

**NATIONAL
LIBRARY** OF ISRAEL
ARCHITECTURAL COMPETITION

DESIGN BRIEF

DESIGN BRIEF

TABLE OF CONTENTS

Chapter		Page
1	Introduction.....	1
	PART A – GENERAL	
2	Design Guidelines.....	2
3	Major Sections.....	7
4	Target Population and Level of Activity.....	14
5	Access and Security.....	15
	PART B – DETAILS OF THE BRIEF	
6	Major Processes.....	17
7	Research and Study Section.....	19
8	Education and Culture Section.....	24
9	Public Areas Section.....	26
10	Library Operations Section.....	28
11	Underground Stacks.....	35
12	Parking, Access Routes and Outdoor Areas.....	37
13	Floor Area Requirements.....	39
14	Security.....	40
	APPENDICES	
Appendix A	Matrix of Connections and Attachments.....	43
Appendix B	Organizational Structure.....	44
Appendix C	Characterization of Study Carrels and Offices.....	46
Appendix D	Floor Area Requirements.....	48
Appendix E	Directives for Conservation of Items.....	63
Appendix F	The Library's Environs.....	66
Appendix G	Town Planning Scheme 15050.....	separate divider

1 / INTRODUCTION

The National Library, established 120 years ago, collects, preserves, nurtures and bestows treasures of knowledge, heritage and culture, in general, and in connection to the Land of Israel, the State of Israel and the Jewish People, in particular. The move to a new building will enable the Library to realize its mission and roles in the 21st century, and to make its assets accessible to researchers and to people of all nationalities and religious denominations the world over.

The national memory that is preserved in the Library has many faces. At the heart of the collections in their traditional form is the printed book, alongside which is a variety of other physical items – periodicals, manuscripts, archival material, maps, photographs, audio and video recordings, etc. Nowadays, an ever-increasing number of digital items are incorporated into the collections. The online digital library which is being built and developed creates, together with the physical collections, a hybrid, physical-digital library. The three core areas in which the Library specializes are Israel, Judaica, and Islam and the Middle East. In addition, the Library houses a general collection in the humanities.

The National Library is undergoing a comprehensive process of renewal, which is progressing simultaneously along several trajectories. The issue that this brief deals with, namely the construction of a new building that will serve the Library for the next 50 to 100 years, is one of these trajectories. The documents “The National Library of Israel: Master Plan for Renewal 2010-2016” and “The Rebuilding of the National Library: Meaning and Rationale”¹ provide important background material for understanding the brief, which relies on the reader’s familiarity with the vision of the renewed Library and with the renewal process. Moreover, the efforts currently being invested in expanding the collections, revitalizing the existing organization, streamlining work procedures and broadening the Library’s areas of activity, are expected to continue until the move to the new building and even beyond this time, and it is quite likely that some conclusions and

lessons drawn during the renewal process will necessitate adaptations and changes in the brief.

In addition to the Library’s employees, the new building will serve a diverse public comprising two major groups: “users” who will come to the Library to use the research services that it offers, and “visitors” who will arrive in order to tour the Library, take part in its educational and cultural activities, or relax in the coffee shop or restaurant. Using various means of partitioning, the Library building will enable everyone inside it – users, visitors, and employees – to function simultaneously in diverse environments – quiet or bustling – without disturbing each other. At the same time, certain means will be employed to encourage the users’ exposure to the activities of the visitors, and vice-versa, as well as to facilitate encounters between the various groups of people present in the Library in general, so as to foster synergy.

The brief is intended to provide a basis for the architectural design of the new building. The uses of the building that it describes are based on a 20-year growth forecast and represent the activity capacity required for 2030.

Part A of the document commences with the requirements and the guiding principles for designing the building as a whole. This is followed by a characterization of the areas required for the services and the activities that the Library will offer to the public and to the research community, and for operating the Library and its units.

Part B elaborates on Part A regarding the activities in the building and the floor area requirements, and describes the major work processes in the Library.

The Appendices, among other things, define the connections and the attachments of the Library’s various functions, detail the floor area requirements, and add directives, requirements and information, including the vision of the Library’s surroundings and the provisions of Town Planning Scheme 15050, which has been submitted to the planning authorities for approval.

¹ <http://nli-competition.org.il/en/generalpage/documents>

This chapter discusses the major principles and requirements that should serve as guidelines in designing the building. Among other things, it deals with the messages that the building should convey, the feelings it should arouse, and the activities it should encourage.

A. CONCEIVING THE BUILDING WITH ITS VARIOUS PARTS AND OUTDOOR AREAS AS ONE INTERCONNECTED, HARMONIOUS STRUCTURE

As will be detailed in the brief, the Library building will comprise five sections, each having a distinct major function: research and study, education and culture, public areas, Library operations, and the underground stacks. In addition to their varied purposes, the sections differ from each other by the type of public they serve – users, visitors, or employees – the conditions of access, the means of security and supervision, the strictness or lack thereof in maintaining silence, and the lighting and climatic conditions. These differences will require the use of various means of separation and differentiation between the diverse areas, both for protecting the Library's collections and for creating optimal working conditions for the users involved in research and study, and for the Library's employees. At the same time, it is most important that the conception underlying the design consider the building as one harmonious structure, all of whose parts serve the same vision, integrate well with each other, facilitate convenient passage to the other parts, and are visible to each other at certain points. This should allow even visitors who will not enter the research and study areas, but will stay only in the culture and education section and the public areas, to feel that they are in the National Library of Israel, and grasp the potential that its services have for them. Furthermore, just as the Library is interested in encouraging visitors to become active users of its research services, it is also interested in exposing the users to its educational and cultural activities and stimulating them to participate in these.

The outdoor areas should be perceived as an integral part of the overall conception of the building. It is assumed that many of the frequent users, who spend long hours in the Library, will choose to spend some of their time outside – resting, socializing, and engaging in discussions with colleagues. Moreover, the outdoor areas play a large part in the initial impression the Library makes on people coming to it, or even passing. Therefore, these areas should be designed by so as to arouse the desired feelings and convey the required messages, in accordance with the requirements detailed below regarding the building.

B. CREATING ADDED VALUE TO A STAY IN THE LIBRARY BUILDING

In the information-revolution era, many resources and services are readily available by means of a variety of digital devices, especially to academics who have access to databases and major electronic publications through the academic institutions to which they are affiliated. It is therefore important to create substantial added value to being in the Library's physical building, besides the resources and services that are offered onsite. This value has to be sufficiently significant so as to justify regular use even by those who can, if they wish, work almost entirely from home. The assumption is that it will be possible to create the desired added value both by means of the pleasant and convenient space that the Library building will provide for prolonged working sessions and for breaks, and by the opportunities that this space will offer for beneficial interaction with other users and visitors in various settings.

C. OPENNESS AND ACCESSIBILITY

The values of openness and accessibility to the general public of all classes, nationalities and denominations, are an essential part of the vision of the renewed National Library. As opposed to the Library's present building, which is located in a fenced-off university campus, suggesting an outdated conception that the knowledge housed in libraries is intended mainly for a selected and exclusive echelon of intellectuals, the Library's new building should reflect the aim of democratizing knowledge and the wish to open up the Library's collections and its resources to as broad and diverse a population as possible.

It is desirable that the symbolic openness to all layers of Israeli society and the entire world be evident in the physical details of the design, for example, by the use of means that open up the building to the outside world: to the natural light, the view and the important sites in the vicinity (taking into consideration, however, the environmental conditions required for preserving the Library's collections). Furthermore, the wish for maximum accessibility of the Library should be part of the general conception of the building, under discussion here is not only the obvious need to provide appropriate solutions for people with disabilities, but the desire to give all users, visitors, and employees the feeling of easy access to the building and within it.

D. A PLEASANT, INVITING SPACE THAT ENCOURAGES LENGTHY VISITS AND FREQUENT USE

The Library building as a whole and each of its sections should be perceived by users, visitors and employees as pleasant and inviting. The population that the Library aims to attract is diverse in terms of age, religious and national affiliation, educational and income level, etc. It is therefore desirable that from the perspective of aesthetic ideals, the design will appeal to as wide a common denominator as possible and convey a message of multiculturalism. Moreover, even though silence will be maintained in part of the research and study areas in order to facilitate concentration, it is important that the Library as a whole not strike those entering it as an awe-inspiring temple of wisdom that requires speaking in hushed tones and walking on tiptoes. On the contrary: the Library should make the people inside it feel comfortable, the overwhelming impression it gives being that of a vibrant place, teeming with cultural activities.

One should take into account that not only the Library's employees, but also many users of the research and study services will spend entire working days in the building. Furthermore, the frequent users – a group that the Library aims to expand considerably – tend to devote several days a week for years on end working in the Library. The building should facilitate such prolonged stays and encourage them. The space it offers should be pleasant to the eye and convenient (well lit, spacious, air-conditioned, attractive in itself and overlooking a beautiful view, etc.), and be suitable not only for long working sessions, but also for enjoyable and invigorating breaks between them. As for the Library's employees: it is important that the work environments planned for them be not only efficient, but also pleasant and appealing in a way that will enhance motivation and encourage creativity and high quality work.

E. A SPACE THAT ENCOURAGES HUMAN INTERACTION

The design of the sections intended for users and visitors, including the outdoor areas, should facilitate and encourage communication between people. Interaction opportunities are particularly important for creating communities of frequent users. Many of these users are drawn to the Library not necessarily because of the resources it offers, but rather by virtue of the possibility of dividing their time there between working alone in optimal conditions, and communicating with like-minded people, from whom they can obtain professional assistance and enjoy an interdisciplinary exchange of ideas. Such functioning of the Library as a meeting place between intellectuals is essential for realizing the goal of turning it into a major, influential cultural institution.

F. FUNCTIONALITY

As will be clarified in detail below, the Library building will have to respond to the diverse needs of a large clientele of users and visitors, as well as those of the Library's employees, to be suitable for a relatively large number of purposes, and to enable the efficient execution of various processes and activities. In addition, the building will have to facilitate not only the secure long-term storage of the Library's collections in optimal conditions, but also the safe, frequent movement of valuable items within it. **The functionality of the building as a whole and of each of its components is an essential requirement that has to guide the design.**

G. THE BUILDING AS PART OF ITS SURROUNDINGS

The Library building will occupy a central and conspicuous site in the National Precinct in Jerusalem: below the Knesset building and adjacent to the Israel Museum, the Shrine of the Book and the other museums in the district. The design of the building should strive to make the most of the great potential of the area and to appropriately integrate into it. For example, it would be desirable to take full advantage of the spectacular view and maintain eye contact with the important sites in the area. As for blending with the surroundings: the Library building should display due modesty towards the Knesset, and not try to overshadow it. Rather, it should properly fit into an ensemble that includes the Knesset and the other public buildings in the vicinity. Therefore, the building should be impressive, attractive and elegant, but not grandiose, or conspicuously incongruous. The real greatness of the building as an architectural creation should reside in the intelligent and aesthetic solutions it provides for the various functional requirements of the Library, and in the creative means by which it makes the most of the configuration of the plot.

H. REFLECTING THE MAJOR PURPOSE OF THE BUILDING IN ITS DESIGN

The planned building is intended to serve as the home of the National Library of Israel – with its diverse population – and of the Jewish People the world over. This major mission should be symbolically reflected in one way or another in the design of the building and its outdoor areas. Moreover, it is desirable that the design refer to the rich cultural oeuvre that the Library houses in its three core specialty areas, namely, Judaica, Israel, and Islam and the Middle East.

I. ARTISTIC AND MUSEOLOGICAL CONCEPTIONS

A variety of artworks will be integrated in the building and its outdoor areas, including sculptures. The artistic conception that will guide the choice of the works and the ways of incorporating them is still in the process of consolidation. At a more advanced stage of the process it will be necessary to coordinate the architectural conception of the building and the artistic conception, so that the former will contain the latter and provide it with an appropriate platform.

In addition to the above, which concerns the building as a whole, the Library will include a distinctive museological component, i.e., exhibition spaces that will be located in the education and culture section. The museological conception of these spaces is also in the process of consolidation, and when the time comes this too will have to be coordinated with the architectural conception.

J. THE IMPORTANCE OF INTEGRATING TECHNOLOGY

In the digital revolution era, information technology plays a dominant role in the activity of libraries, both in terms of the resources and services they offer their users, and in terms of the processes taking place behind the scenes. Therefore, the manner of integrating the technology in the building should comprise a major element in its conception. Moreover, technology is developing at a very rapid pace and it is very difficult to foretell what developments the future holds, and how these developments will affect the ways information is produced, distributed, consumed, and preserved. Nonetheless, one may presume with near certainty that significant developments with far-reaching implications occur every few years, and necessitate the replacement of infrastructures and the insertion of changes in the internal division of the building. This requires built-in flexibility in the design, as will be discussed in the following section.

K. BUILT-IN FLEXIBILITY FOR FUTURE CHANGES

We are living in a period of great changes and developments in all aspects of the functioning of national and research libraries. Throughout the world, new libraries and those engaged in renewal are striving to adapt themselves to the technological developments and the changing needs of the general public and the research community, and to accurately predict future trends. However, the shape of the 21st-century library has not yet been crystallized. In view of all the question marks, it is essential that the new building, which is meant to serve the Library for dozens of years, will be characterized by a maximum of flexibility for future changes. In designing it, one should take into account not only the recurrent need to replace technological infrastructures, as mentioned above, but also the high probability that in the not-too-distant future quite a few changes will be required in the internal division of the building, and even in the designation of some of the spaces. (For example, certain developments may cause a sharp decrease or increase in the respective numbers of users and visitors, thus requiring the conversion of research and study areas to education and culture ones, or vice-versa). The conception of the building will have to find the correct balance between providing appropriate responses to the specific needs of all the functions planned for it, and maintaining a certain modularity that will facilitate the execution of changes.

L. PRESERVING THE LIBRARY'S COLLECTIONS: SUITABLE ENVIRONMENTAL CONDITIONS AND SECURITY

The National Library is entrusted with the weighty responsibility of preserving the spiritual and cultural treasures in its collections for the sake of future generations. The major factors impacting on the conservation of materials in libraries and archives are temperature, relative humidity, lighting and air quality. Strict maintenance of suitable and stable environmental conditions in accordance with international standards is the most effective way of extending the life of the items. The conditions may vary as the seasons change, but they must be kept consistent. It will be necessary to install in the Library a climate-control program that will facilitate monitoring of the conditions at all times, issuing warnings of exceptional situations and dealing with them. The environmental conditions and the climate-control requirements in the different areas of the Library will be defined by the people in charge of them.

In addition, security and control systems will have to be installed to protect the collections against theft, vandalism, or illegal use. Obviously, there is a certain tension between the conservation and security requirements under discussion, and the above-mentioned requirements that the building will communicate openness and accessibility. Creative ways will have to be found to comply with all these requirements in a satisfactory manner.

M. SUSTAINABILITY

The principles of sustainable (green) building should be taken into account, so that the building may comply with the relevant Israeli and international standards. The planning should facilitate maximum savings in energy and water for lighting, air-conditioning, ventilation, maintenance, etc., and should strive for maximum exploitation of natural resources (such as sunlight, rainwater, and wind). The following principles should also be taken into consideration: prudent exploitation of the land and preventing, as far as possible, any harm to perishable natural resources and the quality of the environment; Utilization of recycled water as far as possible; the use of environmentally friendly materials and recycled materials; and combining traditional building methods with innovative technologies of green building.

N. OPERATION AND MAINTENANCE

The design of the building should take into account its future operation and maintenance, and strive for choices that will reduce their costs and facilitate easy and rapid execution of all the required actions, including preventive and corrective maintenance and cleaning. For example, it is advisable to opt for materials and installations readily available on the market to facilitate the obtaining of spare parts; to give preference to components with a long life expectancy; and to place the installations and systems so that they can be conveniently reached for operation and maintenance. It may be expected that in quite a few instances, the considerations concerning the ease of operation and maintenance and their costs will come into conflict with other considerations, such as aesthetics. Each case should, of course, be carefully examined, and an attempt be made to arrive at the correct balance; the directive, however, is to give priority to ease of operation and maintenance.

O. CIRCULATION, ORIENTATION AND GUIDANCE

As stated above, it is essential that the Library building be perceived by users, visitors and employees as friendly and accessible. Among other things, this objective demands meticulous planning that will enable people to orient themselves easily in the building and to move comfortably and efficiently between and within its various parts.

In planning the circulation in the building, one should take into account the different functions of the sections and the various needs of the major population groups that will use them, as well as the connections and the attachments detailed below in the design brief. One should also bear in mind the crowding that is expected to occur at certain times and around various events (when the Library is opened for users and visitors in the morning, before and after events in the auditorium, during popular exhibitions, etc.). In view of the complexity of the task and the multiplicity of needs, it would be inappropriate to attempt to impose a single movement pattern. However, it is advisable to opt for circular movement, whenever such pattern is advantageous and feasible.

One should use all possible means to facilitate orientation inside the building, clear signposting included. Nevertheless, it is desirable that the architectural logic on which the building is based and the method of positioning and indicating the circulation elements (foyers, intersections, passages, staircases, etc.) should be sufficiently coherent to enable easy orientation without the constant need to rely on signposting.

A. GENERAL

The Library's new building will comprise five functional sections spread over a gross floor area of approximately 28,000 sqm, as detailed in the following table. The sections are differentiated according to the essence of their functioning and the activities taking place within them. This differentiation, however, need not necessarily be physically expressed in the internal design of the structure. People will enter the building from an outdoor plaza, and will also have the use of an underground parking garage of around 13,000 sqm.

B. FLOOR AREA REQUIREMENTS

Section	Net Area (sqm, rounded)	Gross Area (sqm, rounded)
Research and Study	5,200	8,300
Education and Culture	2,300	3,700
Public Areas	1,400	2,200
Library Operations	4,800	7,100
Underground Stacks	4,600	6,500
Total Area of the Building (excluding parking)	18,300	27,800

Comment: The areas specified in this document are an estimate that is meant to serve as a basis for characterizing the needs and the planning to be derived from them. These areas will be defined precisely in the course of the planning process. The table above specifies net areas. The gross areas, which will include thoroughfares, main corridors, lobbies on each storey, toilets, stairwells, shafts and technical rooms (excluding the main machine room), are calculated by multiplying by a ratio coefficient. The net/gross ratios for most of the areas of the sections was calculated according to a coefficient of 1.6, while the ratio for the underground stacks section was calculated according to a coefficient of 1.4. Technical areas included in the library-operations section were calculated without a multiplication coefficient. The values of these coefficients were determined solely on the basis of estimates. The actual coefficients will be determined at the architectural design stage. A detailed table of areas can be found in Appendix D.

C. THE RESEARCH AND STUDY SECTION

The research and study section is the heart of the Library and will contain two reading rooms – the main reading room and a reading room for special collections – and their supporting functions. The reading rooms are meant to be a source of inspiration and creativity, and their design will pay particular attention to the researchers' needs. The intention is to create an efficient learning environment by means of a variety of carrels (i.e. study stations) suited to different learning styles, and to provide easy access to items located in the reading rooms and those ordered from the stacks, as well as to support services, such as technical assistance, reference services, photocopying and reproduction.

The interior space of the reading rooms will be flexible, making it possible to divide the space according to changing needs, for example: to close off part of the space in order to preserve or present a collection separately from the core collections; to change the mix of the carrels; to increase or decrease the size of the reading rooms in response to fluctuations in the number of users; to convert an area to other uses, etc.

The opening hours of the reading rooms (in 2011) were: Sun-Thu 9:00-20:00; Fri 9:00-13:00. Extended opening hours and other changes may be introduced in the future.

Major components

- **The main reading room** – will house the Library's three core collections – Judaica, Israel, Islam and the Middle East – as well as the general humanities collection. The collections will be placed in the reading rooms according to the "open shelf"² method, with the possibility of emphasizing the unique character of each collection – in the way the items are arranged on the shelves, for example. Users will be able to move freely and browse among the collections without supervision or mediation, and without disturbing other users. This reading room will contain:
 - Around 360,000 volumes on open shelves;
 - Around 450 carrels of various types, some in a no-talking area and others in an area where talking is permitted. The different kinds of carrels will allow people to study printed items and microfilm, and to listen and look either sitting or standing. Each carrel will be connected to the electricity and communications infrastructure.
 - A multipurpose hall / music center with high-quality acoustics.
 - 13 rooms of various sizes for discussions and group study.
 - Information, reference, and borrowing desks; and areas for reproduction and photocopying.
- **The special collections reading room** – will be used for studying items that require enhanced security, such as rare books, manuscripts, maps, and archival material. These items will be stored in the stacks and will be conveyed to the reading room on request. This room will contain:
 - Around 50 carrels.
 - Around 1,000 items on open shelves.
 - 3 rooms of different sizes for discussions and group study.
 - A service desk, adjacent to an interim storage space for items intended for readers or for storage.
- **Research center** – an area will be planned close to the reading rooms to accommodate researchers from research centers who are guests of the Library. At this stage only the shell will be built, but an appropriate infrastructure will be prepared to facilitate the internal division of the space. A separate brief will be submitted for this area at the detailed design stage.
- **The offices of the public services division** – will be located close to the reading rooms.

² Open shelf – storage of items on directly accessible bookshelves arranged by subjects, enabling users to browse and find the items that interest them and take them to the carrels without the mediation of the library staff.

Research and Study section – floor area requirements

Component	Net Area (sqm, rounded)
Main reading room	4,160
Special collections reading room	450
Research centers	360
Offices of the public services division	230
Total, Research and Study	5,200

D. EDUCATION AND CULTURE SECTION

The education and culture section will enable the Library to realize its vision of being a leading institution of national culture, committed to serving all sectors of the population and offering activities and contents to as wide a range of people as possible. The Library will run instructional programs, seminars, lectures, conferences, cultural events and performances for a diverse public. The education and culture section will be in operation during the opening times of the reading rooms and beyond.

As part of its educational and cultural activities, the Library will offer guided tours of the building, and the design of the building should facilitate the operation of such tours. The tours will include the education and culture section and the outdoor areas, in addition to the research and study section, the digitization unit, the conservation laboratories and the stacks – without disturbing users in these areas.

Major components

- **Exhibition space** – that can host simultaneously a permanent exhibition and two temporary exhibitions, and that allows extensive use of multimedia.
- **The visitor center** – will be located near the main entrance foyer and will be the first stop in the Library for organized groups and for part of the wider public. The visitor center will feature a multi-faceted display of the Library's collections and services using a variety of techniques.
- **The digital experience center** – will allow visitors to experience a range of innovative methods – technological and digital – for providing sophisticated library services using sight, sound, and touch in three-dimensional space.
- **Seminar rooms** – an area containing four study rooms in two basic sizes, one for frontal lectures and one for round-table discussions. These rooms will be used to introduce visiting groups to the Library, to instruct users, and to conduct educational activities. The partitions between the rooms will be removable in order to create a large room when needed.
- **Auditorium** – a 400-seat auditorium for conferences, audio-visual lectures, cultural performances in every artistic media, concerts, film screening etc. in suitable acoustic conditions. This combination of facilities and services – the auditorium, the set of seminar rooms, the visitor center, and the music center in the main reading room – will allow the Library to host conferences with all participants attending full plenary sessions or simultaneous smaller sessions.
- **The offices of the education and culture division** – some of these offices will be located as close as possible to the auditorium and the seminar rooms.

Education and Culture section – floor area requirements

Component	Net Area (sqm, rounded)
Permanent exhibits	400
Temporary exhibits	800
Visitor center	120
Digital experience center	80
Auditorium and service areas	680
Seminar rooms	200
Offices of the education and culture division	20
Total, Education and Culture	2,300

E. PUBLIC AREAS SECTION

The public areas are the gateway to the Library and the first encounter people have with the building. These areas should thus arouse positive feelings about the Library, as detailed in Chapter 2, and should also make easy orientation. The public areas will lead to the different parts of the building and will also serve a variety of needs, including eating, resting, and socializing.

Major components

- **Main entrance foyer** – with a staffed information counter as well as computerized information and orientation stations. From the foyer, which will be the entrance for most people coming to the Library and the main employees' entrance, it should be possible to reach all parts of the building. Signs, including digital ones, will be installed to assist orientation. Depending on circumstances, it will be possible to set up in the foyer a cashier's desk for ticket sales to events, as well counters for displays, instructions, and sales.
- **Shops** – a bookshop and souvenir shop, which may be operated by a franchisee.
- **Refreshments** – food will be available at a dairy coffee shop with seating for around 100 people, a meat restaurant with seating for around 100, and a self-service cafeteria that can seat around 50.
- **Public services** – these include a synagogue, a multipurpose room, a cloakroom and lockers, and a nursing room.

Public Areas section – floor area requirements

Component	Net Area (sqm, rounded)
Main entrance foyer	350
Cloakroom and lockers	50
Shops	240
Coffee shop	300
Restaurant	300
Cafeteria	50
Public service spaces	110
Total, Public Areas	1,400

F. LIBRARY OPERATIONS SECTION

This section includes the offices of the Library's employees, work areas, and operational and storage areas where the various items are handled from their moment of arrival at the Library until they are ready for use – for reading, reference, storage or presentation.

Major components

- Managerial offices, collections development (curatorship), and the administrative offices of the various divisions, including meeting rooms and kitchenettes.
- Installations of the administration, operations and logistics division.
- Installations of the library processes departments for handling the items: acquisition and processing, disinfection, sorting, conservation and restoration laboratories, and organizing the collection.
- Information technology installations, including a main computer room, and a photography and digitization center.
- Technical areas: machine rooms (central and secondary); communications rooms on each floor; control and security room for the building; offices for the janitor, security officer, and mail service; waste-disposal room; storerooms for office and general equipment, and cleaning materials.

Library Operations section – floor area requirements

Component	Net Area (sqm, rounded)
Managerial and staff offices	430
Administration, operations and logistics division	90
Library processes division	2,430
Information technology division	570
General divisional support	60
Technical areas	830
Reserve	390
Total, Handling of Items and Operations of the Library	4,800

G. STACKS – AREAS FOR STORING THE ITEMS

All the Library's collections (books, periodicals, manuscripts, maps, microfilms, photographs, digitized items, archival material, audiovisual material, etc.) will be stored in the new building. The storage concept regarding the different types of stacks is based on several variables, such as: the definition of standard service norms for retrieving the items, levels of security required; and the nature and size of the items. The major differentiation for this purpose is between a stack defined as "fast" and one defined as "slow" – a definition that depends on extent of demand for the items and the service norms determined for them. The storage methods in the stacks and the appropriate installations for them will be derived from the above definitions.

The load-bearing capacities of the floors of the stacks will be compatible with the definitions of the storage installations. Detailed directives on this issue will be provided by the construction consultant on the planning team; detailed directives for securing the stacks will be provided by the security consultant according to the requirements stipulated below in the chapter on security; and detailed directives on safety and durability of the stacks will be provided by the safety consultant.

Major components

- **Fast stack** – for storing around a million items of the Library's collections that are intended to be easily accessible to users. The fast stack is defined as the second level of storage (the "open shelf" in the main reading room being the first level). The service level for this stack is defined as up to 30 minutes from the time the item is requested to its arrival in the reading room, in 80% of cases. To borrow an item from this stack, the user will request the item (or several items) online from home or from the reading room. After the request is registered, the item will be located; it will then be retrieved and sent directly (by elevator and/or conveyor belt) to the service desk in the reading room, where it will be given to the user. Items will be returned in a similar manner. Accessible to authorized personnel only, the fast stack will be protected by appropriate security and safety systems and equipped with a climate-control system.
- **Rare items stack** – around 150,000 items defined as rare will be stored in a stack according to their required level of security, their type and the way they will be retrieved for study in the special collections reading room. The conveyance of these items to the reading room will be secured as per the definitions in the chapter on security, below.
- **Slow stack** – defined as the third level of storage, and containing the Library's major storage volume. The anticipated scale of storage in this stack will be around 4.5 million items by 2030, based on a growth forecast of around 50,000 items a year. The pace of movement of the items stored in this stack will be the slowest of the three storage levels. All items acquired during the Library's future growth will be routed to this stack. Its storage method will make it possible to retrieve an item in response to an online request and to transfer it to the reading rooms within a few hours on the same or on the following day, depending on the time of the request.

All the stacks will be located underground. The heights of the ceilings in the stack areas will fit the requirements of the storage system, the types of installations, and the conveyance methods that are chosen.

The Stacks section – table of areas

Component	Net Area (sqm, rounded)
Fast stack	1,000
Rare items stack	500
Slow stack	2,500
Operational area	600
Total, Stacks	4,600

H. CONNECTIONS AND ATTACHMENTS

The matrix of connections and attachments between the various functions in the sections of the Library as described above, which reflect the Library's requirements, are presented in Appendix A of the detailed brief.

I. PARKING

The number of parking spaces required for the Library building is calculated according to accepted parking standards in Jerusalem, the directives contained in the Traffic Appendix and in the provisions of Local Outline Scheme No. 15050. Parking for private vehicles will be in an underground garage designed according to the size of the plot and the access system to/from the surrounding roads, as detailed in the Parking Appendix. Note that the floor-ceiling distance in the planned underground parking garage is higher than the usual standard, so that there will be an option of converting parking areas into storage areas when the planned public transportation solutions are implemented in the vicinity of the building.

Table of parking spaces and summary of the gross areas

Parking	Type of Vehicle	Location	Number of Spaces	Gross Area (sqm)
Employees, visitors and users	Private	Underground	300	12,000
Boarding and alighting passengers	Busses	Above ground	4	400
Operational parking for suppliers	Commercial and trucks	At the planner's discretion	6	600

J. OUTDOOR AREAS

Outdoor areas will be planned for the new Library building, as detailed below:

- A large, inviting entrance plaza will lead visitors from bordering streets to the main entrance of the building. The plaza will be a place for individuals and groups to congregate before entering the building, with shaded areas for sitting and waiting. The size of the plaza will be compatible with the shape of the plot and the building's location on it.
- The option will be examined of building an interior garden and/or patio adjacent to the restaurant and the coffee shop for outdoor dining.
- In the exterior areas, including on the entrance plaza, there is an option of installing temporary or permanent works of art.

The Library's vision is to expand its target populations and increase the use of its services. The assumption is that the number of users of the research services will increase, and in addition, the Library will strive to attract new visitors, both as organized groups (e.g., school students, soldiers) and tourists, individually and in family groups, giving all of them the opportunity to enjoy its services. The forecast for 2030 is that the building will be used by an annual total of some 500,000 people – visitors, users and employees. This calculation is based on a maximal estimate of around 1,500 visitors and users arriving daily, as detailed below:

Forecast number of users and visitors

Target Population	Daily Estimate	Comments
Researchers, academic staff, teachers, students, librarians and journalists	840	
The general public	30	
Total users per day (research and study services)	870	
High-school students, youth tour groups, other delegations	170	Tours
Educational programs (IDF), and adult tours	160	Tours and workshops
The general public	300	Culture and leisure events
Total visitors per day	630	
Total number of users and visitors per day	1,500	Excluding employees

Planned daytime activities:

- Research and study: According to surveys conducted in the reading rooms of the present library, the peak hours for using the research and study services are between 11:30 and 15:30.
- Education and culture: On the assumption that most group visits will be coordinated in advance, the Library will be able to plan such visits according to its needs and capacity, and they will take place primarily between 9:00 and 16:00. Also, events for the general public will be held at least once a week; They will accommodate for hundreds of people in the afternoons and evenings, mostly in the public areas and in the education and culture section.
- The staff: The new Library is expected to employ around 280 full- and part-time employees. Official working hours in the library-operations section are 8:00-16:00, but overtime work may be necessary. The employees will be responsible for operating the reading rooms, the stacks, and the educational and cultural activities during their working day. Appendix B of the detailed brief presents a diagram of the National Library's organizational structure, and a breakdown of the staff according to the different divisions.

The Library's security system has to deal with three major issues: safeguarding employees and visitors to the Library; safeguarding the Library's collections, both from physical damage and from copyright infringement; and preventing theft or damage to the Library's other property.

The body in charge of security in the Library will work in conjunction with the Israel Police, who are responsible for safeguarding public institutions, and with those responsible for the security of the National Precinct. The security system will comply with the standards of the police, the fire and rescue services, the Home Front Command, and the insurance companies as required, and will operate at a level appropriate to the Library's proximity to the Knesset and the government buildings. Securing the Library will comprise several circles – physical, technological, and human – that will be adjusted from time to time according to the threats analyzed and defined by the professional bodies. The Library building will be secured 7 days a week, 24 hours a day.

A. ENTRANCES AND EXITS

The Library building will have several entrances, which will serve also as exits:

- **The main entrance** – will channel users, visitors and employees directly to the entrance foyer, from which all sections of the Library can be reached. This entrance will be open beyond the regular working hours, channeling people to the education and culture section and to the information and reference services that will operate also in the evenings. Access to the main entrance for pedestrians and those who arrive via public transportation will be from the main plaza entrance; other arrangements from the parking garage and from the passenger drop-off point will provide access for those arriving in private cars or organized transportation to allow entry
- **Secondary entrance** – to be operated as needed, for employees and perhaps for specific target populations, such as the staff of the research centers, according to the Library's policy.
- **One or two operational entrances** – for supply and haulage vehicles: an entrance with a loading ramp for trucks and commercial vehicles delivering boxes of books or other items, and equipment. Another operational entrance will provide access for deliveries to the shops, the coffee shop and the restaurant. These entrances will be used also by the maintenance personnel and technicians for carrying out their work at all times of the day and night.
- **Entrance to underground parking** – for private vehicles.

B. OPERATIONS AND ACCESS

Access to and operation of the following functions will not disturb the other activities taking place at the same time:

- Operating the auditorium, the seminar rooms and the exhibition space during and even beyond the opening hours of the research services, and the Library operations section.
- Operating the reading rooms and the other research and study services at times when the education and culture section is not active.
- Activity of the shops and the catering services parallel to and even beyond the operating hours of the other sections. The option should be examined of providing direct access to these areas from outside the building (in addition to the regular entrance via the main foyer), which would enable them to function independently.

- The Library operations section will function independently of the other sections.
- Guided tours of the Library will show participants the Library's major functions, including a "peek" into the reading rooms, the stacks, the conservation and restoration laboratory, the digitization center, etc. The building will be planned to allow these visits without disturbing the Library's ongoing activities and without deviating from the security levels defined above.

C. SECURITY

The security concept throughout the Library building defines three major security levels for people moving around the Library or staying in different areas, as detailed below:

Level 1 – Public area. The public is allowed unrestricted access to parts of this area, such as the entrance foyer, the refreshment areas and the shops, while movement in other parts is supervised and secured and/or entry is controlled – in the exhibitions gallery, for instance, and the auditorium, seminar rooms, and Library offices.

Level 2 – Research and study area. Intended for users, parts of this area, such as the main reading room, are controlled and movement is supervised and secured. Other parts, e.g. the special collections reading room, are secured and entry is allowed to authorized users only under enhanced supervision and security.

Level 3 – Storage and operations area. Designated for authorized employees of the Library only. Various levels of safeguarding exist, for example in the stacks and the control room.

D. CONVEYANCE

Items will be conveyed throughout the Library building either by mechanized means (for example, an elevator and/or conveyor belt between the "fast" stack and the main reading room) or manually (trolleys). The design of the building should locate the various functions on different floors in a way that facilitates the conveyance of items directly from the stacks to the reading rooms and back. The conveyance route to the special collections reading room requires a particularly high level of security and must prevent the possibility that an item will be delivered by mistake to the main reading room. The design of the building should minimize, as much as possible, the walking distance required for manually transferring materials between the various functions. Furthermore, direct and convenient pedestrian access is required to move book trolleys between the following functions: processing storeroom to disinfection chambers; disinfection chambers to departments for organizing the collection; departments for organizing the collection to the bindery, conservation and restoration laboratory, and photography and digitization; departments for organizing the collection to the reading rooms; departments for organizing the collection to stacks; reading rooms to the bindery, conservation and restoration laboratory, and photography and digitization; stacks to the bindery, conservation and restoration laboratory, photography and digitization, and reading rooms (in the event of an elevator or conveyor belt malfunction).

A. RESEARCH AND STUDY

Users come to the Library to make use of its resources – collections, databases or various services – for study and research. An information and orientation booth installed in the building's entrance foyer will be at their disposal, where they can also obtain reader cards. Before entering the reading rooms, users will deposit their personal belongings in the cloakroom. They will be permitted to take certain personal materials into the reading rooms in transparent pouches.

Carrels will be available at several locations in the main reading room, so that readers can sit near the collections they need. The carrels will be designed to serve a variety of requirements and learning styles. All the carrels will be able to be connected to a laptop or desktop computer. Users will be permitted to talk in some areas, while others will be designated quiet "no talking" areas. Study rooms of various sizes will be planned for working in groups.

The reading room for special collections will allow readers to study special/rare items that will be retrieved from the stacks. Greater control over readers and the material in their hands will be required here. The room will be equipped with photocopying machines and with wider tables than the carrels, suitable for studying the contents of archival boxes, maps, and oversize pages.

The major service that the Library will offer users is the item-search service. This service will be available at the service desk of the information and reference center, as well as online, so that users can request the delivery of items to the reading room prior to their arrival.

Many users spend many hours a day in the Library for days on end, and the Library becomes a kind of second home to them. Hence, the Library is interested in providing them with optimal study conditions. These will include options such as: holding objects and items from the collections in safekeeping overnight, and even longer; photocopying or scanning material in the reading room; easy access to the public areas for taking breaks; and places to eat outside the restaurant area. An information and reference desk will also be available for users in the main reading room. Short meetings with the service consultants will be conducted while standing, while longer, more complex meetings will be arranged in advance and will take place in a sitting area set aside for this purpose.

B. PROCESSING AND HANDLING OF ITEMS

The Library collects diverse items, including books, newspapers, periodicals, archival material, publications, photographs and brochures, according to the policy of each collection. The average growth rate of the collections is estimated at around 50,000 physical items a year. The estimate is based on the number of items published each year in Israel (legal deposition), the average annual growth in the volume of the Library's acquisitions, and the forecast regarding the expected transition from printed material to electronic media.

Items reach the Library in one of three ways: legal deposit, acquisitions, and donations. Legal deposit refers to Israel's Books Law: two copies of any item published in Israel in an amount exceeding 50 copies must be deposited in the National Library; acquisitions (items, collections, or archival material that are the Library's core subjects but do not have to be deposited) are purchased by the acquisitions department; donations are the thousands of items received annually as gifts to the Library. The Library examines the importance of these gifts in the context of its existing inventory and policy for collection development. A gift that is not needed is donated by the Library to an outside body.

The items are received by the various branches of the acquisitions department and are processed by type. Their details are recorded in the computer and their catalogue classification is marked. They are then packed in boxes and transferred for disinfection to the area designated for this. The disinfection process continues for about two weeks. No item enters the Library without being disinfected. Next, the items are transferred to the cataloguing units according to the markings they were assigned during the initial processing, and their catalogue details are recorded and entered into the Library catalogue. The item is then transferred for classification/indexing where its subject category is recorded. This concludes the processing stage. The item is then transferred for "pre-use treatment" – conservation and restoration, binding or digitization, whatever is required – or for storage on the open shelves in the reading room or to one of the stacks, according to Library policy. Depending on the situation and the decision of the person in charge in the stack or the reading room, the item may be returned for further treatment to one of the pre-use departments. Special materials, such as audio and video recordings, digital material and microfilm, undergo a process specifically for them.

C. INFORMATION SERVICES AND THE DIGITIZATION CENTER

In its new location, the National Library will constitute a meeting place between the physical and the virtual worlds, and a link between its digital and physical collections. The information and the means by which it is transferred, i.e., the computerization and information technology, are an indispensable asset for those coming to the Library. For this reason they have to be accessible to employees, visitors and users at all times, everywhere inside the building and outside it as well. Data communication in the Library must be open and accessible to all, according to law and digital technology rights. The design of the building must therefore emphasize:

- The communications and information system, which will provide internal communication within the building and external communication to the telephone and internet network, with access points – wired and wireless – throughout the building and the public areas. The communications system will provide connectivity for the Library's information workstations; for material to be presented on walls and screens; and also for users' devices, which will be able to obtain information in various formats, including audiovisual, at any time and any place in the Library.
- The computer-controlled storage system, both for the physical materials in the Library – including their conveyance and handling through all aspects of the internal working processes and/or from the service areas to the Library's customers – and for the digital materials, including digital conservation and storage of the information.
- The supervision and control systems – over every electronic element, as well as for the security and safety of the physical collections.
- The digitization center – for photographing and scanning physical items and transferring them to a digital format for the sake of conservation and accessibility. These actions necessitate conveying items, some of them rare and valuable, either in processing them, or as part of the center's ongoing work program, or to fulfill a special request. The production line of the digitization center requires temporary storage of non-rare items that have been retrieved from the stacks and await scanning, or have been scanned and await authorization from quality control before being returned to the stacks.
- The computer room, where the computer and the digital storage systems are installed. An additional copy of the digital materials will be saved outside the Library building to ensure their survival in the event of a malfunction.

A. MAIN READING ROOM

The main reading room houses the core collections: Judaica, Israel, Islam and the Middle East, general humanities, and a periodicals study area. The reading room will be built, insofar as possible, without physical separation between the areas of the different collections, so that movement between them will be direct and convenient. At the same time, each collection in the reading room will be easily identifiable by means of a special visual characteristic. The reading room will be designed in a way that makes it possible to demarcate spaces on the sides for specific collections, existing or future, which need to be protected and presented collectively. The design of the reading room will enable the Library's staff to supervise what is happening in it. The reading room will contain the components specified below. It should be designed so that, if it should become necessary to separate these, the room's openness will nevertheless be maintained.

Description of the components:

- **Service desk** – a central counter to provide readers with the following services: issuing reader cards, lending materials from the Library, inter-library loans, ordering and receiving books from the stacks, and technical assistance. The desk will be planned as a single area that faces two directions:
 - One side will face the reading room and serve its readers. It will include 4 reception stations for readers who will stand (Library employees will have the option of sitting), and will be planned so that at least one workstation is accessible to people with physical disabilities. The shift manager's desk will also be located in this section; here readers will be able to sit for consultations with the manager.
 - The other side will face outside the reading room. Here readers can borrow or return books, make enquiries, and receive books they have ordered without having to enter the reading room. This area will include 3 reception stations for people who will stand (here too, Library employees will have the option of sitting), at least one of which will be accessible for disabled people, plus two workstations for issuing reader cards, adjacent to which will be a convenient area for users to fill out forms, or for computer workstations where the forms can be completed.

The service desk will be located in an area in the reading room that is acoustically insulated, as far as possible, so that users in the room's carrels can work without disturbance.
- **A work area** – for the Library's employees will be set up at the back of the service desk. An interim storage space will be planned for this area for books waiting to be sorted, separated and distributed. This storage space will be adjacent to the system that conveys the items to and from the stacks, and close to the service desk where the books are handed to the readers. The storage space will have space for around 5,000 requested items destined for users in the reading rooms, and will have sufficient space to accommodate 25 book trolleys for researchers, an area for storing computer equipment that users can borrow, and shelving for around 10,000 microfilms of the Institute of Microfilmed Manuscripts. This area will also include a back office for the Library's employees who are not on duty at the desk, and will have an open plan containing two workstations and a coffee nook.

- **Open shelves** – All the items in the reading room – some 360,000 books, periodicals, newspapers, cassettes and microfilm – will be placed on open shelves accessible to users. The shelves in the reading room will allow items to be arranged according to collections and/or subjects, making orientation easy. Special shelves will be devoted to periodicals and to “new-on-the-shelf” items. An area between the shelves will be allocated for collecting, sorting, and temporarily arranging items brought from the carrels and from the reproduction area, prior to returning them to the shelves.

- **Carrels** – Around 450 carrels of different kinds are planned for the main reading room, as per the Characterization of Carrels and Offices (Appendix C) and the following combination:

- 200 diverse carrels in a “no talking” area.
- 50 carrels in a “noisy area” where talking is permitted.
- 30 special workstations for working with microfilm in the “no talking” area.
- 37 stations for listening to or watching music and multimedia programs, in the “no talking” area.
- 25 carrels for people with special needs, in the “no talking” area.
- 30 reading stations with comfortable, low seating: 15 in the “noisy area” and 15 in the “no talking” area.
- 48 workstations for researchers, in the “no talking” area.

The carrels will be designed to allow changes in the combination, as needed, particularly regarding the proportion between the carrels in the “no talking” area and those in the noisy area. The spacing of carrels in the reading room will allow users full accessibility, with convenient access to the open shelves. The configuration (for example, an area with a large number of carrels in the center of the hall, and intimate seating areas with just few carrels at the back of the reading room) will create areas of different character, so that users will be able to choose the kind of seating they prefer. The “noisy area” mentioned above, where talking is permitted, should be designed as an area acoustically insulated from the “no talking” area, with appropriate means of separating the two areas. The microfilm workstations will be located, for security reasons, adjacent to the microfilm collection, close to the periodicals shelves and service desk.

The carrels are intended for users of all ages, from children and teens to senior citizens. The reading room will contain carrels in a variety of designs suitable for people of different ages.

Some of the carrels will be permanently equipped with computers. Each group of carrels will be connected to a nearby network printer for the convenience of users – with or without payment, depending on the Library’s policy. All carrels will have a connection for a laptop. The Library will be able to determine the combination of the above means according to its development needs. Each carrel will permit the installation of the complete range of options.

All the carrels will be available to all users, except for the “research workstations” designated for researchers, who will need authorization to use them, according to the Library’s policy.

- **The information and reference center** – will help users use the Library's resources efficiently and benefit fully from its stores of knowledge. The center will include:

- 25 carrels, connected to printers in the reading room;
- Open shelves for 5,000 items;
- 2 reception stations for individual service (sitting);
- 3 closed reference rooms for group consultations with 2 or 3 people.

The information and reference center will be located in a conspicuous place, will be easily accessible from the entrance to the reading room, and will permit eye contact with the service desk. The possibility of operating this service beyond the regular working hours of the reading room will be considered.

- **Meeting rooms for group study** – to facilitate teamwork, group study or instructional purposes. Thirteen study rooms of various sizes will be planned for the main reading room: 8 rooms for groups of 3 people, 3 rooms for groups of 6, and 2 rooms for groups of 18-20. These study rooms will be available for use by the Library's users under the supervision of the reading room's staff. The rooms can be individually designed so that each has its own character. Even though the rooms will be acoustically insulated from the central space, they should remain open and visible from the reading room. Electricity and communications infrastructures should be planned for all the rooms. Rooms for 6 or more people will be equipped with projection facilities, and with the means of conducting conference calls with participants located elsewhere.

- **The photocopying and reproduction center** – will enable users to photocopy and scan material on a self-service basis. The center will include 10-12 integrated photocopiers, 2 payment stations, a workstation for operation and technical assistance, and a local storage area for perishable materials. This center will be located close to the service desk so staff can assist and supervise its operation. The area must be acoustically separated. An option to be considered: splitting the center into two areas so that it will be easily accessible from all parts of the main reading room.

- **Espresso Bar** – a counter for selling coffee and pastries (dairy) will be planned in the corridor (included in the gross areas) to the main reading room.

Main Reading Room – floor area requirements

Function	Net Area (sqm)	Comments
Service desk	59	
Work area	133	
Open shelves	1,670	Around 360,000 items
Carrels	1,948	450 carrels
Information services center	149	
Rooms for group study	144	13 rooms of various sizes
Photocopying and reproduction center	61	
Total, Main Reading Room	4,163	

B. READING ROOM FOR SPECIAL COLLECTIONS

The Library's special collections are the "jewel in its crown". This reading room will allow users to study rare and unique items from the Library's collections, under enhanced security and close supervision by the Library staff. The reading room will include:

- **A service desk** – for advice, instruction, and technical assistance. The desk will have 2 reception positions where people will stand (the staff will be seated) and 2 reception positions at which both parties will be seated.
- **A work area** – for Library employees will be located at the back of the service desk. The area will include a back office with 2 workstations in an open space with a place to heat food and a coffee nook, an operations area for processing and sorting items en route to and from the stacks, and storage space for around 100 ordered items. The area will also include 2 map cabinets and shelving for around 200 microfilms.
- **Open shelf** – for around 1,000 books and a map cabinet.
- **50 carrels** – for users of the reading room. Larger carrels will be available for users studying and working with special formats, such as archival material in boxes, maps, and microfilms.
- **Photocopying and reproduction center** – will include 3 service workstations for photocopying and reproduction adjacent to the service desk.
- **Rooms for group study** – for teamwork, group study and instructional purposes. 2 rooms will be planned: one for 6 people and one for 18-20 people. This room will also allow special items to be displayed to organized groups of visitors.
- **Interim storage space** – this space will be separate from the reading room but attached to it, and will contain up to 200 archive boxes. All the other special collection items will be stored in the rare-items stack, and will be brought manually to the service desk in the reading room.

The special-collections reading room will be located close to the main reading room. Entry will be secured and will be permitted only with appropriate authorization. Enhanced security, as defined by the security consultant, will be in force in the reading room.

Special Collections Reading Room – floor area requirements

Function	Net Area (sqm)	Comments
Service desk	29	
Work area	59	
Open shelves	8	1,000 items, map cabinet
Carrels	285	50 carrels
Rooms for group study	40	2 discussion rooms
Photocopying and reproduction center	10	
Special collections interim storage space	20	200 archive boxes
Total, Special Collections Reading Room	451	

C. RESEARCH CENTER

The Library is interested in encouraging research based on its collections. It will therefore have to host research centers for extended periods over several years. An area allocated for research centers, close to the reading rooms, will initially be designed as an open area without internal partitioning. The area will be planned to facilitate partitioning as needed by the research bodies, into: rooms for researchers, open workstations, and a meeting room, office and kitchenette.

Research Centers – floor area requirements

Function	Net Area (sqm)
Research centers	360
Total, Research Centers	360

D. OFFICES OF THE PUBLIC SERVICES DIVISION

Employees of the public services division supply the services described above in the research and study section. The division's offices will be located near the reading rooms and will include the following units: the division head's office, research services (lending and inter-library lending), information services (reference and instruction), content services, marketing, and support (meetings room and kitchenette).

Public Services Division – floor area requirements

Function	Net Area (sqm)
Division head's office	12
Research services	80
Information services	56
Content services	38
Marketing	20
Support	26
Total, Offices of the Public Services Division	232

A. EXHIBITS AREA

The exhibit halls will be located in the vicinity of the entrance foyer. These spaces will have a museological character whose size and quality (regarding materials and level of finishing) will comply with the highest standards of exhibition spaces. The exhibits will use multimedia and sophisticated technology. The exhibit spaces will include:

- **Permanent exhibition space** – displaying a selection of the Library’s collections.
- **Temporary exhibitions space** – a flexible space that can be divided into two rooms/spaces of different sizes, depending on the nature of the particular exhibits, or utilizing only part of the space as necessary. Part of this space will be devoted to storing elements of the exhibits and staging the exhibitions.

B. VISITOR CENTER

A visitor center will be designed close to the entrance foyer. The center will accommodate around 80 people, and will be the initial point of contact with the Library for organized groups and other visitors. The visitor center will showcase the Library’s collections and its activities in various ways, including a short film to be screened at specific times.

C. THE DIGITAL EXPERIENCE CENTER

Here visitors can experience a variety of innovative technological/digital methods that are used to provide advanced library services.

D. AUDITORIUM

The auditorium, which will seat around 400 people, will be used for conferences, performances, films (on a full screen), lectures, etc. in appropriate acoustic and lighting conditions. The auditorium will function independently of the Library’s normal opening times, as decided by the Library’s management. In order to collect payment for performances or allow advance registration, there must be a place in the entrance foyer for a ticket booth.

The auditorium will be built close to the entrance foyer so that the foyer can also serve the auditorium. If design constraints prevent this, a special foyer for the auditorium should be designed. Service rooms and auxiliary rooms should be planned for the auditorium, such as a control room, dressing room, and a room for sets.

E. SEMINAR ROOMS

The seminar rooms will be used for instruction, workshops, classes, lectures and study seminars for organized groups and internal staff activities. The area will be planned to include 4 rooms for teaching and lecturing – in both a frontal and a round-table format – with a maximum capacity of around 130 people. The rooms will be designed flexibly in two basic sizes: two rooms for 25 people and two for 40. The partitions between the rooms will be acoustic, modular and portable, making it possible to create different-sized spaces as needed. The infrastructure to be installed in the rooms will provide optimal operating conditions, among them: options for screening, smart screens, remote control from the lecturer’s position of the lighting system, air-conditioning, screening options, etc. By combining the capacity and the media infrastructure of the auditorium with the seminar rooms and the visitor center, it will be possible to hold conferences in the Library for around 400 people, with several parallel sessions being conducted simultaneously: a plenary session in the auditorium and others in the seminar rooms, the visitor center, and the music center.

F. OPERATIONS OFFICE OF THE EDUCATION AND CULTURE DIVISION

An office for coordinating and running the educational and cultural activities will be set up adjacent to the seminar rooms.

Education and Culture – floor area requirements

Function	Net Area (sqm)
Permanent exhibits	400
Temporary exhibits	800
Visitor center	120
Digital experience center	80
Auditorium and service areas	680
Seminar rooms	200
Education and culture division offices	20
Total, Education and Culture	2,300

A. ENTRANCE FOYER

The entrance foyer is the gateway to the Library, to the world of books and information. Its atmosphere will be pleasant, inviting and inspirational, and it will evoke the curiosity of visitors. Orientation maps and conspicuous directional signs will indicate the main sections of the building and how to get there. The foyer will contain a security booth, an information counter with a quick-advice station, two self-service touch-screen kiosks that provide information and execute payments, and an area with benches. An electricity and communications infrastructure will be planned for the foyer and the major corridors of the building to facilitate the installation of directional signs and digital information combined with multimedia.

B. BAG STORAGE AND CLOAKROOM

Personal bags will not be allowed into the reading rooms. Personal belongings can be taken into the reading room in transparent plastic pouches that the Library will provide. Personal bags will be stored in lockers located at the entrance to the reading rooms. A cloakroom will also be available for coats and small personal belongings.

C. SHOPS

There will be two shops in the Library, a bookshop and a souvenir shop. They will be located in a central area with high pedestrian traffic in order to attract as many customers as possible. An inventory storeroom will be located close to the shops. The shops may be operated by outside franchisees.

D. REFRESHMENTS

The refreshments area will include a meat restaurant for about 100 people, a coffee shop accommodating about 100, and a self-service cafeteria with seating for around 50, which may also be used by those who wish to bring their own food to the Library from outside. Hand-washing facilities will be provided, and means for heating home-made food may be made available.

The design of this area should take into account climatic conditions, natural light, etc., and propose solutions that take full advantage of their benefits while offsetting their limitations.

In the course of the planning, the option will be examined of operating the refreshments area beyond the Library's regular opening hours (in which case an additional exterior entrance might be constructed, or part of the entrance foyer would be used for this); in addition, a special entrance is required for food deliveries and trash disposal.

E. SYNAGOGUE

A synagogue with 50 sqm of net floor space will be established in the Library, accessible to all.

F. MULTIPURPOSE ROOM

An area with 50 sqm of net floor space will be allocated for miscellaneous purposes, as needed, and accessible to all.

G. NURSING ROOM

An area with 10 sqm of net floor space for mothers and infants will be planned in an accessible location. A sink and a changing table will be installed, as well as a refrigerator and 3-4 armchairs for breast feeding.

Public Areas – floor area requirements

Function	Net Area (sqm)
Foyer	350
Lockers and cloakroom	50
Shops	240
Dairy coffee shop	300
Meat restaurant	300
Self-service cafeteria	50
Synagogue	50
Multipurpose room	50
Nursing room	10
Total, Public Areas	1,400

This section includes the Library employees' offices, the work areas, and the operational and storage areas that support the Library's operations – where items reaching the Library are handled from the moment they are received until they are put into use for reading, study, and presentation. Ideally, the offices and work areas of the Library's employees should have windows in the outside walls, otherwise alternative methods of allowing natural light to penetrate the walls and ceilings should be found.

A. MANAGEMENT AND STAFF FUNCTIONS

The management and staff offices will be designed as a pleasant working environment with standard offices. The area of the rooms and the workstations in each department will be determined according to the Characterization of Carrels and Offices, which appears in Appendix C.

Management offices: For the CEO, chair of the board, academic director, secretariat, internal auditor, legal adviser, and fundraisers, plus a conference room with a table and seating for 24 people, and the option of placing up to 20 more chairs around the periphery.

Staff offices: Head of the administration, operations and logistics department; offices of the human resources, remuneration and training department; offices of the education and culture division; offices of the collections' development department; the finance offices; a staff meeting room for 12 people; and a kitchenette with seating for 8-10.

Management and Staff Offices – floor area requirements

Function	Net Area (sqm)
Management	86
Head of the administration, operations and logistics division	12
Human resources, remuneration and training	38
Education and culture	36
Collection development	44
Finance	96
Legal advisor	14
Fundraising	16
Internal auditor	8
Support (meeting rooms and kitchenette)	79
Total, Management and Staff Offices	429

B. THE ADMINISTRATION, OPERATIONS AND LOGISTICS DIVISION

The offices of the administration, operations and logistics division, which are responsible for operations, security, safety and storage, will be located close to a service entrance to the building, and will include: the team leader's office, an open-plan work area for 5 employees, and a covered loading ramp with a net area of some 50 sqm.

Administration, Operations and Logistics Division – floor area requirements

Function	Net Area (sqm)
Administration, operations and logistics	88
Total, Administration, Operations and Logistics	88

C. LIBRARY PROCESSES DIVISION

The library processes division is responsible for acquiring and processing items, disinfection, sorting, conservation and restoration, organizing the items and distributing them to collections. The division's area includes:

■ **The office of the head of the library processes division.**

■ **The acquisition and processing department**

All items reaching the Library – legal depositions, gifts, and acquisitions – will be routed to the receiving area. This area will include a loading ramp, a central receiving storeroom for the material received, and a work area with 3 wide tables suitable for laying out the material extracted from the boxes. A delivery room will be built next to the receiving storeroom, close to the loading ramp. Items delivered by suppliers will be put in this room where they will undergo initial sorting prior to being processed and disinfected. The acquisitions and processing department comprises three units: the acquisitions unit that is responsible for purchasing items; the legal depositions unit that is responsible for identifying items that according to law must be submitted to the Library; and a donations unit, which receives gifts of collections, from a single item to thousands. The gifts are arranged on shelves to enable the curators to examine them and decide whether to add them to the collections.

After processing the items and recording them on the computer, the items are divided into containers, according to respective departments for organizing the collection, and sent for disinfection. The work in all units of this department is essentially office work, which calls for a desk, a computer, and shelf space for storing the material currently being handled.

■ **The conservation and restoration department – disinfection and sorting**

Following the initial processing and registering, the material is transferred for disinfection to one of three disinfection chambers, and for cleaning and sorting in the workstations designated for this. A total of six wide tables are required in a single space for laying out the material. A storeroom should be planned adjacent to the sorting stations for storing the material – before, after, and during the process. The disinfection chambers will be located adjacent to the acquisitions and processing department.

■ Departments for organizing the collection

In these departments the Library material is catalogued in detail, registered for research purposes, and sorted and registered for storage purposes. At the end of this process the item is available to readers, unless it has to undergo further processing in the conservation and restoration department, or the bindery. The item is transferred to its final destination (stacks, reading room) or to the conservation department. Each department will have a room for the team leader, and workstations for the employees that should be wide enough to contain a large work surface and space for a trolley. The subdivision of each department will be determined at the detailed-planning stage. The following are the departments for organizing the collection:

- Book-cataloguing section – Hebrew, foreign languages, Arabic (including Oriental languages) – responsible for description of the books reaching the Library.
- Newspapers and periodicals section – responsible for handling local and foreign newspapers and periodicals reaching the Library. Publications in Arabic and Oriental languages are handled by the Arabic cataloguing section.
- Archives section – responsible for handling archival material reaching the Library.
- Music section – responsible for handling the musical material reaching the Library, including recordings, books, CDs, and archival material. The section also includes the National Sound Archives (Phonotèque), which records and documents unique vocal utterances for preservation and research. An audio and video recording and digitization studio will be built for this purpose in an acoustic room visible, through a soundproof window, from an equipment and control room operated by a sound technician. It will conform to usual standards for recording studios. Two rooms will be planned next to the studio for digitizing the audio and video collections.

Three storerooms will be planned in the departments for organizing the collection: a storeroom for books being processed, meant to store books en route from disinfection to the next processing stage, which will be located adjacent to the cataloguing departments; a storeroom for non-book material, intended for archives that are being processed, which will be located adjacent to the archives and music section and equipped with a large table for laying out the archive boxes; and a newspaper and periodicals storeroom, to be located adjacent to the newspapers and periodicals section, where newspapers and periodicals will be accumulated until being transferred to the bindery or to be photographed.

■ Bibliography projects

The National Library is responsible for maintaining and updating national bibliography projects, such as: The Bibliography of the Hebrew Book, the Israel Union List (ULI), the Union List of Serials (ULS) and the Index of Articles on Jewish Studies (RAMBI). The associated activities are usually executed within the department, with no need to convey items. The Kiryat Sefer department, which is not located within the department, receives all the catalogued books, and its work necessitates conveying the material. After sorting and indexing in the Kiryat Sefer department, the book is transferred to the appropriate location – a reading room or stack.

■ Conservation and restoration department – bindery

Books received from various departments in the Library – including the departments for organizing the collection, the stacks, and the reading rooms – are bound or rebound here. The bindery will be planned as a single space housing the following functions: workstations with massive, highly durable work surfaces; an open work area containing all the equipment required for binding; and a storeroom for materials.

■ Conservation and restoration department – laboratory

The laboratory provides support and ongoing treatment of rigid materials (books, parchment, photographs, letters, maps, etc.): restoration, maintenance and conservation. The laboratory is responsible for control and ongoing supervision of the conditions in which the rigid materials are kept, and for monitoring the places where they are stored, to prevent damage. The laboratory also assists in setting up exhibitions, packing materials for dispatch, etc. The items are received from various departments in the Library, and particularly from the special collections reading room. The planned laboratory will contain: designated workstations for restoration and conservation; a sink for washing materials; drying equipment; drawers for storing the material; safes; a leaf-casting machine for repairing paper; a Hollander machine for producing paper fibers; manual presses; a hydraulic press; a fume hood for working with chemicals; paper cutters; photography equipment; and a room for storing chemicals.

The floor of the laboratory will be designed to bear the weight of the equipment. Natural lighting is recommended in conjunction with UV filters and curtains. Fluorescent lighting will be installed with UV-blocking sleeves. In addition, the walls and ceiling will be painted with white paint containing titanium dioxide, which absorbs some of the UV radiation. The laboratory requires stable climatic conditions 24 hours a day, seven days a week, as required by the specific material being treated or temporarily stored in the Library. These conditions are necessary, among other things, to facilitate treatment of parchment and other sensitive materials. The desirable temperature in the laboratory is 18°C–19°C, and the relative humidity 45%–55%. Further requirements, such as ventilation, will be detailed at a later stage by the professional consultants.

Library Processes Division – floor area requirements

Function	Net Area (sqm)
Head of the library processes division	12
Acquisitions and processing department	331
Conservation and restoration department – disinfection and sorting	113
Organizing the collection	1,300
Bibliography projects	141
Conservation and restoration department – bindery	305
Conservation and restoration department – laboratory	227
Total, Library Processes Division	2,429

D. INFORMATION TECHNOLOGY DIVISION AND MAIN COMPUTER ROOM

The information technology division serves the Library's employees, users and visitors in the building, and users of the Library's internet site. The division is responsible for the computer and communications infrastructure in the building, as well as the computer infrastructure installed in all the reading rooms. The division is also responsible for implementing digitization and photographic activities. The division's work is essentially office work, except for the work of the computer technicians. The computer room and some of the division's offices will be restricted, and entry to them will be by authorization only. The division's work areas include:

- Office of the head of the information technology division.
- Computer room with independent air-conditioning 24 hours a day, including climate control, floating floor, electrical systems, UPS, fire extinguishers, low voltage and protection in accordance with the requirements determined by the professional consultants.
- Infrastructure and support office, including: a team leader and 3 computer technicians in a common workspace where large working surfaces will be installed, designed for dismantling and assembling computer equipment (this space should be located close to the computer room); operational systems – team leader and 5 employees; internet – team leader and 2 employees; and a computer equipment storeroom.
- Photography and digitization center dealing with reduction of materials into microfilm format; scanning paper sources for digital media; digital photography and digitization of audiovisual material.

The center will house the following:

- Offices of the digital content unit – team leader and 2 employees.
- Two team leaders in the photography studio.
- Photography studio – a room that can be totally darkened, containing 9 photography workstations in a single space separated by black curtains.
- Equipment and raw-materials storeroom with standard shelving, and separate closets for storing different types of material.
- Storeroom for items that have not yet been processed, including safes for protected and rare material.
- Storeroom for items after processing, including safes for protected and rare material.
- Area for preparing material to be photographed, with wide tables for spreading out the material, and shelves.
- Laboratory for developing microfilms – dark, with drainage systems for hazardous materials.
- Three large digitization workstations, including a robotic scanner workstation.

- Four small digitization workstations, including a manual scanner or a microfilm conversion workstation.
- Eight quality control workstations – standard office workstations.
- A photocopying and reproduction room for photocopying work that has been ordered or is currently requested, in addition to the photocopying machines in the reading rooms, to include: photocopying machines, scanners, and 2-3 workstations. The room will facilitate the ongoing flow of material, from its reception to its dispatch back to the storerooms or the reading room at the end of the process.

Separate lighting is required between the storage areas, the workstations, and the developing laboratory, as well as air suction to prevent the formation of dust.

Information Technology Division – floor area requirements

Function	Net Area (sqm)
Head of the information technology division	12
Infrastructure and support, including main computer room	154
Photography and digitization	404
Total, Information Technology Division	570

E. GENERAL SUPPORT

For the convenience of employees whose offices are not located in the management and staff areas, the following will be planned: 2 kitchenettes, each with seating for 8-10 employees; 3 coffee nooks, without seating; and a meeting room for 12 people.

General Support – floor area requirements

Function	Net Area (sqm)
General support	60
Total, General Support	60

F. TECHNICAL AREAS

Technical areas will be planned for the building as needed and in accordance with the directives of the professional consultants. At this stage, details of the areas will be determined on the basis of an estimate only, and the precise area will be defined in the course of the design. The technical areas that will definitely be required are: main and subsidiary machine rooms; waste-disposal/compacting room to be located on the ground floor or basement with appropriate access for garbage disposal trucks; communications rooms on each floor; office equipment storeroom and general storeroom for other equipment and cleaning materials, to be located on the ground floor or basement with vehicle access for loading and unloading, and access for authorized suppliers; a command and control center (a room for controlling and securing the building) close to the main entrance of the building; offices of the janitor and the security officer, and rooms for the guards and the cleaning personnel to rest between shifts; and a mailroom.

Technical Areas – floor area requirements

Function	Net Area (sqm)
Machine rooms	500
Waste-disposal room	50
Communications room on each floor/area	60
General storerooms	90
Command and control room	45
Offices for janitor, security personnel, and staff resting area	64
Mailroom	20
Total, Technical Areas	829

G. RESERVE

The plan of the building should leave room for a gross surrounding area of around 400 sqm to allow for future growth, with emphasis on the expanding requirements of the Library's operations.

Reserve – floor area requirements

Function	Gross Area (sqm)
Reserve	400
Total, Reserve	400

The entire Library's collections (books, periodicals, manuscripts, maps, microfilms, photographs, items in digitized media, archival material, audiovisual material, etc.) will be stored in the new building. Items that are not housed on open shelves in the reading rooms will be stored in three storage areas, known as stacks. The stacks are differentiated by their levels of service (the time between requesting the item and its receipt by the user), levels of security, and the nature and dimensions of the items stored in them:

- **A fast stack** – will store around a million items, which in at least 80% of cases should arrive in the reading rooms not more than 30 minutes from the time they are requested.
- **A slow stack** – will store around 4.5 million items at a service level of a few hours.
- **A rare items stack** – will store, at a high level of security, around 150 thousand rarely requested items.

At peak activity times, the Library is expected to handle up to 160 movements per hour of items from all the stacks, around 80% from the fast stack and 20% from the slow stack.

Items will be transported between the stacks and the reading rooms by conveyor belts, elevators and/or trolleys. The appropriate solution for each stack will be chosen at the conceptual design stage after determining the configuration of the building. The stacks grow at the rate of about 50,000 new items a year. New items will be processed mainly through the slow stack. The scale of storage noted above includes an expected growth of approximately one million items in the next 20 years.

A. THE FAST STACK

This stack will store around a million books, probably using conventional storage (shelving) or an automated method (cranes or carts and conveyor belts), or any other method that meets the service and security requirements. The method will be chosen at the conceptual design stage on the basis of economic and quality criteria, and according to the configuration of the building.

The conventional method is based on shelves (most with a depth of 25 cm) at three storage levels: a floor level and two upper levels (metal catwalks, for instance, will provide access to the items), at a height of around 3 and 6 meters. The items will be placed on a conveyor belt system, which will pass through several areas at the various levels, and ultimately will feed into an elevator that goes to the reading rooms.

The automated method is based on a Mini Load or Multishuttle system consisting of a 14-meter-high shelf construction (about 32 storage levels), where the items are stored in plastic containers or archive boxes. In the Mini Load system a crane moves along the aisles gathering plastic containers or archive boxes. In the Multishuttle system, the plastic containers are extracted by one or more parallel carts, and the boxes are stored at double depth, one behind the other on the shelf.

B. THE SLOW STACK

Around 4.5 million items will be stored, probably using the conventional method based on a system of moving shelves ("compactus") at a height of around 10 meters. In this method, items will be stored in archive boxes or containers on the shelf at a double height and depth (one box above and behind another box). Retrieving the boxes in order to remove and return the items will be done by means of a delivery collector – a forklift designed to retrieve items at a height of up to 10 meters in narrow aisles (of about 1.5 meters). The items will be transferred by elevator to the reading rooms.

C. THE RARE ITEMS STACK

Around 150,000 items will be stored on open shelves in a separate storeroom with restricted access, and secured at the highest level. Entry into this storeroom will require the presence of at least two authorized employees. The items will be conveyed manually to the reading rooms by the Library's employees. There will not be any elevators connecting this stack to the reading rooms; the elevators will be located outside the area of the rare items stack.

Description of the logistic space required for the stacks:

- All the stacks will be located in underground areas, with a potential storage height of 15 meters.
- The preferred shape for a stack area is rectangular, with proportions of 1:2 (conventional), and up to 1:4 (automated) at the most. Other shapes (triangular, trapezoidal etc.) should be avoided in the storage areas as far as possible. The width of the passageways leading to the stacks should be designed according to the size of the storage installations and the conveying equipment to be used. The design of the storage areas should contain as few columns as possible.
- In considering where to locate the stacks, particularly the fast stack, and the reading rooms, particularly the main reading room, priority should go to the efficiency of the conveyance route (optimizing the level of service and minimizing the chances of malfunctions).
- Choosing the storage method and a detailed description of the storage installations in the stacks will be done in collaboration with the professional storage consultant on the planning team.
- The load-bearing capacity of the floors of the stacks will be compatible with the definitions of the storage installations. Detailed directives on this subject will be issued by the construction consultant on the planning team.
- On the issue of the safety and the invulnerability of the stacks, as required by the relevant standards and with an emphasis on preventing loss or damage to the stored items, detailed directives and requirements will be issued by the safety consultant on the planning team.
- Regarding the security of the stacks, detailed directives will be issued by the security consultant on the planning team, according to the requirements detailed in the chapter on security, below.

Underground Stacks – floor area requirements

Component	Net Area (sqm, rounded)
Fast stack	1,000
Rare items stack	500
Slow stack	2,500
Operational area	600
Total, Underground Stacks	4,600

A. PARKING

Private vehicles will park in an underground parking garage, which will be designed according to the size of the plot and the entrances and exits for vehicles to/from the surrounding streets. The number of parking spaces will be determined according to the accepted parking standards in Jerusalem, and the directives contained in the Parking Appendix and the provisions of Town Planning Scheme No. 15050. When the public-transportation routes for the vicinity of the building are completed and functioning, the Library intends to allow the conversion of parking areas to building areas. In view of this, the floor-to-ceiling distance in the planned underground parking garage will be higher than is usual in standard parking facilities.

Type of Parking	Type of Vehicle	Parking Spaces	Gross Area (sqm)
Underground parking for private vehicles			
Employees	Private	100	
Visitors and users	Private	200	
Total			12,000
Parking for buses			
Waiting area and points for picking up and dropping off passengers	Buses	4	400
Operational parking for deliveries			
Above-ground/underground operational parking	Commercial and trucks	6	600

B. ACCESS AND ENTRY INTO THE BUILDING

The Library will have several entrances, all of which will allow both entry and exit:

- **The main entrance** – to the building will channel users, visitors, and employees directly to the entrance foyer, from which all sections of the Library can be reached. This entrance will be open to the public attending activities of the education and culture section, as well as to people using the information and reference services center, which will also be open in the evenings. For pedestrians and users of public transportation, the main entrance to the building will be via the central plaza, while for those arriving by car or by organized transport a route will be created from the parking garage and from the passenger drop-off point.
- **The option of a secondary entrance** – for employees and possibly for specific target populations, such as regular users or people connected to research centers, may be provided according to the Library's policy.
- **One or two operational entrances** – for delivery and haulage vehicles: an entrance with a loading ramp to be used by trucks and commercial vehicles for delivering boxes of books (or any other items) and other equipment intended for the central processing storeroom and the stacks. An additional operational entrance will be used for deliveries to the shops and the restaurants. These entrances will also provide round-the-clock access to the Library's installations for maintenance personnel and technicians.
- **The entrance to the underground parking garage for private vehicles** – will be from Ruppin Blvd. as per the instructions in the Travel Appendix.

Emergency exits from the building and from the underground parking garage will be designed in accord with the directives of the safety consultant on the planning team.

C. OUTDOOR AREAS

The following outdoor areas will be planned for the plot on which the Library will be built:

- A large and inviting **entrance plaza** that will lead visitors from the streets bordering the area to the main entrance of the building. The plaza will be a place for individuals and groups to congregate before entering the building, and will also provide shaded areas for sitting and waiting. The size of the plaza will be compatible with the configuration of the plot and the building's location on it. The plan for the plaza must take into account the Library's surroundings and its central location in the National Precinct.

- The option will be examined of building an internal garden and/or adjacent patio/s and placing tables there for the restaurant and the coffee shop.

- The option of placing permanent or temporary artworks in the outdoor area, including the entrance plaza, will be considered.

A. THE FOLLOWING TABLE SUMMARIZES THE AREAS, TOGETHER WITH AN ESTIMATED GROSS-NET COEFFICIENT

Function	Net Area (sqm)	Gross-Net Ratio Coefficient	Gross Area (sqm)
Main reading room	4,163	1.6	6,661
Special collections reading room	451	1.6	722
Research centers	360	1.6	576
Public services division	232	1.6	371
Education and culture	2,292	1.6	3,667
Public areas	1,400	1.6	2,240
Management and staff	430	1.6	688
Administration, operations and logistics division	88	1.6	141
Library processes division	2,429	1.6	3,886
Information technology division	570	1.6	912
General support – departments	60	1.6	96
Technical areas	829	1.0, 1.4	941
Reserve	400	1	400
Stacks	4,600	1.4	6,440
Total Area of the Building	18,304		27,741
Parking			13,000
Total Area including Parking			40,741

B. THE FOLLOWING TABLE PROVIDES THE ESTIMATED BREAKDOWN BETWEEN THE ABOVE-GROUND AND UNDERGROUND AREAS

Function	Net Area (sqm)	Gross-Net Coefficient	Gross Area (sqm)
Area above ground			
Research and study	5,206	1.6	8,330
Education and culture	2,292	1.6	3,667
Public areas	1,400	1.6	2,200
Library operations	2,806	1.6	4,489
Area underground			
Library operations	2000	Various	2,515
Stacks	4,600	1.4	6,440
Total area of the Building	18,304		27,741
Parking			13,000
Total Area including Parking			40,741

The Library's security arrangements must fulfill the needs of three major areas: the security of employees and visitors to the Library; protection of the Library's collections – both physically and in terms of copyrights; and prevention of theft or mutilation of the Library's property.

The body in charge of security in the Library will work in conjunction with the Israel Police personnel responsible for securing public facilities, and with the security personnel of the Government Complex. The security systems will comply with the standards of the police, the fire and rescue services, the Home Front Command, and the insurance companies as required, and will operate at a level that is appropriate to the Library's proximity to the Knesset and government ministries. Securing the Library will involve several rings – physical, technological and human – that will be coordinated according to the threats analyzed and defined from time to time by the relevant professional bodies. The Library building will be secured 7 days a week, 24 hours a day.

The security concept of the Library defines several levels divided into various areas, as detailed below:

■ **Level 1 – Public area**

- **Level 1a – Public area open to all**, which allows unrestricted movement and minimal means of identification and control. At this level, none of the Library's treasures are exposed. Security arrangements are determined according to the standards of a public institution, and subject to the directives of the Israel Police and the General Security Service, in light of the proximity to the Knesset.
- **Level 1b – Controlled public area**, where traffic is under the Library's security control, and may include supervised exposure of the Library's treasures. Entry into some of these areas will be permitted only if arranged in advance; entry will be controlled and restricted, and in certain cases may require being accompanied by the Library's employees.

■ **Level 2 – Research and study areas**

- **Level 2a – General research and study area**, which allows direct exposure to the Library's collections. Entry into this area will be restricted and controlled, and supervisory devices will be installed at the entry and the exit. Movement in areas defined at this level will be documented (cameras). The public will be required to leave their bags in lockers, place their personal belongings in transparent plastic pouches that the Library will provide and enter these areas only with the pouches. Each reader will be provided with a "reader's card" that will define the services and the areas he is entitled to use. All the items in these areas will be marked and secured, and the areas themselves will be protected by several rings of security, overt and covert, according to the demands of the Library's security authorities.
- **Level 2b – Research and study area with enhanced security**, where the user will be directly exposed to valuable and/or rare items from the Library's treasures. Enhanced supervision will operate in this area. Bags and personal belongings will not be allowed into areas defined at this level.

■ Level 3 – Storage and operational areas

- **Level 3a – Stacks**, the entry to which will be controlled, restricted and documented, and will be permitted only to authorized Library personnel. The whole storeroom area will be fully covered by security and documentation systems. No material may be removed from the stacks without the supervision and authorization of the designated Library personnel. Items liable to be stolen (because of their size, such as microfilms) will be kept in an area facilitating maximum supervision of them, and will be marked insofar as possible.
- **Level 3b – Rare items stack**, a separate storeroom with restricted access, and secured at the highest level. Entry into this area requires the presence of at least two authorized employees.
- **Level 3c – General operational area**, the area of the Library's offices, which will be closed off and separate from the public areas. Entry into this area will be permitted only to employees with an employee's card or any other accepted means of identification (biometric, facial features, etc.). Guests and invitees will wait at a closed door equipped with an intercom; after they identify themselves satisfactorily, the door will be opened by an authorized employee. Additional security measures will be taken in the offices as required by the security consultant.
- **Level 3d – The book handling area** will be restricted and entry will be permitted only to authorized personnel. Enhanced security measures will be in force in this area.

The movement of suppliers and service providers in all areas of the Library will be permitted according to the nature of each supplier's work and Library policy, utilizing personal means of identification.

The following table details the levels of security in the different areas of the Library:

Section	Area	Security Level	Comments
Research and Study	Main reading room	2a	Including the reproduction area
	Work area	3c	
	Customer services – division offices	3c	
	Special collections reading room	2b	
	Information services center	2a	
	Lending	2a	
	Research centers	3c	Research centers personnel will have specific authorization to spend time in certain operational areas
Education and culture	Exhibits	1b	
	Auditorium	1a	Only by advance arrangement
	Seminar rooms	1a	Only by advance arrangement
Public areas	Main foyer	1a	
	Shops	1a	
	Coffee shop and restaurant	1a	
Administration, operations and logistics	Staff offices	3c	
	Processing, disinfection and collecting	3d	
	Treatment and conservation of books	3d	
Stacks	Fast and slow	3a	
	Rare items	3b	
Technical areas	Technical areas	3c	

The matrix presented below of the connections and links between the various functions, reflects the Library's requirements. The matrix may be updated as the planning process progresses.

[illegible]

The Organizational Structure of the National Library

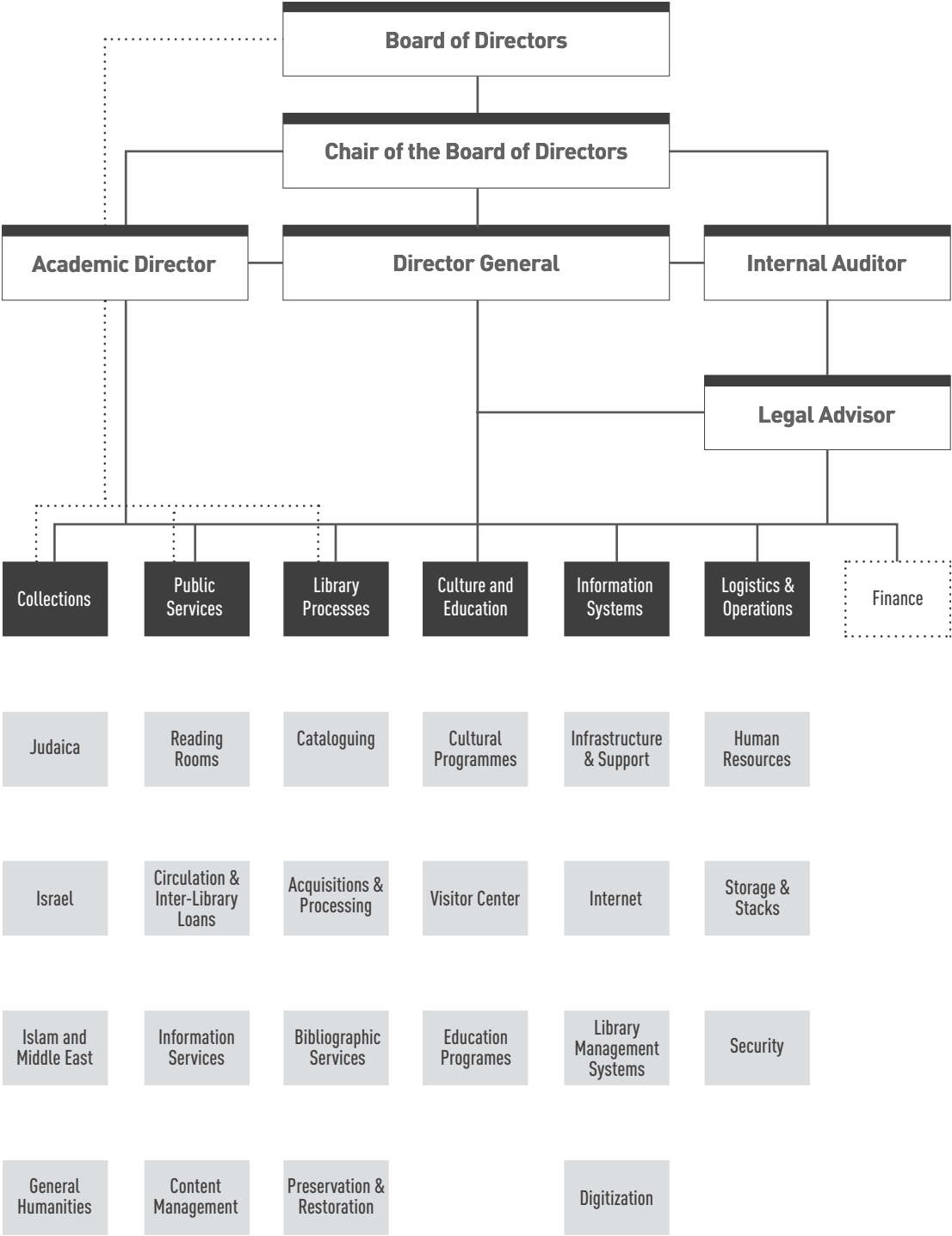


Table of Library Personnel

Division	Number of Employees
Management and staff	10
Administration, operations and logistics	12
Finance	12
Collections (curatorship)	5
Culture and education	5
Library processes	168
Information technology	33
Public services	37
Total Personnel	282

The Library is expected to employ 282 full-time and part-time employees.

With the aim of creating a uniform standard while at the same time allowing maximum design flexibility, the following types of carrels and offices have been defined:

A. CARRELS

Every carrel is for a single user. Each carrel will have a chair, adequate lighting for reading documents, computer connectivity (for electricity and communications), and at least two electric outlets.

Carrel	Area (sqm)	Contents
Carrel	3-4	- Reading desk
Expanded carrel	5-6	- Reading desk
Researcher's workstation	5-6	- Partitions - Reading table - Book-storage trolley
Informal reading stations	3-4	- Armchair, sofa or floor cushion - Low table
Listening/watching workstation	4-5	- Partitions - Reading table
Workstation for people with special needs	About 6	- Adjustable desk - Adjustable chair

B. OFFICES

Office	Area (sqm)	Contents
CEO, chair of the board, academic director	About 18	- Desk with seating for 2 guests - Meeting table for 4-6 people, or, alternatively, couches and chairs - 2-3 storage cabinets
Division head	About 12	- Desk with seating for 3 guests - 2-3 storage cabinets
Department head, team leader	About 8	- Desk with seating for 2 guests - 2 storage cabinets
Office employee	About 6	- Individual, partitioned workstation with partitions in an open-plan space, or unpartitioned workstations in a room for two or several employees - Desk with seating for 1-2 guests - Storage cabinet
Secretariat	About 8	- Open-plan space with counters or desks suitable for receiving 1-2 guests - 2-3 storage cabinets, fax, photocopier, shredder.

C. OPERATIONS (OPEN WORKSTATIONS)

Workstation	Area (sqm)	Contents
Book-handling workstation	About 9	<ul style="list-style-type: none">- Partitions between the workstations- Wide desk that can be extended- Book shelf above the desk- Book-storage trolley
Conservation and restoration workstation	About 9	<ul style="list-style-type: none">- Partitions between the workstations- Wide desk- Book-storage cabinet
Photography and digitization workstation	About 9	<ul style="list-style-type: none">- Work surfaces- Photocopiers- 2 book-storage trolleys
Bindery workstation	About 9	<ul style="list-style-type: none">- Wide desk

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
1	Management	Management Offices	Management	CEO / Chair / Academic Director	3		18	54	54	86
2	Management	Management Offices	Management	Secretariat	2		8	16	16	26
3	Management	Management Offices	Management	Assistant to the Chair	1		6	6	6	10
4	Management	Management Offices	Management	Waiting Area			1	2	2	2
5	Management	Management Offices	Management	Support Area			2	4	8	13
6	Management	Management Offices	Fundraising	Department Head / Team Leader	2		8	16	16	26
7	Management	Management Offices	Legal Advisor	Department Head / Team Leader	1		8	8	8	13
8	Management	Management Offices	Legal Advisor	Filing Cabinet			1	6	6	10
9	Management	Management Offices	Internal Auditor	Department Head / Team Leader	1		8	8	8	13
10	Administration, Operations and Logistics	Staff Offices	Head of Administration, Operations, and Logistics Division	Division Head	1		12	12	12	19
11	Administration, Operations and Logistics	Staff Offices	Human Resources, Remuneration, and Training	Department Head / Team Leader	1		8	8	8	13
12	Administration, Operations and Logistics	Staff Offices	Human Resources, Remuneration, and Training	Office Employee	4		6	24	24	38
13	Administration, Operations and Logistics	Staff Offices	Human Resources, Remuneration, and Training	Filing Cabinet			1	6	6	10
14	Finance	Staff Offices	Finance	Division Head	1		12	12	12	19
15	Finance	Staff Offices	Finance	Department Head / Team Leader	3		8	24	24	39

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
16	Finance	Staff Offices	Finance	Office Employee	8		6	48	48	77
17	Finance	Staff Offices	Finance	Filing Cabinet		2	6	12	12	19
18	Collection Development (Curators)	Staff Offices	Collection Development (Curators)	Division Head	1		12	12	12	19
19	Collection Development (Curators)	Staff Offices	Collection Development (Curators)	Curators	4		8	32	32	52
20	Education and Culture	Staff Offices	Education and Culture	Division Head	1		12	12	12	19
21	Education and Culture	Staff Offices	Education and Culture	Office Employee	4		6	24	24	38
22	Management – General	Management Offices	Meeting Rooms	Conference Room		1	20	20	20	32
23	Management – General	Management Offices	Meeting Rooms	Conference Room		1	44	44	44	70
24	Management – General	Management Offices	Kitchenette	Kitchenette		1	15	15	15	24
25	Management and Staff Offices				38				430	688
26	Administration, Operations and Logistics	Division Offices	Operations and Logistics	Department Head / Team Leader	1		8	8	8	13
27	Administration, Operations and Logistics	Division Offices	Operations and Logistics	Office Employee	5		6	30	30	48
28	Administration, Operations and Logistics	Administration, Operations and Logistics	Operations and Logistics	Loading Ramp				50	50	80
29	Library Processes	Library Processes	Head of the Library Processes Division	Division Head	1		12	12	12	19
30	Library Processes	Acquisitions and Processing Department	Processing – Main Storeroom	Processing – Main Storeroom – Prior to Disinfection				70	143	229

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)	
31	Library Processes	Acquisitions and Processing Department	Processing – Main Storeroom	Work Area			3	9	27	27	43
32	Library Processes	Acquisitions and Processing Department	Suppliers Room						20	20	32
33	Library Processes	Acquisitions and Processing Department	Acquisitions	Department Head / Team Leader	1		8	8	8	8	13
34	Library Processes	Acquisitions and Processing Department	Acquisitions	Book-Treatment Workstation	4		9	36	36	36	57
35	Library Processes	Acquisitions and Processing Department	Legal Depositions	Department Head / Team Leader	1		8	8	8	8	13
36	Library Processes	Acquisitions and Processing Department	Legal Depositions	Book-Treatment Workstation	4		9	36	36	36	57
37	Library Processes	Acquisitions and Processing Department	Gifts	Book-Treatment Workstation	6		9	54	54	54	86
38	Library Processes	Conservation Lab	Disinfection Bubble	Disinfection Bubble			3	21	63	63	100
39	Library Processes	Conservation Lab	Sorting Workstations	Workstation			6	5	30	30	48
40	Library Processes	Conservation Lab	Storing during the Process of Being Sorted	Storage					21	21	33
41	Library Processes	Organizing the Collection	Hebrew Catalogue	Department / Unit Head / Team Leader	1		8	8	8	8	13
42	Library Processes	Organizing the Collection	Hebrew Catalogue	Book-Treatment Workstation	9		9	80	80	80	128
43	Library Processes	Organizing the Collection	Foreign-Language Catalogue	Department Head / Team Leader	1		8	8	8	8	13
44	Library Processes	Organizing the Collection	Foreign-Language Catalogue	Book-Treatment Workstation	28		9	250	250	250	399
45	Library Processes	Organizing the Collection	Arabic Catalogue	Department Head / Team Leader	1		8	8	8	8	13

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
46	Library Processes	Organizing the Collection	Arabic Catalogue	Book-Treatment Workstation	17		9	152	152	243
47	Library Processes	Organizing the Collection	Book-Treatment Storeroom	In-Treatment Storeroom	-				16	26
48	Library Processes	Organizing the Collection	Archives	Department Head / Team Leader	1		8	8	8	13
49	Library Processes	Organizing the Collection	Archives	Book-Treatment Workstation	18		9	161	161	257
50	Library Processes	Organizing the Collection	Manuscripts	Department Head / Team Leader	1		8	8	8	13
51	Library Processes	Organizing the Collection	Manuscripts	Book-Treatment Workstation	9		9	80	80	128
52	Library Processes	Organizing the Collection	Audiovisual	Department Head / Team Leader	1		8	8	8	13
53	Library Processes	Organizing the Collection	Audiovisual	Book-Treatment Workstation	14		9	125	125	200
54	Library Processes	Organizing the Collection	Audiovisual	Recording Studio			1	24	24	38
55	Library Processes	Organizing the Collection	Audiovisual	Audiovisual Digitization Rooms			2	15	30	48
56	Library Processes	Organizing the Collection	Non-Book-Treatment Storeroom	In-Treatment Storeroom					73	117
57	Library Processes	Organizing the Collection	Periodicals	Department Head / Team Leader	1		8	8	8	13
58	Library Processes	Organizing the Collection	Periodicals	Book-Treatment Workstation	12		9	107	107	171
59	Library Processes	Organizing the Collection	Periodicals	Periodicals Storeroom					146	233
60	Library Processes	Bibliography Projects	Sorting and Kiryat Sefer	Department Head / Team Leader	1		8	8	8	13

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
61	Library Processes	Bibliography Projects	Sorting and Kiryat Sefer	Book-Treatment Workstation	7		9	62	62	100
62	Library Processes	Bibliography Projects	The Israel Union List (ULI)	Book-Treatment Workstation	2		9	18	18	29
63	Library Processes	Bibliography Projects	RAMBI (Jewish Studies Articles)	Department Head / Team Leader	1		8	8	8	13
64	Library Processes	Bibliography Projects	RAMBI (Jewish Studies Articles)	Book-Treatment Workstation	5		9	45	45	71
65	Library Processes	Conservation Lab	Bindery	Department Head / Team Leader	1		8	8	8	13
66	Library Processes	Conservation Lab	Bindery	Bindery Workstation	19		9	171	171	274
67	Library Processes	Conservation Lab	Bindery	Materials Storeroom				6	6	10
68	Library Processes	Conservation Lab	Bindery	Bindery Equipment				120	120	192
69	Library Processes	Conservation Lab	Laboratory	Department Head / Team Leader	1		8	8	8	13
70	Library Processes	Conservation Lab	Laboratory	Conservation Workstation	9		9	84	84	134
71	Library Processes	Conservation Lab	Laboratory	Chemicals Room				15	15	24
72	Library Processes	Conservation Lab	Laboratory	Conservation Equipment				120	120	192
73	Information Technology	Information Technology	Division Head	Division Head	1		12	12	12	19
74	Information Technology	Information Technology	Infrastructure	Department Head / Team Leader	1		8	8	8	13
75	Information Technology	Information Technology	Infrastructure	Computer Technicians	3		9	28	28	44

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
76	Information Technology	Information Technology	Operational Systems	Department Head / Team Leader	1		8	8	8	13
77	Information Technology	Information Technology	Operational Systems	Office Employee	5		6	30	30	48
78	Information Technology	Information Technology	Internet	Department Head / Team Leader	1		8	8	8	13
79	Information Technology	Information Technology	Internet	Office Employee	2		6	12	12	19
80	Information Technology	Main Computer Room	Main Computer Room	Main Computer Room				35	35	56
81	Information Technology	Main Computer Room	Main Computer Room	Computer Storeroom				25	25	40
82	Information Technology	Photography and Digitization	Digital Content	Department Head / Team Leader	1		8	8	8	13
83	Information Technology	Photography and Digitization	Digital Content	Office Employee	7		6	42	42	67
84	Information Technology	Photography and Digitization	Studio	Department Head / Team Leader	2		8	16	16	26
85	Information Technology	Photography and Digitization	Studio	Photography / Scanning Studio Workstations	9		9	83	83	132
86	Information Technology	Photography and Digitization	Studio	Storeroom Prior to Photography / Digitization				15	15	24
87	Information Technology	Photography and Digitization	Studio	Equipment and Raw Materials Storeroom				10	10	16
88	Information Technology	Photography and Digitization	Studio	Staging Area		3	9	27	27	43
89	Information Technology	Photography and Digitization	Studio	Microfilm Development Laboratory				20	20	32
90	Information Technology	Photography and Digitization	Studio	Large Digitization Workstation		3	20	60	60	96

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
91	Information Technology	Photography and Digitization	Studio	Small Digitization Workstation		4	12	48	48	77
92	Information Technology	Photography and Digitization	Studio	Quality Control and Graphics Workstations	5		6	30	30	48
93	Information Technology	Photography and Digitization	Studio	Storeroom Following Photography / Digitization				15	15	24
94	Information Technology	Photography and Digitization	Photocopying Services	Internal Photocopy and Reproduction Room	-			30	30	48
95	General	General	Meeting Room	Conference Room		1	12	12	12	19
96	General	General	Kitchenette	Kitchenette		2	15	30	30	48
97	General	General	Coffee Corner	Coffee Nook		3	6	18	18	29
98	Management and Staff – Departments				221				3,147	5,035
99	Public Services – Offices	Public Services	Division Head	Division Head	1		12	12	12	19
100	Public Services – Offices	Research Services	Unit Head	Department Head / Team Leader	1		8	8	8	13
101	Public Services – Offices	Research Services	Lending – Main Room	Office Employee	5		6	30	30	48
102	Public Services – Offices	Research Services	Inter-Library Lending	Office Employee	4		6	24	24	38
103	Public Services – Offices	Research Services	Lending – Special Collections	Office Employee	3		6	18	18	29
104	Public Services – Offices	Information Services	Unit Head	Department Head / Team Leader	1		8	8	8	13

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
105	Public Services – Offices	Information Services	Employees	Office Employee	5		6	30	30	48
106	Public Services – Offices	Information Services	Projects	Office Employee	3		6	18	18	29
107	Public Services – Offices	Content Services	Unit Head	Department / Unit Head / Team Leader	1		8	8	8	13
108	Public Services – Offices	Content Services	Employees	Office Employee	2		6	12	12	19
109	Public Services – Offices	Content Services	Projects	Office Employee	3		6	18	18	29
110	Public Services – Offices	Marketing	Unit Head	Department Head / Team Leader	1		8	8	8	13
111	Public Services – Offices	Marketing	Employees	Office Employee	1		6	6	6	10
112	Public Services – Offices	Marketing	Projects	Office Employee	1		6	6	6	10
113	Public Services – Offices	Public Services	Meeting Room	Conference Room		1	20	20	20	32
114	Public Services – Offices	Public Services	Coffee Nook	Coffee Nook		1	6	6	6	10
115	Public Services	Main Reading Room	Service Desk – Lending to the Reading Rooms	Operations Desk		5	6	29	29	47
116	Public Services	Main Reading Room	Service Desk – Home Lending	Operations Desk		3	6	18	18	28
117	Public Services	Main Reading Room	Service Desk – Issuing Cards	Operations Desk		2	6	12	12	19
118	Public Services	Main Reading Room	Work Area	Office Employee		2	6	12	12	19
119	Public Services	Main Reading Room	Work Area	Coffee Nook		1	6	6	6	10

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
120	Public Services	Main Reading Room	Work Area	Operational Area – Reception and Sorting of Books				40	40	64
121	Public Services	Main Reading Room	Work Area	Storeroom for Books Waiting to be Processed				75	75	120
122	Public Services	Main Reading Room	Open Shelf – Judaica	Open Shelf					422	675
123	Public Services	Main Reading Room	Open Shelf – Islam	Open Shelf					375	600
124	Public Services	Main Reading Room	Open Shelf – General	Open Shelf					563	900
125	Public Services	Main Reading Room	Open Shelf – Music and Music Archive	Open Shelf					2	4
126	Public Services	Main Reading Room	Open Shelf – Israel	Open Shelf					234	375
127	Public Services	Main Reading Room	Open Shelf – Periodicals – Display	Open Shelf					30	48
128	Public Services	Main Reading Room	Open Shelf – Collection and Sorting Area						10	16
129	Public Services	Main Reading Room	Microfilm – General	Microfilm Storage					20	32
130	Public Services	Main Reading Room	Microfilm – Institute	Microfilm Storage					13	21
131	Public Services	Main Reading Room	Carrels	Carrel		250	4	914	914	1,462
132	Public Services	Main Reading Room	Carrels	“Noisy” Area		30	4	110	110	175
133	Public Services	Main Reading Room	Carrels	Microfilm Workstation		30	5	162	162	259
134	Public Services	Main Reading Room	Carrels	Listening / Watching Workstation		37	5	169	169	271

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
135	Public Services	Main Reading Room	Music Hall					80	80	128
136	Public Services	Main Reading Room	Carrels	Workstation for Disabled People		25	6	153	153	244
137	Public Services	Main Reading Room	Carrels	Alternative Carrel		30	3	96	96	153
138	Public Services	Main Reading Room	Carrels	Researcher Workstation		48	6	265	265	424
139	Public Services	Main Reading Room	Information and Reference Center	Open Shelf					23	38
140	Public Services	Main Reading Room	Information and Reference Center	Reference Workstation	2		6	12	12	19
141	Public Services	Main Reading Room	Information and Reference Center	Reference Room	3		7	22	22	35
142	Public Services	Main Reading Room	Information and Reference Center	Carrels		25	4	91	91	146
143	Public Services	Main Reading Room	Room for Group Study – 3 Participants	Conference Room		8	6	48	48	77
144	Public Services	Main Reading Room	Room for Group Study – 6 Participants	Conference Room		3	12	36	36	58
145	Public Services	Main Reading Room	Room for Group Study – 14 participants	Conference Room		2	30	60	60	96
146	Operations and Logistics	Main Reading Room	Reproductions Center	Public Services Workstation		14	3	45	45	73
147	Operations and Logistics	Main Reading Room	Reproductions Center	Employee		1	6	6	6	10
148	Operations and Logistics	Main Reading Room	Reproductions Center	Equipment Storeroom		1	10	10	10	16
149	Public Services	Special Collections Reading Room	Service Desk	Operations Desk		5	6	29	29	47

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
150	Public Services	Special Collections Reading Room	Work Area	Office Employee		2	6	12	12	19
151	Public Services	Special Collections Reading Room	Work Area	Coffee Nook		1	6	6	6	10
152	Public Services	Special Collections Reading Room	Work Area	Operational Area – Reception and Sorting of Books				20	20	32
153	Public Services	Special Collections Reading Room	Work Area	Storeroom for Books Waiting to be Processed				21	21	33
154	Public Services	Special Collections Reading Room	Reproductions Center	Public Services Workstation		3	3	10	10	16
155	Public Services	Special Collections Reading Room	Carrels	Large Workstation		50	6	285	285	456
15	Public Services	Special Collections Reading Room	Carrels	Microfilm Workstation			5	-	-	-
157	Public Services	Special Collections Reading Room	Room for Group Study – 6 Participants	Conference Room		1	10	10	10	16
158	Public Services	Special Collections Reading Room	Room for Group Study – 20 participants	Conference Room		1	30	30	30	48
159	Public Services	Special Collections Reading Room	Open Shelf – Books	Open Shelf					5	8
160	Public Services	Special Collections Reading Room	Open Shelf – Maps	Map Cabinet					3	5
161	Public Services	Special Collections Reading Room	Special Collections Storeroom					20	20	32
162	Research Centers	Research Centers	Research Centers					360	360	576
163 Research and Study									5,206	8,330
164	Education and Culture	Education and Culture	Exhibits	Permanent Exhibit				400	400	640

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
165	Education and Culture	Education and Culture	Exhibits	Temporary Exhibits				800	800	1,280
166	Education and Culture	Education and Culture	Visitor Center	Visitor Center		1	120	120	120	192
167	Education and Culture	Education and Culture	Digital Experience	Digital Experience		1	80	80	80	128
168	Education and Culture	Education and Culture	Auditorium	Auditorium		1	560	560	560	896
169	Education and Culture	Education and Culture	Auditorium	Auditorium – Auxiliary Rooms		1	40	40	40	64
170	Education and Culture	Education and Culture	Auditorium Foyer	Auditorium Foyer			80	80	80	128
171	Education and Culture	Education and Culture	Seminar Rooms (Classrooms)	Small Seminar Rooms (25 people)		2	40	80	80	128
172	Education and Culture	Education and Culture	Seminar Rooms (Classrooms)	Large Seminar Rooms (40 people)		2	60	120	120	192
173	Education and Culture	Education and Culture	Education and Culture	Education and Culture Division's Office		1	12	12	12	19
174 Education and Culture									2,292	3,667
175	Public Areas	Public Areas	Main Foyer	Main Foyer				350	350	560
176	Public Areas	Public Areas	Lockers and Cloakroom	Lockers and Cloakroom		200	0	50	50	80
177	Public Areas	Public Areas	Bookshop	Bookshop				150	150	240
178	Public Areas	Public Areas	Shop Storeroom	Shop Storeroom				40	40	64
179	Public Areas	Public Areas	Souvenir Shop	Souvenir Shop				50	50	80

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
180	Public Areas	Public Areas	Coffee Shop	Coffee Shop				300	300	480
181	Public Areas	Public Areas	Meat Restaurant	Meat Restaurant				300	300	480
182	Public Areas	Public Areas	Self-service Cafeteria – 40 People	Self-service Cafeteria – 40 People				50	50	80
183	Public Areas	Public Areas	Synagogue	Synagogue				50	50	80
184	Public Areas	Public Areas	Multipurpose Room	Multipurpose Room				50	50	80
185	Public Areas	Public Areas	Nursing Room	Nursing Room				10	10	16
186 Public Areas									1,400	2,240
187	Technical Areas	Technical Areas	Machine Rooms	Machine Rooms				500	500	500
188	Technical Areas	Technical Areas	Waste-disposal Room	Waste-disposal Room				50	50	50
189	Technical Areas		Communications Room	Communications Room		6	10	60	60	84
190	Technical Areas	Administration, Operations and Logistics	Office Equipment Storeroom	Office Equipment Storeroom				40	40	56
191	Technical Areas	Administration, Operations and Logistics	General Storeroom	General Storeroom				50	50	70
192	Technical Areas	Administration, Operations and Logistics	Command and Control Center (Building and Security)	Command and Control Center (Building and Security)				45	45	63
193	Technical Areas	Administration, Operations and Logistics	Janitor	Janitor				12	12	17
194	Technical Areas	Administration, Operations and Logistics	Security Officer	Security Officer				12	12	17

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
195	Technical Areas	Administration, Operations and Logistics	Security Personnel's Room	Security Personnel's Room				20	20	28
196	Technical Areas	Administration, Operations and Logistics	Mailroom	Mailroom				20	20	28
197	Technical Areas	Administration, Operations and Logistics	Cleaning Staff's Room	Room and Storage				20	20	28
198 Technical Areas									829	941
199	Reserve	Reserve	Reserve	Reserve					400	400
200 Reserve									400	400
201	Fast Stacks	General Storage	Fast Stacks					1,000	1,000	1,400
202	Rare Items Stacks	General Storage	Rare Items Stacks					500	500	700
203	Slow Stacks	General Storage	Slow Stacks					2,500	2,500	3,500
204	Operational Area	General Storage	Operational Area					600	600	840
205 Stacks									4,600	6,440
206 Total Building Areas									18,304	27,741
207	Parking	Parking	Parking	Employee Parking		100	40	4,000	4,000	4,000
208	Parking	Parking	Parking	Visitor Parking		200	40	8,000	8,000	8,000
209	Parking	Parking	Parking	Bus Parking		4	100	400	400	400

FLOOR AREA REQUIREMENTS

COMPETITION DESIGN BRIEF

No.	Division	Department	Unit	Function	No. of Workstations for Personnel	No. of Workstations excl. Personnel	Net Area of Workstation (sqm)	Workstation Area (sqm)	Net Area (sqm)	Gross Area (sqm)
210	Parking	Parking	Parking	Operational Parking		6	100	600	600	600
211 Parking									13,000	13,000
212 Total Area including Building and Parking									31,304	40,741

The National Library stores a wide range of items made of different materials, such as antique paper, leather and parchment books, documents, photographs, and magnetic media. Each material has its own special needs. The lifespan of each item depends on its specific characteristics and can be extended by means of optimal environmental conditions.

A. ENVIRONMENTAL CONDITIONS

The major factors affecting the conservation of material in libraries and archives are temperature, relative humidity, lighting, and air quality. Maintaining these conditions according to the highest accepted standards worldwide is the most effective method of extending the shelf life of the collections. These conditions must be met and maintained without compromise, and they must be monitored at all times by an environmental control program.

B. TEMPERATURE AND RELATIVE HUMIDITY

Despite changes in the weather and seasons, stable environmental conditions should be maintained insofar as possible at all times.

- Conditions for storing paper, leather and parchment: the maximum recommended storage temperature is 18°C. If people are generally present in this space, the temperature can be raised to 20°C to make it more comfortable for working. It is recommended to store the materials at a fixed relative humidity between 45% and 55%, with a maximum fluctuation of 3%. The relative humidity should never exceed 55% so that mold and mildew will not develop.
- Storage conditions of photographs and media: it is recommended to store all materials according to their specific definitions. If this is not possible, the compromise that is best for all the materials should be implemented. The following describes the storage needed for some of the materials in the Library's collections:
- Photographic materials and microfilms: these should be stored at a relatively low temperature with low humidity. The lower the temperature (0°C-17°C) the better, provided that the relative humidity remains low (30%-40%). If it is decided to maintain a very low temperature (around 10°C), the material must be stored and acclimatized in a transitional location before being moved when necessary from cold storage to a warmer place, in order to avoid damage.
- Storage conditions of magnetic media: this material is damaged by fluctuations in temperature and relative humidity. Substantial damage is caused if the temperature exceeds 23°C and/or the relative humidity exceeds 70%. Hence it is recommended to store magnetic media at a fixed temperature of less than 12°C and relative humidity of around 40%.

C. EXPOSURE TO LIGHT

All types of light cause a chemical breakdown of organic materials. The process is intensified when the relative humidity increases. The most damaging type of light is UV (ultra-violet, i.e., with a wavelength less than 400 nanometers), which is invisible. Natural light contains the highest quantity of UV, followed by fluorescent light; it is therefore imperative to filter the light coming from windows and fluorescent bulbs by means of UV radiation filters (coatings, sleeves, etc.). Painting walls and ceilings with white paint containing titanium dioxide absorbs part of the UV radiation. Illumination of up to 50 lux is sufficient in storage areas, supplemented by lighting activated by sensors that detect the presence of human beings. The illumination in the reading rooms can be up to 600 lux. It is recommended, therefore, not to use natural light there, but artificial light only.

D. AIR POLLUTION

Pollutants should be eliminated as much as possible in the Library; towards this end, an efficient filtering system that constantly maintains good ventilation should be installed. The major polluting gases in libraries are nitrogen dioxide, sulfur dioxide, and ozone. Most of the pollutants can be controlled by air filters with mechanisms based mainly on activated carbon, which absorbs the gases. Electrostatic filters are not recommended because, in the process of filtering out the other materials, they return the ozone into the rooms.

E. IMPORTANT POINTS TO BE INCORPORATED IN THE DESIGN

- Sealing storage areas to minimize the amount of air, heat and pollution entering/escaping, and to prevent the entry of insects and other pests.
- Sealing windows and specially treating the glass to minimize damage to the materials from natural light.
- Preventing water penetration in order to keep the relative humidity low.
- Maintaining the recommended distance between plants and the exterior walls of the building.
- Efficient thermal insulation of the foundations, basements, roof, walls and windows, which helps to reduce energy costs for heating and cooling.
- Designing the windows, ceiling heights, and ventilation openings, and positioning the spaces within the building so that they will be most compatible with its objective environmental conditions.
- Siting the building to take advantage of the prevailing climatic conditions and the natural flow of air and light.
- Use of cement-based and "green" materials.
- Designing a climate-control system with a high level of filtering and optimal use of available heat energy.
- Use of energy-saving light fixtures.
- Use of finishing materials that are hypo-allergenic and treated to prevent mildew and dampness. Paint on walls, furnishing and fittings should be environmentally friendly.

F. STORAGE PROCEDURES – OVERVIEW

Recommendations:

- Shelves should be installed so that there is a space of at least 7.5 cm between the books and the walls, allowing for ventilation and prevention of dampness. This is particularly important when shelves are close to exterior walls.
- Even when books are stored in closed cabinets, a space should remain between the cabinets and the wall.
- Bottom shelves should be installed at least 10 cm above the floor.
- The shelves used should preferably be the type with a “canopy” above them to prevent damage from water, dust, and light.
- Enamel-coated metal shelving is recommended.
- Wooden shelves should not be used.
- When a “compactus” is used for storage, space must be left between the rows to prevent the accumulation of moisture and to identify the source of a fire.

G. DEALING WITH EMERGENCY SITUATIONS

Archival material is extremely flammable. In the event of fire, it is recommended not to extinguish flames with water, because the damage that the water is likely to cause may be greater than the fire itself. Therefore, the option of using non-water-based methods of fire protection should be investigated. Among these is the recommended anoxic method of storing material, which entails maintaining a low level of oxygen (15% instead of the 20% in ordinary air) to prevent combustion; it also reduces the danger from pests. If necessary, people can work in these conditions for 4-6 hours a day. However, this is an active system that requires constant control and special conditions. Another option to be considered is a sprinkler system that can be operated and carefully controlled for use in emergency situations only.

The National Library will be built in the heart of Jerusalem's open governmental-civic space. This area is planned as a dynamic meeting place between the institutions of the national government – the Knesset, the Supreme Court and the government ministries – and the major centers of culture, education and knowledge – the Israel Museum and the Shrine of the Book, the Bible Lands Museum, the Science Museum, the Antiquities Authority building (under construction), and the Nature Museum (in the planning stage), as well as the Edmond J. Safra Campus of The Hebrew University. In addition to the built area, the environs include several extensive open spaces – the Wohl Rose Garden, the Valley of the Cross, Sacher Park, and the central municipal nature area (in the planning stage). Cycling paths and walking trails will be laid in the future, and the whole area will be served by public transportation. Together these elements will comprise a vibrant urban center that attracts a diverse local and foreign population.

The intersection of Ruppin Boulevard and Kaplan Street, the gateway to all these institutions, connects the entrance to the Israel Museum, the museums boulevard, the south-east entrance to the Knesset (on Ruppin Boulevard), and the proposed entrance plaza of the Library. It is only fitting that this intersection, which is currently located on one of the city's major transportation arteries, be developed as a significant public destination in its own right – a place connecting the important institutions around it. The intersection should be designed as an open space that facilitates and invites easy, unrestricted movement of pedestrians and cyclists. This is a complex task, because the buildings and open areas around the intersection – existing and planned – are at different elevations, each with its own entrance and parking area, and are located on a busy thoroughfare.

Ruppin Blvd. is planned as a green boulevard graced with cafés, shops, the entrances to the cultural institutions along it, and the façades of the public buildings facing it. The boulevard will serve as a focus for entertainment, culture and leisure and as an additional link in the urban open-space system.

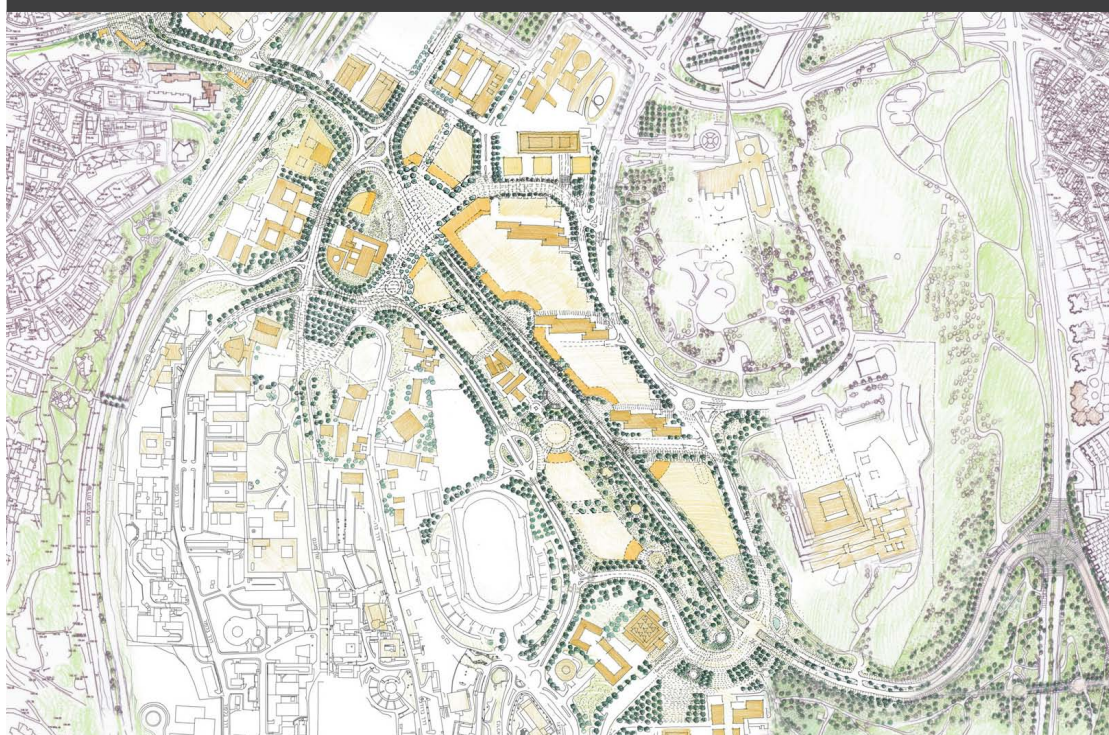
The site chosen for the National Library is located precisely at the above intersection and extends along Ruppin Boulevard. The town planning scheme for the Library designates a plaza or square on the south-east side of the new building, adjacent to the intersection and within walking distance of the neighboring governmental and cultural institutions.

The subject of the competition is the design of the Library building and its exterior spaces. This design should reflect the values of the institution that will inhabit it, namely, openness, accessibility, and a respect for Jewish and Israeli creativity throughout the ages. The building should be integrated into its surroundings, both visually and in terms of content, and can even serve as the anchor of this extended cultural-museum campus. Participants in the competition are requested to describe how the Library building and its entrance plaza will be integrated into the Ruppin-Kaplan intersection, and how it will interact with the surrounding institutions via this intersection. Although the design of the intersection is not part of this competition, participants are entitled to suggest a conceptual design for it, one in which the Library building is a major part of an ensemble of existing and planned buildings and surrounding open areas.

Aerial Photo

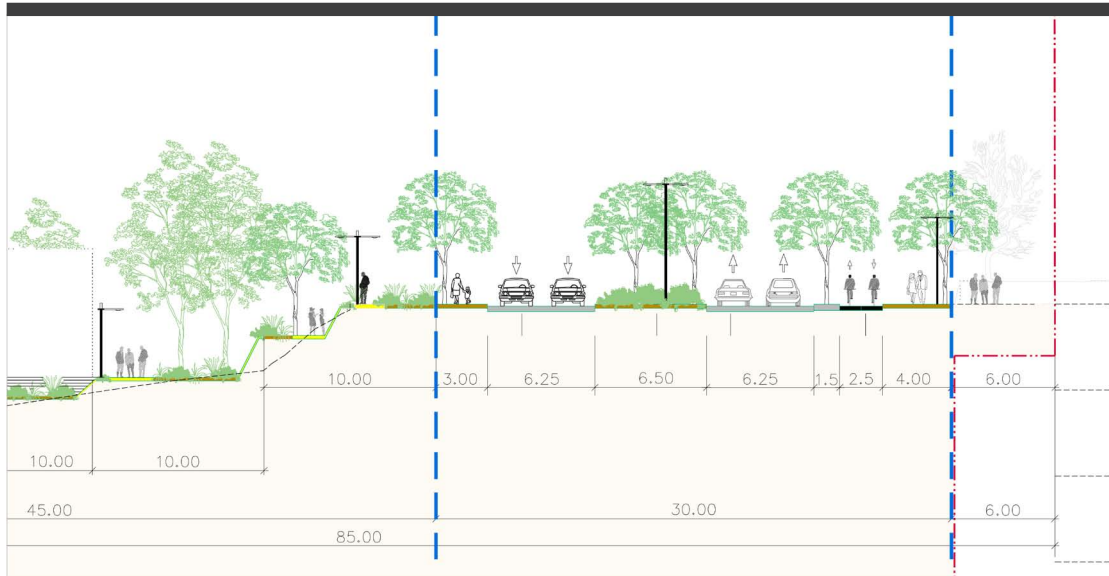


Ruppin Boulevard – Design concept



RAHAMIMOFF ARCHITECTS AND URBANISTS

Ruppin Boulevard – Design Cross-section



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