我们的设计构想始于对立地条件的考察、研究、评估,以追求立地效益的最优化。琅琊组团的优势,以及其发展空间和发展潜力在于其独特的自然景观和资源特征。这些特征包括地质、地理、水资源状况、温和的气候、主导风向和日照状况等。作为一个战略性的总体规划,不需要精确的环境数据,因此,我们适当地做了一些假设。设计的基本点仍是着眼于确定滨海区域的总体布局及考虑与其相适应的技术。我们的设计方案源于对立地条件的理解和灵感,以及其与周围环境的相呼应。

Our design process begins by studying, evaluating and maximizing the natural benefits of Place. Lang Ya City Group offers both dramatic and subtle opportunities in its natural features and characteristics: topography, geology, water resources, temperate latitude, prevailing winds, and sun position. Since this is deemed a strategic master plan, it is not required to have precise environmental data and thus we have made appropriate assumptions. The fundamentals of the process still work to define the overall layout and to consider appropriate technologies for the coastal region. The design emerges from and is responsive to an intimate familiarity with the site and its environs.

分析:立地效益
Analysis: Benefit of Place

琅琊组团最显著的地理特征是依山傍海。北部的群山奠定了整个区域的大背景,沿海交错的海滨陆角和沙滩突显了海岸线的美丽和多姿多彩。琅琊台是琅琊组团的历史标记,引人注目,它是琅琊组团的标志性景观。组团的海滨地带有龙湾这样美丽的沙滩、优良的码头、平静的河口、开阔的潮间带和崎岖耸立的礁石。这些不同的、各有特色的景观都是琅琊组团不同于其他景观的优势。我们的设计就是要精心地、富有创造性地把琅琊组团的优势表达出来。我们的设计要体现对琅琊景观的保护和经济开发的最优选择。我们要通过我们的设计为琅琊

The most significant natural feature is the mountains and their relationship to the sea. The northern line of mountains establishes a background for the zone, and the wonderful coastal headlands engage the sea. Lang Ya Tai holds the position as the historic symbol and maintains its prestigious position within the Lang Ya City Group. Along the seashore are extraordinary beaches like those at Dragon Bay, fine harbors, gentle estuaries, open flood planes and craggy rock outcroppings. All these attributes establish the extent to which a person recognizes or recalls a particular place distinct from others; it is a measure of the identity, or sense, of that place. This sense of place can be enhanced through careful preservation and development, and then represented to potential residents, investors and visitors through a specific concept of branding.

区域位置:琅琊组团,由新建的高速公路、铁路和轮渡与青岛相连。青岛是胶东半岛国际商务和密集人口都市。青岛有国际机场、深水集装箱码头、高等院校和其他社会服务机构。交通便利和邻近的距离,使青岛对琅琊组团的经济发展有着举足轻重的影响,我们的规划必须同时以青岛发展战略为背景,考虑琅琊组团的可持续发展的具体走向和布局。

向南及面向大海:琅琊组团所包括的区域南至大海北抵群山,这一自然向南及面向大海的走向本身就是一种祥和的象征。这使得大部分居民区和城区可以向南和向阳而建。此外,群山又进一步遮挡了城区的北面来风。这又为节省能源和合理管理提供了绝佳的条件。

流域:流域的概念在规划设计中是非常重要的。我们的设计充分考虑了琅琊组团两个自然流域的环境条件:恰好琅琊镇位于一个自然流域,泊里镇位于另外一个自然流域。琅琊流域内有琅琊台秀美的风光,适于旅游。泊里流域水资源丰富,适宜开发为工业区。我们必须按流域管理的概念,对于这两个流域的水资源和水质管理和分配作出合理规划。很自然,我们按两个水系的特性,分别建立两个供水系统,一个作为民用,另一个用于农业灌溉和工业生产。

天然港湾:沿海列入保护范围的许多南向的小海湾可以规划作为多种功能的港湾,例如,旅游、休闲、科研、渔业和工业等。这些天然港湾,水陆交通都很方便。

沼泽盆地:区域内低洼的沼泽湿地本具有这样的优势,适于蓄水、停泊小船、科学渔业养殖和渔业科学研究。

历史焦点:琅琊台应该是整个区域范围内具有最高历史人文价值的景观标志,也是区域内整个海岸线上最醒目最突出的明珠。它的自然特色和古老的历史使其相邻的山脉,它坐立于其这山脉,具有王者独尊的显赫位置。这两个优势使这个地区的历史价值,提升了整个地区的形象。

龙湾:龙湾是一个迷人的海湾,它那美丽的海滩和迷宫的大海具有巨大的旅游潜力,是非常可贵的休闲城市稀有资源。我们应对这一宝贵的资源给予深思熟虑的规划和保护,必须考虑于旅游业的长远发展加以综合利用。我们建议对它进行多方面开发:我们的规划首先建议建设一个大型国家级或省级公园,并在附近的滨海区域内设计一个高密度的建设区,为在这里合适址及沙滩附近建设小规模且老百姓可以消费得起的度假区。经过这样精心设计,这片沙滩将来会和现在一样自然、美丽动人,并同时还可以满足旅游观光、度假休闲的要求。

区域的形象和第一印象:作为一个好的规划,还必须考虑区域的形象和第一印象。可以设想,大部分游客会从青岛沿滨海公路前往琅琊台,当他们走到北部山区的半山腰时,便可以看到美丽的琅琊台和壮美的龙湾。这是整个区域的美好形象,也是对整个区域美好的第一印象。我们应该保持这个地方空旷广袤,以保持和突出这一美好的形象和美好的第一印象。城市建设区内可以进行高密度开发,但这个地方应该保留这种自然空旷的景观和开阔的感觉。

海滨陆角:这一特殊的、具有生态学重要意义的海岸地形值得我们仔细的考虑。我们应该通过限制公路来避免对这些海滨陆角造成大的破坏。我们可以通过修建自行车道及游人小道,使人们可以欣赏到这些海滨陆角的自然美和生态美。位于旧金山北部的Marin County县关于这种休闲通道的设置和风景区的保护提供了很成功的范例。

山地景观:我们认为应该对所有山区及其它坡地加以保护,避免非实质性开发,这是优化这个地区的经济及生态潜力的重要环节。我们建议将城市建筑限制在海拔30米以下。加上保留和维持农业景观和开阔地景观的控制,我们给城市建设作了非常谨慎严格的区域控制。这是对未来子孙后代负责,也是为保护山地景观、农业景观、开阔地景观,以提升整个区域的经济潜力和生态潜力的综合考虑。

海拔高差:海拔高度不同的益处及其潜在好处是显而易见的。水头海拔高差及排灌站海拔高度的不同有利于水力发电,在生活用水、工业生产及农业灌溉用水时这种高差效应尤其明显。

自然排水区:我们应该按照自然排水区分别科学管理城区地表水的排放和水质。可在各个排水区采用植被和初级生物过滤方法来净化地表水,以减轻污水处理厂投资和处理成本的压力,满足日益增长的经济发展和提高水质的要求。围绕这些植被和生物水处理区,我们也可以建成许多美丽的公园。

风力优势:冬天西北风夏天东南风的主导风向给风力发电提供了有利的条件。鉴于每小时平均风速可以达到18公里,值得进一步研究在这个地区进行风力发电的可行性。

温和的气候:这种沿海地区相对温和的气候,连同一个美丽清馨的生态系统,给琅琊台地区提供了发展旅游业和工业得天独厚的条件,使之成为经济发展的理想之地和人们居住的理想家园。

Regional position: Lang Ya City Group, with its new highway, rail and ferry links to Qingdao, is within efficient travel time to international business and a major population hub. With its international airport, deepwater container port, universities and other services, Qingdao's proximity extends the potential and critical mass of Lang Ya's local economy, enhancing its development and sustainability.

South Orientation: Lang Ya's setting holds great promise; the land area predominantly faces south to the sea and is guarded by a line of mountains to the north. This allows most residential/urban areas to be oriented towards sun and views simultaneously. In addition, the mountains further protect urban zones from the prevailing northern winds. This situation offers excellent natural opportunities for preferred energy management.

Watersheds: This program takes advantage of the two major watersheds: Lang Ya Town watershed for tourism with its expansive views focused on Lang Ya Tai; Boli Town watershed with its richer water sources as the industrial zone. The separation of these two distinct zones is a powerful opportunity to manage water quality and distribution. It becomes relatively straightforward to establish two water systems: one for domestic use and the other for farming and industrial use.

Natural Harbors: The protected south-facing coves of the coastline can easily be used as ports offering various activities: tourism, recreation, research, fisheries and industry. These natural harbors can easily accommodate coastal public transportation to supplement other ground transportation.

Wetland basins: Lowland wetlands provide opportunities for scenic beauty, supply reservoirs, small boat harbors, technology fish farming and research.

Historic Focus: Lang Ya Tai is appropriately the aesthetically dominant coastal headlands in the project area. This natural benefit supports and is supported by the historic archeological zone. It is predominant and separate from the other area mountains and set along coastal headlands. Lang Ya Tai symbolizes the historic value, and promotes the branding of the region.

Dragon Bay: This amazing coastal beach, its beauty and connection with the sea has great capacity for recreation and entertainment. This important asset deserves careful consideration and protection, and must be used in sophisticated ways for the long-term success of tourism development. We recommend a varied approach: a large national/regional park, controlled high-density development near but not on the beach, and low scale economically accessible resorts near historic Lang Ya Tai and the beach. With such carefully planned access the beach will appear natural as it does now, while supporting the projected number of visitors.

Dramatic Arrival: Most visitors will arrive using the new Coastal Road from Qingdao; as they crest the northern mountain saddle, Lang Ya Mountain, its spectacular headlands, and the great beach of Dragon Bay appear. This deserves to remain an open and expansive image. Intense development can occur within defined urban boundaries, while still preserving the grand feeling of openness.

Coastal Headlands: this delicate ecological coastal topography deserves careful consideration. Limiting automobile access can preserve major segments of these headlands. Using bicycle and walking trails, visitors can witness the natural beauty and ecology of the headlands. Marin County, just north of San Francisco, has had great success in such preservation for scenic and recreational access.

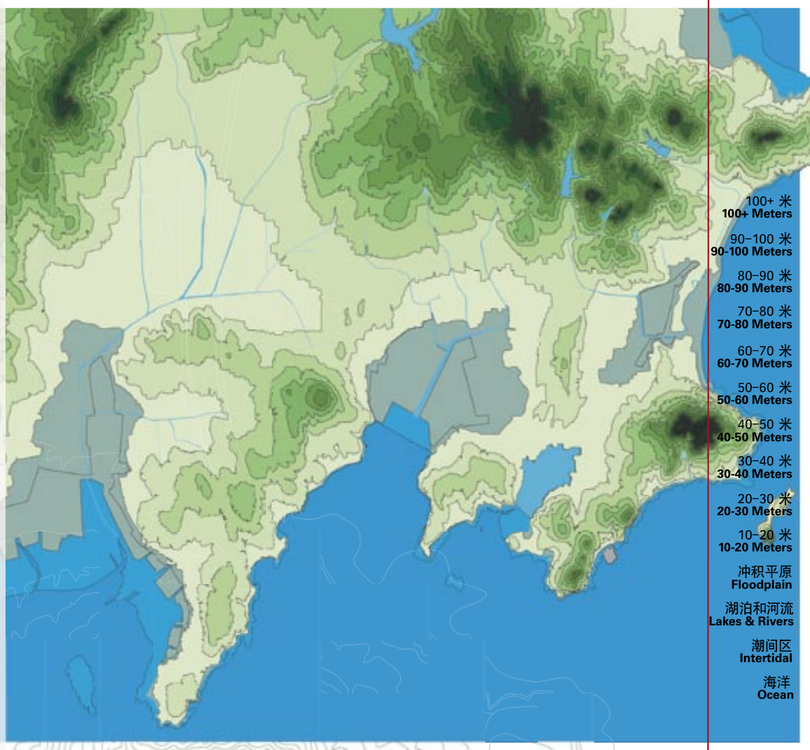
Mountain Dominance: Preserving all mountain areas and other uplands from non-essential development can maximize both economic and ecological potential. We recommend limiting building sites to below the 30-meter topography reference. Combined with other urban growth boundaries, this will maintain the open character of the region for future generations.

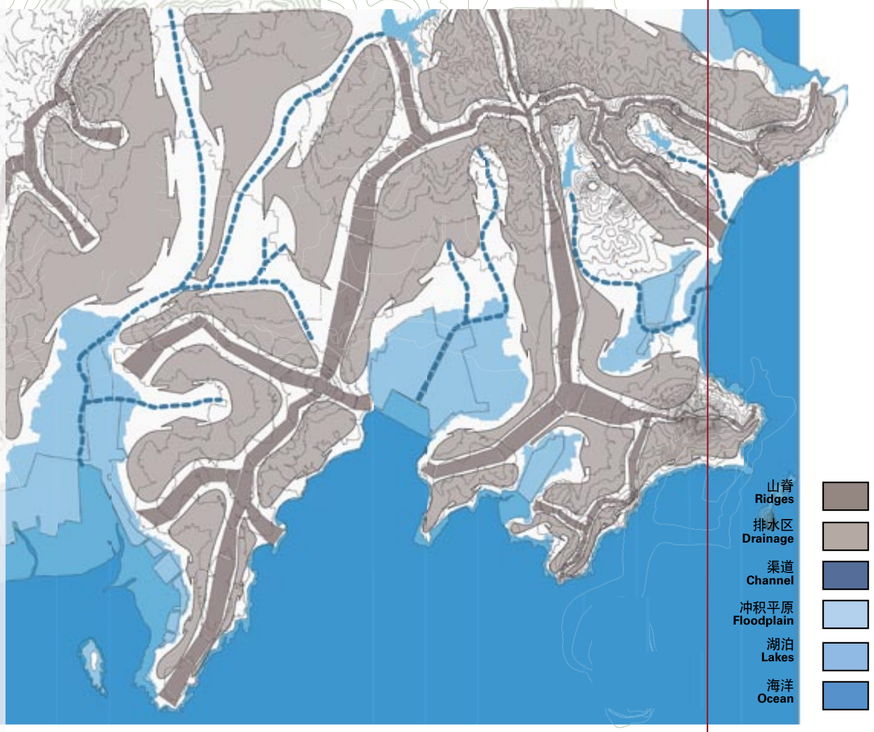
Elevation Differential: The benefit of elevation and its potential for views is obvious. Additionally, the grade difference between water sources and water distribution stations provide opportunities for hydroelectric supply, especially when combined with the continuity of water use in domestic, industrial and farm situations.

Natural Drainage: Natural water flows can be used to manage the quality of urban surface water. When organized into green management zones and treated with low-tech bio-filtration methodologies, this allows for greater development, improved water quality, and lower stress on the wastewater treatment plant. These zones also become fine regional public parks.

Wind Advantage: Prevailing winds, from the northeast in winter and the southwest in summer, offer attractive opportunities for wind-power generation. With average wind speeds of over 19 kilometers per hour, wind power becomes a possible option that deserves investigation.

Moderate Climate: The relatively mild climate of this coastal region, when combined with a well conceived and clean ecosystem, can make Lang Ya an extraordinary place for economic development through tourism and industry, as well as being an extraordinary place to live.





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经济发展规划很重要的一条原则是在更新经济结构的同时保护现有的经济基础。要注意保护,重建和新建之间的平衡。其关键是考虑所有方面的可持续性。

2004年至2008年开发顺序

1. 确定规划方案
2. 建设基础设施
3. 开发主要经济引擎
4. 开发低投资经济支持区

确定规划方案
规划方案是一份详实的蓝图。它规定城市扩展的边界,建设预留带的位置,和基础设施的规模。规划方案必须在开发动工前完成。总体规划的每一个战略都必须落实到具体实施的规划方案上。

建设基础设施
对琅琊快速发展至关重要的是通往青岛的同三高速公路和滨海公路的竣工。按照我们的方案,最西边的工业道路连接同三高速公路和南头港。这条路要早建,以便支持制造工业区的开发并带动沐官岛水库的建设。南头港(5.0) 要建到能承接建筑货轮的程度。北部东西向干道连接水晶城(2.0) ,琅琊镇和泊里镇,亦需完成。并配套完成供电,供水,排水和电讯主干网的建设。一个气势磅礴的琅琊台公园大门应建在滨海公路的出口。滨海公路要新建通往琅琊公园村(1.1) 和大众旅游村(1.2) 的岔道。其它基础设施应根据先期开发区的需要顺序建设。

开发主要经济引擎
一旦基本定位阶段工程完成,就该着手车轮山度假区(1.5)的开发。为增加这一度假区的价值和完整性,开发工程应由一个公司通过投标承包。投标承包的方法也可用于其它重要的基础设施建设项目。承包车轮山度假区的公司要尽快完成豪华宾馆,矿泉疗养所和高尔夫球场的建设。这一项目是向未来投资商们展示琅琊组团投资良机的关键。

When considering the development plan, it is important to upgrade the economy without destroying the existing economic base. The issues of preservation, reconstruction, and new construction must be balanced. Consideration of all forms of sustainability will be key.

Development Sequence 2004 to 2008

1. Define the plan
2. Build basic infrastructure
3. Develop major economic engines
4. Develop support areas requiring lower capital outlay

Define the Plan
A detailed blueprint defining urban growth boundaries, rights of way, and basic infrastructure must be in place before development begins. Every strategy of the master plan must be developed into detailed tactical plans.

Build Basic Infrastructure
Completion of the Tongsan Expressway link to Qingdao and the Coastal Road are critical to the rapid development of Lang Ya City Group. Within the plan, the westernmost industrial road connecting Tongsan Expressway to South Point Port should be completed to support manufacturing development, and to facilitate construction of Muguando Reservoir. South Point Port (5.0) should be developed enough to accept construction barges. The northern east-west artery connecting Crystal City (2.0), Lang Ya Town and Boli Town should be completed, along with primary power, water, sewage, and telecommunications links. A dramatic Lang Ya Tai park entrance should be created just off the Coastal Road; new bypass access roads from the Coastal Road to Lang Ya Park Village (1.1) and Affordable Tourism Village (1.2) should be constructed. Other infrastructure to support the initial development should proceed as required.

Develop Major Economic Engines
Once the definition phase is complete, rights to develop Chelun Mountain Resort (1.5) should be initiated. To increase the value and perceived exclusivity of this resort, development should be awarded to only one company via a bidding process. The proceeds from the bid can be used to create the infrastructure for other high priority projects. The developer of Chelun Mountain Resort should be encouraged to develop the hotel, spa and golf course as soon as possible. This will be a key setting to present opportunities to potential investors of Lang Ya City Group.

开发过程: 时间顺序,优先次序和政策
Development: Sequence, Priorities and Policies

水晶城是未来经济引擎的重点。随着制造工业的投资建设,大小投资商们都会对水晶城感兴趣。大财团会着眼于商场,码头和其它需要雄厚资金的项目。小商人会投资出租的公寓套房,开设各种商店,及其它服务性行业。一旦投资积累到一定规模,城市中心的开发,中心商城,和其它主要的房地产开发将带动各方面的开发建设。

开发低投资经济支持区
琅琊旅游公园(1) 应该保护起来,重新绿化,并建设旅游基础设施。它是未来旅游和投资的重要引擎,需予以美化,在建设目标之一是方便游客进出。这个区已经成功地创建了公园的布局,未来继续向这个方向发展不需很多投资。

琅琊镇和泊里镇拥有大部分的现居人口。市府大楼和其它重要政府机构,尤其是研究和培训机构,应与住宅区同步建设,避免位置上脱节。我们为新的市中心建筑群选择了特殊的位置,不会影响现有的状况。

工业开发的重点应放在重工业投资上。这样可以吸收泊里镇和琅琊镇现有的工人就业。建设项目需要工业提供材料,如混凝土厂。建筑材料工业必须尽早上马。另一个优先开发项目是南头(5.0)的造船厂。它将带动渔业的发展。其它重点项目包括:

- ☐ 在琅琊公园村(1.1)建一个客轮码头。提供与青岛和胶南之间的快速客运。
- ☐ 鼓励手工艺人在琅琊公园村(1.1)开设作坊店铺。
- ☐ 为琅琊公园村(1.1)增长的旅游业和商品渔业建设基础设施。
- ☐ 建设海洋研究所的第一栋建筑和栈桥。
- ☐ 在中国园和日本园(1.2)开始栽种花木,给植物足够的造型时间。
- ☐ 在温泉度假村和滨海度假村(3.0)开始修建高尔夫球场。度假村的一期建筑应在高尔夫球场旁边。
- ☐ 开始新的可持续性农业耕作,包括无土水栽园艺。
- ☐ 测试和验证风力发电的可行性。
- ☐ 在水晶城(2.0) 新建供船只停泊的海水港湾,包括滨海公路桥。疏浚港湾的泥沙可用于水晶城址的填注。

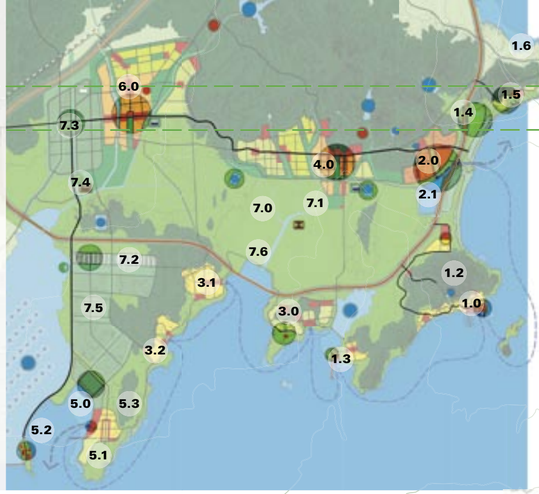
Crystal City will be a key economic driver for the future. In concert with investment in manufacturing, Crystal City will appeal to large and small investors alike. Large investors will undertake retail development, construction of the marina, and other capital-intensive projects. Smaller investors will be able to purchase rental condominiums and develop various retail and other support businesses. Development of the city core, central retail mall, and other prime real estate will drive subsequent development once a critical mass is created.

Develop support areas requiring lower capital outlay
Lang Ya Tourism Park (1) should be preserved, reforested, and tourist infrastructure developed. As a primary future driver for tourism and investment, the parklands should be beautified and developed in ways that enhance public access. Already this area has made great success in creating a park setting; it is a low cost way to continue the statement for the future.

Lang Ya Town and Boli Town contain most of the existing population. Construction of City Hall and other high priority government institutions, especially research and training institutions, should begin along with construction of dwellings in areas that minimize dislocation. We have recommended extraordinary sites for new central structures that minimize the effect on existing conditions.

The first priority in manufacturing should be to seek investment in heavy industry, which will employ available workers in Boli Town and Lang Ya Town. Construction support industries, such as a cement plant, must be completed as soon as possible. Another high priority should be the shipbuilding facility at South Point Seaport (5.0) that will invigorate the fishing industry. Other priority projects include:

- Construct a passenger ferry service terminal in Lang Ya Park Village (1.1) and initiate high speed passenger service from Qingdao and Jiaonan.
- Encourage artisans to set up shops in Lang Ya Park Village (1.1).
- Develop infrastructure to support greater tourism and commercial fishing at Lang Ya Park Village (1.1).
- Construct the first building for the Marine Research Institute and its pier (1.3).
- Begin plantings for the Japanese and Chinese demonstration gardens (in 1.2) to allow for plant maturation.
- Begin development of a golf course at Health Spa and Resort Coastal Village (3.0). The first development should be along and near the golf course.
- Begin new sustainable farming practices, including Hydroponics.
- Test and confirm viability of wind farming
- Construct the new saltwater boat basin at Crystal City (2.0), including the bridge required on the Coastal Road; use the dredge for fill at Crystal City.



到2008年为止的开发目标是要展示经济,生态,文化及创造性可持续发展模式的优越性。以此积累一定的经济实力,足以带动自身的发展,并为下一阶段的开发吸引资金。

The goal for 2008 is to demonstrate the sustainability model for economy, ecology, culture and creativity. This will create the critical mass of economic activity that is self-sustainable, and will encourage investment in the next phases of expansion.

2008年至2020年开发顺序

- ☐ 完成水库系统的建设,包括沐官岛水库。
- ☐ 启用新的污水处理设施。
- ☐ 大规模应用无土水栽技术和温室。
- ☐ 完成水晶城(2.0) 主体和滨海建设。
- ☐ 扩展重、中、轻型工业。
- ☐ 完成二级道路网,公交轮渡码头和自行车道的建设。
- ☐ 开始大型风力发电场建设。
- ☐ 安装轻轨:黄线先上,紫线第二,兰线第三。
- ☐ 完成大众旅游村(1,2)的主体景致建设。
- ☐ 更新海洋研究所(1.3) 设施及其服务社区。
- ☐ 完成所有渔业的基础设施。
- ☐ 开始建设企业旅游村(3.1) 和南岸旅游村(3.2) 。
- ☐ 继续改善和扩建琅琊镇和泊里镇。
- ☐ 开发南头旅游村(5.3)

实施和政策

车轮山度假区的开发工程应由一个国际上享有声誉的公司通过投标承包。这将增加这一度假区的价值和完整性,也会为其辅助性建设带来最大量的投资。度假区的土地应在长期租借的方式下开发。

水晶城是建设私有房地产的最佳地点。商业用房的租金要计为经营成本,但民居的私有者无需与别人分享房产的利润。按资本经济学理论,个人拥有和买卖房产的过程是价值增值的过程。比如说,商品房的价值,个人拥有的单元总比集团拥有的高。虽然集团也由个人组成,每个成员拥有整栋建筑的一小份。不论是个人拥有还是集团拥有,土地所有权都不是房主个人的,而是房主协会的。土地所有权的问题超出了城市总体规划的范畴。

应该建立一个港口管理机构来统管整个地区的港口设施。这样才能保证海洋生态保护的高标准。私营社团可以与该机构签约承包码头和港口的开发和管理。海洋研究所应综合指导所有渔业活动的控制和管理。这样才能保护海滨地带,提高渔业总的生产力和产品质量。

在工业园区中应不断安置国际贸易区。这是为了简化国际物资交流手续,减免关税,为投资者增加税务效益。工业和城市开发者都应享有税务优惠。政府与工业界有着共同的目的,因此应当对工业产品免除出口关税和工商税。房地产税也应调整,以促进房地产开发。此类优惠政策应有一定的期限,以鼓励投资。根据各公司对地区经济可持续发展模式的贡献大小,某些优惠可以延期。判断贡献大小的要求指标必须是可计量的。

在计算投资的回收效益时,价值的得失不应限制在直接显见的数目上,而是要计入对可持续增长模式的影响。例如,无土水栽园艺的开发,不光要算设施建设的费用,也要算它节水的效益,减少食品长途运输的效益,及其它与可持续增长模式相关的因素。再如,节水的效益,不仅是为本项活动省了水,还为其它生产活动得以用水带来了更大的价值。

经济可持续增长之重要,不仅在於吸引国内外的大财团。一项重要的任务是辨认和培育已有的社区经济活动,自然地培养企业,引导新的经济活动向已有的经济活动自然地“团聚”。协调这一过程需要一定的财富积累。因此必须调动一整套的经济活动,包括公有机关,大专院校,及社区私有企业的先行者。为了给琅琊组团规划出一个可持续的社区经济发展模式,我们在初级规划阶段就对可持续的社区经济发展模式进行了刻意的研究和阐述。

Development Sequence 2008 to 2020

- Complete the reservoir system, including Muguando Reservoir if it has not yet been completed.
- Bring the new sewage treatment facility online.
- Implement hydroponics and greenhouses on a large scale.
- Complete the Crystal City (2.0) core and develop the waterfront (2.1).
- Expand manufacturing capacity in all areas: heavy, medium and light industry.
- Complete secondary road networks, passenger ferry piers and bicycle paths.
- Begin large-scale wind power farm.
- Implement light rail: yellow line first, purple line second, blue line third.
- Complete core attractions of the Affordable Tourism Community (1.2).
- Upgrade Marine Institute (1.3) facilities and the supporting community.
- Complete infrastructure for all fisheries.
- Begin construction of Entrepreneurial Tourism Village (3.1) and South Coast Tourism Village (3.2).
- Continue upgrade and expansion of Lang Ya Town and Boli Town.
- Develop South Point Village (5.3).

Implementation and Policy

The rights to develop Chelun Mountain Resort development should be awarded to only one internationally accredited resort company via a bidding process. This will increase the value and perceived exclusivity of this resort, and will provide maximum investment capital for supporting development. The land should be developed under a long-term lease.

Crystal City is a prime opportunity for private property ownership. Unlike commercial businesses that deduct leasing costs as a cost of doing business, private individuals do not share this benefit. It has been demonstrated in capital economies that greater value is created when individuals can own and sell assets. For example, the value of condominiums, where the individual owns the unit, is always higher than comparable cooperatives, where the individuals share ownership of the entire building. In both cases, the homeowner's association, not the individual, owns the land. The larger issue of land ownership is beyond the scope of city master planning.

A Port Authority should be established to oversee and manage all port facilities in the region, to ensure a high standard for marine ecological protection. Private groups can then be contracted by the Port Authority to develop and manage marinas and ports. Control of all fisheries should be consolidated under direction of the Marine Institute to reclaim coastal areas and to improve the overall quality and productivity of the fisheries.

Foreign Trade Zones should be implemented in the industrial areas in an ongoing basis. The goal is to streamline paperwork for international transactions, to eliminate taxation of inventoried items, and to create tax benefits for companies investing in the area. Beneficial tax policies should be extended to both industrial and urban developers. Manufactured goods should be free of export fees and taxes based on shared goals of both government and industry. Property taxes should be adjusted for real estate development. There should be a minimum time period for these benefits to encourage investment, and certain tax benefits should be extended based on a company's performance in the areas contributing to the sustainability model. The requirements must be defined in terms of measurable objectives.

When calculating return on investment, an expanded definition of costs should be considered, to reflect the sustainability model. For example, the costs to develop hydroponic farms should not only consider costs of construction of the facilities. It should include macro-economic considerations of the offset to costs accrued from water conservation, the total costs of importing crops from distant locations, and other relevant sustainability factors. In calculating the value of conserving water, for example, the savings is not only in the lower water used for this method. The greatest value is in the other productive uses for the water saved.

A key to sustainable economic growth lies not only with the attraction of large global or national organizations. An important activity involves the identification of and the nurturing of existing community economic activities, generally entrepreneurial in nature, and looking at natural "clustering" of economic activities that build on those existing economic activities. In order to marshal the assets needed to coordinate this project, a network of activities must involve traditional public sector agencies, university partners, and the leadership the community's private sector. In order to develop a model of sustained community economic development for Lang Ya City Group, building this model into the community's initial planning stages will be key.

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