

OAK RIDGE CITY COUNCIL
WORK SESSION

Multipurpose Room, Central Services Complex

Tuesday, March 3, 2015
6:00 P.M.

AGENDA

1. Briefing on proposed DOE landfill by Laura Ortiz Wilkerson, and Scott Anderson of UCOR.
2. Discussion and finalization action of Mayor and City Council on establishment of a joint City/School Committee for the Oak Ridge Preschool project with a goal of (1) firm establishment of space needs, (2) development of an affordable finance plan, (3) developing timetable for project, and (4) making a public education plan.

Note: The City Manager has recommended that Janice McGinnis, Jon Hetrick, and a City Council Member be included in the group.
3. Possible update on City Council selection and review of third parties to examine the Oak Ridge Police Department turnover rate, morale, and administrative policies.
4. Discussion by Council on any goals or concerns to be examined by the Special Events Advisory Task Force.
5. Discussion and briefing on expired Daniel Arthur Building and Senior Citizens Center lease.
6. Updates
 - a. Budget and Finance Committee updates and processes.
 - b. Assignment of Bruce Applegate for review/study of internal service projects by City staff and associated changes.
 - c. Trip report from the February 12-13, 2015, ECA meeting in Washington, D.C., by Councilman Hope.

Update on CERCLA* Waste Disposal Capacity for the Oak Ridge Reservation

Presentation to the
Oak Ridge Site Specific Advisory Board



February 11, 2015

Laura O. Wilkerson
Portfolio Federal Project Director
Oak Ridge Office of Environmental Management

*Comprehensive Environmental Response, Compensation, and Liability Act of 1980

safety ♦ performance ♦ cleanup ♦ closure

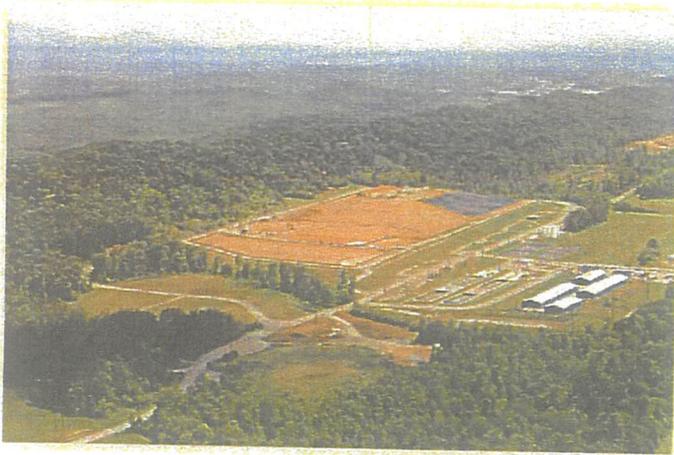
On-site disposal facility (aka EMWMF)



- Engineered landfill with six disposal cells
- Capacity 2.18 million cubic yards (equivalent to ~872,000 pickup truck loads)
- 43 acre footprint under final cover

DOE is evaluating future waste disposal alternatives in RI/FS

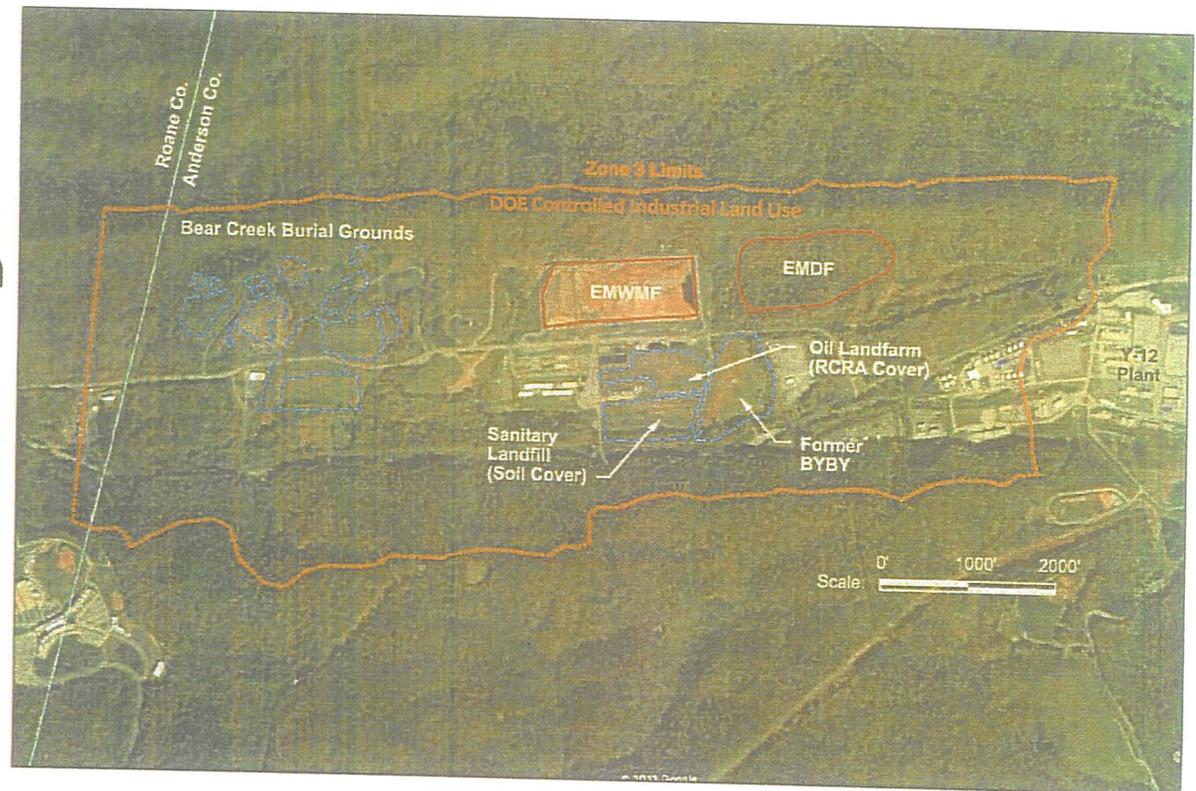
- **No action**
 - No ORR-wide coordinated disposal strategy
 - CERCLA waste disposal determined on an individual project basis
- **On-site disposal**
 - Construct and operate a new on-site landfill [aka **Environmental Management Disposal Facility (EMDF)**]
- **Off-site disposal**
 - Transportation to approved off-site disposal facilities (Nevada National Security Site [NNSS] and *Energy Solutions* facility in Utah)



Focus of site evaluation narrowed to East Bear Creek Valley

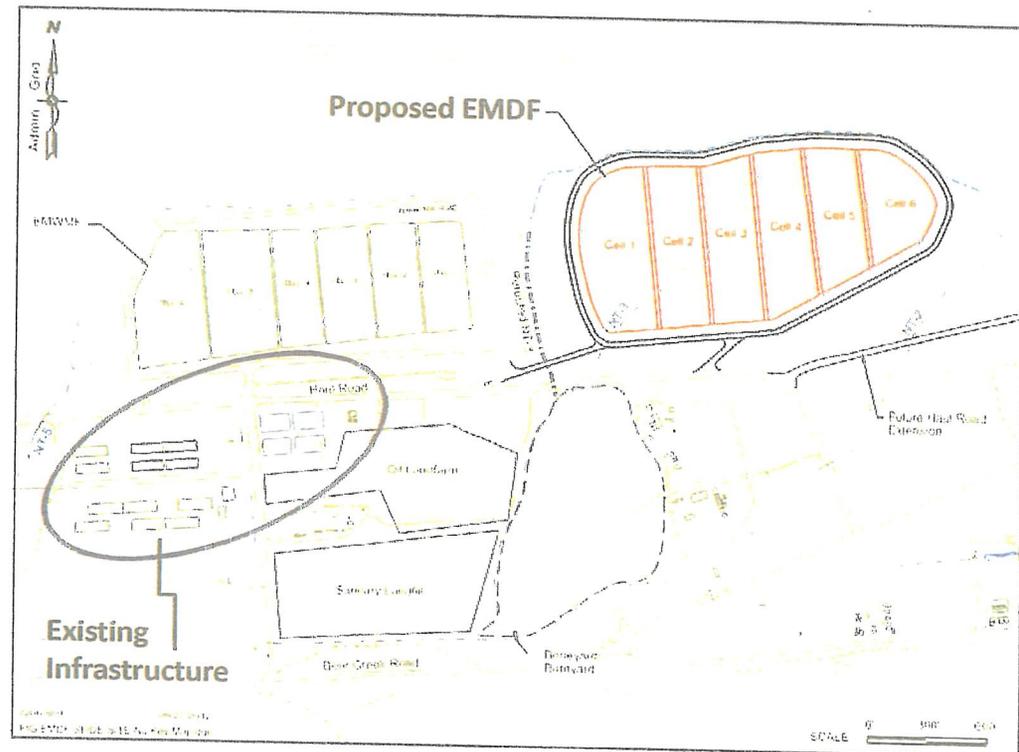
Previous conclusions about East Bear Creek Valley hold true for future siting

- Historic and current waste management area
- Most compatible with future land use
- Most favorable for isolation from public
- Restricted access reduces vehicular impacts to local community
- Consistent with stakeholder input during siting of EMWMF and proposed EMDF



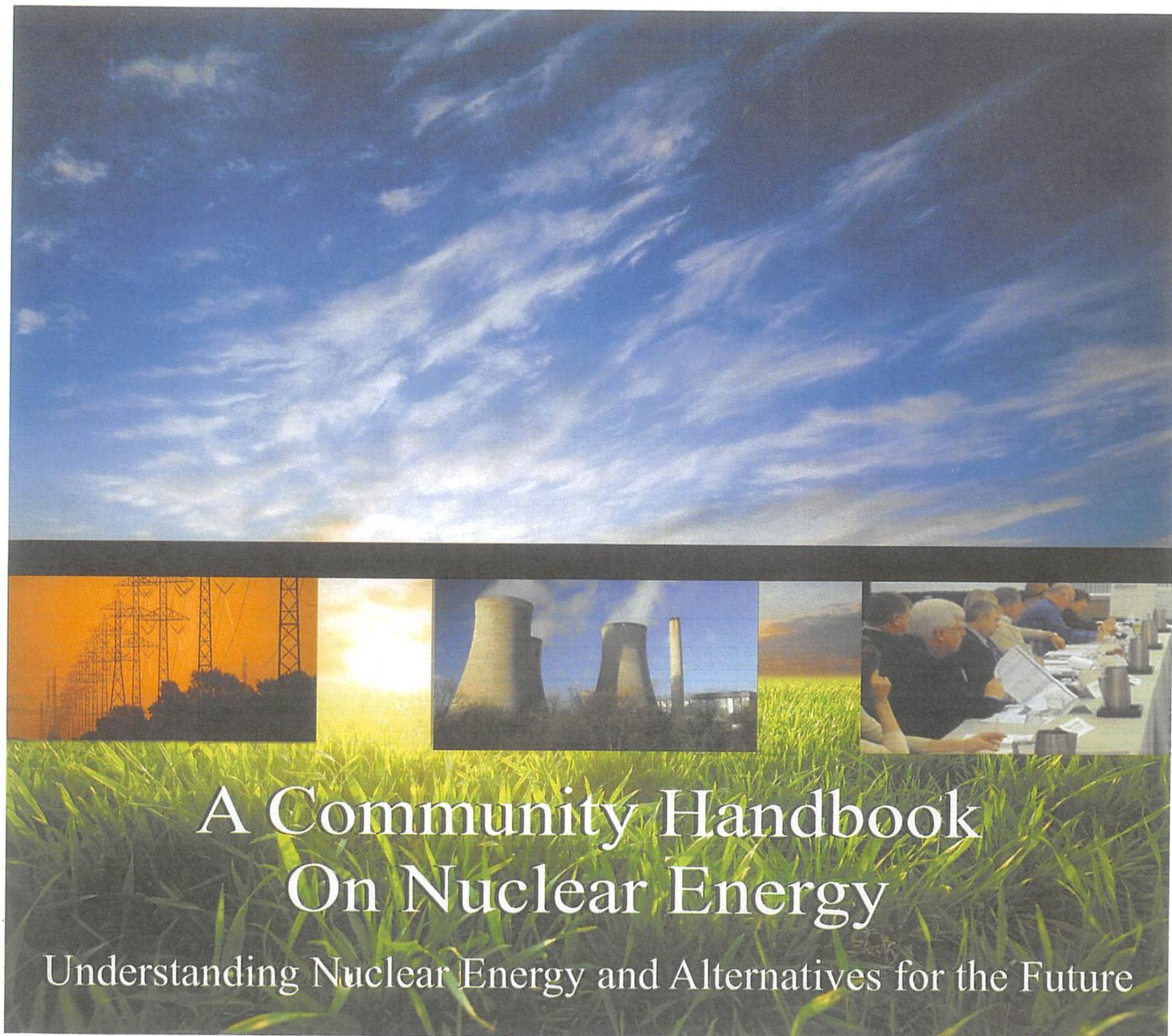
Initial analysis results – best alternative site is East Bear Creek Valley

- Sufficient capacity for projected volumes (phased construction will allow for a reduction in footprint if necessary)
- Proximity to existing EMWMF infrastructure and dedicated Haul Road is cost effective
- Located adjacent to brownfield areas and compatible with future land use plans
- Conceptual design accommodates hydrology of site using engineered features to control surface water and ground water
- Operational start needed by FY 2022; allows for 2 years of overlapping operation with existing EMWMF



Summary

- On-site disposal has allowed the Oak Ridge Cleanup work to proceed safely and efficiently over the last decade
- Additional capacity will be needed to support future cleanup activities
- On-site disposal is still safer and more cost effective than off-site disposal
- Many potential locations for a new disposal facility on the ORR considered
- Preferred location is in an area of past and current waste management operations/brownfield, adjacent to Y-12, isolated from public, and utilizes existing infrastructure
- ROD needed by FY 2016 to allow for un-interrupted on-site disposal
- Public and stakeholder involvement and consultation will continue to be a key part of the process



A Community Handbook On Nuclear Energy

Understanding Nuclear Energy and Alternatives for the Future



Energy Communities Alliance

CHAPTER 2: LOCAL GOVERNMENT ROLE IN SITING

As hosts and potential hosts of nuclear power production and waste facilities, local governments have been identified by the Administration and Congress as key decision-makers on nuclear energy issues. This chapter addresses the role for local government in building support for nuclear development and identifies steps that a local government should take as it considers whether to host such a facility.

What communities should consider when reading this chapter:

- ✚ Local governments have a key role in nuclear development in their communities.
- ✚ As potential hosts of nuclear facilities, local governments must be educated on the impacts a nuclear project will have in their communities and should be engaged as early as possible in decision-making regarding any local nuclear activities.
- ✚ Community outreach and education efforts are necessary to ensure the public is aware of the risks and benefits associated with new nuclear development and to address local concerns. These programs *will* impact the success of the siting process.
- ✚ Communities should identify the terms — financial incentives, oversight requirements, resources and legal assurances — under which they will consent to host a nuclear facility.
- ✚ Local governments should work as partners with federal and state regulators and political leadership, as well as with industry, to help ensure community interest, concerns and priorities are considered.
- ✚ A local government is uniquely positioned to negotiate on behalf of its community, as is a governor for a state.
- ✚ Without local support, projects likely will fail.

The Roles and Responsibilities of Local Governments

Local governments and their communities will be the constituents closest to a new nuclear project. A local government will commit resources to engage in the siting process. The local community will potentially realize the benefits of developing a nuclear facility, but it must understand and accept the risks. A local government needs to have as much information as possible to ensure it can fulfill its most important role: protecting the health, safety, quality of life and economic future of its citizens.

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As a community considers whether to host a new nuclear mission, the local government has to factor in its primary responsibilities into the decision-making process. In general terms, these responsibilities include:

- Securing a viable economic future through retail, housing, industrial and commercial development.
- Providing services such as police and fire protection, emergency response, public works, and public health services.
- Developing and maintaining park and recreation opportunities; traffic management; education; land use planning; property recordkeeping; and property protection through zoning control, building permits and deed notices.

Local governments play a key role in addressing these responsibilities and balancing competing interests (e.g. protection of public space such as parks versus the need for development). A major concern in this regard is the possible conflict between environmental protection and economic development. To be credible in this role, local government officials must demonstrate a transparency in their decision-making. Interest groups do not expect to get all they want, but they do expect to be heard, to be taken seriously and to be informed of their local government's decisions and processes.

Once a local government determines it is interested in hosting a nuclear facility, local government officials must engage their community, provide education and outreach addressing the potential benefits and risks, and create opportunities for public comment. These efforts will demonstrate legitimacy and transparency in decision-making, which can alleviate concerns and help build support.

Education and outreach efforts may include:

- Hosting meetings for the community with site managers, contractors, utilities and economic development entities;
- Creating public information centers and campaigns online and in community centers;
- Coordinating programs with local universities and community colleges;
- Building websites and producing written materials for distribution – such as fact sheets or issue briefs – that explain the pros and cons of nuclear initiatives.

Support can only be built if a potential host community understands the process, can choose independent experts to supply scientific data and, most importantly, if the community trusts that its interests, concerns and priorities are being recognized and meaningfully considered. Without local support, projects are likely to fail.

The development of new nuclear facilities regularly gives rise to a “not in my backyard” (NIMBY) reaction, and a potential host community is likely to encounter opposition from neighboring communities or the state. Thus, local governments also must be prepared to help educate and work with state and regional regulators and political leaders, as well as with the federal government and private companies, to ensure that local values, concerns and priorities are taken into account when decisions are made. Support will be needed at all these levels to successfully site a new nuclear facility.

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Local Government Role in Consent-Based Siting

As explained in Chapter 1, the establishment of the BRC renewed the national discussion of alternatives for managing and disposing of nuclear waste. Recognizing that “finding sites where all affected units of government, including the host state or tribe, regional and local authorities, and the host community, are willing to support or at least accept a facility has proved exceptionally difficult,”⁴⁷ the BRC recommended the development of a phased, adaptive and consent-based approach to siting future nuclear waste facilities. The BRC explains that this approach is most likely to “sustain the public trust and confidence needed to see controversial facilities through to completion.”⁴⁸

DOE has endorsed the consent-based approach to facilitate transparency and the engagement of impacted parties including local, state and federal governments. According to DOE’s Strategy, a consent-based process should be “transparent, phased, adaptive, standards- and science-based, and governed by legally-binding agreements between the federal government and host jurisdictions.”⁴⁹ In addition, DOE calls for prospective host jurisdictions to be recognized as “partners.” Senate legislative proposals similarly have outlined that a consent-based process should be open to the public and allow interested parties to be heard in a meaningful way; should be flexible and allow decisions to be reviewed and modified in response to new information or new technical, social and political developments; and should be based on sound science and meeting public health, safety, and environmental standards.⁵⁰ A 2013 Senate bill, The Nuclear Waste Administration Act, more directly states that “affected communities [should] decide whether, and on what terms, the affected communities will host a nuclear waste facility.”

Thus, a community volunteering to host a nuclear facility should be prepared to identify what it needs and wants — from the federal government, regulators and industry contractors — as a host. The parties should then negotiate terms and come to a mutually agreed upon, legally enforceable consent agreement. The parties to the agreement must also agree on when the consent agreement becomes binding. When it comes to potentially siting a nuclear waste facility in a community, the local government is the institutional authority that needs to speak on a community’s behalf and to collaborate with federal and state governments in support of community interests. Local governments also are uniquely positioned to negotiate economic benefits on behalf of the impacted community with the developers of a new nuclear project.

The terms and conditions of a consent agreement should promote the economic and social well-being of the people living near a nuclear facility and may include:

- Financial compensation and incentives for the host community, impacted communities surrounding the site, and the state;
- Economic development assistance;
- Operational limitations – such as limits on acceptable volumes of waste – or requirements including funding or training to ensure emergency response capabilities at the state and/or local level;

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- Regulatory oversight authority for the state; and
- In the case of a storage facility, an enforceable deadline for removing nuclear waste from the storage facility.

In addition, potential hosts may want to negotiate the following items specifically related to the operations of a nuclear facility:

- Amending any existing state or federal compliance agreements or statutory limitations that may prohibit nuclear waste storage or disposition at a site.
- Penalties to be incurred by the federal and/or state governments for failing to meet obligations under the consent agreement.
- Triggers for termination of the consent agreement.
- Agreement of indemnification to compensate local communities for any accidents or releases that impact their community.
- Local preferences in hiring and in the purchase of goods and services by the waste management facility.⁵¹
- Opportunities for universities and community colleges related to future nuclear energy missions and workforce development.
- Research and development projects in coordination with national laboratories.
- Designation of transportation routes to a storage facility or repository.
- Reserving a position for local representatives on any oversight boards or advisory committees.
- Any other issues important to the specific community.

It is important to note that the terms of a consent agreement will be specific to each potential host community and state. There is no one-size-fits-all consent agreement. According to the BRC, determination of consent ultimately should be decided by the host jurisdiction. Furthermore, “a good gauge of consent would be the willingness of the host local government and state government to enter into legally binding agreements with the facility operator, where these agreements enable states, tribes, or communities to have confidence that they can protect the interests of their citizens.”⁵²

Implementing a Consent-Based Process — What Local Governments Should Consider

While there appears to be consensus that a transparent, adaptive consent-based process under which potential hosts are encouraged to volunteer is more likely to lead to successfully siting new nuclear facilities, it is unclear how the process may be implemented.

The Nuclear Waste Administration Act, introduced by a bipartisan group of four senators in 2013, proposed that:

“...A potential storage site will be eligible for evaluation if recommended by a Governor or duly authorized official of the State in which the site is proposed to be located; each affected unit of general local government; and any affected Indian tribe. The head of a new waste management organization (the Administrator) must then submit a program plan that includes, among other things, a schedule for removing the spent fuel from and decommissioning of the

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storage facility and an estimate of the cost of any financial assistance, compensation, or incentives proposed to be paid to the host State, Indian tribe, or unit of local government.

For repositories, the Administrator would consider for review sites recommended by ‘the Governor or duly authorized official of the State in which the site is located; the governing body of the affected unit of general local government; the governing body of an Indian tribe within the reservation boundaries of which the site is located.’ The Administrator may also seek out sites to review, but must still consult with and get consent from the parties named above.

Before selecting a site for characterization, the Administrator will hold public hearings in the vicinity of the site and at least one other location within the State where the site is located. The purpose of the hearings is to inform the public and the proposed characterization activities and to solicit public comment and recommendations. The Administrator must also enter into a consultation and cooperation agreement to provide ‘compensation ... for any potential economic, social, public health and safety, and environmental impacts associated with site characterization.’ Under the consultation and cooperation agreement, financial and technical assistance must be given to enable the State, any affected units of local government, and any affected Indian tribes to “monitor, review, evaluate, comment on, obtain information on, and make recommendations on site characterization activities.”

Before making a final determination, additional public hearings must be held. Prior to submitting a license application, the Administrator will enter into a consent agreement ratified by law that expresses the consent of and contains the terms and conditions on which each State, local government, and Indian tribe consents to host the repository or storage facility. Once ratified, the consent agreement can only be amended or revoked through mutual agreement of the parties.”⁵³

Another possible way to implement a consent-based siting process is by taking a progressive approach. In each successive step of such an approach, certain criteria must be met by a potential host facility in order for the federal government, DOE or a new waste management organization (Selection Entity) to allocate federal funds for feasibility and technical studies, and education and outreach efforts to build public support.

Step 1: Site Selection

- The Selection Entity establishes available resources and technical criteria — for example, acceptable geologies, geography and proximity to population centers — to guide interested parties and help them determine if a potential site is eligible to host a nuclear waste storage or disposal facility.
- The Selection Entity seeks expressions of interest from potential host communities, states or consortia throughout the country.

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- Upon receiving an informal letter of interest from a local government or state, and provided the preliminary criteria for a site are met, the Selection Entity (or another entity) will provide sufficient funding for education at the local, state and, as applicable, tribal levels (Hosts) on the technical aspects and potential risks and benefits of hosting a facility. Resources also would be provided for independent experts and consultants for the Hosts.
- Funding should allow for a potential host to gauge (with the Selection Entity) whether it is likely to meet NRC licensing standards and the Selection Entity's site-specific requirements.
- Funding should also allow potential hosts to conduct a public outreach process that would determine whether their communities are supportive of such action.

Step 2: Begin Negotiations

- Provided sufficient support still exists, and the Selection Entity can certify initial technical site criteria can be met, potential Hosts will receive funding to develop a consent-based agreement outlining the terms and conditions under which they would agree to host a nuclear waste storage facility at a specific site.
- Site technical analysis continues.
- Potential Hosts present proposed consent-based agreements to the Selection Entity to begin negotiations.
- Selection Entity selects one or more sites to negotiate the agreement outlined in Step 3.

Step 3: Legally Binding Agreements

- Based on the negotiations, Selection Entity selects a consent agreement that meets criteria including health and safety standards, security requirements, oversight, reporting, linkage, decommissioning and assurance of continued federal funding. All parties structure an enforceable and legally binding consent agreement (Agreement).
- Once an Agreement is approved by parties authorized to contract on behalf of the Hosts, additional funding will be provided to begin design development at the specific site and to prepare an NRC license application.
- The Selection Entity will continue to provide funding throughout the NRC licensing process until the license is formally issued or abandoned. The funding for the Hosts will include technical assistance to ensure the Hosts can participate in the technical licensing process and hire independent consultants and experts to confirm conclusion of the Selection Entity and NRC.
- During the NRC process the Agreement will be implemented by the parties.

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While the debate continues on whether and how a consent-based process will be implemented, there are a number of questions that local governments should consider, along with states, tribes and federal policy-makers. These are unlikely to change based on the specific host state or community.

Questions for Further Consideration

- Who within the state and local community should be empowered to commit a potential host to volunteer? The governor? The state legislature? The mayor or county executive? The city or county legislative body?
- How much money should be allocated for initial site studies and public outreach campaigns?
- How will public support or “consent” be measured?
- Before a site is chosen, is an industry/contractor partner necessary?
- At what point in the process should a potential host state, community or tribe be able to pull out of the siting process? At what point are they committed to continue?

Ultimately, there is room for flexibility in the approach, but there needs to be clear objectives and goals and an understanding of available resources laid out at the beginning. A potential host needs to know it can secure technical expertise and develop public outreach and education programs; that the host will have an ability to actively monitor and intervene in the process; and that it will be able to negotiate benefits for the community, state or tribe putting up the resources.

Community Involvement with Federal and State Governments — Models to Consider

At the federal level, the Nuclear Waste Policy Act (NWPA) provides a good starting point for consideration of how local governments have been engaged in nuclear facility development. The law, which relates to siting and developing nuclear waste facilities, can help potential host communities for new nuclear missions better understand what resources they may need, what resources or incentives they may want, and how those resources can be used.

The NWPA allocated dedicated funding for “affected units of local governments,” to help:

- Provide resources to permit the local community to hire third-party scientists to review data and increase public confidence in the scientific integrity of a project;
- Provide impacted citizens with the information and means to interact with the federal government and any operator; and
- Demonstrate a commitment to external oversight over nuclear projects.

In 1987, the NWPA was amended to authorize DOE to develop a monitored retrievable storage (MRS) facility for temporary nuclear waste storage, subject to progress in developing a repository (not entirely dissimilar in concept to the consolidated interim storage currently being considered by federal decision-makers, states and local governments). The amendments provide

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a good example of how the federal government approached potential volunteer hosts. The amendments created the office of Nuclear Waste Negotiator. The Nuclear Waste Negotiator was empowered to find a state or Indian tribe willing to host a repository or MRS facility, and to negotiate the terms and conditions with a governor of a state or governing body of an Indian tribe under which a prospective host would accept a facility. In conjunction with the creation of the negotiator's office, the Secretary of Energy was authorized to make grants of financial assistance to states and tribes to assess site feasibility in their jurisdictions. The grants were divided into two categories: Phase I (preliminary) and Phase II (advanced). Under Phase I, grantees could receive up to \$100,000 for use over a six-month period "to develop an understanding of the nuclear waste management system and to determine if they have a real interest in pursuing feasibility of hosting an MRS facility." Under the two stages of Phase II, grantees could receive up to \$3 million more to support a more detailed examination of site feasibility. By the end of the first stage, a governor or chief executive of an Indian tribe had to inform the negotiator that one or more areas had been identified as potential MRS sites. By the end of the second stage, feasibility studies would continue as formal discussions and negotiations for a proposed host agreement got underway.

A more recent example of the federal government reaching out to interested states and local governments is the Global Nuclear Energy Partnership Initiative.⁵⁴ In 2006 and 2007, DOE reached out to local governments interested in hosting new nuclear energy reprocessing facilities, awarding a total of close to \$16 million in grants to conduct siting studies.

Finally, one of the most successful examples of coordination among the federal government, states, and local governments to site and open a nuclear waste facility is the Waste Isolation Pilot Plant, located 26 miles southeast of Carlsbad, New Mexico.

Case Study: The Waste Isolation Pilot Plant

The Waste Isolation Pilot Plant (WIPP) was built to dispose of transuranic (TRU) waste resulting from the research and production of nuclear weapons. At the site, waste is disposed of in thick salt beds located 2,150 feet below the surface. WIPP was developed outside of the NWPA framework since the site does not take high-level waste or spent nuclear fuel. However, its evolution from drawing board to repository is a good example of effective local engagement in the siting process.

Seeing an opportunity to diversify its economy, local politicians from Carlsbad reached out to the federal government and initiated the process to host a repository. As a result of legislation, litigation and communication, the state of New Mexico and DOE agreed that New Mexico would be part of the decision-making process for WIPP; DOE would provide funding for state oversight of WIPP; and federal funding would be allocated to ensure safe transportation of waste to the site. In addition, the local government and community in Carlsbad had a role in all phases of WIPP: site selection, testing, construction, legislation,



Drums of transuranic waste in specially mined disposal panels underground at WIPP
Source: U.S. Department of Energy

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permitting, startup, operation and funding. Furthermore, the community received specific economic benefits including stable jobs, above average salaries and federal appropriations for educational institutions and infrastructure⁵⁵ for hosting the site.

In 1992, Congress enacted the Waste Isolation Pilot Plan Land Withdrawal Act to authorize operation and establish a regulatory framework for the facility. The state also had regulatory authority under the Resource Conservation and Recovery Act (RCRA) because some of the TRU waste was mixed hazardous radioactive waste (waste that contains both radioactive and chemically hazardous materials). Before it issued its final certification decision for WIPP in 1998, EPA considered approximately 1,400 written and oral public comments on the proposal. EPA first recertified WIPP in 2004, and recertified it again in November 2010. The decision to recertify signifies that, after an extensive review, EPA has verified the site's continued compliance with federal disposal regulations. Further, recertification indicates that the underground repository continues to demonstrate that it will safely contain TRU waste for the duration of WIPP's 10,000-year regulatory period.

A 2008 presentation by a DOE Carlsbad Field Office official outlined the keys to the successful siting and licensing of WIPP, including:

- Recognized a national need to clean up the nuclear weapons complex.
- Existence of a "clear" benefit for citizens of the state and community in which the repository is sited.
- Solid local support (with "clout").
- Competent technical oversight by the state of New Mexico.
- Intense and early outreach.
- Rigorous quality assurance from the earliest stages of the project such as traceability, transparency and independent review to facilitate the open discussion of technical and scientific if they arise.

In addition, the presentation detailed technical and regulatory lessons learned, notably:

- Reliable and powerful local political support prior to the licensing and construction is worth any cost.
- Credibility is paramount.

As of January 29, 2014, WIPP has received 11,872 shipments and disposed of 90,807 cubic meters of waste and 170,946 containers underground.⁵⁶

There also are international examples of local government involvement in siting nuclear facilities to consider. In a presentation on French support for building nuclear power infrastructures, the Deputy Director of the French Nuclear International Agency stated, "It is not possible to develop nuclear energy against the population. Public acceptance is a key issue. It is fully true also during the process of site selection." See Appendix A for a discussion of the process in Finland, France, Japan, Sweden and the United Kingdom.

Nuclear waste management is being recognized as a priority for governments at the federal, regional, state and local levels. Failure to address it increases the risks to the health and

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environment of energy communities. As new laws and authorities are debated, local governments have an opportunity to help define the consent-based process and become involved at the beginning of the decision-making process for managing nuclear waste. The first step is to request the resources communities need to be able to engage at a local and national level.

Recommendations

- Local governments that are or may become hosts must be included throughout the entire decision-making process.
- Local governments should ensure coordination with their state government in order to maximize positive outcomes.
- There is no one-size-fits-all consent agreement — the terms of a consent agreement will be specific to each potential host community, tribal entity and State, as negotiated with the federal government.
- A consent agreement among local, state and federal governments must be legally enforceable and reflect the terms and conditions under which a community will agree to host a nuclear waste facility.
- Local communities need to better understand how a new comprehensive nuclear waste policy will be implemented and by whom.

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continuously. These units are operated to maximize system mechanical and thermal efficiency and minimize system operating costs.⁹⁶

Renewables like solar and wind power are considered intermittent energy resources, or resources where the output is controlled by the natural variability of the energy resource rather than dispatched based on system requirements.

What is Radiation?

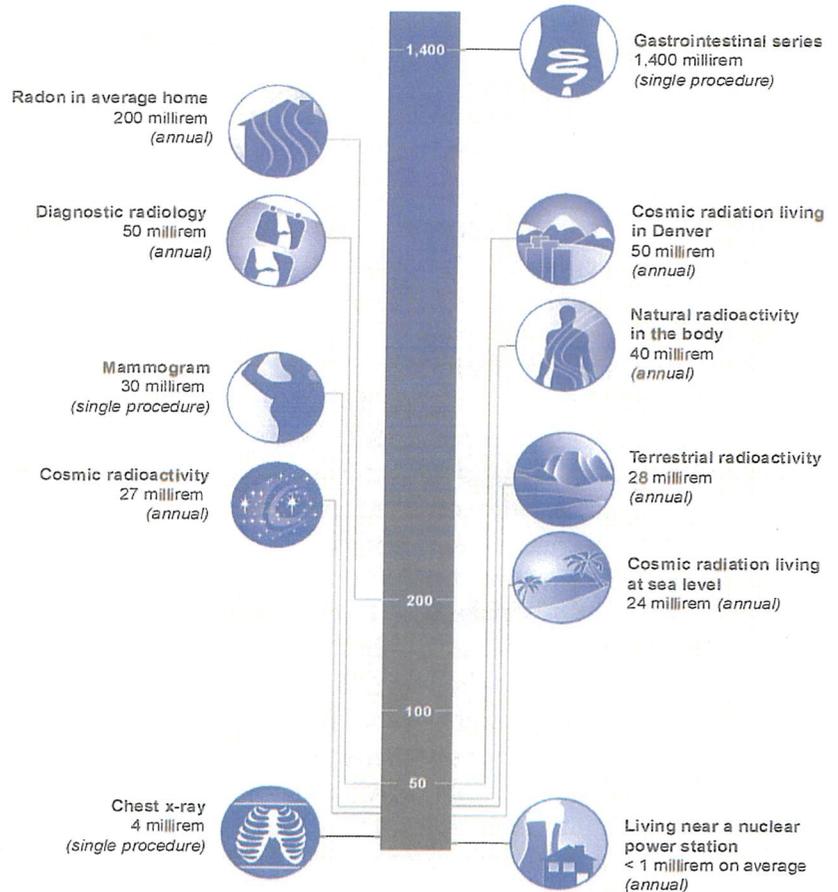
Radiation is energy that travels in the form of waves or high speed particles. Radiation can be naturally occurring or manmade.⁹⁷ There are two types of radiation: non-ionizing radiation and ionizing radiation.

Radiation that has enough energy to move atoms in a molecule or cause them to vibrate, but not enough to remove electrons, is referred to as "non-ionizing radiation." Non-ionizing radiation includes visible light and microwaves.⁹⁸

"Ionizing radiation" has enough energy to remove electrons from atoms, creating ions and destabilizing the nucleus of an atom, creating "radionuclides." When people refer to "radiation," they usually mean ionizing radiation.⁹⁹ All radionuclides (also known as radioactive atoms and radioisotopes) seek to become more stable. Their nuclei release radiation by ejecting particles and high-energy waves in a process known as radioactive decay.¹⁰⁰ Some radionuclides, such as radium, uranium and thorium, occur naturally. Human activities such as the splitting of atoms in a nuclear reactor also create radionuclides.

In the United States, radiation doses are measured in a unit called a "rem." Scientists estimate that the average person in the United States receives a dose of about 360 millirem of radiation per year, with 80 percent of exposure coming from natural sources (like cosmic radiation and terrestrial radiation from soil and rocks), and the other 20 percent coming from manmade radiation sources, primarily medical X-rays.¹⁰¹

RELATIVE DOSES FROM RADIATION SOURCES
Millirem Doses



Source: U.S. Environmental Protection

CHAPTER 6: REGULATING NUCLEAR WASTE

The regulation of nuclear facilities, activities and waste involves many federal agencies. As hosts to nuclear waste storage sites, defense nuclear facilities, and commercial power plants, and as potential hosts of new nuclear missions, local governments need to understand the role of each regulatory agency. Local governments can use the information in this chapter to understand who at the federal level is working with the nuclear facility owners and operators in their communities, which agencies to engage with regarding oversight roles and resources, and which agencies can provide support for outreach and training efforts.

What communities should consider when reading this chapter:

- ✦ NRC is the agency responsible for the regulation of nuclear activities, excluding defense-related nuclear facilities.
- ✦ DOE is responsible for defense nuclear facilities and waste and civilian radioactive waste facilities.
- ✦ Other federal agencies, including the EPA, the Department of Interior and the Department of Transportation, also regulate nuclear waste facilities.
- ✦ Under the DOE Strategy, a new waste management and disposal organization (MDO), would be created to manage and dispose of commercial used nuclear fuel. The federal government will maintain management of its own HLW and UNF, but eventually those wastes will also be transferred to the new waste management organization for storage and/or disposal.
- ✦ There is support among decision-makers for a proposal under which a new federal agency would be established to manage the nuclear waste program in place of the Department of Energy.
- ✦ Creating a new waste management organization responsible for the storage and disposal of high-level waste and used nuclear fuel will require new federal legislation.

DOE is responsible for managing large inventories of nuclear waste and nuclear by-products in accordance with national and international principles. These principles require the protection of the environment and human health, compliance with independent regulatory agencies, and a practicable minimum of waste generation. The primary waste and by-product categories are defined below.

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Federal Regulators

Under the Atomic Energy Act of 1954, the Atomic Energy Commission (AEC) had the sole responsibility for the development and production of nuclear weapons and for the development and the safety regulation of the civilian uses of nuclear materials. The Energy Reorganization Act of 1974 abolished AEC and split the weapons and civilian functions between the Energy Research and Development Administration (now part of DOE) and NRC. Today, several federal agencies regulate nuclear energy activities, facilities and waste. The agencies, their roles and their advisory bodies are outlined below:

Nuclear Regulatory Commission: NRC was created as an independent agency by Congress in 1974. NRC is responsible for licensing facilities developed for permanent disposal of high-level waste and spent nuclear fuel. NRC also regulates spent fuel pools and dry cask storage. NRC would also be responsible for licensing any reprocessing facility for commercial spent nuclear fuel.²³⁴ NRC also regulates spent fuel pools and dry cask storage.

CATEGORIES OF RADIOACTIVE WASTES AND BY-PRODUCTS	
Spent nuclear fuel (SNF)	Fuel elements and irradiated targets (designated "reactor-irradiated nuclear material" and often simply called "spent fuel") from reactors. DOE's spent fuel is not categorized as waste, but it is highly radioactive and must be stored in special facilities that shield and cool the material.
High-level waste (HLW)	Material generated by the reprocessing of spent fuel and irradiated targets. Most of DOE's HLW comes from the production of plutonium. A smaller fraction is related to the recovery of enriched uranium from naval reactor fuel. This waste typically contains highly radioactive, short-lived fission products as well as long-lived isotopes, hazardous chemicals, and toxic heavy metals. It must be isolated from the environment for thousands of years. Liquid high-level waste is typically stored in large tanks, while waste in powdered form is stored in bins. DOE has plans to vitrify and encapsulate its HLW and has already done so at some locations.
Transuranic waste (TRU)	Waste generated during nuclear weapons production, fuel reprocessing, and other activities involving long-lived transuranic elements. It contains plutonium, americium and other elements with atomic numbers higher than that of uranium. Some of these isotopes have half-lives of tens of thousands of years, thus requiring very long-term isolation. Since 1970, TRU waste has been stored temporarily in drums at sites throughout the complex.
Low-level waste (LLW)	Any radioactive waste that does not fall into one of the other categories. It is produced by every process involving radioactive materials. Low-level waste spans a wide range of characteristics, but most of it contains small amounts of radioactivity in large volumes of material. Some wastes in this category (e.g., irradiated metal parts from reactors) can have more radioactivity per unit volume than the average high-level waste from nuclear weapons production. Most low-level waste has been buried near the earth's surface. A limited inventory remains stored in boxes and drums.

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CATEGORIES OF RADIOACTIVE WASTES AND BY-PRODUCTS	
Mixed waste	Waste that contains both radioactive and chemically hazardous materials. Some low-level waste is mixed waste.
Uranium-mill tailings	Large volumes of material left from uranium mining and milling. While this material is not categorized as waste, tailings are of concern both because they emit radon and because they usually are contaminated with toxic heavy metals, including lead, vanadium and molybdenum.

Source: U.S. Department of Energy, Office of Environmental Management

NRC does not have licensing authority over:

- Receipt or possession of high-level waste used for or as part of DOE activities in DOE research and development facilities;
- DOE facilities used as short-term storage for high-level waste from DOE activities;
- DOE facilities used for the storage or disposal of transuranic waste, foreign high-level waste not resulting from licensed activity, and low-level waste;
- DOE's decommissioned facilities (except those specified in Section 202 of the Energy Reorganization Act); and
- DOE's high-level waste-processing facilities.²³⁵

Department of Energy: While there is no "regulator" for defense nuclear waste, DOE is the federal agency responsible for the development and production of nuclear weapons, promotion of nuclear power, and other energy-related work. In addition, DOE is in charge of planning and carrying out programs for the safe handling of DOE-generated high-level waste, developing waste-disposal technologies, and for designing, constructing and operating disposal facilities for DOE-generated high-level waste and commercial spent nuclear fuel.²³⁶ Specific timelines and responsibilities for developing a permanent waste disposition path — including geological repositories — are set forth in the Nuclear Waste Policy Act of 1982 (NWPA); and more specifically in regard to Yucca Mountain, when NWPA was amended in 1987. NRC is required to license any repositories.

Two boards also were created by Congress to serve in an advisory oversight capacity to DOE. They are:

Nuclear Waste Technical Review Board: Congress created the Nuclear Waste Technical Review Board in 1987 to increase public confidence in DOE decision making, to allay concerns over whether waste would be stored correctly, and to provide independent scientific and technical oversight of DOE's program. The board advises Congress and the Secretary of Energy on technical issues related to nuclear waste management; and it evaluates the technical validity of all activities undertaken by the Secretary of Energy related to DOE's continuing obligation to manage and develop an approach for the disposition of spent nuclear fuel and high-level radioactive waste.²³⁷

Defense Nuclear Facilities Safety Board: Created by Congress in 1988, the Defense Nuclear Facilities Safety Board is responsible for independent oversight of all activities affecting

Nuclear Energy - Community Handbook

nuclear safety within DOE's nuclear weapons complex.²³⁸ Housed within the executive branch, the board may conduct investigations, issue subpoenas, hold public hearings, gather information, conduct studies and establish reporting requirements for DOE. It also is empowered to make recommendations to the Secretary of Energy.²³⁹ The board is required by statute to report to Congress each year concerning its oversight activities, its recommendations to the Secretary of Energy and improvements in safety achieved at defense nuclear facilities as a result of its activities.

Other federal agencies with roles in regulating nuclear waste include:

Environmental Protection Agency: EPA's regulatory role is to develop environmental standards and federal radiation protection guidance for offsite radiation due to the disposal of spent nuclear fuel, high-level waste and transuranic wastes. The standards limit (1) the amount of radioactivity entering the biosphere outside the boundaries of the facility, and (2) the radiation exposure to the public from management of spent fuel and waste prior to disposal. The guidance also establishes waste-disposal criteria. EPA environmental standards apply to DOE-operated and NRC-licensed facilities. NRC is responsible for implementing the standards developed by EPA and for determining that DOE can meet them.²⁴⁰

Department of Transportation (DOT): DOT regulates the packaging and carriage of all hazardous materials in the U.S., including high-level nuclear waste. Packaging must meet NRC regulations, and the package design must be reviewed and certified by NRC. DOT prescribes limits for external radiation levels and contamination and controls the mechanical condition of carrier equipment and qualifications of carrier personnel.²⁴¹

Department of Interior (DOI): DOI works with DOE to conduct laboratory and field geological investigations in support of waste disposal programs. Within DOI, the Bureau of Land Management manages certain public lands, and DOI can withdraw such public lands for limited use by DOE to study as potential radioactive waste storage or disposal sites. Development of a permanent waste repository other than Yucca Mountain would likely require congressional action to withdraw the land from public use.²⁴²

Oversight by and Input from State and Tribal Governments

States

Before 1992, NWPA gave states a limited role in regard to how nuclear waste from the federal government's weapons program was stored, treated or disposed of in their jurisdictions. However, with the passage of the Federal Facility Compliance Act in 1992, affected states have worked jointly with DOE in shaping treatment and disposal plans for various waste categories (although states do not have regulatory authority over high-level waste), negotiating and enforcing cleanup milestone agreements, working with congressional delegations to ensure adequate funding levels, and providing oversight.²⁴³

Tribes

Affected tribes also were provided an oversight role by NWPA, but they wanted to be more engaged in decisions regarding the storage, treatment and disposal of nuclear waste resulting from the federal government's weapons programs in their jurisdictions. Since 1989,

Nuclear Energy - Community Handbook

tribes have participated in the Office of Environmental Management's State and Tribal Government Working Group (STGWG). In that capacity, members of affected tribes participate in the Office of Environmental Management's Five Year Plan planning process which projects EM's planned strategies, funding and accomplishments over a given five-year period.²⁴⁴

In addition, through Executive Order 13175 of November 6, 2000, executive departments and agencies are required to recognize a "special relationship" with tribes by engaging in regular consultation and collaboration with tribal officials in the development of federal policies with tribal implications.²⁴⁵

New Oversight Roles under a Consent-Based Process?

While the oversight provided by federal and state agencies is important, a formal oversight role for affected local governments and other non-federal entities (such as tribes) also should be considered. Communities and local governments adjacent to DOE sites are impacted directly by DOE decisions and are readily familiar with nuclear energy and waste issues. Third-party oversight can increase the credibility of DOE decisions, offset opposition and build trust.

DOE's Strategy and legislation introduced in the Senate both propose a new waste management organization that is dedicated solely to assuring the safe storage and ultimate disposal of spent nuclear waste fuel and high-level radioactive waste; and both support a consent-based siting process. DOE's Strategy states, "... prospective host jurisdictions must be recognized as partners. Public trust and confidence is a prerequisite to the success of the overall project..." Similarly, a consent-based siting process as outlined in legislation should allow "affected communities to decide whether, and on what terms, the affected communities will host a nuclear waste facility."²⁴⁶

As Congress and DOE work together to define the governance structure of a new waste management entity and a consent-based process, local governments have an opportunity to outline the role they want as potential hosts for nuclear facilities. A local government representative should serve on any newly created oversight board to ensure local perspectives and concerns are identified and represented. In addition, any member of a host community should learn about the health, safety and other issues that are inherent in hosting a site.

Potential host communities must be given the means – either from Congress or DOE – for education and other activities, including:

- External oversight.
- Independent analysis of proposed activities.
- Facilitating interaction among local, state, regional and federal governments.
- Hiring independent experts whose responsibilities are to the potential host community.

Ensuring input from the parties that will be most directly affected by a decision on nuclear waste management will help build trust that the federal government is being as inclusive and transparent as possible.

Recommendations

- Communities should identify, understand and advise federal policy-makers to look at lessons learned from past experiences regarding nuclear activities, siting and oversight.
- Communities should refer to existing provisions in NHPA regarding “affected units of local governments.” This can help communities identify what provisions they want included in new legislation or consent agreements, such as :
 - Provide the local community with resources to hire third-party scientists to review data and the scientific integrity of a new nuclear project, which could potentially increase public confidence;
 - Ensure citizens in host communities have a means to interact with the federal government and any nuclear facility operator; and
 - Demonstrate a commitment to external oversight independent of DOE.
- Potential host communities should consider whether they want to require a position on an oversight board of advisory committee (if a new waste management organization is created) as a condition for hosting a nuclear waste storage or disposal site.

RECOMMENDATIONS

1. In order to provide adequate time for a study of options for the replacement of the Preschool/SAB building, School Administration is requesting that the city fund and commit to a lead based paint remediation project of the current Preschool building. This commitment will allow us to submit the remediation plan to Head Start and Anderson County.
2. Form a committee consisting of a member of the BOE and the City Council, a member of the community, a Preschool Teacher, the Director of the Preschool, the Supervisor of Maintenance and Operations, a member of city staff and a Preschool parent. The purpose of the committee is to:
 - study the future needs of the preschool program and the options available for a new Preschool building
 - make a recommendation to the Board of Education and City Council by a set deadline in order to allow time for the preparation of a new facility for school year 2016 – 2017
 - provide progress reports at set benchmarks in order to properly communicate the city and school's commitment to this project
 - cooperatively work to remove the perception that this issue is just “kicking the can down the road” for another extended period of time

NOTE: Per action taken by the Board of Education on January 26, 2015

CITY COUNCIL MEMORANDUM
14-45

DATE: December 18, 2014
TO: Honorable Mayor and Members of City Council
FROM: Mark S. Watson, City Manager
SUBJECT: SENIOR CENTER LEASE AGREEMENT

Introduction

An item for City Council's consideration is a resolution to approve a Lease Extension Agreement between the City and Anderson County to lease space at the Daniel Arthur Rehabilitation Center for the purpose of operating a senior center.

Background

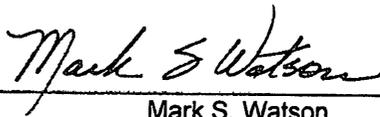
The City has been leasing space from Anderson County at the Daniel Arthur Rehabilitation Center since 1999 for the purposes of operating the Senior Center. The "current" lease agreement with Anderson County was approved by City Council through Resolution 12-117-09 for a five-year lease term, which expires on December 31, 2014. As part of this lease agreement, the City had the option to purchase the property for One Dollar (\$1.00) at the conclusion of the lease term.

By Resolution 12-118-09, City Council directed the City Manager and the Elder Citizens Advisory Board (now called the Senior Advisory Board) to move forward with development of a timeline for construction of a new senior center at the Daniel Arthur Rehabilitation Center location. As part of this plan, the Board was in the process of forming a 501(c)(3) organization in order to raise funds for construction of a new senior center. The idea to raise funds for a new senior center did not go as planned and little money was raised for this effort. Various locations and options have been discussed. However, the City's fiscal situation has not lent itself to development and construction of a new senior center. The Daniel Arthur Rehabilitation Center was also supported as a location versus other options such as local churches.

Anderson County has offered to continue the lease arrangement for an additional five-year term under a Lease Extension Agreement. The Lease Extension Agreement is for a five-year term (January 1, 2015 through December 31, 2019) at the rate of \$5,170.00 per month. The Lease Extension Agreement continues to provide the City with the option to purchase the property at the end of the lease term for One Dollar (\$1.00). This option will allow the City to move forward with plans for a new senior center if funds are raised and City Council elects to exercise the option.

Recommendation

Approval of the attached resolution is recommended.



Mark S. Watson

Attachments: Resolution 12-117-09
Resolution 12-118-09
Proposed Resolution
Lease Extension Agreement

RESOLUTION

WHEREAS, by Resolution 8-144-99, City Council approved a lease agreement between the City and Anderson County (the "County") to lease space at the Daniel Arthur Rehabilitation Center (the "Center") for the purposes of operating a senior center; and

WHEREAS, the City and the County desire to modify the terms of the lease arrangement; and

WHEREAS, the proposed lease provides for a five (5) year lease term at a cost of \$5,170.00 per month, plus twenty-four percent (24%) of the total utility costs for the Center; and

WHEREAS, at the end of the lease and upon giving at least one hundred and twenty (120) days advanced notice to the County, the proposed lease provides the City an option to purchase for one dollar (\$1.00) buildings one, two and three, as shown on an exhibit to the lease agreement, for use as a senior center and other municipal services; and

WHEREAS, the City Manager recommends approval of the lease agreement.

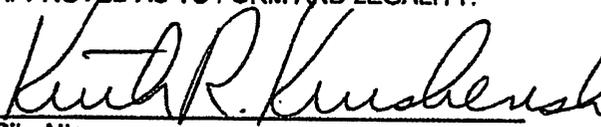
NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF OAK RIDGE, TENNESSEE:

That the recommendation of the City Manager is approved and the attached Lease Agreement between the City of Oak Ridge and Anderson County to lease space at the Daniel Arthur Rehabilitation Center for a five-year term beginning January 1, 2010 and ending December 31, 2014 for the purpose of operating a senior center is hereby approved.

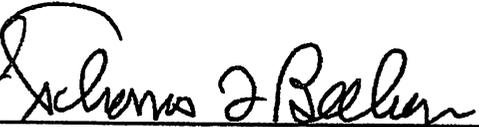
BE IT FURTHER RESOLVED that the Mayor is hereby authorized to execute the appropriate legal instruments to accomplish the same.

This the 14th day of December 2009.

APPROVED AS TO FORM AND LEGALITY:



City Attorney



Mayor



City Clerk

NUMBER _____

RESOLUTION

A RESOLUTION TO APPROVE A LEASE EXTENSION AGREEMENT BETWEEN THE CITY OF OAK RIDGE, TENNESSEE, AND ANDERSON COUNTY, TENNESSEE, TO LEASE SPACE AT THE DANIEL ARTHUR REHABILITATION CENTER FOR THE PURPOSE OF OPERATING A SENIOR CENTER.

WHEREAS, by Resolution 12-118-09, City Council approved a lease agreement between the City and Anderson County to lease space at the Daniel Arthur Rehabilitation Center for the purpose of operating a senior center; and

WHEREAS, said lease agreement was for a five year term with the City having the option to purchase the property at the conclusion of the lease term for One Dollar (\$1.00); and

WHEREAS, the lease agreement expired on December 31, 2014 and the City did not exercise the option to purchase the property; and

WHEREAS, the parties desire to enter into a Lease Extension Agreement to essentially renew the lease agreement for another five-year period, with the City having the option to purchase the property at the conclusion of the lease term for One Dollar (\$1.00); and

WHEREAS, the City Manager recommends approval of the Lease Extension Agreement.

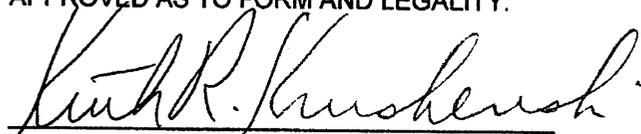
NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF OAK RIDGE, TENNESSEE:

That the recommendation of the City Manager is approved and the attached Lease Extension Agreement between the City of Oak Ridge, Tennessee, and Anderson County, Tennessee, to lease space at the Daniel Arthur Rehabilitation Center for a five-year term beginning January 1, 2015 and ending December 31, 2019 for the purpose of operating a senior center is hereby approved.

BE IT FURTHER RESOLVED that the Mayor is hereby authorized to execute the appropriate legal instruments to accomplish the same.

This the 12th day of January 2015.

APPROVED AS TO FORM AND LEGALITY:



Kenneth R. Krushenski, City Attorney

Warren L. Gooch, Mayor

Alexander J. Ford, Acting City Clerk

LEASE EXTENSION AGREEMENT

THIS LEASE EXTENSION AGREEMENT, made and entered into on this the _____ day of _____, 2014, by and between Anderson County, Tennessee a political subdivision of the State of Tennessee and governmental entity located at 208 Anderson County Courthouse, 100 North Main Street, Clinton, Tennessee (hereinafter, "Lessor") and the City of Oak Ridge, Tennessee, a governmental municipality located at 200 South Tulane Avenue, Oak Ridge, Tennessee, (hereinafter, "Lessee"):

WITNESSETH:

WHEREAS, Lessor desires to lease certain office, recreational and meeting space located at 728 Emory Valley Road, for the use and benefit of the Oak Ridge Senior Center, located within a portion of the Daniel Arthur Rehabilitation Center (DARC) Complex, within the corporate limits of the City of Oak Ridge, in the Second Civil District of Anderson County, Tennessee, (hereinafter referred to as "Leased Space") and more particularly described in Exhibit 1 (diagram of the Leased Space) and Exhibit 2 (room square footage, approximately 9,694 sq. ft.) attached hereto and made a part of this lease.

WHEREAS, Lessee desires to lease said Leased Space upon the terms and conditions hereinafter set forth.

NOW THEREFORE, the parties, in consideration of the mutual covenants and agreements contained herein do hereby agree as follows:

1. Lessor shall lease to Lessee and Lessee does hereby agree to lease the Leased Space described in Exhibit 1 and Exhibit 2, attached hereto, for the use and benefit of the Oak Ridge Senior Center, located within the DARC Complex on Emory Valley Road.
2. Lessor and Lessee have agreed that the gym, kitchen, bathroom and stage areas, as shown on Exhibit 2, are not to be considered as a part of this lease agreement, but that these areas may be used and scheduled by the Lessee, at no charge to the Lessee, with Lessor to be responsible for maintaining the area.
3. Lessor and Lessee agree that rent paid by Lessee hereunder shall be at a rate of Five Thousand One Hundred Seventy Dollars and no/100 (\$5,170.00) per month for a period of five (5) years.
4. This lease shall commence effective the 1st day of January, 2015, through the 31st day of December, 2019, for a five (5) year period of time, with the Lessee having the option to purchase the property, (hereinafter, "Option Property" as described more particularly in Exhibits 3, 4, 5 & 6 attached hereto) for One Dollar and no/100 (\$1.00) on the 31st day of December, 2019. Notice of the intent to purchase the Option Property for this amount, must be provided to the Lessor by the Lessee no later than one hundred and twenty (120) days prior to the expiration of this lease. If Lessee exercises its option to purchase the Option Property, Lessee agrees that

Option Property must be used for a Senior Center, for the use and benefit of all senior citizens, and other municipal services and never as commercial leased space for "For Profit" businesses or sold to other individuals or entities. If Lessee violates this covenant, Option Property will revert automatically to Lessor without legal process. If the option to purchase is exercised at the end of the Lease Term, Lessor agrees that Lessee may raze the existing structure(s) on the Option Property and replace with a new building for the use and benefit senior citizens and other municipal services.

5. Lessee shall be responsible for custodial services, to include interior cleaning and cleaning of windows both interior and exterior, and agrees that it will maintain the leased area in a reasonable state of cleanliness subject to the satisfaction of the Lessor.

6. Lessee shall be responsible for the payment of twenty-four percent (24%) per calendar year of the total utility costs of the complex, billed monthly, with payment to be made within thirty (30) days upon receipt of the invoice.

7. Lessor will maintain the parking and driveway areas. Lessor will maintain all heating and cooling equipment and will repair defective electrical outlets within the leased areas. Providing of light bulbs, ballasts and other similar electrical appliances will be the responsibility of the Lessee. If Lessee exercises its option to purchase Option Property at the end of the Lease Term, the Parties agree to mutually share use and maintenance of all facility parking areas, sidewalks and ingress/egress corridors.

8. Lessee shall provide its own door signs, or other signs. However, all signs shall meet standards set by the Lessor and proposals for signs must be presented to Lessor prior to installation. Any modifications in the Leased Space shall be subject to written approval by the Lessor.

9. Lessee, its agents, employees, guests and invitees are permitted to use the parking area but Lessor shall not be responsible for security in the parking area and shall not be responsible for losses to, or damage to vehicles, or injuries in the parking area.

10. Payment for janitorial services within Leased Space shall be the responsibility of the Lessee. Lessor shall be responsible for all maintenance items for the purpose of maintaining the heat and air conditioning systems.

11. Except as noted herein or as may otherwise be agreed in writing in any addendum to this lease, any alterations, additions or improvements made to the Leased Space, whether with or without consent of the Lessor, shall become the property of the Lessor, and shall remain upon the premises and be surrendered with the premises upon the termination of this lease agreement and any renewals of extension thereof. The Lessor and Lessee agree that any specialized equipment that shall be placed within the Leased Space by the Lessee, and being described as special electronic equipment, computer equipment, or specialized telephones, shall not become the property of the Lessor and shall be trade fixtures and as such be removable by the Lessee at the end of the term of the lease as provided herein; provided, however, that the Lessee shall

make sufficient repairs to the building to return the Leased Space to a reasonable state of repair consistent with the state of the premises as though such equipment had not be installed.

12. Lessor and Lessee agree that the Emory Valley Center shall continue to be permitted the use of the gym facility free of charge, up to, but not exceeding five (5) special events per calendar year, with scheduling to be done by the Oak Ridge Senior Center. Nothing contained herein shall be interpreted to impede Lessor's ability to lease other space within the Option Property during the Lease Term. In the event Lessee exercises its option to purchase Option Property, Lessee agrees to not interfere with the Lessor's use and access of the Dickens Building or the Holiday Bureau Building.

13. Lessor shall have the option on thirty (30) days notice to terminate this lease agreement in the event that Lessee has filed against it, or voluntary files, in either state or federal court any proceeding with respect to insolvency or bankruptcy of the Lessee, or if Lessee materially alters its charitable function or ceases its current operational intent to use the Leased Space as a Senior Center for the use and benefit of all senior citizens.

14. Condemnation proceedings resulting in the condemnation of a part of the premises leased herein, but leaving the remaining premises usable by the Lessee for the purposes of its business will not terminate this lease unless Lessor, at its option, terminates the lease by giving written notice of termination to Lessee. The effect of any condemnation, where the option to terminate is not exercised, will be to terminate the lease as to that portion of the premises condemned, and the lease of the remainder of the demised premises shall remain intact. The rental for remainder of the lease term shall be reduced proportionately to the area lost. This provision shall not be applicable to condemnation of a portion or all of the parking area. Lessee hereby assigns and transfers to Lessor any claim it may have to compensation for damages as a result of any condemnation.

15. Lessee accepts the Leased Space in "as is" condition. Acceptance of the premises by Lessee shall be construed as recognition that the premises are in a good state of repair and in sanitary condition. Lessee shall surrender the premises at the conclusion of the lease term, or any renewal or extension thereof, in the same condition as when Lessee took possession, reasonable use and fair wear and tear, and loss by acts of God, including fire and storms, accepted. Upon surrender, Lessee shall remove all business signs placed on the premises by Lessee and shall restore the portion of the premises on which such signs were placed to the same condition as when received.

16. If the premises are totally destroyed, or so substantially damaged as to be untenable by storm, fire, earthquake, or other casualty, this lease shall terminate as of the date of such destruction or damage, and rental shall be accounted for as between Lessor and Lessee as of that date. If the premises are damaged but not rendered wholly untenable by any such casualty, rental shall abate as determined by the Lessor and Lessee in proportion as the premises have been damaged, and Lessor shall restore promptly as practicable, whereupon full rent shall recommence.

17. If suit is instituted for the collection of any rental due and owing under this lease, Lessee shall be responsible for reasonable attorney fees in addition to the amount of rent due and owing, and such attorney fees shall become a further part of the indebtedness owed by Lessee to Lessor.

18. Lessor shall, on default with respect to any of the provisions of this lease by Lessee, including payment of the rental as provided herein, provide Lessee written notice of any such breach. Following the date of the written notice, Lessee shall have thirty (30) days to correct such deficiencies. If the condition cannot be corrected with thirty (30) days, Lessee shall have a reasonable time to complete the correction, except that nothing contained herein shall extend the period of time for payment of any delinquent rental due under this agreement.

19. Lessor agrees that Lessee's obligation under this lease shall terminate if the Oak Ridge City Council does not appropriate sufficient funds during its annual budget approval to make payment of the rental as provided herein. Lessee shall notify Lessor of its intent to terminate lease due to valid budgetary constraints no less than ninety (90) days prior to July 1st of each year.

20. Lessee agrees that all personal property, trade fixtures and other articles taken upon the demised premises by Lessee, its agents, representatives, employees, invitees or assigns, shall be at the sole risk of Lessee. Lessor shall have no responsibility for the theft of same or any injuries or damages caused by the act of any co-tenant, or agent, employee or invitee of the Lessee herein except for such as may be caused by willful acts of Lessor or Lessor's agents or representatives.

21. Any and all remedies provided Lessor for the enforcement of the provisions of this lease are not exclusive, and Lessor shall be entitled to pursue either the rights set forth in this agreement or remedies authorized by law or both. Lessee shall be liable for any costs or expenses incurred by Lessor in enforcing any terms of this lease agreement or in pursuing any legal action for the enforcement of Lessor's rights.

22. Lessor agrees hereunder and represents to Lessee that it is the owner of the property to be leased pursuant to this lease agreement and that the signing of this agreement by Lessor's authorized representative is with full authority to execute same on behalf of Anderson County. The undersigned person signing for Lessee acknowledges that he has full and complete authority to act on behalf of the City of Oak Ridge, and that such lease agreement is, and shall be, binding upon the leasing entity and its assigns and successors in interest.

23. Lessee agrees the Lessor shall not be liable for any damage or injury to Lessee, Lessee's agents, licensees, invitees or contractors or to any person entering the property or the building nor for damage or injury to any person or personal property therein or thereon resulting from any act or omission of Lessee, Lessees, agents, licenses, invitees or contractors, and Lessee agrees to indemnify and save Lessor harmless from all such claims and demands to the extent allowed by law.

24. Lessee will during the said term insure and keep insured the said Leased Space from loss or damage by fire and other casualty, in at least the sum of Five Hundred Thousand and No/100 Dollars (\$500,000.00). Lessee shall also obtain premises liability insurance insuring against personal injury or property damage and occurring on or in conjunction with the Leased Space. This premises liability insurance shall be in form satisfactory to Lessor. Lessee will pay all of the premiums necessary for those purposes within 20 days after the same shall come due. If at any time the Lessee shall fail to insure or keep insured as aforesaid, the Lessor may do all things necessary to effect or maintains such insurance, and any monies expended by them for that purpose shall be repayable by the Lessee on demand. Lessee shall provide to Lessor acceptable certificate evidencing insurance of the kind and amount specified herein and shall have Lessor included as an additional named insured on any such insurance.

25. Lessee will keep all Leased Space, in such repair as the same are at the commencement of the said term or may be put in the continuance thereof, reasonable wear and tear and damage by fire or other unavoidable casualty only excepted.

26. Lessee shall have non-exclusive use of an access easement for ingress and egress from the premises to Emory Valley Road that is included in this lease. Lessee and Lessor agree that neither will block, restrict nor damage the right of the other or any authorized third parties to the concurrent use of the access easement.

27. In an effort to memorialize the joint partnership and mutual cooperation of Anderson County and the City of Oak Ridge, the Parties hereto agree that the facility shall be named and referred to as the "Anderson County/Oak Ridge Senior Center. Lessor at its option and expense may install appropriate signage designating the facility by said name. Anderson County residents shall be welcome to participate in senior facility functions, programs and events under the same use and terms afforded to Oak Ridge residents.

28. Lessor and Lessee agree that this lease agreement constitutes the entire agreement between the parties hereto and shall not be altered, modified, amended or deleted, except by a document executed in writing signed by the parties hereto, either themselves or through their respective representatives.

IN WITNESS WHEREOF, the parties have executed this lease agreement on this _____ day of _____, 2014.

LESSOR:

**ANDERSON COUNTY,
TENNESSEE**

By: _____

LESSEE:

**THE CITY OF OAK RIDGE,
TENNESSEE**

By: _____

Its: County Mayor

Its: _____

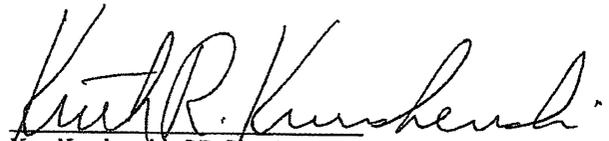
Robert McKamey, Chair, AC Commission

ATTEST:

Jeff Cole, AC County Clerk

APPROVED AS TO FORM AND LEGALITY:

N. Jay Yeager, AC Law Director


Ken Krushenski, OR City Attorney

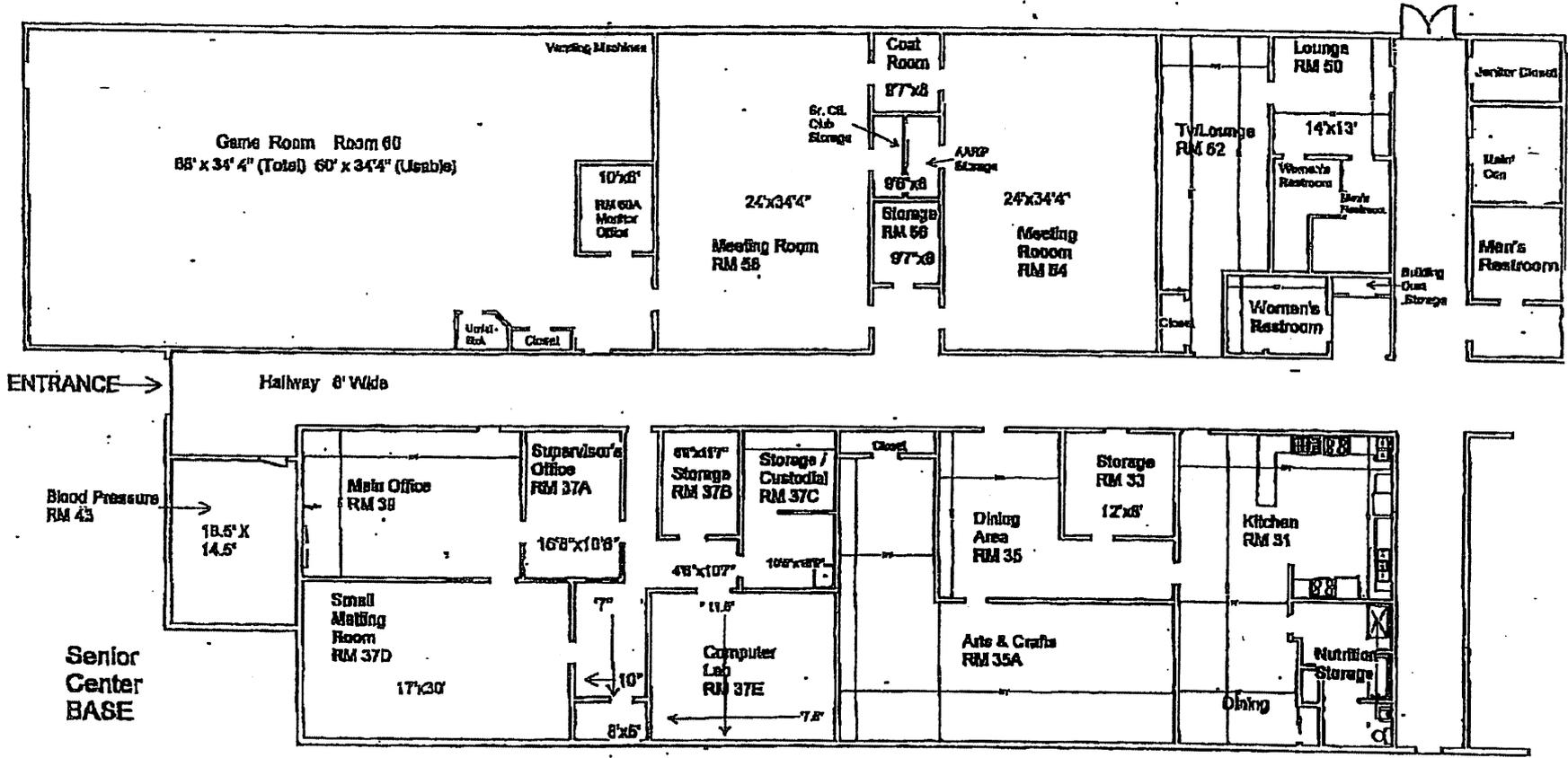
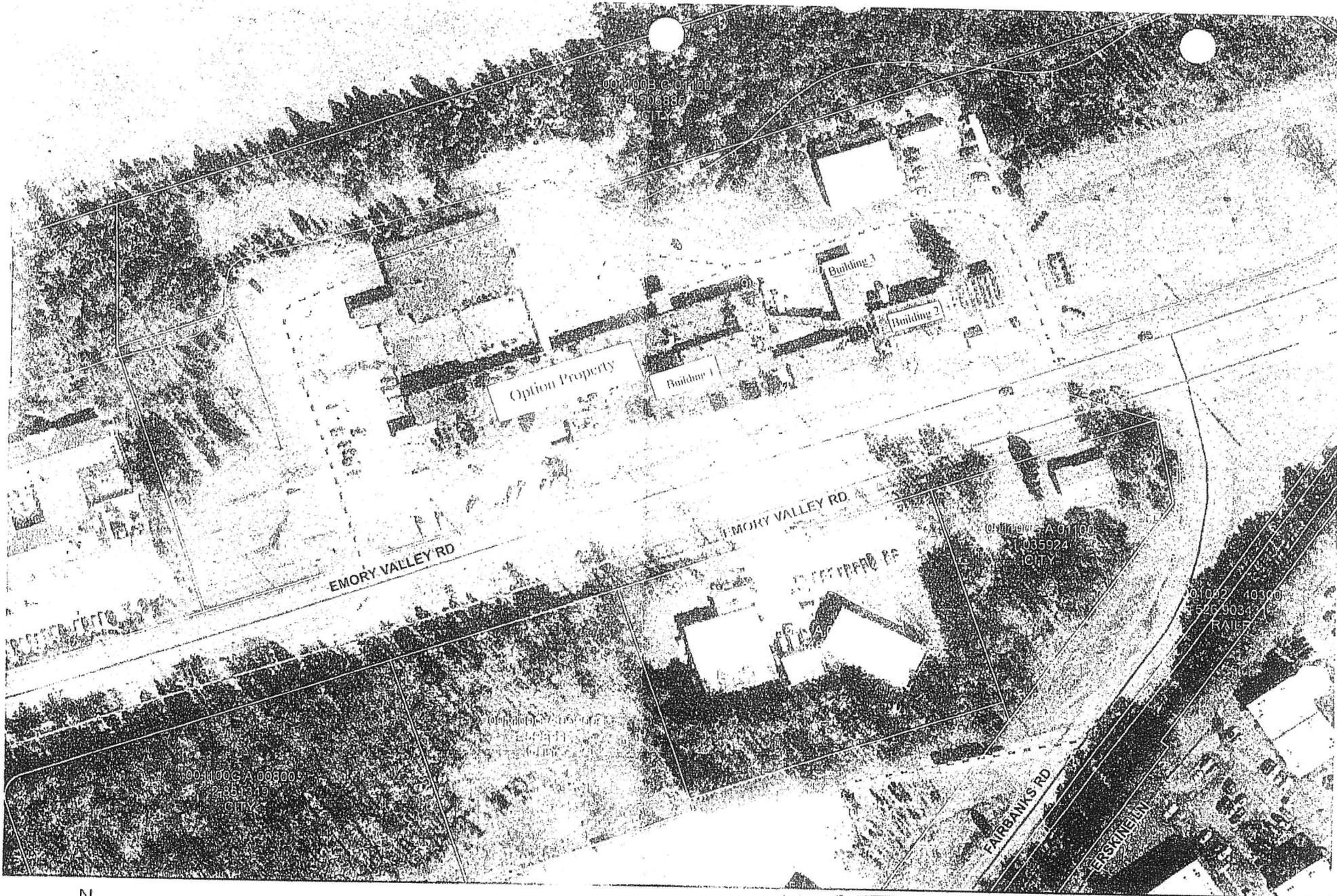


Exhibit 1

Room	Size	Usable Space	Width	Length
RM 28 Chair Storage for GYM	14' x 46"		14	3.83
31 (Kitchen Area)	18' x 23.5		18	23.5
31 (Dining Area)	15' x 13'		15	13
31 Storage	11' x 10.5		11	10.5
31 Bathroom	5' 8" x 7'		5.6	7
33 Storage	12' x 8'		12	8
35 (Dining Area)	13.5' x 18.5		13.5	18.5
36 A (Craft Room)	18' x 33'		18	33
36 A Storage	11' x 5'		11	5
37 A (Managers Office)	16' 8" x 10' 8"		16.6	10.5
37 B (Storage)	8' 8" x 11' 7"		8.75	11.8
37 C (Storage)	10.5' x 16' 9"		10.5	16.75
37 Hall Closet	7.5' x 5'		7.5	5
37 E Card Room	17' x 30'		17	30
37 D (Computer Room)	20.5' x 17'		17	20.5
38 (Office)	24.5' x 16.5'		24.5	16.5
43 (Blood Pressure Room)	14.5' x 16.5'		14.5	16.5
48 Janitorial Storage	6' 7" x 8'		6.75	8
50 Reading Room	14' x 13'		14	13
52 TV lounge	12' x 24' 9"		12	24.75
52 Storage Closet	10' x 2.5'		10	2.5
54	24' x 34' 4"		24	34.4
54 (Storage)	9' 7" x 8'		9.75	8
56 (Storage)	9' 7" x 8'		9.75	8
58	24' x 34' 4"		24	34.4
58 (Storage)	9' 7" x 8'		9.75	8
60	68' x 34' 4"	60' x 34' 4"	60	34.4
60 A (Office)	10' x 8'		10	8
60 (Break/Snack Area)	13' 11" x 8'		13.9	8
60 (Restroom)	5' 8" x 4' 8"		5.6	4.6
Janitor # 2 Closet	3' x 8'		3	8
Restroom Men's Main	13.5' x 6.5'		13.5	6.5
Restroom Women's Main	11' x 6.5'		11	6.5
Restrooms, Men' & Women's Small	13' 7" x 11' 3"		13.8	11.25
Multipurpose Room (Gym)	72' 10" x 40' 10"	58' x 40' 10"	58	40.8
Multipurpose Room (Gym) Kitchen	27.5' x 40.8'	25.5' x 40.8'	25.5	40.8
Multipurpose Room (Gym) Kitchen Bathroom	9' x 6.5'		9	6.5

Multipurpose Room (Gym) Stage Area Only		13.8 x 40.8	13.8	40.8	
				Total SF	

	Table Size	Minimum Space Requirements*	Sq Ft Required	Table Quantities	
Billiards Table (Std)	4' x 8'	13' 4" x 17'	226.1	4	904.40
Billiards Table (Snooker)	5' x 10'	13' 10" x 18'	250.2	1	250.20
	4' Round	48" + 52" (cue) = 8' 4"	64	1	64.00
* Space Requirements provided by Brunswick Billiards			Does Not include tables, chairs, etc. Just Billiard Tables		1,218.60



1 inch = 135.25 feet

Exhibit 3

	AffectedParcels_PlanningRegion		Streams
	100 Yr Flood		Water Bodies

PROPERTY TYPE: 01 COUNTY

STATE OF TENNESSEE REAL ESTATE APPRAISAL CARD

724 EMORY VALI

PROPERTY ADDRESS
OWNERSHIP AND MAILING ADDRESS

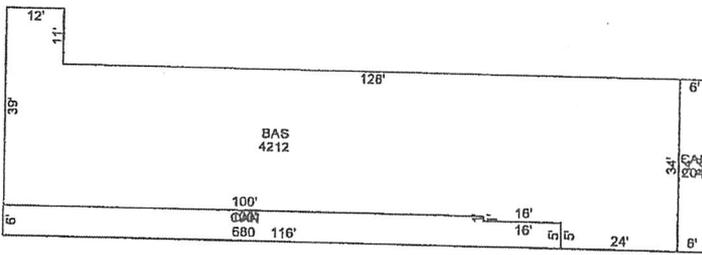
ANDERSON CO BD EDUCATION
SCHOOL
724 EMORY VALLEY RD
OAK RIDGE, TN 37830

SUBDIV. 1 BLOCK 0J17 LOT 0525
BK PG BLU LOT TRACT
SUBDIV. 2 BK PG BLOCK LOT TRACT
ADDITIONAL DESCRIPTION 02 020CF 020CF52500 000
DANIEL ARTHUR
DIMENSIONS

TAX YEAR 2009
COUNTY OF ANDERSON
CITY 548 OAK RIDGE
MAP GROUP CL. MAP PARCEL PI 5/1
UPDATED 06/29/2004
PRINTED 11/10/2009
TOTAL LAND UNITS 9.74
DEED ACRES 9.74
CALC ACRES 0.0

IMPROV. TYPE 31 Educ/Religious
STORIES 1
1ST FLR HGT
HGT FACTOR 1.00
FOUNDATION 02 Continuous Footing
FLOOR SYSTEM 01 Slab On Grade
EXTERIOR WALL 11 Common Brick
PARTY WALL 00 None
FACTOR 1.00
STRUCT. FRAME 05 Rigid Frame
ROOF FRAMING 05 Bar Jolst/Rigid Frame
ROOF COV/DECK 10 Built-Up Composition
CAB/MILLWORK 03 Average
FLOOR FINISH 05 Vinyl Asbestos Tile
INTER. FINISH 06 Masonry
PAINT/DECOR 03 Average
HEAT & A/C 08 Heat & Cooling Pkg
ROOMS 8
PART.FACTOR 0.80
BEDROOMS 0
PLUMBING 16
BATH TILE 01 Floor Only
ELECTRICAL 03 Average
SHAPE 02
QUALITY 01 Average

BUILDING SKETCH (BUILDING # 2)



Sketch by Apex IV Windows™

APPRaised VALUES

IMPROVEMENTS	3,886,100
LAND	310,200
TOTAL APPRAISAL	4,196,300
USE VALUE APR	0
ASSESSMENT	0
ASSESSED @	0%
APPROACH	MARKET 1

OVERRIDES

LAND IMPROVEMENTS REASON	0
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PRORATION

DATE	TYPE	% DAMAGE	FA
------	------	----------	----

GREENBELT APPLICATION

NUMBER	YEAR	REVIEW NEEDED
		N

PARCEL DATA

DISTRICT	02	UTILITIES	
MKT AREA	101	WATER	1
NH TREND	0	SEWER	
ROAD TYPE	7		
ROAD NO.			
PLAN REG		ELECTRICITY	1
WARD			
CONGR DIST			
TOPO	1		
CONST CD		GAS SOURCE	
# IMP	5		2
# MH	0	GAS TYPE	
INTEREST			
OTHER			
TRASH	2		
MISC	0		
CENSUS TRACT:			
LAND APR DATE:	8/11/1997	BY	01
REVIEW DATE:		BY	
FINAL REVIEW		BY	
DELETE NEXT YEAR			N

127	100	96	122	1.00000	105.96	129.27	0	1965	1965
TOTAL POINTS	SHAPE FACTORS	SIZE	ADJ POINTS	BASE RATE FACTOR	BASE RATE	ADJ BASE RATE	DEPR YR	ACTUAL YEAR BUILT	EFFECTIVE YEAR BUILT

BUILDING AREA DATA

AREA DESCR	% OF RATE	ADJ BASE RATE	AREA RATE	SQUARE FEET	AREA REPLACEMENT COST NEW
BAS	100	129.27	129.27	4,212	544,485
CAN	25	129.27	32.32	884	28,571

TOTAL AREAS

WTD AREA:	4,433	AUX:	884	BASE:	4,212
-----------	-------	------	-----	-------	-------

COND	EFF	NORM	OTHER	FUNC	EXT	GOOD	PRO	RATED	REPLACEMENT	BUILDING
1	40	40	0	0	0	60	Y		573,056	343,834

RENTAL SRC	YEAR	AMOUNT	SCH	OCC	SOURCE	BLDG STATUS	DWLG UNITS	BLDG APR DATE	BY
0	0	0	0	3		1		01/01/1996	04

EXTRA FEATURES DATA

ID #	TYPE	DESCRIPTION	QTY	UNIT PRICE	ACT YR	EFF YR	ANNUAL	DEPR

LAND DATA

ID #	TYPE	DIMENSIONS	SCHEMATIC	CLASS	RD	TABLE	TRAIL	LOG	TORO	SIZE	DEPTH	FACTOR	ACCESS	UNITS	COND	LAND MARKET	ACQ MNT	MARKET LAND	USE BAND	LAND USE	LAND USE	
		X										10										

SALE DATA

OWNER	DATE	PRICE	ADV PRICE	BOOK	PAGE	VL	INST	VR
-------	------	-------	-----------	------	------	----	------	----

NOTES
REVIEWED 5-14-91 #12 NC; DANIEL AUTHUR REABILITATION CENTER; DANIEL AUTHUR; DANIEL AUTHUR

Exhibit 5

PROPERTY TYPE: 01 COUNTY

724 EMORY VALLEY

STATE OF TENNESSEE REAL ESTATE APPRAISAL CARD

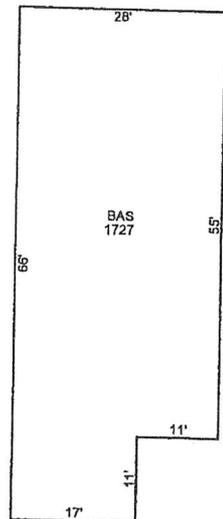
PROPERTY ADDRESS
OWNERSHIP AND MAILING ADDRESS
ANDERSON CO BD EDUCATION SCHOOL
724 EMORY VALLEY RD
OAK RIDGE, TN 37830

SUBDIV. 1 BLOCK 0J17 LOT 0525
BK PG BLL LOT TRACT
SUBDIV. 2 BK PG BLOCK LOT TRACT
ADDITIONAL DESCRIPTION 02 020CF 020CF52500 000
DANIEL ARTHUR
DIMENSIONS

TAX YEAR 2009
COUNTY OF ANDERSON
CITY 549 OAK RIDGE
SSD1
SSD2
TOTAL LAND UNITS 9.74
DEED ACRES 9.74
CALC ACRES 0.0
MAP GROUP C1 AP PARCEL PI S/I
010.00 000
UPDATED 06/29/2004
PRINTED 11/10/2009
Page 3 of 5

IMPROV. TYPE 31 Educ/Religious
STORIES 1
1ST FLR HGT
HGT FACTOR 1.00
FOUNDATION 02 Continuous Footing
FLOOR SYSTEM 04 Wood W/ Sub Floor
EXTERIOR WALL 11 Common Brick
PARTY WALL 00 None
FACTOR 1.00
STRUCT. FRAME 00 None
ROOF FRAMING 00 Flat
ROOF COV/DECK 10 Built-Up Composition
CAB/MILLWORK 03 Average
FLOOR FINISH 05 Vinyl Asbestos Tile
INTER. FINISH 06 Masonry
PAINT/DECOR 03 Average
HEAT & A/C 07 Heat & Cooling Split
ROOMS 8
PART.FACTOR 1.40
BEDROOMS 0
PLUMBING 10
BATH TILE 01 Floor Only
ELECTRICAL 03 Average
SHAPE 02
QUALITY 01 Average

BUILDING SKETCH (BUILDING # 3)



Sketch by Apex IV Windows™

APPRaised VALUES
IMPROVEMENTS 3,886,100
LAND 310,200
TOTAL APPRAISAL 4,196,300
USE VALUE APR 0
ASSESSMENT 0
ASSESSED @ 0%
APPROACH MARKET 1

OVERRIDES
LAND IMPROVEMENTS REASON 0

PRORATION
DATE TYPE % DAMAGE FAI

GREENBELT APPLICATION
NUMBER YEAR REVIEW NEEDED
N

PARCEL DATA UTILITIES
DISTRICT 02 WATER
MKT AREA 101 1
NH TREND 0
ROAD TYPE 7 SEWER
ROAD NO. 0
PLAN REG 1
WARD ELECTRICITY
CONGR DIST 1
TOPO 1
CONST CD 1 GAS SOURCE
IMP 5 2
MH 0 GAS TYPE
INTEREST
OTHER
TRASH 2
MISC 0
CENSUS TRACT:
LAND APR DATE: 8/11/1997 BY 01
REVIEW DATE: BY
FINAL REVIEW BY
DELETE NEXT YEAR N

Table with columns: 125, 100, 103, 129, 1.00000, 105.96, 136.69, 0, 1965, 1965. Rows include TOTAL POINTS, SHAPE FACTORS, SIZE POINTS, ADJ BASE RATE, BASE RATE, ADJ BASE RATE, DEPR YR, ACTUAL YEAR BUILT, EFFECTIVE YEAR BUILT.

BUILDING AREA DATA
AREA DESCR, % OF AREA, ADJ RATE, BASE RATE, AREA RATE, SQUARE FEET, AREA REPLACEMENT COST NEW
BAS 100 136.69 136.69 1,727 236,064

TOTAL AREAS, WTD AREA: 1,727, AUX: 0, BASE: 1,727
COND, EFF, AGE, NORM, OTHER, PHYS, FUNC, EXT, GOOD, PRG, RATED, REPLACEMENT, COST NEW, BUILDING VALUE
1 40 40 0 0 0 60 Y 236,064 141,638

RENTAL SRC, YEAR, AMOUNT, SCH, OCC, SOURCE, BLDG STATUS, DWLG UNITS, BLDG APR DATE, BY
0 0 0 0 3 1 01/01/1996 04

EXTRA FEATURES DATA
ID #, TYPE, DESCRIPTION, QUAL, UNIT PRICE, UNITS, ACT YR, EFF YR, ANNUAL DEPR, VALUE, PRORATED, BLDG, MH #

EXTRA FEATURE APR DATE BY XF VALUE (THIS PAGE)

LAND USE CODE(S) 62 ZONING

BUILDING PERMIT(S) PERMIT NUMBER PERMIT DATE

LAND DATA
ID #, TYPE, DIMENSIONS, SOIL CLASS, RD, TABLE, FLD, LOC, TOPO, SIZE, DEPTH, FACTOR, ACCESS, UNITS, COND, LAND MARKET UNIT PRICE, ADJ MKT UNIT PRICE, MARKET LAND VALUE, USE COND FACTOR, LAND USE UNIT PRICE, LAND USE VALUE, BLDG #

SALE DATA
OWNER, DATE, PRICE, ADJ PRICE, BOOK, PAGE, VOL, INST, AR, LAND VALUE FACTOR 1.00000, MARKET VALUE, USE VALUE

NOTES
REVIEWED 5-14-91 #12 NC; DANIEL AUTHUR REABILITATION CENTER; DANIEL AUTHUR; DANIEL AUTHUR

Exhibit 6