards.

13.PROJECT COSTS

All prices are valid for three months from date of proposal and are subject to agreed payment terms alongside TP 'Terms & Conditions'. The following costs are a breakdown of the submitted design specifications and total-play design options. Please note the total-play range of design options are described on an accompanying document.

All costs are EXCLUSIVE of VAT.

Spec Ref	Description	Unit	Cost
3.1-3.11	2 LANE, 33M 'TP365' NTP SYSTEM INSTALLATION	ITEM	£31,670
3.1.3	REMOVAL OF CARPETS, NETS, STEELWORK & TIMBER*	ITEM	£720
3.1.4	INITIAL EXCAVATIONS AND GROUNDWORKS	ITEM	£1,250
3.1.5	REMOVAL OF SPOIL (WASTE MATERIALS FROM EARTHWORKS) OFF SITE**	ITEM	£2,250
CONTINGENCY COSTS:			
3.11	REMEDIATION / IMPORTED SOIL CONTINGENCY***	20TON	£780
DESIGN OPTIONS:			
3.3.11	TRAINING LINES TUFTED INTO PLAYING CARPET	PER LANE	£285
3.8.5	POWDER COATED STEELWORK (GREEN OR BLACK)	ITEM	£2,133
3.8.6	LOCKABLE METAL & NETTED GATE ACROSS SYSTEM ENTRANCE TO PREVENT UNAUTHORISED USE	ITEM	£345
3.9.7	PVC PROTECTION SKIRT - FITTED TO OUTSIDE OF NETTING ONLY	ITEM	£927
3.10.4	BATTING CURTAINS - DOUBLE DESIGN BETWEEN LANES & BOTH FLANKS	ITEM	£264
3.10.4	BATTING CURTAINS WRAP DESIGN - FITTED ON ALL 3NR. SIDES OF ALL LANES	ITEM	£392
	TOTAL-PLAY RUBBER BASED STUMPS	SET	£45
	*Estimated costs of 3 registered waste removal skips at local rates (estimated @ £240 per skip)		
	**Estimated costs of 6 nr. grab wagon removals at local rates (estimated @ £375 per 15 ton load)		
	***Estimated costs of 20 ton load at local rates		

14.REVISION RECORD

Rev	Date	Description	Requested By:	Created By:	Checked By:
0	16/07/20	Document Creation	MS	AB	TLM

15.WHY CHOOSE TOTAL-PLAY?

Investing in a new non-turf cricket facility is always a difficult decision due to the amount of variables on offer from each ECB approved contractor. To help potential clients make an informed decision we have created the following comparison table:

total-play Ltd		Competitor
'England & Wales Cricket Board (ECB) Non Turf Pitch Code of Practice Installer'. First company to be awarded the recognition for performance in both design and construction of NTP's	YES	?
Six ECB Approved Pitch Systems Hundreds of lanes installed at clubs, schools and county grounds nationwide	YES	?
ISO9001 & ISO14001 Accreditation Confirms that the company incorporates Quality Management Systems	YES	?
All systems **Guaranteed** to conform to ECB 'TS6' Guidelines and Performance Quality Standards (PQS)	YES	?
All installation staff **CSCS (Construction Skills Certification Scheme)**, **CITB (Construction Industry Training Board)** and **DBS (Disclosure and Barring Service)** checked and tested	YES	?
An **In House Design & Build** company. Tailored, bespoke designs for every individual site. No Sub Contractors used as standard	YES	?
Company owned **Plant & Specialist Machinery**	YES	?

total-play Ltd System	Design Element	total-play System	Competitor
Base Construction	Up to a **36 Year** (3 x Lifetime*) Facility Base Construction Warranty (see table below)	YES	?
	Constructed as **One Whole Area**: No internal edging or frameworks	YES	?
	Dynamic Porous Aggregate System: Replicates play of a quality natural league surface	YES	?
	Ultra Low Maintenance: **No Watering, No Rolling**	YES	?
	200 mm (8") typical construction depth of aggregate stone base construction	YES	?
Framework Edging	**Permanent** Precast Concrete Kerbs & Concrete Haunchings on Net Facilities	YES	?
Playing Surface Carpets	Premium grade **'tp1' Woven** Carpet with a **12 year lifetime* warranty**	YES	?
	Premium grade **'tp5' Tufted** Carpet with a **10 year lifetime* warranty**	YES	?
	Turn & Seam: replicates natural play	YES	?
	Two Tone or **Single Tone** Carpet Design including Natural 'NPC' colour options	YES	?
	Playing surface carpet fits the **Full Width** of the lane	YES	?
	'Stump Lines' Training Aid in contrasting colour option	YES	?
	No Infill Carpets & Nails within the playing area	YES	?
	Specific **Shock Pads** throughout the system for the Batsman & Bowler	YES	?
Steel Framework	**4 m High** Steelwork aiding the spin bowler	YES	?
	48 mm Galvanised Steel Tubes with a **25 Year Warranty**	YES	?
	500 mm deep Galvanised Steel Sockets with a **25 Year Warranty**	YES	?
	Enclosed Netted Facilities: The strength of the steelwork enables facilities to be built with enclosed netting systems	YES	?

Netting Systems	Revolutionary Protection Tunnel HD, 3 mm Knotted - 4 m High with a **5 Year Warranty**	YES	?
	HD “Panel’ netting, 3 mm Knotted with a **3 Year Warranty**	YES	?
Surface Levels	Guaranteed to perform to **ECB Standards**; Built utilising state of the art laser guided equipment	YES	?
System Accessories	Batting Curtains as standard, integral coaching aids, sponsorship printed banners, Lane End Gates / Barriers	YES	?
	PVC Protection Skirts	YES	?
	Security Fencing supplied and built in house	YES	?
	Catchment Drains to protect systems from water courses	YES	?
	total-play **Rubber Base** Stumps	YES	?
	Stump Boxes for placement of wooden stumps	YES	?

16.TOTAL-PLAY SYSTEM WARRANTIES

total-play Ltd System Component	total-play System Warranty	Competitor
Base Construction- ‘tp365’ & ’tp5t’ Net Facility	36 Years - (3 x Lifetime*)	?
Base Construction- ‘tp365’ & ’tp5t’ Match Pitch	24 Years - (2 x Lifetime*)	?
Base Construction- ‘tpB1’ Net & Match Pitch Facility	10 Years - (Lifetime*)	?
Tubular Steel Framework	25 Years - (2 x Lifetime*)	?
‘tp1’ Woven Playing Surface Carpets	12 Years - (Lifetime*)	?
‘tp5’ Tufted Playing Surface Carpets	10 Years - (Lifetime*)	?
HD ‘Protection Tunnel’ Netting	5 Years	?
HD ‘Panel’ Netting	3 Years	?
Installation Retention Period	3 Months	?
Workmanship Warranty	24 Months	?
System Support	Lifetime	?
System Insurance Cover	On application	?
*’Lifespan' or ‘Lifetime’ warranties are defined as the industries typical ‘ordinary lifespan of the product'. All stated total-play Ltd warranties are set against the relevant system ‘TP Maintenance Program’.		

17.SYNTHETIC CRICKET CARPETS COMPARISON

Choosing the right surface has become a challenging process, the following table is to help clients make an informed decision.

	‘tp1’ Premium Woven	‘tp5’ Premium Tufted
Warranty	12 years	10 years
Carpet Colours	-Single tone **Green** or **Natural ‘NPC’** -Two tone **Green** with **Blue** borders -Two tone **Green** with **Natural ‘NPC’** borders -Two tone **Natural ‘NPC’** with **Green** borders -Two tone **Natural ‘NPC’** with **Blue** borders	
Non-directional, 100% UV stabilised polypropylene knit-de-knit fibrillated yarn	Yes	
Carpet height	9 mm	
Training Stump Lines	Yes In **Green, Blue,** or **Natural ‘NPC’** contrasting colour	
Surface porosity	Excellent	Good
Tuft retention strength	Excellent	Good
Use on ‘tp365’ ‘tp5t’ dynamic or ‘tpB1’ engineered base	Yes	

18. PROJECT NOTES & CONDITIONS

- Where ground conditions allow, 'total-play' endeavour to install levels with tighter tolerances than those set out by Performance Quality Standards (PQS), British & European Standards and current ECB design guidelines; this ensures that the playing surface will perform to the highest standards.
- Materials will be delivered on site 'loose' and will be the responsibility of the site to provide a hardcore or firm area to protect the material prior to use.
- A minimum of a 3 m width access point is necessary to the site and machinery can be stored on site without cost.
- There will be no site working restrictions imposed by the client or any other parties. It is the sole responsibility of the client to control the working environment within the grounds and surrounding land. The inability to complete works may be charged and would be agreed by the client and TP. All charges would be based on the typical day rate for labour & expenses, addition costs may be included for mobilisation, machinery hire, materials and any other relevant costs can be included. A detailed list of costs can be provided prior to agreeing the final charge.
- No provision has been made for any aftercare/maintenance.
- No costs have been included to repair, if found, or redirect any services which run through the build site. The redirection of services would need to be completed by a third party and at no cost to TP.
- The submitted costs allow for our standard Health & Safety and Contractor Welfare documents only. Any additional documents required are chargeable.
- The proposed cost does not allow for the increased stability or excavation or removal of unstable areas exposed within the build site. Any additional costs will be charged to the client if the specification of works has changed due to lack or incorrect information. It is the clients sole responsibility to inform TP of site history and any possible issues which may arise, these could include:
    - Water courses
    - Unstable soil conditions
    - Grounds services running through the site i.e. electricity cables, water pipes, gas pipes etc
    - Underground tanks or voids
    - Imported materials including waste of any kind
    - Flooding and high water table issues
    - Surrounding ground features which may effect the system
- Welfare facilities will be provided on site by the client.
- No costs have been included to install a fenced site compound.
- A separate cost is identified to remove existing system (steelwork, carpets, netting) from site.
- A separate cost is identified to remove spoil (waste material bought up during the course of excavation/ earthworks) from site.
- If excavation exposes any unforeseen materials, debris, soils, waste material, water courses etc it will be the responsibility of the Client to pay for any additional costs or works to remove or clear the site.

19.CONTACT DETAILS

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20. CONFIDENTIALITY