

THE SUSTAINABLE JOURNEY OF BEAUTY

A **PLANNING MANUAL** for developing
new housing and community initiatives
on the Navajo Nation

Prepared for:
NAVAJO HOUSING AUTHORITY

Walking in Beauty The “Navajo Way” Blessing

Hózhóogo naasháa doo
Shitsijí’ hózhóogo naasháa doo
Shikéédéé hózhóogo naasháa doo
Shideigi hózhóogo naasháa doo
T’áá altso shinaagóó hózhóogo naasháa doo
Hózhó náhásdlíí’
Hózhó náhásdlíí’
Hózhó náhásdlíí’
Hózhó náhásdlíí’
In beauty I walk

With beauty before me I walk
With beauty behind me I walk
With beauty above me I walk
With beauty around me I walk
It has become beauty again
It has become beauty again
It has become beauty again
It has become beauty again



“HOUSING OUR NATION BY GROWING SUSTAINABLE COMMUNITIES.”

Vision Statement of the Navajo Housing Authority

A JOURNEY OF BEAUTY

This report is all about houses, a great many houses, and all to be built in a miraculously short amount of time. But this isn't just about any houses, built anywhere. It is about the design of beautiful places in which to live and located in meaningfully related ways. It is a bold and exciting part of the journey that will continue until the Beauty Way Chant, once again becomes the Navajo beauty Way of Life.

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SWABACK PARTNERS p11c
Architecture • Planning • Interior Design

This study represents far more than what could be produced by highly accredited and experienced professionals. While it is all of that, the spirit in which it has been conducted has evolved in the hearts and minds of those who know most about the Navajo journey because they are its living history and culture. For that, we thank the officer's and staff of the Navajo Housing Authority who directed this work from the start. And we thank the individuals and organizations who made it possible to coordinate a comprehensive variety of studies concerning everything to do with the Navajo land and its existing infrastructure.

Most of all we thank both the citizens and officials who attended and provided valuable testimony at the all-day meetings with each of the five Agencies, followed by expanded sessions with each of the 24 Regions and their corresponding Chapters. To this we would add our special appreciation to the Council Delegates who were able to attend and offer their guidance.

These public events began with the presentation of exploratory illustrations that lined the walls of each meeting location. These materials prepared specifically for each session had a two-fold purpose. The first was to share a consolidated view of all planning activities conducted up to the time of the meeting. The second was to encourage and inspire responsive impressions and insights from the participants. The result of this input, including both verbal comments and the many thoughts and sketches added to our drawings by the participants, exceeded anything we knew to expect. By way of this feedback, it gives us the greatest reassurance that all who participated have had a direct hand in shaping the future of the Navajo Nation.

This planning process is not the conclusion, but rather a new beginning to a commitment from all involved to believe both in beauty and the power of design.

Sincerely,

SWABACK PARTNERS, p11c

Vernon D. Swaback, FAIA, FAICP

Managing Partner



Image from one of the Regional work sessions in the Western Agency. During the week of July 23rd, 2012, there were 24 such work sessions held on the Navajo Nation.

ACKNOWLEDGEMENTS

So many wonderful individuals have contributed to this planning effort. First and foremost, the NHA leadership and staff has given countless hours to providing the planning team with thoughtful guidance and support. We also want to thank the Council Delegates for their efforts in coordinating the logistics of over forty community oriented meetings to date.

Next, other tribal departments such as Community Development, the Navajo Nation Land Department, and the Navajo Tribal Utility Authority have all provided critically important input and data.

Finally, the hundreds of community members who have participated in the planning sessions have added their inspiration to everyone involved in the process of discovery. We thank one and all for your involvement, commitment and passion.

Key Talking Points

1. There are in lives of cities, states and nations, times and circumstances of uncommon opportunities. For the Navajo people, the study that results in this manual has been conducted and taken advantage of one of those uncommon times.
2. It combines a profound respect for the Navajo culture with a focus on the new and evolving needs for the present and all generations yet to come.
3. The best way to use this manual is to see it as a series of steps, starting with timeless commitments and visions like the message of the Navajo Beauty Way Chant. This is followed with insights into a philosophy of planning which observes both the timely and timeless.
4. For example, there is nothing more timeless than the sustaining commitment of a people who care for Mother Earth, Father Sky, the animals and others. What is timely are the evolving ways of carrying out that respect.
5. What brings the timely and the timeless together are the 21st Century ways for addressing what it means to be sustainable.
6. You will find this notion of sustainability expressed in ways for doing more with less by way of shared community facilities, far beyond what anyone could ever achieve on their own.
7. You will see examples of the sequence of planning studies, starting first with each Agency, then the Regions within that Agency, all culminating in advisory plans for the use by each Chapter within the Region.
8. You will see photographs of the work sessions and the individuals who participated all across the Nation in the creation of studies that have added the benefit of a greater degree of informative and citizen involvement than anything that has ever happened before.
9. And you will see advisory plans, based on what exists today and extending to encompass the likely needs and opportunities of the future, including an analysis of the number of new housing units required for each Chapter.
10. Lastly, in addition to this overall story that addressed all of Navajo, in the sleeves at the back of the manual you will find a CD of the research and advisory plans for your Agency, your Region and your specific Chapter.

A. This is a huge undertaking that requires significant collaboration and coordination with multiple parties, including; chapter leaders, Window Rock officials, Nation Agencies and all citizenry. Realities that need to be addressed moving forward include:

- There is not enough land available to build 34,000 homes to existing land leases and grazing permits
- There should be a nationwide discussion regarding the need for land reform
- The cost of building these homes will be enormous
- The current CLUPs haven't identified enough housing sites to meet the current housing needs – there exists a major disconnect.

B. This Planning and Design Manual is intended to be a roadmap, not a mandate.

- Its an advisory document intended to assist Chapters with best practices of planning and community development.
- This work is not intended to substitute or take the place of Chapter plans – it's meant to assist the process.
- The information can empower Chapter leaders with knowledge and useful information so that thoughtful decisions can be made regarding housing and community development in the future.

C. Sustainability must be the guiding force in order to provide opportunities to foster community heritage and culture with the well-being of future generations.

- The plan addresses immediate needs as well as a focus on future generations (its not just about you, but also your children and grandchildren)

- Traditional nomadic ways of living need to be balanced with shared community values and resources; such as education, health care, recreation and civic services.
- The cost to build more dispersed/scattered housing in isolated and un-organized ways will limit our success to assist all who need and desire a home.

D. The planning process is intended to provide better choices for housing types and needs.

- Feedback from the Regional community meetings identified the desire for a range of housing types (rural, better neighborhoods, seniors, veterans and apartments).

• NHA is committed to better design and to providing choices of housing desired.

• Not this – past NHA subdivisions; But this – new orchestrated neighborhoods.

• A new form of scattered housing is proposed that focuses on rural settings with an emphasis on conservation resources. Rural conservation equals a better form of scattered housing.

• We need specialized housing for seniors and veterans.

• Apartments for work force residents.

• Demand from NHA that they follow through on what this manual sets in motion

• NHA is establishing a finance strategy for everyone from low income to high income. This will allow for rentals, rent-to-own, as well as traditional home mortgages.

E. Key Next Steps in realizing the dream of new housing for the Nation:

• The Consultant team will be orchestrating a workshop and open house for Navajo students from ASU in order to gain more input. All have said that we need input from the younger generations – this meeting is a great opportunity.

• Many students and young professionals have said they would like to come back and live on the Nation if there was better homes and better jobs. We want to better understand the associated issues.

• Most Chapters have requested additional meetings. The Consultant team will be following up with each Chapter individually to review the advisory documents.

• Demonstration Projects (five total/ one in each Agency) will be selected and designs will be prepared.

• The initial built projects will provide an opportunity for all to see the next generation of housing and setting for the communities of the Navajo Nation.

Summary:

Rather than the typical kind of studies that easily go out of date, this Manual is a framework that sets the stage for all that is yet to be. It is specific where that is most helpful and general enough to let the future unfold. It is in summary a living guide designed to combine the best of all those who have contributed to its creation, while setting a guideline for helping create the kind of coordinated sustainable communities that get richer with the personal and group commitments of both existing and new citizens, and existing and greatly expanded opportunities for education, employment, culture, health, and the emerging services.

You will find the term “orchestrated design.” Think of an orchestra made up of highly different individuals, each doing what they do best. But because they each know what they can produce together, the result can be something of great beauty.

That is the goal of community.



Community architecture should strive to use local materials and express the culture and heritage of the Navajo Nation.

A LIFE - CENTERED INITIATIVE

The planning activities involved in this Sustainable Community journey have had the benefit of a most comprehensive access and analysis of the variables to be considered when thinking about where and how to locate 34,000 new dwellings.

The spirit in which this work has been conducted includes far more than what the disciplined application of technical experience alone could ever hope to deliver. It is also a work that should be thought of as an on-going process. Like life itself, caring for the land and the stewardship of its inhabitants is a commitment that is never finished.

Thorough and technical expertise is essential, not only at the beginning of this work, but for each and every step along the way. While the comprehensive delivery of technical expertise is essential, the soul of this quest can only be addressed in the realm of the spirit. In 1868, Barboncito, the great Navajo Chief said: "After we get back to our country it will brighten up again and the Navajos will be as happy as the land, black clouds will rise and there will be plenty of rain." Nearly a century and a half later, that getting back to the land continues. Laws have changed and technology has advanced but the Navajo spirit and quest for sustainable beauty remains the same.

Planning theory, professional practice and high volume, 21st Century methods and materials for construction can easily dominate our attention when considering a challenge as great as the one described in this report. While all of this needs to be addressed, a more subtle yet critical need concerns how we undertake this task without losing the underlying spirit of the place and people for whom this process has been designed to serve. For example, consider how far removed our daily reality has become from a culture of the land.

This report is not about mandating solutions but rather guiding the sustainable community framework with a roadmap that empowers all community members with a new range of choices and opportunities.

The Circle of life

If you were to ask any human in this day and age, where they purchased the shirt they were wearing or their groceries for dinner, they may not know the origin of either without having to think about it for a bit. For example, the shirt they are wearing may have come from cotton grown from a distant land or the food they purchased harvested from a farm halfway across the country. Today everything can be bought from a store and we would not know the origin of where it came from or how it was produced.

By extreme contrast, the Dine culture and tradition is very much steeped in the land, water, air, sun, and seasons. Without Mother Earth there could be no humans and life forms. To understand the Dine culture, tradition and teachings, you must understand the importance of respecting Mother Earth and the Circle of Life.

The Dine are meant to live a simple life, to live off the land in beauty, health, harmony, happiness, and in the Hozho way of life, in balance with the natural environment. As our world evolves, humans no longer respect nature and have lost that connection to the Mother Earth.

In order to connect the Navajo Culture with design, we must take a step back and remember the basic human teachings of respecting nature when building and designing and doing our best to incorporate that basic human necessity. As humans, we must remember that everything comes from the earth and is therefore alive.

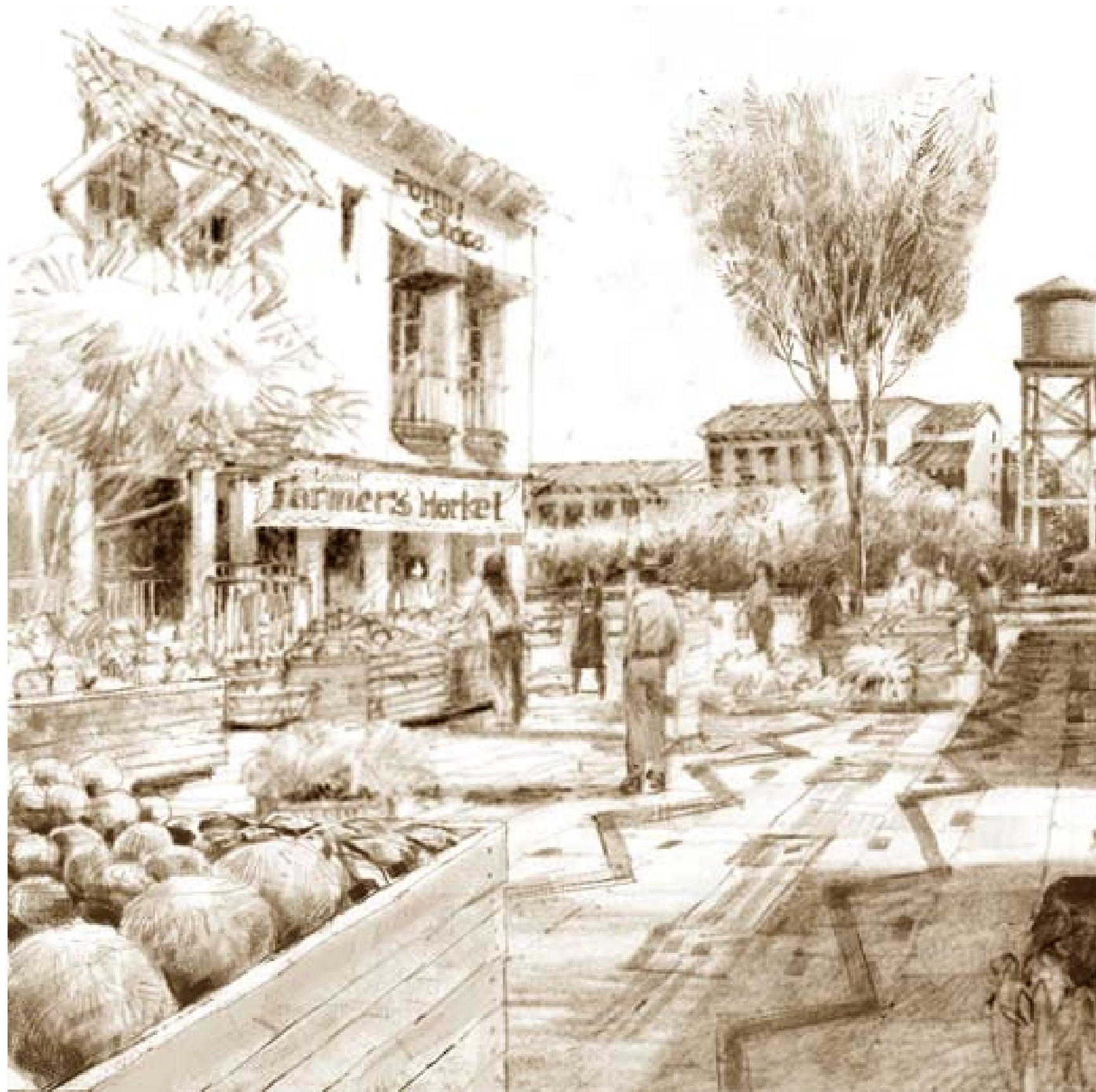
This NHA initiative is about a lot more than building new houses. In its fullest, it is about guiding the future of a great Nation by considering what all our individual decisions and actions add up to becoming.

The strategic nature of the planning process is to arrive at sound decisions on behalf of individuals and families who have very different needs.

1. Independent Adults
2. Young Families With Children
3. Multi-generational Households
4. Those Involved In Farming
5. Persons Employed In Distant Cities



Many Elders who contributed their time stated that this planning effort was of critical importance to the future of their children and grand children.



Commercial store fronts and public plazas provide a wonderful environment to promote the sale of crafts and goods.

THE TIMELY AND THE TIMELESS

The most able and sensitive contributors to this and all other generations have two responsibilities, both easier to describe than to fulfill.

The first is to respect and regenerate that which is most enduring about the timeless culture of the past. The second is to explore and shape opportunities that are new to the present and need guidance for the future. Examples of the world of the Timeless are far more than the techniques or tools of the timely. They involve the richness, essence and celebration of the Navajo traditions. Properly considered they constitute the shared wealth of the Navajo Nation, including traditional ceremonies, sweat lodges, song and dance ceremonies, native american church peyote way, Yei bi Chei Dances, shoe game, kinaaladaa, architecture, the building of hogans, weaving, basket making, pottery, silversmithing, jewelry making, art, herding sheep, corn pollen, and agriculture.

It is impossible to do justice to either the present or the future, if the opportunity to plan for 34,000 new houses doesn't take into account both the past and the future, which requires two kinds of insights. They are related but they are not the same. Examples of the timely include any and all methods and linkages with the present Navajo world, including everything to do with education, economic development, tourism, and regional infrastructure, all considered as basic tools for modern life. Timely issues include questions concerning what, where and how to build everything from individual houses to the many and varied provisions necessary to support daily life. The estimated need for 34,000 houses is just the beginning of the story. Add to this that 21st century living involves access to special places for all manner of activities that were once handled at home. Examples include provisions for food, livestock, education, health care, senior centers, boys and girls clubs, employment, emergency services, plus access to energy, potable water, and recycling.

This study has taken place at both an opportune and exciting time as the Navajo Nation continues its move toward self-reliance and sovereignty. Among the many examples of this is the self-governance and improved quality of health care under the Indian Self Determination Act. Also of significance are the growing number of Navajo's who are getting a professional education in a wide diversity of studies, including political science, nursing, business, architecture, planning, engineering, teaching, psychology, law and medicine.

Many of these young hearts and souls dream of returning to their homeland. They are fully aware of the need, not only for housing but for all the provisions of community beyond what any one house can provide. Everything we plan, design and build today must not only grow out of a renewed understanding and respect for the past, while also making bold plans for the future. Like all generations past, these young Navajos are the future. They know that good, clean and safe housing is essential, but by itself it is not enough if we are to plan for a sustainable way of life.

This NHA initiative is happening at a time when there is an on-going effort to improve the process of economic and community development within tribal lands. This involves a variety of initiatives including activities by American Indian representatives with the Bureau of Indian Affairs, the White House, HUD, and various Tribal Nations. Nothing about this is easy, but it is clearly the time for creatively bold planning, commitments, and actions.



Within village and community centers, generous sidewalks encourage both gathering and shopping.

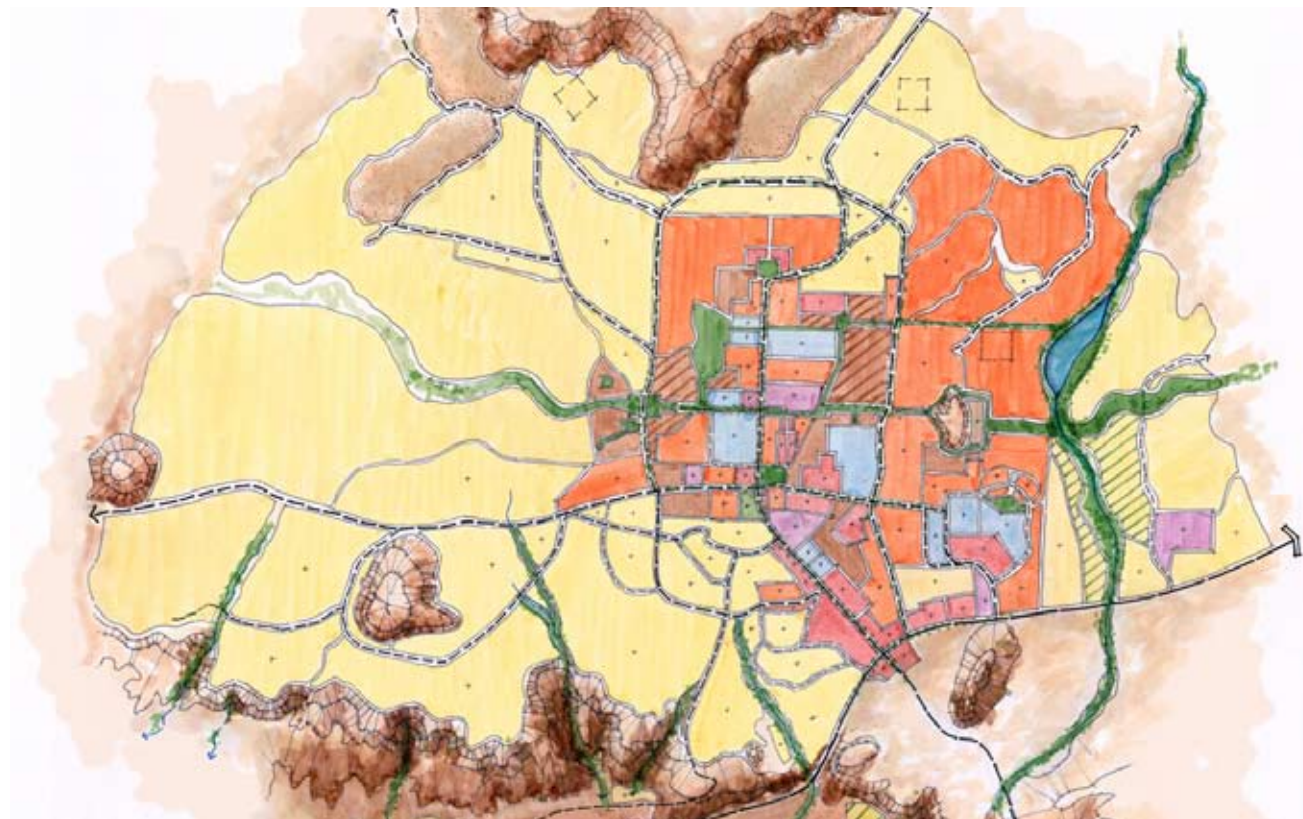
METHODOLOGICAL OVERVIEW

This manual is the work of planners, architects, engineers and sustainability specialists, including Navajo personnel, all working together and coordinated from day one by Swaback Partners.

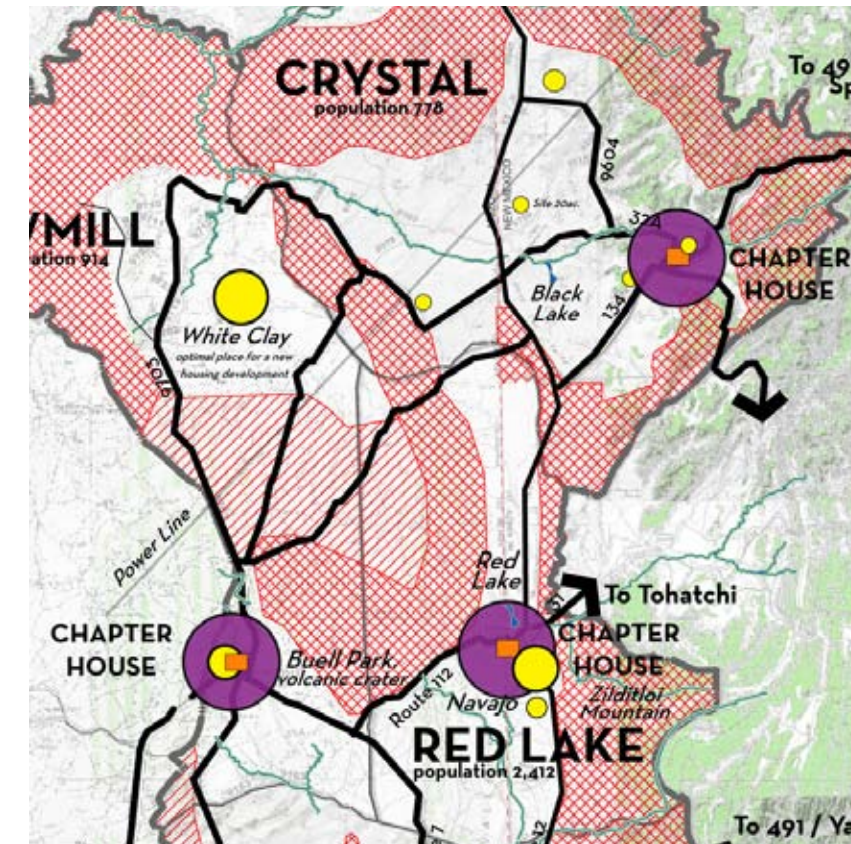
To undertake the work in the most effective manner involved a series of simultaneous starts, one of which focused on gathering and consolidating data that already existed but had never been put into any coordinated or unified form.

The overall sequence of this document tracks the process in which the work progressed, which was from the broadest generalities to the more specific considerations. Starting with studying the overall Nation, the work progressed to include interactive workshops with the five Agencies, followed by sessions with the 24 Regions, including their 110 Chapters.

The coordination between the NHA and the planning team was on-going and based on the three stages as described on the following pages.



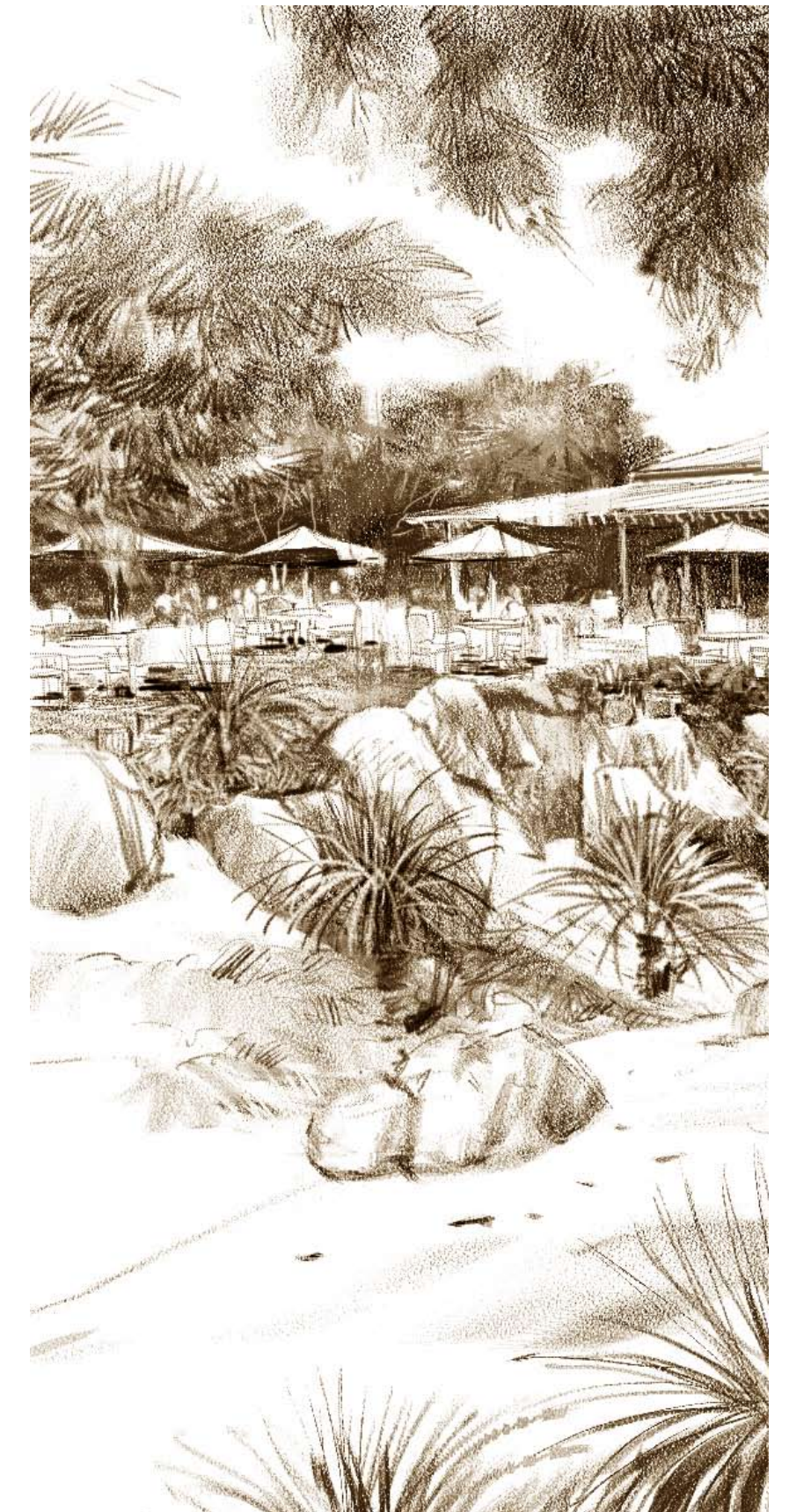
Close-up example of one of the 110 Chapter Conceptual Planning Studies. The colors represent the range of land uses incorporated into the overall framework.



Extensive site analysis and research.



One of many community meetings.



Visual examples of the range of planning considerations.

STAGE ONE

Site Reconnaissance and Evaluation

On-site visits were conducted to study the opportunities, constraints, and alternatives. Other input, as it became available, included existing documentation and materials collected from Chapter sources and others. Examples of collected data include: property boundaries, land use, hydrology, topography, geology, along with already built and planned projects. NHA provided detailed information associated with the recently completed Housing Assessment Report as well as the intended parameters relating to each of the 24 Regions. Proposed and existing utilities were evaluated along with topographic contour mapping from USGS data and other sources including any available GIS mapping. Based on this collected data, land area base maps were created and organized into a working format.

These materials were used to analyze the broad range of issues for greater study as a basis for the planning framework. This base data was also useful in assembling materials for discussion with the Agencies, Regions, Chapters and all other key stakeholders.

STAGE TWO

PROGRAMMING CONFIRMATION AND REFINEMENT

All studies were organized into a comprehensive set of plan diagrams along with a corresponding PowerPoint presentation. The first use of these documents occurred in separate sessions with each of the five Agencies. These were followed by individual charettes with the 24 Regions and their representative Chapters. These sessions in addition to the presentation of materials, involved the attendees in discussions, brainstorming and even sketching, all aimed at defining the broadest range of possible considerations for the various and related land areas.

The agenda for each of the day-long charettes was generally as follows:

- a. Review of Site Assessment and Recommendations
- b. Establishment of Planning Principles and Project Objectives
- c. Creation of the Community Sustainability Strategy
- d. Review of Program Opportunities and Options
- e. Development of Preliminary Planning Concepts
- f. Summary and Preferred Directions.

Everything focused on the intended vision in relation to site opportunities and constraints. The charrette sessions were orchestrated in dynamic settings in order to encourage the exploration of a wide variety of ideas.

The planning concepts used to stimulate involvement consisted of alternative bubble diagrams, land use organization, the establishment of key community-oriented uses, other land uses including the range of residential components and configurations, along with a discussion of potential features for creating community.

STAGE THREE

PROTOTYPICAL PLANS AND SUSTAINABLE COMMUNITY MASTER PLANS

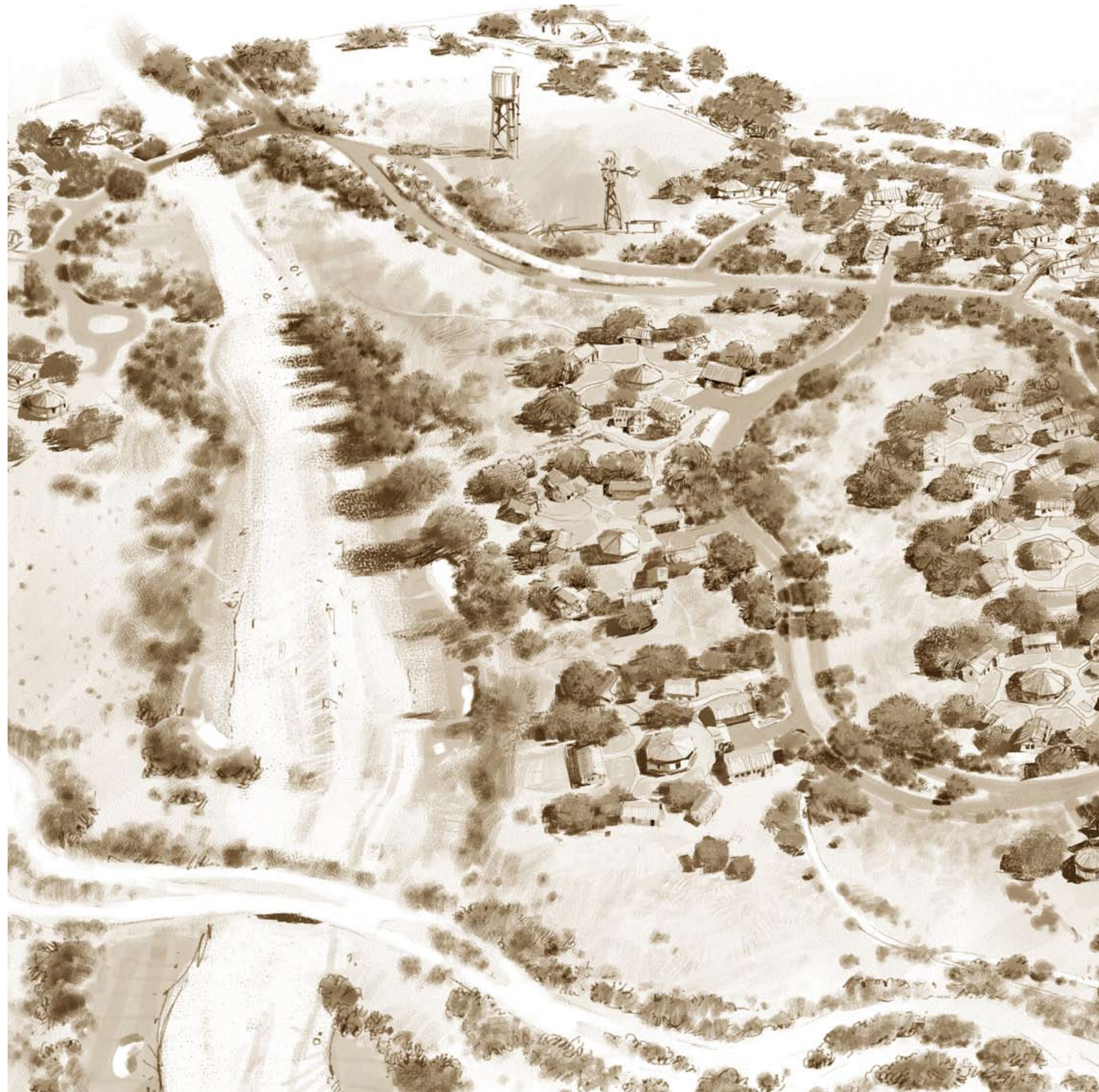
This stage included the preparation of larger scale studies, illustrating the range of community components based on the preferred programs. Some of the plans were site specific and others served as prototypical design models. The result introduced contextual site details along with a series of prototypical community planning models to be utilized by each Chapter.

These more detailed studies provide a visual reference for the quality and character of the community fabric. In addition to illustrative site plans, this stage suggested proposed development patterns.

Project close-out included exit interviews between NHA officials and members of the Planning team.



This is an example of the broad range of studies that included a series of conceptual design sketches similar to the one shown above for the Crystal Chapter.



REGIONAL PLANNING FRAMEWORK

The related Site Reconnaissance activities required to produce a well-researched Regional Planning Framework outlined in its sequential categories. What distinguishes this work is not only its methodology, but everything to do with the extent to which the data was gathered and coordinated as summarized in the following steps.

The Regional planning framework included a wide spectrum of land uses and housing types. The illustration above is an example of "Clan-pods" which is a recommended form of more culturally authentic neighborhoods.

1. Analysis Process

- 5 Teams (Agencies, Regions, Chapter review)

• Range of sources :

PLANNING & DEVELOPMENT

- Navajo Nation Housing Authority (hooghan.org)
- Chapter Community Land Use Plans (CLUPS)
- Navajo Department of Transportation (navajodot.org)
- Navajo Nation Division of Economic Development
- Navajo Tribal Utility Authority (ntua.com)
- US Census Bureau Demographics (census.gov)
- Navajo Nation Community Development (nndcd.org)
- Environmental Protection Agency - Smart Growth Best Practices (epa.gov)
- Navajo Nation Agency, Regional, & Chapter Specific Resources & Websites

ENVIRONMENT

- Navajo Division of Natural Resources
- Navajo Nation Department of Fish and Wildlife (nndfw.org)
- Navajo Nation Parks & Recreation

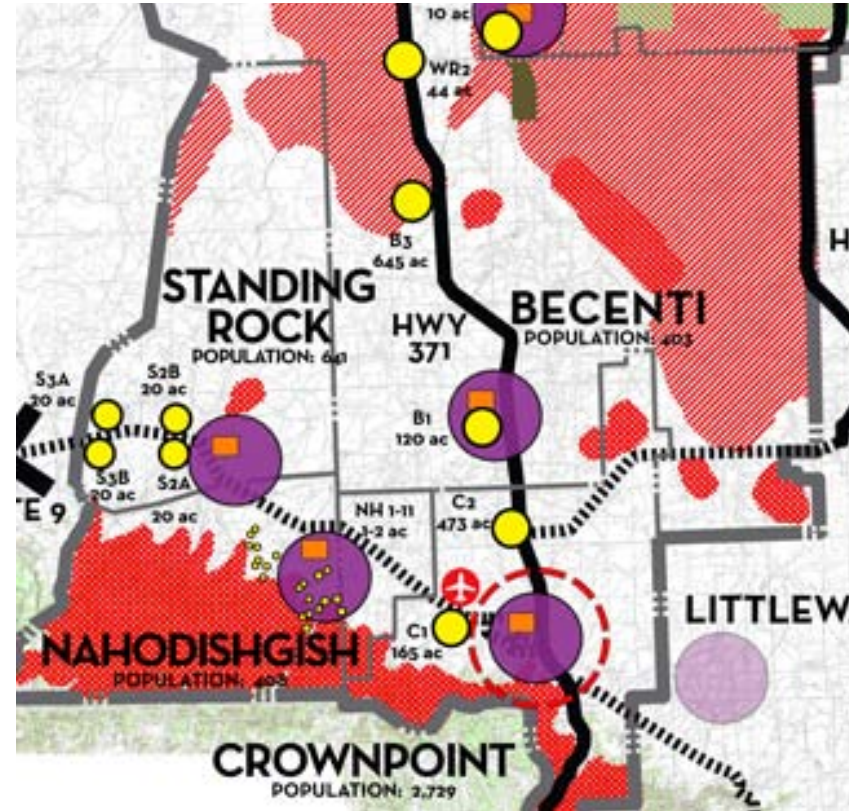
GENERAL RESEARCH, CULTURE, & HISTORY

- Bureau of Indian Affairs (bia.gov)
- Navajo Nation Government (navajo-nsn.gov)
- The Navajo Times (navajotimes.com)
- www.lapahie.com
- Wikipedia

- Aerial Photographs (Bing, Google)

HOUSING

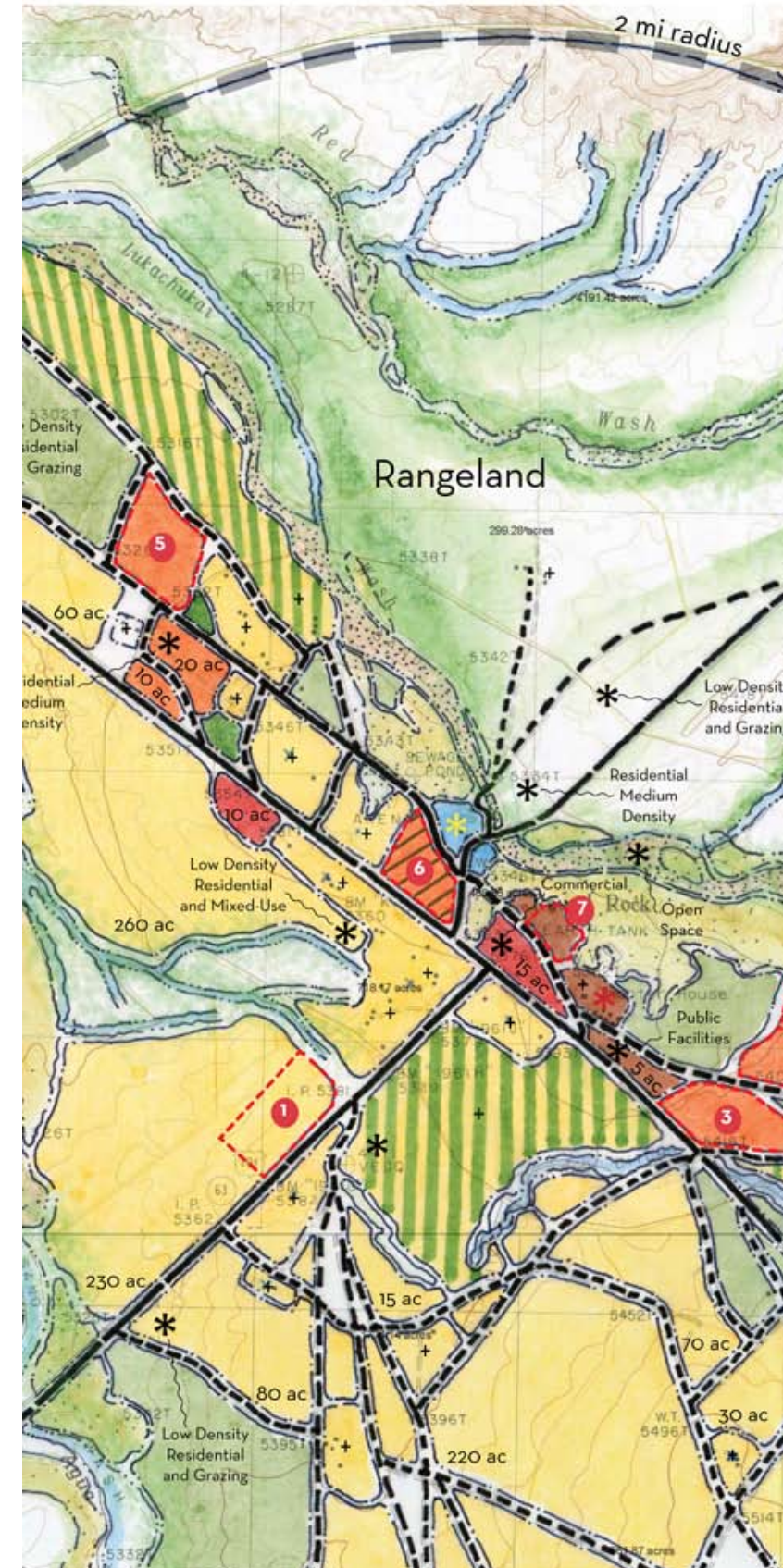
- Navajo Nation Housing Authority (hooghan.org)
- Partnership for Sustainable Communities (sustainablecommunities.gov)
- Architecture for Humanity
- Design Build Bluff (designbuildbluff.org)
- Karigan Estates (grnbrg.com)
- NeighborWorks America (nw.org)
- Indian Housing Development Handbook (Rev. 2010 - Brian L. Pierson)
- Housing Hero Awards (azhousing.gov)
- US Dept. of Housing & Urban Development (hud.gov)
- Assessment of Native American, Alaska Native, and Native Hawaiian Housing Needs
- Inside Housing (insidehousing.co.uk)
- Between a Rock & a Hard Place 01/04/2011



Prior to any meetings, numerous sources of data were organized into a Regional Analysis Framework.



Everything began with kick-off meetings focused on listening to community members.



The research provided critical information as necessary to facilitate future land use insights and recommendations.

- Shelter Centre (shetercentre.org)
- Building Blocks Approach to Rural Housing 2010
- Inhabitat
- Local, Modular, & Efficient Eco-Affordable Housing for Ghana
- B. Meinhold 6/29/10
- QuickHab - Flat Pack House for Emergency or Low income Housing - Michler 5/25/12
- Habitat for Humanity (www.habitat.org)
- National American Indian Housing Council (naihc.net)
- Native American Housing Consultants (nmnahc.com)
- Renewing Beauty: Options for Navajo Land Management & Decision Making - JFK School of Government, Harvard 2000
- Navajo Nation Capitol Studio - Arizona State University 2005

- Fish and Game sensitivity areas

- Major Determinants:

LEGAL

Land available for housing, that which needs and can be withdrawn, and that which is likely legally constrained beyond the time frame of this initiative.

PHYSICAL

Unsuitable or contaminated soils, areas reserved for historical or ecological reasons, plus those which exist where no source of water is likely. Other physical issues relate to the existence or planned roadways, power grid, natural gas and access to nearby services.

BEHAVIORAL

Requires a greater understanding of the seemingly contradictory testimony along with modeling examples of what is now oversimplified as scattered versus cluster development.

BUDGETARY

That which can be designed and scheduled in the present plus comprehensive planning for the orderly growth of what later budget cycles will make possible in the future.

HOUSING TYPES

The design and number of 2,3,4 and 5 bedroom units, attached and detached, apartments, and special needs.

COMMUNITY TYPES

Providing for the full range of individual family and clan needs, and where possible and appropriate, the kind of nonresidential uses required to support the health, education and enjoyment of daily life.

2. Regional Hierarchy of Chapter Communities

- “Growth areas” (including boarder town influences – need a proactive development pattern to encourage growth)
- “Adjacencies” (chapter close proximity to growth areas)
- Leverage this relationship
- “Linkage” (chapters in close proximity to each other)
- Establish collaboration to better sense community members in a joint manner
- “Isolation” (Chapters not near/close to any other “community infrastructure”)
- Need to focus on a true, independent self sustaining strategy

3. Dispersion of Houses & Impacts to Resources

- Scale comparisons of chapter existing housing locations
- Scale comparisons (density examples)
- Comparisons to historic/traditional patterns (relate the principals/components of the clan to a broader chapter scale)
- Continued dispersion and consumption is not sustainable, long-term with limited resources
- Existing/proposed housing acres doesn't always match need



This process provides for continuing collaboration and cooperation between Chapters, NHA, and all those involved in the planning process.

4. Ring of Sustainability

- 2 mile radius from the center/heart (reinforce the quality of services; relocate if necessary) of the community (12.5 sq. miles)
- Scale comparisons
- Grazing permits are a current obstacle (better solutions to address farmer/ranching in a communal way)
- Growth principals and the village transect
 - Mix land uses.
 - Take advantage of compact design.
 - Create a range of housing opportunities and choices.
 - Create walkable communities.
 - Foster distinctive, attractive communities with a strong sense of place.
 - Preserve open space, farmland, natural beauty, and critical environmental areas.
 - Strengthen and direct development toward existing services and utilities.
 - Provide a variety of transportation options.
 - Make development decisions predictable, fair, and cost-effective.
 - Encourage community and stakeholder collaboration in development decisions.
- Leverage existing infrastructure (schools/facilities/roads/utilities)
- Relative planning models to include many housing options

5. Moving Forward

- Focus on traditional patterns of development and integrate 21st century sustainability forms
- Move from dispersed/consumption/unorganized recent patterns to more organized, integrated, totally orchestrated scenarios
- Focus on community core rings and expansive land management
- Restore native natural environment systems

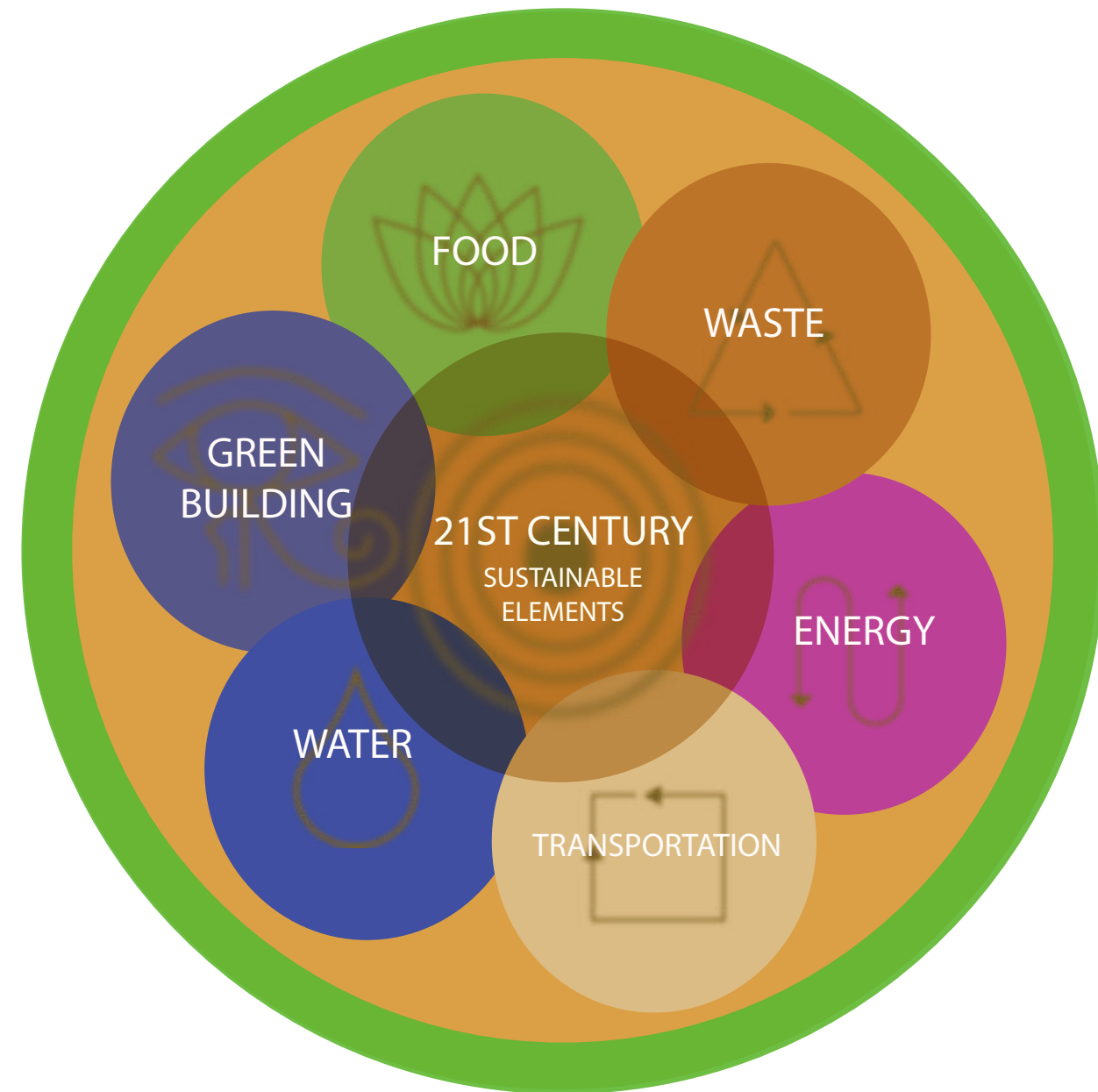


A network of paths and trails throughout communities should provide healthy transportation alternatives to the automobile.

HOLISTIC SUSTAINABILITY

We are living at a time of reawakening.
A time when we face how much we've lost
our way - a way that was once inseparable
from the Native American Culture as well
as others who lived off of and maintained a
bond with "Mother Earth and Father Sky."

Think how clearly we admit this failing. The three most frequently used words to signal our new direction are to ask, “are we smart, green, and sustainable?” In other words, with all of our 20th and 21st Century achievements, we now recognize we have not been smart, not green, and not sustainable.



RESPONSIVE PLANNING & DESIGN FOR THE NAVAJO NATION

How is this possible? Can it be true that a Nation that can put a man on the moon and bring him back safely to earth, lives in ways that threatens its very existence? The answer is yes, and the reason is that we’ve taken paths of least resistance, paths in which the most clarity can be presented, paths most easily measured and governed and paths where the most money can be made. Taken together, this approach has a fatal flaw. It focuses on the “pieces” while leaving out the most difficult to address of all variables - human behavior.

The two most talked about “pieces” include products that can be sold and codes that can be both established and enforced. Which of these can address the loss of lives and property from drug addiction? Such failings of human behavior are all too prevalent to need much discussion, but discuss them we must. This is essential to focusing our attention where it is most needed.

As difficult as it may be both to explain and accept, everything we need should take the form of design of the most holistic kind. The most accurate way to understand what sustainability is all about is to accept that it permeates the entire NHA initiative study, including the title of this manual, the NHA vision statement, the Navajo Prayer, and continuing all the way to the 110 individual Chapter Conceptual Planning Studies. Taken together, these all address the sustainable relationships, not only to the land but to all those physical and spiritual needs that the best of communities strive to provide.

Accepting the base from which we start:

In addition to the individuals and groups who do their best to live in sustainably beautiful ways, sustainability is ultimately a matter that rests on the shared values and disciplines of the greater community.

The most tangible goal of this “The Sustainable Journey of Beauty” manual is to locate and build community relationships, involving the design and construction of at least 34,000 homes. To do this, the effort has started with the broadest considerations, moving step by step to the preparation of the 110 individual Advisory Plans for the consideration of each Chapter.

Sustainability and the Role of Land Use Relationships

Many locations for future housing had been identified by the Chapters, including some with already withdrawn land as a result of each Chapter's Community Land Use Plans. Discussions with many Chapter members revealed issues with the work done to date. One issue is that the lands identified are not large enough to accommodate the current housing needs of most Chapters, much less the housing requirements of future population growth. Another is that the attempted withdrawals have taken much too long, thus hampering local Chapters' ability to make effective planning decisions in response to current needs. In addition, many of the areas were chosen because the land was relatively more available (ie, subject to fewer claims and controversy) rather than because the locations were best suited for housing. In some cases it was also clear that there was little coordination across the sites chosen, or with adjacent Chapters to create the optimum strategy for developing new housing and related social services, education, and employment opportunities among Chapter communities.

We also heard that businesses and community services cannot attract and keep employees at all levels of their organizations because of the current lack of adequate housing. Attracting Navajos living off the reservation to return is another important source of economic development that is limited because there is no place for them to live.

Many important indicators of well-being are worse than acceptable levels, including unemployment, crime, poverty, drug use, violence, health care, access to good food, social inequality, education, and other quality of life issues. These conditions make the Nation more than normally vulnerable to future potential disruptions such as long-term drought, cost increases, and cuts in federal government support programs. In summary, inadequate housing, insufficient land use planning, and ineffective community development all contribute in various ways to many of these undesirable conditions.

The CLUPs prepared by the individual Chapters vary in terms of; 1) completion; 2) the nature of the land; 3) awareness of sustainability related issues, and; 4) the ability to provide for and attracting future opportunities.

The Advisory CLUPs

The 110 Planning Studies prepared as part of this manual are not intended to replace the CLUPs. That remains the work of each Chapter. The contribution of this manual is threefold. The first is to provide a body of significant information in a more coordinated form. The second is to illustrate the importance of the relatedness of all community provisions of needs. And the third is not only to provide individuals advisory plans for each of the 110 Chapters, but to illustrate the series of coordinated steps that lead to the recommended relationships.



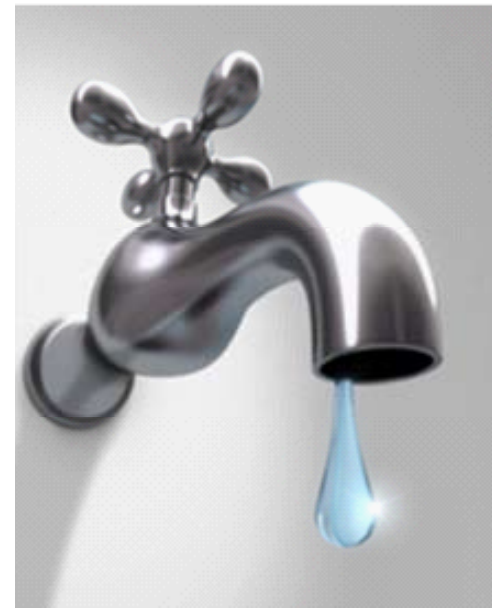
Sustainability is about embracing culture and heritage.



Sustainability focuses on the younger generations of the Navajo Nation.



Range management is a key aspect of sustainability that should be on the forefront of the Navajo Nation.



The reality of dwindling resources puts in focus the need for responsible planning that highlights sustainability and smart growth.

The Role of Codes and Ordinances

Principles for smart growth have been established by a wide variety of Agencies including the EPA and the Partnerships for Smart Growth.

University and Community Collaboration for Better Public Places lists a wide range of principles as being generally those espoused by the Congress for New Urbanism, the Urban Land Institute, and the Smart Growth Network: The U.S. Green Building Councils (USGBC) popular LEED incentive-based certification rating is one of the more dominant programs.

On May 14, 2011, Kayenta Township in Arizona became the first tribal community in the U.S. to adopt the International Green Construction Code (IGCC), a building code designed to reduce the environmental impact of construction projects while keeping safety measures intact and enforceable.

EPA's Pacific Southwest Green Building Team worked with Kayenta and works with other tribes and federal agencies to support the development of sustainable building codes that meet tribal priorities. In addition, Kayenta will be working with EPA's Office of Sustainable Communities to pilot community Smart Growth Guidelines for Sustainable Design and Development.

The EPA's announcement included that which we associate with conservation, for example: "The IGCC is put in place for the community to save on energy costs, encouraging wise use of the water supply, safeguarding the depletion of natural resources, and the energy costs will be used to regulate future development practices."

It is important to note that it also addresses the holistic sustainability which is only possible by considering the critical nature of mutually supportive relationships: "Kayenta Township, a political subdivision of the Navajo Nation with about 5,000 residents, is located south of Monument Valley. Kayenta has been designated as a growth center of the Navajo Nation and hosts restaurants, shops, hotels and other businesses. Kayenta is also the future site of the Northeast Arizona Technical Institute for Vocational Education (N.A.T.I.V.E.) campus. The N.A.T.I.V.E. campus will provide quality career and technical education to tribal students upon its completion in September 2011. This campus will also be the first project built using the IGCC code."

The EPA's **Tribal Green Building Codes Development Guidance** can be accessed at: <http://www.epa.gov/region9/greenbuilding/codes/index.html>

The site includes a building code template, outlines processes tribes have used to successfully adopt building codes, and provides links to existing tribal and green building codes. This resource is the first of its kind for tribal governments. NHA and its team of planners will be making good use of this EPA resource.

Key Considerations for Long-term Sustainability

1. The Navajo Culture

Elements they may impact where and how people live:

- Strong respect for family and families influence location
- Desires for “Breathing Room”
- Care and stewardship for Mother Earth and all living things
- Balance between heritage and 21st Century reality

2. Basic Physical Infrastructure

Cost to install, operate & maintain:

- Roadways
- Power Source
- Safe supply of Water
- Trash pick-up and Recycling
- Emergency Services

3. The Creative Community

Everything beyond ones own house:

- Employment (work places)
- Education (schools)
- Health care (clinics & hospitals)
- Food (farming & distribution)
- Meetings & Recreation (Buildings & Parks)
- Senior Care (beyond what families can provide)
- Animal shelters (& programs)
- Worker housing (apartments)
- Retail shops, lodging, restaurants



Sustainability practices are those which better balance culture and heritage with 21st Century land management strategies that include smart growth principles.

PRINCIPLES

of SMART GROWTH

- 1 Mix Land Uses
- 2 Take Advantage of Compact Building Design
- 3 Create a Range of Housing Opportunities and Choices
- 4 Create Walkable Neighborhoods
- 5 Foster Distinctive, Attractive Communities with a Strong Sense of Place
- 6 Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas
- 7 Strengthen and Direct Development Towards Existing Communities
- 8 Provide a Variety of Transportation Choices
- 9 Make Development Decisions Predictable, Fair and Cost Effective
- 10 Encourage Community Collaboration in Development & Design Decisions

WHY SMART GROWTH?

Health, schools, taxes, traffic, the environment, economic growth, fairness, opportunity—many of the things we care about—are all affected by development decisions. From the length of our daily commute to the price of a new home to the safety of our neighborhoods—what, where, and how we build have major impacts on our personal lives, our communities, and our nation.

Growth presents a tremendous opportunity for progress. Communities around the country are looking for ways to get the most out of new development and to maximize their investments. Frustrated by development that requires residents to drive long distances between jobs and homes, many communities are challenging rules that make it impossible to put workplaces, homes, and services closer together. Many communities are questioning the fiscal wisdom of neglecting existing infrastructure while expanding new sewers, roads, and services into the fringe. And in many communities where development has improved daily life, the economy, and the environment, smart growth principles have been key to that success.

Growth is “smart” when it gives us great communities, with more choices and personal freedom, good return on public investment, greater opportunity across the community, a thriving natural environment, and a legacy we can be proud to leave our children and grandchildren.

When communities choose smart growth strategies, they can create new neighborhoods and maintain existing ones that are attractive, convenient, safe, and healthy. They can foster design that encourages social, civic, and physical activity. They can protect the environment while stimulating economic growth. Most of all, we can create more choices for residents, workers, visitors, children, families, single people, and older adults—choices in where to live, how to get around, and how to interact with the people around them. When communities do this kind of planning, they preserve the best of their past while creating a bright future for generations to come.

Adapted from the PDF “This is Smart Growth,” published by ICMA and EPA in 2006.

Sustainability is the key that gets us all on the same page.

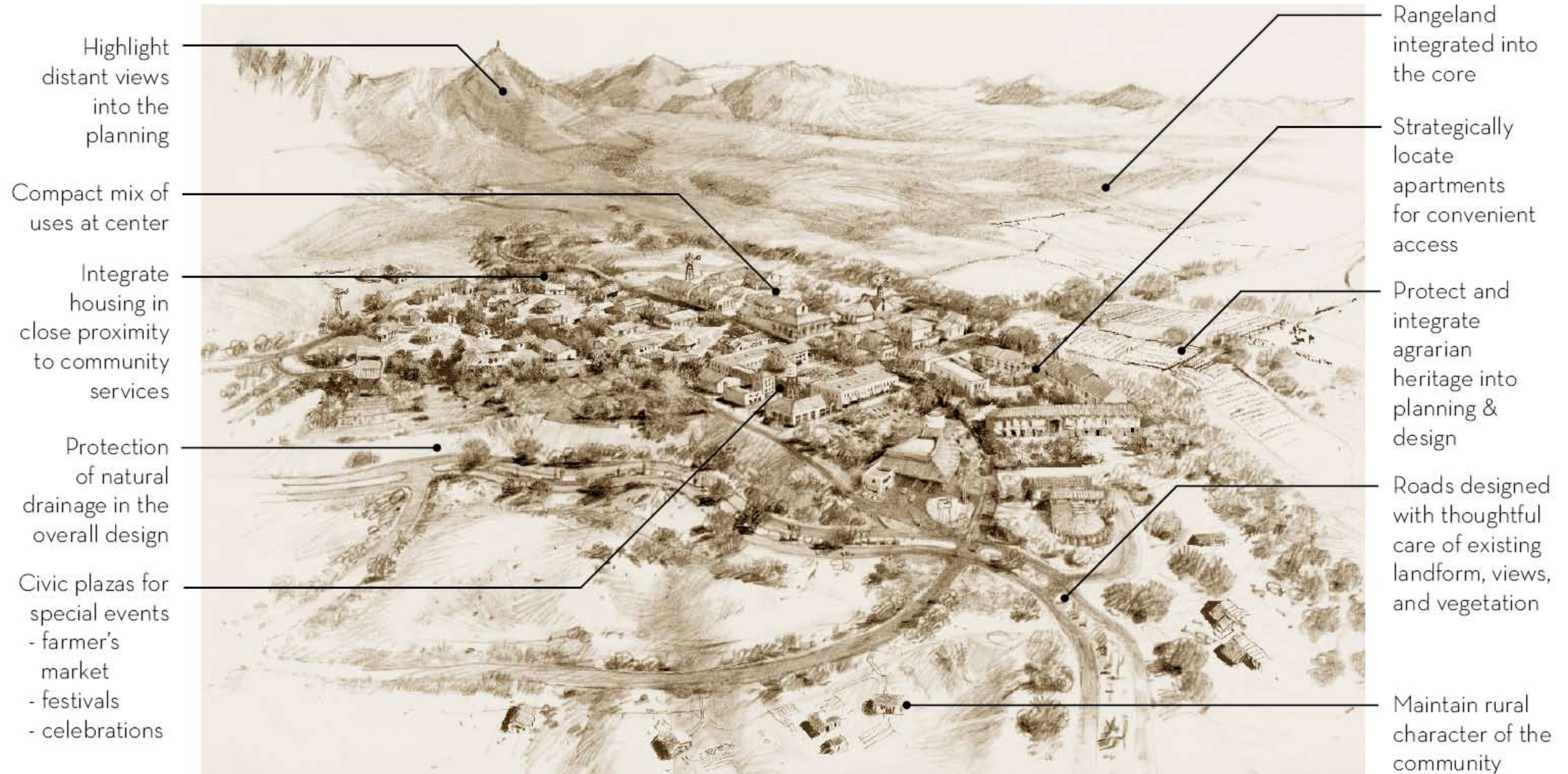
Beyond preference and opinion, what was sustainable for self-reliant nomads is different from the present. Here are seven of the most basic of all considerations for how to plan, design, build, and live.

1. Building Systems and Materials
2. Orientation and Shading
3. Water Harvesting
4. Cooperative Behaviors, including care for the land and each other
5. While it is possible to serve remote areas with photovoltaic panels, individual wells or water hauling, this should be the exception, not the Planned Approach
6. The key questions to be asked for isolated sites include: how will wastes be treated, is there a sustainable supply of water?
7. Other considerations include calculating the cost of distance with respect to:
 - a) Length of required roadways
 - b) Piped or hauled water
 - c) Piped natural gas, delivery of propane, or overhead wiring
 - d) Plus access to:
 - Schools, the Chapter House, community facilities for meetings and recreation, employment, basic purchases and emergency services.

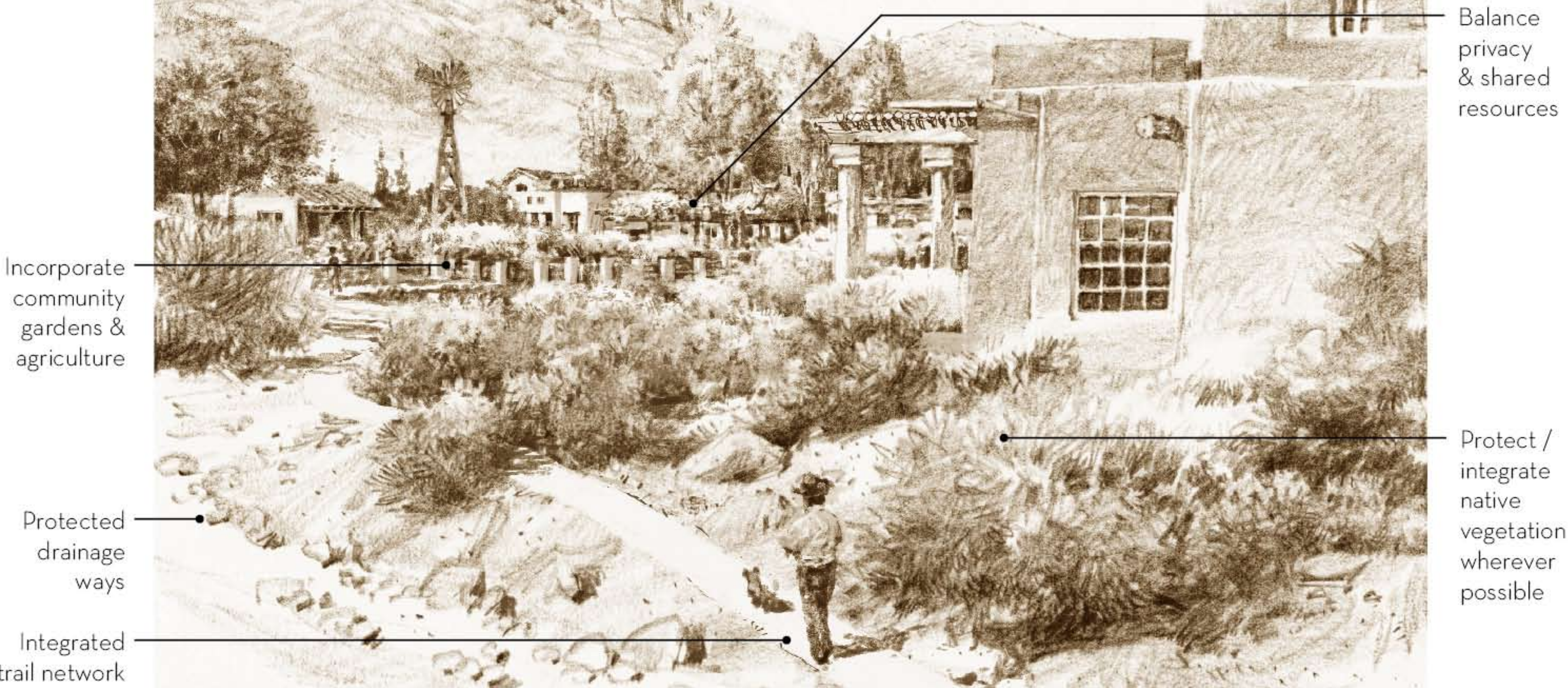
In summary, it should be clear that sustainability is not only about how we build, it is also about how we live each day with a caring spirit for the land, for animals, for our homes, for each other, and for the elements of community we all share.

The following exhibits suggest a more orchestrated pattern of development that better merges Navajo culture and heritage with 21st Century sustainable and smart growth principles.

Example of the Larger Village Center with a Mix of Uses



Example of the Orchestrated Neighborhoods



Incorporate community gardens & agriculture

Protected drainage ways

Integrated trail network

Balance privacy & shared resources

Protect / integrate native vegetation wherever possible

Example of the Crossroads at a smaller Village Center

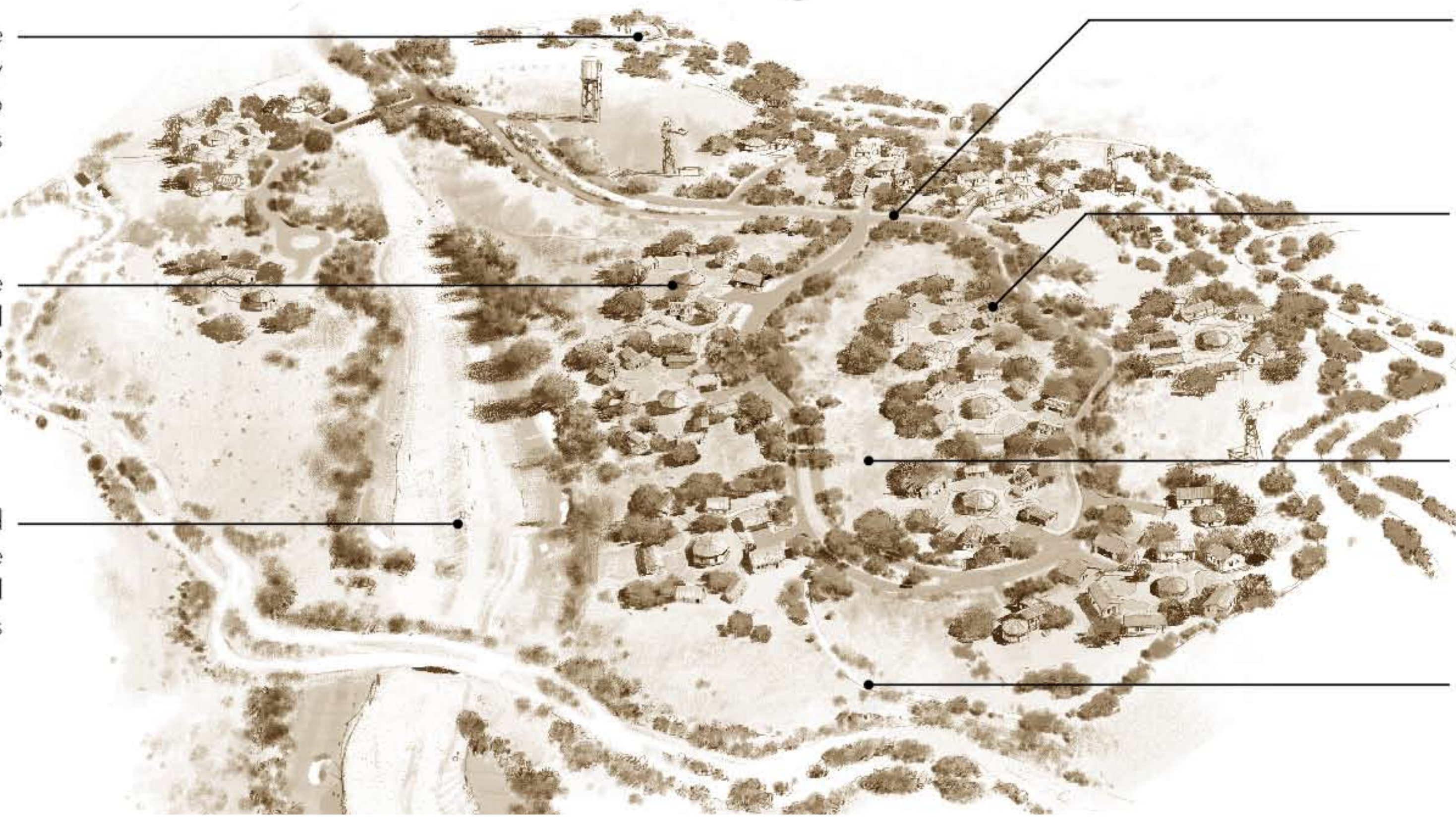


The Anatomy of a Village Neighborhood

Incorporate
community
parks into
neighborhoods

Incorporate
cultural
elements into
neighborhoods

Protect and
integrate
natural
drainage ways



Limit roads
& emphasize
trails

Organize
groupings of
homes in a
more organic
fashion

Incorporate
open space
for both formal
and informal
recreation

Integrate paths
and trails
throughout
neighborhoods



RE-EMERGENCE OF THE COMMUNITY FARM

One of the most comprehensive pursuits of sustainability is the re-emergence of the community farm, which can be a marriage between the ability and commitment to work with nature, a means of sustenance, including healthy food, and a character-building experience for the young.

Cooperative farms and ranches can provide shared resources for rural communities. Agriculture should be designed into the fabric of every day life.

There are, of course, issues to be considered, which were raised during the Regional and Chapter meetings.

Current thoughts about farming on the Navajo Nation were somewhat bracketed to these brief and very different observations that occurred during the sessions. One speaker said, “We are nomadic people. We are farmers who live off the land”, this was continued by another speaker saying, “Farming is difficult and our young people don’t want to do it.” Another way to address this is the simple reality that the Navajo people haven’t been nomadic for hundreds of years. Secondly, Nomadism is not a “lifestyle choice” but a circumstance of environment and survival. Nomads exist because they follow seasonal patterns of grazing herds (wild & domestic) or the search for water.

The concern about water, which of course is a global concern, is sparking widespread interests and innovation. For example, there is a permaculture case study project in Jordan, one of the earth’s more Arid regions. Through “ecosystem design”, this area has created a self-sustaining, highly productive plot of once inert land.

This re-emergence of local farming has become a widespread commitment sparked by the drive for a sustainable way of life.

This new interest is being shared by community planners, developers and individuals alike. One of its strongest motivators is the growing interest in fresh and nutritious food as a means to a much healthier lifestyle, including the reduction and eventual elimination of the debilitating influence of obesity.

What started with health-minded individuals has spread to the developers who now host sessions to celebrate the benefits of organic farming as a central community feature as both a source of economical nutrition and as a kind of enriching education, reconnecting both young and old to the fundamental lessons and beauty of nature.

This has grown to the point where entire organizations have sprung up to encourage and lead others to this most practical and healthful element that can serve as a galvanizing energy for creating the spirit of community.



The heritage of agriculture is an important part of the Navajo culture. Community gardens and cooperative farming can bring elders and children together.

The Liberty Prairie Foundation

This organization has profiled a whole series of new ventures that are growing in popularity all over the country. In 2000 the ICMA (International City/County Management Association) published "Putting Smart Growth to Work in Rural Communities." The report extolled the virtues of mixed-use planning, highlighting the potential of local farms both for their business-related potential as well as opportunities for engaging people in healthful activities that can be enriching at all ages and stages of life.

There is, of course, nothing new about this direction. In its January 1976 issue *Time* magazine featured an article stating that:

"The kids with college degrees are coming back home to the farms. There are more jobs in the small towns... It is another drama of change... richer still with portents for renewed American pride."

Writing at the same time *MONEY* magazine referred to this as:

"... what may turn out to be the most profound U.S. social and economic phenomenon... a return to rural America from the nation's metropolitan centers."

There are many ways to think about this as part of possible arrangements, the subject being personal gardens. Community gardens are the next level. The largest possibilities could include sharing operations with land leased to larger operations. The key in any such major operation is to maintain the kind of interaction that fosters a sense of community sharing and caring.



Children can learn the traditions and techniques of farming from Elders who lived off the land.



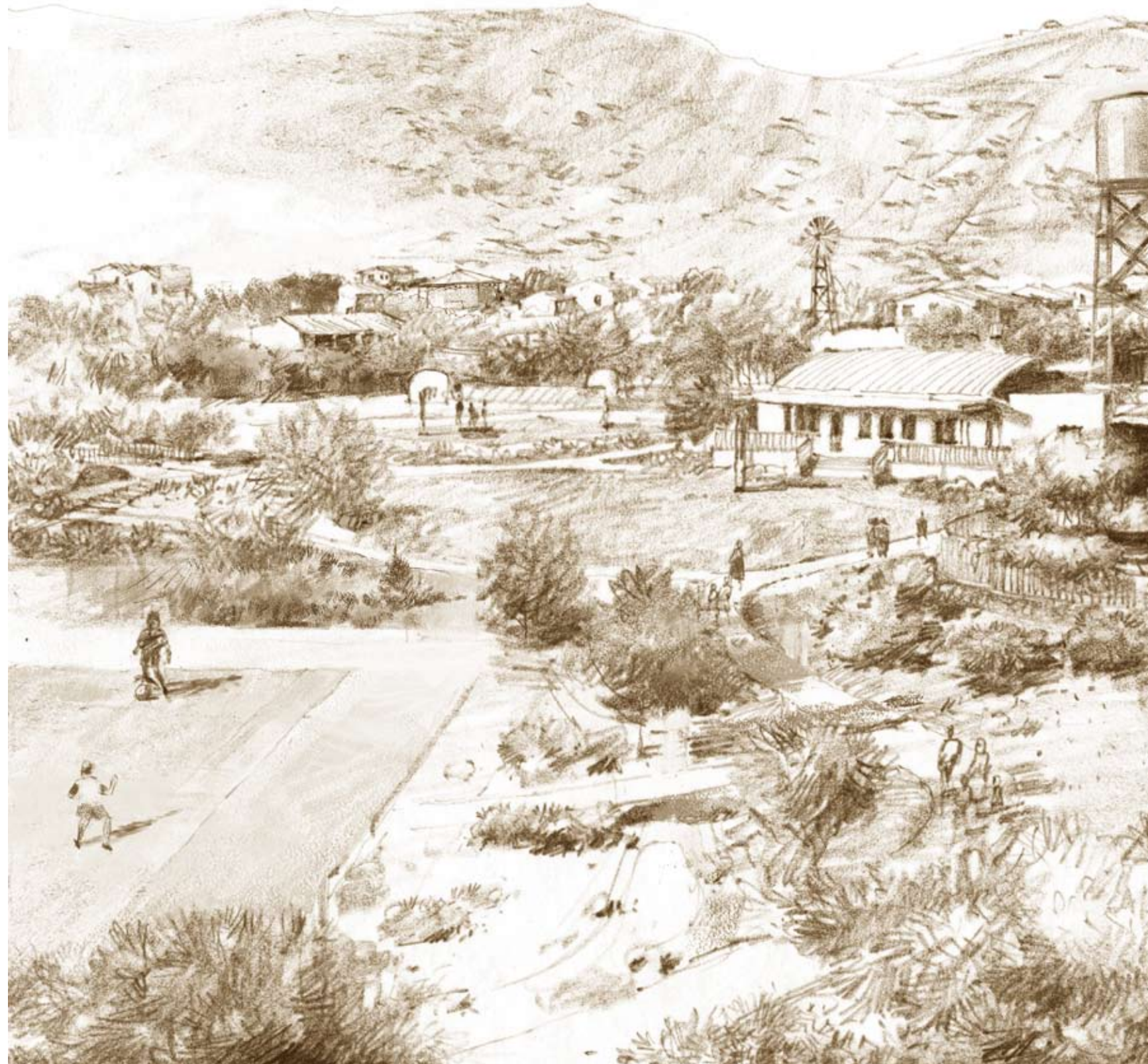
Small community gardens can be organized into the overall design of neighborhoods.



Water harvesting is one example of sustainable practices that can benefit agrarian practices.



Community culture, heritage and traditions align with the agrarian and ranching spirit.



Chapter compounds should be organized with extensive trail systems to connect adjacent parks, neighborhoods, and senior/veteran housing.

THE PUBLIC SESSIONS

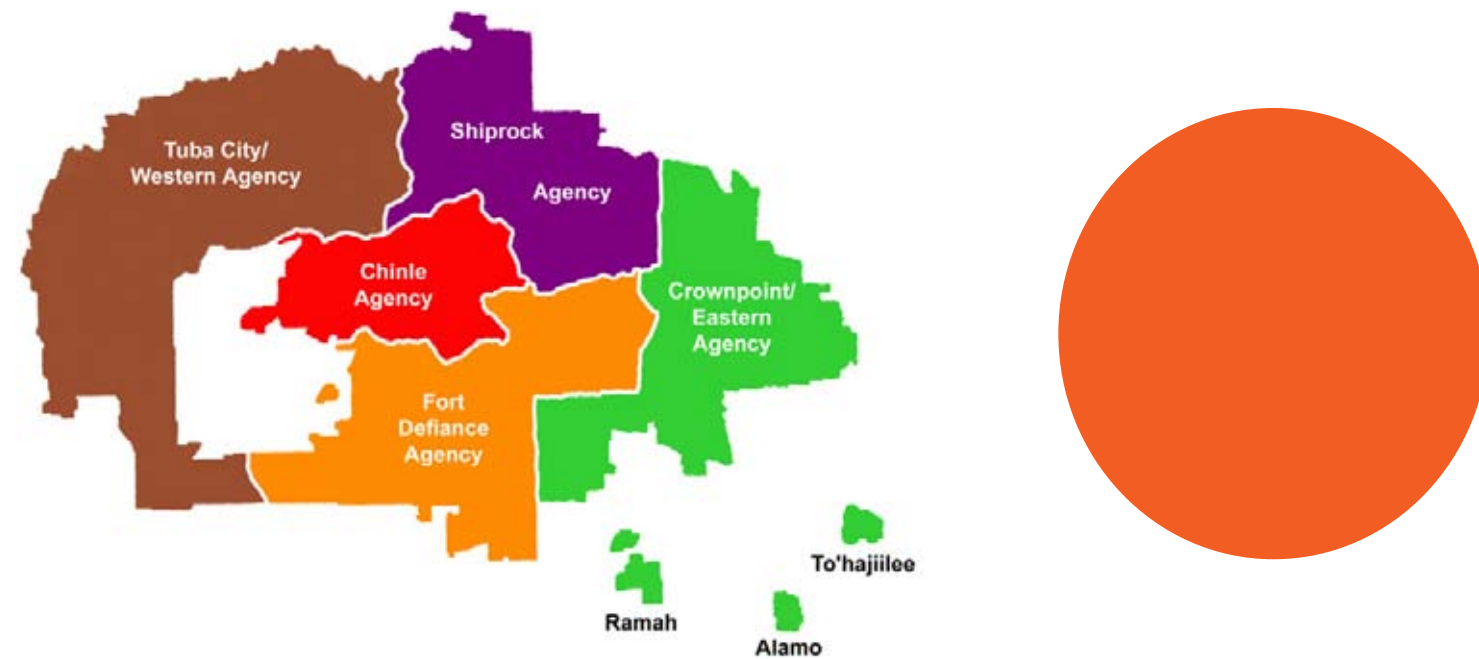
“None of us lives at the point where the Creation began, but every one of us lives at a point where the Creation continues.”

~ Scott Russell Sanders

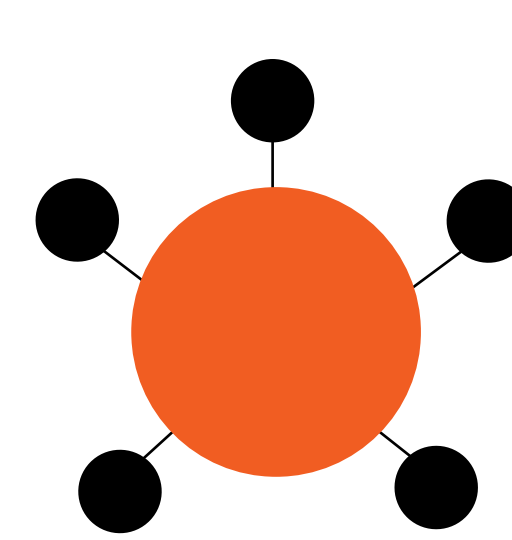
In keeping with NHA's Vision Statement:

"Housing our Nation by growing sustainable communities."

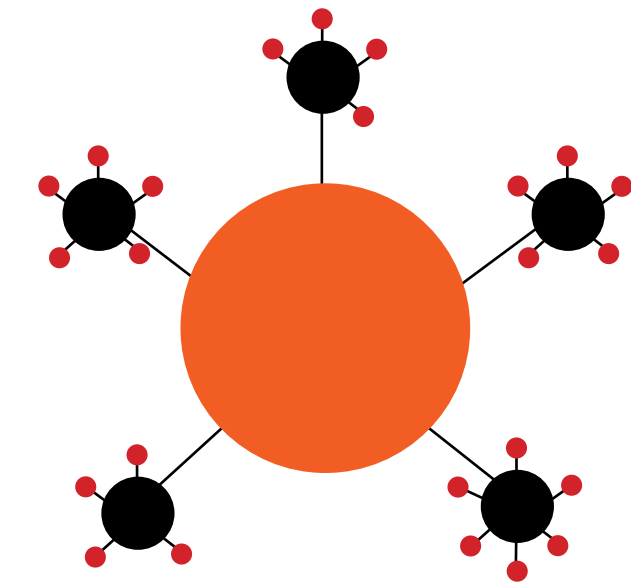
This report and the activities it lays out for the future is all about taking a positive hand in creation. The only way to plan with a coherent vision is to start with the culture of the entire Nation followed by a colorful weaving of its many parts.



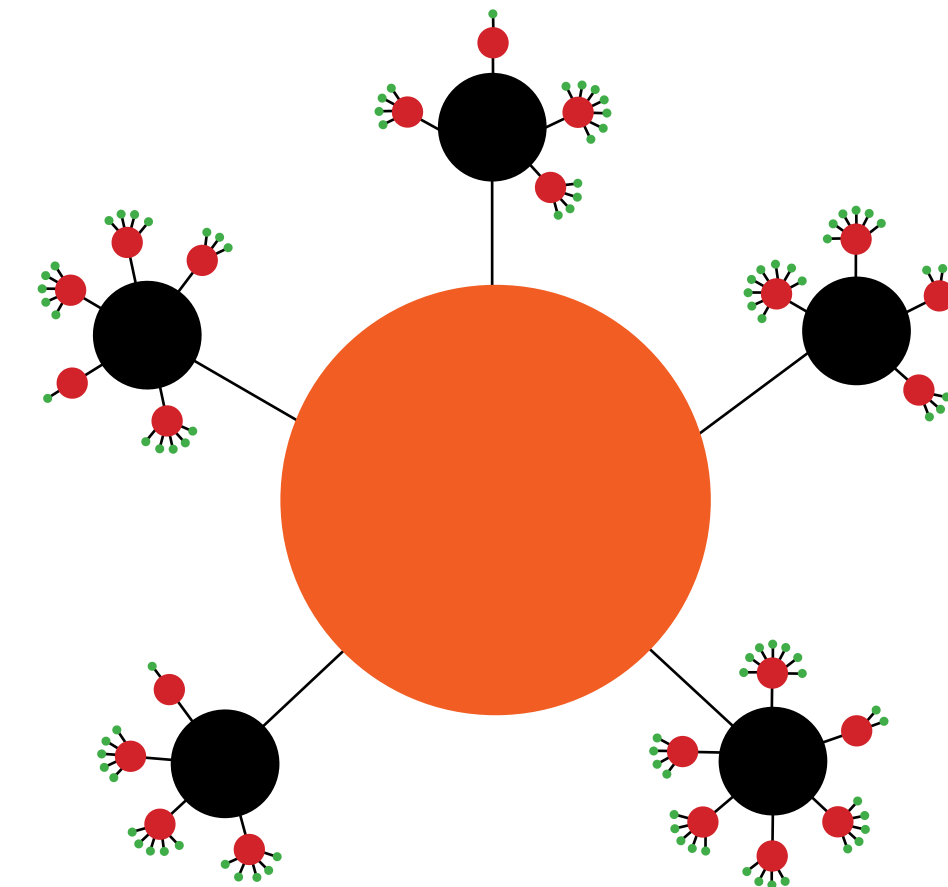
To think of this in diagrammatic terms consider that the entire Navajo Nation could be symbolized as the orange disc shown to the right.



Here we see the Nation symbolized with its five Agencies.



The five Agencies with their 24 Regions.



The 24 Regions with their 110 Chapters. In the end this is all a unity. It is in that spirit that the Regional studies are informed by each other and the Chapter studies are informed not only by the Region but also each other. That describes the sequence of what follows.

The Agency Planning Sessions

Five all day sessions were held in locations appropriate to each of the five Agencies. In order to prompt interactive dialogue, each session began with a variety of presentations, including the use of; 1) 4'x8' drawings, arranged around the room; 2) presentations by the team's architects, planners and engineers, and; 3) presentations focused on the broader, more inclusive reach of sustainability, all aided by a variety of PowerPoint presentations.

The speakers raised a great variety of issues, including problems in the past and suggestions for the future, all recorded in note form for later study by members of the planning team.

In the future, Chapter officials and community leaders should continue to foster an environment that encourages broad citizenry participation.

Navajo Housing Authority Sustainable Community Master Planning Initiative Project Kick-off Meetings

Week of May 14th, 2012:

Agenda:

1. Introduction and Overview **(30 minutes)**
 - Welcome
 - Navajo Housing Authority
 - Navajo Nation Community Housing & Infrastructure Division
 - NHA master planning consultant selection process
 - The consultant team
2. Swaback Partners **(90 minutes)**
 - Firm background
 - Our team members
 - Our work
 - Project approach
 - *Feedback work session (list of goals and objectives)*
3. Task One Work Efforts **(90 minutes)**
 - Research and Evaluation
 - Sustainability Initiatives
 - Infrastructure and utility impacts
 - *Feedback work session (list of issues and priorities)*

Break for Lunch at 12:30- reconvene at 1:30
4. Task Two Work Efforts **(60 minutes)**
 - Programming and initial planning refinement
 - Examples of planning initiatives
5. Task Three Efforts and Wrap-Up **(60 minutes)**
 - Prototypes and Community Sustainable Master Plans
 - *Questionnaire and follow up discussion*
6. Wrap-Up **(30 minutes)**
 - Next Steps
 - Closing thoughts

The Agenda above provided a format for community members to hear about the planning study as well as the opportunity to express their aspirations for their individual communities.

Shiprock



Eastern



Ft. Defiance



Chinle



Western



The Regional & Chapter Sessions

During the week of July 23, 2012, fully staffed individual teams held consecutive meetings in five different locations. The planning team used the period between these and the Agency meetings to generate new materials including two videos.

The format started with presenting sufficient information to inspire interaction with all involved. The representative images on the five pages following the Agenda show the level of interactive responses with the participants not only going up to the exhibits to discuss them further but also adding their own designs and comments on drawings that had been prepared for their review.

All future Chapter meetings should always focus on a very interactive process that allows for input from community members. Every community meeting should be carefully planned and orchestrated to encourage a productive outcome.

Regional Sustainable Community Planning Initiative Regional Workshops

Week of July 23rd, 2012

AGENDA

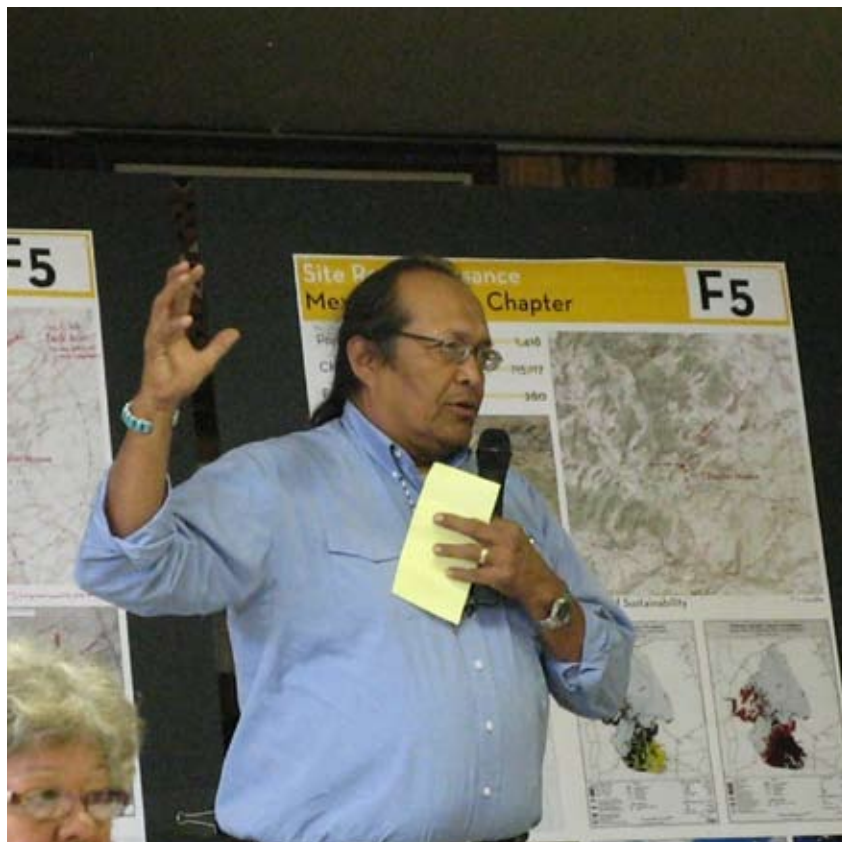
8:00 A.M. – Registration	NHA Staff
9:00 A.M. – Welcome	NHA Representative
9:05 A.M. – Invocation	Volunteer
9:10 A.M. – Introduction	Everyone
9:30 A.M. – Overview	Swaback Partners
9:35 A.M. – First Video (Setting the Stage)	The Team
10:00 A.M. – Sustainability Framework Regional Plan Analysis Chapter Plan Review	Swaback Partners
<ul style="list-style-type: none"> • Hand out questionnaires to be filled in during lunch 	
12:00/1:00 – Lunch (to be coordinated by NHA and local NHA representatives)	
1:00 P.M. – Second Video (Sustainability)	Swaback Partners
1:45 P.M. – Housing Design Prototypes	Swaback Partners
2:30 P.M. – Housing Preferences Exercise	Everyone
2:45 P.M. – Summary of Efforts	Swaback Partners
3:00 P.M. – Final Thoughts	Everyone

The Regional Workshops were organized in a manner that allowed for presentations, group participation and key interaction.

The Presentation



Group Participation



Key Interaction





Trading posts and commercial centers should be designed in an attractive manner that highlights the unique quality of the Navajo Nation.

OVERVIEW OF THE PLANNING DOCUMENTS

In addition to various diagrams and vignettes prepared to elicit feedback in the Agency and Regional/Chapter meetings, the work product includes over 350 Planning Exhibits, including five overall plans for each of the 24 Regions and individual plans for each of the 110 Chapters.

Heirarchy

Five Regional Plan Types for 24 Regions

- Agency Orientation
- Planning Analysis Framework
- Regional Land Management Strategies
- Community Influence Areas
- Development Zone Prototypes and Templates

110 Chapter Plans

Each Chapter receives a copy of the Conceptual Planning Study for its area plus a copy of the above four studies relating to its Region. The following pages include examples of this related set of five planning documents.

At the start of the interactive meetings, there were at times an oversimplified argument between “cluster” and “scattered” housing. The pursuit has always been for a more orchestrated arrangement in which a variety of housing patterns and densities respect both the land and each other’s place on the land, including paths, trails and the shared vistas of vast sweeps of open space.

Planning Analysis Framework

The plan on the facing page is one of 24 plans, corresponding to the 24 Regions. During each interactive sessions at the Regional locations, it became clear of how little, if any, coordination had occurred among the various Chapters. For the most part, it seemed that it was the first time that the Chapters had seen each others CLUPs.

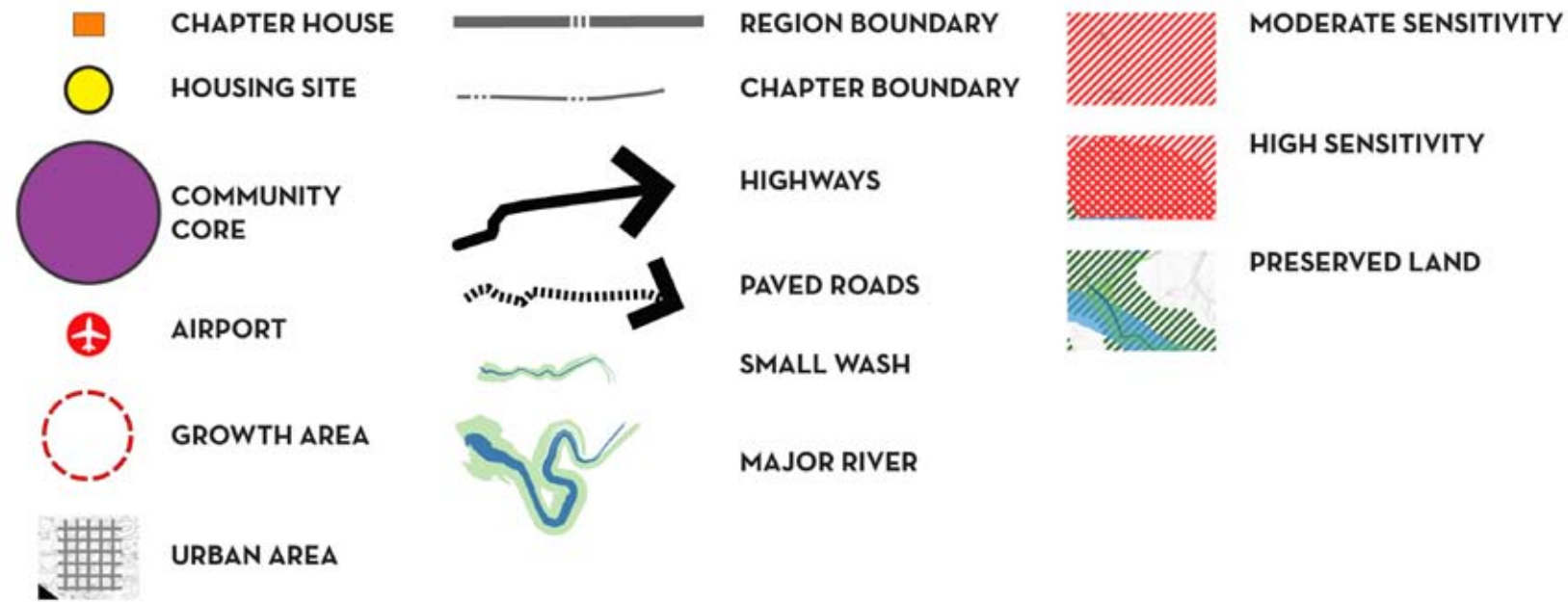
Another observation involved the extensive dispersion of homesites, which if followed, could result in individual infrastructure costs that would exceed the cost of the house.

Further issues of such dispersion include the fuel costs for long commutes, both for personal vehicles and school buses, the number of seniors who would likely live a great distance from both routine and emergency services as well as no way to design for an overall sense of community.

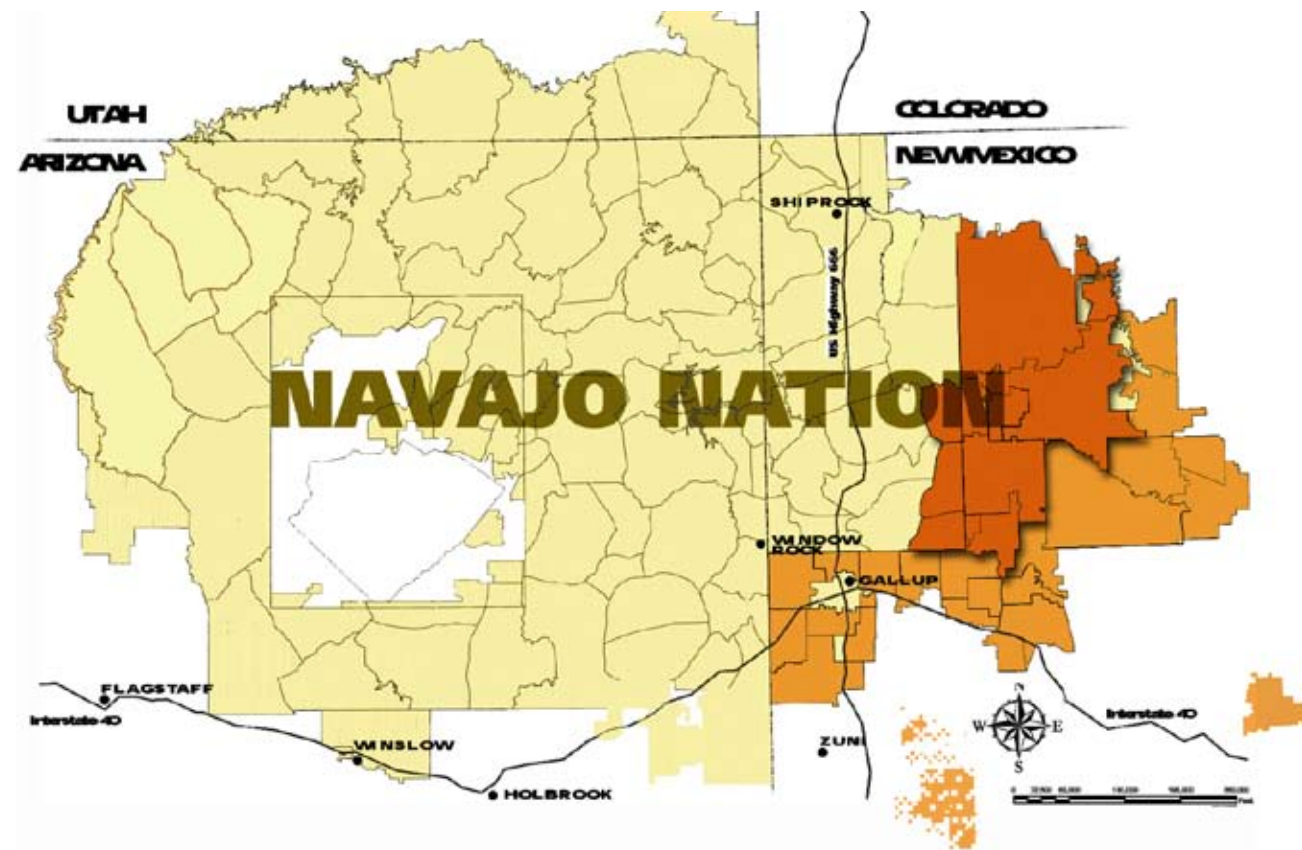
The public testimony made it quite clear that crowded, look-alike subdivisions were to be avoided which can certainly be handled without the costs and inconvenience of the kind of unrelatedness suggested on some of the existing CLUPs.

No two CLUPs are alike and some are more clearly thought out than others, but all can be helped by way of this more coordinated perspective. The first three items in the Legend identify the Chapter House (small orange squares), the existing CLUP housing sites (yellow circle) and the community core (larger purple circle). This completion of the 16 elements identified in the Legend sets the stage for the next level of study.

Legend

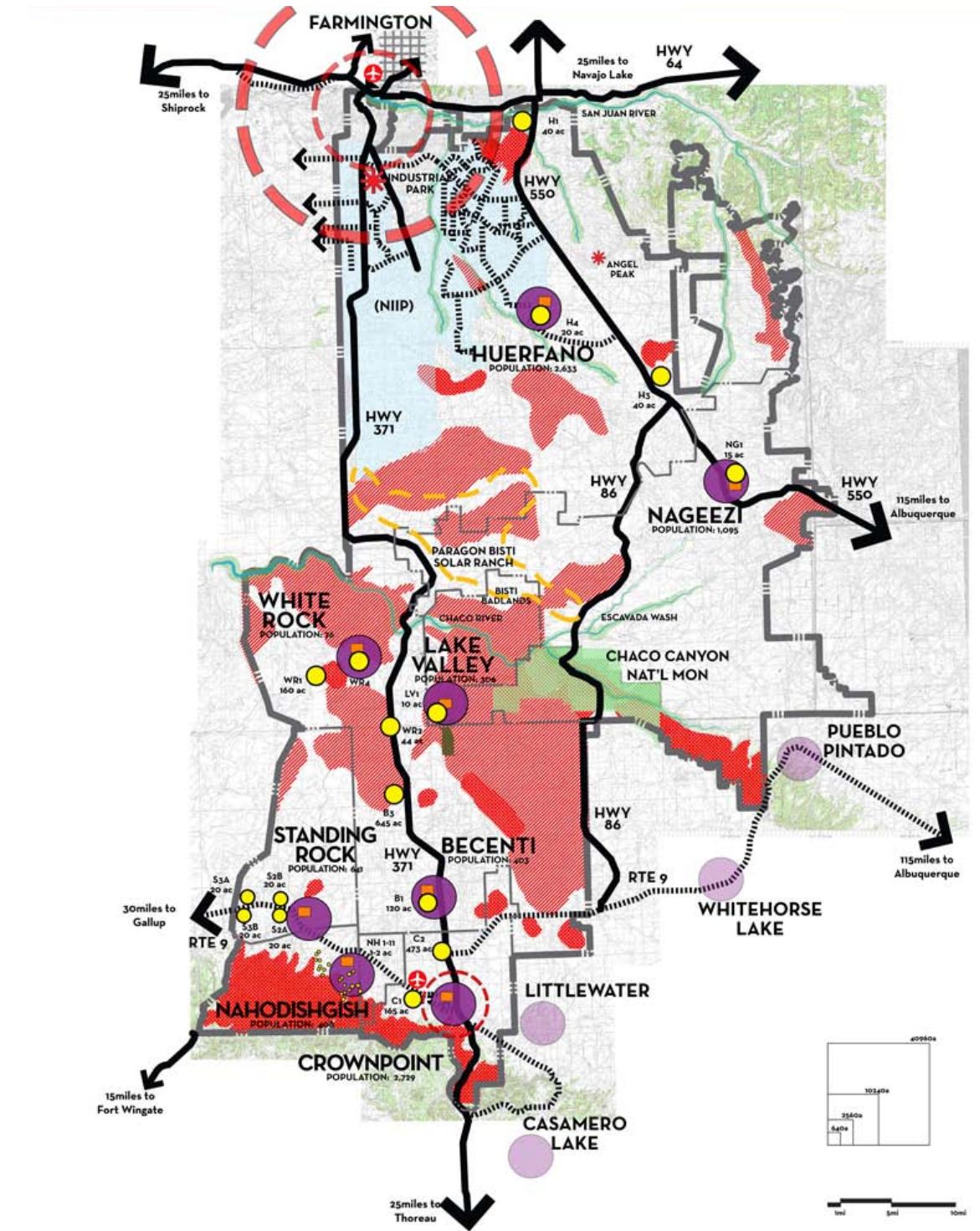


Context



The above legend and context map provided the visual reference for the wide range of data analyzed during initial tasks of the analysis.

Regional Analysis Framework



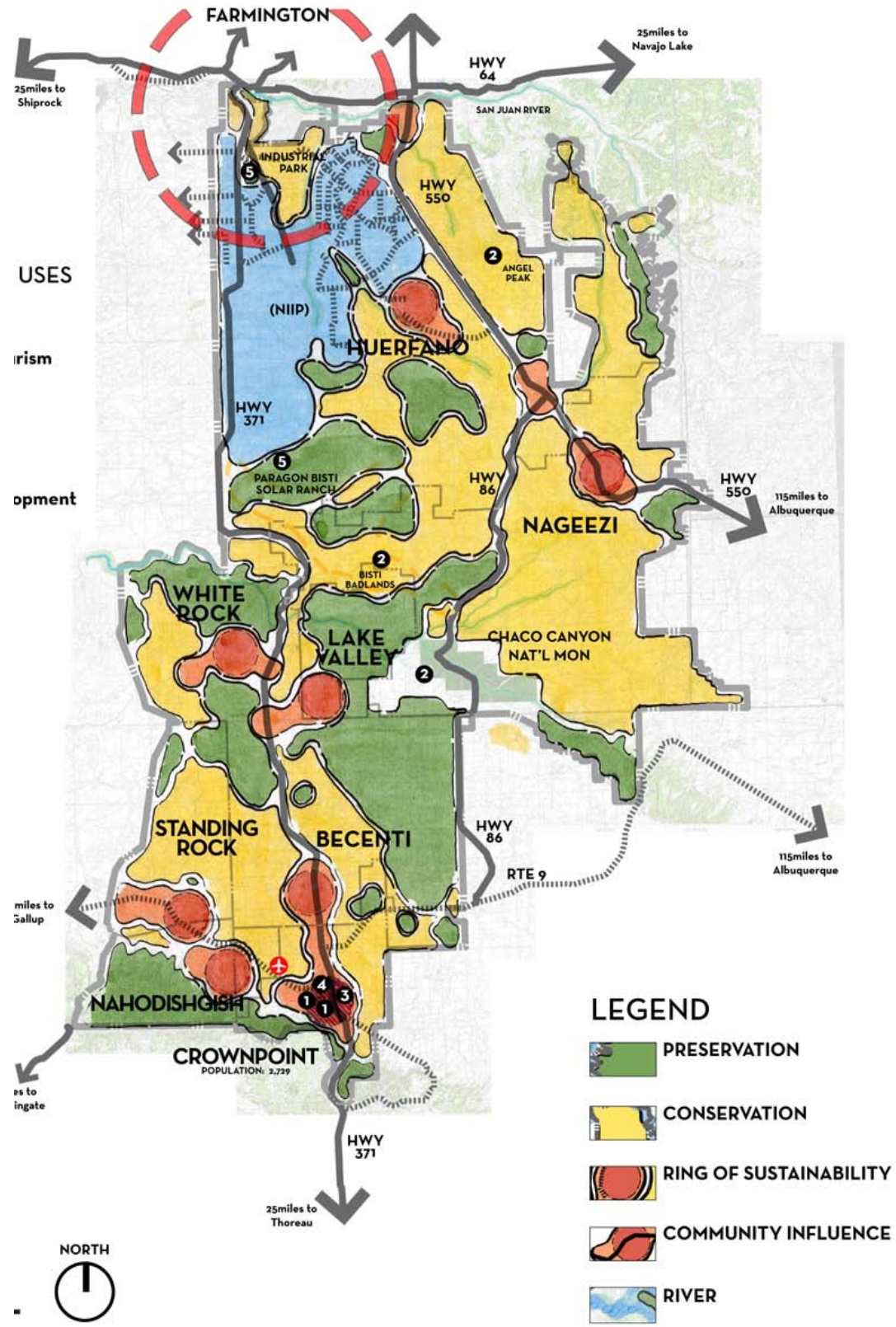
The planning team considered a broad range of regional issues, including: utilities, transportation, sensitive lands, Chapter House locations, and special open space.

Regional Land Management Strategies

The darker red circles indicate, what has been termed “The Ring of Sustainability.” Each circle represents more than 8,000 acres all within a two mile radius, often centered on an existing Chapter House. These carefully identified areas create an organizing framework within which to plan for relatedness between building sites and a means to plan for the coordination with the required infrastructure.

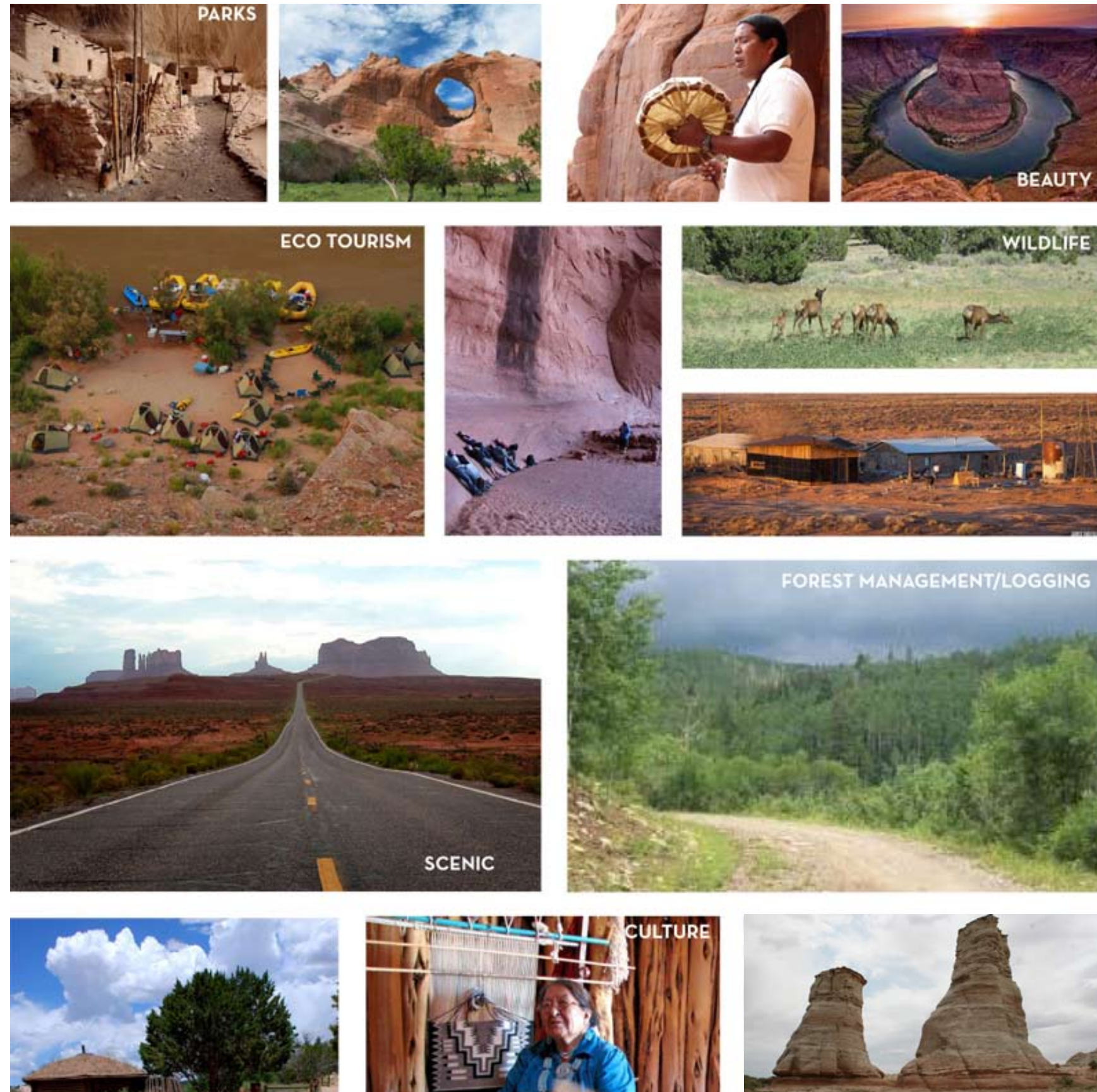
The lighter, more orange color that extends out from the red circle is a Community Core Area of Influence, in which each Chapter may wish to explore beyond the two mile ring of sustainability. As a way to understand the scale of these red/orange areas, added together they include well over 100,000 acres shown on this adjacent exhibit.

Moving forward, Chapters should consider Land Management issues within the extents of their boundaries. Areas of conservation, preservation, and development should be identified and articulated. Part of this effort should include improved strategies for Land Management of rangelands relative to farming, grazing and ranching.



The Regional Land Management strategy suggests a framework for focusing a significant amount of future development in proximity to community centers.

Preservation



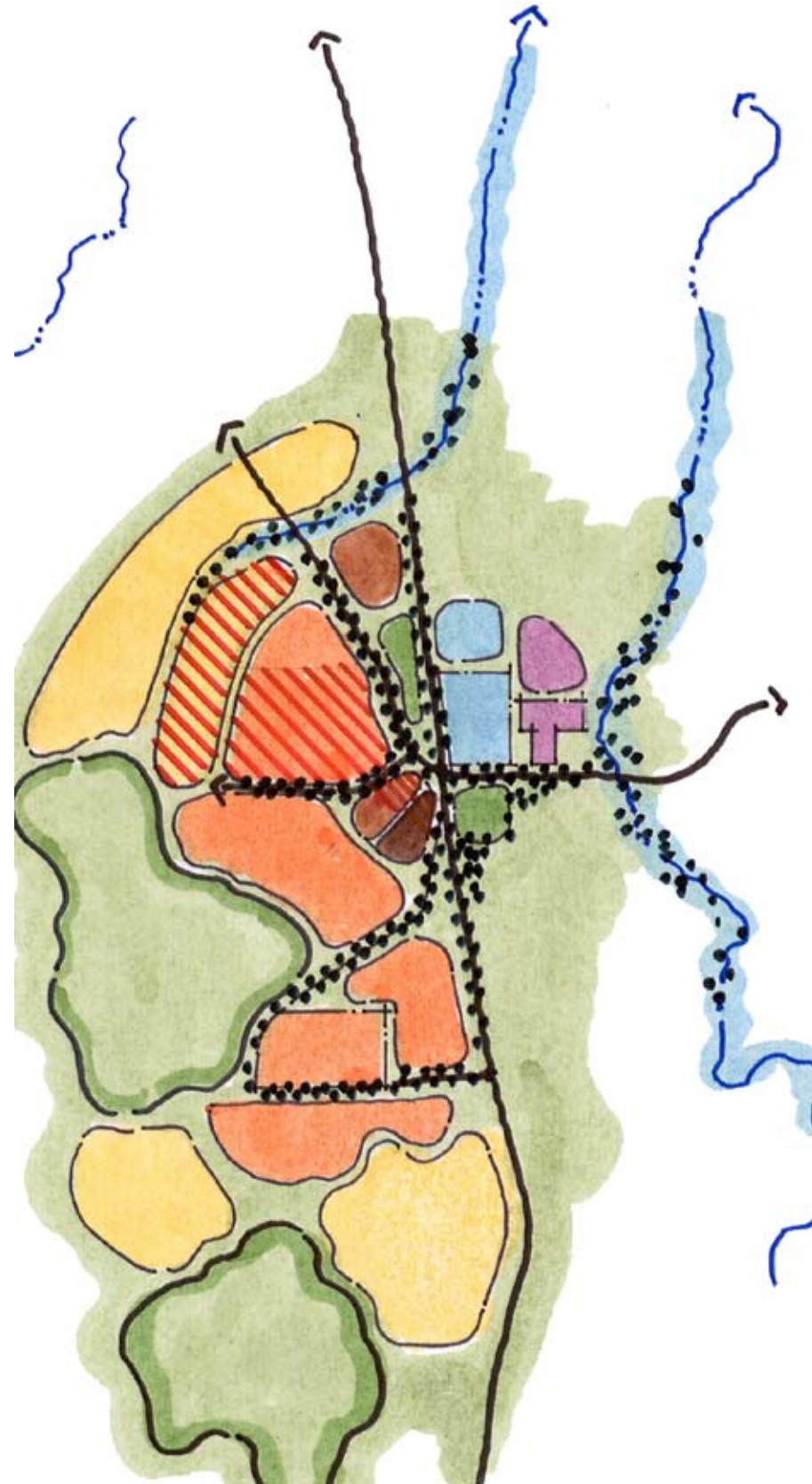
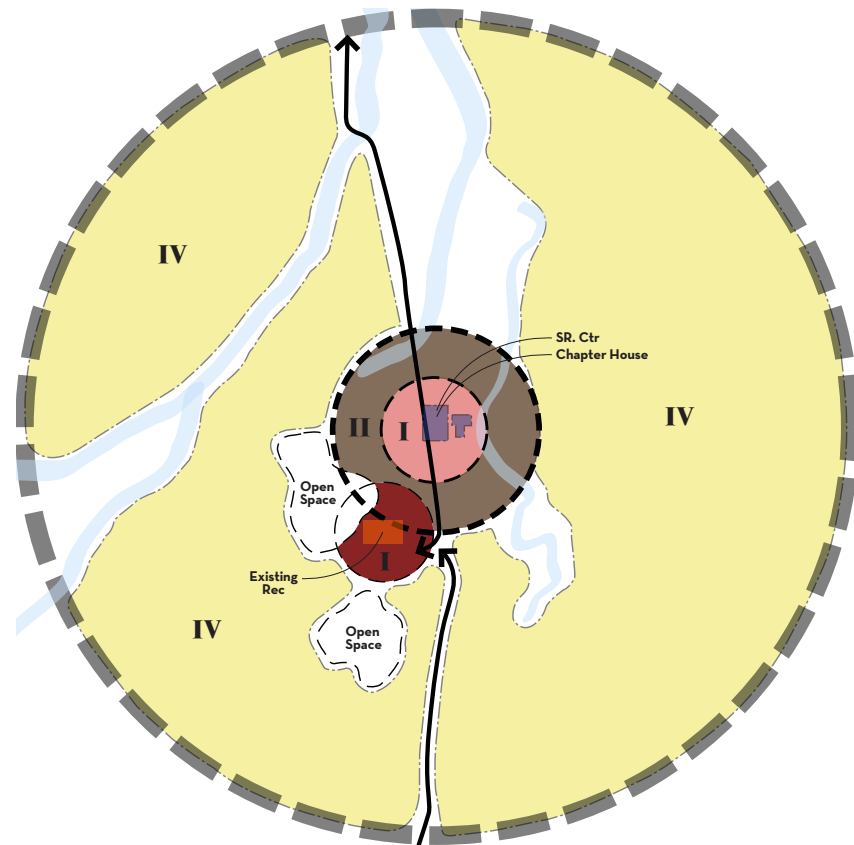
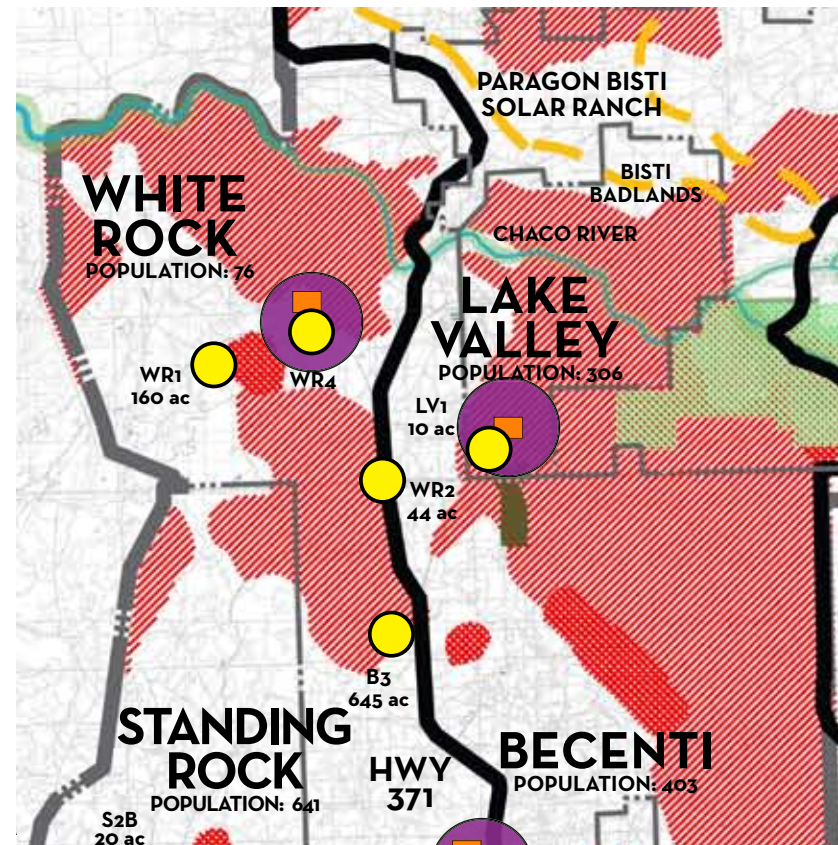
Preservation areas should be identified along with management strategies that provide guidance for uses and treatment of the land.

Conservation



Conservation practices should be put in place that help manage the land for the long-term with a careful balance of appropriate uses.

Ring of Sustainability



Ring of Sustainability

It became clear throughout the planning process that there exists today on the Navajo Nation a significant disconnect between many of the elements relating to the need for 34,000 new homes.

- The Vastness of the Land vs. The Lack of Land Available to Build Homes**
- The Cost of Utilities and Infrastructure vs. Current Patterns of Dispersed Housing**
- The Desire to Live off the Land vs. The Desire for Community Services and Integration**
- The Poor Quality of Many Neighborhoods vs. NHA's New Commitment to Beauty**
- The Lack of Housing Choice vs. the New Direction to Provide Options**
- The Desire to Live in Isolation vs. The Desire to Live in a more Integrated Community**

Within this framework, many of the Chapter's have been forced into a position of planning that has focused on reactive recommendations for housing sites that are less about thoughtful planning principles and more about trying to find sites- any sites for potential housing. We know that within almost every case, the Chapters do not have near enough housing sites identified to meet their current needs. This represents the biggest disconnect of all. At this moment of time, there is not a mechanism or system in place that could actually move forward on building all the identified and needed housing. Much discussion, coordination, collaboration and planning is necessary to change the current circumstances.

The intent of identifying the Ring of Sustainability is to help bring to the forefront the range of issues articulated above within the context of a sustainable planning framework that sets the stage for a more holistic and orchestrated community planning effort. This effort suggests large-scale land management considerations within the context of a special focus for each Chapter around the Ring of Sustainability. This area should not be thought of as a boundary, but an opportunity. The area for each Chapter includes, at a minimum, over 8,000 acres and provides a canvas of options that could accommodate all the housing needs, choices and desires.

Community Influence Areas

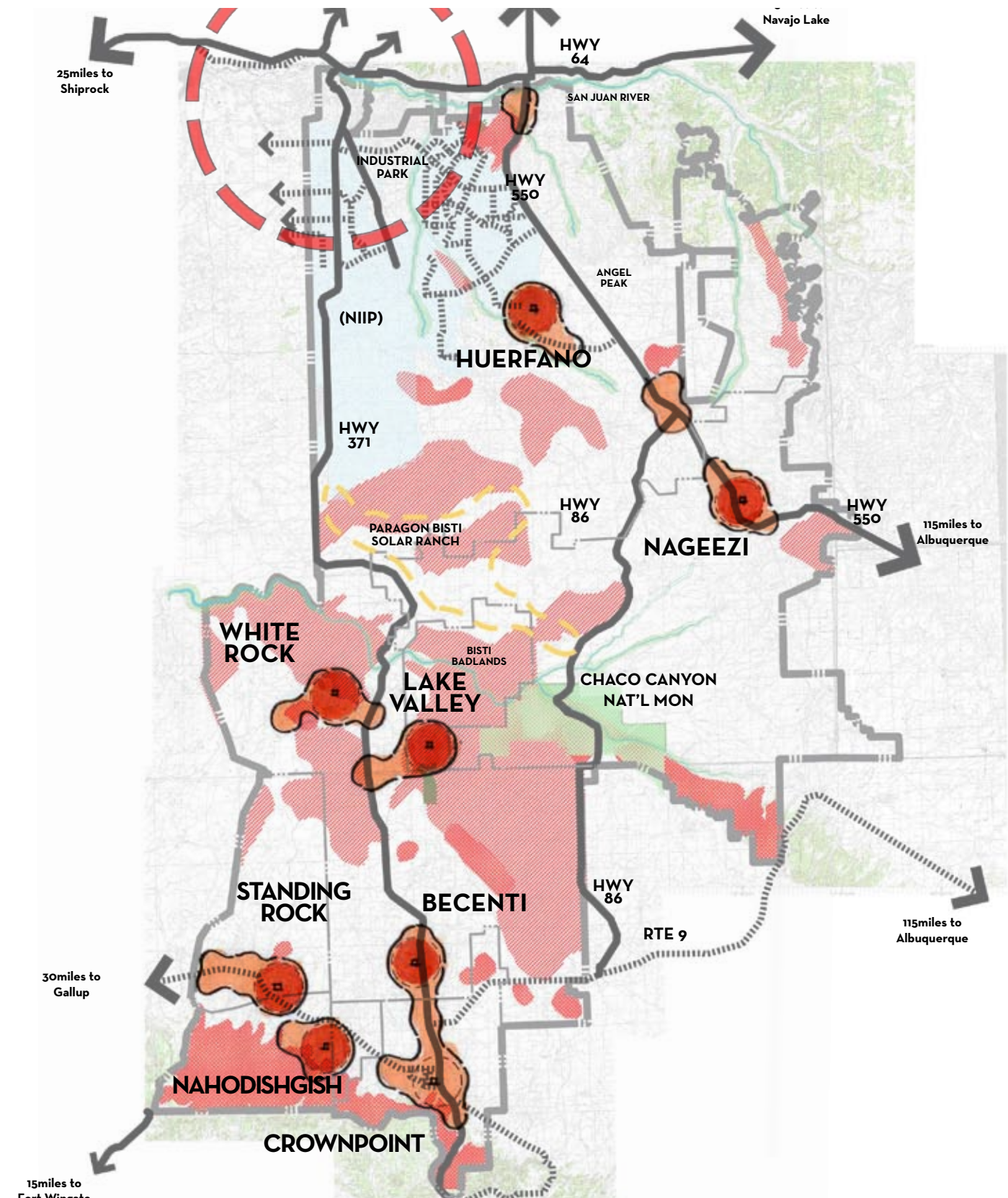
Each of this series of five related plans retains something of the prior step but moves in the direction of indicating more specific information.

The Community Influence Area exhibit repeats the two mile radius circle of sustainability responding in more detail to the influences of the surrounding, existing influences, including roadway alignments, utilities, and where appropriate, influences from the existing Chapter CLUPs.

Like the three preceding diagrams, the following is one of the 24 such plans prepared specifically for each region.

The community core area influence as shown on the adjacent exhibit represents more than 100,000 acres of potential development. Personal desires for any type of housing could easily be accommodated within these areas.

Community Influence Area



The intent is not to prohibit development beyond the area of influence, but to encourage the majority of new growth within these zones in a more orchestrated and sustainable fashion.

Development Zones Prototype

Community Core Area of Influence

Development Zones Prototype and Template

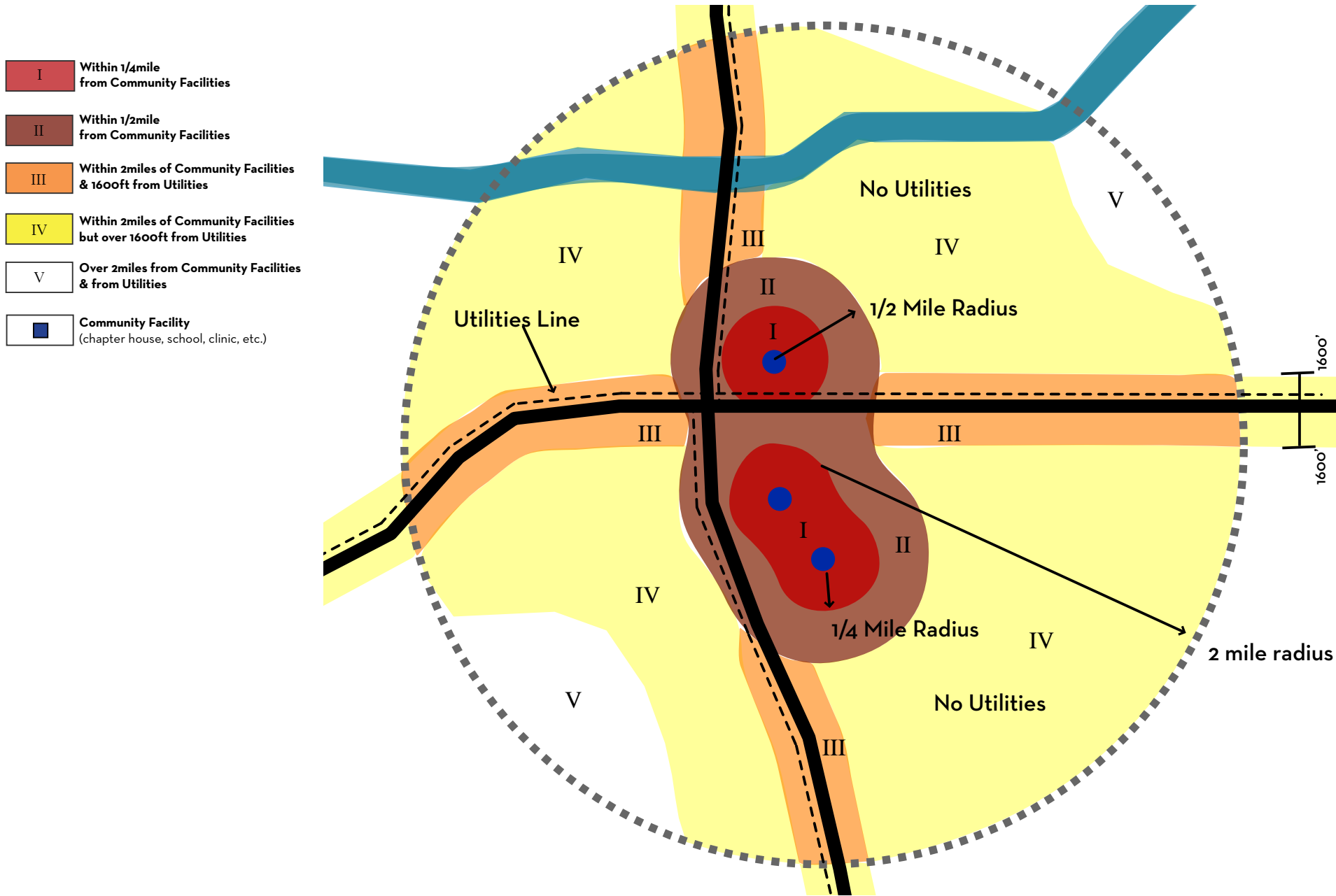
The large dashed perimeter circle represents the two mile radius ring of Sustainability, connected to its extended area of influence. The overall determination of this area is based on land area that seems most appropriate for housing and related development. The four major criteria in determining these areas include; 1) the nature and suitability of the land itself; 2) access to utilities; 3) proximity to required services, plus; 4) relationships to community facilities, including but not limited to Chapter Houses, schools, clinics and hospitals, and employment in general. Unlike the preceding three plans, the Zone Prototype along with the six symbols in its corresponding legend, illustrate the connectivity which is basic to the planning of sustainable communities.

Zone I suggests higher density housing that requires the most impact to utilities and offers the greatest adjacencies to community services. Senior and Veterans housing would work well here for convenient access to stores and services.

Zone II also offers development opportunities for a full spectrum of housing typologies and could be carefully designed to balance both rural (isolated housing) with more urban (community connected) development. This area, integrated with trails, would allow for easy access throughout the community.

Zone III identifies areas along roadway and utility corridors that would be most conducive to development.

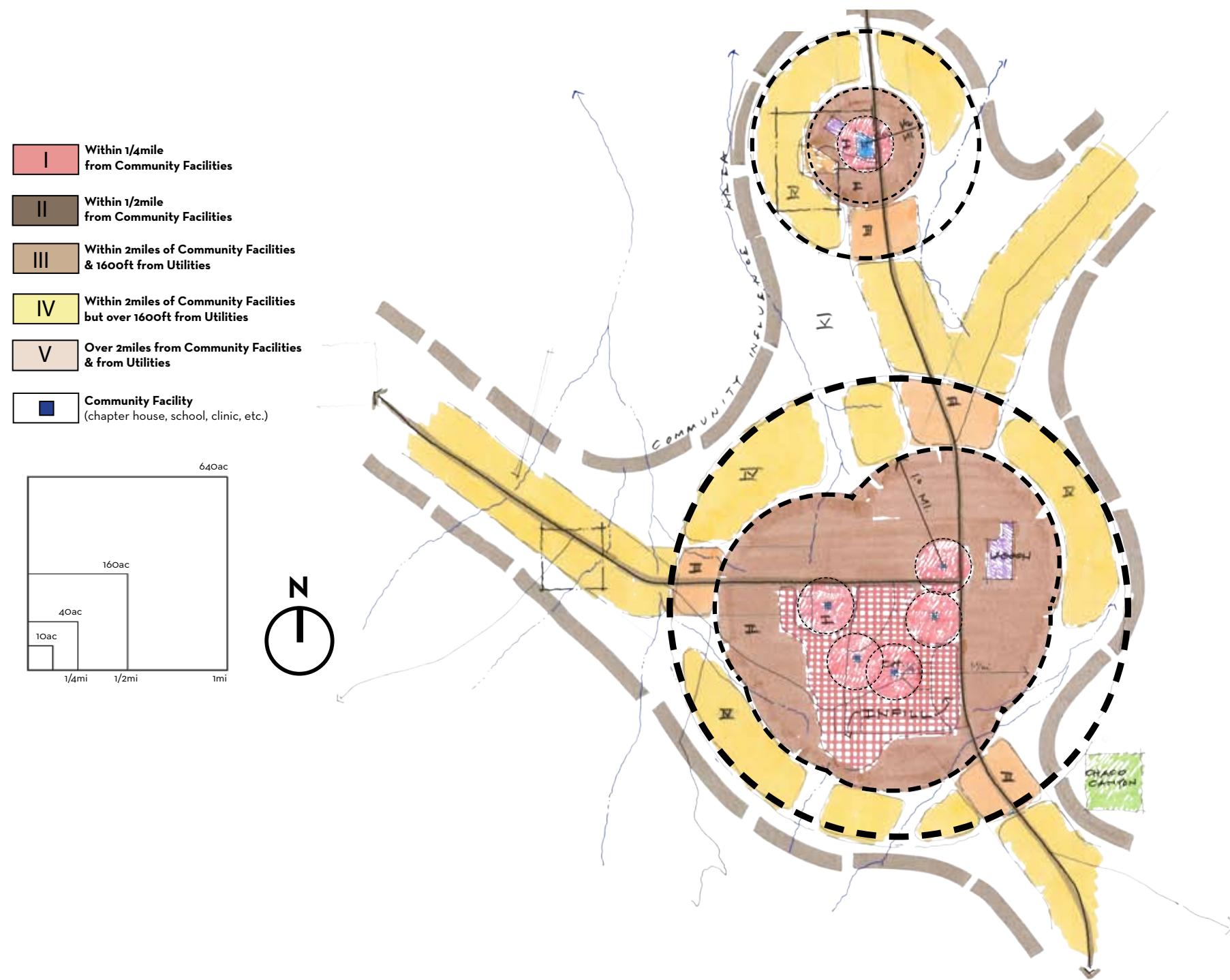
Zones IV and V are areas where utilities are either limited or non-existing. Development within these Zones should be carefully considered against the associated costs for utilities to serve specific planned projects.



The Development Zones Prototype provides a framework for identifying potential buildable areas within the Ring of Sustainability and Community Core Area of Influence.

Community Core Area of Influence

Crownpoint Chapter



The Template

The Development Zones Template has been created for all 110 Chapters. The adjacent exhibit to the left highlights the specific identified Development Zones associated with Crownpoint. Based on the context of the area, several Zones have been located in relation to community facilities.

The development area identified to the north is associated with the new Justice Center along HWY 371, the exhibit highlights Zone II as having significant development potential in and around Navajo Technical College (NTC). Lower density development potential (i.e. rural housing) should be anticipated within Zone IV.

It is expected that each Chapter may update and refine the templates based on local knowledge.

The Development Zones Template for Crownpoint identifies several existing center points of the community. Larger areas to the south are related to the Navajo Technical College. The smaller center to the north represents the new Justice Facility.

Conceptual Planning Study - Crownpoint

Conceptual Planning Studies











The five prior studies; 1) Regional Analysis Framework; 2) Land Management Strategies; 3) Community Influence Areas; 4) Development Zones Prototype, and; 5) Develop Zones Template, illustrate the generals to particulars approach which sets the stage for the more individual response of needs and opportunities specific to each Chapter.

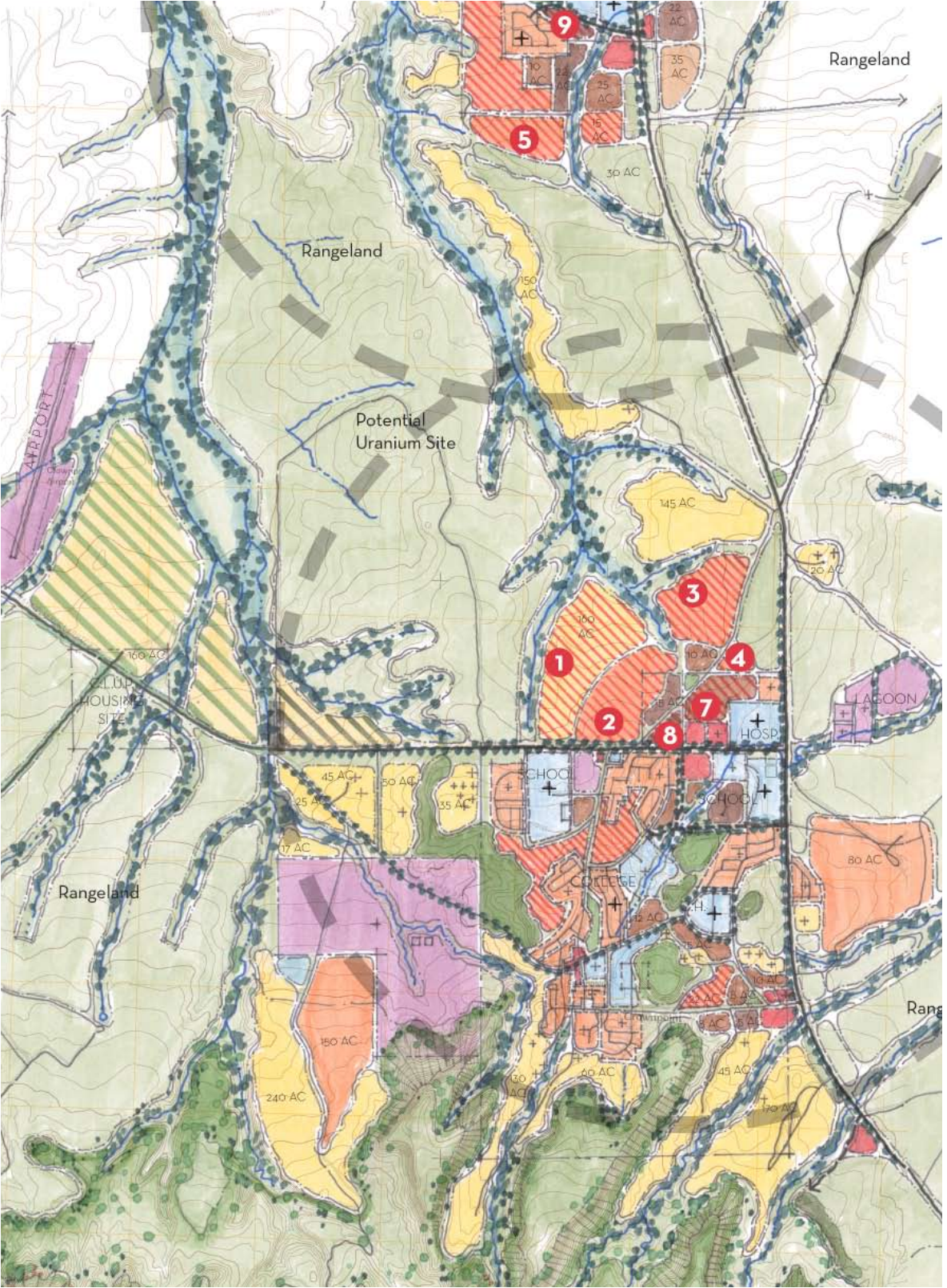
In addition to exploring these series of relationships in general, the work was guided by the housing needs for each Chapter. The plans are not intended to be the definitive solution - but rather an advisory set of documents for Chapter community leaders to utilize as CLUPs are updated in the future. The Conceptual Planning Studies are not intended to replace the land use plans component of the CLUPs. The hope is that each Chapter will utilize the plans and associated information to make better informed decisions in the future.

The legend identifies four categories of housing that were discussed during the community meetings. These categories represent a broad range of specific housing types that provide many options to meet the needs of the Navajo people. The following several pages provide details as to the aspirations of future housing options discussed.

The “Next Steps” section of this report calls for follow-up meetings with each Chapter to review the exhibits and major planning determinants. Additional data, such as soil types and flood plain exhibits, will be required before final decisions on housing locations can be made.

Legend

-  Existing Components
-  Community Facilities
-  Existing Grazing / Ranches
-  Agriculture
-  Rural/Conservation Housing (610 acres)
-  Orchestrated Neighborhood (152 acres)
-  Senior / Vet. Housing (10 acres)
-  Apartments (work force housing) (15 acres)
-  Community Park
-  Employment / Industrial
-  Retail Commercial
-  Recommended Sites



The illustration on the following pages portray the range of housing typologies included in the study. In addition, other community related uses have been carefully integrated into each of the 110 Chapter studies.

Housing Needs & Recommended Sites

Working from the broadest generalities down to the more numerical specifics, the planning process has addressed the following:

- Land use context
- Existing and/or planned infrastructure
- Growth potential
- Non-residential opportunities
- Existing Features
- Identification of open space

Two charts like the following have been prepared for each of the 110 Chapters. Those shown are for the Dennehotso Chapter in the Western Agency. The “Housing Need” chart identifies the total need and desired type (based on feedback from our Regional meetings.) The “Recommended Housing Sites” chart refers to the proposed location of sites as well as associated acreage.

The Conceptual Planning studies also identify/highlight housing sites per the existing Chapter CLUPs.

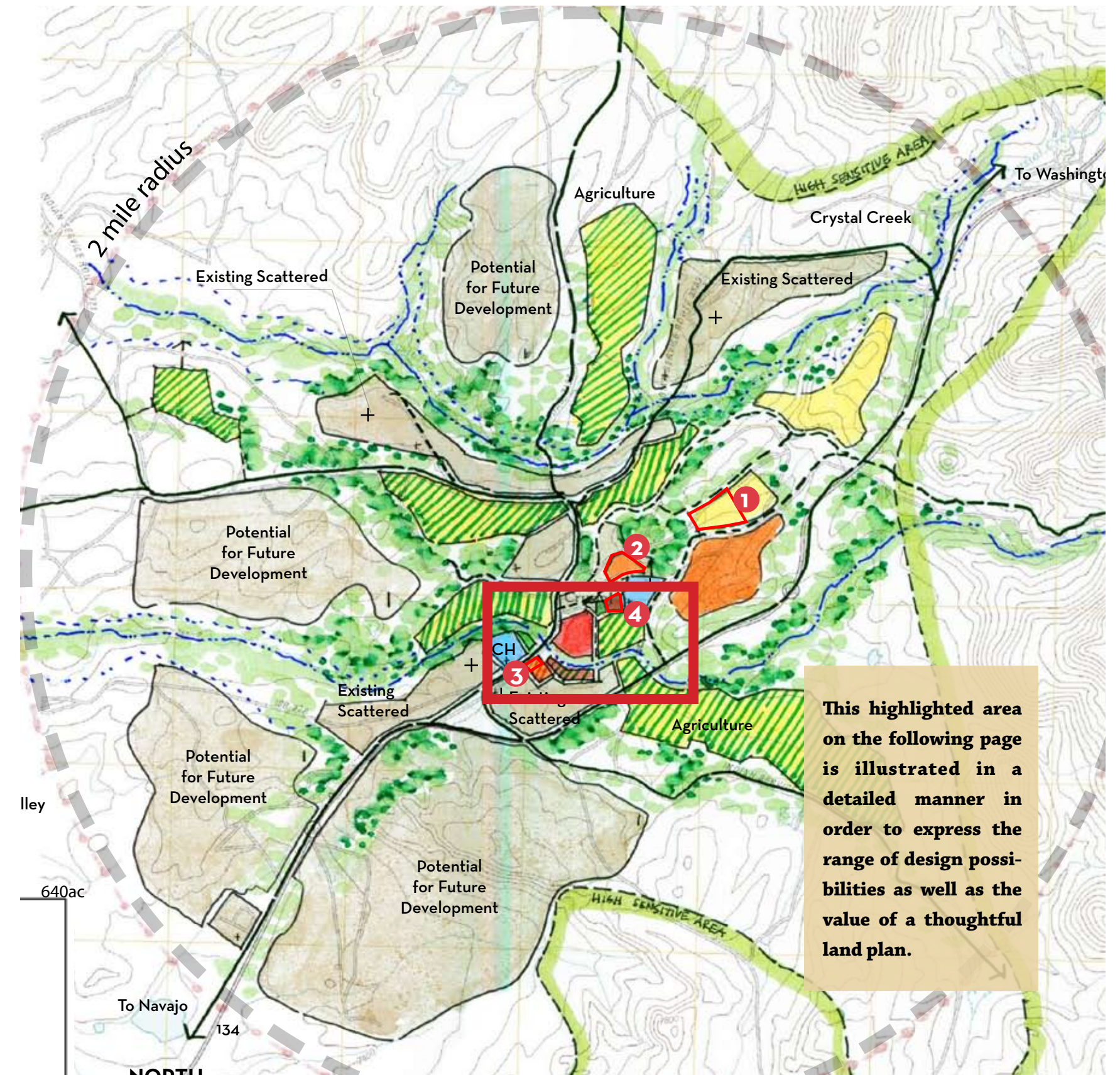
In the future, all Chapters should articulate proposed future community land use plans in a must more detailed manner.



The charts provide identification of need and accommodation for each Chapter based on the Conceptual Planning Studies.

The Power of Design

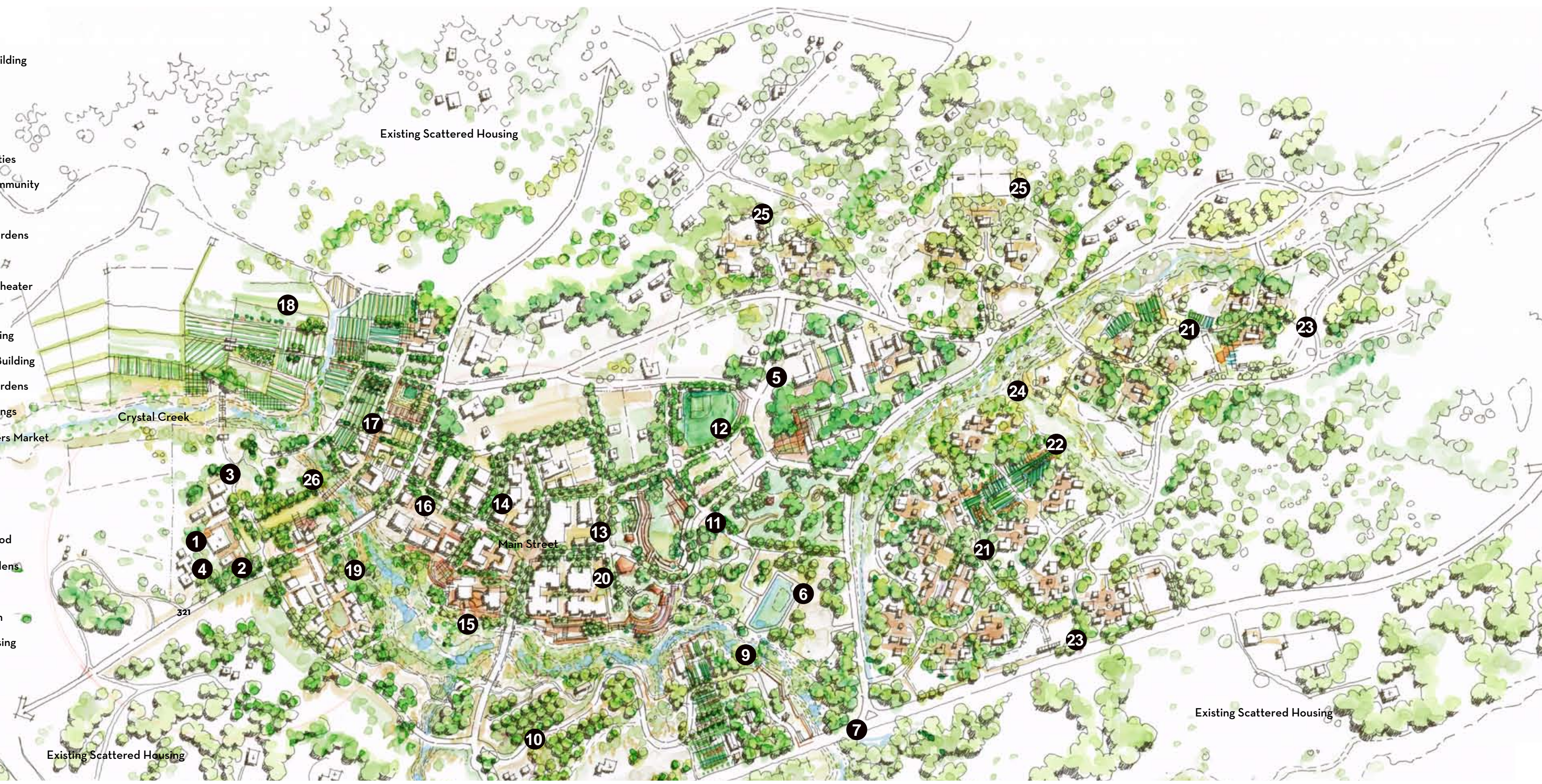
Community Planning and the range of land use exhibits are much more than a range of colors or shapes on a page. Community planning land use considerations represent the first critical design stage that sets the tone for the built environment. All the Chapters should strive to create a meaningful vision for their communities into the future.



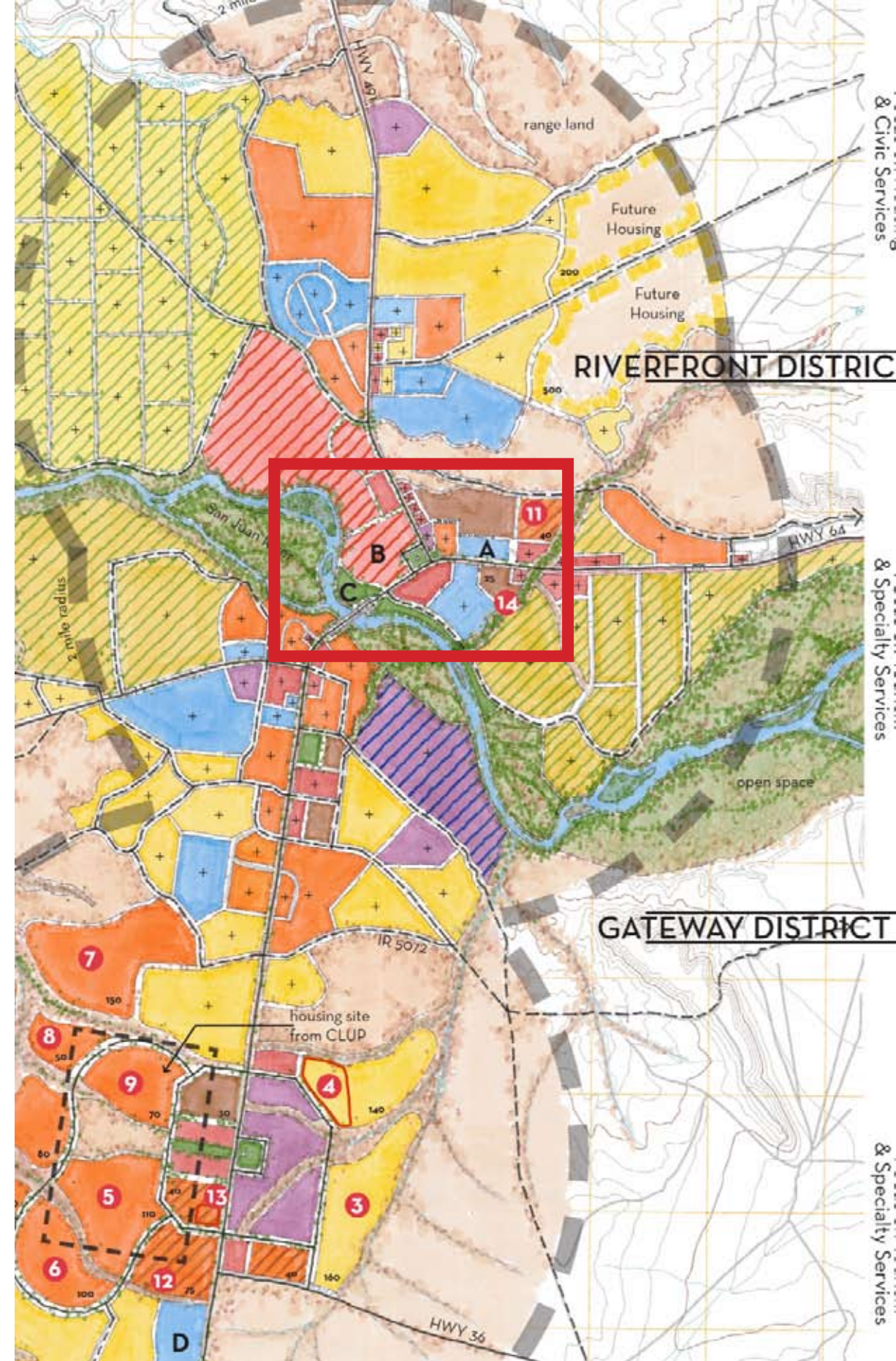
This highlighted area on the following page is illustrated in a detailed manner in order to express the range of design possibilities as well as the value of a thoughtful land plan.

This Conceptual Planning study for the Chapter of Crystal in the Ft. Defiance Agency provides a clear direction for future initiatives.

- 1 Crystal Chapter House
- 2 Crystal Senior Citizens Building
- 3 Headstart Center
- 4 Community Buildings
- 5 School
- 6 Lagoon / Community Utilities
- 7 Existing Access to the Community
- 8 Proposed Entrance
- 9 The Barn / Community Gardens
- 10 The Orchards
- 11 Community Park / Amphitheater
- 12 Ball Field / Parking Lot
- 13 Cultural Community Building
- 14 Offices and Government Building
- 15 Restaurants / Terraced Gardens
- 16 Retail / Commercial Buildings
- 17 Agricultural Retail / Farmers Market
- 18 Agricultural Land
- 19 Senior / Veteran Housing
- 20 Apartments
- 21 Orchestrated Neighborhood
- 22 Neighbors Vegetable Gardens
- 23 Neighbors Shared Barns
- 24 Designed Irrigation System
- 25 Rural / Conservation Housing
- 26 Chapter House Lawn



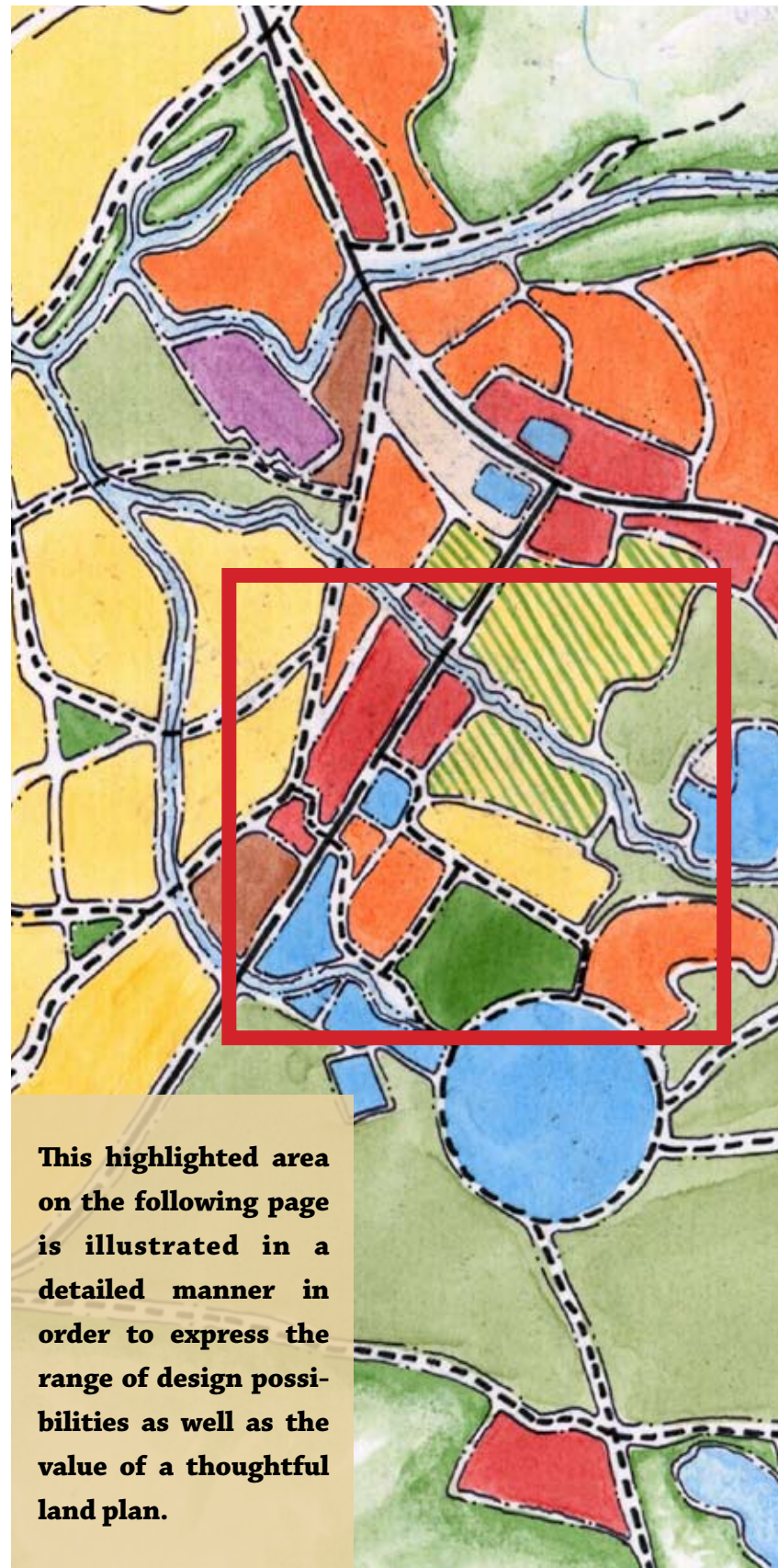
This detailed illustrative sketch is based on the Conceptual Planning study from the preceding page. Note the careful orchestration of uses and community elements. The design is not intended as the final solution for Crystal. It does showcase the power of design and the relationship between Regional community planning and specific site design opportunities.



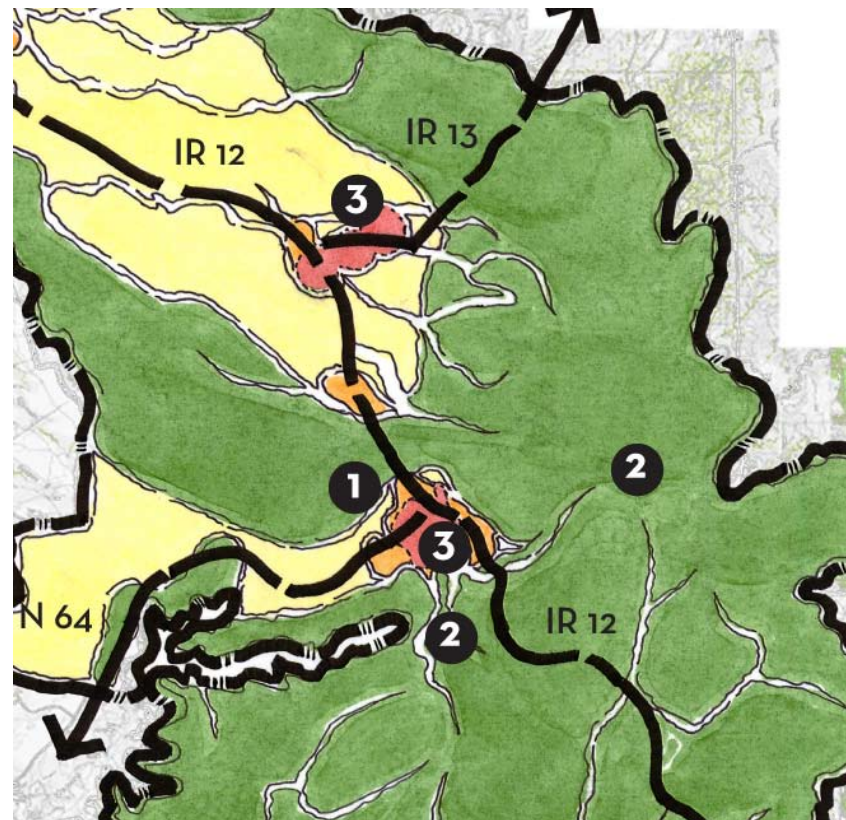
- 1 New Town Civic Square
Specialty Retail
Festivals/Events
- 2 Streetscape Beautification
Street Trees
Signage/Lighting
Sidewalks/crosswalks
Signalization
- 3 Hotel/Lodge (200 rooms)
Conference Center (40,000sf)
Spa
Fishing Center
Pools
Golf
- 4 Big Box Retail
- 5 Business Campus
- 6 Riverfront Park
- 7 Farmers Market
- 8 Civic Plaza
- 9 Neighborhood Retail / Local Businesses
- 10 River Access Way
- 11 Apartments & Senior Veterans Housing
- 12 Existing Agriculture
- 13 Existing School
- 14 New School Ranch/Farm Program
- 15 Existing Chapter House

Shiprock has the opportunity to become a mixed-use commerce center with new housing, business, retail and lodging, all within the context of celebrating its agrarian heritage along the San Juan River.

A strong vision for the downtown core of Shiprock can help set in motion a range of possibilities for future community needs.



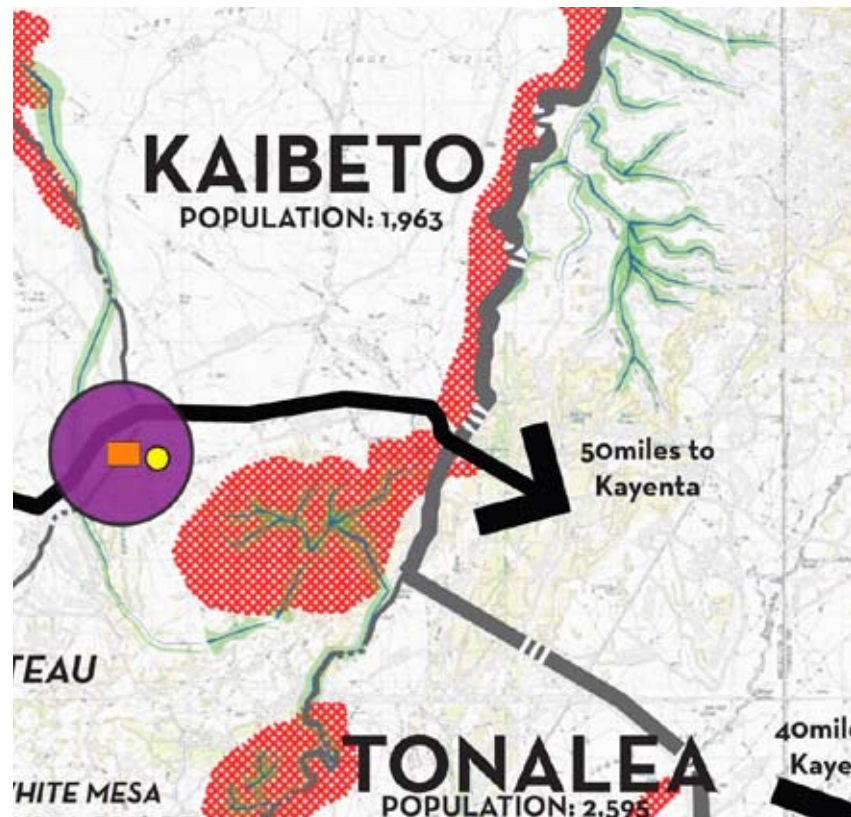
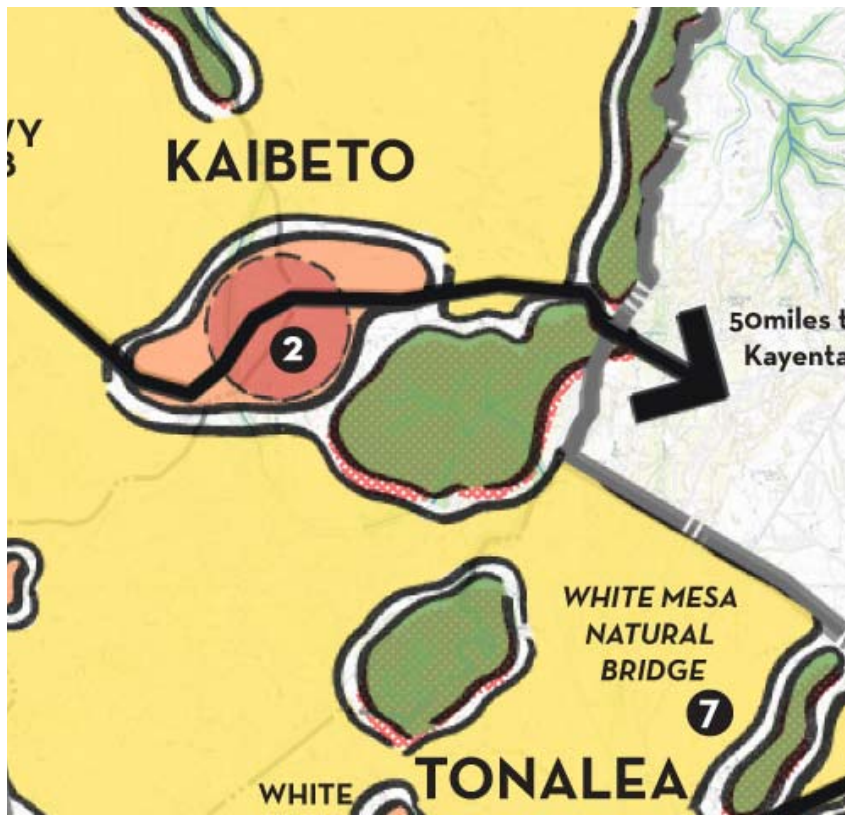
This highlighted area on the following page is illustrated in a detailed manner in order to express the range of design possibilities as well as the value of a thoughtful land plan.



With the continued success and growth associated with the Dine College, Tsaille has the opportunity to become a unique and vibrant Navajo College town.



Illustrative design sketch for Tsaille, the design strategy is to create better linkage between the College and community facilities.

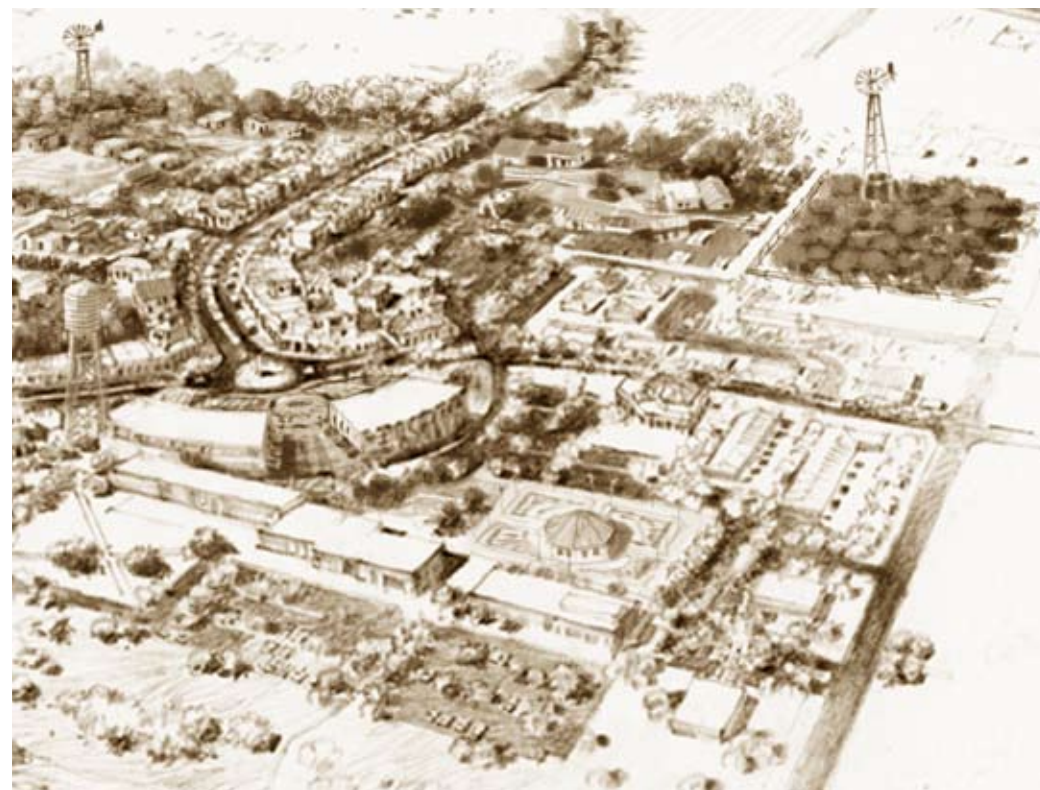
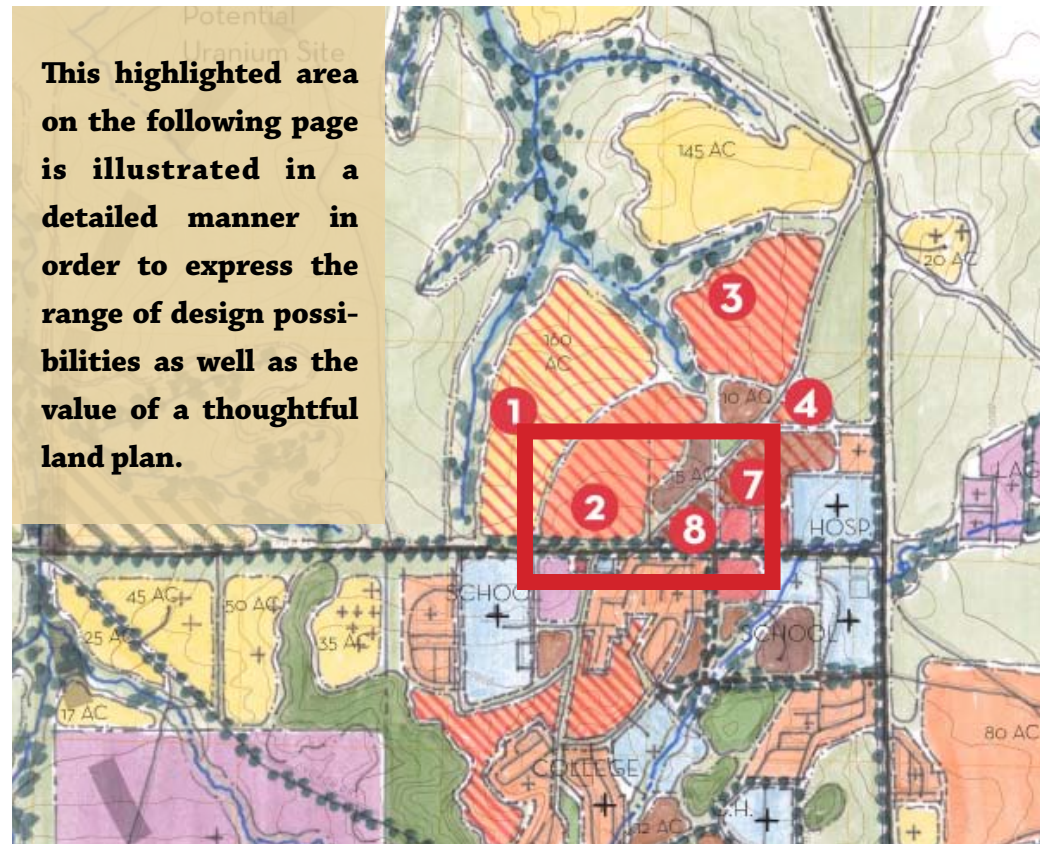


These series of illustrations, along with the sketch on the following page represent the broad range of planning and design studies for Kaibeto.



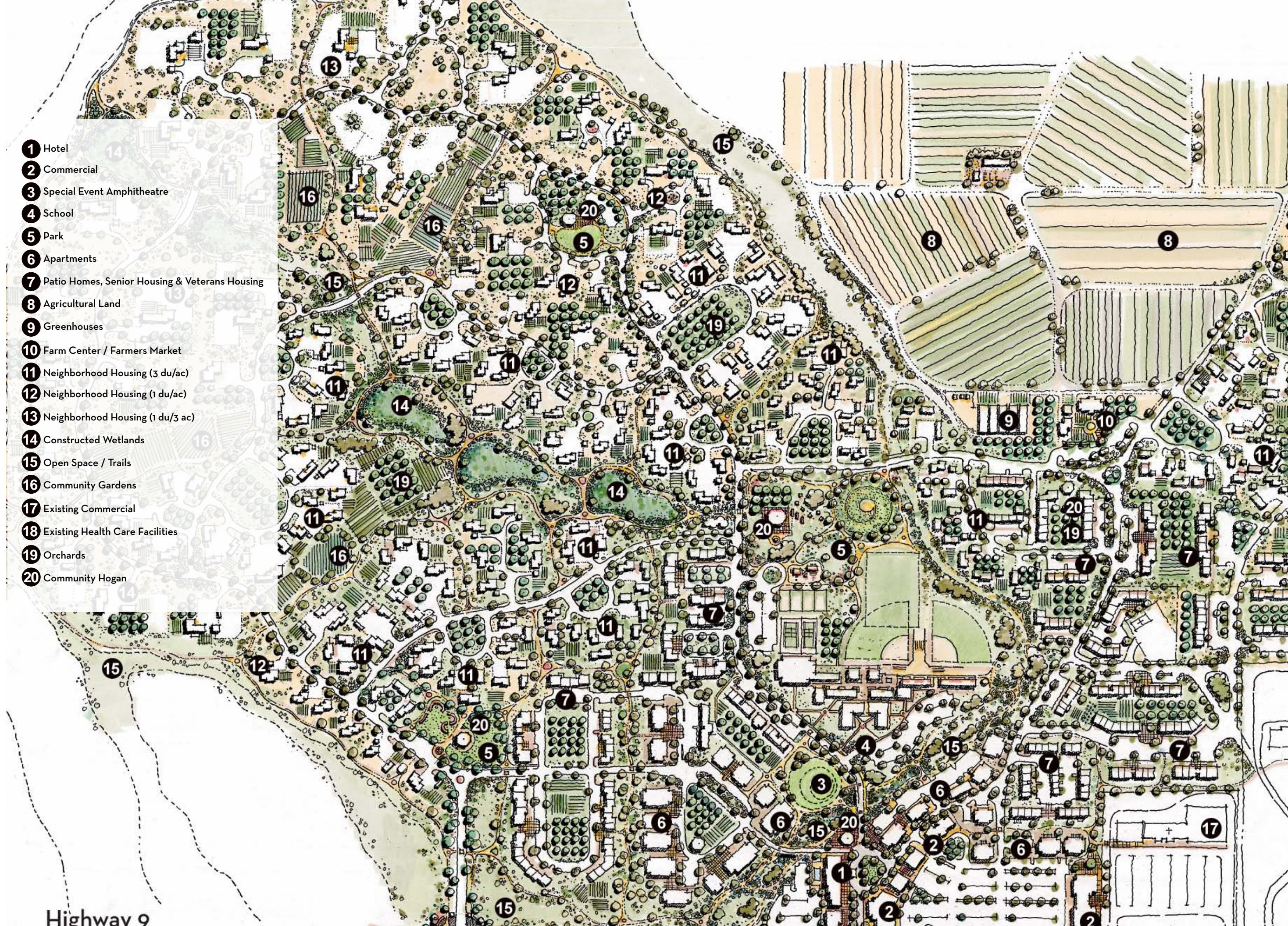
The illustration suggests a planning and design direction for Kaibeto. Note the contrast between existing typical subdivisions and the new range of housing.

This highlighted area on the following page is illustrated in a detailed manner in order to express the range of design possibilities as well as the value of a thoughtful land plan.



These series of exhibits illustrate the range of planning and design input related to the Crownpoint Chapter.

- 1 Hotel
- 2 Commercial
- 3 Special Event Amphitheatre
- 4 School
- 5 Park
- 6 Apartments
- 7 Patio Homes, Senior Housing & Veterans Housing
- 8 Agricultural Land
- 9 Greenhouses
- 10 Farm Center / Farmers Market
- 11 Neighborhood Housing (3 du/ac)
- 12 Neighborhood Housing (1 du/ac)
- 13 Neighborhood Housing (1 du/3 ac)
- 14 Constructed Wetlands
- 15 Open Space / Trails
- 16 Community Gardens
- 17 Existing Commercial
- 18 Existing Health Care Facilities
- 19 Orchards
- 20 Community Hogan

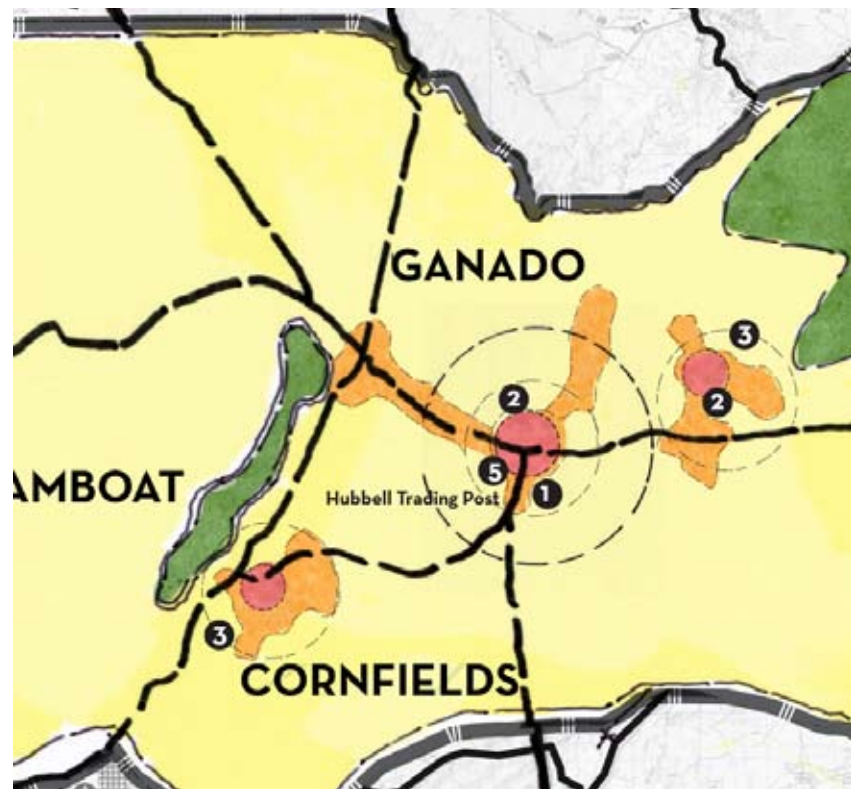
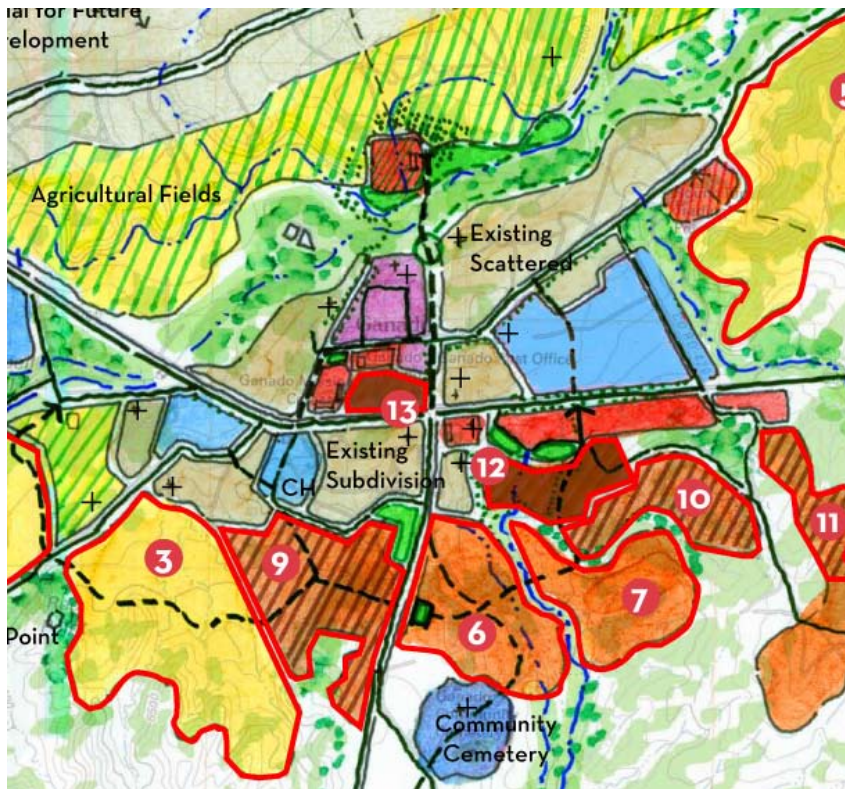
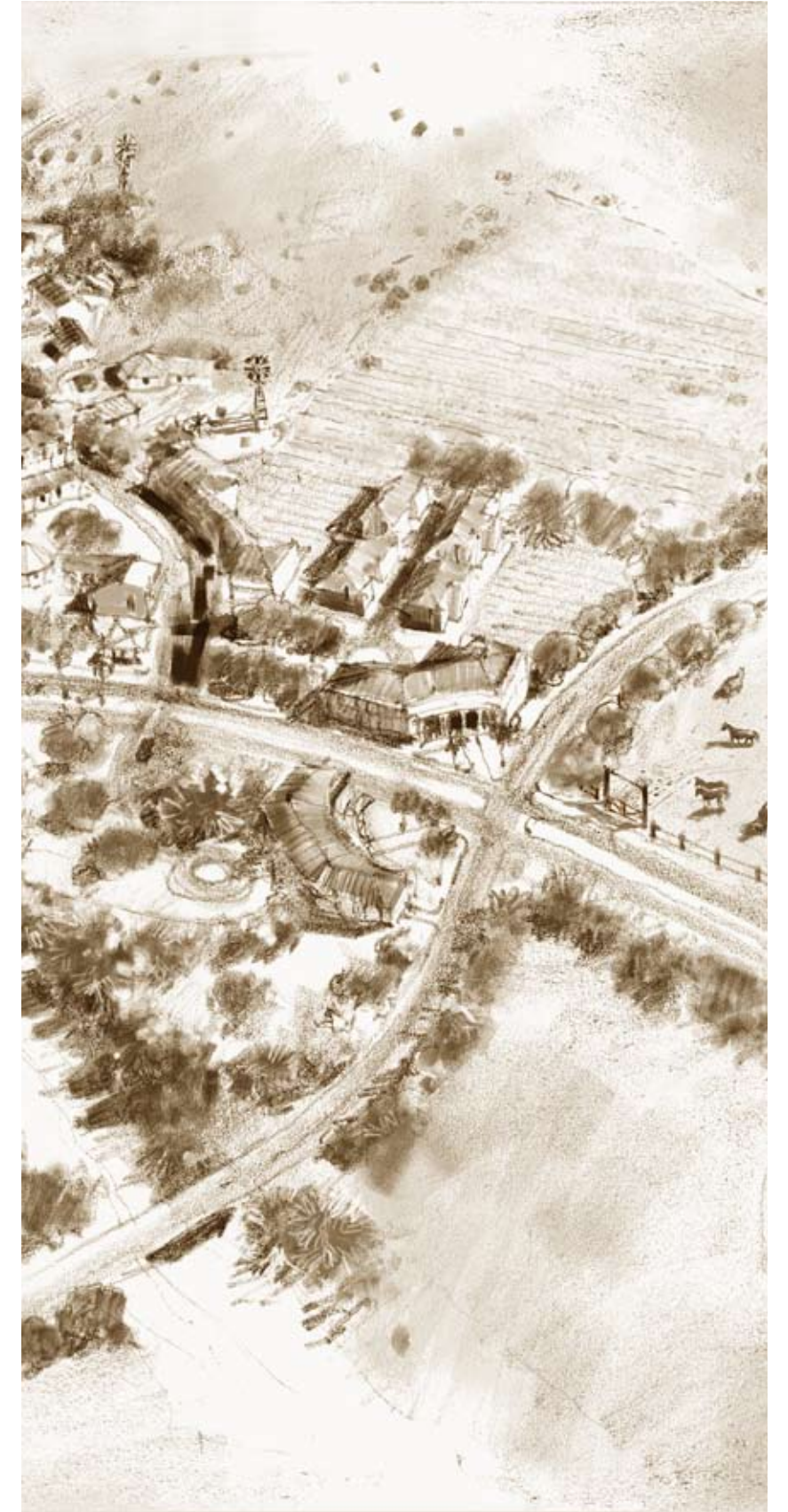




The thoughtful design and integration of complementary uses can include wonderful outdoor civic spaces.



The detailed illustration for a portion of St. Michaels.



This series of exhibits represent planning and design aspiration that include community gardens and cooperative farming.



Celebrate the heritage of agriculture and community farming with multi-generations at schools, home, cooperative farms and Farmers Markets.

The Chapter Plans

There are three distinct circumstances or activities that have a bearing on the further development and application of this study. They are; 1) Anything to do with constraints on the land, including those relating to current jurisdictional matters requiring resolution and all matters relating to soil conditions and other environmental impacts; 2) The varying states of the Community Land Use Plans (CLUPs) prepared by each of the individual Chapters, and; 3) The coordinated 2012 findings of the work performed by Swaback Partners.

Land Use Constraints

The degree of land currently tied up in grazing rights or other restrictions, or left unchanged, would preclude a successful outcome of the present need for housing. For this reason rather than being considered a major determinant in the planning process, it is seen as a problem to be solved on its own terms.

The Existing CLUPs

The 110 Chapters vary greatly in how and what they've produced. Each of the 110 Swaback prepared Conceptual Planning Studies, in addition to portraying the planners recommendations, also indicate where housing has been sited on the CLUPs. While this is a housing study, it is housing, along with the wide considerations of regional circulation patterns that influence the location of other kinds of uses. These relationships were very much on the planners minds in reviewing the CLUPs. For example, it is estimated that 60 percent of all Navajo money is spent off the reservation at retail stores in places like Flagstaff, Page, and Gallup. Economic sustainability is every bit as important as all other conservation and self-replenishing activities.

Summarizing the Interactive Presentations

The 24 Regional Workshops were well-attended and extremely productive, both in terms of creating a spirit of engagement and accumulating additional insights from each Chapter, as summarized below:

1. The value of a **regional perspective** concerning planning issues was an eye-opening experience for the participants. They recognized the value of understanding these greater issues that should always be considered when making community land use decisions (NHA's initiative for organizing an integrated GIS data base is an important aspect of this regional planning effort).
2. In almost every case, at the Chapter level, the housing needs identified were much greater than the land areas identified for housing in the CLUPs. It became apparent to the participants that this was a **significant disconnect** that needed to be resolved. Much of our one-on-one time with the Chapter members was spent discussing where other potential locations for housing might best be located to enhance the overall relationships required to create sustainable communities.
3. The Swaback Partners studies were not about re-doing the CLUPs or mandating where housing must go, but rather a way to create **empowering tools** to assist the Chapters in making better decisions with respect to wider considerations of housing and community planning.
4. However important they would be eventually, these sessions were neither the time nor place to discuss land leases, grazing rights and the obvious need for some level of land reform. The proposed Ring of Sustainability was identified as the central community land use strategy that could potentially become a catalyst for future land reform initiatives. The two-mile radius ring was to be flexible and changing in size and form based on each Chapter's specific needs. This **holistic planning approach** includes; conservation, preservation, farming, ranching, grazing, commercial, civic, education, medical, housing and the coordination of the overall infrastructure. Once this plan is established, the optimal next step is to have all land within the area designated for development withdrawn at the same time. The advantages of this approach are numerous, including but not limited to; 1) creating a recognizable sense of "home" as being far more than one's house; 2) to lower the first costs and maintenance cost regarding the infrastructure, and; 3) the ability to negotiate with energy suppliers for lower rates.



All new future housing should have a light touch on the land and fit within the context of the setting.

SYMBOLIC HOUSING TYPES

To further explore a more detailed discussion for both housing needs as well as the specific types of housing, the questionnaires, voting exercises, and discussions clearly indicated that the Chapters are interested in a range of housing types including:

1) Better organized and integrated relationships at all densities; 2) Better designed neighborhoods that include amenities; 3) Senior/veteran housing designed to meet the needs of community elders who need assistance and; 4) Apartments that better serve the needs of the younger workforce. In each case, the desire was to provide housing designs that were more sensitive to the culture and heritage of the community needs.

All during the process the architects and Planners were gathering and preparing imagery for later use, relating both to the design of the ultimate houses as well as the variety of models and arrangements required to best serve the wide variety of needs.

While much of this work will take place as detailed under the “Next Steps” portion of this document, involving the citizens in the housing discussions began during the Regional and Chapter meetings. Swaback Partners internal studies included detailed site planning relationships, while useful in every other respect, included too much information to get the clarity of response required at this phase of work.

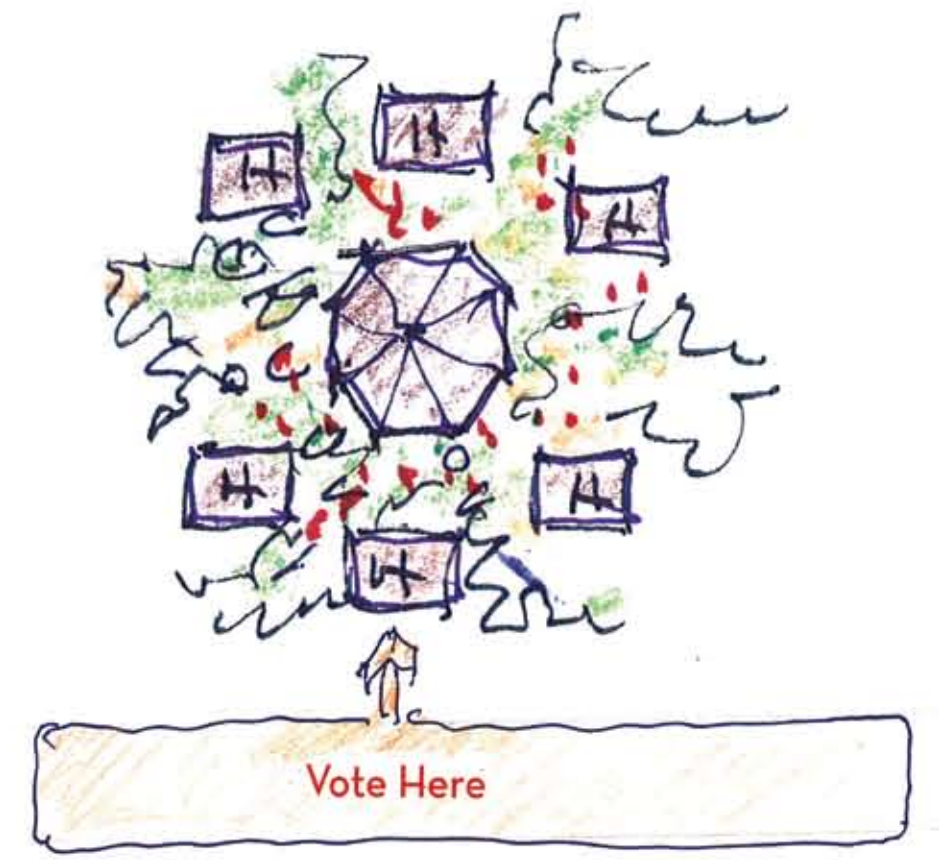
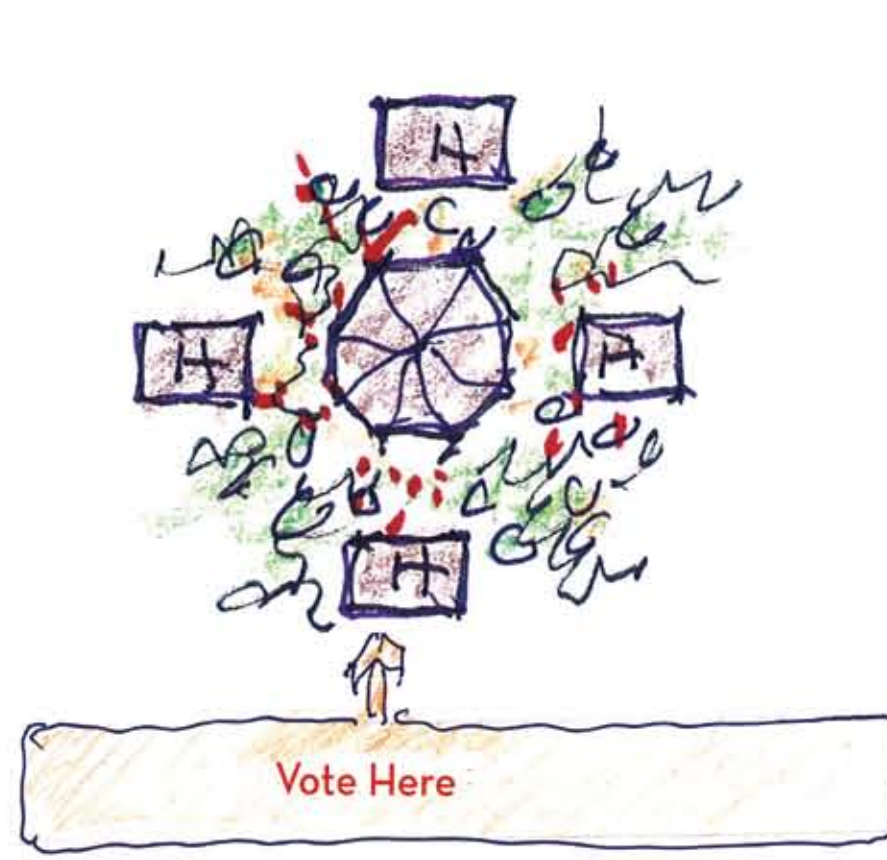
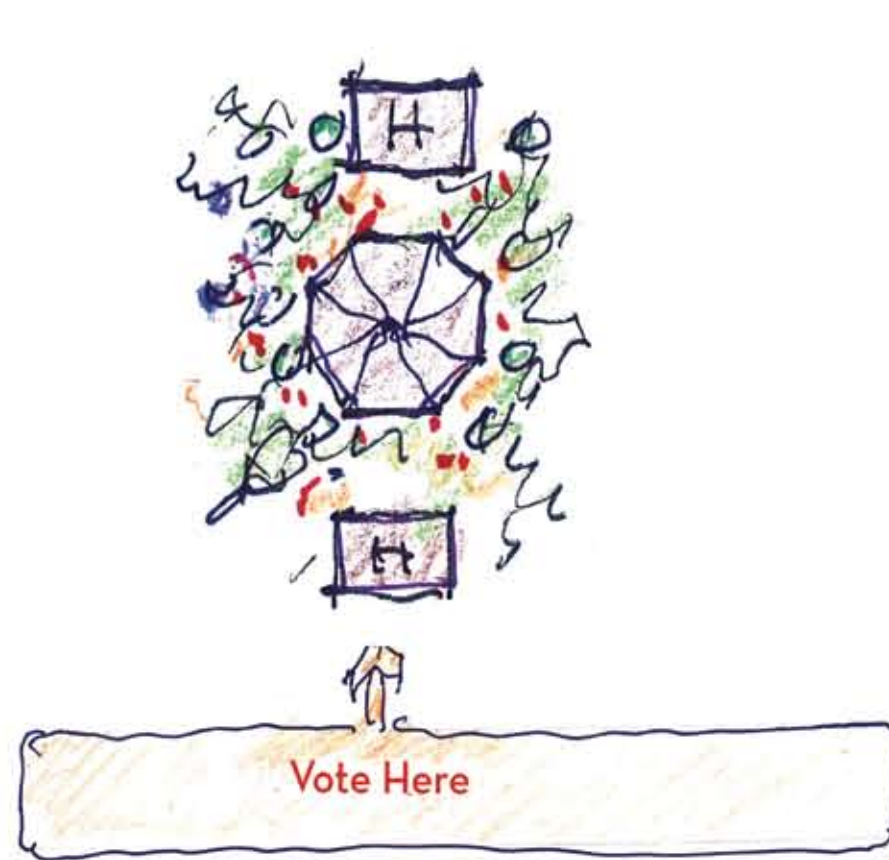
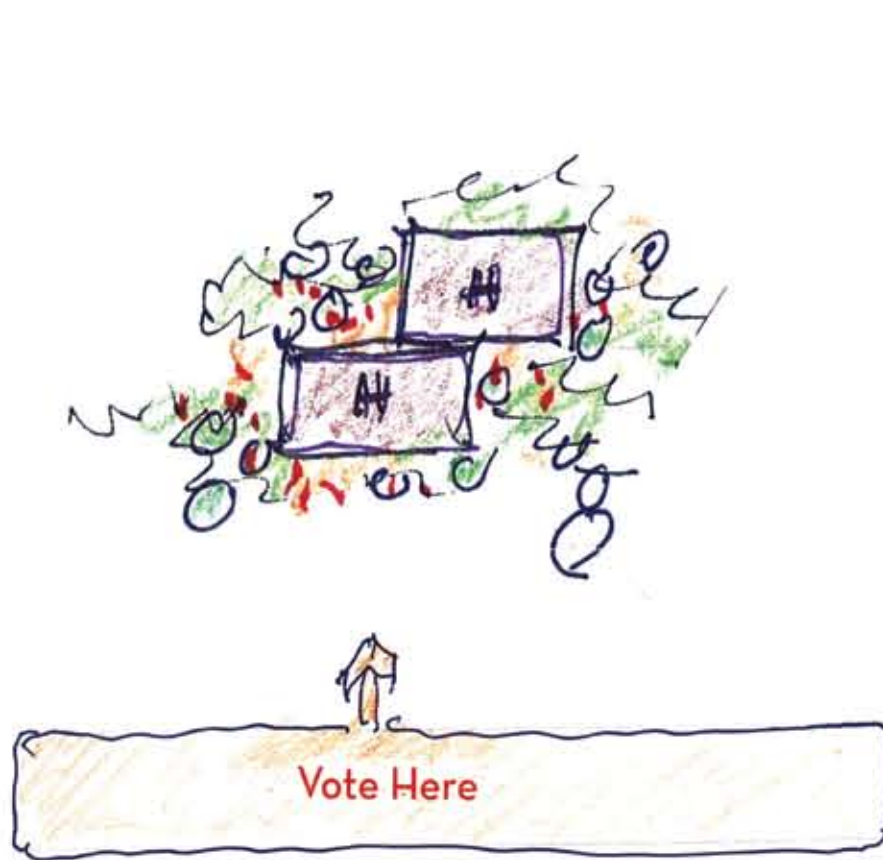
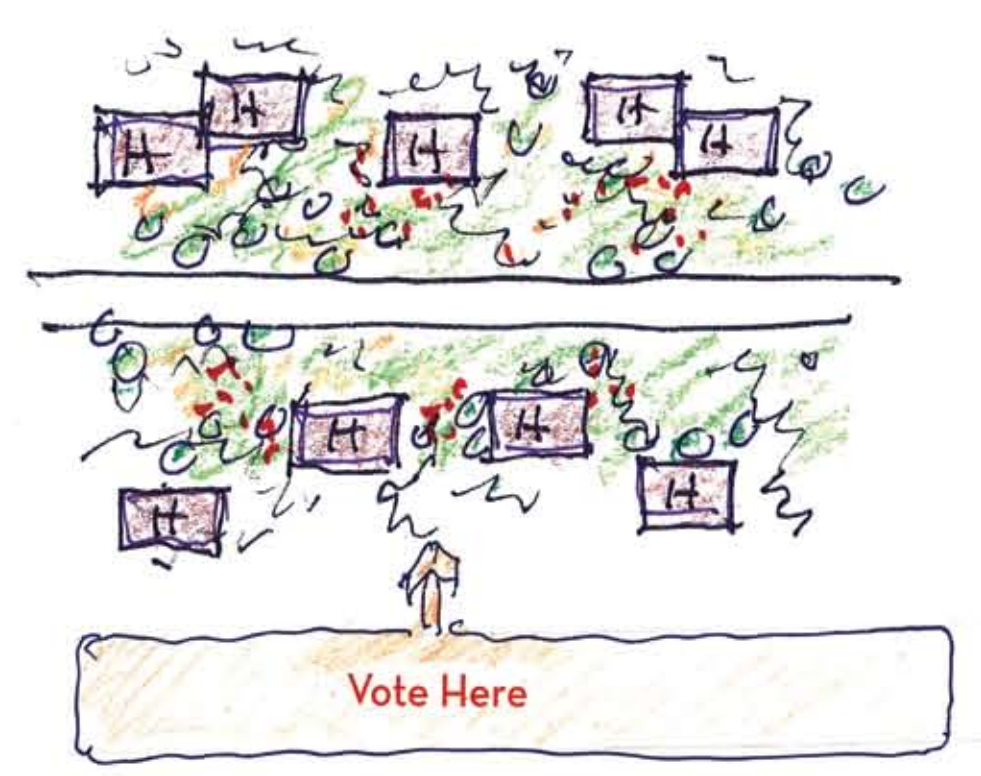
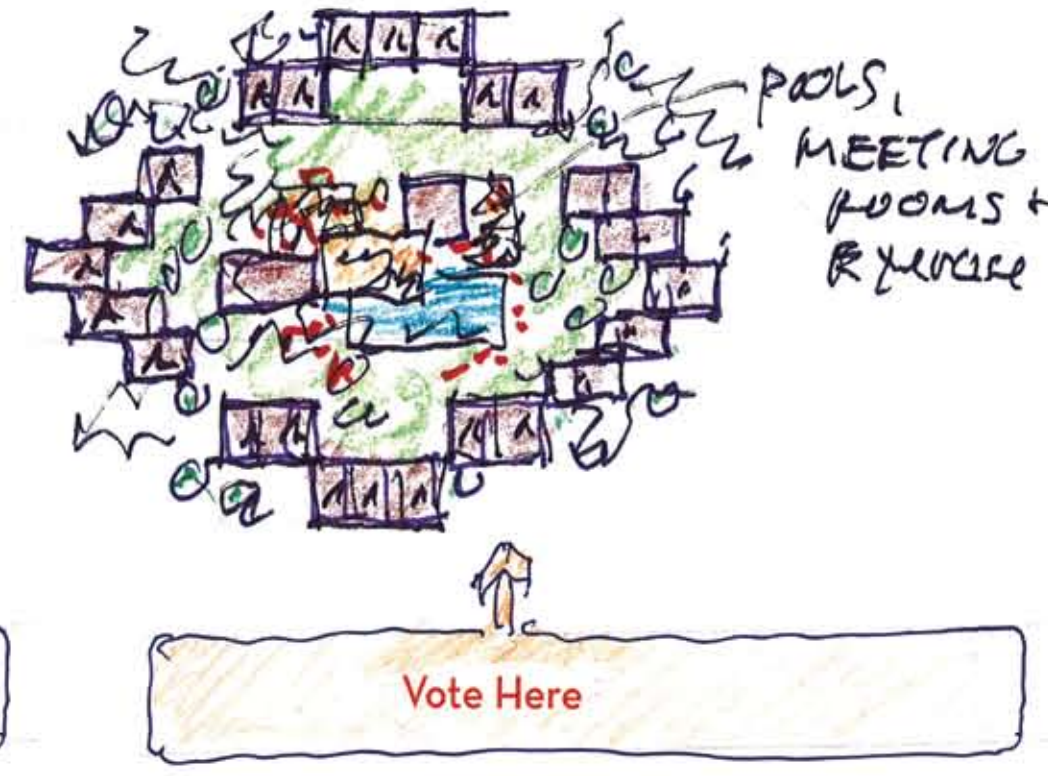
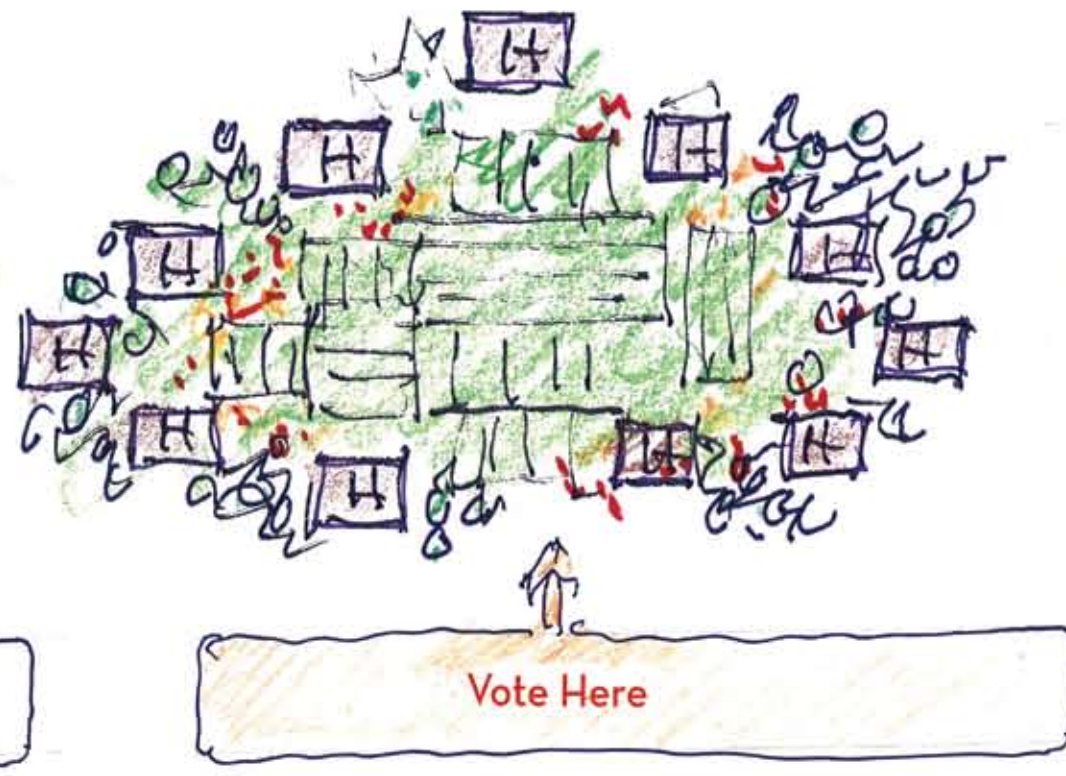
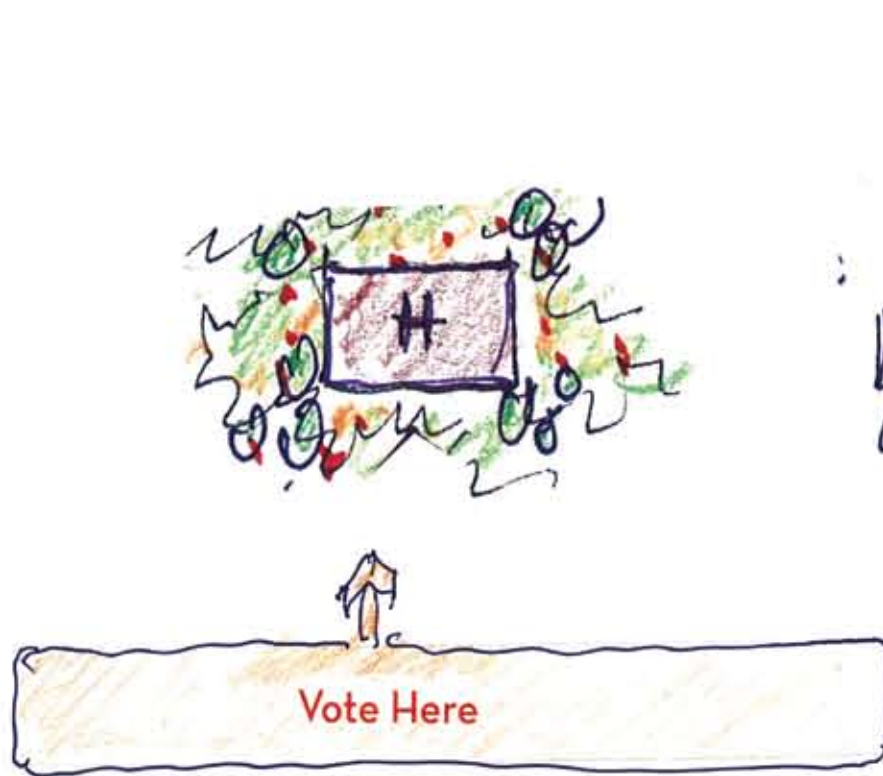
After testing public response in our office, these drawings were reduced to the eight simple diagrams shown on the following pages.

As the last part of each of the Regional sessions, those in attendance were given eight colored, adhesive dots. They were asked to vote their preference, not only for themselves but for the variety of needs and desires they believe needed to be addressed.

In every session, their response started slowly at first, then there were so many people trying to register what they thought would work best that it was hard to photograph all the participants.

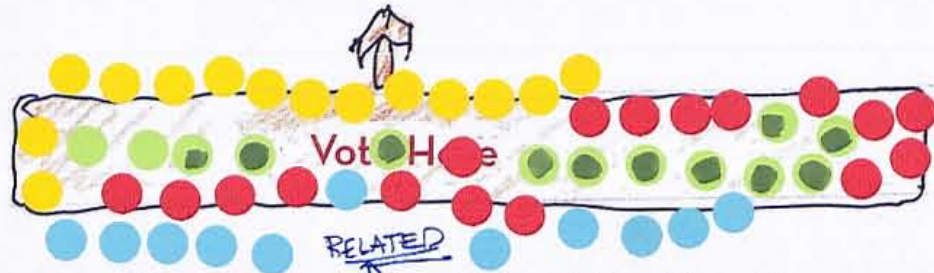
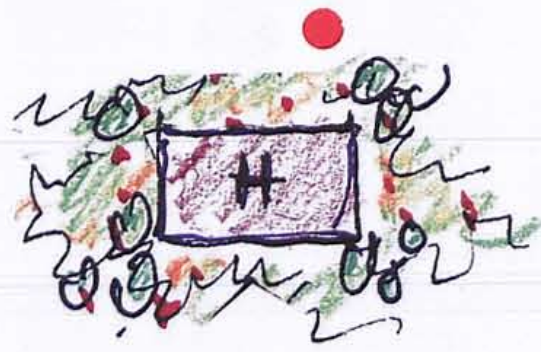


Community members expressing their preference for the range of housing options discussed during the Regional Workshops.



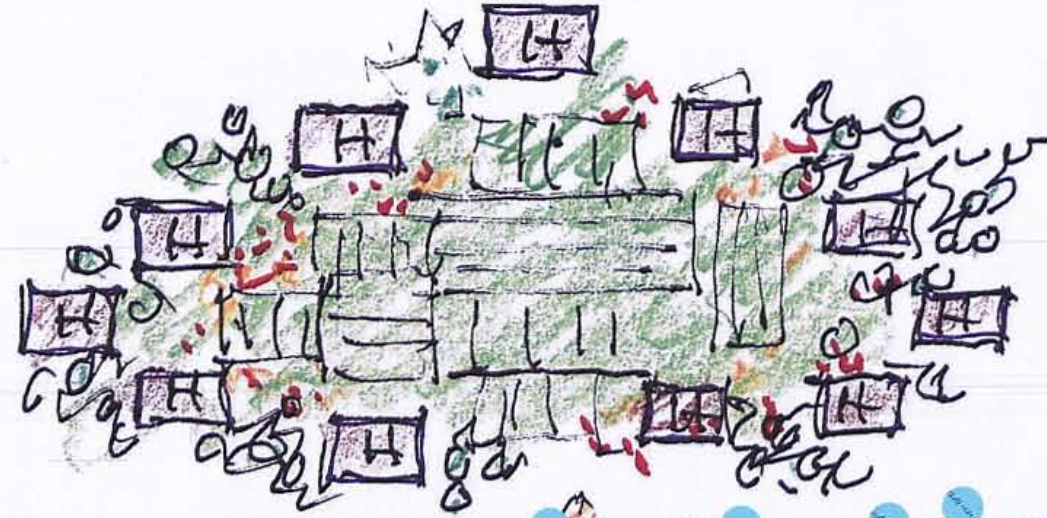
The Planning Consultants and NHA provided a sampling of housing types for all to consider. The voting exercise was not intended as final answers - but to gauge the sense of housing preference for each Chapter. These two pages provide a view of the unmarked exhibit prior to the voting.

The Single Family House

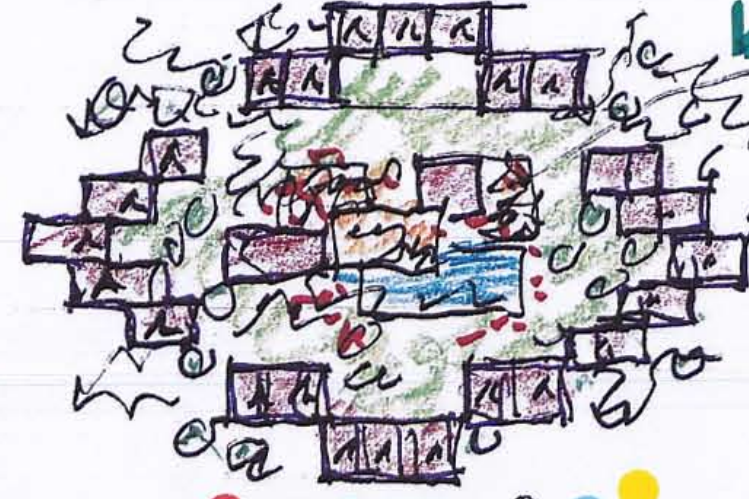


Two or more Families Living Together
(EXTENDED FAMILY)

Farm Community



Apartments near Employment

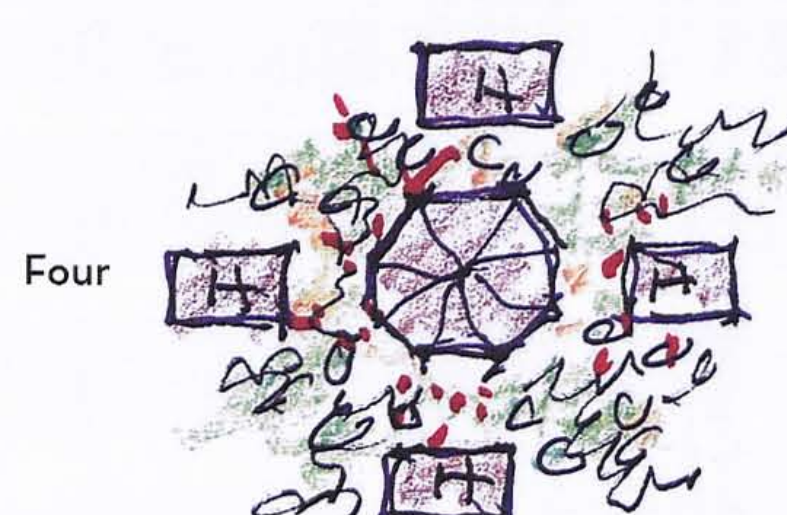
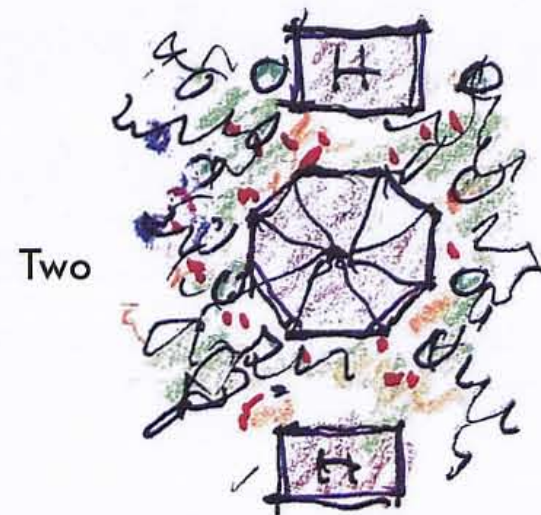
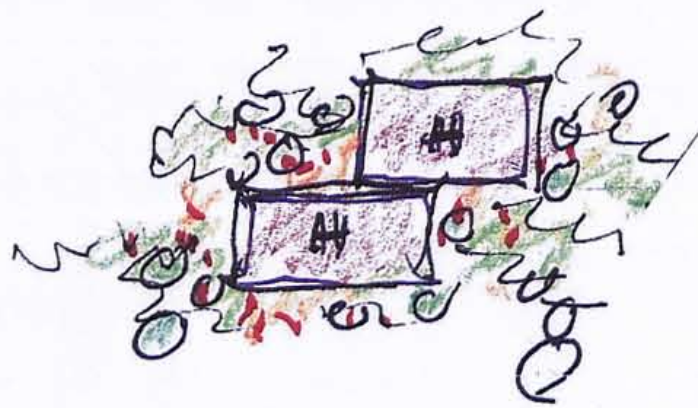
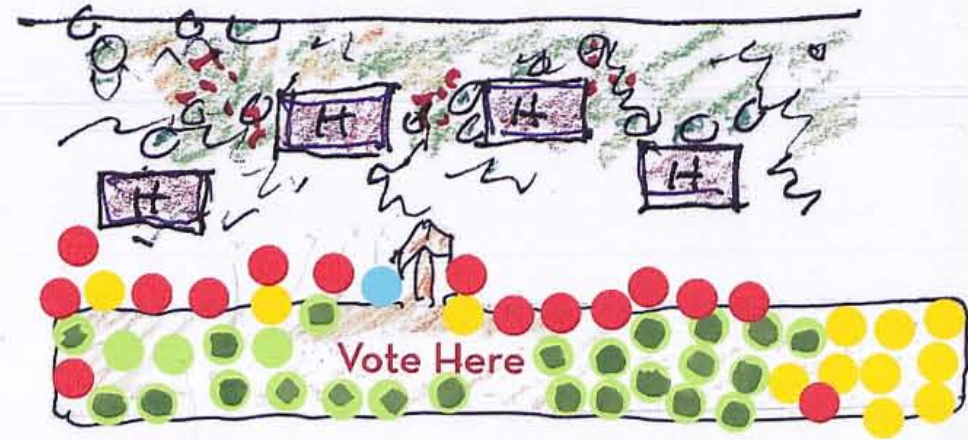


Houses Grouped around a Ceremonial Hogan

EVERYONE HOUSING

POOLS,
MEETING
ROOMS +
RECREATION

Houses Along a Street



All these dots represent the range of feedback on desired housing options. The different colors represent one of the five meetings conducted in the Chinle Agency. Note the results identify a desire and need for all types of housing. This was consistent throughout all Agencies, Regions and Chapters.



An illustration of a planned orchestrated neighborhood that may be made up of a series of Clan-pods.

THE COMPOSITIONAL ROLE OF HOUSES

Whether for small, rural villages or larger more populated areas, houses are the single most dominant building type.

Beyond this obvious observation are the critical relationships between home and every other provision necessary to support daily life. Once totally self-sufficient lifestyle of the desert nomads have become very rare and in most cases, they no longer exist.

One's house is no less important but it is increasingly dependent on the provision and services of some, or in many cases, all of the following; power, supply, clean water, healthy food, schools, clinics and hospitals, daycare and senior centers, meeting homes, religious centers, play fields, employment and the full range of both routine and emergency goods and services. The ultimate goal of comprehensive land use planning is to respect and design for the timeless culture of the Navajo way of life, while providing for the sustainable benefits that change with each new generation.

If done with great care, this combination is nothing more or less than each generation learning from the past and giving its best to the next, which brings us back to where we started - "The place of houses."

Some things are obvious. No one would knowingly place housing on contaminated or otherwise unsuitable soils. Nor would anyone want their home to be placed in a flood plain. And especially for those who have a culture of the wide-open spaces, other than for provisions where it is appropriate, for example, resorts, dormitories, apartments, elder or congregate care, few would want their homes placed one on top of each other. But these are all statements about what we don't want. What about the locational choices for what we do want? For every reason from the safe, convenient and practical access to places we need and want, these are practical reasons, for planned relations.

To this add everything we've been discussing concerning doing more with less by the carefully designed relationships of everything we want and need. And least but certainly not least is the Navajo belief in beauty.

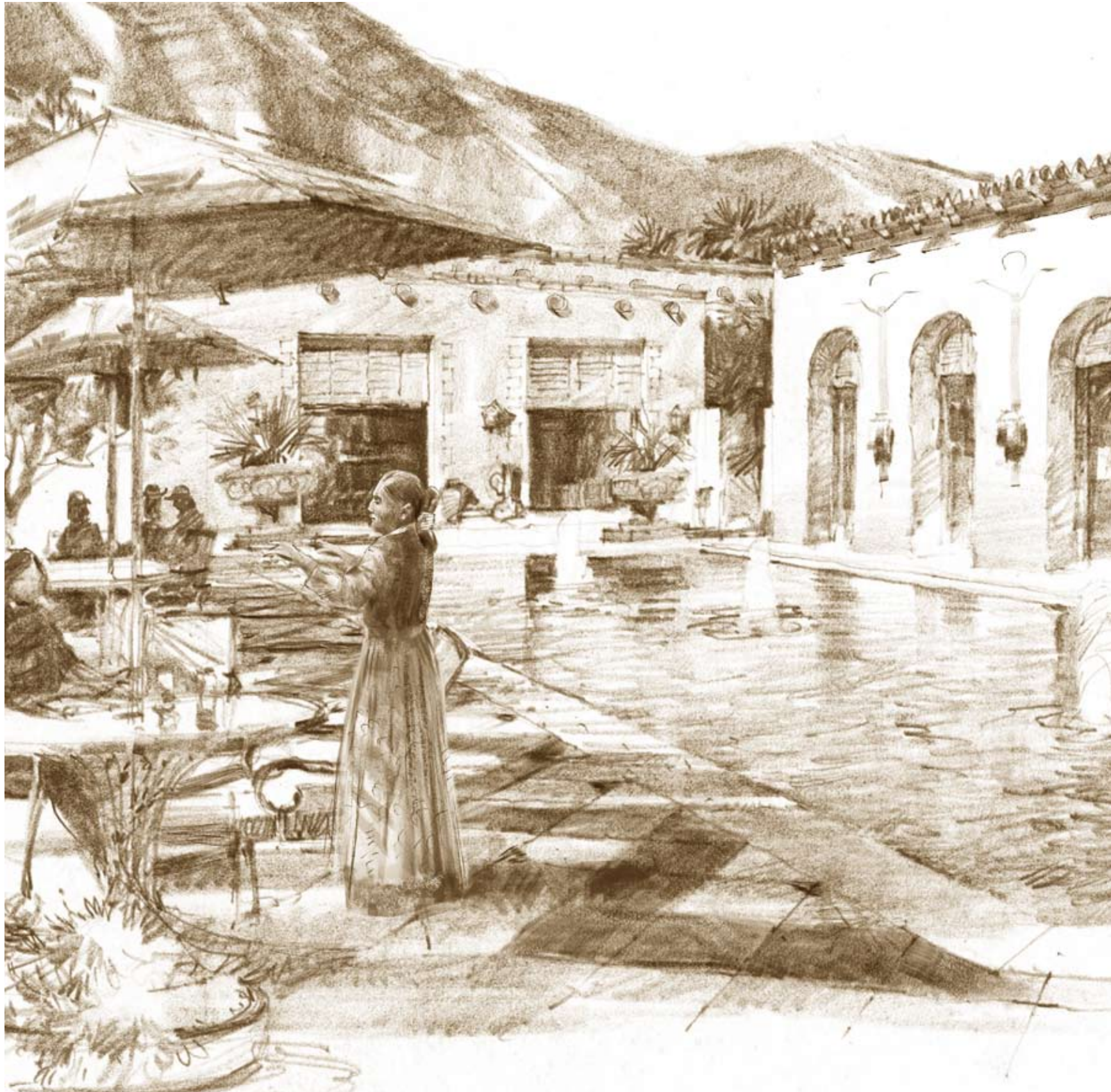
How and what we build on the ground is the human equivalent to what gifts and beauty provided by nature. May that be both our guide and inspiration which directs everything to do with comprehensive land use planning. We are often called the co-creators of all that has been given by the blessings of nature. And at the heart of what we add to the land lies not only the design of what we build but the relationships between all things and what that adds up to becoming.

The goal for that becoming is expressed fully in the seven words of NHA's Vision Statement:

"Housing our Nation by Growing Sustainable Communities."



The Hogan continues to play an important role for families and communities on the Navajo Nation.



Many Chapters expressed a desire to create eco-tourism, destination environments.

NEXT STEPS

This planning effort is not the conclusion, but the beginning of a major effort to assist in improving the quality of life for all members of the Navajo Nation.

The creating and nurturing of sustainable communities, like life itself is an ongoing process, but these are moments in that process that are more specific and pivotal and capable of taking major strides. It is not often that the opportunity occurs to consider and plan for housing and community needs on such a large scale and in such specific terms.

The comprehensive reach of planning outlined in this manual forms the coordinated basis for two simultaneous kinds of next step activities, one as a further development of the Regional Sustainable Community Master Planning Initiative and the other to be undertaken by each of the 110 Chapters.

Overview of the Regional Initiative

Two major themes that came out of the Regional Workshops included; the desire to get more input from the younger generation of the Navajo Nation as well as the opportunity for Chapter leaders to have follow up meetings with the planning team. The following narrative addresses both items as well as providing a clear direction for considering implementation.

ASU Navajo Student Charette

Working closely with ASU leadership, the planning team will orchestrate and conduct a charette involving the Navajo students at ASU of which constitute approximately 1000 young Navajos who will be among tomorrows leaders of the communities and regions and nation. In a manner similar to the already conducted regional workshops, this charette will include input and documentation of feedback concerning the wide range of issues that are critical to planning for the future of both housing and the resultant communities.

24 Regional Chapter Work Sessions

Based on the information prepared and included in this planning and design manual, follow up sessions will be conducted with each of the Chapters at the Regional level. The format of these sessions will differ from the first round of the Regional Workshops in that each Chapter will be provided with a package of information prior to the sessions with specific instructions relating to what the meetings are designed to accomplish.

Housing Types and Design

This phase of the work goes beyond planning to set forth both the plans and three-dimensional character of five housing types, including; 1) Single-family detached; 2) Single family attached; 3) Multi-generational homes; 4) Apartments, and; 5) Senior living. This work will include a series of design exercises involving NHA and specific stakeholders in order to establish high performance framework that balances design, cost and constructability, culture and heritage, sustainability, and general acceptance. The result will be a series of floor plans, elevations, and outline specifications for each building type.

Design of Demonstration Projects

Based on information delivered during the preceding tasks, a series of Demonstration Project packages will be prepared for several projects that will be identified for locations determined at a later date. Preliminary thoughts about site selection may include, one location in each Agency, justification of key needs and the likelihood of implementation, and locations that point the inclusion of a wide range of housing types.

An early and tentative selection of the demonstration sites will allow for the design of site-specific relationships, including: the location and orientation of each house, roadway layouts, parking configurations, open space locations, and the treatment of planting strategies, general utility locations, paths and trails, signage, lighting and the range of potential site materials. The goal would be to follow up with a construction package based on these parameters, starting with “model homes” that adjacent regions could visit to better understand the range of possibilities for their own communities.

We look forward to a continued discussion with you on new opportunities for housing on the Navajo Nation.



ABOUT SWABACK PARTNERS

Swaback Partners was founded more than three decades ago based on three inseparable commitments; 1) A commitment to the land; 2) A commitment to the specific culture of people and places, and; 3) An understanding and comprehensive commitment to the relationship and relatedness of all things.

In other words, we define the highest form of design as the understanding of how to maximize the benefits of what each and every component of any given opportunity can best add up to becoming.

For this reason Swaback Partners consists of registered architects, registered planners, landscape architects, LEED certified professionals and interior designers. Because our work is uncommonly diverse, specialty engineering services are always engaged to best service the specifics of each opportunity.

This integrated approach has a long and rich history, all starting at the side of the man who has long been called the worlds greatest architect, and is now being called its first ecological architect. Our founder, Vernon D. Swaback worked and studied at the side of Frank Lloyd Wright during one of the most productive periods of the great architects work, eventually spending 21 years with the Wright organization for which he later served as Chairman of the Frank Lloyd Wright Foundation. He is the author of nine books including *Designing the Future*, published by Arizona State University, *The Creative Community*, published by Images Press in Australia, and *Creating Value; Smart Development and Green Design*, published by the Urban Land Institute. He has the distinguish of being inducted into the College of Fellows by both the American Institute of Architects and the American Institute of Certified Planners.

From day one the NHA work has been directed by Swaback Partners Senior Design Partner Jeffrey M. Denzak, APA, ASLA. He is involved in all aspects of the firms master planning process including; initial site investigation, feasibility studies, master planning, entitlement/jurisdictional processing and design guidelines for a wide range of project types. He holds a Masters degree from Harvard University's Graduate School of Design. His most current work includes the 9,500 acre master planning work with the Tohono O'odham, San Lucy District, and numerous planning engagements with Arizona cities and towns. He is co-chairman of ULI Arizona's Smart Growth Committee and has lectured at ULI conferences addressing a range of development related strategies.

In addition to its own long-term staff of architects and planners, Swaback Partners supports each of its major engagements with a carefully orchestrated team of individuals specifically selected to optimize the reach and insights of its services. For the NHA work described herein, these special team members included, Rhonda Harvey, a uniquely qualified Navajo student now in her Senior year at ASU, and Kim Kanuho who holds a Masters degree from ASU in Planning. Our engineers included RockGap Engineering and JLM Management for development costs and cultural liaison, both wholly Navajo-owned firms. Wood Patel, a Phoenix based Civil Engineering firm also assisted on a range of site design related issues

In addition to our LEED certified professionals, the Swaback/NHA team included Ron Hubert, MBA, MS, one of the founders and currently President and Chairman of the Sustainable Economic Development Initiative of Northern Arizona. SEDI involves 32 community leaders and several hundred volunteers. Their initiatives include energy efficiency, renewable energy, entrepreneurship, green business education, workforce training and local food production.

From day one to the present, Swaback Partners has been and continues to be dedicated to the most challenging special case involvements, in which we see those we serve as being co-creators in pursuit of objectives where ev-

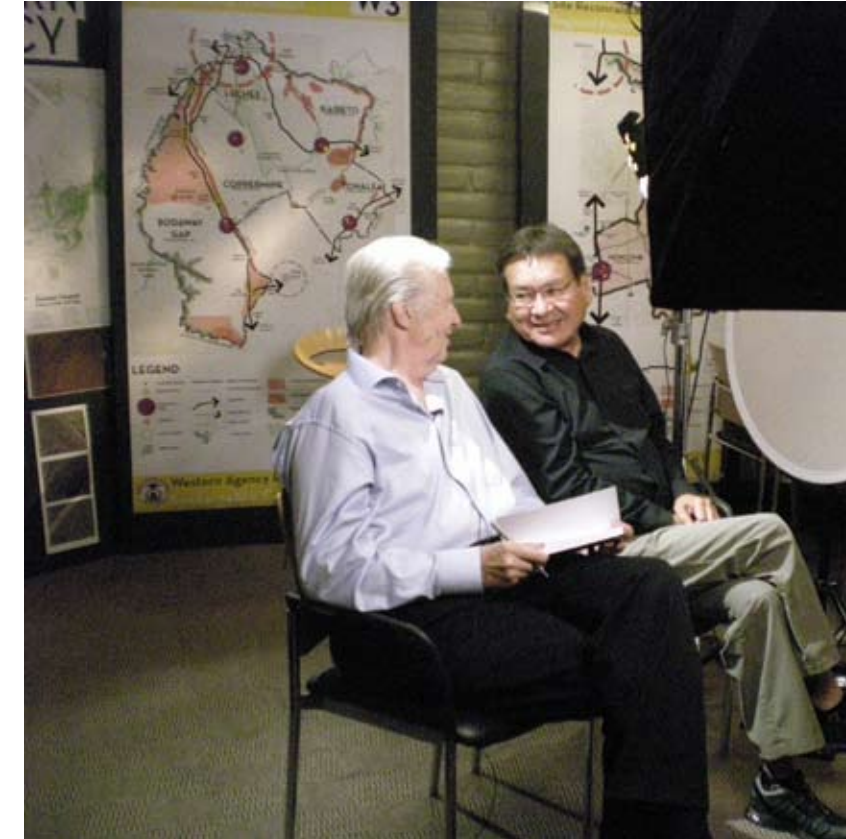
eryone involved is seeking to achieve what others would think to be impossible. Our basic belief is that, if we're not trying to do what others might see as being impossible, we're probably doing a disservice to whatever resources are available at any given time.



The Planning Team assembled for a group photograph.

The Team

The magnitude of this work has been made possible by a co-creative process involving a multi-disciplinary team of architects, planners, engineers, NHA officials, community leaders of all kinds, and most importantly the typical best citizens of the Navajo Nation.



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We look forward to meeting with your Chapter representatives to discuss this information and the next steps of the planning and design process.



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