

**RESOLUTION OF THE
TRANSPORTATION AND COMMUNITY DEVELOPMENT COMMITTEE
OF THE NAVAJO NATION COUNCIL**

21st NAVAJO NATION COUNCIL—Third Year, 2009

**AN ACTION
RELATING TO COMMUNITY DEVELOPMENT; APPROVING
THE NAVAJO NATION RURAL ADDRESSING
IMPLEMENTATION DOCUMENTS**

BE IT ENACTED:

The Navajo Nation hereby approves the Navajo Nation Rural Addressing Implementation Documents as found attached hereto at Exhibit "A".

CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by the Transportation and Community Development Committee of the Navajo Nation Council at a duly called meeting at Window Rock, Navajo Nation, (Arizona), at which a quorum was present and the same was passed by a vote of 5 in favor and 0 opposed, this 13th day of April, 2009.


Vice Chairperson
Transportation and Community
Development Committee

Motion: Willie Begay
Second: David Rico

Navajo Nation



**Rural Addressing Implementation Documents
Division of Community Development**

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Rural Addressing Roll-out Philosophy & Prioritization Navajo Nation Enhanced 9-1-1

Introduction

The Navajo Nation has initiated a rural addressing initiative in support of moving to an enhanced 9-1-1 system Navajo Nation-wide. The initial phase of the rural addressing initiative is expected to take several years to complete. However, the most critical phase is maintenance of the GIS databases, the MSAG and E9-1-1 databases, and that phase will commence immediately and be supported in perpetuity.

In preparation for the rural addressing initiative, research was conducted to explore the possibility of leveraging off infrastructure currently in-place to jump-start the initiative. Also, since there had been several previous Navajo Nation addressing attempts, research determined some of the major reasons it was not successful and incorporated appropriate changes into the planning to mitigate those circumstances from reoccurring in this initiative. Most importantly, the required infrastructure and processes were identified that would contribute directly to the overall success of the initiative and they were included in the planning.

From the results of the research, a rural addressing roll-out philosophy was developed and priorities established. This was based on leveraging off existing infrastructure and identifying and committing to the additional infrastructure required to establish alignment of resources and efforts to provide a path forward and realize success.

Background & Perspective

Most counties surrounding the Navajo Nation and in which the Navajo Nation is partially contained have previously implemented rural addressing and the associated processes. Those counties have developed and successfully implemented their GIS databases, MSAG and E9-1-1 databases. They are currently providing enhanced 9-1-1 services to the residents and businesses in their communities and the surrounding county areas. The Navajo Nation is starting their rural addressing initiative after most counties have completed their initial addressing effort and transitioned to a maintenance mode. However, the counties and the states have all offered their assistance, including financial, if the Navajo Nation will meet them half-way.

In discussions with knowledge resources and state personnel that are familiar with the rural addressing effort, they have indicated the Navajo Nation could be addressed in three (3) years with the appropriate cooperation and support. Without it, it could take 5-8+ years.

Consequently, the Navajo Nation has developed a plan with the goal of ***fully implementing rural addressing Navajo Nation-wide in less than three (3) years.***

The three year duration for the roll-out of the rural addressing initiative is intended to commence when the Tohajiilee Pilot Project is successfully completed and the other criteria agreed to with the state of New Mexico by the Navajo Nation are satisfactorily completed.

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Tohajiilee Pilot Project

The Tohajiilee Pilot Project was sponsored by the State of New Mexico as a demonstration project and to solidify the Navajo Nation's long-term commitment, once initiated, to maintain the accuracy of the data. The Navajo Nation agreed to several criteria established by the state of New Mexico before the state would agree to fund the roll-out of rural addressing to other Navajo Nation areas within the state and fund a fully enhanced 9-1-1 PSAP. The agreed upon criteria included:

- Institutionalize a Navajo Nation Addressing Authority organization to manage the GIS, MSAG and E9-1-1 database and maintenance processes
- Complete the *Navajo Nation Enhanced 9-1-1 Service Plan* and obtain approval from the state of Arizona to qualify for funding
- Successfully complete the Tohajiilee Pilot Project
- Establish an MOU Agreement with each county

The action plans are in-place to satisfy each of the agreed upon criteria and initiate the roll-out of rural addressing to the portions of the Navajo Nation within New Mexico. In addition, the "Lessons Learned" from early in the Tohajiilee Pilot Project allowed potential critical or sub-critical path tasks to be elevated in priority and started early.

Navajo Nation Addressing Authority

Based on the research results from previous attempts at rural addressing and the criteria for success agreed to with the state of New Mexico, it was determined that the Navajo Nation must establish a permanent organization and institutionalize the necessary processes to maintain the integrity and accuracy of the GIS database, the MSAG, and the E9-1-1 databases.

Hence, the Navajo Nation Addressing Authority (NNAA) was established. A Plan of Operation was developed to articulate the roles and responsibilities of the organization, position descriptions were developed, personnel budgets approved, and staffing of those positions commenced in July 2008. The NNAA organization is administratively overseen by a Program & Projects Specialist. A Rural Addressing/GIS Coordinator will lead the rural addressing staff. When fully staffed, the organization will also include five (5) Rural Addressing/GIS Technicians, one for each agency and a MSAG Coordinator.

Local Rural Addressing Committees

From one of the early "lessons learned" during the Tohajiilee Pilot Project, it was agreed there needed to be local participation, commitment and support for the rural addressing initiative to maximize the opportunity for success. Therefore, the concept of assembling a representative group of members from the local community, providing them orientation and training, and having them assist with some of the initial tasks to get the initiative started, was agreed upon. The *Local Rural Addressing Committee Roles & Responsibilities* document was developed by the Navajo Nation Enhanced 9-1-1 Task Force, lead by the LGSC members, that defined the local support required and processes necessary to contribute to the success of the rural addressing initiative.

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In prioritizing the roll-out of rural addressing, consideration was given to the receptiveness and readiness of each “community of interest” to move forward with rural addressing. A “community of interest” is defined as several chapters working collaboratively together to assist with addressing their communities. To accomplish this, Local Rural Addressing Committees (LRAC) were established. There were several primary reasons the LRACs were established, most notably: 1) it would establish local participation and responsibilities for the members, 2) it would not be practical to address individual chapters one at a time, 3) it would increase the chapter awareness and help educate the Diné about rural addressing and enhanced 9-1-1, 4) it would demonstrate the readiness of their community to proceed with rural addressing, and 5) the reason for establishing the LRACs early in the process was because their input was expected to be on the critical- or sub-critical path for the rural addressing initiative.

Because of the close working relationship with the chapters, the Division of Community Development LGSC members are responsible for providing the leadership and managing the orientation and training of the LRAC members, providing guidance and encouragement to each LRAC within their agency, judging their readiness and maintaining the status of each LRAC, and coordinating planning with the NNAA.

Standards, Guidelines, and Processes

During the Tohajiilee Pilot Project, several necessary documents and processes were developed and validated. Most were extracts from existing NENA, state, county, GIS vendor, and USPS documents. These documents were tailored to the Navajo Nation’s needs and are going through an official adoption process by the appropriate Navajo Nation legislative authority. They include:

- E911 GIS Standards
- Rural Addressing Guidelines
- GPS Field Scenario
- MSAG Development
- Local Rural Addressing Committee Roles & Responsibilities
- Rural Addressing Roll-out Philosophy & Prioritization (draft of this document)
- Addressing Authority Plan of Operation

These documents are included as an integral part of the MOU Agreements entered into with the counties. They are included as *Exhibit A - A Plan for Implementing Rural Addressing on the Navajo Nation*.

Navajo Nation Enhanced 9-1-1 Service Plan

The state of Arizona administrative code requires that an entity applying for funding from the state 9-1-1 Fund prepare and submit a comprehensive Service Plan and that it be approved by the Department of Administration 9-1-1 Administrator before becoming eligible for funding. A complete checklist of items that need to be included in the Service Plan and a template is furnished. In addition, periodic updates are required and service levels must be maintained.

Rural Addressing Roll-out Philosophy & Prioritization

Navajo Nation Enhanced 9-1-1

Upon initial review of the Arizona requirements, the state of New Mexico agreed the Service Plan could be developed for the entire Navajo Nation as an entity and if it was acceptable to the state of Arizona it would meet their requirements and be accepted by the state of New Mexico.

Roll-out Philosophy

In order to accomplish the stated goal of *fully implementing rural addressing Navajo Nation-wide in less than three (3) years*, the plan requires starting rural addressing almost simultaneously in each agency and having the initiatives progress in parallel.

The roll-out philosophy for rural addressing incorporates plans to leverage off existing infrastructure, if available, to jump-start the initiative by considering the following factors:

First, enhanced 9-1-1 would become available immediately for the community upon completion of rural addressing, implementation of the GIS databases, development of the MSAG, and loading of the ALI database.

Second, the enhanced 9-1-1 telephone infrastructure is already in-place, i.e., the 9-1-1 System Service Provider and the ALI Database Host are both fully operational. Qwest Communications and Intrado fulfill these criteria in New Mexico.

Consequently, the roll-out of rural addressing on the Navajo Nation is being initiated in New Mexico and primarily planned to move from east to west, based on the readiness of “communities of interest” and their LRACs to successfully perform the roles and responsibilities identified for them. The leadership of the Division of Community Development LGSC members and participation and contribution of the LRACs will determine where each “community of interest” fits into the overall roll-out schedule. Once the Tohajiilee Pilot Project is successfully completed and the additional criteria agreed to with the state of New Mexico are satisfactorily completed, the roll-out should commence.

Overall Navajo Nation

Six (6) NCC telephone exchanges represent approximately 64% of the access lines on the Navajo Nation. They include: 505-386 Shiprock; 505-786 Crownpoint; 928-283 Tuba City; 928-674 Chinle; 928-729 Fort Defiance; and 928-871/928-810 Window Rock. In addition, 928-697 Kayenta and 928-755 Ganado have between 1,500–2,000 customer access lines.

Plans have been developed to prioritize completing these more populated communities in parallel with initiatives in some of the more rural communities.

New Mexico

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The required 9-1-1 trunks are in-place from every Qwest Communications exchange in New Mexico that served border areas around the Navajo Nation. However, Sacred Wind Communications (SWC) has purchased a portion of the access lines from twenty-three Qwest exchanges that serve portions of the Navajo Nation and will consolidate them into four SWC exchanges in the future. The migration of customer access lines from the Qwest to SWC exchanges started with Tohajiilee in January 2009. Each SWC central office has existing 9-1-1 trunks that connect to the Qwest 9-1-1 infrastructure and will continue to provide enhanced 9-1-1 services to the existing county PSAP.

In addition to SWC, Windstream Communications, Western New Mexico Telephone Company and CenturyTel Communications all have existing 9-1-1 trunks that serve exchanges that cover a portion of the Navajo Nation checkerboard areas and remaining satellite chapters, Ramah and Alamo.

Currently, several New Mexico counties handle the majority of 9-1-1 calls originating from the checkerboard area and for the satellite chapters.

Most New Mexico counties already provide enhanced 9-1-1 service and are connected to the Qwest 9-1-1 infrastructure and Intrado, the ALI database host. The New Mexico counties that include the Navajo Nation and provide enhanced 9-1-1 service include: Bernalillo, McKinley, San Juan, Cibola, Sandoval, and Rio Arriba. Socorro County is not enhanced at the present time.

Opportunities

The checkerboard area of New Mexico, primarily McKinley, San Juan and Cibola counties, already have a significant portion of rural addressing work completed for the areas where the county has jurisdiction. However, the Navajo portion officially remains unaddressed. 9-1-1 calls from telephone exchanges that serve both county residents and Navajo residents are selectively routed as enhanced 9-1-1 calls for county residents, but unaddressed calls are default routed for Navajo residents as unidentifiable or no record found (NRF) basic 9-1-1 calls.

In the above paragraph the statement was made that “the Navajo portion officially remains unaddressed.” However, a significant portion of the GIS field and MSAG work has already been accomplished by the county and the GIS consultant on state contract. Concurrent with the MOU Agreements with the counties being approved and signed, coordinated plans are being developed with the counties to complement what has already been accomplished to “fill-in” the Navajo areas that were skipped during the county portion of the rural addressing process. The counties have expressed a willingness to cooperate, if the Navajo will meet them half-way.

The Ramah Chapter was previously addressed, the MSAG developed, and street name signs installed. However, maintenance of the GIS databases for additions and changes to street names, segments, and addressing has fallen behind and needs to be updated. It is estimate this could be an opportunity for a “quick win” working collaboratively with

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Cibola County and the Ramah Chapter to update and verify changes that have occurred over the last two years.

On February 11th, the state of New Mexico DFA-LGD requested a status update on the MOU Agreement between the Navajo Nation and Socorro County, with the intent of rescinding the low priority status and allowing rural addressing to proceed for the Alamo Chapter. The MOU Agreement was signed by Socorro County October 29, 2008, approved by the Navajo Nation GSC and sent to IGR February 3, 2009 for final approval. SDR is actively working in Socorro County and previously completed the GPS locations of approximately 300 Alamo Chapter dwellings. The state of New Mexico DFA-LGD requests that the Navajo Nation elevate the priority of rural addressing the Alamo Chapter and develop a coordinated plan to work with SDR, Socorro County, the Alamo Chapter, the State E911 office and other stakeholders to successfully implement rural addressing for the Alamo Chapter.

Once the “fill-in” rural addressing is completed for portions of the Navajo Nation using a separate Emergency Service Number/Emergency Service Zone (ESN/ESZ) for emergency response organizations, those 9-1-1 calls can continue to be routed to the county PSAP, but as enhanced 9-1-1 calls.

The scope of work for the “fill-in” areas is well defined and should be able to be completed relatively quickly compared to areas in which there has been no preparatory work done.

Once the Navajo Nation enhanced 9-1-1 calls are being successfully routed to a county PSAP, those calls can easily be programmed to selectively route to a Navajo PSAP, once it is enhanced-capable and operational.

Utah Strip

San Juan County, Utah has completed a significant portion of the GIS field work for rural addressing, including digital photographs of the dwellings correlated with their GPS position. During the planning phase for addressing the entire county, they reserved a proposed numbering system for the Navajo Nation portion of San Juan County, referred to as the “Utah Strip.”

On behalf of the Navajo Nation, San Juan County secured partial funding from the Navajo Revitalization Fund to address the “Utah Strip.” In addition, the county committed the remainder of the funding required and entered into a contractual agreement with the GIS consultant, Contact One, for the addressing and database work. The Utah AGRC will perform the GIS field work. They are funded by the Utah 9-1-1 Fund. The Navajo Nation entered into an MOU Agreement with San Juan County and the Utah AGRC to define the roles and responsibilities of the parties to the agreement.

Detail plans need to be developed, and coordinated with San Juan County, the Utah AGRC, the LRACs, and Contact One for the successful implementation of rural addressing for the Navajo Nation chapters included within San Juan County, Utah.

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Arizona

Currently, the state of Arizona is unable to provide any financial assistance from their state 9-1-1 fund for the roll-out of rural addressing to the Arizona portion of the Navajo Nation. Efforts are underway to secure the funding required, originally estimated at \$1.3 million. This does not include street name signs and installation.

As an alternative, some chapters have been able to secure funding and are anxious to move forward with rural addressing their community. A coordinated planning process has tried to accommodate the desires of these chapters and provide them the opportunity to jump-start the initiative in Arizona and demonstrate their leadership to help show the way for other chapters.

County-Level Management

As a demonstration project and to develop, document and validate the necessary rural addressing processes, the Tohajiilee Pilot Project included only one chapter. However, it was determined that a more practical approach to the roll-out of rural addressing was for the scope of work to include an entire county.

Consequently, the roll-out plan was developed using the county-level as the most appropriate size to manage. SDR (the GIS consultant for New Mexico) provided cost proposals to cover the scope of work for each county, the State of New Mexico awards grants by county, and the County and SDR enter into a PSA on a county-level basis.

As a prerequisite to meet the state criteria before funding the roll-out of rural addressing, the Navajo Nation is entering into MOU Agreements with each county. Maps have been developed and road names summarized at the county level. The same GIS, addressing and MSAG working relationships will exist for the entire county. In New Mexico, SDR will perform the work and invoice the state by county.

"Community of Interest" Coordination

However, once the LRAC is assembled and goes through an orientation and training session, the initial coordination should be among members within the LRAC. That results in several chapters working together to learn what is required and develop their recommendation for coordination with other LRACs and, subsequently, at the county-level. This should result in a more practical and effective rural addressing roll-out effort as compared to addressing one chapter at a time, as in the Tohajiilee Pilot Project.

Rural Addressing Roll-out Duration

Reiterating, knowledge resources and state personnel that are familiar with the rural addressing effort have indicated the Navajo Nation could be addressed in three (3) years with the appropriate cooperation and support.

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Navajo Nation Enhanced 9-1-1

Consequently, the Navajo Nation has initiated the necessary actions to obtain that cooperation and support and developed a plan with the goal of ***fully implementing rural addressing Navajo Nation-wide in less than three (3) years.***

The overall rural addressing roll-out duration continues to depend on the effectiveness of transitioning responsibilities to various functional organizations and the LRACs, their acceptance of those responsibilities and accountabilities, and their commitment and performance to work collaboratively to help attain the stated goal.

The Division of Community Development LGSC members are critical to the overall success and continuity of the rural addressing roll-out initiative. They are responsible for the orientation and training of the LRAC members and working with them to help them fulfill their responsibilities.

Also, it depends on how quickly the newly established ***Navajo Nation Addressing Authority*** organization can be organized, hire staff, obtain the appropriate tools to successfully accomplish their work, be trained and come up-to-speed on the processes they are required to establish and maintain, and their ability to build collaborative working relationship with outside knowledge resources.

Roles & Responsibilities

Local Rural Addressing Committee

Navajo Nation Rural Addressing Roll-out

Introduction

The Navajo Nation has initiated a rural addressing initiative in support of moving to an enhanced 9-1-1 system Navajo Nation-wide. The initial phase of the rural addressing initiative is expected to take several years to complete.

In order for the rural addressing initiative to be a success, numerous stakeholders, knowledge resources and sponsors were identified, asked to cooperate, share information and contribute to being an integral part of that success.

First, the State of New Mexico sponsored a demonstration rural addressing project with the Navajo Nation. The Tohajiilee Pilot Project was established to develop, document and validate the necessary rural addressing processes.

Second, the *Navajo Nation Enhanced 9-1-1 Task Force* identified the need to have local participation, commitment and support for the rural addressing initiative to maximize the opportunity for success. Therefore, the concept of the Local Rural Addressing Committee (LRAC or Committee) was agreed upon.

In order to establish close coordination, it was agreed each Committee needed to represent a “community of interest,” which was defined as several (3-8) Chapters working collaboratively together to assist with addressing their communities. The Tohajiilee Pilot Project included only one chapter, which was the perfect size when developing and validating rural addressing processes. However, a more practical approach for the roll-out of rural addressing was to include several chapters at a time.

The identified steps to establish Committees and help make them effective were identified as: assembling a representative group of members from each local community, providing them orientation and training and having them assist with some of the tasks to get the rural addressing initiative started. The original *Local Rural Addressing Committee Roles & Responsibilities* document was developed by the *Navajo Nation Enhanced 9-1-1 Task Force*, lead by the LGSC members, and defined the local support required and processes necessary to contribute to the success of the rural addressing initiative.

In prioritizing the roll-out of rural addressing, consideration was given to the receptiveness and readiness of each “community of interest” to move forward with rural addressing. There were several primary reasons the Committees were established, most notably: 1) it would establish local participation and responsibilities, 2) it would not be practical to address individual chapters one at a time, 3) it would increase the chapter awareness and help educate the Diné about rural addressing and enhanced 9-1-1, 4) it would demonstrate the readiness of their community to proceed with rural addressing, and 5) the reason for establishing the Committees early in the process was because their input was expected to be on the critical- or sub-critical path for the rural addressing initiative.

Roles & Responsibilities

Local Rural Addressing Committee

Navajo Nation Rural Addressing Roll-out

Because of the close working relation with the Chapters, the Division of Community Development LGSC members were identified as being responsible for providing the leadership and managing the orientation and training of the LRAC members, providing guidance and encouragement to each LRAC within their agency, judging their readiness and maintaining the status of each LRAC, and coordinating planning with the NNAA.

Navajo Nation Addressing Authority

Based on the research results from previous attempts at rural addressing and the criteria for success agreed to with the State of New Mexico, it was determined that the Navajo Nation must establish a permanent organization and institutionalize the necessary processes to maintain the integrity and accuracy of the GIS database, the MSAG, and the E9-1-1 databases.

Hence, the Navajo Nation Addressing Authority (NNAA) was established. A Plan of Operation was developed to establish the roles and responsibilities of the organization, position descriptions were developed, personnel budgets approved, and staffing of those positions commenced in July 2008. The NNAA organization is administratively overseen by a Program & Projects Specialist. A Rural Addressing/GIS Coordinator will lead the rural addressing staff. When fully staffed, the organization will also include five (5) Rural Addressing/GIS Technicians, one for each agency and a MSAG Coordinator.

The Navajo Nation Addressing Authority (NNAA) was established to provide the overall program management and to develop consistency and continuity of processes for the rural addressing initiative Navajo Nation-wide.

Local Rural Addressing Committee

The following is a scenario that briefly describes the initiation of the ***Local Rural Addressing Committee*** and some of the responsibilities they are expected to be an integral part of to ensure the success of the rural addressing roll-out initiative.

1. Prerequisite - **COMPLETE**: Chapter Resolutions have been adopted supporting ***Enhanced 9-1-1*** and ***Rural Addressing*** by each of the 110 Navajo Nation Chapters and each of the five (5) Agencies.
2. The Division of Community Development LGSC members coordinate with Chapters in their Agency to have them identify “communities of interest” for the purpose of recommending road names and assisting with the rural addressing processes. The Committee members will be responsible for working effectively together to assist with the planning, coordination, implementation, and maintenance of rural addressing.

As a general rule, each LRAC should include Chapters that are mostly contained within the same county boundary jurisdiction, i.e., McKinley, San Juan, etc.

Roles & Responsibilities

Local Rural Addressing Committee

Navajo Nation Rural Addressing Roll-out

Identify the Committee members, possibly by starting with an existing committee and identifying volunteers, plus identifying other community members that will represent their chapter and work together on a community of interest basis to plan, coordinate, implement, and help maintain rural addressing.

When the Chapter selects LRAC members, it is recommended there be representation from some of the following organizations:

- Community Land Use Planning Committee (CLUPC)
 - Grazing Committee
 - Chapter officials
 - Chapter staff members
 - Authorized Local Emergency Response Team (ALERT)
 - Local public safety personnel
 - Parent Advisory Council (PAC)
 - Senior Citizens Council (SCC)
 - Agency Roads Committee
 - County officials or staff
 - Chapter-Level Community Action Team
3. The Division of Community Development LGSC members have the primary responsibility for providing LRAC orientation and training, guidance, status reporting, and coordination. The LGSC members will coordinate directly with the chapters and assigned LRAC members to arrange orientation and training sessions for Committee members so they understand their roles and responsibilities. One example of training is to provide them copies of some the documents listed below and review the pertinent highlights that they may need to know from each. Members are expected to become acquainted with the basic acronyms and methodologies listed in the references and, most importantly, with their responsibilities contributing to the success of the individual processes and overall rural addressing initiative.

Background & Perspective Reference Documents

- Rural Addressing Goal
- Rural Addressing Roll-out Philosophy & Prioritization
- Addressing Process Notes - Bill Harris 08-10-05
- Chapter Addressing Committee Notes
- Local Rural Addressing Committee – Roles & Responsibilities
- Rural Addressing Standards
- E911 GIS Standards
- GPS_Field_Scenario
- MSAG_Development
- McKinleyCounty_Navajo_Proposal_042507

Roles & Responsibilities

Local Rural Addressing Committee

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- The 9-1-1 Database & GIS Process for E9-1-1 in New Mexico (spiral bound brochure)
4. The Committee members are expected to represent the benefits and positive aspects of rural addressing to the Diné and personally maintain a supportive attitude and expectancy for the desired results.
 5. Using maps furnished by the NNAA and their combined local knowledge, the Committee members meet to review and develop recommendations for road names. Frequently, road names or numbers already exist or there is common local agreement on what the road is normally called. This requires coordinating with outside entities: the county, surrounding chapters, and possibly others to ensure no duplicate names are being recommended and the continuity of road names are maintained as they cross multiple community boundaries. The LGSC member and the NNAA will need to be involved when coordinating with outside entities.

Road Naming

- In this task, the Navajo Nation must assure that every road has a name or number designation. These road names cannot duplicate other road names previously used within the County, or within the addressing grid, and should not duplicate road names found in neighboring counties. The NNAA will provide each Committee with printed road name maps and a listing. Road names previously assigned by the County will be shown on this map, as well as BIA road numbers. The Committee must provide recommended names for all unnamed roads and must verify the road names assigned by the County. If road names assigned by the County are incorrect or inappropriate, the NNAA will work with both entities (the Committee and the County) to assess the impact of a road name change and to determine where each entity's responsibility for a given roadway starts and stops.

Road names on roads crossing checkerboard areas will not change as they have already been assigned by the County and are widely used for addressing and location, both on and off of the Navajo Nation. Major roads primarily found on the Navajo Reservation will be subject to the verification process described above. Private road names, when required, are provided by local residents. Private road designations will be avoided wherever possible and cluster/complex addressing used for multiple structures sharing driveways.

Landmarks & Attributes

- Preliminarily, the Committee members can identify the approximate location of fire hydrants, abandoned homes and major bridges.

Roles & Responsibilities
Local Rural Addressing Committee
Navajo Nation Rural Addressing Roll-out

6. The Committee then signs off on the recommended road names and turns the marked-up maps and recommendations over to the NNAA to coordinate with the GIS consultant to perform their “in-house” work or the NNAA performs the work directly.
7. During the *Field Verification* phase of the rural addressing initiative, at least one Committee member must accompany NNAA field data collection personnel at all times and function as a guide, interpreter, and assistant.

Field Verification

- Normally, field verification will focus on and only be conducted in one community of interest at a time.
- The field verification task is accomplished in conjunction with the NNAA GIS analysis/improvement phase. NNAA field data collection personnel, accompanied by Committee members acting as a guide, interpreter and assistant, use GPS equipment to drive every road and visit every structure to collect resident information, current mailing address, current physical address (if any), structure type and description and landline telephone number(s). A variety of landmarks are mapped as well, including road signs, fire hydrants, abandoned homes and major bridges. All addressed structures in the area are depicted in the GIS in their actual coordinate locations with database attribution. The physical 9-1-1 address is assigned according to the addressing guidelines and road naming decisions made in the addressing plan/road naming stage and incorporated into the GIS road centerline dataset.

The NNAA will visit and verify the location and attribute information of all structures located in area. The NNAA estimates that essentially 100% of the residences will require a new or an amended 9-1-1 compliant address.

For the most part, the County addressing methodology will be maintained, an address assignment letter delivered, and the requirement that structure numbers be posted on each residence and at the driveway entrance. The resident or business is responsible for having numbers posted on buildings.

8. The Committee and individual members will facilitate the *Address Notification* process by helping deliver, explain, fill out (complete) and pick up the address notifications forms.

Address Notification

- This task is initiated by delivering letters to rural and/or municipal residents which notify residents of their new 9-1-1 compliant address. The letter lists the “old” address if the address has already been assigned but is changing and gives the “new” 9-1-1 compliant address, notifies residents of how to use the address and when and explains the reason for the address change. Local

Roles & Responsibilities
Local Rural Addressing Committee
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authorities and leaders will be asked to participate in the design of the notification letter, the decision on other notification materials and possibly the delivery of the letters.

- The ***Address Notification*** task is completed when 100% of the Left Behind (LB) cards are completed and returned to the NNAA.
 - The NNAA recommends delivering and posting house tags (reflective numbers) along with the notification materials in keeping with the County's addressing methodologies.
 - Due to the cultural components of this project, the notification materials will be delivered in the field in a door-to-door process during field data collection/verification.
9. The Committee members need to remain alert for new roads and new addressable structures being added in their community, and ensure the proper notification and follow-up processes are initiated to keep the NNAA informed of any planned or actual changes.
10. Processes throughout the Navajo Nation will need to be reviewed and possibly revised at the direction of the NNAA to ensure adherence to maintain the integrity of requiring a physical address before utility services are provided. Initially, this may cause some inconvenience until the affected processes are identified, appropriately modified and streamlined to better serve the Diné in the future.
11. Chapter residents requiring verification of their address should first coordinate with the Chapter officials to validate their resident status and then bring in the NNAA for the official verification.

RURAL ADDRESSING STANDARDS

Navajo Nation Enhanced 9-1-1

INTRODUCTION

The Navajo Nation has initiated a rural addressing initiative in support of moving to an enhanced 9-1-1 system Navajo Nation-wide. Rural addressing is a prerequisite to enhanced 9-1-1 and the initial phase of the rural addressing initiative is expected to take several years to complete.

The primary goal of the Enhanced 9-1-1 rural addressing process is to link each telephone number to a permanent unique address that is E9-1-1-compliant and clearly identifies where a caller is physically located. This requires the creation of a physical address for any property that currently has a telephone, might have one installed, or might be occupied by someone using a cellular phone.

The most important reason for creating physical addresses is to enhance the effective and rapid location of properties by public safety personnel, including law enforcement, fire, rescue, and emergency medical services personnel in the rural areas of the Navajo Nation. The Rural Addressing Standards are further designed to eliminate duplicate or phonetically similar street names, to provide for the uniform marking of streets and roadways, and to provide for the assignment of numbers for all properties and structures throughout the Navajo Nation.

NAVAJO NATION ADDRESSING AUTHORITY

Based on the research results from previous attempts at rural addressing and the criteria for success agreed to with the State of New Mexico, it was determined that the Navajo Nation must establish a permanent organization and institutionalize the necessary processes to maintain the integrity and accuracy of the GIS database, the MSAG, and the E9-1-1 databases.

Hence, the Navajo Nation Addressing Authority (NNAA) was established. A Plan of Operation was developed to establish the roles and responsibilities of the organization, position descriptions were developed, personnel budgets approved, and staffing of those positions commenced in July 2008. The NNAA organization is administratively overseen by a Program & Projects Specialist. A Rural Addressing/GIS Coordinator will lead the rural addressing staff. When fully staffed, the organization will also include five (5) Rural Addressing/GIS Technicians, one for each agency and a MSAG Coordinator.

The NNAA was established to provide the overall program management and to develop consistency and continuity of processes for the rural addressing initiative Navajo Nation-wide in support of enhanced 9-1-1.

The NNAA is responsible for establishing the method of road naming and/or numbering and the standards for number assignment.

LOCAL RURAL ADDRESSING COMMITTEE

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Suggested members for a Local Rural Addressing Committee (LRAC or Committee) are included in a separate document – *Local Rural Addressing Roles & Responsibilities*.

The LRAC will be the driving force behind local addressing efforts. The Committee will, among other things, identify those roads to be included in the community's emergency road network and, based upon the Rural Addressing Standards, develop recommendations for the road naming and numbering. Depending on the amount of authority granted to the LRAC, it will make decisions on its own or with approval from its local legislative body.

The Committee must have a designated leader to insure that the community completes its addressing in a timely manner. Communities that have not started the addressing process or are working slowly often do not have a clear leader. Communities with well-organized leaders have generally worked efficiently through the addressing process. It is very important to have one person who can coordinate the process and insure that all the steps necessary for addressing are carefully completed. The LRAC leader generally serves as the community's designated contact person for addressing.

Following completion of the initial roll-out of rural addressing to a community of interest, the LRAC members should remain alert and help the NNAA identify any new dwelling, roads or other landmarks that might need to have a GPS position located and included in the regular maintenance of the rural addressing system updates by the NNAA.

U.S. POSTAL SERVICE

The Postal Service and the community should work closely to minimize the number of address changes postal customers must undergo. While the community is the ultimate authority on assigning physical addresses, it should work closely with the postmaster to insure that addresses being created for Enhanced 9-1-1 are also usable as postal delivery addresses.

ADDRESSING METHODS

The NNAA will be responsible for selecting which type of addressing methods to use for various areas of the Navajo Nation. The reservation is quite large and has a number of towns and villages that would benefit more from block addressing. On the other hand, the Nation also has communities that have less than 500 registered voters with no subdivisions. These types of areas would benefit more from using Grid Addressing or Equal Interval Addressing methods. Listed below are the types of addressing methods along with their descriptions.

- Block Addressing: is most common in cities, towns and other municipalities. Even/odd and logical sequencing rules apply. Blocks increase by predetermined amount (100, 1000, etc.) at intervals and/or intersections. Parallel blocks may have the same addressing but this is not required.
- Grid Addressing: is most common in rural areas where roads follow section lines. A grid origin is determined, usually in one corner of the county. Addresses increase at a

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given interval per grid mile (not necessarily road mile). Addresses increase by predetermined amount (100, 1000, etc.)

- *Equal Interval Addressing*: is sometimes called the “mile marker” method. It is best-suited to areas with an irregular road network that does not follow section lines. Every road begins with “1” and increments at a standard interval per mile of roadway. Even/odd and logical sequencing rules apply. The address number indicates the distance from the road’s origin. For example, if the interval is 1000 addresses per mile, an address of 3250 County Road 10 would be located 3.25 miles from the origin of the road.
- *Special Addressing Situations*: refers to unidentified private lanes, trailer courts, marinas, lake or resort developments, or other complexes.

Trailer Parks: Trailer parks with already-assigned lot or space numbers or designators can be given one complex addressed based on the primary entrance to the park. All lots will use this address along with a lot designator, such as 1054 CR 1430, Lot 7. Trailer parks without assigned lot or space numbers should be assigned lot or space numbers by trailer park management. Some trailer parks resemble subdivisions more than trailer parks. Block or interval addressing will be used in these cases.

Apartments/Condos: Apartment buildings or complexes should retain already-assigned unit or apartment numbers. The complex can be given one address OR one address for each building, if each building faces a named or numbered road. As in trailer parks, the address will consist of a complex or building address followed by a unit designator, such as 1555 Whispering Hills Dr Apt 4A

Senior Housing: All attempts will be made to retain existing addressing in Senior Citizen housing, while adhering to the rules for apartments described above.

Housing Development: Block or interval addressing is preferred in housing subdivisions or rural developments. Lot numbering should not be used as evens and odds appear on the same side of the road and there is no logical progression of addresses.

Addressing in Surrounding Communities & areas: Addressing on roads which enter Navajo Nation be retained, such that the neighboring county’s address system, even if different from your system, should be extended into the county for the sake of consistency. For county line roads, addressing should match the addressing already in place on one side of the road.

Major Roads that Pass Through Communities: For example, communities often rename state or US roads within the city limits. State Hwy 75 may be “Main St” within a corporate limit. With interval addressing, account for the length of the road within the city, even if the road has a different name.

ROAD NAMING AND NUMBERING PROCEDURES

The following guidelines refer to USPS acceptable road names and community designations that are appropriate for Master Street Addressing Guides. Navajo Nation will use postal valid road naming and addressing protocol in their GIS databases. Ensuring postal compliance in MSAGs will help tie GIS data to MSAG data, keeping both in sync, and increasing the 9-1-1 call mapping accuracy in Navajo Nation Public Safety Answering Points (PSAP).

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Recommended Procedures:

- All roads that serve four or more addressable structures with different owners will be named regardless of whether the ownership is public or private.
- Each road shall have official correct name. A named road should be essentially continuous. A road name can be numbers in some counties.
- Road names can only be changed at a substantial intersection, an ESN, a railroad track or at municipal boundaries.
- No two roads will be given the same name in the same addressing grid. No duplicate road and/or numbers will be accepted, such as Pine Road and Pine Lane.
- No two roads should have similar-sounding names in the same addressing grid, such as Beach Street and Peach Street or Main St and Maine St.
- Translated Navajo name will be allowed with 28 character limit.
- Avoid special characters, such as hyphens, apostrophes, periods, or decimals, in road names.
- The following applies to new roads only:

Avenue: a roadway running principally in a north-south direction (or could be east-west depending on how "street" is defined)

Circle: short road that returns to itself; circular or semi-circular roads.

Court: permanently closed road such as a cul-de-sac; dead-end or horseshoe-shaped road

Lane: private road or driveway

Loop: short drive that begins and ends on the same road

Road: all public roadways greater than 2 miles in length and that generally follow neither an east-west, nor north-south direction most common designation; generally indicates a heavily traveled route

Street: usually found in cities or more congested areas; run principally in an east-west direction (or could be north-south depending on how "avenue" is defined)

Standardized Delivery Address

The Delivery Address line and the last line of addresses should be complete, standardized, and validated with the zip+4 file and city state file. A standardized address is one that is fully spelled out, abbreviated by using the postal service standard abbreviations.

Telecommunications & Utilities
2928 Morgan
Window Rock, AZ 86515

Recipient Line
Delivery Address Line
Last Line

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Secondary Address Unit Designators

Secondary address unit designators, such as APARTMENT or SUITE, are preferred to be printed on the mailpiece for address locations containing secondary unit designators. The preferred location is at the end of the Delivery Address Line. The pound sign (#) should not be used as a secondary unit designator if the correct designation, such as APT or STE, is known or is shown in the ZIP+4 File.

Examples:

102 MAIN ST APT 101
1356 EXECUTIVE DR STE 202
1600 CENTRAL PL BLDG 14
55 SYLVAN BLVD RM 108

Common Designators: The most common unit designators are:

APARTMENT	APT	UNIT	UNIT
BUILDING	BLDG	ROOM	RM
FLOOR	FL	DEPARTMENT	DEPT
SUITE	STE	PLACE	PL

Directionals

This is a term the Postal Service uses to refer to the part of the address that gives directional information for delivery. There are 8 acceptable pre and post-directionals.

N (north)	NE (northeast)
S (south)	NW (northwest)
E (east)	SE (southeast)
W (west)	SW (southwest)

They are limited to two character positions and should not be separated with a space. If a directional word is part of a road name, it should be spelled out such as "North St". If a road that contains a directional word as part of the name also has a pre or post directional, be sure to abbreviate the pre or post directional as in:

W North St	NE Main St
North St E	N South Oak St

Suffixes/Street Types

Every official road name should have a corresponding standard suffix that complies with NENA standards. Common Errors with suffixes in street names:

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AVENUE:

Correct: AVE is valid
Incorrect: AV is not valid

WAY:

Correct: WAY is valid
Incorrect: WY is not valid

TRAIL:

Correct: TRL is valid
Incorrect: TR is not valid

LOOP:

Correct: LOOP is valid
Incorrect: LP is not valid

Recommended road suffix abbreviations

Alley	ALY	Fork	FRK	Pier	PR
Annex	ANX	Fort	FT	Pike	PKE
Avenue	AVE	Freeway	FRWY	Pines	PNES
Beach	BCH	Garden(s)	GDNS	Place	PL
Bend	BND	Glen(s)	GLN(S)	Plaza	PLZ
Bluff	BLF	Green(s)	GRN(S)	Point	PT
Boulevard	BLVD	Grove(s)	GRV(S)	Promenade	PROM
Branch	BR	Harbor	HBR	Rest	RST
Brook	BRK	Haven	HVN	Ridge	RDG
Bypass	BYP	Heights	HTS	Road	RD
Cape	CPE	Highway	HWY	Roadway	RDWY
Causeway	CSWY	Hill(s)	HL(S)	Route	RT
Center	CTR	Hollow	HOLW	Row	ROW
Circle	CIR	Inlet	INLT	Run	RUN
Concourse	CONC	Junction	JCTN	Shore(s)	SHRS
Corner	COR	Knoll	KNL	Spring(s)	SPGS
Court	CT	Landing	LNDG	Square	SQ
Crossing	CRSG	Lane	LN	Station	STA
Cove	CV	Lock(s)	LCKS	Stream	STRM
Creek	CRK	Lodge	LDG	Street	ST
Crest	CRST	Loop	LOOP	Summit	SMT
Crescent	CRES	Mall	MALL	Terrace	TERR
Crossing	XING	Manor(s)	MNR(S)	Thruway	THRW
Dale	DL	Meadows	MDWS	Trace	TRCE
Depot	DEP	Mills	MLS	Trail	TRL
Divide	DV	Mountain	MTN	Turnpike	TRNP
Drive	DR	Neck	NCK	Valley	VLY
Esplanade	ESPLND	Orchard	ORCH	View	VW
Estates	ESTS	Oval	OVAL	Village	VLG
Expressway	EXPWY	Park	PARK	Ville	VL
Falls	FLS	Parkway	PKY	Vista	VIS

Suffixes in "Road Name"

In general, it is recommended that all roads have a suffix, except highways and numbered roads. Suffixes come after a road name body. A road may have only one suffix

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abbreviation. If a suffix name appears in the body of a road name, it must be spelled out, as in the following examples:

Correct: County Road 422
Incorrect: County Rd 422

Correct: NM Highway 55
Incorrect: NM Hwy 55

Correct: Avenue A
Incorrect: Ave A

Correct: Trail West St.
Incorrect: Trl West St.

Numbering

Numbers cannot start a road name, unless they are ordinals such as 1st, 2nd, 3rd. Spell out an ordinal (First, Second) only to distinguish it from a "1st" or "2nd" in the name zip code. This will occur where a post office in a larger city delivers to a smaller town with similarly-named streets. The smaller town will use the zip code of the larger city for mail purposes. This rule helps the post office's automatic sorting equipment determine where the house address ends and the road name begins.

Correct: County Road 422 or San Juan 422
Incorrect: 422 Road or 422 Rd

Correct: 8th St
Incorrect: 8 St, 8

Punctuations

Punctuation in the entire "Address 1 Line" of a piece of mail is limited to Periods, Slashes and Hyphens. This includes punctuation in address numbers such as 102 ½ Poplar St. Punctuation in road names should, in general, be discouraged as it plays havoc with auto-locate features for dispatch call mapping. Periods in Road Numbers are postal valid, as in County Road 33.4 but should be discouraged for previously stated reasons.

Correct: Swingers Ln
Incorrect: Swinger's Ln

Preferred: Smith Hayden Trl
Acceptable: Smith-Hayden Trl

Correct: Majors Rd
Incorrect: Majors Rd/County (The ESN will tell the dispatcher if the road is in the city or the county)

Correct: Amarillo Rd
Incorrect: Amarillo Rd.

Navajo Language Words

There will be no road names with the Navajo Language. The call taker (responder) or the 911 caller might have some difficulties with translating a Navajo street names thus delaying emergency response time. (example: Bi'dahoochii')

Correct: Cudei Rd
Incorrect: Ghadii ahi Rd

Correct: Oak St
Incorrect: Tse Chil St

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Foreign Language Words

Do not use a suffix with a road name where the Spanish suffix is included in the road name.

Correct: Camino del Norte
Incorrect: Camino del Norte St

Correct: Calle Maria
Incorrect: Calle Maria Rd

Road Name Duplication

For Postal Purposes, road names cannot be duplicated within a single zip code. Road names are considered duplicated if the same road name or same-sounding road name appears with the same or overlapping range in a single zip code.

Avoid, if possible, using directionals and suffixes to distinguish one road from another. Not only do residents and others frequently drop directionals and suffixes, they often do not appear on Street Signs either.

Duplicates: Gray Rd and Grey Rd (spelled differently but sound the same)
Do they pass Postal Validity? Probably
Should you use them? No

Duplicates: Mary Sue St and Marisue St

Not Duplicates but Avoid: Broadway St and Broadway Ave
N Elm St and Elm Ave
Broad Way and Broadway St

Addressing/Road Naming Standardization

The Post Office has set standard naming protocol for highways in county, state and federal jurisdiction. These are explained more fully in the USPS Publication 28.

Possible Variants	Correct Usage
NM Hwy 55	NM Highway 55 Highway 55 State Route 55 State Road 55

Road Name Length

Different entities have their own rules. Intrado reports a 48 character maximum but 28-26 is more the rule. The longer the road name, the more difficult it will be to remember and spell. Keep road name lengths manageable.

LOCATION NUMBERING

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All newly addressed locations and newly built structures must be numbered according to the selected addressing grid. Existing sub-developments may continue to use the house numbering pattern established when the sub-development was first addressed. House numbers will be assigned using the following pattern:

1. All house numbers will be 2 to 5 digit numbers.
2. All addresses will be determined from the access road to the property which is most used or most accessible. In areas where there is expected expansion or where the access road serves more than one location, the address may be determined from the occupied or principal structure.
3. Lots or locations on the North and East sides of the road will be given even numbers starting from the north edge of the section and on the South and West side of the road will be given odd numbers starting on the west edge of the section.

RURAL ADDRESSING STRUCTURE SIGN

1. Rural Addressing Structure sign numbers shall be displayed so as to be conspicuously visible on the street/road from the direction of the responding emergency vehicle. If the sign on a structure is 150 feet or more away from the street/road or is not clearly visible due to natural features, a driveway sign must be posted on delineator post 3.5 feet to 4 feet above the ground. Driveway sign will be posted on the left side of the driveway entrance. However, sign can be posted on the right driveway entrance if street/road configuration or natural feature causes poor sign visibility. Driveway sign posting is automatic if structure is not visible from the street/road.
2. Any incorrect Rural Addressing Structure sign address shall be removed and replaced with the correct number by the NNAA office within 6 months of notification of the correct address. It shall be the duty of the owner of a structure to post the correct address number of that structure in accordance with the street name sign standards after the initial installation.
3. NENA standards are red background and white reflective address numbers. Each number will be 3.5 inch by 3.5 inch shear cut to size. White reflective numbers will be 3 inches in height.

ROAD SIGNAGE PROGRAM

1. The NNAA, upon adoption of these addressing standards, shall institute a program for the installation and maintenance of street name signs with the assistance of Navajo Department of Transportation (NDOT).
2. Lettering on street name signs must be at least 6" for upper case and 4.5" for lower case. The signs shall be a minimum of 10" by 24" and a maximum of 20" by 54". Abbreviated lettering to indicate the type of street may be smaller lettering, at least 3" high based on of NDOT standards.

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3. Lettering must be of a color contrasting with a reflective background. It is also recommended to use white letters on green background.
4. Capture GPS point location by NDOT for all street/road sign locations.
5. Take photographs of all street/road signs in JPEG.

MAINTAINING THE ADDRESSING SYSTEM

1. Keep addressing records as current as possible.
2. Cross reference spatial data and databases with other entities to compile data associated with new addresses and to update their records.
3. Keep addresses posted in the field.
4. Capture GPS point locations for all new addresses and add it to the GIS and MSAG databases.
5. Add new districts as they become available.

ENHANCED 9-1-1 GIS STANDARDS

Navajo Nation Enhanced 9-1-1

INTRODUCTION

The purpose of this document is to establish and implement GIS guidelines to ensure accuracy with field data collection, database design process, maintenance of spatial data, and overall GIS project management for the Enhanced 9-1-1 projects throughout the Navajo Nation.

In order to ensure that road centerline GIS data can be effectively used and integrated at a national and statewide level, standards are needed for attribute data consistency and the development of spatial data by entities creating them with Geographic Information Systems (GIS). The development of this and a complement of similar process related documents was chartered to support the To'Hajiilee Pilot Project, with the intent that upon successful completion of the pilot project in To'Hajiilee, New Mexico, these guidelines would be adopted and fully implemented into the Navajo Nation Enhanced 9-1-1 implementation process. The Navajo Nation Addressing Authority (NNAA) will be responsible for any modifications to these standards until appropriate departments are established.

Navajo Nation Addressing Authority

The Navajo Nation Addressing Authority (NNAA) was established based on the research results from previous attempts at rural addressing and the criteria for success agreed to with the State of New Mexico, it was determined that the Navajo Nation must establish a permanent organization and institutionalize the necessary processes to maintain the integrity and accuracy of the GIS database, the MSAG, and the E9-1-1 databases.

A Plan of Operation was developed to establish the roles and responsibilities of the organization, position descriptions were developed, personnel budgets approved, and staffing of those positions commenced in July 2008. The NNAA organization is administratively overseen by a Program & Projects Specialist. A Rural Addressing/GIS Coordinator will lead the rural addressing staff. When fully staffed, the organization will also include five (5) Rural Addressing/GIS Technicians, one for each agency and a MSAG Coordinator.

The NNAA was established to provide the overall program management and to develop consistency and continuity of processes for the rural addressing initiative Navajo Nation-wide in support of enhanced 9-1-1.

SCOPE

These guidelines apply to all permanent and temporary employees, contractors, consultants, and other governmental entities that will use NNAA GIS spatial data and GIS applications. It is the responsibility of every GIS user to know and adhere to these guidelines.

SPATIAL ACCURACY REQUIREMENTS

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Spatial accuracy of geographic features is required to be such that they are representative of the actual feature at a scale of 1:5000. All geographic features must have clean topology and must be able to be utilized to form a Navajo Nation-wide road network with connectivity and be compatible with data from adjoining jurisdictions. All attribution and geographic data must be kept current through regular maintenance.

COORDINATE SYSTEM (Map Projection)

The datum for geographic data must be North American Datum 1983 (NAD 83) and the data must be in Universal Transverse Mercator (UTM), zone 12 projection.

GEOGRAPHIC COMPLETENESS

Each GIS layer must include all features within and not extend beyond the appropriate geographic area of responsibility. (NOTE: Navajo areas of responsibility will generally be defined by tribal boundaries but may differ slightly by layer or vary because of agreements with neighboring GIS and addressing agencies.) Features that continue between Navajo and non-Navajo areas of data maintenance should be trimmed at the boundary, connected topologically to neighboring features wherever possible and assigned attribution accordingly.

DATA COLLECTION

These GIS standards require that the GIS road centerline file be collected with consideration of best available spatial information. The scale of vector GIS data must be 1:24,000 (USGS 7.5 minute topographic quadrangle scale) or better and the scale of raster GIS data (digital ortho-photo quarter-quadrangle (DOQQ), satellite imagery, etc) must be 1:5000 or better. It is recommended that updates to the centerline file be made with the most spatially accurate data and/or means available. (See "GPS Field Crew Scenario" document for more information)

Global Positioning System (GPS) Unit Requirements

- 400 MHz or faster processor running Microsoft® Windows Mobile® version 5.0 software or newer operating system
- 512 MB or larger on-board memory and removable Secure Digital (SD) Memory slot (1 GB recommended)
- Built-in wireless LAN and Bluetooth connectivity for internet access (recommended only)
- Rugged handheld with all-day battery and accessories (on-board camera recommended only)
- Sub-meter GPS accuracy both real-time and post processed capable
- GPS unit should be capable of importing and exporting data dictionaries to match the MSAG/ALI database before any field work is done.
- Exterior vehicle antenna with roof magnetic mounting base
- Power Inverter (for AC Power in field vehicles recommended only)

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GIS DATA REQUIREMENTS

Although only road centerline GIS data is truly required to have functional mapped ALI data at a PSAP, there are several GIS data layers that can be useful for this purpose. Some of these layers are available from public sources (although they may not be accurate and/or up-to-date). Obtaining FGDC standard metadata on data sets are encouraged. Some of these GIS data layers will be maintained as part of and distributed to PSAPs from the New Mexico 9-1-1 GIS Database.

Primary GIS Datasets

- Road centerlines
- Emergency Service Numbers (ESN) boundaries
- Emergency Service Zones (EZS) boundaries
- Addressed structures
- Political boundaries
- Fire response sites
- Hydrology features (surface water, drainages)
- Jurisdiction boundaries
- Cell towers and sectors

Secondary GIS datasets (not required but very useful):

- Railroad centerlines
- Bridges
- Driveways
- Fire Hydrants
- Homesite Leases
- Utilities (Electric, waterline, gas)
- NHA sub-divisions

ATTRIBUTE REQUIREMENTS

The format and content of some GIS attribution is subject to specific requirements stated below.

Road centerline

The following is the official attribution format for road centerline GIS data which was derived from the National Emergency Number Association (NENA) standards. There is no specific requirement to have identical field names, but many of the field definitions (such as field type and contents) were established to match the definitions of related data in the ALI 30W format.

Bolded field names indicate the minimum fields that must be present in the data in order to satisfy New Mexico data standards.

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FIELD NAME	TYPE	LNG	PREC	SCL	NOTES
L_ADD_LOW	DBL	10	10	0	The lowest actual or potential address number on the left side of the Road Centerline feature.
L_ADD_HIGH	DBL	10	10	0	The highest actual or potential address number on the left side of the Road Centerline feature.
R_ADD_LOW	DBL	10	10	0	The lowest actual or potential address number on the right side of the Road Centerline feature.
R_ADD_HIGH	DBL	10	10	0	The highest actual or potential address number on the right side of the Road Centerline feature.
STR_DIR	TEXT	2	-	-	The postal standard directional prefix (without spaces or punctuation), if any. The only valid entries are N, NE, E, SE, S, SW, W, NW or nothing.
STR_NAME	TEXT	60	-	-	The postal standard base road name without abbreviator punctuation.
STR_SUFFIX	TEXT	4	-	-	The postal standard suffix type value (without spaces or punctuation), if any. The following are some common examples: RD, ST, AVE, LOOP, CT, PL, etc..
POST_DIR	TEXT	2	-	-	The postal standard directional suffix (without spaces or punctuation), if any. The following are the only valid entries: N, NE, E, SE, S, SW, W, NW or blank.
STR_NAME-1	TEXT	68	-	-	Concatenation of STR_NAME, STR_SUFFIX and POST_DRI fields. This is intended to directly match the STR_NAME_1 field in the ALI 30W format.
ALIAS	TEXT	68	-	-	Alternate names for the road, preferably in postal standard format and concatenated (e.g., "N MAIN ST"). May also contain non-postal standard versions of the official road name.
RD_CLASS	TEXT	3	-	-	The Census Feature Class Code (CFCC). Blank entries are also acceptable but they will be converted by the Database Manager to values of "A00". See www.census.gov/geo/www/tiger/appendxe.asc for a complete list of codes.
ONE_WAY	TEXT	A	-	-	Blank if the one-way or two-way status of the street is unknown or if the street is two-way, X if the road is one-way in the opposite direction of the Road Centerline feature and Y if the road is one-way in the same direction as the Road Centerline Feature..
MSAG_COM_L	TEXT	35	-	-	The MSAG Community value for the left side of the Road Centerline feature.
MSAG_COM_R	TEXT	35	-	-	The MSAG Community value for the right side of the Road Centerline feature
SEGMENT_ID	TEXT	8	8	0	The unique, static, integer value for this Road Centerline feature. This is used to refer to Road Centerline features and to perform certain quality control functions.
CO_ID_L	TEXT	5	-	-	The county's Federal Information Processing Code (PIPS Code) for the left side of the Road Centerline feature. See www.census.gov/geo/www/fips/fips.html .
CO_ID_R	TEXT	5	-	-	The county's Federal Information Processing Code (PIPS Code) for the right side of the Road Centerline feature. See www.census.gov/geo/www/fips/fips.html .
DSID	TEXT	5	-	-	The Data Source Identifier (DSID) as assigned by the NM 9-1-1 GIS Database Manager
DATE_UPD	LONG	8	8	0	The date that the Road Centerline feature was last updated in the following format. CCYYMMDD. (Example: 200040130.) In some cases, it may represent the data that the Data Source created the last full export to the NM 9-1-1 GIS Database.

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Addressable structures-

There are not any established addressable structure attribution standards in New Mexico. However, for addressable structure data to be useful in mapping 9-1-1 calls, it must contain many of the same types of data as the road centerline GIS data itself:

- Address number (a.k.a., house number) – instead of 4 attribution fields for low and high range limits on the left and right side of a road centerline feature, a single numeric field can be used to store this data in the address file. The field should only accept integers with a maximum of 10 digits in order to match ALI 30W standards.
- Address number suffix – this must be a text field to incorporate unit numbers that contain alphabetic characters. The maximum number of characters should be 4 in order to match ALI 30W standards.
- The same four road name fields as described above in the road centerline GIS layer standards: STR_DIR, STR_NAME, STR_SUFFIX and POSTDIR. The same field definitions should be used here as in the road file as well.
- Community – instead of 2 attribution fields for community names on each side of a road feature, a single alphanumeric field can be used to store this data in the address file. The same field definitions should be used here as in the road file as well

There are also a few other types of address layer attributes that may be useful in mapping or responding to 9-1-1 calls:

- Structure type – the purpose and/or usage for the structure
- Structure description – color and composition of the structure

ON-GOING GIS MAINTENANCE

Maintaining accurate and up-to-date GIS data is as important as acquiring accurate GIS data. Since up-to-date GIS data drives the MSAG and is required for 9-1-1 mapping, it is imperative that the data be continually updated with new roads, road segments, ESNs, sub-divisions, and annexations. The NNAA is responsible for maintaining their GIS spatial data. Below are maintenance requirements that must be met in order to receive approval for State 9-1-1 funds to finance mapped Automatic Location Identifier (ALI).

- 1) The 9-1-1 System must identify their GIS department or GIS data maintenance source and Master Street Address Guide (MSAG) Coordinator prior to installing a mapped ALI system.
- 2) Procedures for reporting, updating and correcting the GIS data must be developed prior to installing a mapped ALI system. These procedures include:
 - Methods for adding new roads, routes, and subdivisions
 - Timeline for adding new roads data/annexations
 - Methods for collecting GPS points (if applicable)
 - Methods for adjusting ESN/Community boundaries

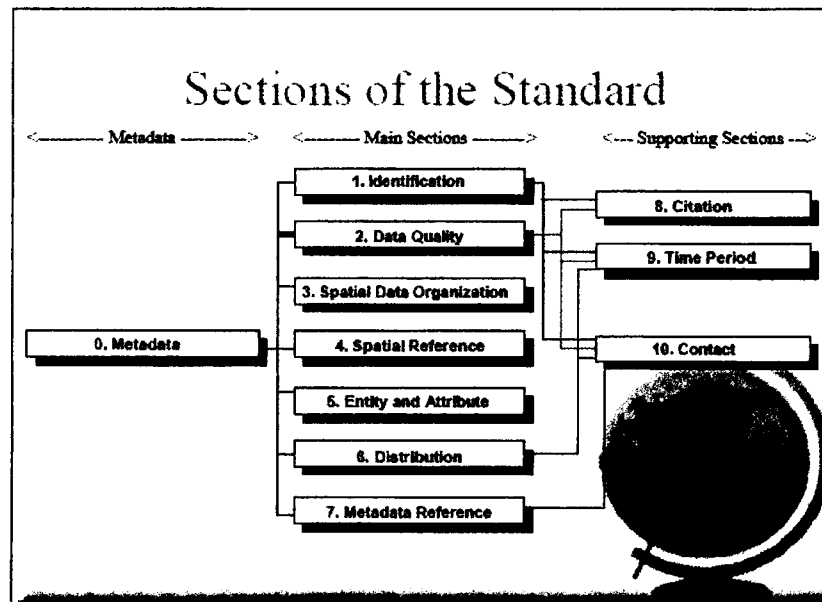
ENHANCED 9-1-1 GIS STANDARDS

Navajo Nation Enhanced 9-1-1

- 3) The following personnel play key roles in maintaining the 9-1-1 GIS data:
 - MSAG Coordinators
 - GIS personnel
 - Outside contracted data maintenance sources
- 4) To ensure that GIS data is accurately maintained, the NNAA is required to complete an annual ALI to GIS comparison. The NNAA may also perform a GIS to MSAG comparison to assess GIS accuracy.

METADATA CONTENT

The GIS standard for documentation for digital spatial data shall be the Content Standard for Digital Geospatial Metadata developed by the Federal Geographic Data Committee. This standard may be obtained from the Internet at www.fgdc.gov. Such documentation alerts the potential user of the GIS dataset's quality and limitations, enabling proper use of the dataset beyond the original developer. Documenting GIS datasets is an important responsibility of the organization creating the datasets. The basic metadata file elements can be accessed at the above web site.



The standard has 11 sections numbered 0 through 10.

Section 0, "Metadata," provides the starting point. It is composed of the main sections of the standard.

Sections 1 through 7 are the main sections of the standard.

Sections 8 through 10 support other sections. They provide a common method to define citation, temporal, and contact information. These sections are never used alone.

MASTER STREET ADDRESS GUIDE

Navajo Nation Enhanced 9-1-1

INTRODUCTION

The creation of a complete Master Street Address Guide (MSAG) is critical for the successful implementation of an Enhanced 9-1-1 System. The MSAG will be created from existing base data and collecting new data utilizing the proper QA/QC (Quality Assurance/Quality Control) process. Before the database is given to the telephone company, each street address and road segment must be verified against the final MSAG to ensure 100% completion. The MSAG database will be developed and maintained to National Emergency Number Association (NENA) standards and state threshold accuracy criteria.

NENA has announced the migration path to Next Generation 9-1-1 is the move to a graphic MSAG. The Navajo Nation is researching the implementation of a graphic MSAG, rather than the traditional MSAG model. Traditionally, multiple databases have been maintained by separate inputs in separate organizations (GIS or addressing organization and the PSAP) and the databases have chronically been difficult to maintain synchronization and the required accuracy. With a graphic MSAG, maintaining and updating the GIS databases drives the MSAG database, allows it to be presented in graphic map form, significantly improves staff productivity, simplifies the synchronization of the various databases, and easily maintains the required accuracy.

NAVAJO NATION ADDRESSING AUTHORITY

The Navajo Nation Addressing Authority (NNAA) organization is responsible for verifying street names, address number ranges, emergency service numbers (ESN), emergency service zones (ESZ), postal community and other information needed to create the MSAG. The NNAA will ensure an MSAG-compliant address is associated with each landline telephone number within the boundaries of the Navajo Nation and each Public Safety Answering Points (PSAPs) geographic boundary. All database information shall be provided to the telecommunication company in the format specified by the telecommunication company for the initial load of these databases. All road name and community database information shall be submitted and maintained in format and content compliant with the USPS Publication 28.

The NNAA is responsible for:

- ensuring that changes and additions to road network and the Emergency Service Zone (ESZ) boundaries in the geographic boundary of the PSAP are communicated to the telecommunications company in the form of MSAG updates on a continuous and timely basis. The telecommunications company shall dictate the format and transmission method of these MSAG updates.
- ensuring that all submitted changes, deletions and additions to the MSAG are changed, deleted or added in the loaded MSAG maintained by the telecommunications company.
- thoroughly review the loaded MSAG periodically, no less frequently than once a month, to ensure that submitted changes, deletions and additions have been properly made and entered by the telecommunications company.

MASTER STREET ADDRESS GUIDE

Navajo Nation Enhanced 9-1-1

- providing an old-to-new address conversion list to the telephone company's 9-1-1 database coordinator so one can link the new addresses to telephone subscriber information
- approving and providing correct road name and address range information
- providing updates on changes to address ranges and (ESZ)s a minimum of once per calendar year
- resolving all discrepancies that arise with any addressing information in the GIS, MSAG and E9-1-1 databases.
- assigning and confirming in accordance with set policy and procedures, all new addresses issued, and update existing addresses as needed.

DATABASE DEVELOPMENT

Physical addresses: the NNAA shall provide the telephone company's database coordinator with a list of accurate physical addresses for all residential and business telephone subscribers and coin-telephones within its boundaries. These addresses shall be MSAG-compliant, linked with the corresponding telephone numbers in the telephone company's customer service records.

Master Street Address Guide (MSAG): the NNAA shall provide accurate road names or numbers, number ranges, and emergency service numbers (ESN) for the purpose of creating the MSAG. The MSAG is used to route 9-1-1 calls to the proper public safety answering point and display correct information.

Automatic Location Identifier (ALI) database information shall use conventional English or National Emergency Number Association (NENA) standard abbreviations, where necessary, and shall not use single letter or digit codes.

Addressing guidelines for database development of physical addresses, in addition to the requirements of this rule, shall be established by the NNAA.

DATABASE REQUIREMENTS

Master Street Address Guide (MSAG): is the portion of the 9-1-1 database management system that contains street names, address ranges and Emergency Service Number (ESN) information. The address information contains the following fields:

- a) pre-directional
- b) street name
- c) suffix directional
- d) state
- e) MSAG community name (may be different than the postal community name)
- f) address odd/even indicator
- g) low address
- h) high address
- i) Emergency Service Number (ESN)
- j) telephone exchange

MASTER STREET ADDRESS GUIDE

Navajo Nation Enhanced 9-1-1

Additional fields are available in some systems, which may use postal community name, or 9-1-1 system, PSAP or taxing district identification codes. Special non-address related MSAG entries might be used to allow the inclusion of MSAG-valid wireless enhanced 9-1-1 location information in the database.

Automatic Location Identifier (ALI) Database: Every telecommunication company providing ALI shall present uniform data, as defined by the NENA standards. The ALI shall be displayed and printed or archived immediately in the database when the 9-1-1 call is made. Each ALI data set shall include at a minimum:

- a) Area code and telephone number;
- b) class of service;
- c) time in a 24-hour format (may be printed and not displayed);
- d) date (may be printed and not displayed);
- e) subscriber name or designation of non-published number;
- f) house (building) number;
- g) house number (building) suffix;
- h) directional prefix (NE, NW, SE, SW);
- i) street name including type;
- j) emergency service number location;
- k) community name;
- l) the state name;
- m) emergency service number;
- n) pilot number;
- o) emergency service number translation;
- p) any comments present;
- q) emergency response names of law enforcement, fire and EMS.

DATABASE MAINTENANCE

Maintenance: The NNAA shall continuously verify the accuracy of the routing information contained in the MSAG and advise the telephone company, on an occurred basis, of any changes in road names or numbers, establishment of new roads, changes in address numbers used on existing roads, closing and abandonment of roads, changes in police, fire, emergency medical service or other appropriate agencies, jurisdiction over any boundaries, incorporation of new jurisdiction or any other matter that will affect the routing of 9-1-1 calls to the proper PSAP.

Routing database maintenance: the Enhanced 9-1-1 Network and Database Service Provider shall make every reasonable effort to update the MSAG and routing databases on a daily basis so that the number of records “not found” and “service address unknown (SAU)” shall be kept at a minimum.

- A. The NNAA shall conduct periodic reviews, no less than once per year, of the MSAG and ALI databases to ensure the data are accurate and synchronized. With a graphic

MASTER STREET ADDRESS GUIDE

Navajo Nation Enhanced 9-1-1

MSAG, the data remains synchronized based on the continuous maintenance of the GIS databases. When conducted, the review shall:

- 1) include the following information requested by each PSAP from the serving telecommunications company and database provider:
 - complete MSAG extract for entire PSAP boundary area
 - complete ALI extract for entire PSAP boundary area, to include SAUs
 - complete 701/709 error reports from all serving local exchange providers
 - number of landline phones within PSAP boundaries
 - road centerline layer and ESZ layer
 - 2) include output that documents a 96% or higher MSAG accuracy rate:
 - The process used shall determine the number of accurate ALI records, after adjustment for SAUs, by comparison of a new MSAG extract to a new ALI extract; the house number, road name and ESN for each ALI record must match a corresponding MSAG record; the accuracy formula is the number of accurate ALI records found in this comparison divided by the total number of landline access numbers; this rate must equal 96% or higher;
 - List of SAUs found in the MSAG and ALI extracts with a timeline for correction of SAUs;
 - List of roads/road segments that appear in the MSAG that do not appear in the GIS; and
 - List of roads/road segments that appear in the GIS but that do not appear in the MSAG;
 - Be submitted annually to the NNAA. All stakeholders shall work to correct these errors and inconsistencies and distribute the corrections to the appropriate telecommunications company.
- B. On behalf of the PSAPs, the NNAA shall maintain accurate MSAG and ALI databases. This means 96% of all landline telephone numbers in the PSAP area must be matched with MSAG-valid 9-1-1 addresses and these addresses must be loaded in the ALI database. The NNAA shall meet the required accuracy levels as a precondition to applying for and receiving funding for E9-1-1 equipment upgrades from the fund.
- C. The NNAA shall ensure that updates, changes, deletes, and additions have been applied to the MSAG and ALI databases within 48 hours of completion of a service order by the telecommunication company. The NNAA will provide a yearly summary of changes submitted in the past year to the telecommunication company.

GPS FIELD CREW SCENARIO

Navajo Nation Enhanced 9-1-1

INTRODUCTION

The following Global Positioning System (GPS) Field Crew Scenario guidelines will be utilized to collect all line and point GPS field data in the Navajo Nation. The purpose of this document is to establish and implement GPS field data collection guidelines to ensure data accuracy and data consistency.

Coordinate System

The Universal Transverse Mercator (UTM) Zone 12 North coordinate system will be used for all field data collection. The map units will be meters and the datum will be North American Datum 1983 (NAD 83). Although the TóHajiilee pilot project is in the boundaries of UTM Zone 13 North, it is recommended that all GPS data be collected using Zone 12 North to minimize inconsistencies.

NAVAJO NATION ADDRESSING AUTHORITY

The Navajo Nation Addressing Authority (NNAA) was established based on the research results from previous attempts at rural addressing and the criteria for success agreed to with the State of New Mexico, it was determined that the Navajo Nation must establish a permanent organization and institutionalize the necessary processes to maintain the integrity and accuracy of the GIS database, the MSAG, and the E9-1-1 databases.

A Plan of Operation was developed to establish the roles and responsibilities of the organization, position descriptions were developed, personnel budgets approved, and staffing of those positions commenced in July 2008. The NNAA organization is administratively overseen by a Program & Projects Specialist. A Rural Addressing/GIS Coordinator will lead the rural addressing staff. When fully staffed, the organization will also include five (5) Rural Addressing/GIS Technicians, one for each agency and a MSAG Coordinator.

The NNAA was established to provide the overall program management and to develop consistency and continuity of processes for the rural addressing initiative Navajo Nation-wide in support of enhanced 9-1-1.

The GPS Field Crews will either be members of the NNAA organization or work at the direction of the NNAA.

GPS LINE DATA COLLECTION

The GPS Field Crew will collect data for the purposes of verifying the accuracy and completeness of GIS vector line features by driving all roads and long driveways within the Navajo Nation boundaries while using highly accurate real-time differential GPS units linked to laptop computers. GPS locations will be gathered every one-to-two seconds as the vehicle travels the roadway. Field Data Collectors (FDCs) will utilize a custom GPS software interface that translates the GPS positions into ESRI

GPS FIELD CREW SCENARIO

Navajo Nation Enhanced 9-1-1

(Environmental Systems Research Institute) shapefile format and displays the vehicle's position in real-time.

After field data collection is complete, line data will be edited or created by referencing both the GPS coordinate data (in ESRI shapefile format) and digital ortho-photo quarter-quadrangles (DOQQs or aerial images).

GPS POINT DATA COLLECTION

The position of all addressable structures will be verified using GPS data and will be completed at the same time as line data collection. FDCs will locate every home or addressable structure, defined as a structure with a landline phone or that could be inhabited or used as a place of business. FDCs will use United States Postal Service delivery (edit) sheets, telephone company customer service records and other available data such as phone books and plat books while collecting or verifying addressable structure GIS data. Digital Ortho-photo Quarter Quads (aerial imagery) will be utilized to field verify each address location. Sub-meter raster data resolution is recommended.

GPS DATA COLLECTION PROCESS

1) Project coordination and GPS Data Collection Prerequisites

- Ensure budgets and funding sources are available and in place.
- Ensure 9-1-1 Public Education and rural addressing awareness has been provided before any field work is started.
- Ensure all stakeholders (NNAA, LRAC, State, County, GIS Consultant) have been part of the dialogue leading up to a kick-off meeting and are in generally agreement on the scope, timing and their responsibilities.
- Ensure preparations are made in advance for visible identification of vehicles, possibly having "Rural Addressing 9-1-1 Mapping" posted on the doors and flashing lights to alert traffic.

2) Plan kick-off meeting to coordinate the project field data collection and finalize details.

- Identify and coordinate in advance with all stakeholders and interested parties (NNAA, LRAC, State, County, GIS Consultant). Ensure all prerequisites to a productive field data collection scenario have been completed.
- Develop a preliminary agenda and distribute to all planned participants far enough in advance that they can prepare and participate. Discuss and agree how the collection process will be accomplished for house locations. For better accuracy, 2005 digital ortho-photo quarter quads (aerial photos) and actual GPS data collection will be utilized.
- Discuss providing visible identification of vehicles, possibly having "Rural Addressing 9-1-1 Mapping" posted on the doors and flashing lights to alert traffic.
- Ensure a LRAC member is available to accompany the FDCs for field work

GPS FIELD CREW SCENARIO

Navajo Nation Enhanced 9-1-1

- 3) Develop hardcopy maps from existing GIS datasets to use as field guide.
- 4) If the work is being done to verify existing GIS layers, make sure to have that data available as well as any software or extensions needed to display or edit it. Prepare a plan in advance for how edits will be recorded. For instance, the plan may involve actual edits to the data to correct discrepancies or it may involve recollecting data in a separate layer to be analyzed at the office. In many cases, the plan will involve some combination of the two approaches.
- 5) If address notification and/or resident interviews are part of the field work process, be sure to have an adequate number of hardcopy materials before beginning. Pre-printed address notification letters should be prepared so that the addresses can be written on them while in the vehicle. Where resident interviews are required, prepare enough hardcopy materials to leave at structures where no residents were available to be interviewed. These will generally take the form of postage-paid postcards that can be left on the door with an information packet.
- 6) If the field work process includes actually posting address numbers on homes or at driveway entrances, it will be necessary to determine all assigned addresses in advance of the field work so that the numbers can be purchased and assembled. However, having a good supply of materials can allow installation of structure signs during field work. It will also be necessary to ensure that field workers have authority to place such numbers on private property.
- 7) Before leaving the office, double check that all hardware/software is accounted for and is in good working condition. Configuring everything at the office allows additional time to focus on productive field work while in the field.
 - Make sure the PC has sufficient memory to store GPS rover data files
 - Make sure GPS internal batteries are fully charged (*Take extra batteries; DC/AC power inverter also recommended*)
 - Download any data that will be verified
 - Synchronize the time and date between GPS unit and the local time zone
 - Select the coordinate system being used on the GPS unit or in the software interface. In this case, UTM Zone 12 North, Datum = NAD 83, Units = Meters.
- 8) Collect the field data (*field data collection process should already be done ahead of time*)
- 9) Download GIS layers from field equipment (laptop, handheld) to office equipment (PC, network).

DIGITAL MAP LAYERS COLLECTED OR VERIFIED

The following data layers will be produced or verified in the field:

- Road centerlines – The feature geometry is not generally created or edited during field work but is usually built in the office using aerial imagery and GPS point features collected at 1-second intervals while driving. The attribution may be edited

GPS FIELD CREW SCENARIO

Navajo Nation Enhanced 9-1-1

directly during field work to record posted road signs or to actually edit road names to match signage. Similarly, address ranges may be edited directly to incorporate posted address numbers or FDCs may simply record posted numbers in the address layer and edit ranges in the office.

- Driveway lines – The feature geometry is not generally created or directly edited during field work but is usually built in the office using aerial imagery, GPS point features collected at 1-second intervals while driving and field-collected driveway point features.
- Driveway points – These point features are created during field work and should be placed on road features to indicate the places where driveway entrances intersect the roads. Each must be given attribution to link it to an addressable structure feature.
- Addressable structures – These features should either be created during the field data collection stage or, at minimum, verified later if created using existing data or aerial images. The amount of attribution that must be collected and maintained varies depending on the nature of the work. At minimum, each point should contain the physical address associated with the structure (but that data is generally added in the office *after* field work). If the project includes conversion of existing rural delivery addresses to the new addresses, the data will need to include existing mailing addresses and resident name information (whether these are gathered from field verification, resident interviews or other databases). If the project includes the introduction or verification of 9-1-1 addressing, the attribution will need to include landline phone numbers and resident name information. Generally speaking, resident names, phone numbers and old mailing addresses do not need to be maintained after data is converted with telephone companies and/or the USPS. Attribution may also include descriptions of the structure.
- GPS points – These features are created solely during field data collection and are composed of GPS readings taken at 1-second intervals while driving or walking. They are used primarily to create or verify line feature geometry (e.g., roads and driveways).
- Landmark points – Sometimes called “unaddressable structures,” these are defined differently depending on project needs. They typically consist of such features as bridges, low water crossings, gates, powwow and rodeo arenas, towers, hydrants, utility features, windmills and road signs. The data can be used for reference later, both during GIS data development and during 9-1-1 call response.

**RESOLUTION OF THE
GOVERNMENT SERVICES COMMITTEE
OF THE NAVAJO NATION COUNCIL**

21st NAVAJO NATION COUNCIL – Second Year, 2008

AN ACTION

**RELATING TO RELATING TO COMMUNITY DEVELOPMENT AND
GOVERNMENT SERVICES; AMENDING RESOLUTION GSCJA-05-08/A OF
THE GOVERNMENT SERVICES COMMITTEE BY APPROVING THE
AMENDMENTS TO THE MASTER PLAN OF OPERATION FOR THE
DIVISION OF COMMUNITY DEVELOPMENT; THE PLAN OF OPERATION
FOR THE DEPARTMENT OF TRANSPORTATION; THE PLAN OF
OPERATION FOR THE LOCAL GOVERNMENT SUPPORT CENTER AND
THE PLAN OF OPERATION FOR THE COMMUNITY HOUSING AND
INFRASTRUCTURE DEPARTMENT TO INCORPORATE THE E 911 RURAL
ADDRESSING OBJECTIVE WITHIN THESE PLANS OF OPERATION**

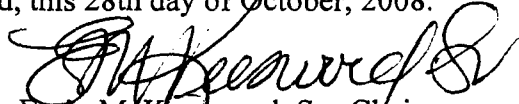
BE IT ENACTED;

1. The Navajo Nation hereby amends Resolution GSCJA-05-08/A, attached as Exhibit "No. 1", by amending the following Plans of Operation to incorporate the E 911 Rural Addressing objective within each of the following Plans of Operation;

- I. The Master Plan of Operation for the Division of Community Development, (Exhibit "A");
- II. The Plan of Operation for the Navajo Department of Transportation (Exhibit "D")
- III. The Plan of Operation for the Local Government Support Center (Exhibit "F"); and
- IV. The Plan of Operation for the Community Housing and Infrastructure Department (Exhibit "G")

CERTIFICATION

I hereby certify the foregoing resolution was duly considered by the Government Services Committee of the Navajo Nation Council at a duly called meeting in Window Rock, Navajo Nation (Arizona), at which a quorum was present and that the same was passed by a vote of 7 in favor and 0 opposed, this 28th day of October, 2008.


Ervin M. Keeswood, Sr., Chairperson
Government Services Committee

Motion: Orlanda Smith Hodge
Second: Charles Damon

EXHIBIT A

MASTER PLAN OF OPERATION FOR THE DIVISION OF COMMUNITY DEVELOPMENT

I. ESTABLISHMENT

There is hereby established the Navajo Division of Community Development (hereinafter "Division") within the Executive Branch of the Navajo Nation Government.

II. PURPOSE

The purpose of the Navajo Division of Community Development shall be to develop a dynamic and cohesive plan for community development activities, and provide relevant community education for orderly growth of the Navajo Nation that contributes to self-sufficiency of communities and families by constructing quality homes, community public facility buildings and infrastructure that is in harmony with nature and people's needs.

III. GOALS AND OBJECTIVES

1. To provide technical assistance and administrative support at chapter governments in its development of becoming self-sustaining and self-governing entities through coordination with local, county, state, and federal government offices.
2. To improve the standard of living for Navajo families and individuals through the use of modern methods and techniques in the construction of new homes and rehabilitation of existing homes.
3. To plan, provide infrastructure and transportation systems, public facilities buildings for future growth of communities.
4. To promote and foster land use planning and growth management policies and practices.
5. To provide technical services in developing plans cooperatively with communities for proper solid waste management practices and disposal systems.

IV. PERSONNEL AND ORGANIZATION

1. PERSONNEL

The Navajo Division of Community Development shall be administered by a Division Director, who shall be appointed by the President of the Navajo Nation, confirmed by the Navajo Nation Council, and shall serve at the pleasure of the President of the Navajo Nation. The Division Director shall hire personnel as may be deemed necessary to carry out the purposes of the Division and as funds are available. All personnel shall be employed and compensated in accordance with the applicable Navajo Nation Personnel Policies Manual.

2. ORGANIZATION

The Division of Community Development shall consist of 11 offices: Division Administration, five Departments and five agencies to execute the Division's

purpose. The Departments may consist of sections, programs, and agencies to accomplish the Department purpose. The five departments and five agencies are as follows:

- 1) Division Administration;
- 2) Capital Improvement Office;
- 3) Design and Engineering Services Department;
- 4) Community Housing and Infrastructure Department;
- 5) Navajo Department of Transportation;
- 6) Solid Waste Management Program;
- 7) Local Governance Support Center-Fort Defiance Agency;
- 8) Local Governance Support Center-Eastern Agency;
- 9) Local Governance Support Center-Chinle Agency;
- 10) Local Governance Support Center-Tuba City Agency;
- 11) Local Governance Support Center-Shiprock Agency.

The organizational chart of the Division of Community Development is displayed as Attachment "A-1".

V. AUTHORITIES, DUTIES AND RESPONSIBILITIES

- A. The Division Director of the Division of Community Development shall have the authority for the overall Division's operational planning and direction. The Division Director shall have the following duties and responsibilities:
1. Execute directives of the President of the Navajo Nation, Navajo Nation Council, and the Transportation and Community Development Committee.
 2. Provide written monthly and/or quarterly reports to the Office of the President, Transportation and Community Development Committee of the Navajo Nation Council, annual reports to the Navajo Nation Council and any other reports deemed necessary.
 3. Promulgate Division program policies, time frame and other guidelines to ensure the proper and timely implementation of Division projects.
 4. Establish and maintain partnership with local, county, state, federal entities and other authorities on matters related to the objectives of the Division.
 5. Provide effective overall management and financial direction to Divisions' departments and programs.
 6. Delegate authority pertaining to the operation of the Division and its program to subordinate directors of the Division, to the extent permitted by the laws and policies of the Navajo Nation, as appropriate.
 7. Negotiate written agreements on behalf of the Division relevant to community development for oversight committee's recommendation.
 8. Seek external funding for programs and projects to enhance community development.
 9. Recommend the creation, merger, separation, amendment or abolishment of programs, or specific functions within the Division in accordance with applicable Navajo Nation law.

10. Recruit, select, supervise, conduct employee performance evaluation, and recommend reclassification of positions for the Administration Staff, Department and Program Directors, in accordance with Personnel Policies Manual of the Navajo Nation.

B. Administration Office:

The purpose of the Administration Office is to provide for overall management of the Division. The Administration staff shall handle its duties and responsibilities in accordance with Navajo Nation laws and policies. The duties and responsibilities are as follows:

1. Recommend policies and legislation on community development issues to the Transportation and Community Development Committee and other appropriate committees of the Navajo Nation Council for action.
2. Administer overall direction of the Division by monitoring short and long range plans, goals, and objectives.
3. Maintain communication with Navajo Nation chapters on the overall Division's operation.
4. Ensure that programs carry-out their functions, authorities, and responsibilities.
5. Assist in the coordination and development of strategies to implement Division functions.
6. Develop and maintain Information Data Center for the Navajo Nation.

VI. LEGISLATIVE OVERSIGHT

Pursuant to 2 NNC §421 and §423, et seq., the Division of Community Development shall operate under the legislative oversight of the Transportation and Community Development Committee of the Navajo Nation Council.

VII. AMENDMENTS

Section I through V may be amended from time to time by the Government Services Committee of the Navajo Nation Council upon the recommendation of the Transportation and Community Development Committee of the Navajo Nation Council.

THE NAVAJO NATION
ORGANIZATIONAL CHART
EXECUTIVE BRANCH/DIVISION OF COMMUNITY DEVELOPMENT

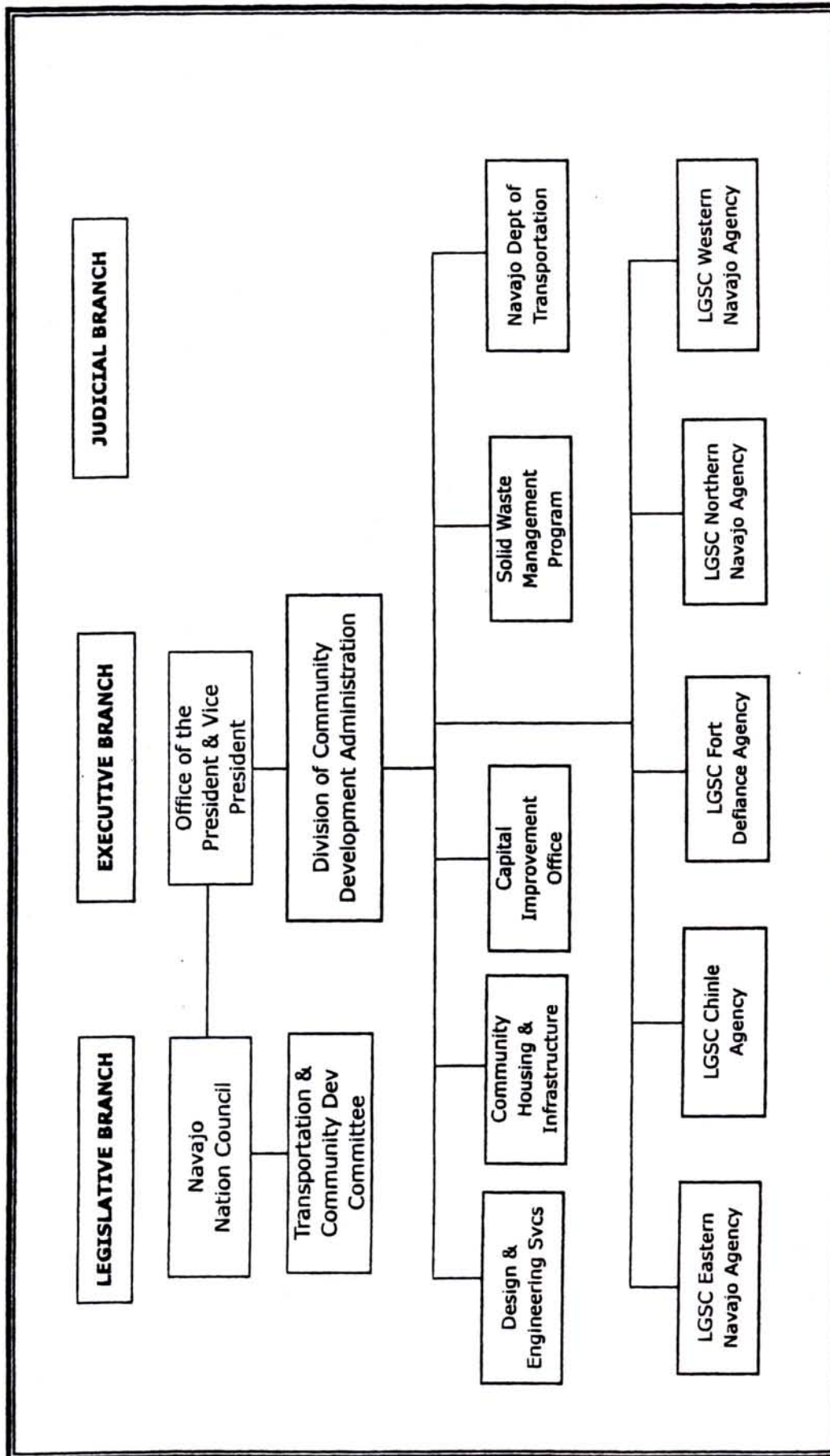


EXHIBIT B

PLAN OF OPERATION

CAPITAL IMPROVEMENT OFFICE DIVISION OF COMMUNITY DEVELOPMENT

I. ESTABLISHMENT

There is hereby established the Capital Improvement Office ("CIO") within the Division of Community Development ("DCD") and under the Executive Branch of the Navajo Nation government.

II. PURPOSE AND MISSION

The purpose and mission of the Capital Improvement Office shall be to provide the Navajo Nation Government with a formal mechanism for decision-making related to infrastructure development and capital improvement programming; linking the Capital Improvement Plan with the Comprehensive Land-Use Plan; developing and maintaining programmatic and financial policies for prioritizing and estimating capital projects; developing and maintaining a multiyear list of Capital Improvement Projects; and monitoring the capital budget.

III. GOALS

The goals of the Department shall be to:

1. Formulate written procedures for citizen input and build capacity at the Chapter and program levels to enable the communities to efficiently access capital and infrastructure project funding.
2. Develop and maintain policies and procedures for Capital Improvement Projects to ensure a timely and orderly process for planning and budgeting for capital assets.
3. Coordinate and link the long and short-range capital improvement programming with the Chapter land-use plans.
4. Conduct periodic capital needs assessments to determine the need for replacement, repair, renovation, expansion or retirement of the existing facilities and need for future development.
5. Conduct annual reviews of the status of currently active capital improvement projects and determine whether additional funding will be requested to continue

the project and to determine the amount of funds from completed and discontinued projects.

6. Perform financial capacity analysis to determine the level of capital expenditures the Nation can afford and to designate other funding considerations in conjunction with the Office of Management and Budget and the Office of Controller.
7. Compile all project proposals and provide for the evaluation and prioritization all Capital Improvement Project Proposals utilizing TCDC approved objective criteria.
8. Finalize and present annual six (6) year Capital Improvement Plans for consideration and approval by the Transportation and Community Development Committee (TCDC).
9. Monitor the capital budget and maintain up-to-date records on all projects within the Capital Improvement Plan.
10. Submit written quarterly progress reports on the capital budget to TCDC and the Budget and Finance Committee.
11. Provide Technical Assistance to Chapters and Programs on the Program processes and mechanisms and in accordance with the Local Governance Act.

IV. OBJECTIVES

1. Provide quarterly training in the area of proposal development, project management and implementation to build capacity at the local level.
2. Compile, evaluate and develop a multiyear list of infrastructure and capital improvement projects in order of priority and with a detailed one-year capital improvement budget by April of each year.
3. Conduct a survey of Chapter and Program needs using a survey form and in coordination with Chapters and Programs by December of each year. Establish a process for gathering Chapter and Program needs to produce a needs-based capital budget.
4. In coordination with Risk Management Program and Property Management Department, conduct periodic facilities inventory to be finalized and completed by December of the respective year.
5. Prepare a CIP Status report that includes information on projects that will be continuing, the amount of funds required to continue or complete respective projects, determining the amount of remaining fund balance from projects that are

completed or have been discontinued, and summary report of progress by January of each year.

6. In coordination with the Office of Management and Budget, conduct an Infrastructure and Capital Improvement Finance conference to determine the selection and scheduling of other funding sources in February of each year.
7. Convene a multidisciplinary team for the purpose of reviewing and rating Capital Improvement and Infrastructure Project Proposals in March of each year.
8. Draft and submit TCDC resolutions for the Section 164 review for comments and review of the Capital Improvement Plan by April of each year.
9. Conduct monthly monitoring of each project account and project site for the purpose of ensuring compliance with all applicable laws, regulations, rules and policies in the course of project implementation by the respective project sponsors.
10. Maintain records of all project accounts in accordance with generally accepted records management systems.
11. Compile up-to-date information from the monthly monitoring visits and prepare progress reports to be used in the quarterly reports.
12. Conduct Quarterly work sessions and/or project meetings to provide information on program requirements, activities and status of projects to Chapters and Programs.

V. PERSONNEL AND ORGANIZATION

A. PERSONNEL

1. The Director of the Office shall be hired and supervised by the Division Director in accordance with applicable Navajo Nation Personnel Policies and Procedures. All other personnel shall be employed and compensated in accordance with applicable Navajo Nation Policies and Procedures.
2. The Office shall be staffed sufficiently to accomplish the purpose, goals and objectives of the Office which may include the establishment of agency offices.
3. The Director shall be authorized to recommend additional professional, technical and clerical positions as needed to carry out the organizational purposes, goals and objectives as stated herein. Additional positions shall be acquired in accordance with applicable budget rules established for conducting the annual Navajo Nation Budget process.

B. ORGANIZATION

The Office shall consist of the following:

1. Administrative Support Staff
2. Technical Support
3. Any additional Sections that may be deemed necessary to accomplish the purpose, goals and objectives of the Office.

Organizational Chart of the Capital Improvement Office is attached hereto as Attachment "B-1".

VI. RESPONSIBILITY AND AUTHORITY

A. The Office Director shall report and be responsible to the Division Director.

B. The Office Director shall:

1. Formulate the overall administrative and operating policies and procedures necessary for effective management of the Office and take actions to accomplish the program purpose and goals.
2. Exercise supervisory control and direction over all Office staff.
3. Delegate authority to members of the staff as necessary.
4. Conduct periodic reviews of Office effectiveness and the use of fiscal allocations to ensure that expenditures are within authorized budgets and guidelines.
5. Establish and maintain project status reports on all funded projects.
6. Provide training to improve staff performance.
7. Represent the Office at the executive level.
8. Establish and maintain communication with tribal government and elected officials as needed to accomplish the goals and objectives stated herein.
9. Carry out all other responsibilities as assigned by the Division Director.
10. Recommend proposed projects for funding to the oversight committee of the Navajo Nation Council.

VII. LEGISLATIVE OVERSIGHT

Pursuant to 2 N.N.C. Sections 421 and 423, et. seq., the Capital Improvement Office shall operate under the legislative oversight of the Transportation and Community Development Committee of the Navajo Nation Council.

VIII. AMENDMENTS

Sections I. through V. may be amended from time to time by the Government Services Committee of the Navajo Nation Council upon recommendation of the Transportation and Community Development Committee of the Navajo Nation Council.

THE NAVAJO NATION
ORGANIZATIONAL CHART
CAPITAL IMPROVEMENT OFFICE

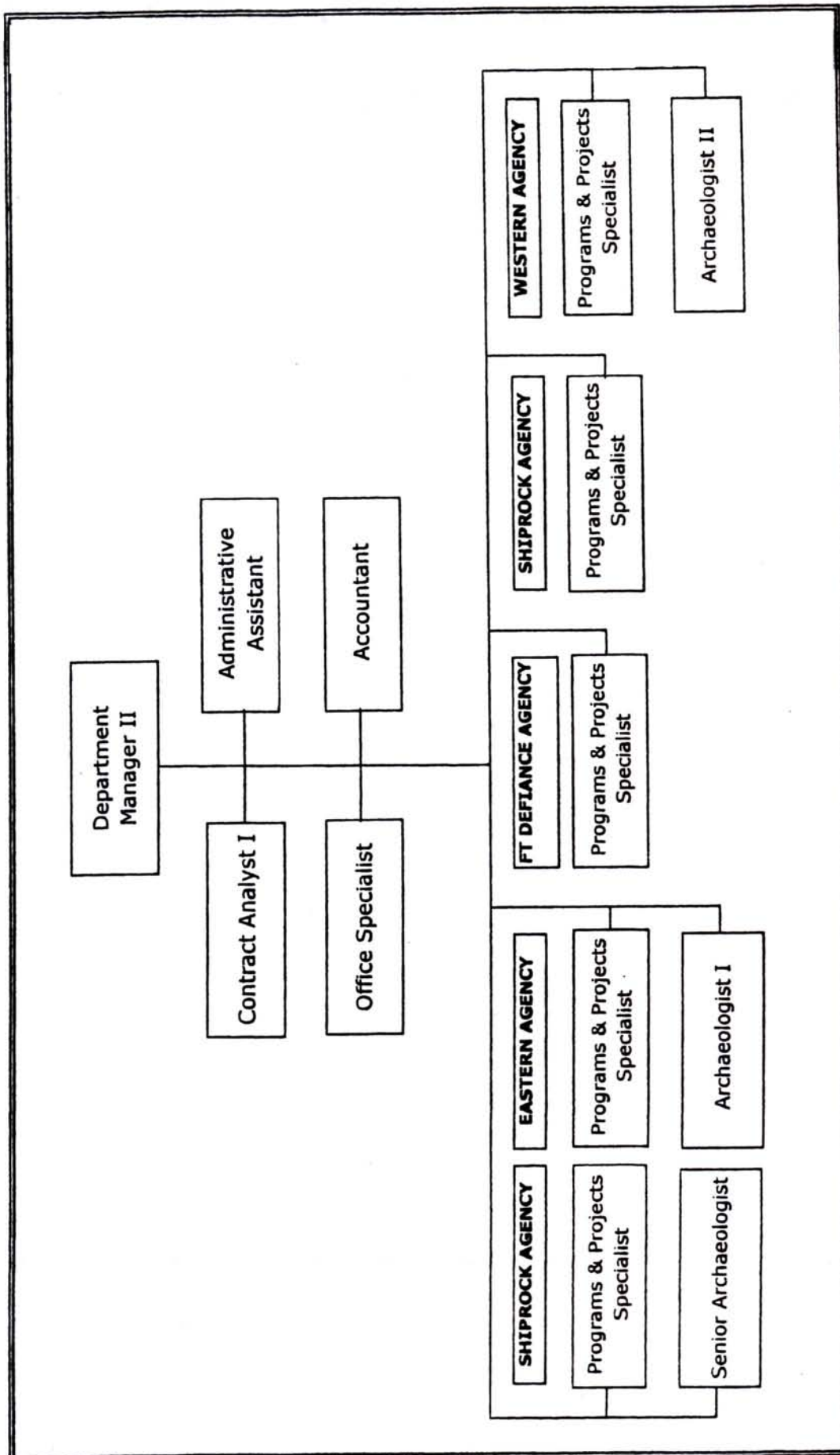


EXHIBIT C

PLAN OF OPERATION

DESIGN AND ENGINEERING SERVICES DIVISION OF COMMUNITY DEVELOPMENT

I. ESTABLISHMENT

There is hereby established the Design and Engineering Services ("Department") under the Division of Community Development ("Division") of the Executive Branch of the Navajo Nation Government.

II. PURPOSE AND OBJECTIVES

A. Purpose

The purpose of the Design and Engineering Services shall be to cultivate public shelter facilities with sound architectural, engineering services and construction management for a healthy society and physical environment.

B. Objectives

The objectives of the Design and Engineering Services shall be to:

1. Provide comprehensive professional architectural and engineering services to chapters, divisions and other entities of the Navajo Nation.
2. Review, coordinate and approve the design and specifications for Navajo Nation capital improvement projects to ensure compliance with all applicable state, federal and Navajo Nation regulations, codes and standards.
3. Design to satisfy cultural and environmental conditions of the built environment, working with Navajo Nation communities to promote integrity and self-sufficiency.
4. Ensure that Navajo Nation projects are constructed with timely, efficient and cost effective methods by administering and monitoring construction activities.
5. Develop the professionalism to enhance coordination with private, state and federal agencies in the provision of professional services within the Navajo Nation.

III. PERSONNEL AND ORGANIZATION

A. Personnel

1. The Director of the Design and Engineering Services shall be hired and supervised by the Executive Division Director of the Division of Community Development, in accordance with applicable Navajo Nation Personnel Policies and Procedures. All other personnel shall be employed and compensated in accordance with applicable Navajo Nation Personnel Policies and Procedures.
2. The Director shall be authorized to recommend additional professional, technical and administrative positions as needed to carry out the organizational purposes and objectives stated herein. Additional positions shall be established in accordance with applicable Personnel Policies and Procedures and pursuant to applicable rules established for conducting the annual Navajo Nation budget process.

B. Organization

The Design and Engineering Services shall consist of such sections and functions as may be necessary to accomplish the purpose cited.

1. Administrative Support
2. Engineering
3. Architecture
4. Construction Management
5. Special Projects

The Organizational Chart for the Design and Engineering Services Department is attached as Exhibit "C-1" and incorporated herein.

IV. AUTHORITIES, DUTIES, AND RESPONSIBILITIES

A. The Director of Design and Engineering Services shall:

1. Report and be responsible to the Executive Division Director.
2. Formulate the overall administrative and operating policies and procedures necessary for effective management of the Department and take actions to accomplish the program purposes and objectives.

3. Conduct periodic reviews of staff and program effectiveness and prepare fiscal operating budgets for the appropriate standing committees of the Navajo Nation Council.
4. Represent the Department at departmental, division and executive levels.

B. The Department shall:

1. Provide architectural and engineering services to chapters, divisions and other entities of the Navajo Nation.
2. Design Navajo Nation public facilities to meet specifications satisfying cultural and environmental conditions in accordance with established Navajo Nation, State and Federal regulations, codes and standards.
3. Develop, coordinate and implement project delivery systems for all Navajo Nation capital projects.
4. Serve as the Construction Management Authority for the Navajo Nation.
5. Assist in the application for and administer all or part of A/E programs available through federal, state and other funding sources, including programs under the Indian Self-Determination and Education Assistance Act (P.L. 93-638 as amended).
6. Establish and administer a revolving account system utilizing funds received for departmental services on projects not funded by the Capital Improvement Program.
7. Provide professional architectural, engineering and construction management services within an established invoice system.
8. Implement and automated network of Navajo Nation project information, monitoring and management that will ensure effective project development.
9. Develop a standard Navajo Nation project manual for accountability and project coordination.
10. Implement, administer and monitor construction management and other alternative delivery process to ensure Navajo Nation projects are completed on a timely, efficient and cost effective manner.
11. Carry out other responsibilities as assigned by the Division Director

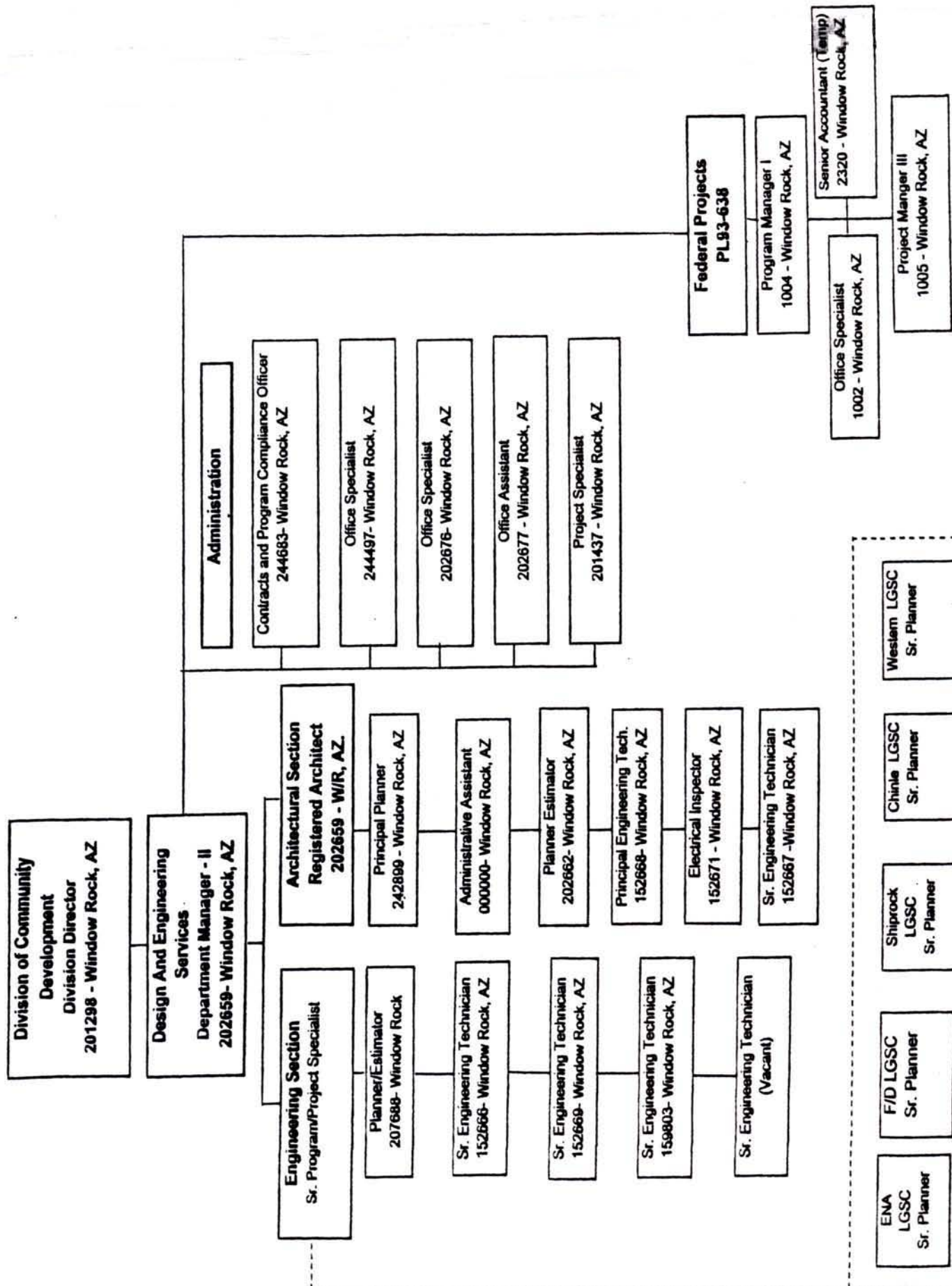
V. LEGISLATIVE OVERSIGHT

Pursuant to 2 N.N.C., Sections 421 and 423, et. seq., the Design and Engineering Services shall operate under the legislative oversight of the Transportation and Community Development Committee of the Navajo Nation Council.

VI. AMENDMENTS

Sections I. through V. may be amended from time to time by the Government Services Committee upon recommendation of the Transportation and Community Development Committee of the Navajo Nation Council as deemed appropriate.

Design And Engineering Services



ENA
LGSC
Sr. Planner

F/D LGSC
Sr. Planner

Shiprock
LGSC
Sr. Planner

Chinle LGSC
Sr. Planner

Western LGSC
Sr. Planner

EXHIBIT D

PLAN OF OPERATION

NAVAJO DEPARTMENT OF TRANSPORTATION DIVISION OF COMMUNITY DEVELOPMENT

I. ESTABLISHMENT

There is hereby established the Navajo Department of Transportation ("Department") within the Division of Community Development ("Division") of the Executive Branch of the Navajo Nation government.

II. PURPOSE AND OBJECTIVES

A. Purpose

The purpose of the Department shall be to plan and develop an integrated transportation network of highways, roads, waterways, airports, railroads and pipelines for the delivery of people, commerce, and goods within the Navajo nation that is safe and in harmony with nature.

B. Objectives

The objectives of the Department of Transportation shall be:

1. To be the single point of contact for all transportation related activities.
2. To provide an administrative and technical department which will address transportation planning, project planning, construction, maintenance and safety of all modes of transportation within the Navajo Nation.
3. To address Navajo Nation transportation needs through a government-to-government relationship with federal, state, county and tribal governments and special interest groups.
4. To implement the Navajo Nation Transportation Code.
5. To contract and operate the functions of the Bureau of Indian Affairs Branch of Roads.

III. PERSONNEL AND ORGANIZATION

A. Personnel

1. The Director of the Department of Transportation shall be hired and supervised by Division Director in accordance with Navajo Nation Personnel Policy Manual.
2. The Department of Transportation shall be staffed to accomplish the purpose and objectives of the Department. All other personnel shall be employed and compensated in accordance with Personnel Policy Manual.
3. The Director shall is authorized to hire additional professional, technical and clerical positions as needed to carry out the organizations purpose and objectives.

B. Organization

The Department of Transportation shall consist of the following:

1. Administration
2. Direct Services
3. Transportation Planning

The organizational chart for the Department of Transportation is attached hereto as Attachment "D-1".

IV. RESPONSIBILITY AND AUTHORITY

A. The Department Director shall have the following responsibilities:

1. Report and be accountable to the Division Director for the accomplishment of the purpose and objectives of the Department.
2. Exercise supervisory control and direction over program staff and delegate authority to other staff members.
3. Administer Navajo Nation policies and procedures necessary for effective management of the Department and to accomplish the program purpose and goals.
4. Prepare the Navajo Nation general funds operating budget in accordance with the Office of Management and Budget's Manual.

5. ~~Represent the Department at departmental, division, and executive branch levels.~~
6. Seek additional revenues through a government-to-government coordination with federal, state, county and tribal governments and special interest groups.
7. Provide technical assistance to the oversight committee through attendance at the regular meetings in accordance to Title II, Section 420.
8. Provide a quarterly written report to the Division Director, Division of Community Development.

B. The Department Shall:

1. Maintain an Information Management System and Geographical Information System center for all transportation activities and disseminate information to appropriate agencies.
2. Develop a systematic Navajo Nation Transportation Improvement Program (TIP) in coordination with federal, state and local governments and planning effective ways to address the transportation needs of the Navajo Nation.
3. Develop a Short and Long Term Construction Priority Program for the Transportation and Community Development Committee and Agency Roads Committee.
4. Report periodically on department activities, progress and recommendations to the Transportation Community Development Committee and other appropriate standing committees of the Navajo Nation Council and Agency Roads Committee.
5. Assist the Transportation and Community Development Committee and Agency Roads Committee in the development of legislation, policies, rules and regulations relating to the Navajo Nation Transportation system based upon feasibility studies and analyses.
6. Monitor implemented projects to ensure compliance with regulations and requirements of funding agencies and the Navajo Nation Government.

7. Plan and prioritize all transportation activities with Navajo Nation entities, agencies and departments, and coordinate these activities with federal, state and entities, agencies and departments, coordinate these activities with federal, state and county agencies.
8. Implement a Navajo Nation Transportation Code which may include vehicle licensing and registration, operator's licensing and user fee collection programs.
9. Develop and implement short and long range transportation plans, which include a network of roads, railroads and airports and coordinate this planning with the States of Arizona, New Mexico and Utah, and the Federal government.
10. Seek and secure funds from non-tribal sources for the construction and maintenance of roads, access roads, streets, railroads, airports and safety projects.
11. Seek technical and financial assistance from government or private sources to provide management and technical training for Department staff.
12. Plan, develop and implement labor intensive projects at the local level.
13. Contract for professional construction services for the design and construction of roads, airports, railroads and pipelines when appropriate.

V. LEGISLATIVE OVERSIGHT

Pursuant to 2 N.N.C. Sections 421 and 423, et seq., the Navajo Department of Transportation shall operate under the legislative oversight of the Transportation and Community Development Committee of the Navajo Nation Council.

VI. AMENDMENTS

Sections I. Through V. may be amended from time to time by the Government Services Committee of the Navajo Nation Council upon recommendation of the Transportation and Community Development Committee of the Navajo Nation Council.



NAVAJO DOT - ORGANIZATIONAL CHART

Fiscal Year "2008"

DIVISION OF COMMUNITY DEVELOPMENT

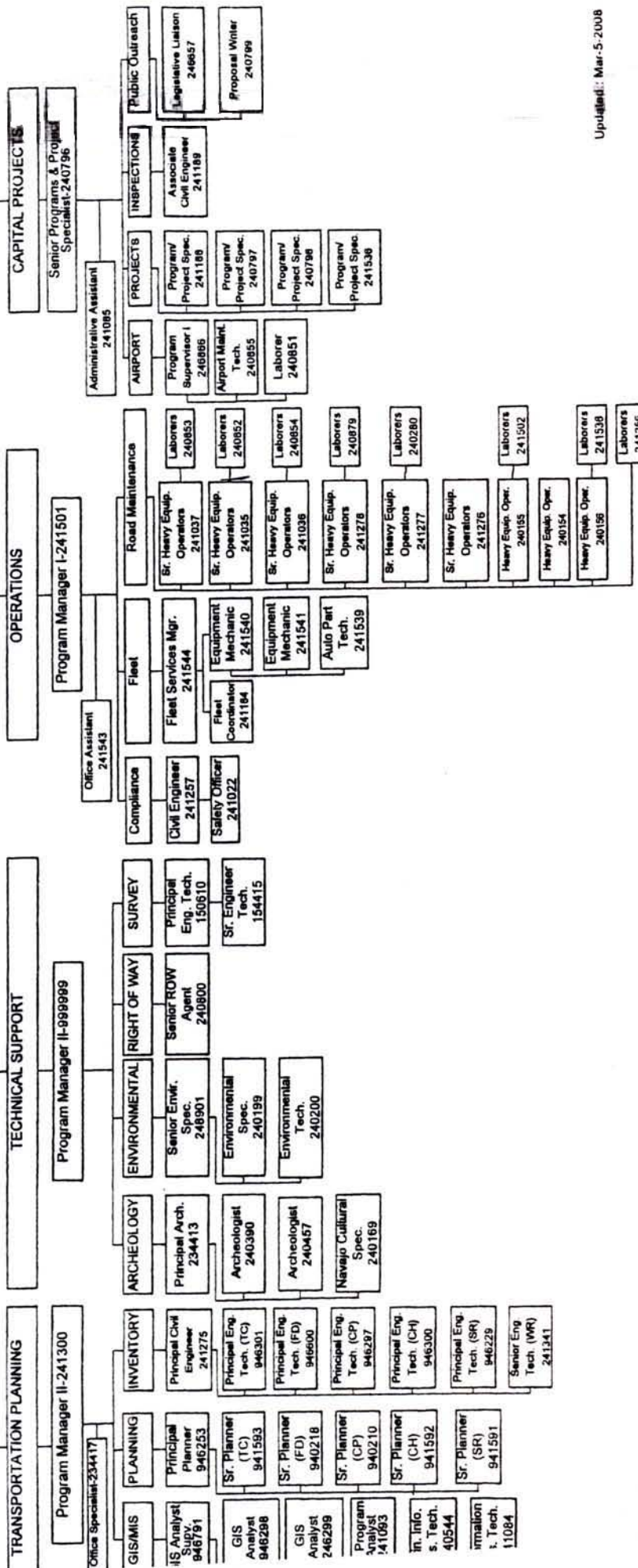
DIVISION DIRECTOR

Department Manager III
204755

Records Clerk
240856
Office Aide-240467

Senior Accountant
210609

Principal Contract Analyst
241537
Senior Contract Analyst
151264



Updated: Mar-5-2008

EXHIBIT A

EXHIBIT E

PLAN OF OPERATION

NAVAJO NATION SOLID WASTE MANAGEMENT PROGRAM

Division of Community Development

I. ESTABLISHMENT

There is hereby established the Navajo Nation Solid Waste Management Program for a period of five (5) years within the Division of Community Development of the Executive Branch of the Navajo Nation Government.

II. MISSION/PURPOSE

The Navajo Nation Solid Waste Management Program is hereby established for the purpose of assisting communities to develop proper solid waste management practices and to provide guidance in development of a viable, self-sustaining solid waste disposal system for the Navajo Nation and implement consolidation and closure of existing open dump sites.

III. GOALS

The goals of the Navajo Nation Solid Waste Management Program shall be to:

1. Promote the enhancement of the quality of the Navajo Nation's environmental resources by providing community education about waste management and recycling.
2. Promote solid waste management development, implementation and provide guidance for maintenance/operation of sanitation facilities throughout the Navajo Nation.
3. Promote proper solid waste management procedures through training and develop regionalized planning whereby solid waste management becomes a local responsibility.
4. To function as a recommending and coordination office on the issues of solid waste management with Navajo governmental entities, including counties, state and federal governments to effectively consolidate resources to resolve waste issues.
5. Develop major planning for future funding budgets and seek other outside funds to support the Navajo Nation's efforts to develop a certified landfill site or other means of solid waste management on the Navajo Nation.

IV PERSONNEL AND ORGANIZATION

Director's Duties:

1. The Department Director shall be hired and supervised by the Executive Director of the Division of Community Development pursuant to the Navajo Nation Personnel Policies Manual.
2. The Department Director shall administratively and legally implement the enhancement of the Navajo Nation Solid Waste Management Program to protect and preserve the Navajo Nation's environment and its resources.

The Director shall:

- Hire and supervise support staff and hire consultants in accordance with the Navajo Nation Personnel Policies Manual and applicable laws of the Navajo Nation. The Director shall employ those persons qualified by education and experience necessary to discharge the duties and responsibilities.
- Develop program budget and formulate administrative and operating policies of the department and take action for accomplishment thereof.
- Exercise supervisory control and direction over the day-to-day operation of the office activities and represent the office for coordination at the executive level planning and/or may delegate authority to members of the staff.
- Develop and submit quarterly written reports concerning program activities and issues of the department to Executive Director and the Oversight Committee.
- Exercise good public relations by coordinating program activities with the Navajo Nation Chapters, Indian Health Services, BIA and other entities to accomplish tasks.
- The Director shall report to the Executive Director of the Division of Community Development.

ORGANIZATIONAL CHART Is incorporated as "Exhibit A" chart

V. DUTIES AND RESPONSIBILITIES

The Solid Waste Management Program shall:

1. Represent the Navajo Nation on matters relating to solid waste management practices.
2. Coordinate with the local chapters in developing operation and maintenance

- planning and funding alternatives.
3. ~~Develop~~ closure strategies to close dump sites contained in the Navajo Nation Solid Waste Automated Tracking System (NNSWATS).
 4. Research, analyze and develop needs for the purpose of projecting community facilities and projects.
 5. Develop funding proposals and coordinate activities with county, state and federal governments to obtain other funding sources.

VI. DUTIES AND RESPONSIBILITIES

The Solid Waste Management Program shall:

1. Represent the Navajo Nation in strategic planning and discussion of issues relating to solid waste management practices.
2. Coordinate with the local chapters in developing maintenance and operation plans of operation for planning and funding of alternative solid waste disposal system.
3. Develop long-range closure strategies for consolidation and closure of illegal dump sites contained in the Navajo Nation Solid Waste Automated Tracking System (NNSWATS).
4. Research, analyze and develop needs for the purpose of projecting community and Navajo Nation certified facilities and projects.
5. Develop grant proposals and coordinate activities with county, state and federal governments to obtain matching funds or other funding sources.

VII. LEGISLATIVE OVERSIGHT

Pursuant to 2 N.N.C. §421 and 423, seq., the Transportation and Community Development Committee of the Navajo Nation Council shall be the legislative oversight for the Navajo Nation Solid Waste Management Program within the Division of Community Development.

VII. AMENDMENTS

Section I through VI of the Plan of Operation may be amended from time to time by the Government Services Committee of the Navajo Nation Council upon the recommendations of the Transportation and Community Development Committee when appropriate.

**DIVISION OF COMMUNITY DEVELOPMENT
SOLID WASTE MANAGEMENT PROGRAM**

ORGANIZATIONAL CHART

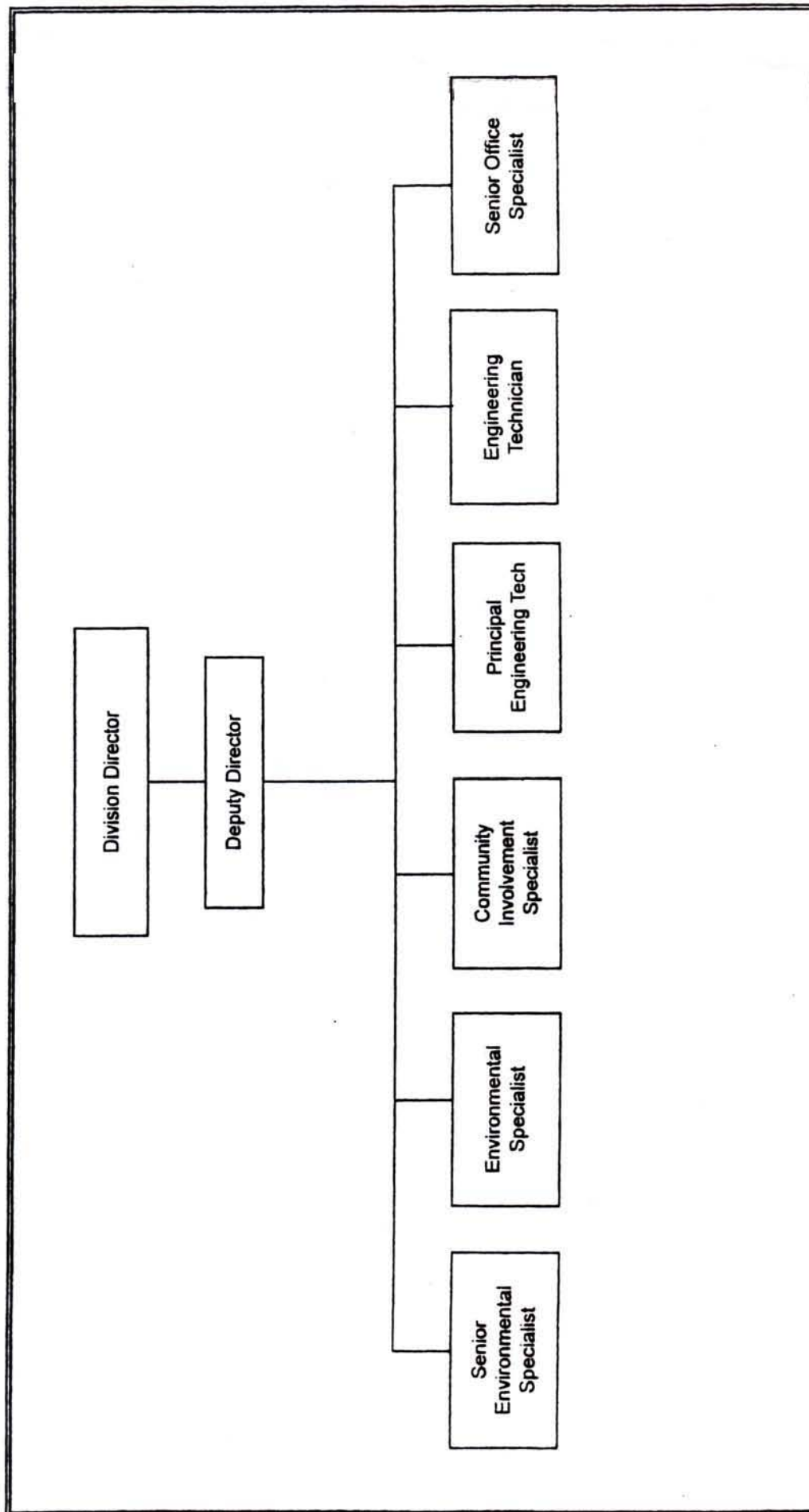


EXHIBIT F

PLAN OF OPERATION

LOCAL GOVERNANCE SUPPORT CENTER DIVISION OF COMMUNITY DEVELOPMENT

I. ESTABLISHMENT

- A. There is hereby established the Local Governance Support Center (Resolution GSCAU-75-99) within the Division of Community Development ("Division") from the merger of the Community Services Coordinator Program of the Legislative Branch and Chapter Government Development Department of the Executive Branch pursuant to the direction of the Navajo Nation Council.
- B. By the end of the fiscal year 2003, or sooner, the Local Governance Support Center shall be transferred as a program from the central government to the Chapters of the Navajo Nation. By fiscal year 2001, the Transportation and Community Development Committee of the Navajo Nation Council shall establish, upon approval by the affected Navajo Nation Chapters, a Regional Council of Local Governance to oversee the Local Governance Support Center. The establishment of the Regional Council of Local Governance shall include identifying various funding sources to sustain support for local governance.

II. PURPOSE AND OBJECTIVES

- A. The purpose of the Local Governance Support Center shall be to provide administrative support and technical assistance to the local Chapter governments. The Program's services include, but are not limited to, the following:
 - 1. Monitoring all Chapters funds, including the claim trust funds, Public Employment Funds, and all other Chapter allocations in accordance with applicable Navajo Nation, federal and state law.
 - 2. Providing administrative support and technical assistance to the Chapter governments specifically relating to management and administrative development and comprehensive land use planning.
 - 3. Facilitating governmental development by assisting Chapters with the implementation of the Five Management System Policies and Procedures for fiscal, property, personnel, procurement and

recordkeeping management, as required by the Navajo Nation Local Governance Act, 26 N.N.C. Section 102.

4. Providing financial and accounting services.
5. Providing Chapters with relevant data to obtain additional sources of funding.

B. The objectives of the Local Governance Support Center shall be to:

1. Assist the Chapter governments to ensure that Chapter funds, including the claims trust funds, Public Employment Funds, and all other Chapter allocations are expended in accordance with applicable Navajo Nation, federal, and state laws.
2. Assist the Chapter governments to ensure, in coordination with the Chapter officials, the implementation of the Five Management System Policies and Procedures for all Chapters consistent with the Navajo Nation Local Governance Act, 26 N.N.C. Section 102.
3. Provide technical, management, financial and accounting services.
4. Assist the Chapter governments, in coordination with the Chapter officials and membership, the implementation of the Navajo Nation Local Governance Act.
5. Assist Chapter Officials and Chapter staff on site with implementing community projects and local community directives.
6. Facilitate the community land use planning process pursuant to 26 N.N.C. Section 2004.
7. Assist the Chapter governments by facilitating the process for obtaining necessary land clearances consistent with the community land use plan.
8. Through the appropriations process shall ensure that sufficient funds are budgeted, including matching funds to provide training and orientation, as needed, on the objectives set forth above.

III. ORGANIZATION AND LOCATIONS OF OFFICES

A. Based upon the availability of funds, each of the Local Governance Support Centers will consist of the following staff:

1. Program Director III

2. Administrative Assistant
 3. Accountant II
 4. Community Involvement Specialists
 5. Planner II
 6. Chapter Accounting Clerk
 7. Community Services Coordinator and a Clerk Typist at each of the 110 certified Navajo Nation Chapters, unless a Chapter receives governance certification, and is operating pursuant to Section VI of the Plan of Operation, and
 8. Other staff, as deemed necessary by the Program Director, as provided for in Section IV (A) (2) (b).
- B. There shall be a program office located within the five Navajo Nation agencies: Fort Defiance, Navajo Nation (Arizona), Chinle, Navajo Nation, (Arizona), Tuba City, Navajo Nation (Arizona), Shiprock, Navajo Nation (New Mexico), and Crownpoint, Navajo Nation (New Mexico).

IV. PERSONNEL

A. Program Directors

1. The Program Directors shall be hired and supervised by the Division Director for the Division of Community Development, in accordance with Navajo Nation Executive Branch Personnel Policies Manual. The Program Directors shall report and be responsible to the Division Director.
2. The Program Director shall exercise the following duties and responsibilities and may delegate the same to the appropriate Agency staff, when deemed necessary:
 - a. Exercise supervisory control and direction of their respective agency staff. Such authority shall include the approval of various administrative procurement documents and travel authorizations for submittal directly to the appropriate processing offices, except documents directly pertaining to the Program Director shall be subject to review and approval by the Division Director.
 - b. When necessary recommend additional professional, technical and clerical positions as needed to carry out the organizational purposes and objectives, which may be required in accordance with applicable Executive Branch Personnel Policies Manual and within the applicable budget guidelines established for conducting the annual Navajo Nation budget process.

- c. Formulate administrative and operating policies and procedures and take such action as deemed necessary for effective and accountable management to accomplish the overall program purposes and objectives.
- d. Ensure that their respective offices' budgetary expenditures are within the scope of the approved budget and ensure that the office operations are in compliance with applicable Navajo Nation, federal and state laws.
- e. Monitor all chapter funds, including the claim trust funds, Public Employment Funds and all other Chapter allocations in accordance with applicable Navajo Nation, Federal, and state law, and shall report deficiencies to appropriate agencies.
- f. Provide administrative support and technical assistance to the Chapter Administrations including, but not limited to:
 - i. Chapter management and administrative development;
 - ii. Comprehensive land use planning; and
 - iii. Establish and maintain a financial database for Chapter funds, including the claims trust funds, Public Employment Funds, and all other Chapter allocations.
- g. Facilitate governmental development by assisting Chapters with implementation of the Five Management System Policies and Procedures.
- h. Assist Chapter governments to ensure, in coordination with the Chapter governments, that Chapter funds, including the claims trust funds, Public Employment Funds, and all other Chapter allocations are expended in accordance with applicable Navajo Nation, federal and state laws.
- i. Assist Chapter governments to ensure, in coordination with the Chapter governments, the implementation of the Five Management System Policies and Procedures for all Chapters, within their respective agencies.
- j. Provide technical, management, and accounting services.

- k. **In coordination with the Chapter governments**, assist in the implementation of the Navajo Nation Local Governance Act.
- l. Assist Chapter Officials and Chapter staff with implementing community projects and local community directives.
- m. Through the appropriations process shall ensure that sufficient funds are budgeted, including matching funds to provide training and orientation, as needed, on the objectives set forth above.
- n. Carry out all other responsibilities as may be assigned by the Division Director.

B. Community Services Coordinator (CSC)

- 1. The Community Services Coordinator shall be hired pursuant to the Navajo Nation Personnel Policies Manual by the Program Director, upon active participation in the firing process by the designated supervising Chapter official(s).
- 2. The Community Services Coordinator shall serve under the general administrative direction of the Program Director. The CSC shall be directly supervised by the designated supervising Chapter official(s). The Chapter President, Vice President and Secretary/Treasurer will decide among themselves who shall provide direct local supervision over the CSC. In the event that the Chapter official(s) fail to designate a direct local supervisor, the Program Director shall assume full direct local supervisory responsibility until such time the Chapter takes appropriate measures to designate a local supervisor.
 - a. The "general administrative direction" provided by the Program Directors shall mean providing administrative support and guidance to the supervising Chapter official(s) to ensure that the CSC carries out the duties and responsibilities duties consistent with this plan of operation and the Navajo Nation Executive Personnel Policies and Procedures.
 - b. "Direct local supervision" shall mean ensuring that the CSC is carrying out the day-to-day duties and responsibilities of this plan of operation, approval of leave requests, travel authorizations, conducting annual

~~performance evaluations, carrying out disciplinary actions,~~
ensuring that the coordinator is adequately meeting the directive of the Chapter membership regarding projects, proposals, and planning activities, developing and implementing Chapter's Five Management System Policies and Procedures, and other local projects consistent with the membership directive pursuant to duly approved Chapter resolution.

3. Disciplinary actions taken against the CSC shall be done by the direct local supervisor in accordance with the Navajo Nation Personnel Policies Manual and in coordination with the respective Program Director.
4. The Community Services Coordinator shall have the following duties and responsibilities:
 - a. Develop and present to the respective Chapter governments the Chapter's Five Management Systems Policies and Procedures:
 - i. Fiscal. To established an effective written Chapter accounting system to ensure accountability of Chapter funds, in coordination with the Chapter Secretary/Treasurer.
 - ii. Property. To establish control of Chapter real and personal property.
 - iii. Personnel. To standardize personnel administrative guidelines at the Chapters, i.e., Recruitment, hiring, evaluation, etc.
 - iv. Procurement. To administer an effective acquisition of good/services through Chapter funds and other appropriated funds consistent with Navajo law.
 - v. Record-keeping. To centralize all official records at the Chapter to ensure proper control and continuity of Chapter records and documents.
 - b. Carrying out assigned administrative tasks assisting the Chapter government in planning, preparation, implementation and administering Chapter projects, including but not limited to land withdrawals, proposals and resolutions in coordination with the Chapter Secretary/Treasurer.

- c. **Work with Chapter** officials and, if necessary, with Navajo Nation agency representatives in coordinating and monitoring Chapter projects.
 - d. Assist, in coordination with the Secretary/Treasurer, with the administration and management of all Chapter funds.
 - e. Develop, prepare and write all Chapter proposals and resolutions, in coordination with the Chapter Secretary/Treasurer, for approval by the Chapter and appropriate Navajo Nation officials.
 - f. Prepare written activity reports for presentation at every Chapter meeting and attend scheduled Chapter meetings and planning sessions. Any hours of work accrued outside of the normal tour of duty shall be compensated in the form of compensatory time at the discretion of the designated supervisor.
 - g. In coordination with the Chapter officials, the CSC shall secure additional sources of revenue and in-kind contributions from Navajo Nation and other funding agencies, consistent with the Navajo Nation Ethics in Government law.
 - h. Keep apprised of new developments within the Navajo Nation, county, state and federal Governments and other entities, which may affect the Chapter government.
 - i. Provide information to the Chapter regarding resources and socio-economic factors for effective local planning.
 - j. Perform the duties of the Chapter Manager prescribed in 26 N.N.C. Section 1004(B) and (C) and 2003 (B), until such time as the Chapter hires a Chapter Manager.
 - k. Exercise supervisory duties and responsibilities over the clerk typist and temporary personnel hired at the Chapter for the Program.
5. Special Requirements of the Community Services Coordinator:
- a. Must possess a valid state driver's license.
 - b. Must have transportation available at all times and be willing to travel.

- c. Reside in and be registered within the Chapter where employed, unless the community does not have a qualified applicant.
 - d. Must be available to work and travel irregular hours and weekends, when deemed necessary.
- C. The remaining Local Governance Support Center personnel shall carry out the duties and responsibilities as described in their respective job descriptions.

V. DEPARTMENT PROCESSING PROCEDURES

All applicable documents shall be submitted and processed, to the extent possible, at the Agency offices, including but not limited to approval of travel authorizations, leave requests, purchase requisitions, etc. The intent and purpose of this Section is to streamline the processing of various administrative documents through the central government offices at Window Rock, Navajo Nation (Arizona). This section is not intended to reduce or eliminate accountability and/or waive Navajo Nation law.

VI. FIVE MANAGEMENT SYSTEM CERTIFICATION

Upon certification of a Chapter's Five Management System Policies and Procedures by the Transportation and Community Development Committee of the Navajo Nation, pursuant to 26 N.N.C. Section 102 of the "Navajo Nation Local Governance Act" the estimated budget for the Community Services Coordinator and Clerk Typist shall transfer directly to the Chapter. The transfer shall include the salary, benefits and estimated travel for both positions. The administration of the funds shall be carried out pursuant to local accounting policies and any other applicable policies, procedures and plans of operation duly approved by the Chapter membership.

VII. LEGISLATIVE OVERSIGHT

The Local Governance Support Center shall operate under the legislative oversight of the Transportation and Community Development Committee of the Navajo Nation Council.

VIII. AMENDMENTS

The Sections herein, may be amended from time to time by the Government Services Committee of the Navajo Nation Council upon recommendation of the Transportation and Community Development Committee of the Navajo Nation Council.

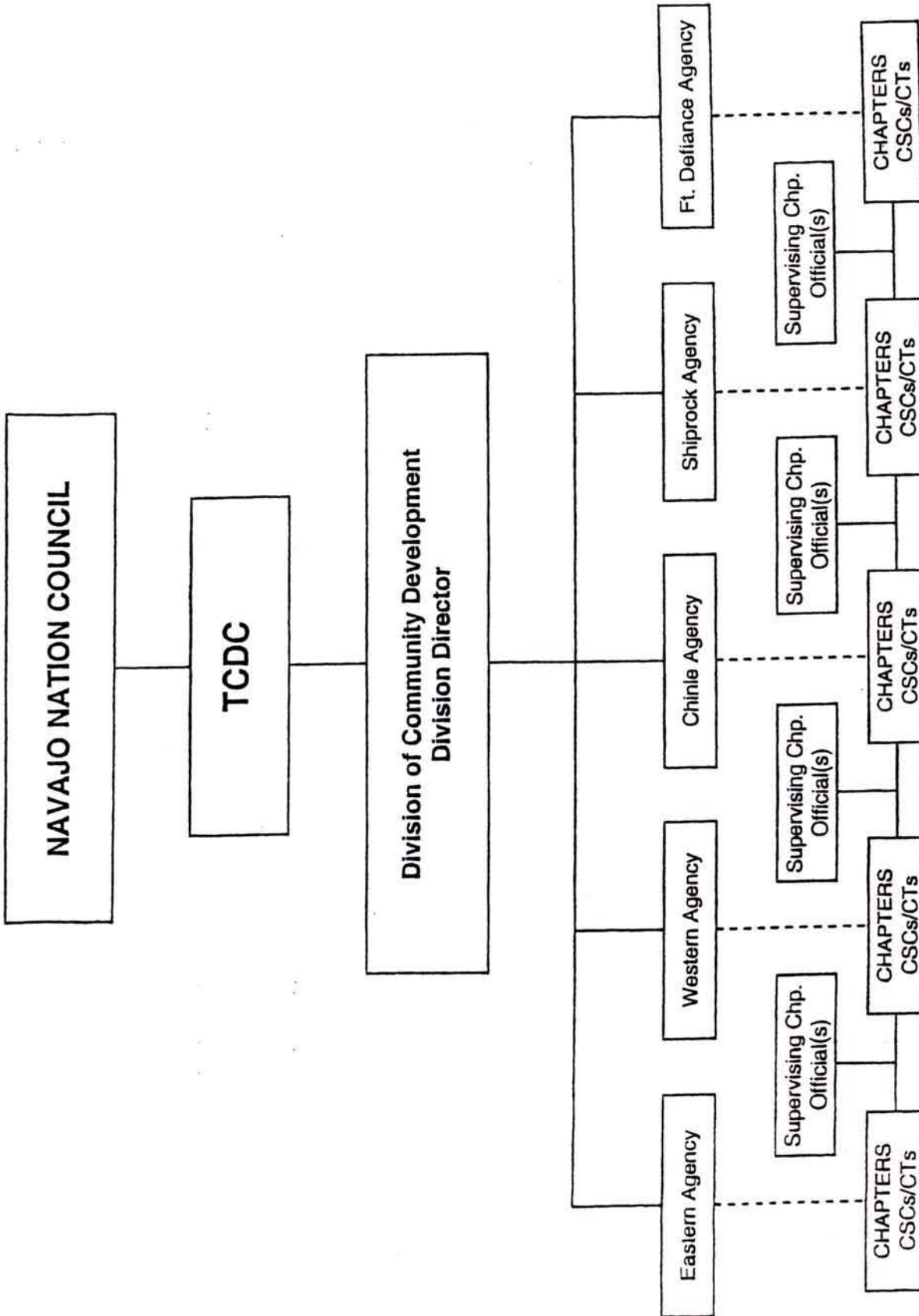


EXHIBIT G

PLAN OF OPERATION

COMMUNITY HOUSING AND INFRASTRUCTURE DEPARTMENT

I. ESTABLISHMENT

There is hereby established the Community Housing and Infrastructure Department (hereinafter "Department") within the Division of Community Development of the Navajo Nation Executive Branch.

II. PURPOSE

The Department is established to promote and develop improved living conditions for Navajo families and strengthen communities through programs for community housing, utility service, public facility and economic development improvements.

III. OBJECTIVES

To carry out its purposes, the following Department objectives are established:

- A. Provide the people and communities of the Navajo Nation with high quality and efficient housing and infrastructure improvements.
- B. Seek and implement additional opportunities for home ownership and renovation for Navajo people and communities through community development partnerships and non-profits.
- C. Promote and support private sector involvement in the financing and implementation of housing and infrastructure projects.
- D. Encourage continued decentralization of housing development and renovation projects to chapters and communities in accordance with adopted Navajo Nation Executive policies and directives.
- E. Seek and secure financing from the Navajo Nation, federal, state, and other agencies for planning, design and construction of new home, home renovation and infrastructure development projects.
- F. Improve collaboration with other government departments, outside utility agencies, other government offices, private companies, non-profits, and chapters

to successfully plan and implement housing and infrastructure development projects.

- G. Promote the use of improved building standards, appropriate technology, resource conservation, energy-efficiency and sustainability in the design and construction of housing and infrastructure improvement programs.
- H. Recommend and institute policies, procedures and standards that will improve performance of programs.
- I. Raise awareness of home ownership and renovation issues and opportunities throughout the Navajo Nation.
- J. Monitor the results of Navajo Housing Authority, NAHASDA and other housing improvement programs on behalf of the Navajo people to ensure compliance with approved Indian Housing Plan goals, regulations and standards.

IV. PERSONNEL AND ORGANIZATION

A. PERSONNEL

The position of Director of the Community Housing and Infrastructure Department is hereby established. The Director shall be hired in accordance with established Navajo Nation Personnel Manual policies and procedures, and will serve under the direct supervision of the Division Director of the Division of Community Development. In order to achieve the purposes and objectives of this Plan of Operation, the Director shall have the authority to:

- 1. Recommend the creation, merger, separation, amendment or abolishment of programs, or specific functions within the Department, in accordance with Navajo Nation law, budgetary and personnel policies and procedures of the Navajo Nation; and
- 2. Hire, direct, supervise, and evaluate employees and reclassify positions within the Department in accordance with personnel policies and procedures of the Navajo Nation; and
- 3. Recommend additional professional, technical and administrative support staff as needed to carry out the activities of the department. Additional staff positions shall be hired and supervised in accordance with applicable Personnel Policies and Procedures and applicable budget rules established for conducting the annual Navajo Nation budget process; and

4. Effectively manage all department programs and projects such that they are completed in accordance with applicable Navajo Nation, federal, and funding source rules and regulations; and
5. Develop and implement overall administrative and operating policies and procedures necessary for effective management of the Department, and take such action as are deemed necessary and appropriate to accomplish the Department's stated mission, purpose and objectives; and
6. Delegate authority as deemed necessary or desirable.
7. Execute such directives and authorities as may be directed and/or authorized by the appropriate authority of the Navajo Nation.
8. Provide opportunities for education and training to improve staff capability and performance.
9. Represent the department at all executive level and other meetings.

B. ORGANIZATION

The Department shall consist of the following sections and programs as shown hereinafter (see Organization Chart attached hereto as Exhibit A):

1. Administration and administrative support.
2. Planning
Responsible for short and longer range program planning as well as overall departmental strategy relating to identifying and securing new funding, program and community development partnership opportunities. This will also include project pre-planning and planning, land acquisition, inter-agency coordination and scheduling, and preliminary cost estimating and budgeting,
3. Accounting and contract management.
Responsible for all project and program accounting within the department's federal and other programs, as well as contract negotiation, management and closeout requirements for all grant and other contract programs. This is consistent with the new departmental and program purchasing card system now being implemented (the P-Card). Department accountants and contract managers will often handle more than one program, allowing greater efficiency and cross-training opportunities. Central government accounting will only be responsible for oversight of program accounts.
4. Compliance and Monitoring
Responsible for all environmental and other clearances for department projects and programs, as well as monitoring performance of all

departmental programs and Navajo Housing Authority, to assure compliance with applicable federal and Navajo Nation laws and regulations. Monitoring of NHA will assure compliance with the approved Indian Housing Plan and future TDHE designation. This section's technical specialists will assure that all project requirements are met.

5. Federal grant program administration.
Community Development Block Grant (HUD)
NAHASDA (HUD)
Housing Improvement Program (BIA)
Weatherization Assistance Program (DOE)
6. Other housing and infrastructure programs as authorized.
7. Agency offices and staff as authorized.

V. RESPONSIBILITY AND AUTHORITY

A. The general authorities and responsibilities of the Department are as follows:

1. Administer internally and externally-funded programs for the benefit of Navajo chapters and communities, in full compliance with all applicable Navajo Nation and federal laws, rules and regulations.
2. Identify and recommend changes in the laws and regulations of the Navajo Nation to facilitate and enhance home ownership and housing quality throughout the Navajo Nation.
3. Maintain compliance with applicable governmental regulations by self-monitoring department performance and budgets.
4. Research and seek funding and other resource opportunities that could better facilitate the meeting of department objectives.
5. Initiate organizational changes to better respond to the needs of Navajo people and communities, while making effective use of available funding and organizational resources.
6. Provide periodic status and compliance reports to the Division, funding agencies and the Navajo Nation Council as required or requested.
7. Effectively manage and recommend improvements to the environmental review and compliance process
8. Manage all funds identified for housing and infrastructure development in a fiscally responsible manner.

9. Provide technical support and training to Local Government Support Centers, Chapters, community service staff, and individuals on planning for, seeking, obtaining, and administering Navajo Nation and external funds for housing and infrastructure improvement projects.
 10. Provide administrative support and training in contracting, procurement, construction management, risk management, and monitoring of projects. Maintain secure files of data and information relevant to Departmental programs and projects.
 11. Assist Navajo Nation chapters in the execution of housing development and renovation programs which are properly delegated.
 12. Provide public information, meetings and workshops on housing improvement opportunities and regulations.
- B. Agency Offices may be established and maintained to coordinate local housing and other community improvement activities to accomplish department objectives. The Director may delegate some or all authority over the following responsibilities to Agency staff:
1. Ensure that the adopted application processes are properly conducted to select qualified applicants for assistance programs.
 2. Monitor building material inventories, construction staff, and technical assistance activities to ensure the accomplishing of departmental objectives.

VI. LEGISLATIVE OVERSIGHT

The Transportation and Community Development Committee of the Navajo Nation Council shall be the legislative oversight committee for the Department pursuant to 2 N.N.C. Sec. 900 (a)(1).

VII. AMENDMENTS

Sections I through V may be amended by the Government Services Committee upon the recommendation of the Transportation and Community Development Committee of the Navajo Nation Council, as deemed necessary or desirable.

**COMMUNITY HOUSING & INFRASTRUCTURE DEPARTMENT
ORGANIZATIONAL CHART**

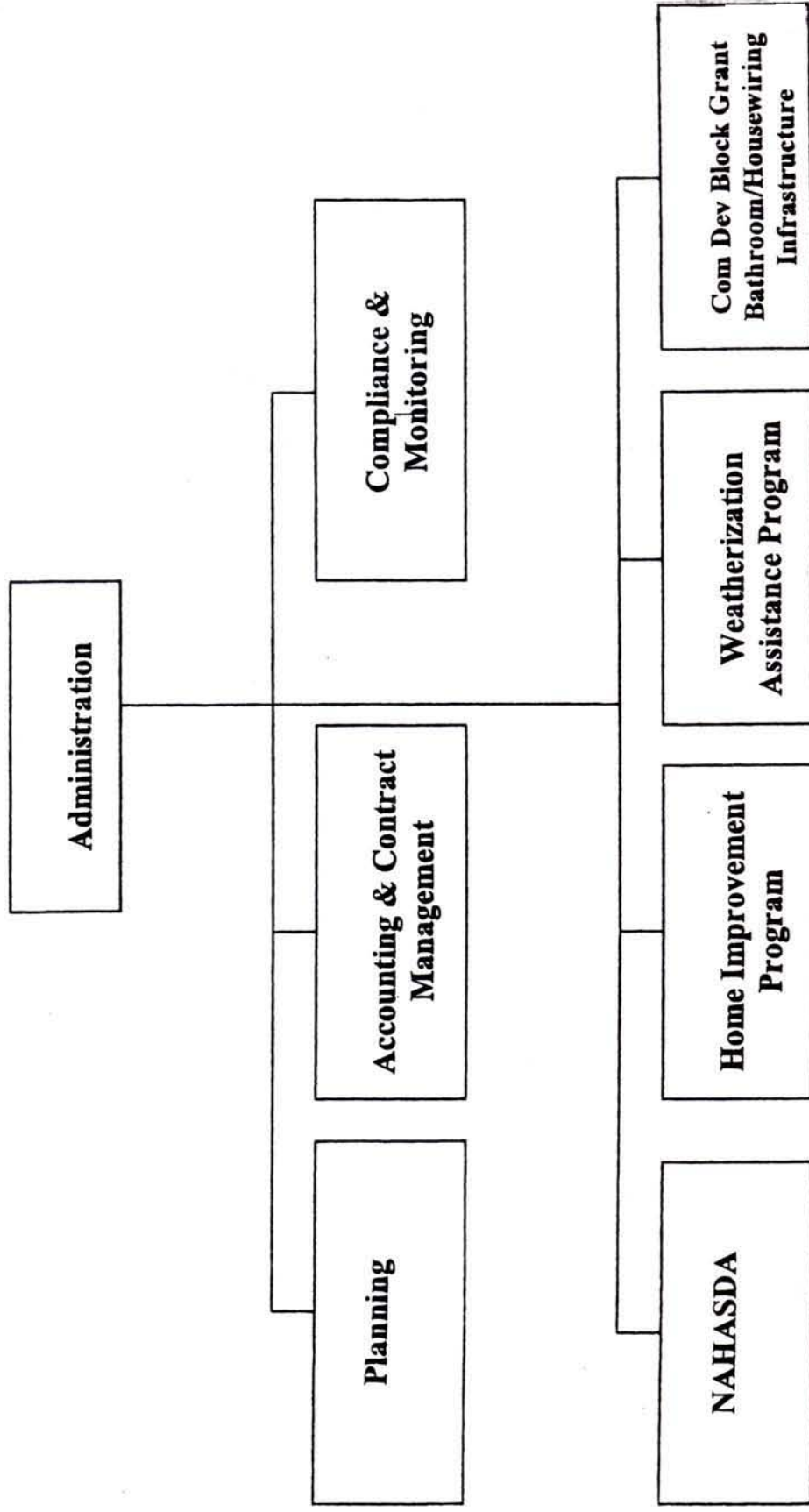


EXHIBIT A

MASTER PLAN OF OPERATION FOR THE DIVISION OF COMMUNITY DEVELOPMENT

I. ESTABLISHMENT

There is hereby established the Navajo Division of Community Development (hereinafter "Division") within the Executive Branch of the Navajo Nation Government.

II. PURPOSE

The purpose of the Navajo Division of Community Development shall be to develop a dynamic and cohesive plan for community development activities, and provide relevant community education for orderly growth of the Navajo Nation that contributes to self-sufficiency of communities and families by constructing quality homes, community public facility buildings and rural addressing infrastructure system to support enhanced 9-1-1 that is in harmony with nature and people's needs.

III. GOALS AND OBJECTIVES

1. To provide technical assistance and administrative support at chapter governments in its development of becoming self-sustaining and self-governing entities through coordination with local, county, state, and federal government offices.
2. To improve the standard of living for Navajo families and individuals through the use of modern methods and techniques in the construction of new homes and rehabilitation of existing homes.
3. To plan, provide infrastructure and transportation systems, public facilities buildings for future growth of communities.
4. To promote and foster land use planning and growth management policies and practices.
5. To provide technical services in developing plans cooperatively with communities for proper solid waste management practices and disposal systems.
6. To provide technical services and administrative support, in coordination with other appropriate entities, to plan, implement and maintain the rural addressing system in support of enhanced 9-1-1 Navajo Nation-wide.

IV. PERSONNEL AND ORGANIZATION

1. PERSONNEL

The Navajo Division of Community Development shall be administered by a Division Director, who shall be appointed by the President of the Navajo Nation, confirmed by the Navajo Nation Council, and shall serve at the pleasure of the President of the Navajo Nation. The Division Director shall hire personnel as may be deemed necessary to carry out the purposes of the Division and as funds are available. All personnel shall be employed and compensated in accordance with the applicable Navajo Nation Personnel Policies Manual.

2. ORGANIZATION

The Division of Community Development shall consist of 11 offices: Division Administration, five Departments and five agencies to execute the Division's purpose. The Departments may consist of sections, programs, and agencies to accomplish the Department purpose. The five departments and five agencies are as follows:

- 1) Division Administration;
- 2) Capital Improvement Office;
- 3) Design and Engineering Services Department;
- 4) Community Housing and Infrastructure Department;
- 5) Navajo Department of Transportation;
- 6) Solid Waste Management Program;
- 7) Local Governance Support Center-Fort Defiance Agency;
- 8) Local Governance Support Center-Eastern Agency;
- 9) Local Governance Support Center-Chinle Agency;
- 10) Local Governance Support Center-Tuba City Agency;
- 11) Local Governance Support Center-Shiprock Agency.

The organizational chart of the Division of Community Development is displayed as Attachment "A-1".

V. AUTHORITIES, DUTIES AND RESPONSIBILITIES

A. The Division Director of the Division of Community Development shall have the authority for the overall Division's operational planning and direction. The Division Director shall have the following duties and responsibilities:

1. Execute directives of the President of the Navajo Nation, Navajo Nation Council, and the Transportation and Community Development Committee.
2. Provide written monthly and/or quarterly reports to the Office of the President, Transportation and Community Development Committee of the Navajo Nation Council, annual reports to the Navajo Nation Council and any other reports deemed necessary.
3. Promulgate Division program policies, time frame and other guidelines to ensure the proper and timely implementation of Division projects.
4. Establish and maintain partnership with local, county, state, federal entities and other authorities on matters related to the objectives of the Division.
5. Provide effective overall management and financial direction to Divisions' departments and programs.
6. Delegate authority pertaining to the operation of the Division and its program to subordinate directors of the Division, to the extent permitted by the laws and policies of the Navajo Nation, as appropriate.
7. Negotiate written agreements on behalf of the Division relevant to community development for oversight committee's recommendation.
8. Seek external funding for programs and projects to enhance community development.

9. ~~Recommend the creation, merger, separation, amendment or abolishment of programs, or specific functions within the Division in accordance with applicable Navajo Nation law.~~
10. Recruit, select, supervise, conduct employee performance evaluation, and recommend reclassification of positions for the Administration Staff, Department and Program Directors, in accordance with Personnel Policies Manual of the Navajo Nation.

B. Administration Office:

The purpose of the Administration Office is to provide for overall management of the Division. The Administration staff shall handle its duties and responsibilities in accordance with Navajo Nation laws and policies. The duties and responsibilities are as follows:

1. Recommend policies and legislation on community development issues to the Transportation and Community Development Committee and other appropriate committees of the Navajo Nation Council for action.
2. Administer overall direction of the Division by monitoring short and long range plans, goals, and objectives.
3. Maintain communication with Navajo Nation chapters on the overall Division's operation.
4. Ensure that programs carry-out their functions, authorities, and responsibilities.
5. Assist in the coordination and development of strategies to implement Division functions.
6. Develop and maintain Information Data Center for the Navajo Nation.

VI. LEGISLATIVE OVERSIGHT

Pursuant to 2 NNC §421 and §423, et seq., the Division of Community Development shall operate under the legislative oversight of the Transportation and Community Development Committee of the Navajo Nation Council.

VII. AMENDMENTS

Section I through V may be amended from time to time by the Government Services Committee of the Navajo Nation Council upon the recommendation of the Transportation and Community Development Committee of the Navajo Nation Council.

EXHIBIT D

PLAN OF OPERATION

NAVAJO DEPARTMENT OF TRANSPORTATION DIVISION OF COMMUNITY DEVELOPMENT

I. ESTABLISHMENT

There is hereby established the Navajo Department of Transportation ("Department") within the Division of Community Development ("Division") of the Executive Branch of the Navajo Nation government.

II. PURPOSE AND OBJECTIVES

A. Purpose

The purpose of the Department shall be to plan and develop an integrated transportation network of highways, roads, waterways, airports, railroads and pipelines for the delivery of people, commerce, and goods within the Navajo nation that is safe and in harmony with nature.

B. Objectives

The objectives of the Department of Transportation shall be:

1. To be the single point of contact for all transportation related activities.
2. To provide an administrative and technical department which will address transportation planning, project planning, construction, maintenance and safety of all modes of transportation within the Navajo Nation.
3. To address Navajo Nation transportation needs through a government-to-government relationship with federal, state, county and tribal governments and special interest groups.
4. To implement the Navajo Nation Transportation Code.
5. To contract and operate the functions of the Bureau of Indian Affairs Branch of Roads.
6. To provide support with planning, coordination, implementation, and maintenance of rural addressing.

III. PERSONNEL AND ORGANIZATION

A. Personnel

1. The Director of the Department of Transportation shall be hired and supervised by Division Director in accordance with Navajo Nation Personnel Policy Manual.
2. The Department of Transportation shall be staffed to accomplish the purpose and objectives of the Department. All other personnel shall be employed and compensated in accordance with Personnel Policy Manual.
3. The Director shall is authorized to hire additional professional, technical and clerical positions as needed to carry out the organizations purpose and objectives.

B. Organization

The Department of Transportation shall consist of the following:

1. Administration
2. Direct Services
3. Transportation Planning

The organizational chart for the Department of Transportation is attached hereto as Attachment "D-1".

IV. RESPONSIBILITY AND AUTHORITY

A. The Department Director shall have the following responsibilities:

1. Report and be accountable to the Division Director for the accomplishment of the purpose and objectives of the Department.
2. Exercise supervisory control and direction over program staff and delegate authority to other staff members.
3. Administer Navajo Nation policies and procedures necessary for effective management of the Department and to accomplish the program purpose and goals.
4. Prepare the Navajo Nation general funds operating budget in accordance with the Office of Management and Budget's Manual.

5. Represent the Department at departmental, division, and executive branch levels.
6. Seek additional revenues through a government-to-government coordination with federal, state, county and tribal governments and special interest groups.
7. Provide technical assistance to the oversight committee through attendance at the regular meetings in accordance to Title II, Section 420.
8. Provide a quarterly written report to the Division Director, Division of Community Development.

B. The Department Shall:

1. Maintain an Information Management System and Geographical Information System center for all transportation activities and disseminate information to appropriate agencies.
2. Develop a systematic Navajo Nation Transportation Improvement Program (TIP) in coordination with federal, state and local governments and planning effective ways to address the transportation needs of the Navajo Nation.
3. Develop a Short and Long Term Construction Priority Program for the Transportation and Community Development Committee and Agency Roads Committee.
4. Report periodically on department activities, progress and recommendations to the Transportation Community Development Committee and other appropriate standing committees of the Navajo Nation Council and Agency Roads Committee.
5. Assist the Transportation and Community Development Committee and Agency Roads Committee in the development of legislation, policies, rules and regulations relating to the Navajo Nation Transportation system based upon feasibility studies and analyses.
6. Monitor implemented projects to ensure compliance with regulations and requirements of funding agencies and the Navajo Nation Government.

III. PERSONNEL AND ORGANIZATION

A. Personnel

1. The Director of the Department of Transportation shall be hired and supervised by Division Director in accordance with Navajo Nation Personnel Policy Manual.
2. The Department of Transportation shall be staffed to accomplish the purpose and objectives of the Department. All other personnel shall be employed and compensated in accordance with Personnel Policy Manual.
3. The Director shall is authorized to hire additional professional, technical and clerical positions as needed to carry out the organizations purpose and objectives.

B. Organization

The Department of Transportation shall consist of the following:

1. Administration
2. Direct Services
3. Transportation Planning

The organizational chart for the Department of Transportation is attached hereto as Attachment "D-1".

IV. RESPONSIBILITY AND AUTHORITY

A. The Department Director shall have the following responsibilities:

1. Report and be accountable to the Division Director for the accomplishment of the purpose and objectives of the Department.
2. Exercise supervisory control and direction over program staff and delegate authority to other staff members.
3. Administer Navajo Nation policies and procedures necessary for effective management of the Department and to accomplish the program purpose and goals.
4. Prepare the Navajo Nation general funds operating budget in accordance with the Office of Management and Budget's Manual.

7. Plan and prioritize all transportation activities with Navajo Nation entities, agencies and departments, and coordinate these activities with federal, state and entities, agencies and departments;
~~coordinate these activities with federal, state and county agencies.~~
8. Implement a Navajo Nation Transportation Code which may include vehicle licensing and registration, operator's licensing and user fee collection programs.
9. Develop and implement short and long range transportation plans, which include a network of roads, railroads and airports and coordinate this planning with the States of Arizona, New Mexico and Utah, and the Federal government.
10. Seek and secure funds from non-tribal and tribal sources for the construction and maintenance of roads, access roads, streets, signage, railroads, airports and safety projects.
11. Seek technical and financial assistance from government or private sources to provide management and technical training for Department staff.
12. Plan, develop and implement labor intensive projects at the local level.
13. Contract for professional construction services for the design and construction of roads, airports, railroads and pipelines when appropriate.
14. Provide technical assistance and support for rural addressing and install and maintain road signage.

V. LEGISLATIVE OVERSIGHT

Pursuant to 2 N.N.C. Sections 421 and 423, et seq., the Navajo Department of Transportation shall operate under the legislative oversight of the Transportation and Community Development Committee of the Navajo Nation Council.

VI. AMENDMENTS

Sections I. Through V. may be amended from time to time by the Government Services Committee of the Navajo Nation Council upon recommendation of the Transportation and Community Development Committee of the Navajo Nation Council.

EXHIBIT F

PLAN OF OPERATION

LOCAL GOVERNANCE SUPPORT CENTER DIVISION OF COMMUNITY DEVELOPMENT

I. ESTABLISHMENT

- A. There is hereby established the Local Governance Support Center (Resolution GSCAU-75-99) within the Division of Community Development ("Division") from the merger of the Community Services Coordinator Program of the Legislative Branch and Chapter Government Development Department of the Executive Branch pursuant to the direction of the Navajo Nation Council.
- ~~B. By the end of the fiscal year 2003, or sooner, the Local Governance Support Center shall be transferred as a program from the central government to the Chapters of the Navajo Nation. By fiscal year 2001, the Transportation and Community Development Committee of the Navajo Nation Council shall establish, upon approval by the affected Navajo Nation Chapters, a Regional Council of Local Governance to oversee the Local Governance Support Center. The establishment of the Regional Council of Local Governance shall include identifying various funding sources to sustain support for local governance.~~

II. PURPOSE AND OBJECTIVES

- A. The purpose of the Local Governance Support Center shall be to provide administrative support and technical assistance to the local Chapter governments. The Program's services include, but are not limited to, the following:
1. Monitoring all Chapters funds, including the claim trust funds, Public Employment Funds, and all other Chapter allocations in accordance with applicable Navajo Nation, federal and state law.
 2. Providing administrative support and technical assistance to the Chapter governments specifically relating to management and administrative development and comprehensive land use planning and rural addressing to support enhanced 9-1-1.
 3. Facilitating governmental development by assisting Chapters with the implementation of the Five Management System Policies and Procedures for fiscal, property, personnel, procurement and

recordkeeping management, as required by the Navajo Nation Local Governance Act, 26 N.N.C. Section 102.

4. Providing financial and accounting services.
5. Providing Chapters with relevant data to obtain additional sources of funding.

B. The objectives of the Local Governance Support Center shall be to:

1. Assist the Chapter governments to ensure that Chapter funds, including the claims trust funds, Public Employment Funds, and all other Chapter allocations are expended in accordance with applicable Navajo Nation, federal, and state laws.
2. Assist the Chapter governments to ensure, in coordination with the Chapter officials, the implementation of the Five Management System Policies and Procedures for all Chapters consistent with the Navajo Nation Local Governance Act, 26 N.N.C. Section 102.
3. Provide technical, management, financial and accounting services.
4. Assist the Chapter governments, in coordination with the Chapter officials and membership, the implementation of the Navajo Nation Local Governance Act.
5. Assist Chapter Officials and Chapter staff on site with implementing community projects and local community directives.
6. Facilitate the community land use planning process pursuant to 26 N.N.C. Section 2004.
7. Educate and increase public awareness of rural addressing and enhanced 9-1-1.
8. Assist the Chapter governments by facilitating the process for obtaining necessary land clearances consistent with the community land use plan.
9. Through the appropriations process shall ensure that sufficient funds are budgeted, including matching funds to provide training and orientation, as needed, on the objectives set forth above.

III. ORGANIZATION AND LOCATIONS OF OFFICES

A. Based upon the availability of funds, each of the Local Governance Support Centers will consist of the following staff:

1. Program Director III
2. Administrative Assistant
3. Accountant II
4. Community Involvement Specialists
5. Planner II
6. Chapter Accounting Clerk
7. Community Services Coordinator and a Clerk Typist at each of the 110 certified Navajo Nation Chapters, unless a Chapter receives governance certification, and is operating pursuant to Section VI of the Plan of Operation, and
8. Other staff, as deemed necessary by the Program Director, as provided for in Section IV (A) (2) (b).

B. There shall be a program office located within the five Navajo Nation agencies: Fort Defiance, Navajo Nation (Arizona), Chinle, Navajo Nation, (Arizona), Tuba City, Navajo Nation (Arizona), Shiprock, Navajo Nation (New Mexico), and Crownpoint, Navajo Nation (New Mexico).

IV. PERSONNEL

A. Program Directors

1. The Program Directors shall be hired and supervised by the Division Director for the Division of Community Development, in accordance with Navajo Nation Executive Branch Personnel Policies Manual. The Program Directors shall report and be responsible to the Division Director.
2. The Program Director shall exercise the following duties and responsibilities and may delegate the same to the appropriate Agency staff, when deemed necessary:
 - a. Exercise supervisory control and direction of their respective agency staff. Such authority shall include the approval of various administrative procurement documents and travel authorizations for submittal directly to the appropriate processing offices, except documents directly pertaining to the Program Director shall be subject to review and approval by the Division Director.
 - b. When necessary recommend additional professional, technical and clerical positions as needed to carry out the organizational purposes and objectives, which may be

required in accordance with applicable Executive Branch Personnel Policies Manual and within the applicable budget guidelines established for conducting the annual Navajo Nation budget process.

- c. Formulate administrative and operating policies and procedures and take such action as deemed necessary for effective and accountable management to accomplish the overall program purposes and objectives.
- d. Ensure that their respective offices' budgetary expenditures are within the scope of the approved budget and ensure that the office operations are in compliance with applicable Navajo Nation, federal and state laws.
- e. Monitor all chapter funds, including the claim trust funds, Public Employment Funds and all other Chapter allocations in accordance with applicable Navajo Nation, Federal, and state law, and shall report deficiencies to appropriate agencies.
- f. Provide administrative support and technical assistance to the Chapter Administrations including, but not limited to:
 - i. Chapter management and administrative development;
 - ii. Comprehensive land use planning; and
 - iii. Establish and maintain a financial database for Chapter funds, including the claims trust funds, Public Employment Funds, and all other Chapter allocations.
- g. Facilitate governmental development by assisting Chapters with implementation of the Five Management System Policies and Procedures.
- h. Assist Chapter governments to ensure, in coordination with the Chapter governments, that Chapter funds, including the claims trust funds, Public Employment Funds, and all other Chapter allocations are expended in accordance with applicable Navajo Nation, federal and state laws.
- i. Assist Chapter governments to ensure, in coordination with the Chapter governments, the implementation of the Five Management System Policies and Procedures for all Chapters, within their respective agencies.

- j. Provide technical, management, and accounting services.
- k. In coordination with the Chapter governments, assist in the implementation of the Navajo Nation Local Governance Act.
- l. Assist Chapter Officials and Chapter staff with implementing community projects and local community directives.
- m. Through the appropriations process shall ensure that sufficient funds are budgeted, including matching funds to provide training and orientation, as needed, on the objectives set forth above.
- n. Carry out all other responsibilities as may be assigned by the Division Director.

B. Community Services Coordinator (CSC)

- 1. The Community Services Coordinator shall be hired pursuant to the Navajo Nation Personnel Policies Manual by the Program Director, upon active participation in the firing process by the designated supervising Chapter official(s).
- 2. The Community Services Coordinator shall serve under the general administrative direction of the Program Director. The CSC shall be directly supervised by the designated supervising Chapter official(s). The Chapter President, Vice President and Secretary/Treasurer will decide among themselves who shall provide direct local supervision over the CSC. In the event that the Chapter official(s) fail to designate a direct local supervisor, the Program Director shall assume full direct local supervisory responsibility until such time the Chapter takes appropriate measures to designate a local supervisor.
 - a. The "general administrative direction" provided by the Program Directors shall mean providing administrative support and guidance to the supervising Chapter official(s) to ensure that the CSC carries out the duties and responsibilities duties consistent with this plan of operation and the Navajo Nation Executive Personnel Policies and Procedures.

- b. "Direct local supervision" shall mean ensuring that the CSC is carrying out the day-to-day duties and responsibilities of this plan of operation, approval of leave requests, travel authorizations, conducting annual performance evaluations, carrying out disciplinary actions, ensuring that the coordinator is adequately meeting the directive of the Chapter membership regarding projects, proposals, and planning activities, developing and implementing Chapter's Five Management System Policies and Procedures, and other local projects consistent with the membership directive pursuant to duly approved Chapter resolution.
- 3. Disciplinary actions taken against the CSC shall be done by the direct local supervisor in accordance with the Navajo Nation Personnel Policies Manual and in coordination with the respective Program Director.
- 4. The Community Services Coordinator shall have the following duties and responsibilities:
 - a. Develop and present to the respective Chapter governments the Chapter's Five Management Systems Policies and Procedures:
 - i. Fiscal. To establish an effective written Chapter accounting system to ensure accountability of Chapter funds, in coordination with the Chapter Secretary/Treasurer.
 - ii. Property. To establish control of Chapter real and personal property.
 - iii. Personnel. To standardize personnel administrative guidelines at the Chapters, i.e., Recruitment, hiring, evaluation, etc.
 - iv. Procurement. To administer an effective acquisition of goods/services through Chapter funds and other appropriated funds consistent with Navajo law.
 - v. Record-keeping. To centralize all official records at the Chapter to ensure proper control and continuity of Chapter records and documents.
 - b. Carrying out assigned administrative tasks assisting the Chapter government in planning, preparation, implementation and administering Chapter projects, including but not limited to land withdrawals, proposals

and resolutions in coordination with the Chapter Secretary/Treasurer.

- c. Work with Chapter officials and, if necessary, with Navajo Nation agency representatives in coordinating and monitoring Chapter projects.
- d. Assist, in coordination with the Secretary/Treasurer, with the administration and management of all Chapter funds.
- e. Develop, prepare and write all Chapter proposals and resolutions, in coordination with the Chapter Secretary/Treasurer, for approval by the Chapter and appropriate Navajo Nation officials.
- f. Prepare written activity reports for presentation at every Chapter meeting and attend scheduled Chapter meetings and planning sessions. Any hours of work accrued outside of the normal tour of duty shall be compensated in the form of compensatory time at the discretion of the designated supervisor.
- g. In coordination with the Chapter officials, the CSC shall secure additional sources of revenue and in-kind contributions from Navajo Nation and other funding agencies, consistent with the Navajo Nation Ethics in Government law.
- h. Keep apprised of new developments within the Navajo Nation, county, state and federal Governments and other entities, which may affect the Chapter government.
- i. Provide information to the Chapter regarding resources and socio-economic factors for effective local planning.
- j. Perform the duties of the Chapter Manager prescribed in 26 N.N.C. Section 1004(B) and (C) and 2003 (B), until such time as the Chapter hires a Chapter Manager.
- k. Exercise supervisory duties and responsibilities over the clerk typist and temporary personnel hired at the Chapter for the Program.

Special Requirements of the Community Services Coordinator:

- a. Must possess a valid state driver's license.