

# Property Records Online

- What, Why, How, Who, When?
- Property Development Continuum
- Project Scope
- What this means for our customers?
- Prototype Demo



# What?

- Procure and Install Document Management
  - available late summer?
  - Determine storage and metadata approach
- Convert all Rezoning History to ESRI Shape Files
  - fix all issues in current history
    - missing & inaccurate info
    - current zoning edges do not line up
  - create single master zoning shape (e.g. Ward Boundaries)
  - create database providing all details
- Annexations (same effort as Rezoning above)



# What?

- Digitize all plans, maps, and related documents to create “as exists” records library of Tucson
  - History:
    - begin with last approved site plans
    - next all commercial buildings
      - Rio Nuevo first
      - Malls and major strip centers next
    - All newly approved plans
- Create database, process, and procedures to relate all together and keep current
- Create Internet application; all access via Map and Text interface



# Why?

- Internal
  - Increase Productivity
  - Decrease Errors
  - Increase “Currency”
- External
  - Improved Customer Service
  - Self-service research
  - Anywhere/Anytime information services



# How?

- Inventory (analysis)
  - Resources
    - people, systems, processes
    - Need
- Information Architecture
  - tying it all together
  - creating triggers to keep all current
- Prototyping
  - component at a time
- K.I.S.S. (as much as possible)



# Who?

- Departments
  - DSD, DOT, DUPD, IT
  - Clerk, Agenda Office
  - and others (County, PAG)
  - Technical Resources
    - DBAs, Programmers, Mappers, Servers, Web Master
    - Subject Matter Experts
    - **Geo-Database**
  - DSD cannot do this alone

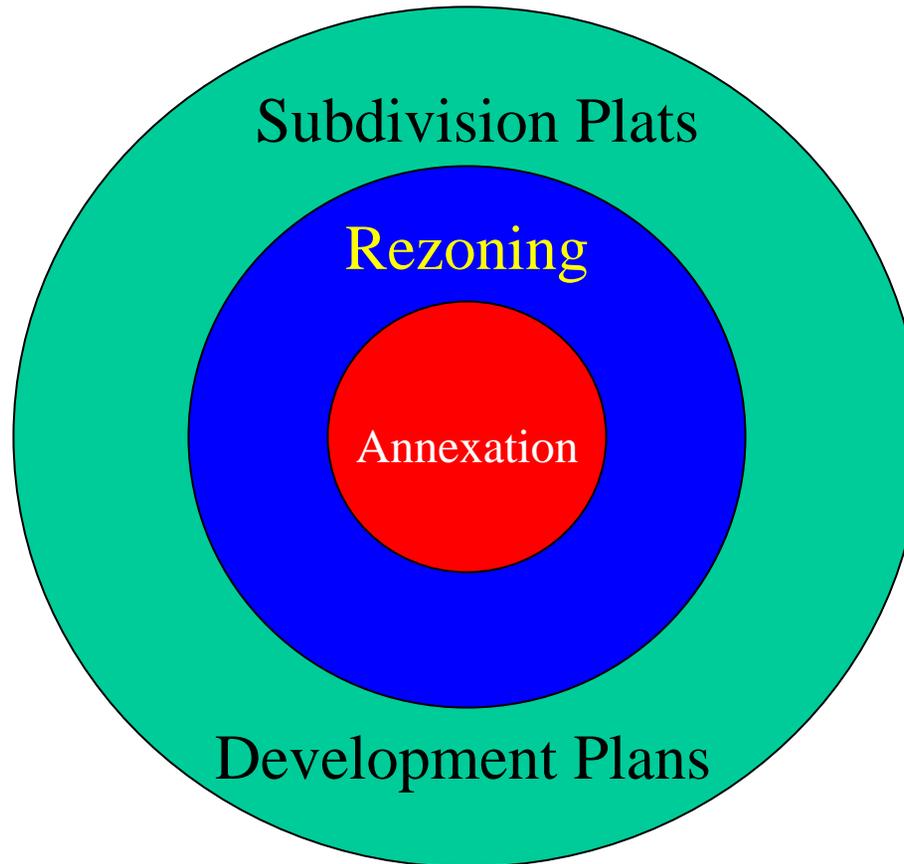


# When?

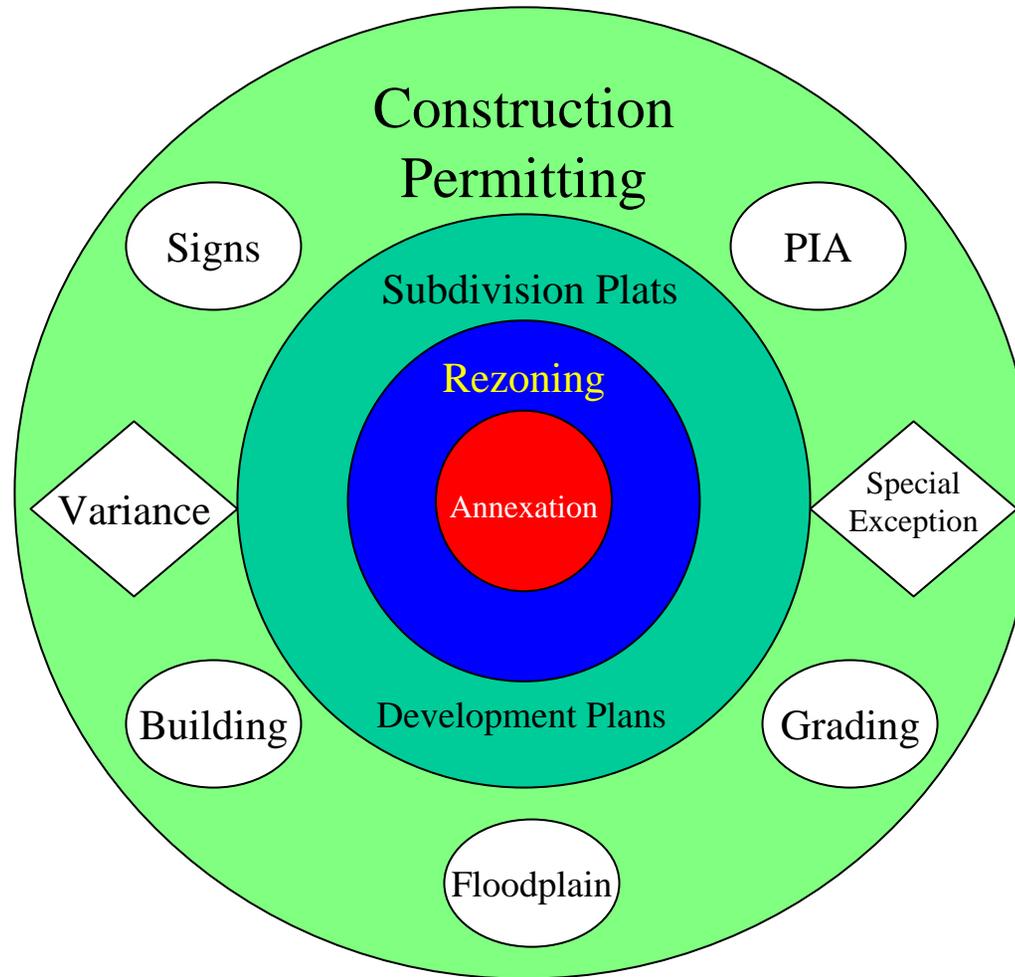
- Started efforts in 2005
  - Document Management System Pilot
    - scanning of plans
    - digitizing microfilm
  - Programmatic Integration Prototyping
  - Rezoning Maps
    - bringing current
    - converting to needed formats
- “Real Value” to be delivered in 2006
- Final completion 2007/2008
- Continuous improvement throughout



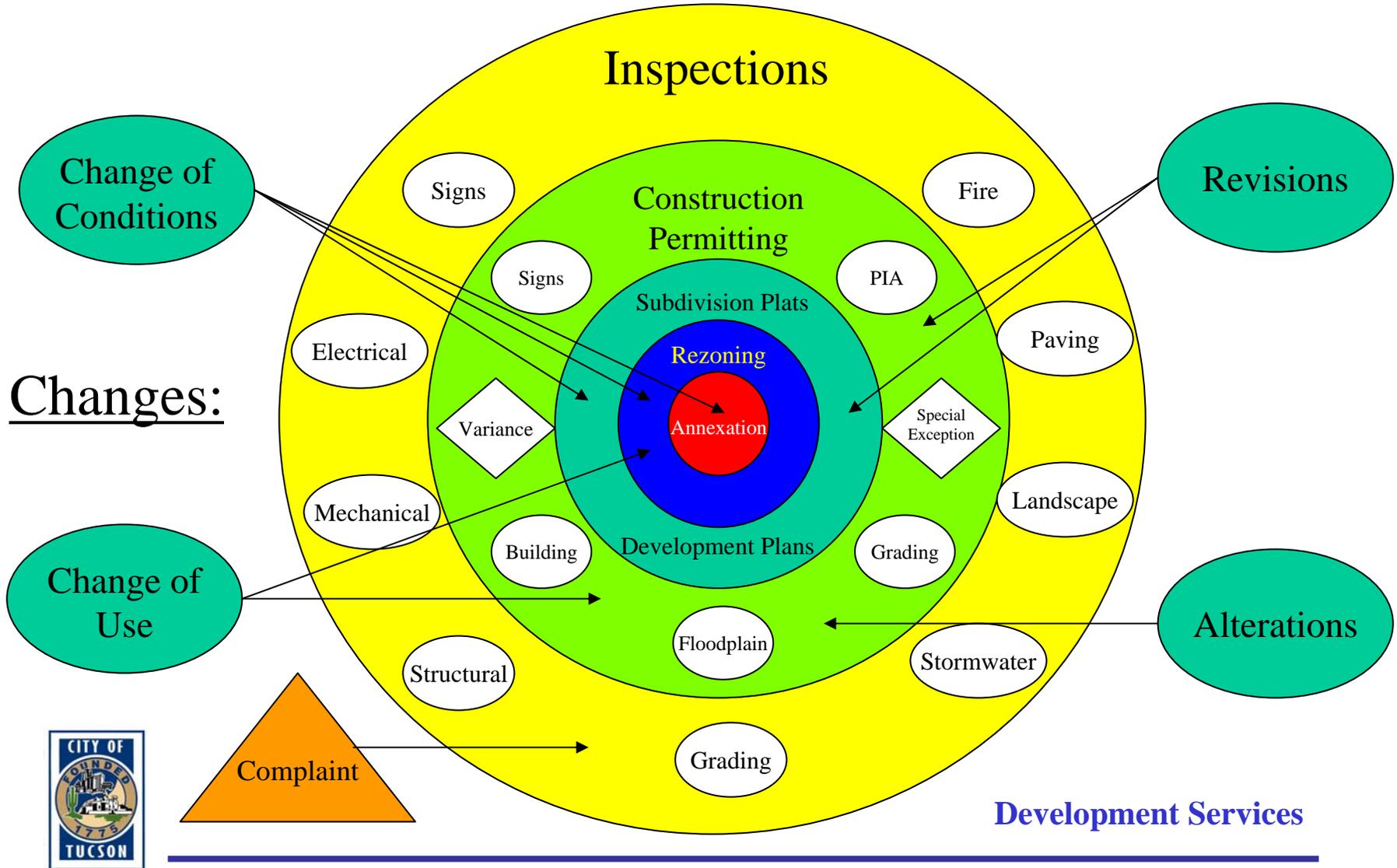
# Property Development Continuum



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# Property Development Continuum



# How Can These Be Related Together?

- Address
- Geo-Spatially
- Permits Plus Relates

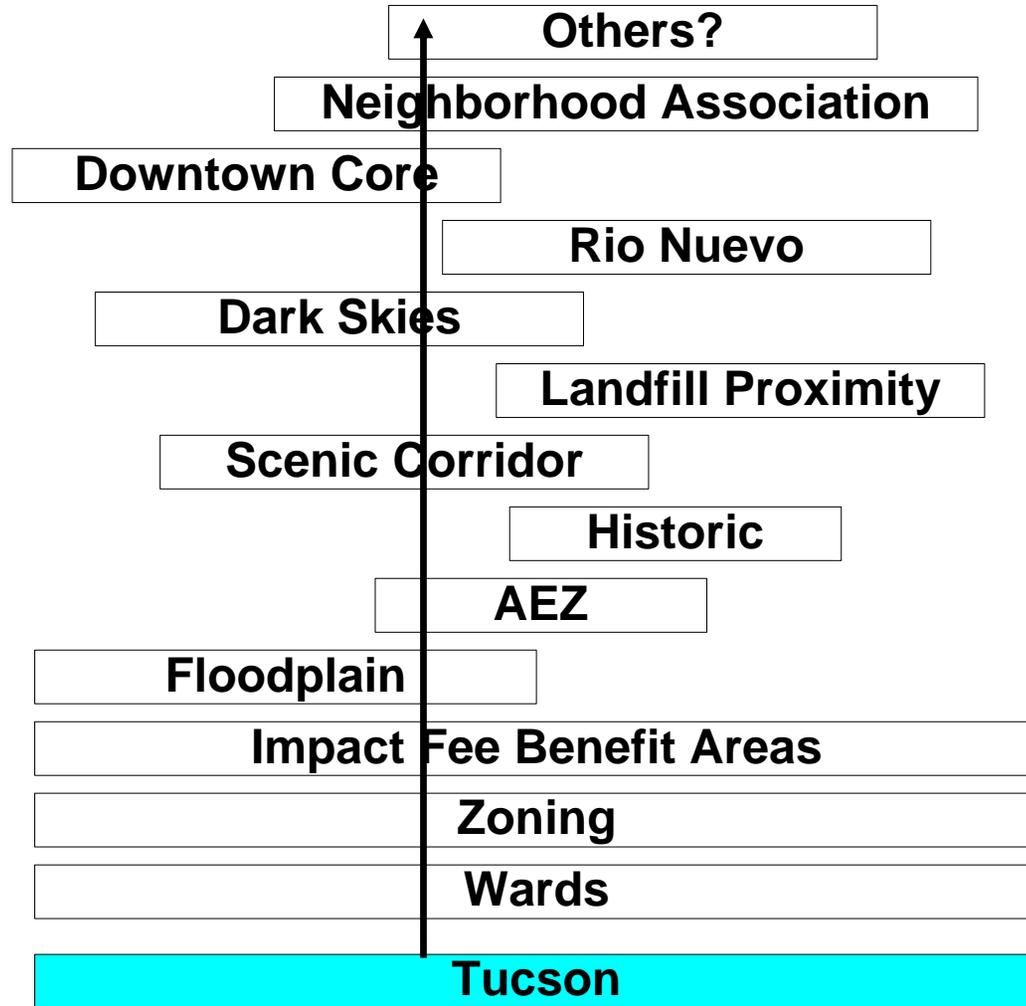
(Permits Plus - Plan Review, Permitting, and Inspection tracking system used by DSD, DOT, Water, DNR, CSD, and soon DUPD)



Type Activity	By Address	Geo-Spatial
Annexation	Seldom	Always
Rezoning	Sometimes	Always
Subdivision Plans	Seldom if ever	Always
Development Plans	Sometimes	Always
Building Permits	<b>Always</b>	Always
Sign Permits	<b>Always</b>	Always
Grading Permits	Seldom	Always
Board of Adjustment Cases	<b>Always</b>	Always
Historic Review Cases	<b>Always</b>	Always
Special Exceptions	Sometimes	Always
Inspections	Sometimes (grading, landscape)	Always
Complaints	Usually	Always
Ordinances	Seldom if ever	Sometimes



# Overlays



# Project Scope

Conceptual Overview of multi-year project:

- Document Management System (DMS)
  - Purchase and install DMS
  - Scan all approved plans and related documents into DMS
  - Convert microfilm records to digital and store in DMS
  - Develop retention procedures
  - Develop indexing - metadata values
    - lookup searches
    - integration
  - Develop Batch Load Module



## Conceptual Overview (continued):

### – Other “documents” in DMS

- Annexations
- Rezoning
- Board of Adjustment Cases
- Design Review Board Cases
- Historic Review Cases
- ORDINANCES
- Variances and Special Exceptions
- Audio Recordings of meetings



## Conceptual Overview (continued):

- Conversions of AutoCAD to ESRI Shape Files
  - Annexations
  - Rezoning
    - Eliminate section-only views
    - Pending, Withdrawn and Replaced Rezoning Shapes
      - » individual polygons for each “to” zoning
      - » can be effectuated individually
    - Current City Zoning
      - » automated triggers to update once effectuated



# Conversions of AutoCAD (continued):

## – Rezoning (continued)

- Database with attributes for all Rezonings
  - » From-to Zoning
  - » Rezoning case number associated to each individual polygon
  - » XY centroid for each polygon
  - » Status of each polygon
  - » etc.

(Addresses and parcels change over time, map locations do not.)



## Conceptual Overview (continued):

- MapGuide - Dedicated Project URL includes maps for:
  - Ward Boundaries
  - Streets
  - Impact Fee Benefit Area
  - Historic Zones
  - Scenic Corridor
  - Airport Environment Zone
  - “Dark Skies” Lighting Zones
  - Master City Zoning
  - Floodplain



## Conceptual Overview (continued):

- MapGuide - Dedicated Project URL includes maps for:
  - Rio Nuevo Downtown and Core
  - Parcels
  - Orthophotos (aerials)
  - Context-specific Object Links to:
    - Land Use Code
      - » Allowable Uses for a Zoning
      - » Performance and Design Criteria
    - Assessor
    - Permit Website
      - » Issued Permits
    - Document Management Content



# Conceptual Overview (continued):

- Search Site:
  - Map Interface
  - Text Input Interface
    - By parcel
    - By address
  - Available via:
    - Internet
    - Integration with Permits Plus (permitting/inspection system)
- DSD Records
  - Kiosks
  - Full service printing (internal and commercial print shops)



# What does this all mean?

## For Our Customers



Development Services

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# John Doe

- Wants to add a room to his house
- He resides at 901 E. Anystreet

DSD intends to build a website that dynamically provides all or most of the reference information he needs for what he wants to do - based on what overlays affect his property.



# Text Input Screen



**CITY OF  
TUCSON**

Enter Address:

Select All That Apply

- Build a wall
- Build an addition on to my house
- Install a Solar Device
- Add a Storage Shed
- Build a Pool
- Open a home business



# 901 E. Anystreet

**Parcel:** 12714003E [<view>](#)

**Zoned:** R-2 - details [<view>](#)

**Rezoning Case:** C9-04-23 [<view>](#)

**Annexation Case:** C15-04-02 [<view>](#)

## **Information related to property:**

Residential Use Information [<view>](#)

Airport Environment Zone - Requirements [<view>](#)

**Historic Zone:** Ft. Lowell - Requirements [<view>](#)

Hillside Development Zone - Requirements [<view>](#)



# What about the Plans?

- Tiff or PDF
  - One page = one image?
  - One Multi-page document?
  - Multiple Multi-page (Sections)?
    - file naming convention or folder metadata
    - PDF [Bookmarks](#)
      - Add after scanning?



# What about the Plans?

- Multi-page File Size
  - Whole file downloaded at once? (Starr Pass)
  - Design for Dial-Up or Cable connection?
  - Must be able to programmatically know what we have
- Link to other plans (Model Plans)
- Search Results
  - Certificate of Occupancy
  - Last approved Site plan
  - Grading, Electrical, Mechanical, Structural, Plumbing, etc.
  - Relate latest of multiple activities together



# Still Have A Lot Of Design Left To Do!

- It is dependent on:
  - the DMS yet to be selected
  - the resources to do it
    - DSD staff
    - City staff
    - County staff
    - all cooperating and working together

