

## REQUIREMENT SPECIFICATIONS

RFP No. 20231003

### **REQUEST FOR PROPOSAL (RFP) FOR THE APPOINTMENT OF A CONTRACTOR FOR THE DESIGN AND CONSTRUCTION OF NKF'S KIDNEY DISCOVERY CENTRE (KDC)**

#### **1 INTRODUCTION**

- 1.1 The National Kidney Foundation (“NKF”) wishes to appoint a contractor (the “**Contractor**”) for the design and construction of NKF’s Kidney Discovery Centre (KDC) as detailed in **Annex A**.

#### **2 DETAILS OF SPECIFICATIONS**

- 2.1 Refer to **Annex C** – Scope of Work for details.

#### **3 DELIVERY SCHEDULE**

- 3.1 Project commencement: May 2024  
3.2 Expected completion: June 2025

#### **4 COMPULSORY BRIEFING SESSION**

- 4.1 Vendors are required to attend a compulsory briefing (either personally or through a company’s representative) which will be conducted as follows:

**Date:** 17 October 2023, Tuesday

**Time:** 9.30am – 11.00am

**Venue:** NKF Centre, 81 Kim Keat Road, Singapore 328836

- 4.2 RFP’s bid submitted by Vendors who have not attended the session will not be considered.

To participate in the briefing session, Vendors are required to email **Cheh Seok Kheng** at **seokkheng.cheh@nkfs.org** and **Julian Teoh** at **julian.teoh@nkfs.org** with details on the company’s name, attendee(s) name and email address by **13 October 2023, Friday, 12.00pm**. The meeting details would be emailed to Vendors who had expressed their interest to attend.

#### **5 SUBMISSION OF PROPOSAL BIDS**

- 5.1 The Vendor, at the point of submission of its bids, is required to provide the following information and/or documents to NKF in both hard and soft copy. Softcopy is to be stored in the thumb drive and labelled with Company’s name and RFP number.

- 5.1.1 The proposed design concept and proposal with a detailed project timeline schedule that reflects the different phases of the project, as for the detailed technical requirements of the proposed design and any relevant information, the submission shall be in the form of hard copies and soft copies.
- 5.1.2 **Annex D – Project Team Composition** - Information on the profile, experience and track record of the members assigned to this project.
- 5.1.3 A writing sample from the proposed copywriter or scriptwriter who will be assigned to the project.
- 5.1.4 **Annex E – Vendor's experience in Similar Projects** - A full description of the Vendor's relevant experience and track record in similar design development and build projects that involve interactive software/programming driven, which targets youths/community in the past five (5) years.
- 5.1.5 **Annex G – Compliance Table**
- 5.1.6 Duly completed "**Information About Vendor**" including documents mentioned thereunder Point 7.
- 5.1.7 Any other relevant details and/or value-added services not requested in this document but are required for the proposed provision of service to operate efficiently and their costs; additional information that is relevant to the quotation but has not been requested for in this document. Vendors are required to indicate their proposals for additional services under **Annex F - Additional added-value services** and related cost **Price Schedule – Part 3**
- 5.2 Under **Price Schedule**, the Vendors are required to indicate the cost of maintenance after the 12 months (1 year) defect liability period (DLP). Vendors shall provide the breakdown of cost in both soft and hard copies.
- 5.3 **Clauses 4, 5, 9, 14, 19** in the **Conditions of Contract** are mandatory and the rest of the clauses are to be complied with unless otherwise disclosed during RFP.
- 5.4 NKF is opening this RFP to interested Vendors for their participation.

Refer to the following Annexes for more information:

**Annex A:** Project Brief

**Annex B:** Floor Plan

**Annex C:** Scope of Work

**Annex D:** Project Team Composition

**Annex E:** Vendor's Experience in Similar Projects

**Annex F:** Additional added-value services

**Annex G:** Compliance Table

**Annex H:** Information about NKF, Chronic Kidney Disease and Kidney Failure Prevention

**Annex I:** Existing Kidney Structures

## **ANNEX A - PROJECT BRIEF**

### **1. BACKGROUND**

- 1.1. NKF currently supports over 60% of Singapore's dialysis population, and as the leading foundation in renal care, we have a part to play in reshaping the landscape by aligning our strategies with Singapore's national initiative (Healthier SG) to educate and empower individuals to proactively take charge of their health, and ultimately prevent or delay kidney failure.
- 1.2. Recent data reveals a significant increase in the number of Singaporeans diagnosed with kidney failure. The incidence has surged from 3.5 new cases per day in 2009 to approximately 6 new cases per day in 2020. Presently, there are over 9,000 patients undergoing dialysis in Singapore, and according to the National Population Health Survey 2020, the prevalence of chronic kidney disease has crossed the 300,000 mark, with possibly many more cases undiagnosed. Compounded by our ageing population, the number of kidney failure cases is projected to rise rapidly.
- 1.3. Given these statistics, it has become even more crucial for NKF to strengthen our upstream initiatives and empower individuals to proactively prioritise their kidney health. This approach aims to decrease the prevalence of chronic illnesses and stem the tide of kidney failure.
- 1.4. Since its inception in 2011, the Kidney Discovery Centre (KDC) has attracted over 59,000 visitors. The KDC has been a valuable resource in providing learning journeys to schools, community groups and corporate partners with the aim of sharing comprehensive information about kidney health, the leading causes of kidney failure, treatment options and preventive measures.
- 1.5. Refer to ***Annex H*** for more information about NKF, chronic kidney disease and kidney failure prevention.
- 1.6. The current KDC has been in use for over 8 years and requires rejuvenation of its exhibits to stay relevant and offer a captivating experience to our target audience.
- 1.7. The revamped KDC aims to:
  - 1.7.1. Provide a platform to educate and raise awareness on kidney health.
  - 1.7.2. Nudge visitors to make positive changes for their health such as adopting healthier eating and lifestyle habits or taking up a kidney screening.
  - 1.7.3. Increase our reach to a wider audience.
  - 1.7.4. Engage the community to inspire support from potential donors/volunteers.
  - 1.7.5. Promote innovation by fostering a sense of scientific inquiry.
  - 1.7.6. Strengthen NKF as a regional leader in kidney education with a one-of-a-kind gallery.

## 2. TARGET AUDIENCE

- 2.1. The primary target audience encompasses school students, educators and families. Our foremost goal is to facilitate an understanding of kidney functionality among this demographic and encourage them to adopt preventive measures to safeguard their kidney health through informed lifestyle choices.
- 2.2. For the secondary target audience which comprises community groups, corporate organisations and the general public, our objective is to highlight NKF's services, raise awareness of the leading causes of kidney failure, advocate the adoption of preventive steps to care for their kidneys through informed decision-making and emphasise on the importance of prompt medical intervention and early kidney screenings.
- 2.3. As our target audience spans a wide age range, it is crucial that the KDC is designed in an inclusive manner with user diversity in mind.

## 3. LOCATION AND FLOOR AREA

- 3.1. The KDC is located at Level 2 of the NKF Centre at 81 Kim Keat Road and has a floor area of approximately 331 square meters - Refer to **Annex B** for the floor plan.
- 3.2. The NKF Shaw Auditorium, with a seating capacity of 280, is situated adjacent to the KDC. As part of the renovation plan for level 1 to level 3, the auditorium is also slated for an upgrade. Given the frequent interconnection between these spaces, visitors often explore the KDC before or after entering the Auditorium. This connectivity should be considered when planning the space.
- 3.3. It is important to consider the inclusion of a dedicated space for acknowledging sponsorships through plaques and other recognition displays.

## 4. KEY DESIGN ELEMENTS

- 4.1. Interactive exhibits on the importance of our kidneys  
To demonstrate the structure and functions of our kidneys, their roles in maintaining overall health, and the impact of chronic kidney disease. A hands-on experience will give visitors a greater understanding of the importance of kidney health.
- 4.2. Immersive kidney failure insights  
Bring visitors on a virtual journey on the treatment modalities and give insights into what it is like to live with kidney failure. This aim is to educate, foster empathy and inspire support for kidney health initiatives.
- 4.3. Dynamic laboratory space  
Dynamic lab space where visitors can participate in experiments and view specimens about the kidneys and screening. The space can also periodically feature initiatives aimed at promoting innovation in kidney care.

#### 4.4. Kidney health challenges

Interactive challenges designed to educate visitors about healthy lifestyle choices, including nutrition, regular exercise, and ways to reduce the risk of kidney diseases.

### 5. PAYMENT SCHEDULE

5.1. Payment milestones shall be as follows:

Project stages	% of value
Upon confirmation of the award of the vendor	15%
Upon approval of the design	30%
Upon commencement of works	10%
Upon completion of works	30%
Upon completion of testing and commissioning	10%
Upon users' acceptance after the Defect Liability Period (DLP) ends.	5%

### 6. OTHER REQUIREMENTS

6.1. Presentation of the proposals will be held between 27-29 November 2023. The available timeslots will be shared during the briefing session on 17 October 2023. Vendors will be allocated a maximum of 45 minutes (including Q&A) to present their proposals to NKF.

6.2. The project team composition should include (but not be limited to):

- 6.2.1. Project Manager
- 6.2.2. Content Producer
- 6.2.3. 3D Designer (space planning) / Graphic Designer
- 6.2.4. Programmer / Animator
- 6.2.5. Scriptwriter / Copywriter

6.3. The Vendor should provide the project team composition details as indicated in **Annex D**.

6.4. Project team members must not be changed without prior written approval from NKF at least two (2) weeks in advance. Resignations of project staff are not included.

**Accepted By:**

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Signatory's Name: \_\_\_\_\_

Signatory's Title: \_\_\_\_\_

Vendor's Name: \_\_\_\_\_

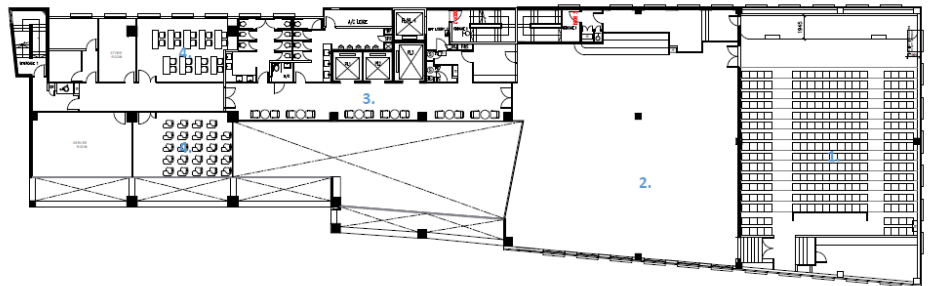
Vendor's Stamp: \_\_\_\_\_

**ANNEX B – FLOOR PLAN**

**\ Spatial analysis**

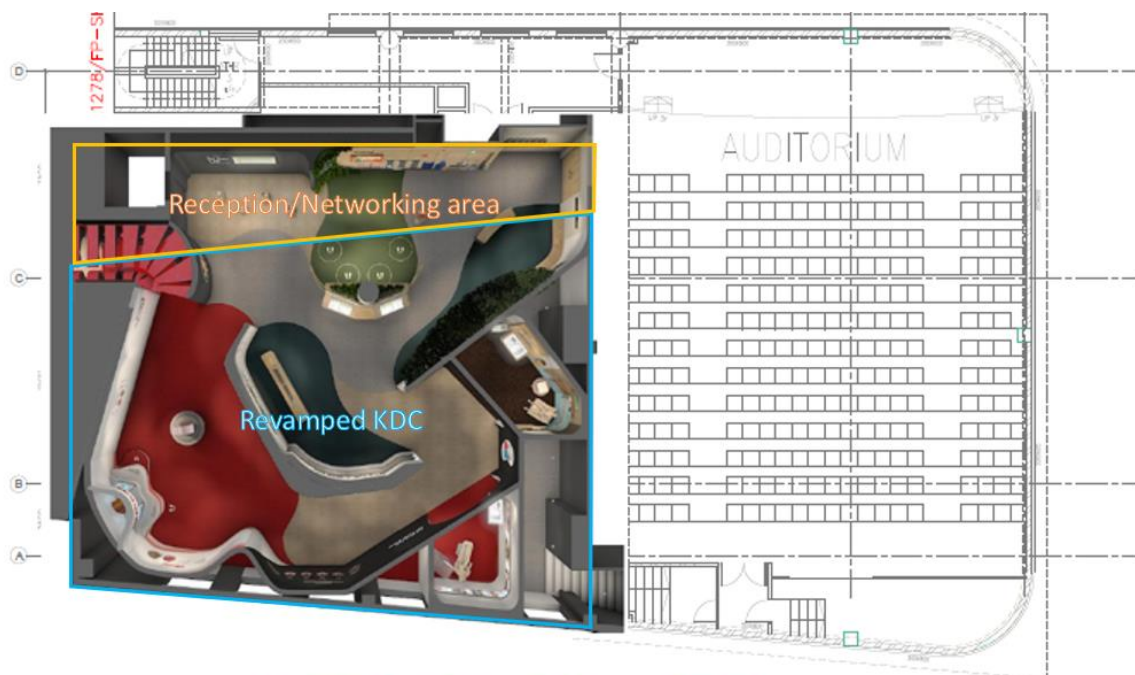
Proposed Plan

Level 2



Level 2

- 1. Auditorium
- 2. Gallery/ NKF Showcase
- 3. Lift lobby
- 4. NKF Academy & Meeting RM



**2ND STOREY LAYOUT PLAN (PART 2 – AUDITORIUM)**

SCALE 1 : 150

## ANNEX C - SCOPE OF WORK

- 1.1. The scope of work and deliverables shall include, but not be limited to the following components.
- 1.2. The Contractor shall carry out the following requirement specifications including all other works required for the proper execution and completion of the KDC Revamp.
- 1.3. **The KDC revamp is required to be completed by June 2025.**

Item 1	<p><b>Research</b></p> <p>The Contractor shall consider the target audience of the KDC and conceptualise a sensory and visually stimulating interactive gallery for visitors.</p> <ol style="list-style-type: none"> <li>a. The Contractor shall conduct a space planning exercise, make recommendations for the design concept of the KDC and to propose an optimal number of exhibits.</li> <li>b. As the KDC seeks to nudge visitors to take a step towards healthier changes, behavioural change insights should be incorporated into the concept and planning.</li> </ol>
Item 2	<p><b>Concept Development and Exhibit Design</b></p> <ol style="list-style-type: none"> <li>a. The Contractor shall develop a comprehensive design concept proposal for the KDC that aligns with the aims outlined under <b><i>Point 1.7 of Annex A – Project Brief</i></b>.</li> <li>b. The Contractor shall incorporate the key design elements indicated in <b><i>Point 4 of Annex A – Project Brief</i></b> to enable visitors to learn, explore actively and ignite curiosity as they delve into the wonders of science and health.</li> <li>c. The Contractor shall design, illustrate and layout (in full colour) all relevant visual, physical, and interactive assets as required to execute the concept including, but not limited to, the text panels, graphic panels, infographics, graphic illustrations, murals, labels, stickers, signage, structures, paraphernalia, etc.</li> <li>d. The Contractor shall propose a mixture of both non-digital and digital interactive technology to create engaging and immersive exhibits for our visitors. Some digital interactive technologies for consideration but not limited to: <ol style="list-style-type: none"> <li>i. <u><i>Projection mapping</i></u> – To add a dynamic element to the learning experience of the types of dialysis treatments available.</li> </ol> </li> </ol>



	<ul style="list-style-type: none"> <li>ii. <u>Gamification</u> – Making the content more interactive and foster a deeper understanding of healthy food and lifestyle.</li> <li>iii. <u>Interactive projection wall</u> – To encourage physical activity and make learning more exciting.</li> <li>iv. <u>Touchscreen interfaces and/or multi-touch tables</u> – For visitors to interact and access information. It should allow for more than one participant and offer intuitive navigation, and adjustable text sizes to cater to individual requirements.</li> <li>v. <u>Audio accessibility</u> - Within the exhibition zones, audio can be incorporated to provide audio descriptions, explanations, and narration in other languages.</li> </ul> <ul style="list-style-type: none"> <li>e. The interactive elements should consider the various ages of the target audience and engage both ends of the age spectrum.</li> <li>f. The Contractor may source for additional images or commission illustrations to supplement the storyboards if their design and concept require it. The cost for the sourcing of additional images or illustrations shall be deemed included in the Contract Price.</li> <li>g. The Contractor shall take into consideration in its design that the proposed exhibits and displays should be hardy, capable of withstanding impact and not be easily damaged or vandalised.</li> <li>h. The Contractor shall repurpose and incorporate two (2) of the existing kidney structures into the design. Refer to <b>Annex I</b> for the image of the kidney structures.</li> <li>i. The exhibits should be laid out to facilitate both guided and non-guided tours and designed to accommodate 2 to 4 visitors per exhibit, ensuring that small groups can participate in the exhibits simultaneously without feeling overcrowded.</li> <li>j. The Contractor shall take into consideration the area meant for networking outside the Auditorium in the design planning.</li> <li>k. The entire KDC should be wheel-chair friendly, and the Contractor shall ensure that the proposed design and layout of the physical exhibits shall not compromise the safety of the visitors.</li> <li>l. The Contractor shall propose an exhibit/solution designed to conduct a visitor satisfaction survey upon completion of the gallery experience to gather their feedback. The responses from visitors will be collected in a backend database and allow NKF to facilitate the process of tracking and analysis.</li> </ul>
--	--

	<p>m. The Contractor shall propose and provision a space to acknowledge sponsorship recognition.</p> <p>n. The Contractor shall incorporate adequate storage space in the revamped KDC to store collaterals.</p> <p>o. The Contractor shall advise/propose on any new ideas or current trends/technology to enhance the overall exhibition experience for visitors.</p>
<b>Item 3</b>	<p><b>Content Development</b></p> <p>a. The Contractor shall propose how the key messages below will be covered in the gallery. These key messages are not exhaustive and are subject to amendments as the work progresses.</p> <ul style="list-style-type: none"> <li>i. [Showcase] About our kidneys and its functions</li> <li>ii. [Showcase] The leading causes of kidney failure – diabetes and hypertension and stages of chronic kidney disease</li> <li>iii. [Showcase] Kidney failure treatment options</li> <li>iv. [Showcase/Call-to-action] Preventive measures and kidney screening</li> </ul> <p>Refer to <b><i>Annex H – Information about NKF, Chronic Kidney Disease and Kidney Failure Prevention.</i></b></p> <p>b. The information should be presented in a way that the target audience defined under <b><i>Point 2 of Annex A</i></b> can comprehend. The Contractor shall ensure the language readability, tone and writing style used is age-appropriate and grammatically correct.</p> <p>c. The content of the exhibits should not be text-laden and use too much medical jargon.</p> <p>d. The content of the exhibits shall be in English with an option for an audio guide in Malay, Mandarin and Tamil language.</p> <p>e. The Contractor shall also provide a solution that allows the NKF team to update the content of exhibits if necessary.</p> <p>f. The Contractor shall provide content research, storyboarding, copywriting and copyediting, graphic design and layout services when developing content for the exhibition.</p> <p>g. The Contractor shall engage and provision for the translation of the English content into Malay, Mandarin and Tamil language, audio recording and necessary services for the audio guide.</p>

	<p>h. The copyright, licenses and working files for all works/exhibits developed for this project shall be owned by NKF.</p>
Item 4	<p><b>Software &amp; Hardware Equipment and Control System for Lights, AV, Gantry</b></p> <p>a. <b><u>Software &amp; Hardware Equipment:</u></b> The Contractor shall provision and program computers/ laptops/ touch screen monitors/ media players and all multimedia software proposed.</p> <p>b. <b><u>Control Room:</u></b> The Contractor shall provide a control room or a control /system where the exhibits and audiovisual lighting can be initiated remotely or with a single push of a button. This ensures a smooth and hassle-free experience for both users and administrators. The system should also allow for backup and recovery of the exhibit's contents to prevent data loss in case of technical issues.</p> <p>c. <b><u>Audio System:</u></b> The Contractor will propose and supply a suitable piped-in audio system (if required) based on the overall proposed design and concept of KDC.</p> <p>d. <b><u>Ambient audio:</u></b> The Contractor shall propose ambient music based on the overall design of the KDC, to be approved by NKF.</p> <p>e. <b><u>Lighting:</u></b> The Contractor shall propose and supply suitable lighting that compliments the proposed experience and design concept. The lighting proposal shall include both feature lighting and ambient lighting. The fittings shall be visually unobtrusive, and the lamps used shall be LED and energy efficient.</p> <p>f. <b><u>Gantry:</u></b> The Contractor shall propose and establish an appropriate gantry system, through which walk-in visitors will be required to undergo a simple registration before entering and allows bulk registrations by NKF for organised groups. This system should have the capability to export information about the visitors for the purpose of visitor tracking.</p>
Item 5	<p><b>Project Management</b></p> <p>The Contractor shall be responsible to:</p> <p>a. Submit the necessary documents as indicated in the Fitting-Out &amp; Design Guidelines before the commencement of work.</p> <p>b. Work and coordinate with NKF's main contractor for site access and other works.</p> <p>c. Plan, monitor and manage the project in its entirety ensuring that timeline milestones are met and to ensure seamless alignment with our purpose of the gallery.</p>

	<p>d. Discuss and seek NKF's inputs and concurrence in refining the content, storyboard, style and direction of the proposed exhibits to ensure adherence with the theme. Approval is required before proceeding with the following:</p> <ul style="list-style-type: none"> <li>i. Exhibit design – ergonomics, material, finishing, attractiveness, robustness/durability, tamper-resistance, water-resistance, fire retardant, etc.</li> <li>ii. Exhibit fabrication - especially exhibits that require prototyping and mock-ups.</li> <li>iii. Exhibit components and procurement</li> <li>iv. Exhibit modification(s)</li> <li>v. Exhibit integration of equipment and integration into the exhibition</li> <li>vi. All graphics, artwork, text, video or multimedia deliverables</li> </ul> <p>e. Ensure and maintain quality in both design and construction phases as well as carrying out testing of all proposed exhibits in the KDC to ensure exhibits are functioning well.</p> <p>f. Provide manpower to oversee and supervise the works to ensure that the works are carried out in accordance with the scope of work.</p>
<b>Item 6</b>	<p><b>Fabrication and Installation</b></p> <p>a. The Contractor shall read the guidelines and comply with the rules and regulations as stated in the Fitting-Out &amp; Design Guidelines document.</p> <p>b. The work schedule should be considered in accordance with the overall production and installation of the exhibition as well as the renovation of the building. Provision/ acquisition of all the necessary approvals such as Permits, Engineers' endorsements, etc. before proceeding with the actual build, including submission of plans and obtaining of approval from various government authorities as required.</p> <p>c. The Contractor shall always ensure necessary measures are in place to minimise disruption, inconvenience and safety risks to the public, patients and staff which may arise as a direct consequence of work operations. This shall include the erecting of hoardings, covering of aircon outlet points etc. The Contractor is fully liable for any damages or loss caused to the facilities, premises, fittings and audio-video equipment etc. NKF and its representatives reserve the right to claim compensation for any such damages or loss.</p> <p>d. The Contractor shall ensure the provision of insurance, site management and site protection throughout the contract period.</p> <p>e. The Contractor is to execute the following works as part of this project:</p>

	<ul style="list-style-type: none"> <li>i. Provision of Professional Engineer (PE)/ Qualified Person (QP) inspections and endorsements for structural stability and safety, fire safety, etc.</li> <li>ii. Obtain all necessary work safety permits, licenses and ensure compliance with all government agencies/authorities' requirements including Singapore Fire Safety regulations.</li> <li>iii. Provision of all drawings (detailed drawings and shop drawings) needed for building the walls and partitions, customised carpentry works, overhead structures, etc. for approval before construction and fabrication. And the provision of final as-built drawings following the completion of the project.</li> <li>iv. Printing and/or fabrication of all panels, material/equipment/apparatus, interactive elements as per the approved as-built artwork.</li> <li>v. Installation of computers/ laptops/ touch screen monitors/ media players and the installation/integration of all exhibits to the exhibit housings and exhibit partitions, including the exhibits/ interactives done by NKF and/ or other vendors (if needed). Should the computers/laptops and etc need to connect to NKF's servers or leverage on NKF's network, it will be subjected to further evaluation and approval from NKF IT Department.</li> <li>f. The Contractor shall rectify immediately, with no additional cost, if the printing, quality of installation and services are found to be not in compliance with the requirements stated in <b>Annex C – Scope of Work</b>.</li> <li>g. All technical drawings, production specifications, and as-built artwork shall be provided to NKF in PDF for approval before production and fabrication.</li> <li>h. Fabrication and/or procurement of any props, or furniture such as tables, chairs etc. for the exhibition must be done with and in compliance with NKF's direction (with possible variations – all of which must first be raised, discussed with, and approved by NKF before implementation).</li> <li>i. In procuring an equipment/ item/ artifact/ prop, the Contractor should modify (where necessary) and integrate such procurements into their respective exhibits to suit the stated theme or outlook. If a procured exhibit or equipment/ item/ artifact/ prop that is to be integrated requires the services of a consultant or the technical services of the equipment/ item/ artifact/ prop supplier, the Vendor shall be solely responsible to seek the approval of NKF for:</li> </ul>
--	---

	<ul style="list-style-type: none"> <li>i. such equipment/ item/ artifact/ prop,</li> <li>ii. the services of the consultant and/or technical support of the supplier, and</li> <li>iii. upon receiving the approval, the Vendor shall be responsible to co-ordinate work schedules, security arrangements, etc. for the consultant/supplier to enter and work within the premises of NKF.</li> </ul>
<b>Item 7</b>	<p><b>Post Completion, Maintenance Support and Ad-hoc Support</b></p> <ul style="list-style-type: none"> <li>a. The Contractor shall provide a single point of contact via mobile phone for all faults reported from 0830hrs to 1800hrs on Mondays to Fridays except Public Holidays.</li> <li>b. Any service call should be responded to within two (2) hours and The Contractor shall send their staff to the KDC to attend to all faults within two (2) working days upon being contacted by NKF.</li> <li>c. <u>Post Completion</u> <ul style="list-style-type: none"> <li>i. Upon successful completion of installation, the Contractor shall provide a defect liability period (DLP) of twelve (12) months from the post-completion date. All works and quarterly maintenance referred to in this clause shall be executed by the Contractor at his own cost, including the replacement of parts if required.</li> <li>ii. The Contractor shall provide a full warranty inclusive of all parts, exhibits and systems supplied to the KDC for a period of twelve (12) months starting after the post-completion date. Warranty shall also cover defects in materials and workmanship, ensuring that all exhibits operate in accordance with the specifications.</li> <li>iii. The Contractor shall include in the proposal all terms and conditions related to the DLP coverage, including any limitations, exclusions, or conditions.</li> </ul> </li> <li>d. <u>Maintenance Service</u> <ul style="list-style-type: none"> <li>i. The Contractor shall quote on a per-year basis for a quarterly maintenance service after the DLP coverage. This includes but is not limited to: <ul style="list-style-type: none"> <li>- Exhibit inspections</li> <li>- Calibrations and adjustments</li> <li>- Updating of software</li> <li>- Minor repairs as necessary etc</li> </ul> </li> <li>ii. The Contractor shall provide a detailed breakdown of the maintenance support and related cost under the <b>Price Schedule</b> that will take effect after the expiry of the DLP coverage.</li> </ul> </li> <li>e. <u>Ad-hoc support</u></li> </ul>

	i. The Contractor shall provision for ad-hoc support service as required during and after the expiry of the DLP under the <b><i>Price Schedule</i></b> .
--	--

**Accepted By:**

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Signatory's Name: \_\_\_\_\_

Signatory's Title: \_\_\_\_\_

Vendor's Name: \_\_\_\_\_

Vendor's Stamp: \_\_\_\_\_

## ANNEX D – PROJECT TEAM COMPOSITION

Proposed key personnel for this project (one name for each key person):

Name of person:	
Staff position for this project:	
Total years of experience:	
Years with current firm:	
Education (Degree and Specialization):	
Other Professional Qualifications:	

## RELEVANT PROJECTS

(Complete this section for each key person)

1	Project Name: Client: Brief Description (scope, size, cost, etc) and specific role:
2	Project Name: Client: Brief Description (scope, size, cost, etc) and specific role:

### Accepted By:

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Signatory's Name: \_\_\_\_\_

Signatory's Title: \_\_\_\_\_

Vendor's Name: \_\_\_\_\_

Vendor's Stamp: \_\_\_\_\_



**ANNEX E – VENDOR’S EXPERIENCE IN SIMILAR PROJECTS**

\*All requirements mentioned herewith are mandatory, sufficient details must be provided to demonstrate relevance to this project

Vendor to indicate at least 3 similar projects (> SGD 1M) in the last 5 years.

Name of Project	Company’s name	Contract Sum	Contract Period		Value of Work Completed
			From	To	

**IMPORTANT NOTES:**

- a. All information provided by the participating vendors in this document shall be complete and accurate. Any omission, inaccuracy, misstatement or failure to complete or submit this document and/or the required attachments may render the vendor's offer liable to be rejected or to be assessed with a zero or poor score under relevant evaluation criteria set out in this tender.
- b. Please attach separate sheets of paper if the space provided is insufficient and mark all pages accordingly.

**Accepted By:**

Authorized Signature:	_____	Date:	_____
Signatory's Name:	_____	Signatory's Title:	_____
Vendor's Name:	_____	Vendor's Stamp:	_____



ANNEX F: ADDITIONAL ADDED-VALUE SERVICES

S/N	Description of additional added-value services	Purpose
1		
2		
3		
4		
5		

Accepted By:

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Signatory's Name: \_\_\_\_\_

Signatory's Title: \_\_\_\_\_

Vendor's Name: \_\_\_\_\_

Vendor's Stamp: \_\_\_\_\_

**ANNEX G – COMPLIANCE TABLE**

S/N	Requirement	Comply (Yes / No)	Remarks
1	<b><u>Project Brief</u></b> As specified in Annex A		
2	<b><u>Scope of Work</u></b> As specified in Annex C		
3	<b><u>Project Team Composition</u></b> Please provide details in Annex D		
4	<b><u>Vendor's Experience in Similar Projects</u></b> Please provide details in Annex E		
5	<b><u>Additional Added-Value Services</u></b> Please provide details in Annex F		

**Accepted By:**

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Signatory's Name: \_\_\_\_\_

Signatory's Title: \_\_\_\_\_

Vendor's Name: \_\_\_\_\_

Vendor's Stamp: \_\_\_\_\_

## Annex H – INFORMATION ABOUT NKF, CHRONIC KIDNEY DISEASE AND KIDNEY FAILURE PREVENTION

For more information, refer to [www.nkfs.org](http://www.nkfs.org)

About NKF	
About NKF	NKF strives to be an advocate and integrator for kidney health and holistic care for the community, by the community. While supporting kidney failure patients with quality dialysis treatment and integrated care, our greater mission lies in preventing or delaying kidney failure through kidney health education, with deeper integration into the community and strategic collaborative partnerships.
Background & History	Our journey started in the early 1960s when Prof Khoo Oon Teik witnessed the plight of kidney patients who were dying because they could not afford the only treatment that could save their lives – dialysis – which was costly – as high as \$3,000 a month. Committed to saving lives, Prof Khoo rallied the resources of the community and even went overseas to learn about dialysis and made dialysis treatment available in Singapore. His efforts bore fruit in 1987 when the first community-based dialysis centre was built at a HDB void deck in Toa Payoh. This also signified a new era for NKF in bringing affordable dialysis care to the community. NKF also remains strongly committed to our upstream efforts to prevent or delay kidney failure through educating about chronic kidney disease and its leading causes. Through these education efforts, we encourage the young to the elderly to lead a healthier lifestyle.
About Our Kidneys and Its Functions	
What are kidneys?	<p>Human kidneys are bean-shaped organs located near the middle of the back on both sides where they are protected by lower ribs and cushioned by the surrounding muscles and fat. Each kidney is about the size of a clenched fist and weighs about 150 grams.</p> <p>Each kidney has about one million nephrons, which are tiny, filtering units. In the nephrons, capillaries or tiny blood vessels intertwine with tubules, which are urine-carrying tubes. The nephrons make it possible for the kidneys to filter the body's entire blood supply every two minutes.</p>
What do kidneys do?	Kidneys mainly process the waste products and excess fluid in your blood. The waste products are a result of our body's metabolic processes. In addition, waste is also a by-product of the food we eat. Our body uses food for energy and self-repair. After it has


	<p>absorbed what it needs from the food, the remaining waste products are sent to the blood.</p> <p>A complicated chemical exchange takes place as the blood is filtered by the nephrons. The filtering process removes the waste, toxins and excess water from the blood to form urine. Urine flows from the kidneys to the ureters and is then stored in the bladder until we urinate.</p> <p>In addition, the kidneys regulate the chemical balance in our body. They release three important hormones: Erythropoietin aids in red blood cell formation, Renin maintains a normal blood pressure and the active form of Vitamin D, which helps keep our bones strong.</p>
What is chronic kidney disease (CKD)?	<p>Chronic kidney disease (CKD) is a progressive disease that occurs when the kidneys gradually lose their functions. It does not happen overnight.</p> <p>Stages of CKD:</p> <ul style="list-style-type: none"> <li>• Stage 1 – 3A (90% - 45%): Early detection and intervention; able to initiate early management to retard the progression of kidney disease.</li> <li>• Stage 3B – 4 (44% - 16%): Explore the available renal replacement therapy and what support can you receive.</li> <li>• Stage 5: Renal replacement therapy is required to sustain life (&lt;15%).</li> </ul> <p>Kidney screening involves two simple tests which are key to detecting CKD. One is a simple blood test to detect creatinine, an indicator of toxins in the body, and would also tell if the kidneys are performing well. The other is a urine test to check for microscopic traces of blood or protein, which would indicate that the kidneys' filtering function has been affected. the urine test to check for any protein leakage or traces of blood, which are key to detecting CKD.</p>
Sign & symptoms	<p>CKD often progresses slowly, and symptoms may not become apparent until the disease is in advanced stages. CKD often progresses slowly, and symptoms may not become apparent until the disease is in advanced stages.</p> <p><b>Early Stage</b></p> <ul style="list-style-type: none"> <li>• No clear symptoms with possible bubbles/blood in the urine</li> </ul> <p><b>Mid Stage</b></p> <ul style="list-style-type: none"> <li>• Loss of appetite</li> <li>• Swelling</li> <li>• Fatigue</li> </ul> <p><b>Late Stage</b></p>

	<ul style="list-style-type: none"> <li>• Ammonia breath</li> <li>• Loss of appetite/diarrhea</li> <li>• Difficulty breathing</li> <li>• Swelling</li> <li>• Nausea/vomiting</li> <li>• Loss of consciousness</li> <li>• Anemia</li> </ul>
<b>Leading Causes of Kidney Failure</b>	
Diabetes	<p><b>What is diabetes?</b></p> <p>Diabetes is a condition when the body is unable to manage sugar levels in the blood properly. When blood glucose level increases, the pancreas produces the hormone insulin to move glucose from the blood into our cells.</p> <p>Diabetes occurs when the glucose levels in our blood get too high; the glucose cannot enter the cells and thus builds up in the blood.</p> <p><b>How does it affect the kidneys?</b></p> <p>In the kidneys, millions of tiny balls of blood vessels with tiny holes act as filters. Small molecules such as waste products squeeze through the blood vessels as blood flows through the holes. These waste products become part of our urine. Useful substances such as protein and red blood cells are too big to pass through the holes and stay in the blood.</p> <p>Diabetes damages this filtering system as high blood glucose levels make the kidneys filter much more blood than usual. After a prolonged period, the filters get overworked and start to weaken, causing the protein to leak into the urine. Over time, the overworked kidneys lose their filtering ability (i.e., function), leading to a build-up of waste products in the blood.</p>
Hypertension	<p><b>What is hypertension?</b></p> <p>Hypertension (high blood pressure) refers to a condition in which the blood is pumped around the body at a higher pressure (More than 120/80mmHg). Arteries are blood vessels that carry blood from our heart to other parts of our body. Blood pressure refers to the force of the body's blood pushing against the inner walls of our arteries. Each time our heart contracts, it pumps blood into the arteries.</p> <p>Hypertension or high blood pressure occurs when the force of blood pushing against the inner blood vessel wall is consistently high.</p> <p><b>How does it affect the kidneys?</b></p> <p>Over time, uncontrolled high blood pressure puts extra strain on our blood vessels and can cause arteries in the kidneys to constrict and narrow.</p>

	<p>With reduced blood flow, these damaged arteries cannot deliver enough blood to the kidney tissue, leading to scarring of the kidney tissue and preventing the kidneys from working well.</p> <p>When this happens, the kidneys cannot efficiently remove salt, waste and extra water from our body. Extra salt and water in the blood vessels can raise blood pressure even more, creating a dangerous cycle and causing more damage leading to kidney failure.</p>
<b>Kidney Failure Treatment Options</b>	
Types of treatment options	<p><b>Home Care – Peritoneal Dialysis (PD)</b>, also known as water dialysis, is a self-administered daily treatment for patients with kidney failure. In PD, the peritoneum membrane acts as the filter to clean the blood and remove extra salts, waste products and excess water. A permanent tube, called the PD catheter, is surgically placed in the peritoneal cavity. The PD catheter introduces the dialysis solution into the body, drawing salts, water and waste products from the blood vessels that line the peritoneal cavity. The used solution will be drained from the body, and another cycle of the new solution will be introduced again to continue the dialysis process. This treatment can be done manually or aided by a machine.</p> <p><b>In-Centre Care – Haemodialysis (HD)</b>, also known as blood dialysis, is a way of cleansing the blood of waste products, extra salts and excess water through a dialysis machine and a special filter called a dialyser. The dialyser mimics the function of the kidneys by removing waste products, excess fluids, and electrolytes from the patient's blood. It contains thousands of tiny hollow fibres made of a semi-permeable membrane. HD is performed thrice weekly at the dialysis centre, with each session lasting about 4 hours. 2 needles will be inserted into the fistula, the patient's vascular access. One needle to remove the blood and the other to return the cleansed blood to the body.</p> <p><b>Kidney Transplant</b>          Kidney transplant is a process where a healthy kidney is surgically removed from a donor and implanted into the patient. The patient may receive the kidney from a living donor or a deceased person (cadaveric donor).          Kidney Transplant is by far the best treatment method as the "replacement kidney" can substitute almost fully the lost functions of the failed kidneys. It provides the best long-term survival and quality of life.          Do you know, a kidney transplant patient will have 3 kidneys:</p>



	<ul style="list-style-type: none"> <li>• The 'replacement kidney' is placed in the front lower part of the abdomen.</li> <li>• Original kidneys are usually not removed because they still have some filtering abilities left. Unless old kidneys have complications.</li> </ul> <p>A kidney donor is also able to live with only 1 kidney. Live kidney transplant is encouraged because:</p> <ul style="list-style-type: none"> <li>• Shorter waiting time for a kidney compared to waiting for a kidney from a cadaveric donor</li> <li>• Better survival outcomes</li> </ul> <p>Kidney Live Donor Support Fund It is a \$10 million fund set up to encourage more live donors to donate their kidney to their loved ones through the provision of financial assistance to low-income families.</p>
How NKF offers support	<p>NKF empowers patients to be able to provide self-care for them and their family by providing a suite of resources and care programmes aimed at integrating patients and their families into society to continue to fulfil their dreams and aspirations.</p> <ul style="list-style-type: none"> <li>• <b>Care and counselling</b> - Patient support and caregiver support groups and counsellors provide emotional and social support.</li> <li>• <b>Physical well-being</b> - Exercise Specialists work alongside occupational therapists to develop personalised exercise care plans with targeted physical rehab exercises.</li> <li>• <b>Diet and Nutrition</b> - Counselling and advice by Dietitians to guide to patients on eating right.</li> <li>• <b>Multiple Chronic Disease Management</b> - Patients' care team will also help to monitor and advise them on ways to manage their other health conditions like diabetes.</li> <li>• <b>Patient Welfare</b> - Medical Social Workers provide counselling to support patients who are facing societal and family issues, and financial advice on subsidies, grants and even help with employment rehabilitation.</li> </ul>
<b>Preventive Measures</b>	
Ways to take good care of your kidneys	<p>A goal of the KDC is to help visitors have a better understanding of kidney failure and the importance of adopting healthier behaviours. It is crucial that the revamped KDC provides visitors an opportunity to take the first step towards better health.</p> <p>General healthy lifestyle tips:</p> <ul style="list-style-type: none"> <li>• Get medically screened for the most common causes of kidney disease on a regular basis, such as high blood pressure or diabetes. If you have having family medical history of kidney disease, you are encouraged to go for</li> </ul>

	<p>screening too. Include a kidney screening especially if you are at a higher risk.</p> <ul style="list-style-type: none"> <li>• Keep your chronic conditions such as blood pressure, cholesterol and diabetes under control by having regular follow-ups with your doctor.</li> <li>• Reduce salt intake, as excessive intake can lead to high blood pressure, which is one of the leading causes of kidney failure. Choose natural ingredients when cooking and avoid processed foods with high salt content.</li> <li>• Reduce sugar intake as excessive intake can lead to weight gain and obesity, thus increasing the risk of diabetes and kidney failure. Choose for less or no sugar.</li> <li>• Actively keep fit by maintaining a healthy weight. For adults, aim for at least 150-300mins of moderate-intensity aerobic activity in a week.</li> <li>• Quit smoking and lower alcohol levels.</li> </ul> 
<p>Are you at risk of kidney failure?</p>	<p>Having any of these pre-existing condition(s) can increase your risk of developing kidney failure:</p> <ul style="list-style-type: none"> <li>• Diabetes</li> <li>• Hypertension (High blood pressure)</li> <li>• Family history of kidney disease</li> <li>• Has blood or protein leakage in urine</li> <li>• An unhealthy BMI range (<math>&gt;23 \text{ kg/m}^2</math>)</li> <li>• Regular consumption of pain medications such as NSAIDs (Non-Steroidal Anti-Inflammatory Drugs)</li> <li>• A smoking addiction</li> <li>• History of episodes of kidney stones or kidney infections/inflammation</li> <li>• Heart disease (e.g. heart attack, heart failure, valve disease, stroke &amp; blood vessel/vascular disease)</li> </ul>

**ANNEX I – EXISTING KIDNEY STRUCTURE**

