Agenda

- Logistics, Ground Rules & Introduction
- Project Timeline
- Workshop Objectives
- Business Process Review
  - Process overview
  - AS-IS process flow
  - Current system alignment
  - Process improvement opportunities
  - SAP terms glossary
  - SAP concepts & functionality
  - Business process flow
  - Leading practices
  - Enterprise readiness challenges
- Next Steps – Action items
- Questions
Before we get started ...
Ground Rules

- Has everybody signed in?
- Everybody participates – blueprint is not a spectator sport
- Silence means agreement
- Focus is key – please turn off cell phones and close laptops
- Challenge existing processes and mindsets
- Offer suggestions and ideas
- Think Enterprise
- Ask questions at any time
- One person at a time please
- Timeliness – returning from break
- Creativity, cooperation, and compromise
Introduction

- **Roles**
  - **Process Analyst and Functional Consultant** – lead and facilitate the discussions and drive design decisions
  - **Documenter** – take detailed notes to support the formal meeting minutes to be sent by the Process Analyst to all participants for review and feedback
  - **Team Members** – provide additional support for process discussions, address key integration touch points
  - **Subject Matter Experts** – advise team members on the detailed business process and participate in the decisions required to design the future state business process

**Round the Room Introductions**

**Name**

**Position**

**Agency**
Five Key Phases

1. **Project Preparation**
   - Strategy & Approach Defined
   - Project Team Training

2. **Business Blueprint**
   - Business Process Definition
   - Development Requirements

3. **Realization**
   - Development & Unit Testing
   - Integration Testing
   - End-User Training Materials

4. **Final Preparation**
   - User Acceptance
   - Technical Testing
   - End-User Training
   - Conversion

5. **Go Live and Support**
   - Go-Live Support
   - Performance Tuning

---

Project Phases
Tentative Project Timeline

- Tentative implementation dates are planned as follows:

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Tentative Implementation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget Prep</td>
<td>October 2009</td>
</tr>
<tr>
<td>DOTD</td>
<td>February 2010</td>
</tr>
<tr>
<td>Core Modules All Agencies</td>
<td>July 2010</td>
</tr>
<tr>
<td>Additional Modules</td>
<td>January 2011</td>
</tr>
</tbody>
</table>

**Phased deployment will be confirmed/updated before completion of Blueprint activities!**
Project Organization - Functional Teams

**Finance Leads**
- Beverly Hodges – Finance Lead
- Drew Thigpen – Finance Lead
- Mary Ramsrud – Consulting Lead

**Logistics Leads**
- Belinda Rogers – Logistics Lead
- Jack Ladhur – Logistics Lead
- Brad Denham – Consulting Lead

**Linear Assets Leads**
- Mark Suarez – Agile Assets Lead
- Charles Pilson – Consulting Lead

**Functional Teams**
- **General Ledger**
- **Accts Receivable**
- **Cost Accounting**
- **Grants Mgt**
- **Asset Accounting**
- **Budget Prep**
- **Real Estate Management**
- **Accounts Payable**
- **Cash Management**
- **Funds Management**
- **Project Systems**
- **Grantor**

**Other Roles**
- Sue Wheeler
- Peter Tabone
## Blueprint Schedule - Tentative

<table>
<thead>
<tr>
<th>Workshop ID</th>
<th>Process Area</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI-RE-001</td>
<td>Real Estate: Master Data</td>
<td>Sept 23 (Tue)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sept 24 (Wed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sept 25 (Thu)</td>
</tr>
<tr>
<td>FI-RE-002</td>
<td>Real Estate: Transactions</td>
<td>Oct 7 (Tue)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oct 8 (Wed)</td>
</tr>
<tr>
<td>FI-RE-003</td>
<td>Real Estate: Right-of-Way Parcels</td>
<td>Oct 30 (Thu)</td>
</tr>
<tr>
<td>FI-RE-004</td>
<td>Real Estate: Leasing</td>
<td>Nov 12 (Wed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nov 13 (Thu)</td>
</tr>
<tr>
<td>FI-RE-005</td>
<td>Real Estate: Validation Session</td>
<td>Dec 3 (Wed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dec 4 (Thu)</td>
</tr>
</tbody>
</table>
Blueprint Objectives

- **Review and discuss the current or As-Is business processes**
  - Which helps to drive out the *Business requirements*
  - As well as the *integration points* with other processes

- **Define Master Data**
  - Address key integration points
  - Support organizational requirements
  - Consistent and appropriate use of data fields

- **Define Future or To-Be business processes based on:**
  - Best Practices inherent in SAP
  - Intellectual capital from other SAP implementations
  - State business requirements

- **Identify development requirements**
  - Which could result in the need for a form, report, interface, conversion, enhancement, or workflow (FRICE-W)

- Understand and communicate any organizational impacts / Enterprise Readiness challenges

- Gather system security authorizations and district-wide training requirements
Work Session Objectives

**Our Goal**

To develop a clear and common picture of the capabilities required (of your solution) for managing real estate

Focus on the ‘WHAT’ (requirements) and not on the ‘HOW’ (process realization)

Focus on business process design and true business requirements

Utilize standard SAP functionality wherever possible

Reduce the cost of business by shaping business processes that are enabled by SAP

**Our Approach**

1. Identify, review, evaluate and prioritize your core “to-be” business processes (within the entire value chain)
2. Determine the functionalities required to support your “to-be” business processes
   - Identify most critical core functionalities
   - Identify integration related functionalities
   - Identify useability expectations
   - Identify “nice-to-have” functionalities
3. Do a Fit-Gap-Analysis related to required functionalities, what’s in standard, what needs to be enhanced etc.

**Legacy System / Functionalities**

Existing processes are often based and designed on legacy applications and their capabilities – and are not aligned to the overall corporate strategy

It’s essential to avoid a 1:1 transfer of legacy functionalities and processes without having a strategy and without reviewing your business processes
“AS IS” .....
Current Systems Alignment

<table>
<thead>
<tr>
<th>Agency Name</th>
<th>Application Name</th>
<th>Truncated Description</th>
<th>ERP Related Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division of Administration</td>
<td>SLABS - State Land &amp; Buildings System</td>
<td>Tracks State lands, buildings, leased space and building contents.</td>
<td>Asset Management, Facility Management</td>
</tr>
</tbody>
</table>
Process Improvement Opportunities
(Pain Points)

- The aim?
  - To improve the flow of data across the agencies.

- The means?
  - An end-to-end SAP software-based solution.

- The result?
  - Increased visibility, greater productivity, and lower maintenance costs.
…. “TO BE”
Business Process Hierarchy - Overview

At a high level, a set of processes that define a business task in a broad and self-contained manner (i.e. **scope clarification and business alignment**).

Example: **Master Data Management**

Set of logically related activities performed to achieve a defined business outcome (i.e. **process requirements**).

Example: **Business Entity, Building, Land, etc.**

An elementary activity performed to complete a business process (i.e. **functional requirements**).

Example: **Process Building**

**Transaction(s)**

**REBDBU: Process Building**
### Process Overview

#### Business Scenario

<table>
<thead>
<tr>
<th>Portfolio Management</th>
<th>Real Estate Analytics</th>
<th>Master Data Management</th>
<th>Partner Management</th>
<th>Transaction Management</th>
</tr>
</thead>
</table>

#### Business Processes

- Business Entity
- Land
- Building
- Architectural Structure
- Rental Objects
- Functional Location
- Equipment
- Fixed Asset
- CAD/CAFM Support
SAP Glossary

- **Public Web**

- **SAP Service Marketplace (log-on required)**
  - [http://service.sap.com/re](http://service.sap.com/re)

- **Documentation and Release Notes**

- **Training courses: RE010 / RE200**
  - RE010 Business Processes in SAP Real Estate Management
  - RE200 Flexible Real Estate Management (see [http://www.sap.com/education](http://www.sap.com/education))

- **ASUG: Real Estate Special Interest Groups**
  - [http://www.asug.com](http://www.asug.com)
Real Estate Processes in SAP Solutions

Real Estate
- Property Portfolio
- Contact Management
- Lease Management
- Long term seating
- Move Management
- Room Reservation
- Key Date Reminders
- Reporting

Maintenance
- Preventative/Breakdown
- Building Service Requests

NetWeaver
- BW Reporting
- Portals
- Workflow
- Optical/Data Archiving
- Records Management
- Interactive Adobe

Controlling
- Portfolio Controlling
- Profit/Cost Center
- Cost Distribution

General Ledger/AP/AR
- Payables
- Receivables

Asset Accounting
Investment Management

Project Management
- Acquisition, Disposal
- Construction, Renovation
- cProjects

Purchase Orders
- Projects
- Equipment/Materials

CAD/CAFM/GIS
- Graphical representations
- Standard integration
Integration

- **Integration to SAP ERP**
  - SAP Business Information Warehouse
  - SAP Accounting
  - SAP Controlling
  - SAP Business Partner
  - SAP Plant Maintenance/Customer Service
  - SAP Project System
  - SAP SmartForms/Adobe
  - SAP Document Management System/Records Management
  - SAP Workflow

- **Integration to CAD, CAFM and GIS systems**
Designing your Real Estate Lifecycle in SAP
1. New investment is identified
2. Appropriation request is created
3. Investment and budget are approved
4. **Acquisition process for new property purchase is triggered**
5. Investment costs can be reported vs. investment plan or budget

---

**Requirements?**

**Workshop 2 - Transactions**
1. Investment is approved
2. New property (land, building, structure etc.) is purchased
3. Purchase and asset information is captured in system
4. If required construction / refurbishment takes place
5. Detailed property information is captured and spaces are ready to be leased

Requirements?

**Workshop 2 - Transactions**

**SAP Business Processes:**
*Portfolio Management > Master Data Management & Portfolio Management > Business Partner Management*

You use these business processes to map master data structures and business partners. It consists of the following steps:

- Create master data for architectural view (optional)
- Create master data for usage view
- Create business partner
1. Decision made to lease new land, structure, and/or space(s)
2. Lease is negotiated and signed with the landlord
3. **Landlord lease and related property is captured in the system**
4. Property is refurbished / constructed to meet business leasing needs
5. Space is ready to be leased to tenants

**Requirements?**

**Workshop 2 - Transactions**

**SAP Business Processes:**

- Portfolio Management > Master Data Management
- Portfolio Management > Business Partner Management
- Commercial Real Estate Management > Lease Management
**Acquisitions: Events and SAP Solutions**

- Negotiations for lease, construction work, or purchase activities
  - Real Estate (RE), Project Systems (PS), Procurement (MM)

- Portfolio is updated
  - Real Estate (RE), Asset Management (AA)

- Business stakeholder or Real Estate: We need space / we want to invest / Expansion is necessary
  - Investment plans (IM)

- Collaboration with internal and/or external stakeholders is required
  - Workflow, Interactive Forms, cFolders/cProjects

- Capture all costs during creation process – in case of construction
  - Create AuC (AA)

- Appropriation Request Submitted and approved investment approval process (IM)

- New Project
  - Project with WBS hierarchy Created (PS)

- Case Management is necessary to track all steps and ensure due diligence
  - Store all documents centrally (Records management)
1. Architectural and usage view within SAP Real Estate

2. Central point of entry for all processes related to real estate and facility management

3. Integration to PM, AA and PS allows drilldown to other processes, such as notification of breakdowns or creation of a fixed asset record

4. Master data will also be used for the real estate contract, where space is assigned to occupants and users and financial processes are triggered.

5. SAP Business Partner tracks all contacts, vendor, and customer records
Hierarchical representation of an organization’s RE objects (structural and physical attributes)

RE objects differentiated by user-defined object type names.

Basis for managing the rental and use of available space

Hierarchical structure representing RE objects that can be rented

Uses system defined RE objects.
The architectural view controls the PM integration with RE (automatic / manual generation of FL’s).

Requirements:
At what level will FL’s be required (to support facility management? At site and building levels? Is there a business requirement to drive FL’s to lower levels such as part of building or room?)
Architectural Object Types (AO)

**What is it?**
User-defined architectural object types that will be arranged in a hierarchy to represent the physical attributes of your RE portfolio (i.e. land, buildings, etc.)

**Action Item:**
Define the different architectural object types and distinct architectural levels you wish to have in the system and their relationship to each other.

**Recommendation:**
Only use a small number of object types, ones that you really need. i.e. Avoid creating different architectural object types for different types of rooms. Rather make that distinction at the “Functions” per Architectural Object Type.

**Example:**

![Object Types of Architecture Table]

<table>
<thead>
<tr>
<th>ArchObtTyp</th>
<th>Name of AO Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>01AR</td>
<td>Locality</td>
</tr>
<tr>
<td>02CM</td>
<td>Building Complex</td>
</tr>
<tr>
<td>03BU</td>
<td>Building</td>
</tr>
<tr>
<td>03PR</td>
<td>Property</td>
</tr>
<tr>
<td>04EC</td>
<td>Encroachment</td>
</tr>
<tr>
<td>04FL</td>
<td>Floor</td>
</tr>
<tr>
<td>04PB</td>
<td>Part of Building</td>
</tr>
<tr>
<td>04PP</td>
<td>Part of Property</td>
</tr>
<tr>
<td>05AP</td>
<td>Apartment</td>
</tr>
<tr>
<td>05PA</td>
<td>Parking Garage Lots</td>
</tr>
<tr>
<td>05PL</td>
<td>Parking Lots</td>
</tr>
<tr>
<td>05RM</td>
<td>Open area</td>
</tr>
<tr>
<td>05RO</td>
<td>Closed area</td>
</tr>
<tr>
<td>06CA</td>
<td>Hospitality Area</td>
</tr>
<tr>
<td>07LO</td>
<td>Lobby</td>
</tr>
</tbody>
</table>
Architectural Hierarchy

**What is it?**
Hierarchical representation of your RE objects (i.e. buildings) using a user-defined naming convention.

**Action Item:**
Define which architectural object types can be assigned as higher-level object types (parent object types) within the hierarchy, per architectural object type.

**Example:**

<table>
<thead>
<tr>
<th>AO Type</th>
<th>Name of AO Type</th>
<th>AO=BE</th>
<th>AO=BU</th>
<th>AO=PR</th>
<th>Top Lvl</th>
<th>Hi Level Obj Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>01PD</td>
<td>Site</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>01PD (Site)</td>
</tr>
<tr>
<td>03LD</td>
<td>Land</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>03LD (Land)</td>
</tr>
<tr>
<td>04PL</td>
<td>Land Parcel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01PD (Site)</td>
</tr>
<tr>
<td>03BU</td>
<td>Building</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>03BU (Building)</td>
</tr>
<tr>
<td>04FL</td>
<td>Floor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>03BU (Building)</td>
</tr>
<tr>
<td>06RM</td>
<td>Room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>04FL (Floor)</td>
</tr>
</tbody>
</table>
Architectural Object ID Code

Rules will need to be established for generating system wide, unique architectural hierarchies. These rules specify the maximum length of the architectural object type, if the object is used in the automatic numbering sequence and what the separator will be to easily identify a segment of the number.

Rules Example:

<table>
<thead>
<tr>
<th>Name of Type</th>
<th>AO</th>
<th>Max</th>
<th>Default Use</th>
<th>Separator</th>
<th>From AONR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>7</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>3</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Empl Housing</td>
<td>3</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td>5</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Floor</td>
<td>2</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Part of Floor</td>
<td>2</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Room</td>
<td>5</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>6</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Parcel</td>
<td>3</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Portion</td>
<td>3</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>EH Unit</td>
<td>4</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Action Item:
Specify: The maximum length of the AOID code
The default length (this length is used as the default when the AOID code is derived from the number of the architectural object)
If the architectural object ID of objects that have this object type is used for assigning the architectural object ID of subordinate objects
If a separator is used to separate the AOID of the object from the code of the subordinate object
If the AOID code should be generated from the number of the architectural object

Generated AOID:

<table>
<thead>
<tr>
<th>AO Number</th>
<th>AOID Code</th>
<th>Generated AOID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>H00112</td>
<td>H001124</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>(automatic)</td>
</tr>
<tr>
<td>Property</td>
<td>1</td>
<td>001 (automatic)</td>
</tr>
<tr>
<td>Building</td>
<td>2</td>
<td>02 (automatic)</td>
</tr>
<tr>
<td>Floor</td>
<td>4</td>
<td>04 (automatic)</td>
</tr>
<tr>
<td>Part of Building</td>
<td>NW</td>
<td>NW</td>
</tr>
<tr>
<td>Room</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H001124-001-02.04NW56</td>
</tr>
</tbody>
</table>
Functions (per Architectural Object Type)

What is it?

Functions are assigned to an architectural object to help further classify the object type. It’s informational only. Can be used as a selection in reports. The functional assignment made to an architectural object can be changed at any time.

Action Item:
Specify the function (for architectural object types) per architectural object type.

Example

<table>
<thead>
<tr>
<th>Arch Ob Type</th>
<th>Arch Object Name</th>
<th>Function</th>
<th>Long Function Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>05RM</td>
<td>Room</td>
<td>1</td>
<td>Office</td>
</tr>
<tr>
<td>05RM</td>
<td>Room</td>
<td>2</td>
<td>Common Area</td>
</tr>
<tr>
<td>05RM</td>
<td>Room</td>
<td>3</td>
<td>Service Area</td>
</tr>
<tr>
<td>05RM</td>
<td>Room</td>
<td>4</td>
<td>Conference Room</td>
</tr>
<tr>
<td>05RM</td>
<td>Room</td>
<td>5</td>
<td>Other Space</td>
</tr>
</tbody>
</table>
Measurement Types

What is it?
Measurement types represent all quantifiable attributes, such as space (ft², m², acres, hectares), dimensions (height, linear feet/length), volume (m³ or ft³), number of desks or internet connections, etc.

Action Item:
Define measurement types.

Recommendation:
Reflect what is available in CAD, and/or which conforms with common data standards, such as ANSI/BOMA etc.
Total Measurements

What is it?
The function makes it possible to derive “total” measurements from other measurements.

Use
They are useful for differentiating between measurement types for reporting purposes.

Action Item:
Specify the “sub-totals / grouping” of your earlier defined measurement types.

Example

<table>
<thead>
<tr>
<th>MeasTp</th>
<th>Med. Meas. Type</th>
<th>Amount</th>
<th>Unit</th>
<th>MeasFrom</th>
<th>MeasTo</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A001</td>
<td>Total Area</td>
<td>1,251.00</td>
<td>M2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A003</td>
<td>Usable Space</td>
<td>1,251.00</td>
<td>M2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A100</td>
<td>Retail Space</td>
<td>45.00</td>
<td>M2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A101</td>
<td>Office Space</td>
<td>1,178.00</td>
<td>M2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A103</td>
<td>Advertising space</td>
<td>28.00</td>
<td>M2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Usage Objects (UO)

What is it?

**Business Entity**
Logical grouping of individual real estate objects, depending on their purpose and/or geographical location.

It typically consists of one campus or one location and is compromised of one or more buildings and one or more land records.

It is uniquely assigned to one company code and cannot be reassigned to another company code at a later point in time.

**Land**
Land refers only to the land itself. It does not include the buildings on it. The basis for renting land or parts thereof.

**Buildings**
Any structure that is a built upon as an improvement of the land, and typically has depreciable value (even if leased). Buildings or their parts are the basis for the rental of spatial units.

**Recommendation**
Structure the business entity in such a way so that there will be no need to restructure in the future due to changes in organizational, business units or portfolio responsibility. Consider using “Sets” to group different real estate objects with the same object type and according to a particular criteria.
CO Objects in Real Estate Management

**RE-FX Object**
(Cost and Revenue Recipient)
- Business entity
- Building
- Properties
- Rental unit
- Pooled space
- Rental space
- Real Estate contract
- Cost collector SU

**Classic CO Objects**
- Cost Center
  (cost recipient only)
- Order
- WBS element
BE, BU, PR Number Ranges (UO)

What is it?

The system requires that you specify how number assignment is handled for usage objects (for the company code).

For **internal** number assignment, the system counts upward sequentially starting from a pre-defined (configured) number.

For **external** number assignment, you can specify the number range that is available when you create the usage object.

A BE can have any number of buildings and/or properties assigned. For buildings, properties and rental objects, the system assigns the number per business entity when internal number assignment is used. This number is unique within the business entity.

**Action Item:**

Discuss any specific numbering requirements.
Linking the AO and UO views

Physical View

Architectural View

Usage View

Building

Floor

Pooled Spc.

Property

Building

Land

Cube

Rental Spc.

CAD

PM

Contract $$$
BE – Regional Locations

What is it?

Field to enter the regional locations you need with the required amount of detail.

Regional locations are used to help classify the site (BE) into a general geographic area.

**Action Item:**

Discuss / determine requirements for regional location description for your sites (BE’s).
BE - Location

What is it?

A field that identifies the location or town within a specific geographic region.

**Action Item:**

Discuss / determine requirements for the location description for your sites (BE’s).
BE – District Locations

What is it?

Field to further classify a site into districts.

Action Item:

Discuss / determine requirements for a further breakdown of your sites (BE’s) into districts.

<table>
<thead>
<tr>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional location</td>
</tr>
<tr>
<td>Transprt Connections</td>
</tr>
<tr>
<td>Location</td>
</tr>
<tr>
<td>District Location</td>
</tr>
<tr>
<td>Maintenance distr.</td>
</tr>
<tr>
<td>Neighborhood</td>
</tr>
<tr>
<td>Neighborhood</td>
</tr>
<tr>
<td>Neighborhood</td>
</tr>
</tbody>
</table>
BE – Transport Connections

What is it?

Transportation connections are useful to help Property Managers identify sites where specific transportation connections are available.

Example

<table>
<thead>
<tr>
<th>TCo</th>
<th>Transportation Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>None (Car only)</td>
</tr>
<tr>
<td>1</td>
<td>Rail Spur</td>
</tr>
<tr>
<td>2</td>
<td>City Railroad / Subway</td>
</tr>
<tr>
<td>3</td>
<td>Bus / Streetcar</td>
</tr>
<tr>
<td>4</td>
<td>Interstate / Major Highway</td>
</tr>
<tr>
<td>5</td>
<td>Shipping Dock</td>
</tr>
</tbody>
</table>

Action Item:

Discuss / determine requirements for creating transport connections for BE’s (sites).
What is it?

Field that allows you to specify how far the real estate object (i.e. site) is from user-defined geographical points.

These specifications are optional.

Example

Example: Kindergarten, Elementary School, Supermarket, Train Station, Airport, Bus Stop, Recreation Area, Park, etc.

**Action Item:**

Discuss / determine requirements for creating infrastructure characteristics for BE’s (sites)....
Buildings (UO)

What is it?

The building represents any structure that is a built upon as an improvement of the land, and typically has depreciable value (even if leased).

These are typically facilities of all kinds and purposes, such as, corporate offices, manufacturing facilities, laboratories, maintenance structures, hotels and employee apartment buildings.

They can also include towers, pipelines, major fencing or gate facilities.

**Action Item**

Every facility that is owned or leased by the State will need to be created as a building in SAP.

Define the types of buildings that will be created.

Review building naming convention.
Building Number Ranges

What is it?

Building numbers are company code and business entity dependent.

Recommendation

Do not employ any “intelligent” numbering sequence. Have the system assign building numbers internally.
Building Condition

What is it?

Building condition identifies the state or disrepair of the building, such as excellent, good, fair, poor, impaired, tear down, or functionally obsolete.

This characteristic is for informational purposes only.

It is, however, an important indicator for disposal planning.

**Action Item:**

Define building conditions.
Building Types

What is it?

Building type is used to describe the type of construction of the building.

This information is especially important to the Risk Management group to provide to insurance providers. This characteristic is for informational purposes only.

**Action Item:**

Define building types.

**Example**

<table>
<thead>
<tr>
<th>ObjT</th>
<th>Building Type</th>
<th>Building Type Long Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wood</td>
<td>Wood</td>
</tr>
<tr>
<td>2</td>
<td>Steel</td>
<td>Steel</td>
</tr>
<tr>
<td>3</td>
<td>Cement Block</td>
<td>Cement Block</td>
</tr>
</tbody>
</table>
Building - Main Usage Types

What is it?

The main usage type describes the primary purpose of a building. This characteristic is for informational purposes only.

It is a changeable attribute, whereas the usage type on the Rental Objects may not be changed. This means that if a building is repurposed or undergoes major changes, the main usage type can be adjusted.

**Action Item:**

Define main usage types.
Fixtures & Fittings

What is it?

It is often important for support organizations to meet risk management requirements to track information around a facilities fixtures and fittings. This also assists real estate managers in maximizing facility space.

Example

<table>
<thead>
<tr>
<th>Type</th>
<th>Obj Type</th>
<th>DifCrt</th>
<th>Char</th>
<th>Fixture Characteristic</th>
<th>Differentiation Cat</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Architectural</td>
<td>02BU</td>
<td>1000</td>
<td>Overhead Sprinklers</td>
<td>Building</td>
</tr>
<tr>
<td>10</td>
<td>Architectural</td>
<td>02BU</td>
<td>1100</td>
<td>Smoke Detectors</td>
<td>Building</td>
</tr>
<tr>
<td>10</td>
<td>Architectural</td>
<td>02BU</td>
<td>1200</td>
<td>Alarms</td>
<td>Building</td>
</tr>
<tr>
<td>10</td>
<td>Architectural</td>
<td>02BU</td>
<td>2000</td>
<td>Overhead Cranes</td>
<td>Building</td>
</tr>
<tr>
<td>10</td>
<td>Architectural</td>
<td>04AP</td>
<td>3000</td>
<td>Furniture and Appliances</td>
<td>Apartment</td>
</tr>
</tbody>
</table>

**Action Item:**

Define all required fixtures and fittings characteristics. Define for each fixture and fittings characteristic the objects on which it is visible: rental object, building. Define the fixtures and fittings characteristics needed on architectural objects.

**Example:**

- **Characteristic category:**
  - Floor

- **Characteristic group:**
  - Floor
  - Floor covering

- **Characteristics:**
  - Concrete
  - Concrete flooring
  - ..."
Land (UO)

What is it?

Land or Property only refers to the ground or land and does not include any improvement or structures that may have been built on the land.

If there are multiple buildings on one land record, or multiple land records with one building on top of it, the architectural view or a geographic information system (GIS) file is used to map this relationship.

The validity date of the property will be the date the land was acquired. As there could be multiple land parcels assigned to a site, the dates for each individual parcel should be maintained in the system.

Action Item

Land that is owned or leased by the State will need to be created as a land real estate object in SAP.

Define the land / parcels that will need to be created.

Review your land naming convention.
Land – Number Ranges

What is it?

Land numbers are company code and business entity dependent.

Recommendation

Do not employ any “intelligent” numbering sequence.

Have the system assign land numbers internally.
Land – Property Type

What is it?

A described property characteristic (informational).

<table>
<thead>
<tr>
<th>Land Quality</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Property type</td>
<td></td>
</tr>
<tr>
<td>Loc. quality</td>
<td></td>
</tr>
<tr>
<td>Ground type</td>
<td></td>
</tr>
<tr>
<td>Overall condition</td>
<td></td>
</tr>
</tbody>
</table>
Land - Location Qualities

What is it?

A description of the location quality of properties. The characteristic is informational only.

**Action Item:**

Define locations.

**Example**

1. Outskirts,
2. Prime location
Land – Ground Type

What is it?

A field to specify the possible ground types for properties.

The characteristic is informational only.

Action Item

Discuss possible use for this field.
Land – Overall Condition

**What is it?**

A field to specify the overall condition of ground types for properties.

The characteristic is informational only.

<table>
<thead>
<tr>
<th>Land Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property type</td>
</tr>
<tr>
<td>Loc. quality</td>
</tr>
<tr>
<td>Ground type</td>
</tr>
<tr>
<td>Overall condition</td>
</tr>
</tbody>
</table>

**Action Item**

Discuss possible use for this field.
Land – Productive Holdings

What is it?

A number of fields that describe the municipality and topographical location of land.

Available fields

<table>
<thead>
<tr>
<th>Municipality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality key</td>
</tr>
<tr>
<td>Municipality</td>
</tr>
<tr>
<td>District</td>
</tr>
<tr>
<td>State</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topographical Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Subdistrict</td>
</tr>
<tr>
<td>Tract of Land</td>
</tr>
<tr>
<td>Parcel of Land</td>
</tr>
<tr>
<td>Fractional Parcel</td>
</tr>
</tbody>
</table>
Land – Infrastructure Characteristics

What is it?

Field that allows you to specify how far the land real estate object is from user-defined geographical points. These specifications are optional.

Example

<table>
<thead>
<tr>
<th>Infrastructure Char. - Text</th>
<th>Distance</th>
<th>Measurement unit text</th>
<th>Distance as Time</th>
<th>Measurement unit text</th>
<th>Time Basis</th>
<th>From Hi-Lv Data Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas station</td>
<td>1</td>
<td>Mile</td>
<td>10</td>
<td>Minutes</td>
<td>By car</td>
<td></td>
</tr>
</tbody>
</table>

**Action Item:**

Discuss / determine requirements for creating infrastructure characteristics for land.
Land – Building Law and Usage

What is it?

A number of fields that describe the building law and usage characteristics of land.

Usage type in the development plan can be used to identify what the land record is zoned for.

Heritable building right can be used to indicate if the right to develop the land in a certain way can take place, or is inherited, or associated with this land.

**Action Item:**

Discuss / determine requirements for capturing data in these fields.
Rental Objects (UO)

What is it?

Rental Objects represent properties that may be leased. Rental Objects are uniquely assigned either to a Building or Land record, and their number range is unique within the Business Entity (BE). It is a spatial entity that is subject to occupancy.

There are three types of rental objects:

**Pooled Space (PS)**

This is the overall available space within a given usage type, within a Building or Land. It is used for space that is ‘dynamically’ occupied, where changes in assignment often take place, and it does not require major structural changes, such as open floor office space, or parking space, etc.

**Rental Space (RS)**

This is space that is extracted from the Pooled Space (i.e. available space) to be occupied and assigned to a real estate contract for a specified period.

**Rental Unit (RU)**

This is a spatial entity within a building or land that can also be occupied, but it would require major structural changes in order to change its dimensions, such as apartments, housing units, one car garages, and storage units.
The main attribute of rental objects is the **Usage Type** which must be selected when creating the RO.

Usage Type is a configurable classification that **once selected, cannot be changed.**

Usage types may also be used to further sub-classify an object's usage.

**The usage type has impact on the following:**

- Available rental object type (PS, RS, RU)
- Available dependent usage type (usage type of PS can drive availability of usage types for the RS)
- Screen sequence (BDT screen design and available fields) and field status
- Available and required measurement types
- Available conditions
- Service charge settlement participation
Rental Objects – Usage Types (UO)

Continued …

Example

<table>
<thead>
<tr>
<th>UT</th>
<th>RU Usage Type</th>
<th>Usage Type of Rental Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>Hotel</td>
<td>Hotel</td>
</tr>
<tr>
<td>0002</td>
<td>House</td>
<td>Employee – House</td>
</tr>
<tr>
<td>0003</td>
<td>Apartment</td>
<td>Employee – Apartment</td>
</tr>
<tr>
<td>0004</td>
<td>Office</td>
<td>Office</td>
</tr>
<tr>
<td>0005</td>
<td>Cafeteria</td>
<td>Cafeteria – Dining Hall</td>
</tr>
<tr>
<td>0006</td>
<td>Other/Mixed</td>
<td>Other/Mixed Use</td>
</tr>
</tbody>
</table>

**Action Item**

Determine usage types of space.
### Usage Types per Rental Object Type

**What is it?**

In order to prevent the inappropriate assignment of usage types to rental objects, usage types are specifically assigned to each rental object type. If a usage type is not assigned to a rental object, it cannot be selected.

**Example**

<table>
<thead>
<tr>
<th>RO Type</th>
<th>Usage Type Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>RU 0001</td>
<td>Hotel</td>
</tr>
<tr>
<td>RU 0002</td>
<td>House</td>
</tr>
<tr>
<td>RU 0003</td>
<td>Apartment</td>
</tr>
<tr>
<td>PS 0004</td>
<td>Office</td>
</tr>
<tr>
<td>RS 0004</td>
<td>Office</td>
</tr>
<tr>
<td>RU 0004</td>
<td>Office</td>
</tr>
<tr>
<td>PS 0005</td>
<td>Cafeteria</td>
</tr>
<tr>
<td>RS 0005</td>
<td>Cafeteria</td>
</tr>
<tr>
<td>RU 0005</td>
<td>Cafeteria</td>
</tr>
<tr>
<td>PS 0006</td>
<td>Other/Mixed</td>
</tr>
<tr>
<td>RS 0006</td>
<td>Other/Mixed</td>
</tr>
<tr>
<td>RU 0006</td>
<td>Other/Mixed</td>
</tr>
</tbody>
</table>

**Action Item**

Determine usage types of space per RO type.
Usage Types Allowed for Rental Spaces per Pooled Space

What is it?

You might have a need to extract multiple rental spaces from a pooled space that has a given usage type, and you want the rental spaces to have different usage types, or more specific settings for the usage type.

In this case, you can assign these usage types to the usage type of the pooled space

Example

<table>
<thead>
<tr>
<th>Assign Usage Types to Rental Object Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>RO</td>
</tr>
<tr>
<td>PS</td>
</tr>
<tr>
<td>RS</td>
</tr>
<tr>
<td>RS</td>
</tr>
<tr>
<td>RS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Usage Types Allowed for Rental Spaces per Pooled Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>PoolSpace Usage</td>
</tr>
<tr>
<td>40</td>
</tr>
<tr>
<td>40</td>
</tr>
<tr>
<td>40</td>
</tr>
</tbody>
</table>

Action Item

Determine usage types and sub-usage types (if any).
All occupiable and rentable spaces (rentable w.r.t. sub-leasing) are mapped through rental objects. As the physical structure of floors (especially for office space) is very often mapped in CAD drawings, these drawings can be integrated into SAP, and create the architectural view. Individual architectural objects can be grouped together (such as desks, cubicles, or rooms) into a single rental object for each occupant.

Pooled spaces and rental spaces are typically more flexible and dynamically assigned, whereas the rental units can be used for more static occupiable units, such as a restaurant, store, or housing.

In some contexts, an office can also be a rental unit (RU). Typically this is when there is a structural setup that limits the potential expansion of the office space (only one room or area, possibly adjacent to the warehouse or restaurant), or the office cannot be subdivided for multiple occupants.

Example …

In the following example (next slide), multiple rooms are grouped together into one Rental Space (RS1) which will be assigned to an external tenant via a Real Estate Contract.
Pooled and Rental Space

Renting-out on an individual basis

Architectural View

<table>
<thead>
<tr>
<th>Floor</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Architectural view</th>
<th>New Rental Space</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room 01</td>
<td>02</td>
<td>12 ft²</td>
</tr>
<tr>
<td>Room 02</td>
<td>02</td>
<td>17 ft²</td>
</tr>
<tr>
<td>Room 03</td>
<td>02</td>
<td>16 ft²</td>
</tr>
<tr>
<td>Room 04</td>
<td>02</td>
<td>15 ft²</td>
</tr>
<tr>
<td>Room 05</td>
<td></td>
<td>19 ft²</td>
</tr>
<tr>
<td>Room 06</td>
<td>02</td>
<td>18 ft²</td>
</tr>
<tr>
<td>Room 07</td>
<td></td>
<td>21 ft²</td>
</tr>
<tr>
<td>Room 08</td>
<td></td>
<td>17 ft²</td>
</tr>
<tr>
<td>Room 09</td>
<td></td>
<td>16 ft²</td>
</tr>
<tr>
<td>Room 10</td>
<td></td>
<td>17 ft²</td>
</tr>
</tbody>
</table>

Usage View

Rental Space 02

Pooled Space 01

contract with assigned rental space 2
- office 1 12 ft²
- office 2 17 ft²
- office 3 16 ft²
- office 4 15 ft²
- office 6 18 ft²
Use of Rental Objects

Recommendation

Use the Rental Units (RU) for the subletting process around employee housing, if any.

Use the Pooled Space and Rental Space for subletting of space to external tenants and, possibly, to internal agencies (via and internal real estate contract).

Investigate the Permanent Occupancy functionality that is delivered in Enhancement Pack 2 for all corporate space assignments and allocations.

Questions?
Allowed Measurement Types per RO Type

What is it?

In previous slides (i.e. configuration steps), measurements have been defined and permitted for general real estate objects.

In this step, measurements need to be defined for each rental object type.

Example

<table>
<thead>
<tr>
<th>RO Type</th>
<th>MeasTp</th>
<th>Meas. Type - Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental unit</td>
<td>No. of Persons</td>
<td>Criterion is default for object</td>
</tr>
<tr>
<td>Rental Space</td>
<td>No. of Persons</td>
<td>Criterion is default for object</td>
</tr>
<tr>
<td>Pool space</td>
<td>No. of Persons</td>
<td>Criterion not permitted for object</td>
</tr>
</tbody>
</table>

**Action Item**

Determine required measurement types for rental objects.
RO’s: Measurement Types per Usage Type

What is it?

For individual usage types, we need to specify which measurement types apply for rental objects.

Example

<table>
<thead>
<tr>
<th>Usage type</th>
<th>Meas.Tp</th>
<th>Meas. Type - Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priv. Fin.accomm.</td>
<td></td>
<td>Resident.Space Criterion is default for object</td>
</tr>
<tr>
<td>Office</td>
<td></td>
<td>Resident.Space Criterion not permitted for object</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measurements for Rental Objects</th>
<th>MeasTp</th>
<th>Short Meas Type</th>
<th>Usage T</th>
<th>Usage Type</th>
<th>MainMeas.</th>
<th>Measurement Type Use</th>
<th>DefUnit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A004 Living Area 1</td>
<td>Priv.fin.accomm</td>
<td>✔</td>
<td>Property Is Default for Object (on Screen)</td>
<td>M2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A100 Retail Space 4</td>
<td>Store</td>
<td>✔</td>
<td>Property Is Default for Object (on Screen)</td>
<td>M2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A101 Office space 5</td>
<td>Office</td>
<td>✔</td>
<td>Property Is Allowed for Object</td>
<td>M2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A601 Office space 5</td>
<td>Office</td>
<td></td>
<td>Property Is Allowed for Object</td>
<td>FT2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M005 No.ParkingSpace 10</td>
<td>Parking Lots</td>
<td>✔</td>
<td>Property Is Allowed for Object</td>
<td>PC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M028 Share of Garden 1</td>
<td>Priv.fin.accomm</td>
<td></td>
<td>Property Is Allowed for Object</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Action Item

Determine measurement types per usage type requirements.
Business Partners

What is it?

Most real estate processes require maintaining data regarding business partners (or contacts). They can be in the form of persons, organizations or groups.

BP’s are linked to a RE data record via business partner roles. These roles identify the relationship of the BP to the RE object and its processes.

The two most important roles within RE-FX are: **Tenant with customer account** (for third party subleases) and **Landlord with vendor account** (for leased in property). These are considered financial business partners and are linked to the customer and vendor accounts.

Customer and vendor records can be automatically created in SAP Financials when creating these two specific roles in RE-FX.

BP can have an unlimited number of roles, and can have roles in association with an unlimited number of real estate objects.
Business Partners - Roles

Continued …

Example:

**Action Item**

- Review SAP delivered BP roles
- Determine State required BP roles.
- Assign BP roles to RE objects
Add potential organizational impacts and training impacts
Next Steps

- Prepare and send out meeting minutes to invitees.
- Draft Design Document is prepared.
- Follow up on action items identified during the workshop.
- Schedule off-line meeting (s) to discuss areas of special concern.
- Plan follow on workshops, as required.
- Plan validation workshop.
- Ensure all to-do’s are appropriately documented.