

Greenferns Activity Landscape

Outline Business Case

Final Draft

17th January 2020

Executive Summary

The purpose of this project is to increase physical activity while reducing health issues in the Northfield community area through delivery of an Activity Landscape at the proposed Greenferns Health Centre. Some of the key benefits are:

- Community focussed outdoor activity
- Putting the fun back in fitness
- Encouraging uptake of physical activity and potential reduction in life-changing diseases
- Providing people with more physical movement choices
- Improve confidence moving in the outdoor environment
- A sense of improved mental wellbeing and social inclusion

What is an Activity Landscape?

An Activity Landscape offers a new type of public space that invites people to try out different types of movement in a playful, fun and creative way. Think of it as a blend of urban gym, adult play park and environmental art/sculpture that positively encourages people to get involved with. It could have a particular theme both in terms of types of movements used and design influenced by the local community.

It is

- a community space for physical activity and wellbeing
- designed to fit the need of a wide range of ages and abilities through playful movement
- an integrated part of the landscape
- Invites people to try it out without need for instruction (although instruction may bring about additional benefits)
- intended to be used free of charge, at any time, for any duration

Background

Greenferns Health Centre

The Denburn (Aurora) Health Centre is being replaced by a new health centre on a greenfield site to the west of existing developments in Northfield. The new site is to be named the Greenferns Health Centre and construction is due to commence some time in 2020. The Aurora group comprises Denburn, Northfield and Mastrick Health centres. It is proposed that patients from Northfield and Mastrick use the new Greenferns Health Centre and that Denburn patients use services provided at the existing Health Village on Frederick Street in the city centre.

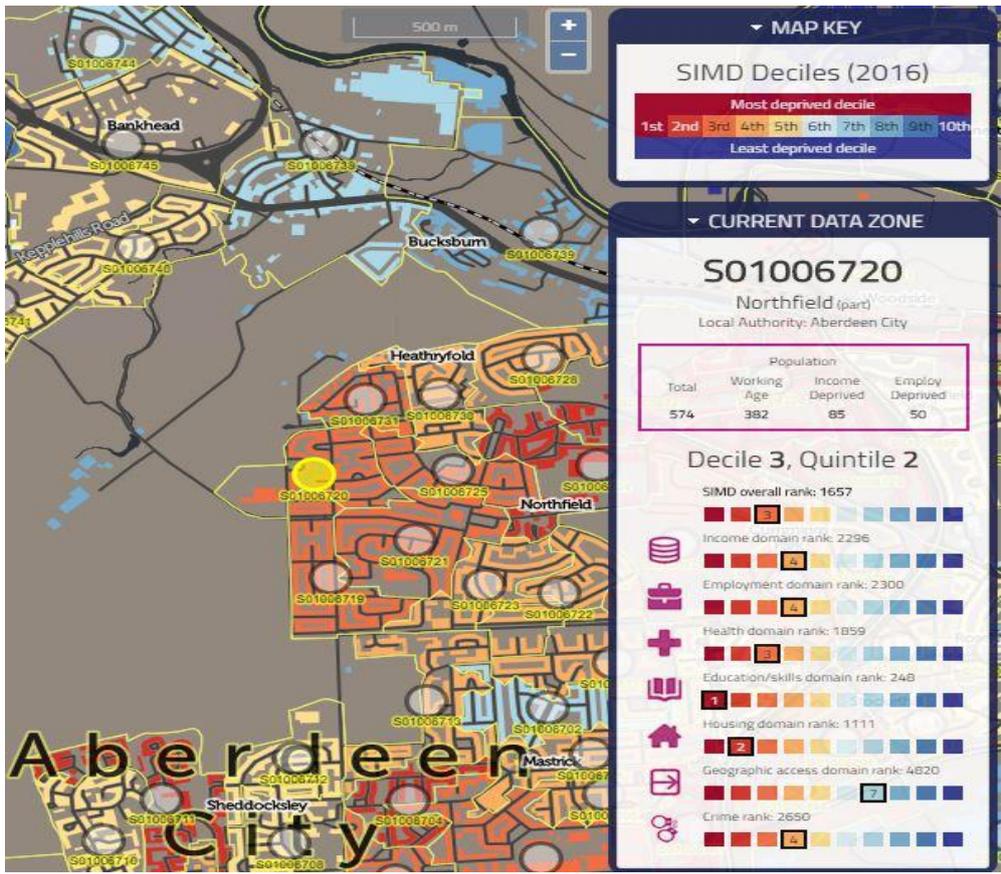
SIMD (Scottish Index of Multiple Deprivation)

The Scottish Index of Multiple Deprivation (SIMD) identifies small area concentrations of multiple deprivation across all of Scotland in a consistent way. It allows effective targeting of policies and funding where the aim is to wholly or partly tackle or take account of area concentrations of multiple deprivation.

SIMD ranks small areas (called data zones) from most deprived (ranked 1) to least deprived (ranked 6,976). People using SIMD will often focus on the data zones below a certain rank, for example, the 5%, 10%, 15% or 20% most deprived data zones in Scotland.

SIMD provides a wealth of information to help improve the understanding about the outcomes and circumstances of people living in the most deprived areas in Scotland.

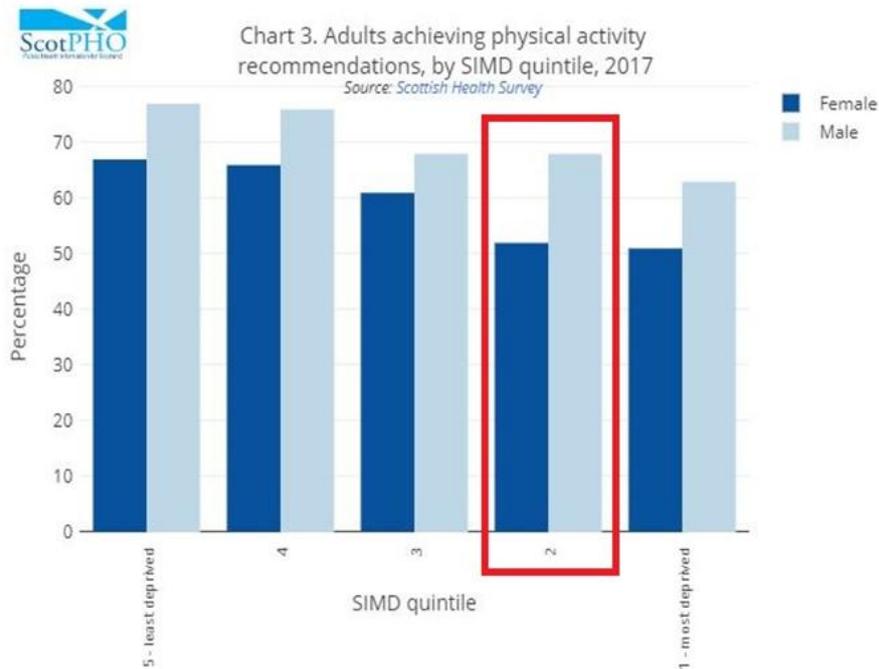
The area adjacent to the proposed Greenferns Health Centre is categorised as being in the lowest 30% (SIMD 2016) and this also has an effect on levels of physical activity - see diagrams:



Physical activity levels by deprivation

Chart 3 shows the percentage of adults aged 16 years and over who met the physical activity guideline, by Scottish Index of Multiple Deprivation (SIMD) quintile in 2017. SIMD is the Scottish Government's official measure of area based multiple deprivation. The chart shows that as area deprivation increases the proportion of men and women meeting the physical activity recommendations decreases.

Source: Scottish Health Survey



Barriers to Physical Activity

Unfortunately many people are failing to meet physical activity targets.

In Scotland almost two fifths (37%) of the adult population – that's around 1.6million people – are physically inactive. Of those almost 60% are women. (Source British Heart Foundation – Physical Inactivity report 2017)

Areas of deprivation see higher levels of inactivity in their population (source: Economic and Social Research Council Evidence Briefing Feb 2014 – Poorer people are less physically active)

- Education, household income and local area deprivation are all independently associated with inactivity. These differences are already evident in young adults, and increase steadily with age.
- Females, ethnic minorities, and people in low socio-economic positions are all less likely to do any activity than males, people classifying themselves as White, and those with the highest socio-economic positions.
- Inactivity increases the more people are disadvantaged in socio-economic terms. Even low-cost activities such as walking are affected by socio-economic position, and the difference increases with increasing activity cost.

Why Physical Activity?

Physical inactivity is responsible for one in six UK deaths (equal to smoking) and is estimated to cost the UK £7.4 billion annually (including £0.9 billion to the NHS alone).

Unfortunately our population is around 20% less active than in the 1960s. If current trends continue, it will be 35% less active by 2030.

Many people don't realise that physical activity has significant benefits for health, both physical and mental, and can help to prevent and manage over 20 chronic conditions and diseases, including some cancers, heart disease, type 2 diabetes and depression. (Source gov.uk)

Current recommendations from the UK Chief medical Officers states that:

To stay healthy, adults aged 19 to 64 should try to be active daily and should do:

- *at least 150 minutes of moderate aerobic activity such as cycling or brisk walking every week and*
- *strength exercises on 2 or more days a week that work all the major muscles (legs, hips, back, abdomen, chest, shoulders and arms)*

Although the British Medical Journal can't quite agree on how beneficial physical activity is the fact remains that it is something that could be promoted much more in tackling health issues:

<https://www.bmj.com/content/366/bmj.l5605> **The Miracle Cure**

From the above article:

Physical activity has been called a miracle cure by no less a body than the Academy of Medical Sciences ... and, like those who avail themselves of it, the supporting science grows stronger by the day. The BMJ recently published a systematic review showing a clear dose-response relation between physical activity and all-cause mortality... The authors concluded that any level of activity is better than none, and more is better still, a message recently encapsulated in the updated guidelines from the UK's chief medical officers

...the evidence that activity is good for both body and mind is impressive. People who are more active live longer and have lower rates of cardiovascular disease, cancer, and depression. Physical activity is safe and beneficial for almost everyone... People should "start slow and build up" to avoid injury, and those with chronic illness may benefit from a tailored exercise prescription.

<https://www.bmj.com/content/350/bmj.h1416> **Exercise: not a miracle cure, just good medicine**

From the above article:

Success at the population level also requires changes to government perceptions, so that activity becomes a cross-sectoral issue, with cross-agency policies that promote physical activity. Unlike clinical platforms to change cholesterol concentration or blood pressure, **increased physical activity will entail changes to the built environment, better public transport, urban infrastructure that creates walkable spaces and provides facilities for activity, and the implementation of policies that promote active workplaces and schools. But, most of all it requires a comprehensive change in culture and mindset. Without political endorsement and multifaceted strategies, the role of doctors will remain marginal. We can promote change, support change, and facilitate change, but we cannot make it happen alone.**

Movement Variety

There are a number of types of movement first categorised by George Hebert a French Naval Officer in the early 1900s. His observations led him to developing training obstacle courses (parcours) and a series of books (La Method Naturelle) for the military. These include:

- Walking and Running
- Climbing and Jumping
- Moving on all fours and Balance
- Throwing and Carrying/Lifting
- Swimming and Defending

The list has been expanded to include Hanging and Swinging where the hands/arms/shoulders either partially or fully support the weight of the body underneath.

Our ancestors and indigenous tribes people probably incorporate most of these into their daily lives. To obtain food, defend their community and carry out tasks of construction and maintenance of their homes - they had to move to survive. Their environment influenced how they moved and was very much part of their daily lives. There were very few flat surfaces and resting positions were quite varied and depended what was available.

Today our environment has changed. We generally no longer need to move as much to obtain food, defend our community or get involved in construction or maintenance of our homes. We move on flat surfaces and generally rest in a seated position.

However we evolved in a three dimensional world comprising of uneven surfaces and not a right angle or straight line to be seen. Our bodies therefore are designed to move in this world and the challenges presented by an irregular world are what help to keep our physical health and mental wellbeing in shape. We probably rarely experienced exactly the same angles or surfaces throughout the day. **Some musculo-skeletal issues experienced by people today is likely to be the lack of movement variety throughout the day and impact of unvarying surfaces and positions we encounter in the modern world.**

We've come a long way in the provision of events, facilities and equipment for physical activities over the years.

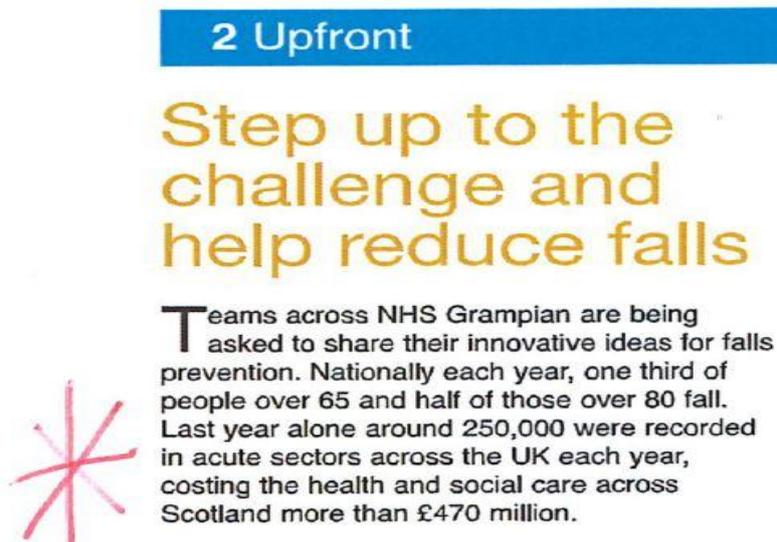
Walking and running are increasingly popular and among the best activities for physical health. Walking Routes, Jog Scotland and Parkrun have all greatly enhanced our opportunities to get involved at little or no cost.

Gyms, classes and different sports provide a variety of outlets for physical activity although there is usually a cost associated.

Challenges

There still remains much to be done:

1. Balance is not really addressed and the cost of falls approaches £500 million for Health and Social Care in Scotland (source: NHSG Upfront newsletter)



2 Upfront

Step up to the challenge and help reduce falls

Teams across NHS Grampian are being asked to share their innovative ideas for falls prevention. Nationally each year, one third of people over 65 and half of those over 80 fall. Last year alone around 250,000 were recorded in acute sectors across the UK each year, costing the health and social care across Scotland more than £470 million.

2. We spend a large proportion of our day hunched over computers, driving cars, using mobiles: generally rounding our shoulders and letting our head sink forward. There are few opportunities to extend our upper body and reverse this process:

The truth is that you probably stopped learning and practicing new physical skills sometime in early childhood—you crawled, you walked, you ran, you jumped... then what happened?



If you're like most people, you sat down and started working.

3. We've lost our connection with the environment where we evolved to move and the sense of fun and wellbeing that goes along with it.

Play

Definition: Engage in activity for enjoyment and recreation rather than a serious or practical purpose. A physical or mental leisure activity that is undertaken purely for enjoyment or amusement and has no other objective.

Children generally have no issues with engaging in play. They are curious, imaginative and full of energy. They really don't need specific equipment to dictate how they move and play. They will naturally experiment and find different ways of moving. How many times have you seen a child try to climb up the slide and down the steps much to the disapproval of their parents?

While the definition of play states no serious or practical purpose children's imagination has no problem finding purposes in their play even if adults don't understand it. Their movement during play may incorporate a wide range of the movement categories listed earlier. Therefore play serves a very useful purpose in developing and maintaining their physical ability.

Adults on the other hand probably need to be given a reason and encouragement to play. However the benefits are still the same.

The importance of play for adults is starting to be re-discovered: Movement through play may have particular benefits for those dealing with mental health issues. Being unstructured and creative there is no right or wrong way to move and this can remove some of the fears of judgement and failure that people may experience.

Be creative: Make your movements novel. Stop going to the gym and doing the same old same routine in a familiar environment. Try a different location for training. Move more of your own body, in more ways, more often around different objects as opposed to moving other things around your body.

Move with others: We are pack animals. Community and connection is built into the human fabric. The more you move with others, the more you move and are likely to change habits. You get accountability from support, not judgment. You don't have to be alone.

Movement is not about no pain no gain: Do a little bit of movement every day for 20-minutes. And if it doesn't make you smile stop doing it.

Stop letting others put pressure on you to do movements right: There is no right way to play. When you look at movement as play it completely changes the way you do it. We are so hard on ourselves and judge others harshly. What does 'right' mean anyway? The secret is there is no right way to move. How you are supposed to move is determined by you, the environment, and the task you are trying to accomplish.

Show gratitude for your ability to actually move. We take it for granted. We don't miss it until it's gone. Be grateful for what you do have. Find something every day you are grateful for about yourself. A sense of gratitude fosters change.

Parkour

Parkour is now typically seen as a high energy sport engaged in by young men performing daredevil feats in the urban environment. However its roots can be traced back to the work done by George Herbert and are firmly founded in basic human movement and all the variety that entails. Parkour is a scalable, adaptable, fun and playful way of engaging in physical activity for participants of all ages and abilities.

PK Silver is an organisation in America that teaches movement based on a cut down version of parkour in the outdoor environment to older adults typically in their 50s to 70s. It promotes inclusion, fun and brings about a sense of confidence in moving with an aging body.

In Singapore the "Parkour Aunties" run Phoenix classes for seniors. One of their participants in her 60s relied on a trolley to walk around with as she would fall a lot. After a few months in the Phoenix class working on balance, co-ordination and safe falling techniques she was no longer dependent on the trolley for moving.

Parkour Generations in London have class members from age 3 to 80s exploring and improving confidence in movement both indoors and outdoors.

In Scotland Access Parkour already teach parkour to around 25 schools in Edinburgh in place of PE. It is hoped this will encourage a new generation of adults where regular creative movement is part of their daily life. Their Saturday outdoor family classes teach movement to parents and their children at appropriate levels.

Ukemi promote activity in highly urbanised areas and encourage a healthier society through digital design, product creation, and community arts development. Each company member has practised Parkour for over a decade and this is the lens in which we see the world and project our ideas onto. We create experiences in response to and in collaboration with communities to reclaim the city for free and open activity. Our aim is to tackle the health and safety culture to encourage play and demystify fitness and movement to make it more accessible through our products and services.

What are the barriers to Physical Activity Participation?

- Lack of interest
- Shortness of breath
- Joint pain
- Perceived lack of fitness
- Lack of energy
- Doubting that exercise can lengthen life
- Exercise must be done in a particular 'right' way
- Compartmentalised into strength and aerobic components
- Insufficient time to exercise.
- Inconvenience of exercise.
- Lack of self-motivation.
- Poor experience of PE earlier in life

Impact of not engaging in physical activity

- Cardiovascular disease
- Diabetes
- High Blood Pressure
- Stroke
- Waste products not effectively removed from the body through muscle contractions generated from movement
- Gliding action of fascia reduced resulting in general stiffness
- Reduced wellbeing / quality of life
- Reduced life expectancy

Why not just install outdoor gym equipment

Gym equipment has its place in society but there are limitations. It can exacerbate some of the issues we're trying to address:

- Some gym equipment is used seated – we really don't need more reasons to sit
- Some gym equipment typically working the chest and abdominals encourages more flexion of the body when we already spend most of the day in a flexed position sitting at a desk or hunched over a mobile phone
- It tends to be single use with movement typically in one plane
- It doesn't really allow us to get creative and explore what our bodies can do
- It's not so much fun!

Project Proposal

Design

A separate design document is being developed including an outline proposal and images for inspiration.

- Overall irregular shape – blending with surrounding landscape
- A theme for the Activity Landscape may be informed by GHAT (Grampian Hospitals Arts Trust) who are involved in the overall landscaping of the external areas.
- Engaging and welcoming design – promotes wellbeing
- Designed for the curious it can be used without instruction. However signage and instruction will bring enhanced benefits
- Perhaps the focus could be on balance which may greatly help reduce the occurrence of falls.
- Perhaps it could feature opportunities to extend the upper body through climbing or swinging.
- Or it could be purely fun based e.g. 'Floor is Lava' game which could incorporate opportunities for different types of movement for a wide variety of people in the proposed space.
- Non slip surfaces
- Use of colours
- Soft ground surface – extending to nearest path
- Signage
- Conform to British Standard (BS EN 16630 2015) for outdoor fitness installations
- Conform to British Standard (BS EN 1176-1 2017) for play areas surfaces.

Options area = 50m² / 100m² or 2 x 50m² / 150m² or 3 x 50m²

This project provides the opportunity for targeted physical activity which is accessible and free of charge to those who use it. Installations like those in Denmark and Asia provide scalable and creative opportunities for movement.

An activity landscape benefits from input from the local community. This may influence the design theme and the types of activities undertaken.

By having a network of activity landscapes across the region with different design themes and targeting different physical activity people have more options to move in a variety of ways throughout their day.

An initial workshop with the appointed Landscape Architect is scheduled for early 2020.

Timescales

Construction of the Greenferns Health Centre is likely to start mid 2020 with completion in 2022 (TBC)

While the activity landscape is an independent project there are advantages to being in a position to commence the project as the landscaping for the new health centre is being carried out. However if this was not possible then the project could be installed at a later date.

Costs

- Design
 - workshop with Landscape Architect to start scoping out design
- Installation
- Maintenance
 - Annual inspection required to ensure installation is safe
 - British standards document for outdoor fitness equipment
- Promotion
 - Installations are designed to be used as they are and provide scalable and creative opportunities for movement.
 - Information signs can provide background information and suggested uses.
 - Suitably qualified people could will bring about enhancements to the use of the installation through either individual or class based sessions.
 - Volunteer network
- Funding

It is possible that is funding available from the Greenferns Health Centre Project along with the desire to create a unique environment at the site. However there is no guarantee this funding will still be available towards the end of the project should major issues occur. Funding may need to be attracted through other sources / charitable donation / funding bids. It is vitally important to have an engaging message that would encourage donations to promote the project.

Health Improvement Fund may be a possible route to explore

The SIMD (Scottish Index of Multiple Deprivations) indicates that the area bordering the new Health Centre is in the lowest 30% (2016) in the country. However this is not low enough to attract additional funding even though parts of Northfield / Mastrick dip into the lowest 20%

Funding allocations may only be for 50% of the work depending on the fund applied for. Therefore it is essential to find additional funding streams.

Benefits of an Activity Landscape

Primary benefits – immediate and achievable in the short to medium term:

1. Improved confidence in moving in the outdoor environment
2. Help people to move better
3. Help people to move with less pain
4. Prevent falls / Regain confidence after falls
5. Improve quality of life / well being

Other Benefits of an activity landscape:

- Increase in overall physical activity
- Greater independence

Improvements in health

- Improved cardiovascular function
- Lymphatic system benefits from movement to help remove waste from the body
- The gliding function of fascia is maintained through movement
- Building stronger muscles can stabilise joints reducing pain
- Cartilage gets lubrication / nutrition through movement
- Opportunities for social inclusion
- Engaging in shared objectives through play
- Improvements in well being
- Re-engaging with our environment
- Being outdoors
- A fun place to be
- Can be carried out at any time
- Can be carried out for any duration

It is hoped that the benefits may start to be seen within a year of delivering the project. However it should be noted that this forms part of a wider set of measures to improve physical activity. The first installation at Greenferns may just be a drop in the ocean in starting to tackle low levels of physical activity.

Risks

Availability of land –

- Project initially identified three separate areas outside the health centre. Are these fit for purpose?
- Ensure the activity landscape does not interfere with access to/from building
- Strike a balance between accessibility and being overlooked by the health centre

Funding sources

- Suitable funding can be obtained (bid for) to deliver project
- Funding dries up as project progresses
- Creating the right message to encourage funding

Engagement with stakeholders –

- Requires input from staff at the health centre to ensure the project tackles physical health issues
- Requires input from the local community to ensure engagement in the project. This provides opportunities to influence the theme of the installation as well as the type of activities the installations may cater for.
- Qualified people to deliver individual or class sessions could bring about additional benefits