



# 瀋陽市環城水系 環城綠化規劃

PLANNING DESIGN ON

SHENYANG CITY-ROUNDED  
WATER SYSTEM AND AFFORESTATION

主 編: 王崇華  
付 主 編: 張丕鶴  
責任編輯: 侯尚謙  
文字撰稿: 侯尚謙  
攝 影: 苗鳳武  
翻 譯: 羅奉明  
繪 圖: 張延力 金光熙 馮 麗  
秦文軍 李春佳 張德生

Chief Editor: Wang Chonghua  
Associate chief editor: Zhang Peihe.  
Editor: Hou Shangqian  
Literal Composer: Hou Shang qian  
Photographer: Miao Fengwu  
Translator: Luo Fengming  
Draftsman: Zhang Yanli, Jin Guangxi  
Feng Li, Qin Wenjun  
Lichunjia, Zhang Desheng

# 目 錄

◆ 銀 牌 .....	1	● 振興園 .....	43
◆ 獎 狀 .....	2	● 皂角園 .....	44
◆ 市長題詞 .....	3	● 怡靜園 .....	45
◆ 前 言 .....	4	● 黎明園 .....	46
◆ 題 詞 .....	5	● 秋錦園 .....	47
◆ 設計說明 .....	7	● 滂江園 .....	48
◆ 規劃總圖 .....	10	● 旭 園 .....	49
◆ 碧水榮城 .....	12	● 東塔園 .....	50
◆ 昭 陵 .....	14	● 順通園 .....	51
◆ 柳塘夕陽 .....	16	● 陽春園 .....	52
◆ 萬頃綠洲 .....	19	● 路 園 .....	53
◆ 臥波湖影 .....	21	● 龍王廟園 .....	54
◆ 百花吐芳 .....	22	● 文藝園 .....	55
◆ 水系分析圖 .....	24	● 南中園 .....	56
◆ 水系規劃圖 .....	25	● 翠 園 .....	57
◆ 東陵水上公園 .....	26	● 夏芳園 .....	58
◆ 華僑公園 .....	27	● 賓河園 .....	59
◆ 怒江公園 .....	28	● 春曉園 .....	60
◆ 四季島公園 .....	29	● 玫瑰園 .....	61
◆ 前進公園 .....	30	● 芳草園 .....	62
◆ 北塔公園 .....	31	● 紅楓園 .....	63
◆ 南湖公園 .....	32	● 錦秀園 .....	64
◆ 青年公園 .....	34	● 繼香園 .....	65
◆ 魯迅兒童公園 .....	36	● 百花園 .....	66
◆ 萬柳塘公園 .....	39	● 長青園 .....	67
◆ 動物園 .....		● 公 園 .....	68
◆ 大東公園 .....			

## Contents

● Silver Prize Medal .....	1	● Shenyang Zoo .....	41
● Certificates Of Merit .....	2	● Dadong Park .....	42
● Inscription of Mayor .....	3	● Zhenxing Garden .....	43
● Preface .....	4	● Zaojiao Garden .....	44
● Inscriptions .....	5	● Yiyi Garden .....	45
● Design Description .....	7	● Liming Garden .....	46
● General Plan .....	10	● Qiujin Garden .....	47
● Green Waters around the city .....	12	● Bangjiang Garden .....	48
● Zao Ling .....	14	● Xuyuan Garden .....	49
● Setting Sunon Liutang Lake .....	16	● Dongta Garden .....	50
● A vast Expanse of Oasis .....	19	● Shuntong Garden .....	51
● Lake with the Reflection of waved-Bridge .....	21	● Yang chun Garden .....	52
● A Hundred Flowers send off Fragrance .....	22	● Luyuan Garden .....	53
● Water System Schem .....	24	● Longwangmiao Garden .....	54
● Comprehensive Control Panl of Water System .....	25	● Wenyi Garden .....	55
● Plan of DongLing Overunter .....	26	● NanZhong Garden .....	56
● Plan of Huayi Park .....	27	● Cuiyuan Garden .....	57
● Plan of Nujiang Park .....	28	● Xiafang Garden .....	58
● Plan of Sijidao .....	29	● Binhe Garden .....	59
● Plan Qian jin Park .....	30	● ChunXiao Garden .....	60
● Plan of Beita Park .....	31	● Meigui Garden .....	61
● Nanhu Park .....	32	● FangCao Garden .....	62
● Qingnian Park .....	34	● Hongfeng Garden .....	63
● Luxun Garden's Park .....	36	● JinXiu Garden .....	64
● Wanliutang Park .....	39	● LaXiang Garden .....	65
		● Baihua Garden .....	66
		● Chang Qing Garden .....	67
		● Bei Ling Garden .....	68

# 国家优秀设计奖



全国优秀设计  
评选委员会  
1989



頌 瀋陽市環城公園

环城碧水繞沈城。  
綠洲小園景色新。  
解工巧匠獻奇功。  
千秋功業今銘成。

瀋陽市副市長

何子立

九年七月

## 前言

沈陽位於東北松遼平原的南端，是遼寧省省會，是東北地區最大的經濟中心城市和交通樞紐，全國重要的工業基地。沈陽歷史悠久，是國務院公布的歷史文化名城。諸多的文物古迹和燦爛的歷史文化遺產增添了古城的風采，曾譽為“一朝發祥地，二代帝王城”。建國四十多年來，沈陽市的城建設發展迅速，城市風貌日新月異。特別是近幾年來，通過環城水系及環城綠化規劃，對貫穿城區的三條污水河渠進行了綜合治理，達到了化害為利，改善城市環境質量和景觀的目的。該項工程的規劃設計獲得一九八九年全國第四屆優秀工程勘察設計銀質獎和建設部優秀設計一等獎。這項浩大的工程是集城市規劃、市政建設、生態環境保護、城市景觀、農業灌溉等構思於一體，規劃設計了具有城市排水、灌溉、淨化水質和美化城市景觀等多功能的環城水系，形成了集園、景、水、綠、路五功能為一體的環城綠化體系。已實施的南運河和衛工明渠，綠園交織，渠中清水常流，兩岸綠草如茵，其景並不亞於京杭大運河之壯觀，確也有其獨特的風姿和韻色，其園、景雖不能與蘇杭園林相媲美，却也有其北方粗獷與細膩相融的風格。這項綜合規劃工程的實施，對改善沈陽市的城景觀和環境質量，以及改變北方城市缺水少綠的旱城形象有着重要的意義。規劃中的新開河帶狀公園，目前正在按照總體規劃付諸實施，建成後又將給沈陽這座名城增添新的風采。在這項綜合規劃工程的實施過程中，曾得到建設部、省、市委、市政府、建委等各級領導的關懷和支持；同時也得到了全市各個部門的支持和幫助。全市先後參加該項工程建設義務勞動的有領導、幹部、解放軍、工人、農民、學生 200 多萬人次。在此謹向為建設該項工程而做出貢獻的人們致以崇高的敬意。這本圖集匯集了這項浩大的綜合規劃中已實施的污水工程、公園游園以及規劃的水系和公園綠化設計的圖紙和照片，其目的在於向中外各界友好人士和網友介紹沈陽城建設成就及城市風貌的一個側面。由於編者的水平有限，未能將建設成就的全部內涵完整地再現在讀者的面前，深表歉意，歡迎批評指正。

## Preface

Shenyang, the capital of Liaoning Province situated at the southern part of Song-Liao plain is the largest economic central city and communication center in Northeast China and the important industrial base of our country. Shenyang has a long history and is one of the famous historic and cultural cities published by the State Council. Many cultural relics, historic sites and splendid cultural heritages have added charm to the ancient city, which is known as the birthplace of Qing Dynasty and the city in which its two emperors lived. During the 40 years since the founding of the People's Republic of China, Shenyang has been developing rapidly in city construction and its appearance has been changed with each passing day. Especially in the recent years, three polluted rivers passing the urban area have been harnessd according to the city-rounded water system and afforestation plan. The aims of turning the harm into the benefit and improving the city environmental quality and landscape have been achieved. In 1989, the planning design of this project won the silver prize in the 4th National Excellent Prospecting and Design Appraisal Conference and also won the first prize of excellent design awarded by the Ministry of Construction. This huge project integrated the conceptions of city planning, municipal construction, eco-environmental protection, civic landscape and agricultural irrigation into a whole. The city-rounded water system has been planned and designed with multiple conceptions of drainage, irrigation, water-purification and landscape beautification, while the city-rounded greening system is formed with the five functions of gardens, scenic spots, water, green and paths as an integrity. Now, the built-up South Canal and Weigong Ditch have a scene of clear water in rivers, green grass like carpets and beautiful gardens scattered on both banks. Although it is not as magnificent as the Grand Canal, it has its unique charm and features. Its gardens and scenic spots have a big strong and exquisite style of northern area, even if they are different with that of Su Zhou and Hang Zhou cities. Its implementation of this project has a significance in improving the civic landscape and environmental quality and changing the image that the northern cities are short of water and green. Now, the other belt park along Xinkai River are being implemented according to the Master Plan. After its completion, new styles and features will be added to the famous Shenyang city. During the implementation of this unified plan, supports, assistance and care have been obtained from the leaders at all levels such as the Ministry of Construction, provincial and municipal governments and its construction commissions and also from all the departments of Shenyang city. Leaders, PLA men workers, peasants and students had participated in the voluntary labor for 2 million person-times. We wish to extend our high respects to the people who have made contributions to the construction of this project. This album collected the pictures and drawings of sewerage, parks and gardens, planned water system and greening design of parks, which is designed to introduce one aspect of the city construction achievements, its style and features to the friends and personalities of various circles at home and abroad. Owing to the limited level of our edition, the actual construction achievements may not be fully presented before the eyes of our readers. Therefore please accept our apologies and suggestions are welcome.



沈陽是全國著名的工業城市，如何改善城市環境質量，一直是城市建設的一個大問題。建國四十多年來沈陽市的城鎮建設在城鎮總體規劃的指導下，在改變城市面貌，加強環境建設等方面做了很多的工作，取得了初步的效果。從1984年開始實施的沈陽市環城水系及環城綠化規劃，就是其中之一。該項工程至1987年底，基本完成了南運河帶狀公園和衛工明渠的規劃改造建設。已建成的南運河帶狀公園和衛工明渠對改變城市景觀和改善城市環境質量起到了重要作用，也給城市生活帶來了新的生機和活力。每當看到那河邊相連景色宜人的帶狀公園吸引著數以萬計的遊人時，才體會這項綜合治理工程所產生的巨大的凝聚力以及難以估量的社會、環境和經濟效益。借此機會向那些為建設沈陽，改變家鄉面貌而辛勤工作的人們表示衷心的感謝，是他們用勤勞的雙手將昔日臭水溝、爛泥塘規劃建設成了風景秀麗的帶狀公園，為沈陽的城市建設增添了新的風采。

沈陽市城鎮建設委員會  
主任 張福忱  
1990.6

Shenyang is the famous industrial city of our country. How to improve the city environmental quality has been a big problem in the city construction. During the 40 years since the founding of the People's Republic of China, under the guidance of the City Master Plan, a lot of work has been done and preliminary effects have been achieved in improving the civic appearance and strengthening the environmental construction. The Shenyang city-rounded water system and afforestation plan is one of the work which was started to be implemented in 1984. By the end of 1987, the planning and construction of this project has been basically completed. The built-up South Canal Belt Park and Weigong Ditch have not only played an important role in the improvement of civic landscape and environmental quality but also have brought vitality to the civic life. Whenever one sees the beautiful Belt Park linked with lakes and rivers that attracts tens of thousands of visitors, one can realize the tremendous condensation force, invaluable social, environmental and economic benefits produced by the comprehensive control project. I wish to take this opportunity to thank the people who had worked hard for building Shenyang and changing the homeland face. It is them who planned and constructed the once smelly ditch into a beautiful Belt Park with their untiring hands and added splendour to the construction of Shenyang city.

Director of Shenyang Urban and  
Rural Construction Commission  
Zhang Fuchen  
June, 1990.

城市規劃是一定期限內城市發展建設的綜合部署，其目的是通過規劃管理和控制達到布局合理，功能完善，配套設施齊全，交通便捷，工作方便，居住舒適，環境優雅。沈陽市環城水系及環城綠化規劃正是按照這樣的設想構思而成的。經過幾年的實施建設現已初具規模，這體現了一項好的規劃實施需要全社會的共同努力和支持，並在實施過程中逐步為人們所認識，也體現了規劃實施的長期性和綜合性。沈陽市環城水系及環城綠化規劃設計成果獲得八九年國家銀質獎，表明了該項規劃設計在城市建設中的重要作用和在改善城市環境方面的重要意義。這一獲獎的成果是沈陽市人民生活中的一件大事，應歸功於那些為該項規劃設計和實施做出貢獻的人們和給予規劃實施提供方便並給予積極支持的有關部門。如今已建成的風光旖旎，景色宜人，翠柳鳥鳴的南運河帶狀公園和清水明流，污水暗渠，兩岸綠草如茵的衛工河充分體現了該項規劃在改善城市環境和城市景觀等方面的重要地位和作用。

沈陽市規劃、土地管理局  
局長 王 清  
1990.6

City planning is designed to make comprehensive arrangements for the city development and construction within a certain period with purpose to create a metropolitan life that is provided with reasonable layout, perfect functions, complete facilities, convenient communications and comfortable inhabitation through planning, management and control, while the Shenyang city-rounded water system and afforestation plan has been worked out on the basis of these assumptions. Over several year's implementation, the construction project has begun to take shape. It shows that the implementation of a good plan requires the common support and understanding from the whole society and shall be understood gradually by the people in its implementation, meanwhile it reflects the protracted and comprehensive nature of it. The design achievement of the Shenyang city-rounded water system and afforestation plan was awarded the National Silver Prize in 1989, which shows that this planning design is playing an important role in the city construction and has significance in the improvement of city environment. The winning of the prize is a major event in Shenyang people's life, which shall be attributed not only to the people who have made contributions to the design and its implementation of this plan but also to the concerned departments that have provided active supports and convenience in the implementation of the plan. Nowadays, the built-up South Canal has a beautiful scene and pleasant view with green willows and birds' singing everywhere, while the built-up Weigong River has become a clear river with wastewater flowing through a hidden ditch and green grass planted on both banks. It has fully reflected the important position and role of this plan in the improvement of city environment and landscape.

Director of Shenyang Municipal Planning and Land  
Administration  
Wang Qing  
June, 1990.

沈陽市環城水系及環城綠化規劃是一項改變沈陽市城市風貌、改善環境質量、解決城市排澇治理污水為民造福的宏偉綜合性必治工程。這項五十年代規劃構思的宏偉藍圖是從1984年開始實施的。到1987年底基本完成了環城水系及環城綠化中的南運河和衛工明渠的改造治理工程。已建成的南運河和衛工明渠改變了昔日的污水橫流的面貌，代之的是兩岸如茵，清水平流，景色秀麗，環境優美的帶狀公園。這一巨大的變化對改善城市居住環境質量起到了重要的作用，也彌補了城區中綠地不足的矛盾。每當想起當年組織和參加這項綜合改造治理工程建設的場景是那樣令人鼓舞振奮，記憶猶新。如今這項為全市人民造福並帶來榮譽的綜合改造治理工程，正在繼續實施完善。座落在振興園內的大型浮雕將永遠記錄着那些當年參加改造和建設公園的建設者的光輝業績。願我們的城市規劃得更好，建設得更美。

原沈陽市規劃建設局局長  
南運河帶狀公園工程建設指揮部副總指揮  
徐復泉  
1990.6

Shenyang city—rounded water system and afforestation plan is a huge reconstruction project, which is designed to change the city style and features, improve the environmental quality, drain the flooded fields, control the wastewater and benefit the people of Shenyang city. The grand blueprint which was worked out in 1950's was started to be implemented in 1984. By the end of 1987, the reconstruction project of South Canal and Weigong Ditch in the city—rounded water system and afforestation have been basically completed. The built-up South Canal and Weigong Ditch have changed the old look that they once were desolated and overflowed with wastewater and now replaced by the Belt Park that has a scene of green banks, flowing-clear water, beautiful view and fine environment. The great changes have not only taken an important role in the improvement of civic environmental quality but also relieved the shortage of green area in the urban area. Whenever I remember the scene that I organized and participated in the reconstruction project, I will always be inspired and it is remained fresh in my mind. Nowadays, the comprehensive reconstruction project that have won the honour and benefited all the people of the city is still under construction for its perfection. The large relief that have won the honour and benefited all the people of the city is still under construction for its perfection. The large relief sculpture located at the Zhenxing Garden shall record the glorious achievements forever that have been made by the once constructors in construction and reconstruction of our homeland. I wish our city will be planned more better and built more beautiful.

Former Director of Shenyang Municipal  
Planning and Construction Bureau  
Former Deputy General Commander of  
the Headquarters for South  
Canal Belt Park Project Construction  
Xu Fuquan  
June, 1990.

沈陽是一座歷史悠久的文化名城，建國四十來年在城市總體規劃的指導下經濟發展迅速，城市面貌煥然一新。從小的園林景觀綠化到環境綜合治理；從居住小區建設到總體規劃的實施都顯示了規劃在城市建設中的地位和重要作用。沈陽市環城水系及環城綠化規劃是自五十年代制定規劃設想到八十年代補充完善的一項宏大的綜合性規劃，是以綜合治理污水為主，改善環境及綠化為輔的系統工程。其宗旨是改善城市環境和景觀，綜合改造和治理城區三條人工河，建立完善的污水、雨水排放系統。1984年在市人大、政府的直接領導和關懷下，在全市各行各業人民群眾的協助支持下開始實施規劃。經過三年多的建設已初具規模。已建成的南運河帶狀公園和衛工明渠取得了良好的社會、環境和經濟效益。1989年該項綜合規劃在全國第四屆優秀勘察設計評比中獲得了銀質獎的殊榮。這項從規劃構思到實施建成的綜合性規劃前後經過了三十多年可謂是幾代人辛勤耕耘和奮鬥的成果。如今她獲得了榮譽首先應歸於于斯長于斯的全體沈陽市民。這項規劃的實施既養老着老一代規劃、建設者的聰明才智和新一代城市規劃工作者的繼承與創新，也包含着各級政府和歷屆領導對這項規劃的理解和指導。以及全市各部門的大力支持和協助，沒有他們的理解和支持實施這一規劃是不可能的。為此我衷心感謝對這項規劃與實施給予大力支持和熱心指導的建設部規劃司、省政府、省建委、市人大、市政府、建委、規劃局、城建局等上級領導部門和工程技術人員，特別是那些為之辛勤工作一輩子的老領導、老專家，并向他們致以崇高的敬意。城市規劃是一門綜合性很強的學科，它的實施需要各個部門的支持和配合，離開這一基點則一事無成。沈陽市環城水系及環城綠化規劃的實施並獲得國家銀質獎，充分證實了這一榮譽是來之不易的。她將在沈陽的城市建設史上記下富有歷史意義的光輝一頁。城市是歷史的寫照，歷史由人民創造。

沈陽市規劃設計研究院  
院長 王崇華  
1990.6

Shenyang is a famous cultural city with a long history. During the 40 years since the founding of the People's Republic of China, its economy has been developing rapidly and the city has been changed beyond recognition under the guidance of the City Master Plan. The position and its important role of the city planning have been fully reflected in the city construction by either the landscaped gardens, scenic spots, afforestation, overall environment control or the construction of residential quarters and the implementation of the Master Plan. Shenyang city—rounded water system and afforestation plan is a huge comprehensive one whose assumptions were worked out in 1950's and which were supplemented and perfected in 1980's. It is also a system engineering which relies mainly on the overall sewage control while making the environmental improvement and afforestation subsidiary with the aim of improving civic environment and landscape, reconstructing and controlling these three man-made rivers within the urban area and forming a perfected rain and sewage drainage system. In 1984, this plan was started to be implemented under the direct leadership and care of the Municipal People's Congress and Government and the support and assistance by the people of all walks of life. Over three more years' construction, it has begun to take shape. Good social, environmental and economic benefits have been received from the built-up South Canal Belt Park and Weigong Ditch. In 1989, this comprehensive plan was awarded the Silver Prize in the 4th National Excellent Prospecting and Design Appraisal Conference. It is the fruit that has been achieved by several generations through their hard work for more than 30 years from planning, implementation to completion, for which the honour should be firstly belong to the whole citizens of Shenyang City. The implementation of this plan embodies not only the intelligence and wisdom of the veteran planners and constructors but also the inheritance and creations by the new city planners, containing either the guidance and understanding to this plan from all the previous leaders of all different level governments or the energetic support and assistance from various departments. It is impossible to carry on this plan without their support and understanding. For this purpose, I wish to express my heartfelt thanks to the Planning Department of Construction Ministry, Provincial Government, Municipal People's Congress and Government, Construction Commission, Planning Bureau, Urban Construction Bureau and the engineering technical personnel, especially the veteran leaders and experts who have provided energetic support and warm guidance for this plan and its implementation, meanwhile I'd like to extend my high respect to them. City planning is a comprehensive subject which requires the support and cooperation from various departments. Without this basic point nothing can be accomplished. The implementation of Shenyang city—rounded water system and afforestation plan and the winning of the National Silver Prize have not come easily. It shall add a glorious page with historic significance to the construction history of Shenyang City. The history can be portrayed as a city and created by the people.

Director of Shenyang Municipal Planning Design and Research Institute  
Wang Chonghua  
June, 1990.

# 沈陽市環城水系及環城綠化規劃設計

沈陽市環城水系及環城綠化的規劃建設是在城市總體規劃的指導下進行的。環城水系及綠化是由穿越城區的南運河、新開河和南工明渠三條人工河及沿河兩岸綠化帶構成的，全長38.5公裏。這三條人工河是不同年代形成的，有着各自的功能和作用。

新開河於1911年開鑿，市區段長16.5公裏，該河的主要功能是灌溉下游23萬畝農田和解決市區北部地區的排澇問題，現狀河水中含有多種超標的有害物質，不僅污染了灌溉用水，也污染了市區地下水。因河道狹窄，每年雨季常有河水漫堤情況發生。

南工明渠是日偽時期開始使用的，全長約7.5公裏，是橫貫鐵西工業區南北的一條污水排放溝，每日排入的工業污水達30萬噸，污水中重金屬、酚、氰化物等有害物質嚴重超標，是有名的臭水溝，對周圍環境影響極大。七十年代初用污水灌溉的四萬畝農田由於重金屬等嚴重污染已成為廢地。

南運河是解放後為解決市區南部地區的排澇問題開闢的人工河，全長約14.5公裏。由於生活、工業污水及生活垃圾的傾入，逢春夏之際，污水橫溢，蚊蠅孳生，成了一條臭水溝。

改造治理前三條人工河的沿河兩岸，雜草叢生，一片荒蕪，沿河的一些工廠直接將污水排入河中，兩岸違章搭建的低矮棚屋破爛不堪，加之工業垃圾和生活垃圾的傾入佔占了河道，使河道更加狹窄。每年春、夏、秋三季漫溢發黑的河水，臭氣熏天，嚴重污染了周圍的環境，居民意見極大。

沈陽是全國重要的工業基地，然而缺水和水體受到污染使這座工業城市面臨着困境，綠化覆蓋率低和人均公共綠地少嚴重影響了城市的景觀和環境。多年來為了解決沈陽市水資源匱乏和綠化少的問題已付出了相當的代價，水及綠化已成為城市生存發展的基礎。1979年編制的沈陽市總體規劃中提出了環城水系綜合治理改造規劃。隨着城市經濟建設的發展及其地性的變化，改變北方城市缺水少綠的單城形象已勢在必行，在充分考慮城市環境景觀設計的基礎上提出了沈陽市環城水系及環城綠化綜合規劃設計。

## 一、規劃原則：

以沈陽市總體規劃為指導，以改善城市生活環境和城市綜合環境景觀為目標，堅持全面規劃、統一設計、統一管理、分期實施，逐步完善的原則。在滿足各自功能的基礎上，努力創造一個有利生產，有利生活的環境。擴大水面和綠化覆蓋面積；增加地下水和農業灌溉能力，淨化水質，改善河道為清水渠道。清淤拓寬河道提高城市的排澇能力，結合沿河各地段的自然條件，因地制宜地進行公園、游藝景點的綜合設計，創造出多層次、多色彩的綠化空間結構及優美的城市環境，滿足人們游憩的需求。

## 二、規劃構思：

沈陽市環城水系及環城綠化規劃是一項浩大的綜合性工程，該項規劃的構思運用了整體規劃思想和綜合環境設計方法，從城市生態環境和改善城市環境質量方面入手，把城市看做一個大的生態系統，突出綜合治水及綠化對改善生態環境的作用，着重城市環境的綜合治理和人文景觀改善及空間藝術造型，豐富城市的生活氣息，為城市居民創造優良的生活居住環境，體現了人與環境是有機的一體。在城區沿環城水系規劃設計了15座市級和區級公園，41處游藝景點。在近郊考慮到城市人口發展對城市環境容量的需求，規劃了三個規模較大的公園，以期從更大的範圍及空間環境與環城綠化帶相呼應，達到城區中綠化向外擴展延伸的目的。考慮到投資規模問題，規劃設計中盡可能利用原有的河道并適當加寬，滿足排水灌溉的要求，并針對各河、渠的功能和特點分別採取不同的規劃手法。沿環城水系兩岸綠化帶在有條件的地段適當加寬，盡可能減少

拆遷，同時保證綠化帶不間斷。環城水系構思是將城市排水、污水截流、農業灌溉、淨化水質，增加地下水回灌量及擴大水面等溶為一體，并沿環城水系修建完善的污水截流溝渠，將截流污水統一送至污水處理場，突出整體環城水系在城市中的功能和作用。考慮到城市發展，沿環城水系通航的問題，確定了河道的寬度、深度。沿環城水系形成的綠化帶及結合沿河公園、游藝、景點構成環城綠化體系，着重整體綠化設計的格調、綠化的結構和層次。在公園和游藝、景點的設計中充分體現了城市環境設計的內涵，采取樹、花、草坪相結合；喬木與灌木、常綠針葉與喬木樹相結合的辦法，并運用建築小品與雕塑、花架與長廊、廊亭與組合、細網與粗網、分散與組合、主體與陪襯、韻律與節奏等規劃設計手法，沿河岸兩側配置京桃、垂柳及亭、樹等建築小品形成步移景變的效果。

## 三、規劃結構：

水系結構由地下和地上兩部分功能組成。地下功能為淨化水質、增加回灌量。地上結構為沉澱、壅塞、沉河、飲西等八大雨水系統和污水截流系統，并同環城水系共同構成城市雨污排水體系，負擔的排水流域面積達126平方公里。環城綠化立足于整體結構，在環城綠化帶上結合周圍環境設置相適應的市級、居住區級公園，結構層次為近郊、市級、居住區級和游藝景點。在城區東北、西北、南部設置三座近郊公園以及濱河防護林帶，西、北部防護林帶，東部山區共同構成城區外圍綠化大環繞系統。由北陵公園、南湖公園、青年公園和動物園等構成的市級公園圈套圈覆蓋整個城區，依條環城綠化帶及公園、景點所在地域的不同作用，構成幾個不同功能的單元區，以南郊公園為主帶狀綠地環繞的，以改善南郊地區生活居住、科研、醫療環境質量，美化市容為內容的南郊科學、居住區。由流經大東、鐵西工業區的水系及沿岸帶狀綠地所構成的，以改善工業區環境，豐富生活氣息為內容的大東、鐵西等功能区，這些具有不同功能的單元區有效地改善了局部的環境質量和小氣候。

## 四、規劃特點：

環城水系及綠化規劃設計的特點，是以形成環城綠化帶為主，突出水系功能及排澇作用，結合沿河公園的建設，修建并改善了九座人工河，使河道相連，水面達156.3ha，綠化面積為451.1ha，除各級公園外，輔之以游藝、景點。其特點之一是服務範圍大，水面大，綠化面積大。特點之二，各級公園及游藝景點的規劃設計，從平面功能、環境保護到綠化樹種、園林建築小品配置、城市景觀設計等方面都進行了綜合考慮，注重自然景觀和人文景觀的結合，做到適用、美觀、舒適、和諧；并形成完整的綠化、建築藝術空間，體現出現代化城市面貌的時代特色。已建成由怡靜園、夏芳園、春曉園、秋錦園、魚角園等十八個游藝景點和六大公園組成的風景、水、綠、路五個功能為一體的南運河帶狀公園，風光秀麗，景色幽雅，受到中外遊人贊賞。沿南工明渠建設了由玫瑰園、青年園等八處游藝景點構成的又一處沒有間斷的帶狀公園。沿新開河建設了結合文物古蹟的保護與修繕規劃設計了東湖水上公園、北塔公園、北陵公園、新樂公園等，還規劃了十五個游藝景點。特點之三，沿環城水系規劃有完整的步行系統，在河道兩側設計了7~9米寬步行道，并與游藝景點的園路有機地结合在一起，河道斷面在不同地段分別為梯形、楔式和矩形，寬度按不同地區的功能為14~34米不等，考慮通航和安全，沿河水深的岸水位控制在1.2米以下。特點之四，由變化的河道和兩岸綠化形成的帶形空間，自然流暢，時寬時窄，有收有放，構成一個豐富多彩的變幻空間，整個環城水系及綠化，注重改善城市環境和城市景觀的效果，水系功能的完善，突出人與綠、水環境結構的主體。

沈陽市環城水系及環城綠化的實施是落實沈陽市總體規劃的一項重要內容，幾年來的實施建設情況表明，該項工程已取得了良好的社會效益和環境效益，並受到了全社會的注目和支持，其效果是無法用經濟價值來衡量的。該項綜合改造治理工程自1984年開工至1988年已完成了南運河和衛工明渠的改造治理工作，即已完成了總長的三分之二，約22公裏，四年間全市有各行各業的機關幹部、解放軍官兵、工人、農民、學生等先後有近200萬人次參加了該項工程的義務勞動，充分體現了

人民城市人民建，軍民共建家園的崇高精神，僅義務勞動一項就為該工程節約了大量的資金。改造治理後的南運河和衛工明渠，兩岸綠樹垂柳，河中清水常流，一片生機盎然的景色。每天還吸引著數以萬計的人們散步、觀賞、遊憩、學習，外地來沈的遊人也無不以飽覽南運河帶狀公園的秀美風光為一樂處。目前按照環城水系及綠化規劃，新開河的綜合改造工程正在付諸實施，建成後必將使沈陽這座工業城市的面貌煥然一新。

## Planning Design on Shenyang City—Rounded Water System and Afforestation

The planning and construction on Shenyang city—rounded water system and afforestation are being conducted under the guidance of the Master Plan of Shenyang City. The city—rounded water system and afforestation are composed of three man—made rivers, which are South Canal, Xinkai River and Weigong Ditch going through the urban area and the green belts along both banks with a total length of 38.5 km. These rivers were constructed in different periods with different roles and functions.

The Xinkai River was dug in 1911 with a total length of 16.5 km in the urban area. Its major function is to irrigate the 230,000 mu farmland downriver and drain the flooded fields in the northern part of the urban area. The existing river water containing many kinds of harmful and unaccepted matters have made pollution not only to the farmland—used water but also to the underground water in the urban area. Because of the narrow river course, bank overflows often occurred in the rain season of each year.

Weigong Ditch was started to be used in Japanese—invasion period was just like a wastewater discharge ditch with a total length of 7.5 km going through the Tie Xi industrial area from south to north. The daily industrial sewage discharged into it was up to 300,000 ton, containing heavy metals, phenol, chlorid and other harmful matters that were seriously beyond the limit of the standards. It became a well—known smelly ditch with a great influence to the surroundings. In the early 70's, about 40,000 mu farmland irrigated by the wastewater became a piece of waste land for its serious pollution by heavy metals.

The South Canal is a man—made river which was dug for saving the flooded—fields in southern part of the urban area with a total length of 14.5 km. Because of the dumping of the industrial and domestic sewage and garbages, on occasion of Spring or Summer, it became a smelly ditch with overflow wastewater and flies.

Before reconstruction, these river banks were overgrown with weeds, which produced a scene of desolation. The factories there were discharging wastewater into rivers and the poor shacks built against rules dispersed along the banks. In addition, the river course became narrower due to the occupation of the dumped domestic and industrial garbages. In the period of Spring, Summer or Autumn of each year, the black and muddy river water were giving off extremely stinking smell, which seriously polluted the environment around, causing a lot of complains from residents there.

Shenyang is the important industrial base of our country. However, this industrial city is confronting a difficult position of water shortage and water body pollution. The low rate of green area and shortage of public green area per capita have resulted in a serious impact to the landscape and environment of this city. For many years, considerable costs have been spent in solving the shortages of water sources and green areas in Shenyang city. The water and green areas have become the basis for the city to develop and exist. In the "Master Plan of Shenyang City" prepared in 1979, a program of comprehensive city—rounded water system control and reconstruction was proposed. With the development of the city's economy and the alteration of its position, it

planning design on the city—rounded water system and afforestation in Shenyang has been put forward.

### 1. Planning Principle.

Under the guidance of the Master Plan of Shenyang City, for the purpose of improving the living environment and overall landscape in the city, we adopted the principle of unified design, unified management, implementation by stages and perfection by steps. On the basis to meet its functions, we do our best to create an environment suitable for production and living, enlarge the water and green areas, improve the capabilities of the underground water and agricultural irrigation, purify the water quality and use clear water in irrigation instead of wastewater. Removing the silt and widening the river course is designed to improve the capacity of draining the flooded fields. In combination with the natural and local conditions along these rivers, an overall design on parks, gardens and scenic spots has been made to create multilevel green spaces and beautiful city environment for the people to stroll out.

### 2. Planning Conception:

The city—rounded water system planning in Shenyang is a gigantic comprehensive project, which has applied the overall planning concepts and overall environmental design methods. Proceeding with the improvement of ecologic environment and its quality, the city is taken as a large ecosystem with prominence to the effect of comprehensive control of water and afforestation on the improvement of ecologic environment and emphasis is also put on the overall environment control, human landscape improvement and artistic shapes in space. As a result, the flavor of life is richened in the city and a good living environment is created for the citizens, reflecting that the human and the environment is an organic whole. Along the city—rounded water system, we have planned and designed 15 parks at municipal and district levels with 41 scenic spots. Allowing for the city population development in need of environment capacity, 3 large parks have been designed in suburbs, which are expected to interact with the city—rounded green belts in a larger scope and space to expand the urban green area outwards. Considering the investment scale, we try our best to utilize the original river courses and make reasonable widening in the planning design in order to meet with the requirements of drainage and irrigation. Besides, we take different planning techniques in accordance with the features and functions of the ditch and rivers. The green belts along this system were widened properly at the well—conditioned sections and linked with each other with less work of demolition as possible.

The conception of the city—rounded water system is designed to integrate the drainage, sewage interception, agricultural irrigation, water quality purification, expansion of the water area and recharge of the underground water into a whole. Along this system, a hidden ditch has been constructed to transit the intercepted wastewater to the sewage treatment plant. Prominence is given to the function and role of water system in this city. In consideration of the development of the city and the navigation along this system, the width and depth of the river course have been determined. The green belts formed along the system have been linked



is imperative to improve the image of the northern dry cities that are short of water and green. On the basis of fully considering the design of the city environment and landscape, a comprehensive scenic spots, the intention of the city environment design has been fully reflected with the methods of linking the trees, flowers with lawns, the arbors, shrubs with evergreen coniferous and broadleaf trees. In the design, the methods of architectural creations, statues, flower frames and covered corridors have been used by way of part and integrity, rough and exquisite, dispersion and concentration, mainbody and its contrasts and rhythm, etc. Peach trees and willows are planted on both banks in contrast to pavilions and other architectural creations.

### 3. Planning Structure:

The water system structure is composed of the ground and underground parts. The former is composed of 8 large rain and sewage interception systems such as Shenhai, Huanggu, Shenhé and Tiexi, etc. A rain and sewage drainage system has been formed in connection with the city-rounded water system with a drainage area of 126 km<sup>2</sup>. The city-rounded afforestation is based on an overall structure. On the city-rounded green belts, parks, gardens and scenic spots at different levels have been built in connection with the local surroundings. In the northeast, northwest and southern part of the city, three suburb parks have been built together with the shelter belts in Hun River, in western and northern parts and mountain area in the east that formed a large environmental greening system around the urban area. Beiling, Nanhu, and Qingnian Parks and the Zoo provide the services to all the urban area. In view of the different functions at the different locations of the green belts, parks and scenic spots, several unit areas with different functions have been formed. Based on Nanhu Park and surrounded by green belts, the Nanhu scientific research and residential area has been formed to improve the environmental quality of living and research and beautify the appearance of the city. The functional areas such as Dadong and Tiexi industrial areas are composed of the water system going through and the green belts on both banks with the aim of improving the environment and enriching the flavor of life there. These different functional areas have effectively improved the environment quality and local climate in some parts of the city.

### 4. Planning Features:

The features of the city-rounded water system and afforestation plan is designed to form a city-rounded green belts as the dominant factor and stress the function of the water system and the effects of irrigation and drainage. In combination with parks construction, 9 man-made lakes have been improved or built and linked with rivers, with a total water area of 1,560,000m<sup>2</sup> and a green area of 4,500,000m<sup>2</sup>. Besides different kinds of parks at different levels, gardens and scenic spots have also been designed. The first feature is the large service scope with large water and green areas. The second is that we have made comprehensive considerations on the planning design of scenic spots, plan functions, environmental protection, tree seeds, arrangement of landscaped garden creations and city landscape design. Attention is also paid to the linking of natural landscape with human landscape to achieve practical, beautiful, comfortable and harmonious effects, to form a complete afforestation and space of architectural

with parks, gardens and scenic spots, making up the city-rounded greening system with emphasis on the styles, structural levels of the overall greening design. In the design of parks, gardens and arts and reflect the features of our age and the style of the modern city.

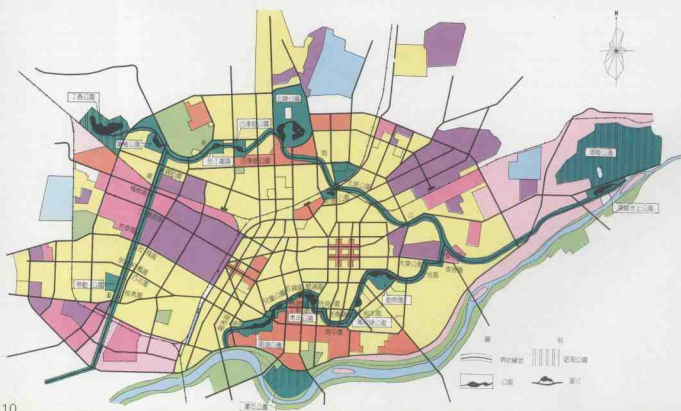
The South Canal Belt Park composed of 18 gardens and scenic spots and 6 large parks have integrated the five functions such as park, scene, green and path into a whole and are appreciated very much by the foreign and Chinese visitors for its beautiful sight and view. Another belt park composed of 8 gardens and scenic spots such as Meigui and Qingnian Gardens without boundary wall has been built along Weigong Ditch. Besides the planning of 15 gardens and scenic spots, the planning design on Donghu Overwater Park, Beita, Beiling and Xinle Parks along Xinkai River has been completed in connection with the protection and maintenance of the cultural relics and historic sites. The third feature is that the complete walking system has been designed with a bankroad of 7~9 m in width, which are linked with gardens and scenic spots. The section of the river course is ladder or rectangle-shaped at different locations with a varied width of 14~34 m according to its functions. The safe water stage is controlled under 1.2 m for navigation and safety. The fourth feature is that the varied river course and green belts on both banks have formed a natural, smooth, colourful and versatile belt-shaped space. In the design of the city-rounded water system and afforestation, attention is given to the effects of improving the city environment, city landscape and the function of the water system. That the human is the mainbody in the green and water environment has been stressed.

The implementation of the city-rounded water system and afforestation in Shenyang is one of important tasks in conducting the Master Plan of Shenyang City. Several year's implementation and construction have shown that good social and environmental benefits have been achieved through this project, which are supported by all the society with great care and its effects can not be measured by economic value. This comprehensive reconstruction and control project was started in 1984 and by the end of 1988, the reconstruction of South Canal and Weigong Ditch were completed with a total length of 22 km, which is two-third of the total. During these four years, cadres and students, workers and peasants, soldiers and officers have taken part in the voluntary labour activities on this project for 2,000,000 times which reflects the high spirit that the people's city should be built by the people, the army and people should build the homeland together. Only the voluntary labour activities have saved a large amount of funds for this project. Now the reconstructed and controlled South Canal and Weigong Ditch have a scene of life and vitality with green grass and weeping willows on both banks and clear water in rivers, which attracts tens of thousands of people to come here for walking, sightseeing, resting and studying. The visitors from other places also enjoy and drink in the beautiful scene of the South Canal Belt Park. At present, the reconstruction project of Xinkai River is under implementation according to the city-rounded water system and afforestation plan. Shenyang, the industrial city shall take a new look after its completion.



沈陽市環城水系及綠化規劃是由穿城而過的新開河，衛工河和南運河及沿河公路、綠帶組成，總長為 38.5km，設有 15 座公園、41 座游园，水面 1,563,000 m<sup>2</sup>，綠地 451,100 m<sup>2</sup>，流域面積 126 km<sup>2</sup>。

The planning of Shenyang city's rounded water system and afforestation is composed of Xinkai River, Weigong Ditch and South Canal going through the urban area, 15 parks, 41 gardens and green belts along these banks with a total length of 38.5 km, a water area of 1,563,000 m<sup>2</sup>, a basin area of 1,260,000 m<sup>2</sup> and a green area of 4,511,000 m<sup>2</sup>.



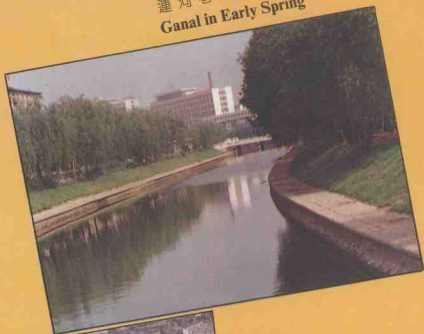


碧水榮城  
Green Waters around the City





運河春曉  
Ganal in Early Spring



玉帶綠洲  
A Jade Belt on Oasis



柳堤新春  
Willow Bank in New Spring

