Recommendations on Sustainable Siting for Federal Facilities

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Recommendations on Sustainable Siting for Federal Facilities

The United States Departments of Transportation, and Housing and Urban Development, the Environmental Protection Agency and the General Services Administration, in coordination with the Departments of Homeland Security, and Defense, have developed the following recommendations addressing sustainable location strategies for siting Federal facilities. This fulfills the direction of Section 10 in Executive Order 13514 to provide the Council on Environmental Quality Chair with recommendations regarding sustainable location strategies for consideration in agency Sustainability Plans.

Introduction

On October 5, 2009, President Obama issued Executive Order 13514, "Federal Leadership in Environmental, Energy and Economic Performance." The EO states that "It is the policy of the United States that Federal Agencies shall…design, construct, maintain, and operate high performance sustainable buildings in sustainable locations; strengthen the vitality and livability of the communities in which Federal Facilities are located, and inform Federal employees about and involve them in the achievement of these goals." The recommendations contained in this document will help Federal decision makers to implement this policy.

As public servants, Federal agency officials have the responsibility to achieve their agency missions while using tax payer resources wisely, eliminating Government waste, safeguarding the public trust, and advancing broad societal goals, such as sustainability. Federal agency site decisions, while complex, represent significant opportunities through which to achieve these multiple goals. Federal, state, and local governments invest significant resources in promoting economic development, increasing affordable housing, providing transportation choices, and ensuring environmental stewardship. They share concerns about traffic congestion, economic opportunity, and efficient use of infrastructure, and security, among many others. Agencies must consider the full range of impacts from Federal siting decisions and identify cost-effective strategies to ensure that optimal space utilization prevails.

The optimal Federal siting decision is the choice that meets Federal agency mission needs while also leveraging Federal development in support of other Federal and local goals. Often this is the case even where the initial cost of development may be higher. The challenge for Federal agency decision makers is to strike the right balance.

Applicability

These recommendations apply to all Federal agencies and activities that are subject to the provisions of EO 13514[1]. They apply to agencies acquiring or developing owned or leased space directly, either for their own or another agency's use, as well as those agencies defining or requesting space needs that will be met by others. As agencies look for ways to accommodate mission requirements, they should first pursue cost-effective alternatives to acquisition, such as consolidation, co-location or other alternative working arrangements such as expanded teleworking. Agencies can also use these recommendations for exploring ways to make current locations more sustainable.

These recommendations are not intended to promote moves of federal agencies from otherwise appropriate existing locations into new locations solely for the purpose of improving sustainability performance. Rather, these recommendations apply to agencies searching for new space as a result of other imperatives, including changing mission requirements, planned expansion or contraction, expiring leases or improvements to current space.

Background

The Federal government controls more than 2.7 billion square feet of work space in more than 316,000 buildings in the United States.[2] The government makes hundreds of decisions each year regarding where to build new facilities, consolidate office space or relocate operations. These decisions have significant economic, environmental and energy implications. For example, studies have quantified the impact of workplace location on both the average length of employee commutes as well as the rate at which employees take transit, carpool, walk or bike to work rather than drive alone. Building location also impacts the rate at which customers can access Federal services by a means other than a car and the distance they must drive to access public services. Since the Federal Government is the nation's single largest employer and energy user, with more than 1.8 million civilian employees,[3] providing services to the public at thousands of locations, relatively modest changes in these patterns translate into large differences in oil consumption and emissions. The physical and carbon footprint and location of Federal facilities also determine the extent to which they contribute to community revitalization rather than use undeveloped landscapes.

Current Federal agency location decision procedures do not sufficiently balance the sustainable location principles envisioned under EO 13514 with other Federal agency business considerations. These recommendations are meant to improve Federal agency sustainability performance by promoting more

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[1] These guidelines are not intended to supersede applicable requirements for federal development that may be more specific or more stringent, such as the National Capital Planning Commission's requirements for Federal development in the National Capital region.

[2] Federal Real Property Council's FY2008 Federal Real Property Report. The largest Federal holders of real property, based on building square footage, are the Department of Defense (70%), the U.S. General Services Administration (15%), Department of Veterans Affairs (6%), and the Department of Interior (4%). Figures do not include U.S. Postal Service Facilities.

[3] Bureau of Labor Statistics, *Career Guide to Industries* http://www.bls.gov/oco/cg/cgs041.htm (does not include postal service employees)

effectively balanced decisions on new facility locations and more effective space utilization in existing locations.

Sustainable Location Considerations

These recommendations should be used to complement an agency's mission requirements. While agency mission may dictate security, site access, building design or other space requirements that may conflict with certain sustainable selection criteria, agencies are encouraged to pursue siting strategies that support Federal missions while improving location sustainability. In particular, agencies should look for innovative opportunities to meet security needs while still advancing sustainability objectives.

Federal agencies should consider how siting decisions impact the surrounding community and environment in any given location whether it is development of a **new site** or redevelopment of an **existing site** (a site already in the federal inventory) including both leased and owned facilities.

New Sites

When a Federal agency is looking for new workspaces, whether due to an expiring contract, operations expansion, or other factors, it should first examine its existing inventory and identify opportunities for more effective space utilization , including consolidation, hoteling or co-location, consistent with the goals of the Executive Order[4]. If no opportunities exist within its existing inventory, and the agency intends to consider new locations, its area of consideration (delineated area) for a site should take into consideration the sustainability goals of the Executive Order.

These sustainability goals should factor into the Federal agency's location decision making process, mission compatibility and other business factors. In short, agencies should give priority to those locations that meet Federal mission needs and support the sustainability criteria outlined below.

[4] EO 13514 identifies Federal Sustainability Goals in Section 1 – Policy as well as in Section 2 – Goals for Agencies. These recommendations are intended to assist agencies achieve those Federal Sustainability Goals. See "Goals of EO 13514 on page 4 of these recommendations.

As described in the Executive Order, agencies also should seek to locate their buildings in alignment with local planning and economic development goals that conform to sustainability selection criteria. Early in the process decision-makers should engage regional and local planning agencies such as the Metropolitan Planning Organizations (MPO), county, municipal planning agencies, and other regional planning bodies in order to understand the local and regional planning objectives, help local officials understand the Federal charge, provide a context for addressing sustainability. This effort is likely to result in selection of a site that is equally supportive of agency employees and the surrounding community while meeting the sustainable selection criteria. Agencies should give priority to those locations that most effectively advance the sustainable selection criteria and still support agency mission.

Goals of EO 13514

- Increase energy efficiency
- Measure, report and reduce greenhouse gas emissions
- Conserve and protect water resources
- Eliminate waste
- Prevent pollution
- Foster markets for sustainable technologies and environmentally preferable materials
- Design, construct, maintain and operate high performance sustainable buildings in sustainable locations
- Strengthen the vitality and livability of the communities in which Federal facilities are located.
- Inform Federal employees about and involve them in the achievement of these goals.

Sustainable Selection Criteria

An agency should first explore ways to meet new workplace needs within their existing facilities before they begin to consider new locations. For new sites, agencies should consider the overall impact of the facility on the surrounding environment.

In considering sustainable site selection criteria, agencies should use the best data that is readily available from appropriate Federal or regional sources. Geospatial information development is rapidly making pertinent data (e.g., proximity to transit or walkable amenities, etc.) more readily available for this purpose. It is expected that, as these sources are more fully developed, that agencies will seek to continually improve the use of more sophisticated tools in their decisions. See Appendix I for suggested performance indicators to promote successful strategies. Agencies are encouraged to develop internal policies and procedures to align their decision processes in accordance with the criteria below.

1. **Promote Efficient Travel and Ensure Transit Access**. Federal agencies should locate in areas that have safe and efficient multi-modal travel options for trips to and from employee and/or constituent homes and to other locations and services in order to reduce or eliminate the need for employees and/or constituents to drive to the facility or nearby amenities. Agency siting decisions should promote a variety of transportation choices for employees and visitors to the facility, with a particular focus on encouraging public transportation and promoting transit oriented development.

- When possible, site selection should give priority to areas with existing and/or planned transit service such that the primary building entrance is within ½ mile of a well-served[5] transit stop and easily accessible by pedestrians.

- Transit should be at a level of convenience, speed, frequency, and overall level-of-service available via regularly scheduled, fixed route transit service that connects employees and constituents to the Federal facility.

- Priority should be given to those locations where the Federal development would help to anchor TOD, including locations already served by transit as well as locations planned for future TOD where local officials are able to provide the Federal agency with sufficient confidence that it will provide such service.

2. **Locate in existing central business districts and rural town centers.** Co-location of Federal facilities with commercial businesses can have mutual benefits. Prioritizing existing central business districts and rural town centers when selecting sites for Federal facilities can strengthen the local economy and integrate the Federal presence into a community. Research shows that

Greenhouse gases

Greenhouse Gas Emissions (GHGs) – emissions resulting from human activities that can trap heat in the atmosphere and have been linked to climate change.

Direct GHG emissions are emissions from sources that are owned or controlled by the reporting entity – in this case, the Federal agency.

Indirect GHG emissions are emissions that are a consequence of the activities of the reporting entity, but occur at sources owned or controlled by another entity

Scope 1 GHGs: All direct GHG emissions.

Scope 2 GHGs: Indirect GHG emissions from consumption of purchased electricity, heat or steam.

Scope 3 GHGs: Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc.

[5] "A well-served transit stop would provide at least 10-minute headways during the peak hours and at least 15-minute headways during the off-peak hours, with operations for at least 14 hours daily." These are the operational characteristics required for corridor-based bus projects that seek Small Starts funding from the Federal Transit Administration. See Federal Transit Administration, Updated Interim Guidance on Small Starts (July 20, 2007), http://www.fta.dot.gov/planning/newstarts/planning_environment_9055.html#21_Small_Starts."

locating within previously developed, mixed use areas can reduce vehicle miles traveled.[6]

3. **Locate near or be accessible to affordable housing.** Assure that the site has proximity to a sufficient amount of housing affordable to the employees of the proposed facility and/or proximity to transit that serves areas with housing affordable to the employees of the facility. Agencies are encouraged to locate facilities in areas where current and potential employees can easily reach the workplace from affordable housing and can minimize or eliminate the need to drive to work. Agencies should consider not only the location of the facility as it relates to existing employees but also its accessibility to other labor pools within the region.

4. **Promote Walkability and Bikability**. The location should be served by safe and convenient pedestrian and bicycle access between goods and services and housing. Locating in areas that are well served by pedestrian and bicycle friendly networks that connect to existing transportation infrastructure and everyday destinations such as restaurants, cleaners, healthcare, shopping, etc. will enable employees to accomplish routine tasks near their place of employment and reduce their need to drive to such destinations. [7]

Definitions of site types

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Greyfields are economically obsolescent, outdated, underutilized and/or failing real estate assets or land.

Greenfields are previously undeveloped parcels of land located in both urban and rural areas.

Transit Oriented Development (TOD) is compact, mixed-use development within walking distance of public transportation

5. **Use Existing Resources.** Siting decisions should maximize the use of existing resources wherever possible by locating in areas that are well-served by water, sewer and other relevant public infrastructure, in existing buildings, and in historic buildings and districts. While facility siting may require upgrading of water or sewer connections, it is important that Federal facilities not force the extension of such infrastructure into previously undeveloped areas solely to meet the Federal need.

6. **Foster greyfield/brownfield infill development.** When possible, priority should be given to those locations that would restore previously developed, abandoned or

[6] ,[7]Multiple studies cited in "Growing Cooler" (ULI, 2007) found that locating in such regional infill areas can reduce vehicle miles traveled by 13% to 72% over sites on the periphery of the metropolitan area and that walkable site design may reduce vehicle miles traveled by 2% to 19%.

underused locations, including those that have undergone proper remediation.

7. **Encourage adaptive reuse of Historic buildings and districts.** Using existing historic buildings can have a revitalizing effect on the local economy while preserving greenspace, maximizing efficient use of already constructed buildings, and supporting preservation of historically significant structures.[8] Older buildings that no longer serve their original purpose provide Federal agencies a unique opportunity to locate in existing commercial districts that have local significance and can effectively integrate the federal presence into existing commercial areas.

8. **Preserve the natural environment**. Agency actions should lead by example in preserving environmental resources and considering the impact of their site selection on the local environment. Avoid sites that would harm important resources or disrupt efforts to restore or protect local ecosystems or natural resources[9]

9. **Achieve Agency Scope 3 Emission Reduction Goals.** When considering siting alternatives, agencies should consider the Scope 3 emission reduction goals identified in their Sustainable Strategic Performance Plans, required by EO 13514. Agencies should consider the impact of both worker and visitor commutes to the potential sites on achieving agency Scope 3 reduction goals.

10. **Discuss location alternatives with local and regional planning officials and consider their recommendations**. A fundamental component of community sustainability and effective local economic development includes coordination with other long range plans for the area. Agencies should use early engagement with planning officials at the state, metropolitan, or municipal level to discuss the proposed Federal development and understand local planning goals.

Site Selection Context

Although opportunities to enhance sustainability will vary with each specific case, Federal agencies should consider these Federal sustainable selection criteria in every facet of site selection and in every context. In these recommendations, selection areas are divided between **rural** and **urban/suburban**. While the decision process is very similar for both, each may warrant specific considerations according to community size, agency presence and alignment with other Federal location policies[10].

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[8] EO 13006 and Section 110 of the National Historic Preservation Act (NHPA) also direct agencies to give some preference for locating in historic buildings and districts. This language is compatible with those directives and would be closely integrated with those policies in the Federal Management Regulations (FMR).

[9] EO 11988 and EO 11990 direct Federal agencies to avoid to the extent possible the long and short term adverse impacts to floodplains and wetlands respectively.

[10] Under various Federal policies, including the Rural Development Act, EO 12072, and EO 13006, rural and urban areas are treated differently, with particular provisions for Federal agencies location in each -- accordingly, existing regulations are addressed this way. Addressing these separately in this document makes alignment with other existing policies easier.

Before undertaking the actions and analyses described below, Federal agencies should first consider the mission of the agency, the purpose of the facility and its employee and public access needs as they relate to the siting locations that are to be considered. For example, a Federal facility should nearly always be located in a centrally-located area that is conveniently accessible to the broad range of employees and members of the public across the region that it serves.

In both rural and urban contexts, siting determinations should be made by Federal officials after consultation with local planning officials and stakeholders, when feasible and appropriate within the agency mission context. These selection criteria should drive the conversation with local officials. Early engagement with planning officials at the State, metropolitan and municipal levels is important to identify appropriate location alternatives that satisfy the sustainable siting criteria.

Rural Areas

In most rural areas, site location decision-makers should consult with planning organizations at the county level to help define the area of consideration and then consult further with the appropriate municipality when evaluating and planning for specific sites that meet the Sustainable Selection Criteria. Federal agencies should be mindful of the goals of the Rural Development Act[11] and EO 13514 when engaging local officials.

Establish Areas of Consideration that Advance Local Objectives and Federal Sustainability Goals. The areas of consideration (delineated area) included in the site selection process should meet Federal agency mission goals and Federal procurement standards (e.g., the Competition in Contracting Act, CICA), while reflecting these Federal sustainability selection criteria. Agencies should seek to align Federal actions with local goals by doing the following:

- **Give Emphasis to Town Centers.** Where practicable and appropriate, the delineated area should be contained within town centers identified through coordination with local officials.
- **Give Emphasis to Other Areas that Would Reflect Sustainable Selection Criteria.** Reasons for choosing other areas or expanding the delineated area to include areas beyond the existing or planned town centers may include considerations related to CICA, cost, or other similar factors, but such expansion should be done after consultation with local officials.
- **Give Emphasis to Specific Sites that Would Advance Local Goals and Federal Sustainable Selection Criteria.** Within established delineated areas, and consistent with other Federal procurement requirements, agencies should use site evaluation and lease solicitation methods that would give meaningful weight to the sustainability features of potential sites and recommendations of local officials that meet the sustainable selection criteria. Avoid sites that would cause or encourage the development conversion of agricultural or recreational land uses to Federal facility use, and carefully consider sites where the proposed use is not compatible with pre-existing zoning.

[11] 7 U.S.C § 2204b-1

Urban/Suburban Areas

Consistent with Executive Orders 12072 and 13006, when considering locations in urban areas, agencies should give first consideration to locating in existing central business areas (CBAs) and in historic buildings and districts. In order to advance the goals of these Executive Orders and EO 13514, when agencies are considering sites in urban areas they should do the following:

- **Consider Sustainable Locations Within the Context of the Metropolitan Area.** Although many areas within a metropolitan region may be capable of meeting the basic workplace requirements of the Federal agency, these areas may not all provide the same opportunities to advance Federal Sustainability Goals. Agencies should give priority to locating in those areas within a metropolitan region that would advance Federal Sustainability Goals and meet agency sustainability goals identified in their Strategic Sustainability Plan, to the greatest extent possible.

  Where multiple jurisdictions within a metropolitan area could meet the mission needs of the Federal agency, the agency should consider consulting with regional, county, or other multi-jurisdictional planning bodies to sufficiently understand the sustainability implications of various alternatives and compare those areas with the Federal Sustainability Goals.

- **Give Priority to Delineated Areas that Would Advance Local Goals and Meet Federal Sustainability Selection Criteria.** Appropriate areas would advance both Federal and agency sustainability goals, including locating in areas well served by existing transportation, utility, and other public infrastructure. In keeping with the intent of Executive Order 13514, EO 12072 and EO 13006, agencies should give first consideration to locating within central business areas.

Evaluating & Developing Specific Sites

When evaluating potential sites within the selected delineated area and in making plans to use or develop the site for federal activities, agencies should do the following:

Consult with local officials about potential sites. Consider their recommendations and concerns about proposed sites during the decision process, as appropriate within Federal procurement policy. Although it may not be permissible in every case to discuss specific site offerings during the procurement process, Federal agencies should take into consideration local recommendations in establishing the selection criteria for the Federal process and should understand the impacts (positive or negative) that proposed sites would have on local development goals.

Where feasible, apply site specific sustainability criteria in the site evaluation process. Criteria may be included either as project requirements or as qualitative evaluation criteria, as appropriate for the proposed use and Federal contracting requirements.

Site characteristics that should be included in the evaluation:

- Proximity to public transit and ability to support transit oriented development (TOD).

- Alignment with local sustainability and economic development goals that conform to Federal sustainability criteria, including placement within CBA's or redevelopment areas identified by local officials.

- Adaptive reuse of historic properties, appropriate infill of historic districts, use of brownfield and greyfield sites and avoiding locations that would trigger or promote development of greenfileds.

- Pedestrian access and walkability around the site and to nearby uses and amenities.

Relevant site development factors that affect the sustainability of the location may include the following, among others:

- Ability to accommodate mixed or other shared non-Federal uses[12] of the site.

- Facility massing and design strategies that promote the most efficient land uses (i.e., floor area ratios or "FAR").

- Reduced need for onsite or facility-driven employee and official vehicle parking and promotion of effective parking management.

- Building design strategies that are compatible with the existing and desired character of the neighborhood, regarding building height, massing, setback, materials, etc.[13]

- Site design strategies that promote walkability within the site and pedestrian access to surrounding context, particularly with regard to public streets and rights of way.

- Ability of the site to accommodate efficient co-location of compatible Federal uses or "clustering," as appropriate.

Existing Sites

In addition to the sustainability opportunities found in their facility development and operations (e.g., facility energy use, materials choices, etc.), Federal agencies should seek to improve the sustainable location characteristics of existing Federal sites. These improvements are most achievable when evaluating modernization, redevelopment, consolidation, co-location of or changing uses at existing Federal sites. In this regard, Federal agencies should do the following:

Participate in regional transportation and other local infrastructure planning around the Federal facility. Agencies should seek to:

- Maximize opportunities to leverage changes at the Federal facility that support local infrastructure development goals through coordination and consultation with local officials.

[12] The Public Buildings Cooperative Use Act encourages the shared use of Federal space for commercial, cultural and other purposes. The directive in the Act and these recommendations would be integrated in the FMR. Additional guidance on mixed-use development can be found in the National Capital Planning Commission's Report *Activating Federal Places.*

[13] The Urban Land Use Act and other directives also support this intent.

- Recognize the potential of the Federal government to spur redevelopment of locations. Agency siting may require upgrading existing, aged infrastructure that may also support additional mixed-use development. Identifying such locations through consultation with local officials is an important consideration.

- Seek opportunities for the Federal development to anchor new transit oriented development (TOD), introduce new transportation infrastructure in close proximity to high concentrations of Federal employment, enhance transportation choices and support the viability of existing and proposed transportation investments.

Throughout any decision making process that would significantly expand or shrink Federal employment at the site, **engage in consultations with local officials** early in that process. This coordination will help prepare the community for the change and provide better integration of agency expansion. If an agency plans to leave an area, this early coordination can help the community prepare.

Regularly evaluate the facility's relationship to its surrounding context. Consult with local officials regarding site elements or management strategies that would enhance sustainability and local economic development including methods to:

- Foster the establishment and continuation of transit services.

- Reduce the need for onsite parking and promote effective transportation management planning.

- Improve the site's compatibility and integration with the existing and desired character of the neighborhood.

- Promote walkability and interconnectedness between the Federal site and its surrounding area.

Integrating Sustainable Location Considerations into Federal Agency Business Planning

Federal agencies should seek to enhance the sustainability of new and existing Federal sites at every relevant opportunity, for all facility types and for all planning contexts. It is understood that each site is unique and integrating sustainable location principles into the planning for a wide variety of new and existing facility types, contexts, and market conditions will result in a wide range of results.

In order to accommodate pragmatic Federal business needs and site specific conditions while also achieving significant advancement of Federal Sustainability Goals, Federal agencies should do the following:

Incorporate Sustainable Selection Criteria into Strategic Sustainability Performance Plans. Section 8 of EO 13514 directs agencies to develop "Agency Strategic Sustainability Performance Plans." The recommendations for sustainable siting of Federal facilities in this document should be coordinated with the following components of a sustainable performance plan:

Policies and Procedures. Current policies and procedures pertaining to site selection activities should be reviewed and updated as appropriate to promote the sustainable location objectives found in this document. Agencies should outline plans to improve their performance in achieving these sustainable location objectives.[14]

Sustainable Locations Reporting. Agencies should provide trend data on the status of their workplaces as they relate to Federal sustainable location goals such as:

- ***Scope 3 Emissions***. Agencies should provide a separate report out of Scope 3 emission baselines and targets that derive from employee and visitor commutes to agency facilities. Such reporting should comply with the Scope 3 reporting procedures developed under the Executive Order (including under Section 9). Where doing so would be instructive, they should be further broken out by distinct facility types. Scope 3 emission reporting should be disaggregated to represent emissions linked to specific facilities. [15]

- ***Mode Share***. Facilities should provide data that captures the mode of travel used by employees for their work commute.

- ***Other Sustainability Measures***. Tools are currently under development that will provide quantitative data on the success of sustainability measures. CEQ may issue future direction for other relevant indicators to be included in agency plans as the technology advances and more tools become available. The Appendix discusses potential such measures that would be optional in the near term. After refinement and development of reporting tools, CEQ may choose to make some of these measures required reporting elements.

Minimize Exemptions. Avoid exempting facility types or site decision processes from the imperative to enhance location sustainability as much as is practicable for the proposed use.

Consider all criteria. Avoid pursuing operational measures alone (e.g., employee shuttle services) as substitutes for making fundamentally sustainable site decisions at the outset of facility planning processes.

Apply standard agency business criteria very carefully, ensuring that they do not undermine the ability to promote Federal sustainable locations goals. Where flexibility is applied, it should be well supported on a case by case basis.

[14] This is in keeping with EO 13514 Section 8 (d) which directs agencies to identify relative activities and planned revisions.

[15] Current Scope 3 reporting methodology (developed for Section 9 of the Executive Order) would capture this data and roll it up to an aggregate level. In order to use the data to drive improvement over time, we recommend sharing the facility level data in sustainability plans.

Agencies should have provisions in place to ensure that the following criteria are properly balanced alongside sustainability goals and business and mission planning:

- **Security criteria**. The Interagency Security Committee (ISC), created by E.O. 12977 to address "continuing government-wide security" for Federal facilities, issues physical security criteria to which all Federal non-military facilities within the United States must adhere. Federal agencies subject to ISC criteria for securing and protecting Federal facilities should consider sustainability site selection criteria as well as local recommendations when evaluating potential countermeasures, particularly those that may drive the need for large sites and setbacks, road closures, and restricted site access. This consideration is appropriate under ISC guidance that allows for risk management decision making, including possible risk acceptance, to be made in light of cost, design impacts or restrictions, life cycle costing, and other factors. Agencies that follow other Federal security criteria, including the anti-terrorism design standards under the Department of Defense's Unified Facility Criteria, should ensure that the criteria allows for adequate consideration of sustainability factors and flexibility where appropriate.

- **Parking Requirements.** Federal agencies should examine how their parking requirements may affect the viability of sustainable sites and how their site selection may drive demand for parking. Since parking requirements may make otherwise sustainable sites less viable, Federal agencies should carefully examine agreements or practices that routinely provide for employee parking at Federal facilities. These agreements should be revised, as necessary, to ensure that they provide for case-specific flexibility in pursuing sustainable site options and that they align with the intents of Executive Order 13514. Similarly, agencies should consider how their site selection decisions drive demand for parking, for both off site and onsite employee as well as visitor parking.

- **Project Cost Parameters.** Agencies should consider Federal Sustainability Goals as part of the life cycle cost analysis conducted during facilities development; factors that impact sustainability goals should be considered in conjunction with those that directly impact agency mission performance.

- **Sustainability and Design**. Agency sustainability goals should be included in facility security design program goals to ensure sustainability features are incorporated, beginning at the concept design stage.

- **Sustainability Opportunities**. Agency sustainability goals can be most effectively implemented in new construction (Government-direct or lease) and major modernizations of existing buildings. While leasing existing buildings provides fewer opportunities, sustainability goals can still be achieved in accommodating needed tenant alterations and the use of equipment, materials and finishes. For example, requiring the use of low energy office and perimeter security lighting requirements can be accommodated in the leasing process.

- **Capital and operational budgets.** As directed in EO 13514, Federal agencies must integrate their sustainability plans into their strategic planning and budgeting process, including the agency's strategic plan under section 3 of the Government Performance and Results Act of 1993. Budget development processes and performance measurement should require sustainability goals to ensure reduction in energy use and security operations efficiency are made part of each agency/department's administrative program goals consistent with other OMB guidance. Agencies are reminded that these recommendations are not intended to promote moves of federal agencies from otherwise appropriate existing locations into new locations solely for the purposes of improving sustainability performance.

- **Project Schedule.** Project schedule parameters are particularly important where a change to the schedule would undermine long term agency mission deliver. However, agencies should carefully examine business schedule needs that would rule out more sustainable and otherwise viable development options.

Agency Real Property Asset Management. In preparing the federal real property asset management plans directed under EO 13327, as well as accompanying 3 Year Timelines, Senior Real Property Officers should address agency sustainable criteria in their operations and holdings. They should include location considerations in reporting on the environmental and life cycle costs outlined in the Executive Order and coordinate on best practices with the Federal Real Property Council.

Agencies should pay particular attention to major mission or facility reprogramming initiatives and integrate the sustainability goals of EO 13514 into those efforts. In particular, agencies undertaking such initiatives that report facility siting recommendations to congress, or other oversight bodies prescribed by law, must provide to the oversight bodies information regarding how the sustainability goals of EO 13514 were applied in forming the recommendations.

Internal Agency Policies and Procedures. In order to accommodate the wide variety of Federal agency missions, facility types, management processes, and decision contexts, each agency subject to the provisions of EO 13514 should implement internal management policies and procedures to implement these recommendations. Internal practices should ensure that agency location decisions successfully balance sustainable location considerations with other business factors in the agency's decision process.

Appendix I – How to Promote Agency Progress

EO 13514 Section 9 requires agencies to report on and set performance targets for their Scope 3 emissions related to employee commuting. As directed by CEQ, agencies must provide this information in their Sustainability Plans. The current GHG accounting protocols call for this data to be collected via employee surveys. Beyond these reporting requirements, agencies may use additional indicators and techniques that to identify potential for improvement and chart their progress.

The following section outlines how agencies may use the sustainable selection criteria to guide their work. Since all criteria are not equally and easily measurable at this time, in their Strategic Sustainability Plans (SSPs) agencies should discuss how the criteria is being applied in their business environment. A discussion of both sustainable selection criteria indicators and internal business processes in agency SSPs will help share good practices with CEQ and with other Federal agencies. The discussion below outlines potential approaches, using either existing indicators or examining internal business processes.

A Note on Indicators. Given the broad range of facility types, contexts, and other case specific factors, the indicators discussed below do not represent judgments about whether an agency is doing well either generally or at a specific facility. Rather, they are meant to be useful to an agency looking at its performance in light of its business model. They may also provide useful information to stakeholders looking at broad trends in the Federal inventory. They do not represent performance targets or goals for site selection.

Similarly, examining business processes as discussed below shows agencies how they might assess their business practices in light of the sustainable selection criteria. This assessment will help agencies improve their internal processes and highlight best practices.

Sustainable Selection Criteria Indicators

Indicators are measurable data that provide information to the agency about what opportunities their facilities' locations present in advancing their sustainability goals. They also help to provide broad information across the government regarding the aggregated status of Federal facilities. They are not performance measures.

The following Sustainable Selection criterion (as discussed on p. 5) lends itself to quantifiable indicators in the short term:

- **Promote Efficient Travel and Ensure Transit Access**.

The most relevant indicators for this criterion includes *workplace proximity to high frequency public transit* and the current *transportation mode* that employees chose in making their commute to work (i.e., the "mode split" or share of employees that drive compared to those that take public transportation, walk, carpool, or use other forms of transportation.).

In the longer term, as technology improves, these and similar criteria may become more easily quantifiable and practical for supporting more sophisticated analysis. However, for near term reporting periods, agencies should consider the following methods to develop indicators to guide their

improvement efforts:

1. **Employee Surveys.** Promoting efficient travel and ensuring transit access can be quantified via employee commuting surveys. In order to calculate the Scope 3 emissions associated with employee commutes to work, the GHG protocol calls for agencies to collect employee data at the facility level. It is strongly recommended that agencies leverage this opportunity to collect additional data that will help to evaluate this criterion more fully. For example the surveys could include the following data elements: Zip Code of Residence, Zip Code of Workplace, U.S. Postal Service mailing address of workplace, and Primary Mode of Travel to Work.

   Agencies should consider aggregating the employee survey data to the facility level for all facilities. If that is not practical for near term, they should provide facility level data for a meaningful subset of agency facilities. For example, agencies with a large number of facilities may choose to present facility level data for the agency's five (5) largest facilities based on personnel counts, a sample of different facility types that respond to different mission needs such as laboratories or regional offices compared to district offices or large and small facilities.

   Analyzing facility level data will help agencies to see where they might focus their improvement efforts over time based on planned facility changes and/or observations about regional or facility type trends, for example. For the longer term, CEQ is expected to issue additional direction about what survey criteria should be presented in future reporting periods.

2. **Analysis of Federal Personnel Data.** With proper handling of personally identifiable information (PII), agencies may choose to provide analysis based on where their employees reside in relation to their workplaces and how they commute to work. Data associated with Federal transit subsidies or other records may provide meaningful information. Agencies should use relevant internal data sources until other sources or national level data becomes available.

3. **Geographically Based Data Analysis.** In addition to Federal employee data that would be of use in assessing actual employee transportation choices, agencies may wish to look at their facility locations in the context of how those locations compare against standard geographic indicators. Geographic information systems make the mapping and analysis of such data more readily available. The data is useful not only in preparing agency sustainability plans but may also help analyze potential sites during the decision process.

   Sample data points would include workplace distance to high frequency public transit (e.g., number of personnel at an agency workplace that are within ½ mile of light rail or rapid transit bus service) or the work force transit share for non-Federal employees in the vicinity of the Federal workplace. For example, the share of public transit use among all employees in a downtown area would be a useful indicator to assess what may be achievable at Federal workplaces in that downtown. Combining Federal employee survey data with geographic indicators can help an agency to focus its improvement efforts most effectively. It might, for example, indicate whether operational or other actions might be most fruitful.

Relevant sources for the above data in the short term would include local planning authorities, especially the metropolitan planning organizations (MPOs) who are charged with developing regional transportation plans. As mapping software and related data sets are developed further, they can be tailored for Federal use. Agency sustainability officers will be kept apprised of this development and useful tools will be provided as they become available.

Examining Business Processes

The business processes that agencies have in place to support and execute their decisions are the most important tools to make well balanced, sustainable site decisions. This is especially true of the following sustainability selection criteria (described on pages 5 - 8), which do not immediately lend themselves to quantifiable indicators:

- **Locate in existing central business districts and rural town centers.**
- **Locate near or be accessible to affordable housing.**
- **Promote Walkability and Bikability.**
- **Use Existing Resources.**
- **Foster greyfield/brownfield infill development.**
- **Encourage adaptive reuse of Historic buildings and districts.**
- **Preserve the natural environment.**
- **Consult with local and regional planning officials.**

Although some indicators (e.g., location within central business districts) may soon be easily definable for a large inventory of Federal properties, it is more important for agencies to evaluate their business practices and consider how their decision-making processes can be refined to better support these criteria.

In preparing their FY2010 Strategic Sustainability Plans, agencies should consider the above criteria in the context of their workplace decision-making processes. Agencies should identify and discuss the following:

1. **Workplace requirements that frequently make the Federal sustainable location criteria difficult to achieve.** By necessity, many agency mission requirements may make it difficult, if not impossible, to achieve Federal sustainable selection criteria. Because fulfilling the agency's core mission is the paramount consideration, this is appropriate in many cases. But agencies should be mindful of new ways to fulfill their mission using methods that provide more opportunity to meet the criteria. Agencies should consider standard (traditional) requirements that are no longer essential to meet agency space needs. These may include facility adjacencies, floor plate sizes, co-location of uses, record storage or similar requirements that are no longer necessary given workplace technology.

   For example, do facility floor plate requirements typically make it difficult to accommodate agency

needs through the adaptive reuse of historic properties? Do facility security requirements make it difficult to locate in walkable areas or in central business districts or as part of transit oriented developments (TODs)? Sustainability plans should discuss these challenges and, where appropriate, identify creative ways that the agency intends to address these factors.

2. **Employee considerations that frequently make the Federal sustainable location criteria difficult to achieve.** The most valuable resources an agency has to fulfill its mission are its employees. Therefore, it is appropriate to consider how workplace decisions will impact the recruitment and retention of a high quality workforce. At the same time, agencies must be mindful of common agency practices that may address employee preferences in ways that undermine Federal sustainability goals. For example, does the agency or the market provide free or subsidized parking near the workplace? In contrast, agency practices can support sustainability goals. For example, do agency facilities promote convenient bicycle commuting? Sustainability plans should discuss these practices and, where appropriate, identify creative ways that the agency intends to address them.

3. **Business processes that undermine the ability to consider and balance sustainability factors in the decision process.** In addition to relevant workplace requirements, agencies should consider how their site decision processes can be improved to ensure meaningful consideration of sustainable selection criteria. For example, does the agency's capital planning process allow for consultation with local officials before decisions are made or funded? Do procurement methods provide for meaningful evaluation and prioritization of sustainable locations? Sustainability plans should discuss these practices and, where appropriate, identify creative ways that the agency intends to address them.

Appendix II

Major Federal Laws, Executive Orders, Regulations and GSA Directives

Real Property Acquisition-

Uniform Relocation Assistance and Real Property Acquisition Policies Act, 42 USC §§ 4601-4655

40 USC §§ 3301-3315 (Formerly the Public Buildings Act of 1959)

Federal Management Regulation Part 102-73-Real Estate Acquisition, 41 CFR Part 102-73

PBS Commissioner's Memorandum, "Implementation of the Interagency Security Committee Design Criteria Regarding Site Selection," April 26, 2002

Location, Consultation, and Coordination-

Rural Development Act, 7 USC § 2204b-1

Farmlands Protection Act, 7 USC §§ 4201 et seq.

Federal Management Regulation Part 102-83-Location of Space, 41 CFR, Part 102-83

Federal Urban Land Use Act of 1949, as amended by P.L. 106–580, Dec. 29, 2000

E.O. 11988, "Floodplain Management," May 24, 1977

E.O. 12072, "Federal Space Management," August 16, 1978

E.O. 13006, "Locating Federal Facilities on Historic Properties in Our Nation's Central Cities," May 21, 1996

Historic Preservation-

American Indian Religious Freedom Act, 42 USC §§ 1996-1996a

Archaeological Resource Protection act, 16 USC §§ 470aa-mm

National Historic Preservation Act, 16 USC §§ 470 et seq.

Native American Graves Protection and Repatriation Act, 23 USC §§ 3001 et seq.

Religious Freedom Restoration act, 42 USC §§2000bb-2000bb-4

Federal Management Regulation Part 102-78-Historic Preservation, 41 CFR Part 102-78

E.O. 13007, "Indian Sacred Sites," May 24, 1996

Environmental Protection

Clean Air Act, 42 USC §§ 7401 et seq.

Coastal Zone Management Act, 16 USC §§ 1451 et seq.

Comprehensive Environmental Response, Compensation, and Liability Act, 42 USC §§9 601 et seq.

Endangered Species Act, 16 USC §§ 1531 et seq.

Fish and Wildlife Coordination Act, 16 USC §§ 661 et seq.

Federal Water Pollution Control Act (Clean Water Act), 33 USC §§ 1251-263

National Environmental Policy Act, 42 USC §§ 4321 et seq.

Safe Drinking Water Act, 42 USC §§ 300f et seq.

Solid Waste Disposal Act, 42 USC §§ 6901 et seq.

Toxic Substance Control Act, 15 USC §§ 2601 et seq.

Wild and Scenic Rivers Act, 16 USC §§ 1271 et seq.

E.O. 11514, "Protection and Enhancement of Environmental Quality," March 5, 1970; as amended by E.O. 11991, May 24, 1977

E.O. 11593, "Protection and Enhancement of Cultural Environment," May 13, 1971

E.O. 11990, "Protection of Wetlands," May 24, 1977

E.O. 12088, "Federal Compliance with Pollution Control Standards," October 13, 1978; as amended by E.O. 12580, January 23, 1987

E.O. 12580, "Superfund Implementation," January 23, 1987; as amended by E.O.'s 12777 and 13016

E.O. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," February 11, 1994

E.O. 13423, "Strengthening Federal Environmental, Energy, and Transportation Management" January 24, 2007