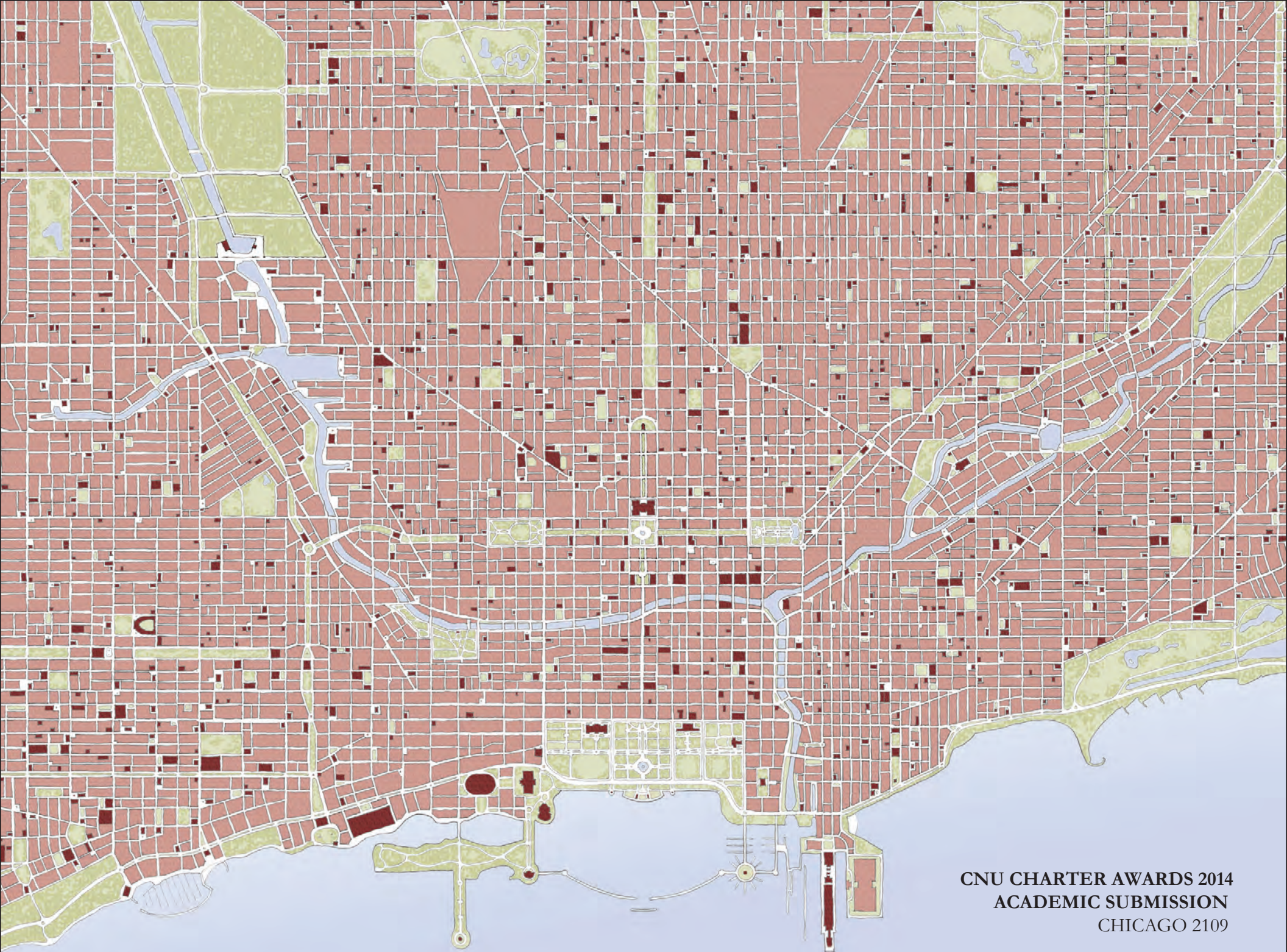




CNU CHARTER AWARDS 2014
ACADEMIC SUBMISSION
CHICAGO 2109

A. FACT SHEET

Category: Best Regional Plan

Project Characteristics

- ☐ Public policy program
- ☒ Regional/town plan
- ☒ Transit-Oriented Development
- ☐ Incorporates universal design principles
- ☒ Infill/previously developed sites
- ☐ Incorporates and meets AIA2030 Challenge
- ☒ Greenfield/previously undevelopment site
- ☒ Placemaking plan (exclusively public space, civic buildings, or infrastructure)
- ☒ Includes affordable/subsidized/social housing
- The project incorporates affordable housing as noted in the following response to the Charter Principles; however the particular quantity is to be determined locally with the creation of individual form-based codes.*
- ☐ Qualifies for LEED-ND certification
- ☐ Qualifies for other LEED certification
- Though the project incorporates the principles of LEED and LEED-ND, we presume that these will be obsolete by 2109.*

Has the plan been adopted or the project broken ground? Neither.

Why? The project is an academic project.

What percentage has been built / implemented? NA

Estimated date of completion: 2109

Land Area: 2,558,720 acres (3,998 Sq. Miles)

Civic uses:	} Varied types and sizes. As a regional plan, the project requires a mix of these uses, but does not dictate prescribed percentages, unit counts or square footages, leaving this regulation to the proposed local regulating plans and form-based codes.
Parks/Open Space:	
Residential:	
Retail, Office, Industrial	

Transect Zones

T1 Natural Zone	} 3,385 Sq. Miles
T2 Rural Zone	
T3 Sub-Urban Zone	
T4 General Urban Zone	} 613 Sq. Miles
T5 Urban Center Zone	
T6 Urban Core District	
SD Special District	

B. Project Description

On July 4, 1909, when Chicago was the fastest growing and most quintessentially modern city in the world, the Commercial Club of Chicago published Daniel Burnham and Edward Bennett's *Plan of Chicago*. Justly praised to this day for its regional sensibilities, environmental prescience, civic intentions, and ambition, it is often criticized for its allegedly autocratic social and design sensibilities. Less commonly noted, even by admirers, the *Plan of Chicago* was one of the last efforts (perhaps the greatest) to employ principles of traditional urban design in, for and at the scale of a rapidly expanding modern metropolis.

In its centennial year of 2009, commentators typically treated Burnham's Plan as a noteworthy historical document, the substantive relevance of which, despite permanent beneficial effects, has passed. This project, hereafter called Chicago 2109 (not its proper name), challenges that assumption and seeks to demonstrate that the great urban tradition within which Burnham worked possesses ample resources to solve many of the contemporary city's most demanding practical and aesthetic problems. Beginning with present-day Chicago, taking the Burnham Plan as an authoritative reference point, and projecting Chicago a hundred years forward, Chicago 2109 proposes a legible and humane urbanism that also addresses pressing problems of land stewardship, regional transportation, water conservation, waste water treatment, zoning law, walkable neighborhood design, durable construction, climate change, and the symbolic content of urban form.

Like the Burnham Plan, Chicago 2109 entails architecture, urban design and planning at a metropolitan scale encompassing the seven counties of northeastern Illinois, with particular attention to Chicago. Intended as a visionary research project, the design was undertaken over a period of eighteen months beginning in late 2011. Not presuming environmental or economic apocalypse, rather an extended period of 21st century economic and population decline followed by revival (with a 2109 population comparable to 2009), Chicago 2109 seeks long-term environmental, economic and cultural sustainability in metropolitan Chicago by illustrating good land use, good transportation policy, good building practices, and good urban form. Anticipating (primarily for infrastructure cost and demographic reasons)

the decay and abandonment of post-1945 sprawl suburbs, Chicago 2109 reclaims some 70% of metropolitan Chicago's suburban footprint as open land for agriculture, commercial forestry, passive waste-water treatment, forest preserves and prairie. Combined with a damming and re-reversal of the Chicago River and the creation of new active (city) and passive (town and country) water treatment districts, the Chicago 2109 proposals would both recharge regional aquifers and send more water back to the Great Lakes Watershed.

Chicago 2109 would retain regional interstate highways, but re-creates in-city interstate rights-of-way as urban thoroughfares. It re-establishes a regional agrarian-urban culture of rural-to-urban settlements ---Hamlets, Villages, Towns, Cities--- with agricultural activities, population density and land coverage appropriate to each. It envisions a polycentric metropolis of urban neighborhoods and towns along improved and extended city and regional rail lines, and villages and hamlets in the rural landscapes in between. It proposes to enhance metropolitan Chicago's commercial environment with simple form-based zoning codes subservient to local community-based and community-developed master plans. It triples the City's open land, and depicts a public realm of parks, plazas, squares, avenues, boulevards and streets established as normative and beautiful spaces for all.

Finally, Chicago 2109 reclaims the Chicago Circle freeway interchange and re-conceives the *Plan of Chicago's* Civic Center originally intended for that site. It restores Congress Street as Burnham's proposed east-west civic axis (now focused on a new 550' high-rise City Hall at Congress and Halsted); and shows a new north-south sacred cross-axis (Columbian Exposition Boulevard) parallel to Halsted in re-purposed interstate rights-of-way. Both interventions serve purposes practical and symbolic: practically, they establish a grand, formal, and dense-but-human-scaled neighborhood at the core of Chicago; symbolically, they redirect the meaning of Chicago's historic center away from celebrating unsustainable crony capitalism and (after Burnham) toward a better representation of the dynamic reciprocity of Chicago's environmental, commercial, civic, and religious sensibilities, ambitions and duties.

Principles of the Charter of the New Urbanism

1) Metropolitan regions are finite places with geographic boundaries derived from topography, watersheds, coastlines, farmlands, regional parks, and river basins. The metropolis is made of multiple centers that are cities, towns, and villages, each with its own identifiable center and edges.

2) The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality.

3) The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural landscapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.

4) Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.

5) Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.

6) The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.

C. Response to Charter Principles

This project engages and develops a long-term vision for a great American metropolis. It represents and addresses many Charter Principles, and ranges in scale from the metropolis and the city, to the neighborhood, district and corridor, to the block, street and building. To better understand the region, the project engaged the geography, history, and transportation systems of metropolitan Chicago in the context of the American Continental Grid. These informed our proposals for metropolitan infrastructure interventions and land use, and our rationale for the settlement types depicted in the project. The latter include new rural hamlets and villages located at the crossing of existing state and county roads; towns as more compact versions of existing railroad suburbs; and perimeter cities Joliet, Aurora and Elgin [1-2, 5-6]. By means of such settlements, much of post-1945 suburban Chicago can be restored to forest, prairie and agriculture; rural environments are re-integrated with a variety of human settlements [3-4]; and the traditional neighborhoods and towns that characterized metropolitan Chicago prior to 1945 are re-established and either centered along city and regional rail corridors, or edged by corridors resulting from the transformation of former interstate highways into parks, wetlands and boulevards. Working industrial districts (designated, but not shown in this submission) are located throughout metropolitan Chicago along existing freight lines, interstates and waterways [10, 11].

We presume driving and commercial aviation

in 2109 Chicago, but that they will be costly and less common. Our primary proposed transportation network includes improved and extended metropolitan passenger rail; improved and extended CTA rail lines, light rail, and trolleys; Bus Rapid Transit to supplement existing city and suburban bus routes; and a possible public-private venture inter-urban High Speed Rail located in existing interstate ROWs. Altogether these constitute a holistic regional transportation system overlaying and connecting town and neighborhood settlement types that are themselves spatial networks of plazas, squares, and walkable / bikeable streets [8, 19, 22, 23].

Proposals for several specific city neighborhoods, towns and villages illustrate how places of varying density can comprise a sustainable and humane metropolitan Chicago. Each proposal is for a walkable mixed-use settlement centered on a transit stop or a rural road intersection [11,12]. Towns and neighborhoods are centered on a Metra or L stop generally to a maximum one-mile radius, which makes every one of them a de facto TOD [15]. Throughout the neighborhoods and towns, plans show common Chicago residential types ranging from detached and attached single-family dwellings to 2&3-flats and six-flats to multi-family corner, courtyard and mixed use buildings [13], as well as civic and religious buildings fronting public spaces [16]. Though we did not do comprehensive code writing, the project presumes (and illustrates) form-based zoning codes at the scale of the local community-based and community-developed master plans that our regional plan implies [17]. In addition to the restoration of forest, prairie, and agriculture in large areas of the seven

8) The physical organization of the region should be supported by a framework of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility throughout the region while reducing dependence upon the automobile.

10) The neighborhood, the district, and the corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.

11) Neighborhoods should be compact, pedestrian friendly, and mixed-use. Districts generally emphasize a special single use, and should follow the principles of neighborhood design when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and parkways.

12) Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.

13) Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.

15) Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.

16) Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use

C. Response to Charter Principles, continued

metropolitan Chicago counties, our proposal also triples the area for parks, squares and playgrounds throughout the city of Chicago proper; and proposes that town, village and hamlet wastewater be treated by constructed wetlands that passively purify wastewater while disguising themselves as edge-condition landscape and wildlife refuge [18].

Special attention has been given to public space, civic buildings and historic preservation at multiple scales. Civic and religious buildings---churches, synagogues, mosques, temples, museums, schools and libraries---front public spaces ranging from the baroque scale of our proposal for Chicago's historic center to the intimate scale of our proposals for neighborhood plazas and town squares [25]. Likewise, though we presume a) that for economic and environmental reasons traditional materials and methods of construction will be normative in 2109 Chicago, and b) that Chicago's more poorly built recent buildings will not endure for 100 years, we also presume that even through economic hard times Chicagoans will find a way to preserve and renew their best built and most beloved historic buildings [27].

complexes. Schools should be sized and located to enable children to walk or bicycle to them.

17) The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.

18) A range of parks, from tot-lots and village greens to ball fields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.

19) A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.

22) In the contemporary metropolis, development must adequately accommodate automobiles. It should do so in ways that respect the pedestrian and the form of public space.

23) Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.

25) Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.

27) Preservation and renewal of historic buildings, districts, and landscapes affirm the continuity and evolution of urban society.

D. Lessons Learned

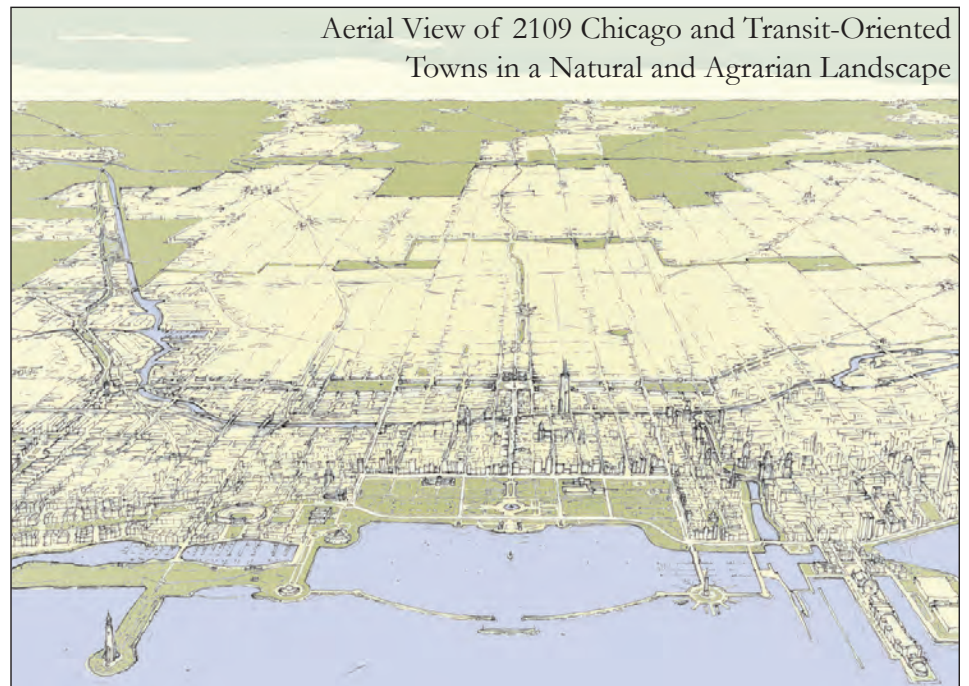
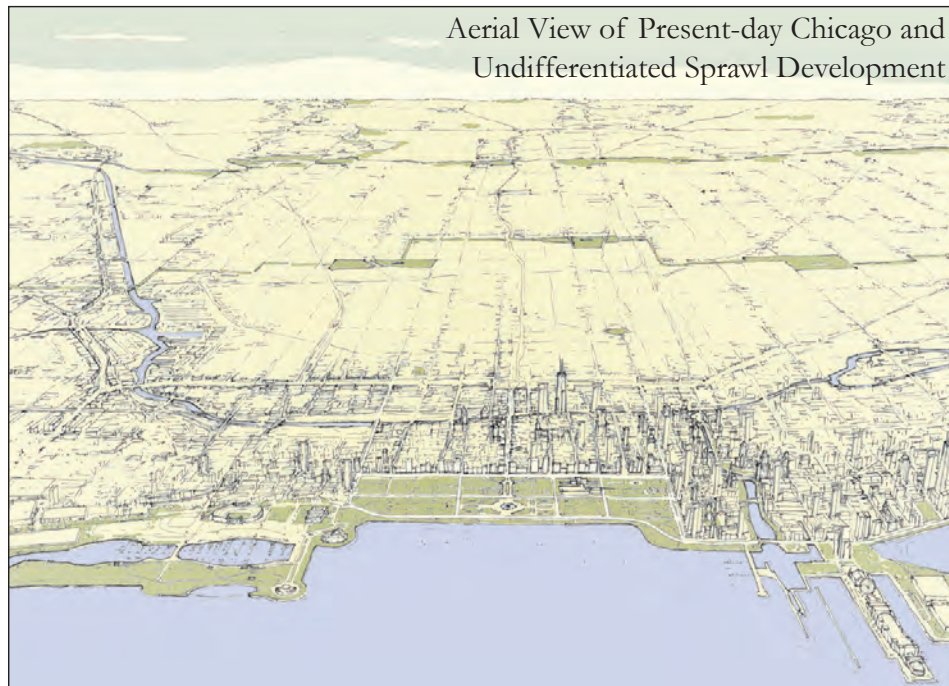
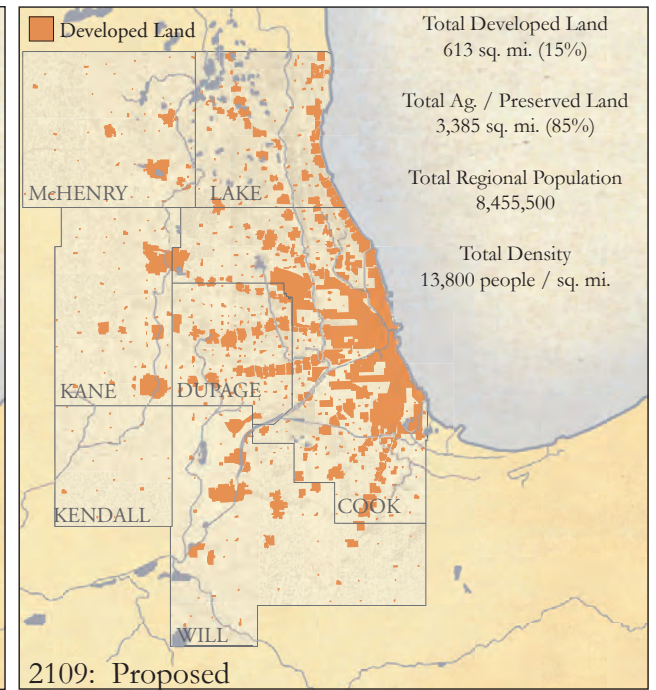
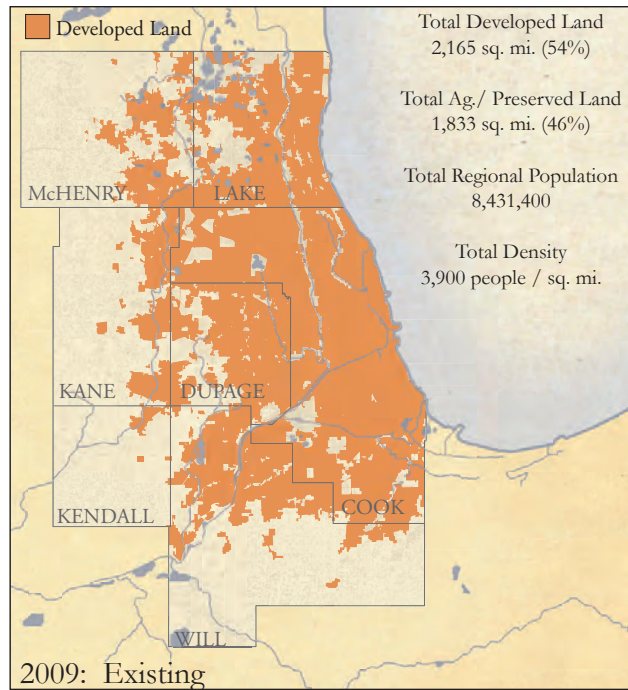
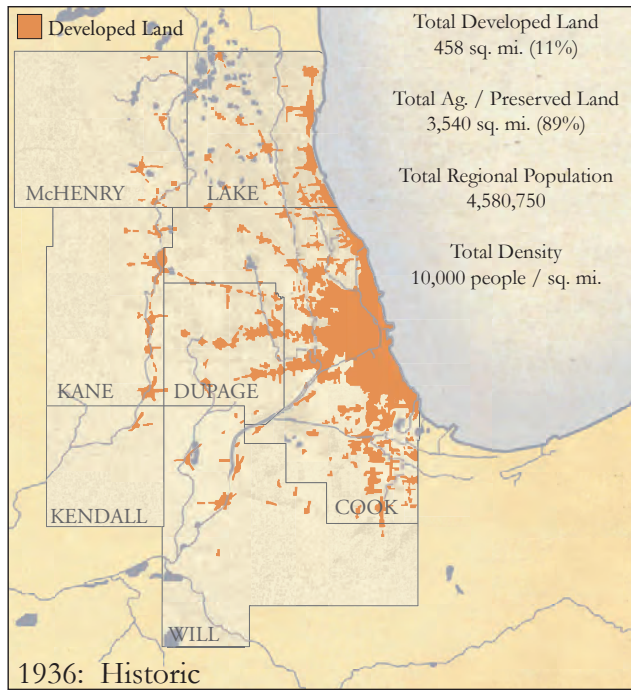
From the beginning, we have considered that our project stands in relation to the Burnham Plan as the McMillan Plan does to the L'Enfant Plan for Washington, DC. The scale of our project (4000 square miles) was daunting, but what surprised us was that, when examined critically, our proposed big-scale interventions are comparatively modest, a sort of baroque-scale Lean Urbanism.

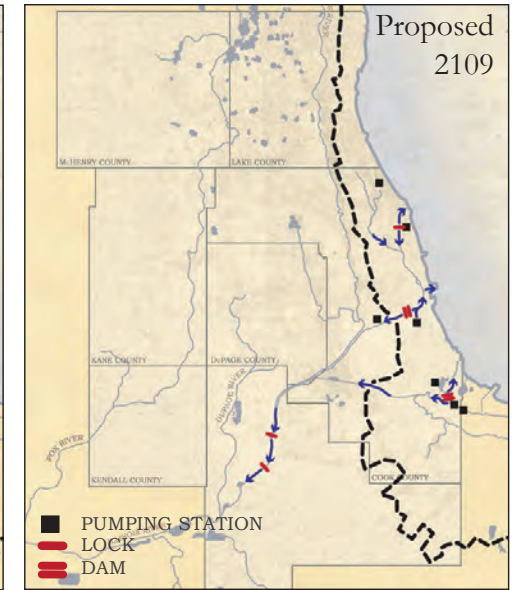
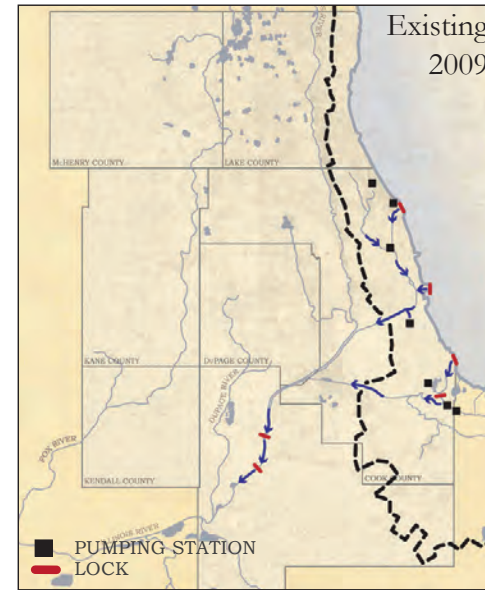
For example: we recognize that full recovery of metropolitan Chicago's rural landscape probably will require some kind of public-private partnership. Nevertheless, the suburban decline we presume is likely to unfold naturally, without top-down agency, because the economics of suburban infrastructure are unsustainable.

Or consider our proposals to re-urbanize in-city interstate ROWs: big-scale projects, but for sites occupied by infrastructure now nearing the end of its useful life, and owned by a single public entity that may realize that urban freeways are not a good long-term financial investment. There would be no required government 'takings' for any of these proposed projects --the government already took-- and little if any demolition of private property.

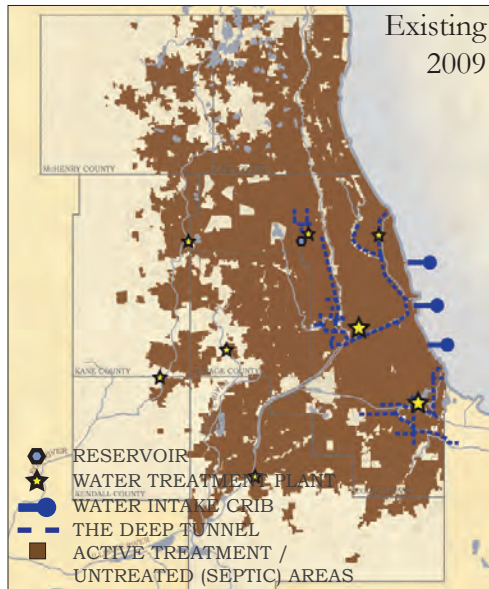
Regarding the changes we envision in the Chicago skyline, we think: a) the materials, methods and aesthetic of modern construction will be luxuries the new economy cannot afford; and b) that as modern buildings throughout Chicago age and face restoration or replacement, fiscal prudence and environmental sensibility will recall us to perennial architectural virtues of durability and beauty. Chicago landmark buildings will survive and flourish based upon exactly these virtues, but hastily built and / or ill-conceived high-rises are destined to be casualties of their own operating expenses and maintenance demands.

In the context of the 100-year time frame our project presupposes and the coming near-term economic consequences of fixed demographic events, Daniel Burnham and the humanist urban tradition from within which he worked have something to teach Chicagoans (and all of us) about rebuilding productive landscapes, beautiful settlements, and a durable commonwealth in a foreseeable future of limited means.

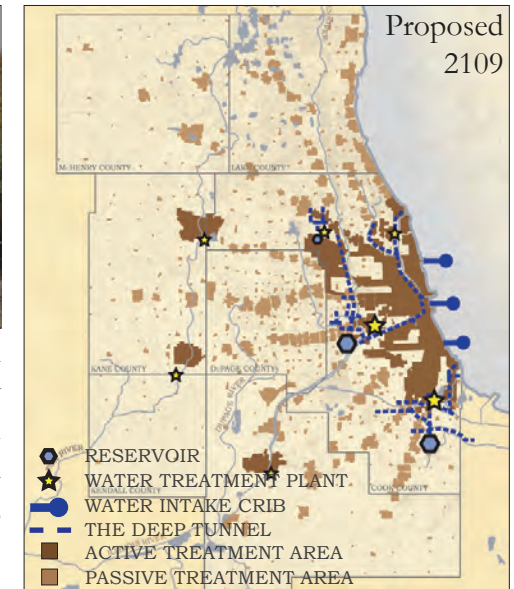


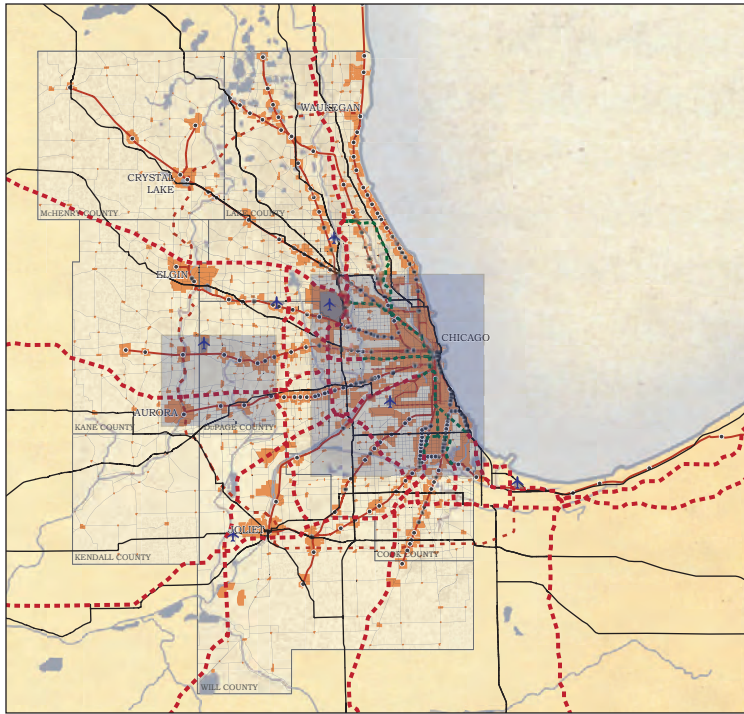


Chicago straddles a natural subcontinental divide separating the Great Lakes watershed from the Mississippi River watershed. Extensive engineering in the mid-19th and early 20th centuries linked the two watersheds and effectively reversed the flow of the Chicago River, redirecting it to the Mississippi River watershed. This carried Chicago's wastewater away from the source of its drinking water, but has created subsequent environmental complications. For 2109, the project proposes to replenish Chicago's regional aquifer and address its storm and wastewater problems by vastly increasing the permeable surface in the region, re-reversing the Chicago River, and localizing city and regional storm water management and wastewater treatment.

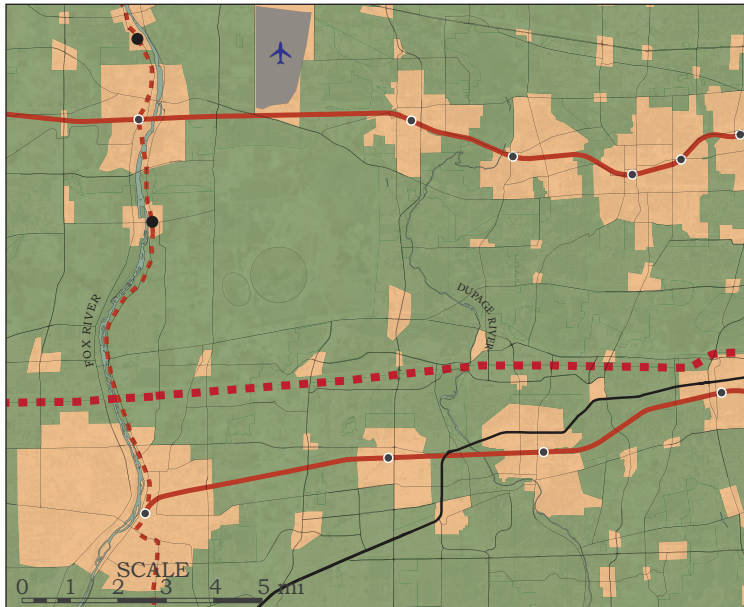


Constructed wetlands are a localized 'passive' wastewater treatment system that purifies wastewater through natural processes both environmentally friendly and aesthetically pleasing. Wetland cells remove pollutants through physical, chemical and biological processes, and dissipate ammonia with rushes and prairie grasses, returning pure water to the ground. Additionally, a variety of proposed Light Imprint strategies improve the ability to collect, store, and purify water, and return more of it to regional aquifers.

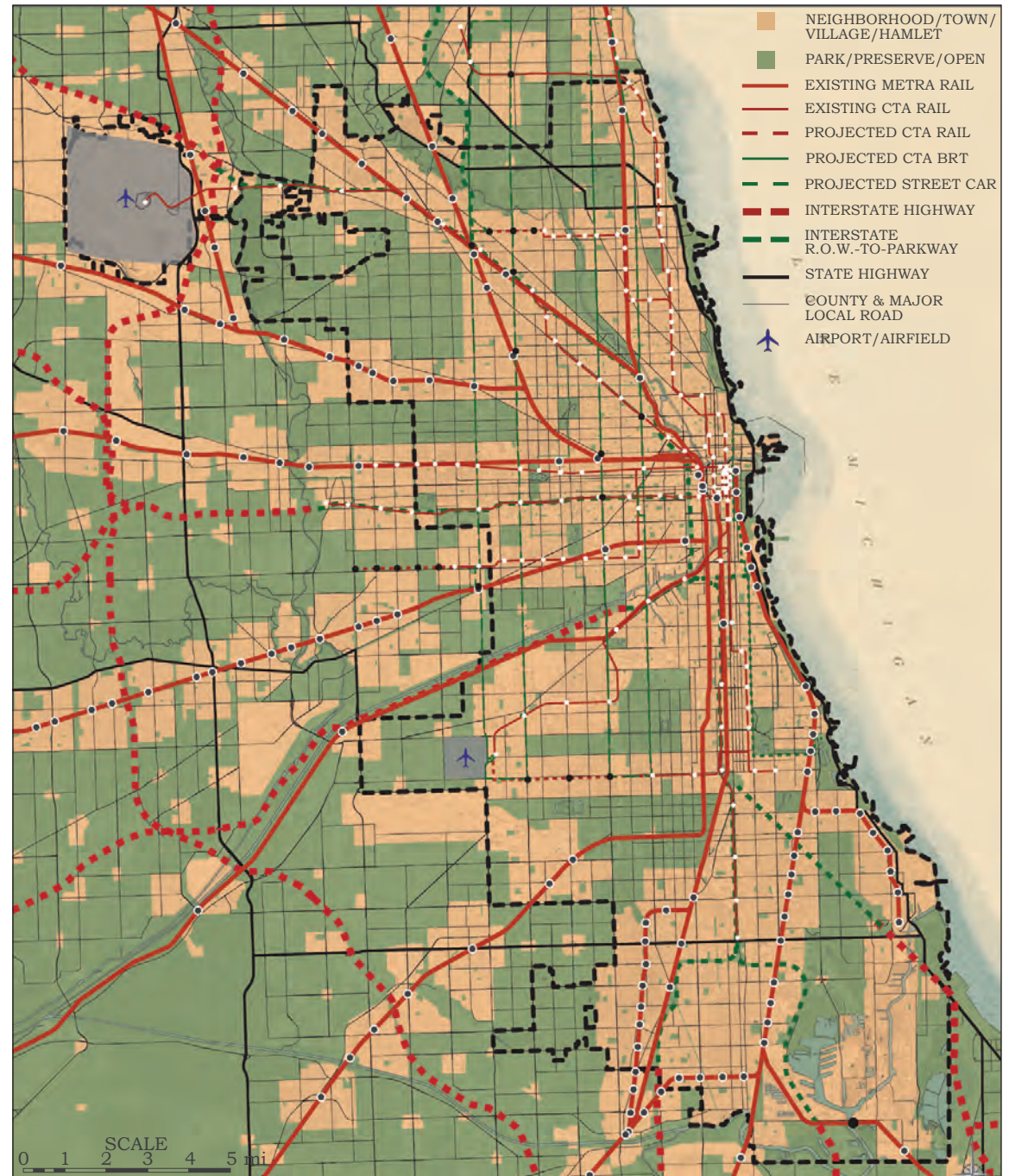




Regional Key Plan



Town & Country



City of Chicago



HAMLET

<40 Acres

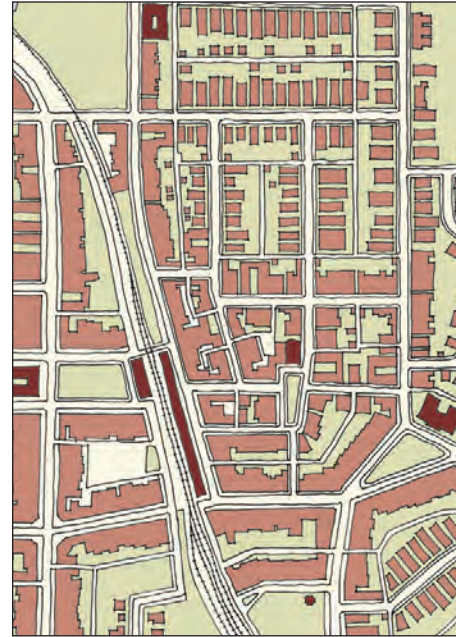
Population: 5-8,000/Square Mile



VILLAGE

40-640 Acres

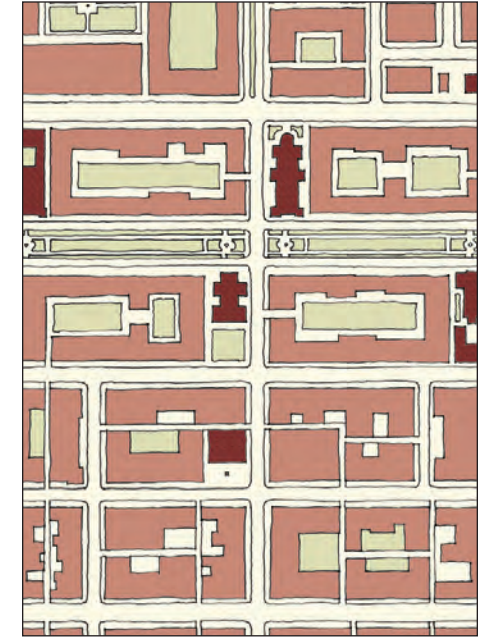
Population: 8-12,000/Square Mile



TOWN

1-4 Sq. Mi.

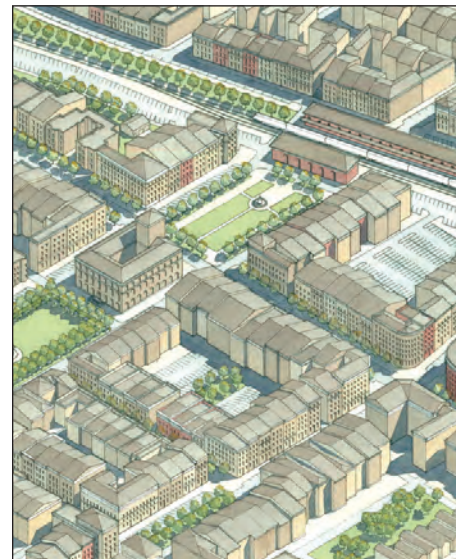
Population: 12-20,000/Square Mile

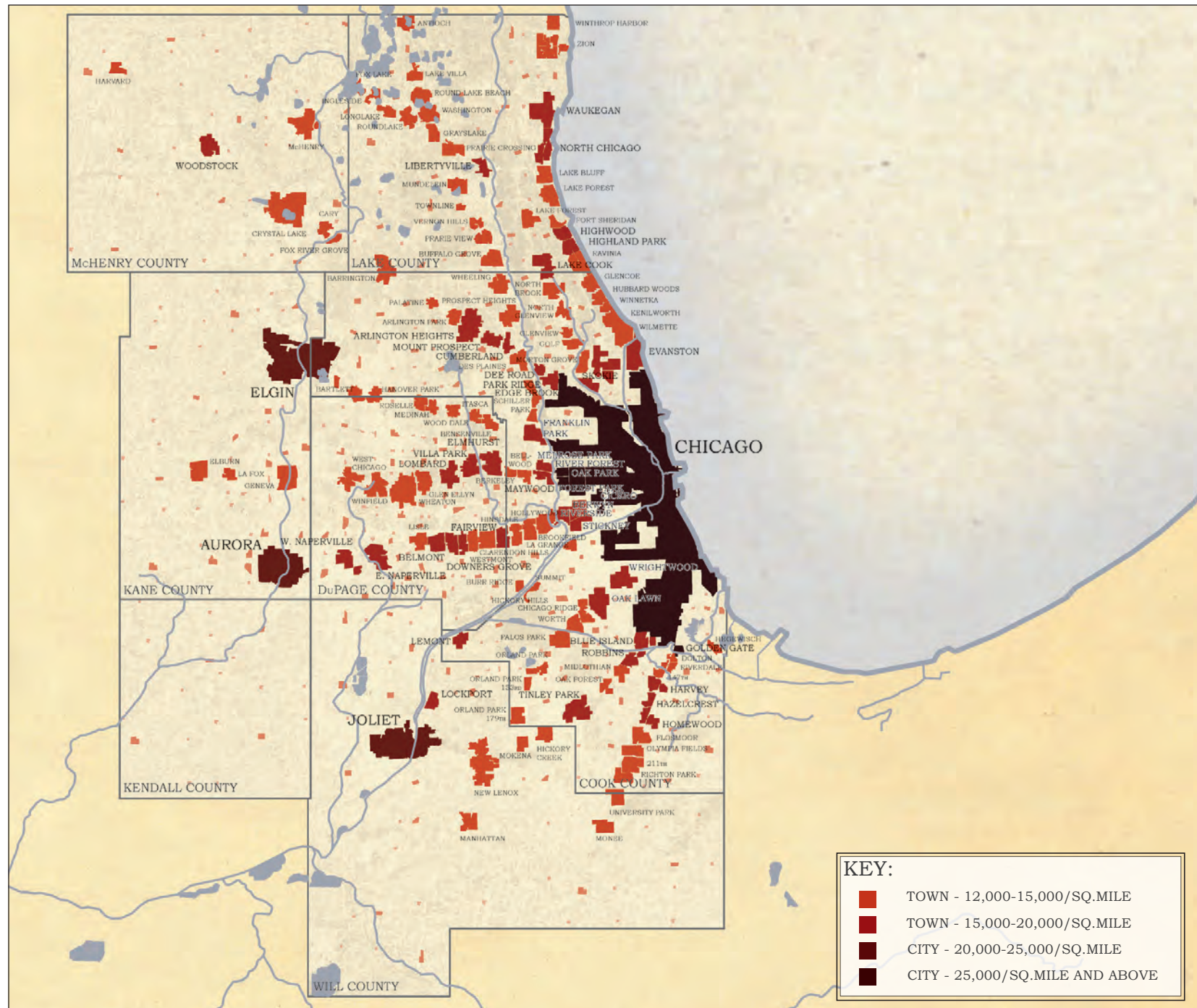


CITY (neighborhood)

> 4 Sq. Mi.

Population: 20-40,000/Square Mile



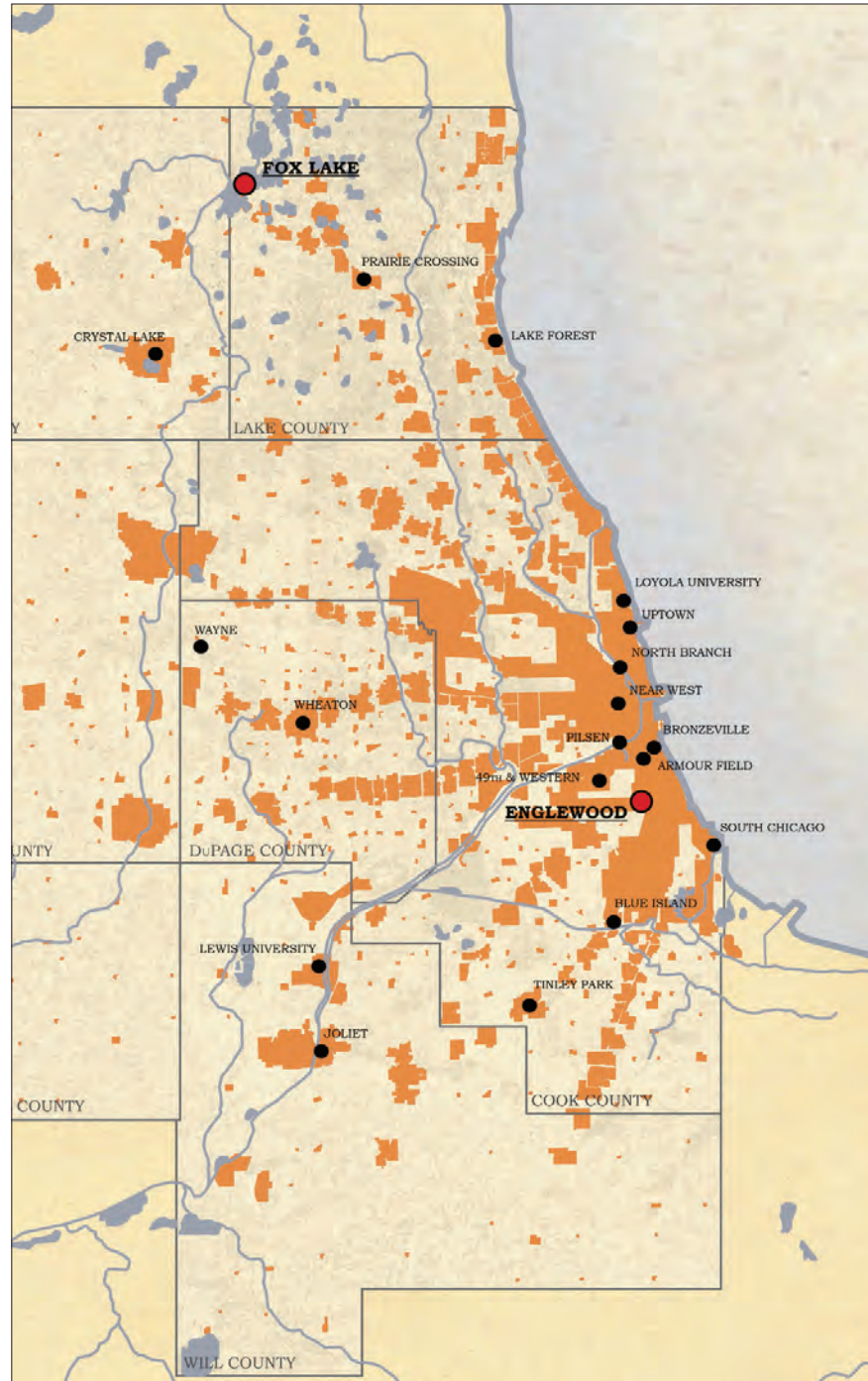




2009: Existing Plan of Fox Lake



2109: Proposed Plan of Fox Lake

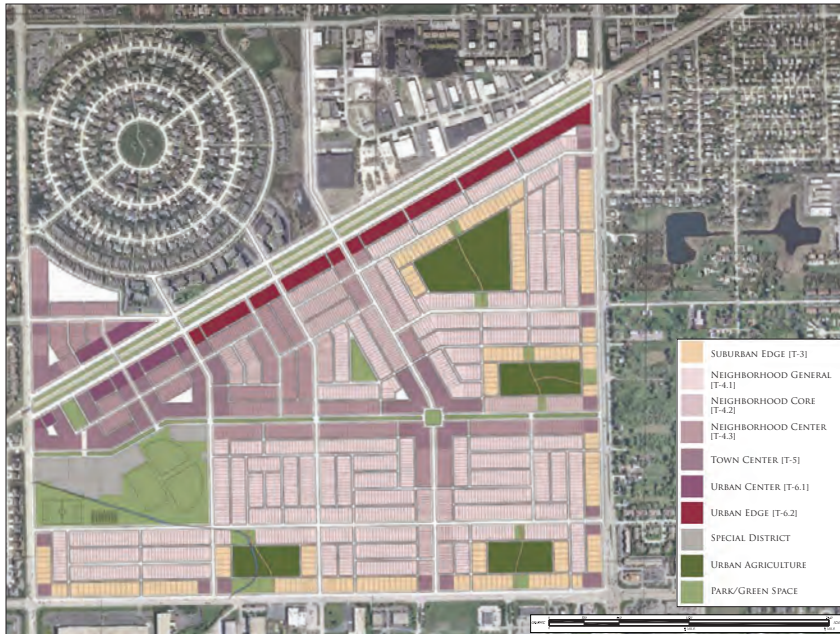


2009: Existing Plan of Englewood

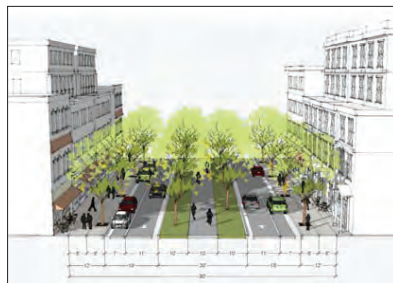
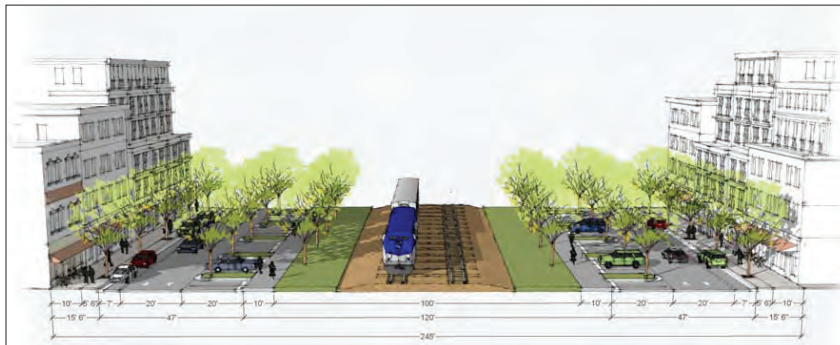


2109: Proposed Plan of Englewood



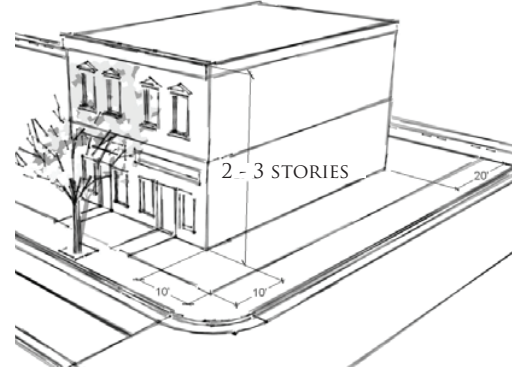


Regulating Plan for Tinley Park



Proposed Street Sections

TYPE II - DETACHED CORNER BUILDING



Allowable Types

Single-Family	3-Flat
2-Flat	6-Flat
Courtyard Type	Mixed-Use

Building Function

Residential	Allowed
Lodging	Allowed
Office	Allowed
Retail	Allowed (Ground Floor Only)

Ancillary Units

Allowed with Single-Family, 2-Flat, 3-Flat and 6-Flat Types.

Parking

No Off-Street Requirement for Courtyard Type
 2 Off-Street per 3 Units for 3-Flat & Above
 1 Off-Street per Unit for 2-Flat & Single-Family



Building Height

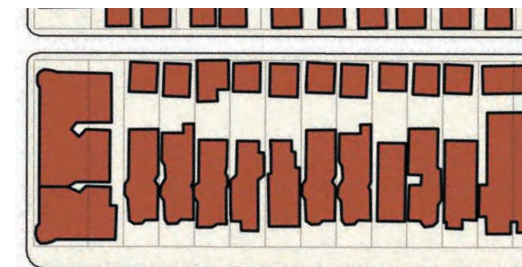
Primary Building	2 Story Min. 3 Story Max.
Auxiliary building	2 story max.

Lot Occupation

Lot Width	30 Foot Minimum
Lot Coverage	65% Maximum
Building Frontage	24 Foot Min. 50 Foot Max.

Building Location

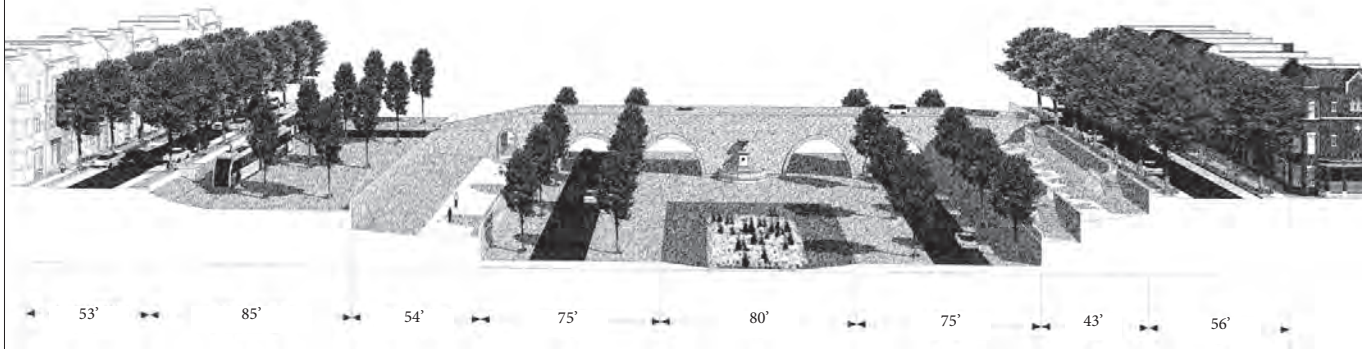
Front	5 Foot Minimum Setback
Side	3 Foot Minimum Setback
Side (Corner)	10 Foot Build-to-Line
Rear	20 Foot Setback



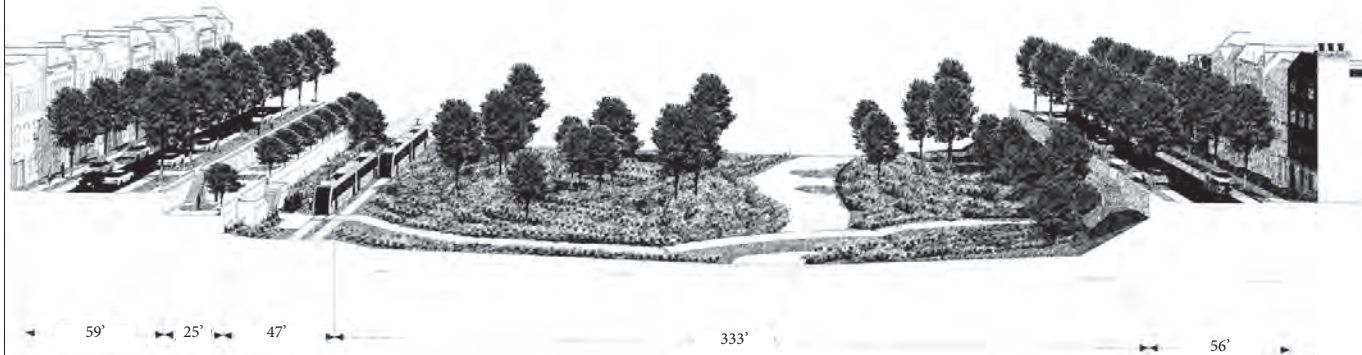
Sample Form-Based Code Page, Neighborhood Core (T-4.2)



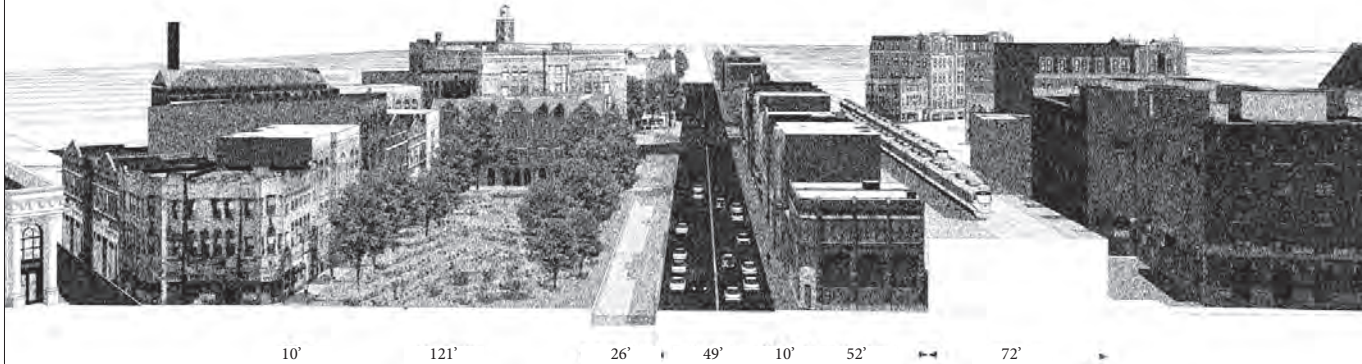
Proposed: Dan Ryan Expressway to Boulevard with Rail



Proposed: Dan Ryan Expressway to Boulevard with Wetlands with Rail



Proposed: Kennedy Expressway to Urban Street with Rail

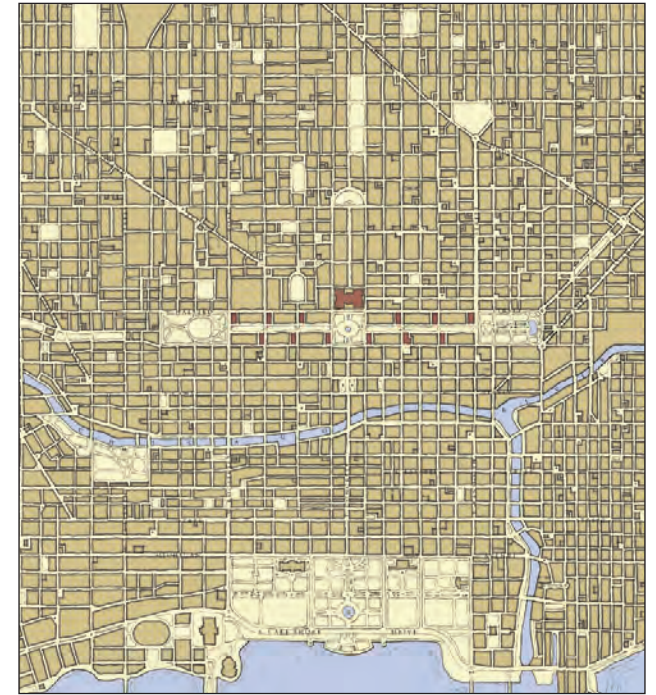




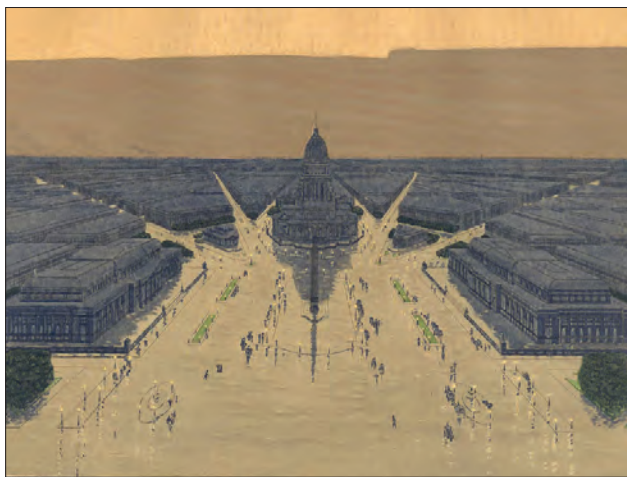
Plan of Chicago, 1909
The "Proposed Civic Center Plaza and Buildings"



Existing Chicago, 2009
Aerial View of the Chicago Circle Interchange at
Congress Parkway and Halsted Street



Proposed, 2109
Aerial View of New City Hall at
Congress Parkway and Halsted Street





City Hall and Columbian Exposition Boulevard



