The following may be helpful to create an Oracle view that can be registered and queried as a spatial feature.

The PARCELS has a number of columns:

Oracle Database 12c Standard Edition Release 12.2.0.1.0 - 64bit
Production

SQL> DESCRIBE PARCELS;
Name                           Null?    Type
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OWNER                                         VARCHAR2(50)
ADDRESS_1                                     VARCHAR2(50)
CITY_STATE_ZIP                                VARCHAR2(30)
ADDRESS_2                                     VARCHAR2(50)
LAND_TYPE                                     VARCHAR2(24)
TOWNSHIP                                      VARCHAR2(24)
FIRE_DISTRICT                                 VARCHAR2(24)
ZONING                                        VARCHAR2(8)
TAX_DISTRICT                                  VARCHAR2(8)
OGC_GEOMETRY                                  MDSYS.SDO_GEOMETRY
XFM_ID                               NOT NULL VARCHAR2(36)
ACRES                                         NUMBER(8,2)
ASSESSMENT_YEAR                               NUMBER(8)
DEEDBOOK                                      NUMBER(8)
LAND_VALUE                                    NUMBER(8)
MARKET_VALUE                                  NUMBER(8)
REMODELED_YEAR                                NUMBER(8)
ROOMS                                         NUMBER(8)
SALE_PRICE                                    NUMBER(8)
TAXABLE_VALUE                                 NUMBER(8)
These columns are also visible in Bentley Map using the Data Browser or Analyze Feature:

![Data Browser](image)

This complete set of property data may be needed for managing the parcel data in Bentley Map by GIS editors. However, for map reviewers, it may be necessary to provide a limited set of property data. To do that, you can set up an Oracle view.

In the following example, a view called PARCEL_MAIL_VIEW is created with the following columns from the PARCELS table: OWNER, ADDRESS_1, CITY_STATE_ZIP, XFM_ID, and OGC_GEOMETRY

```sql
SQL> CREATE VIEW PARCEL_MAIL_VIEW
2  AS SELECT OWNER, ADDRESS_1, CITY_STATE_ZIP, XFM_ID, OGC_GEOMETRY
3  FROM PARCELS;
View created.
```

Bentley Map requires a primary key be defined on the spatial table. However you can’t have a primary key on a view. To get around this limitation, a primary key is created and then disabled.

we create the primary key, but we disable it, by the following:

```sql
SQL> ALTER VIEW PARCEL_MAIL_VIEW ADD PRIMARY KEY(XFM_ID) DISABLE;
View altered.
```
As with spatial tables, the geometry metadata needs to be added:

```sql
SQL> INSERT INTO USER_SDO_GEOM_METADATA (TABLE_NAME, COLUMN_NAME, DIMINFO, SRID)
2             VALUES ('PARCEL_MAIL_VIEW', 'OGC_GEOMETRY',
3             MDSYS.SDO_DIM_ARRAY
4  (
5  MDSYS.SDO_DIM_ELEMENT('X', 2197290.78, 2401264.08, 0.00000005),
6  MDSYS.SDO_DIM_ELEMENT('Y', 703310.077, 911592.401, 0.00000005)
7  ),
8  NULL);
```

1 row created.

Reviewing the contents of the view in Oracle SQL Developer shows that it only contains those columns as specified in the CREATE VIEW statement.

When registering the Oracle data source in Bentley Geospatial Administrator, the view will appear in the Register Features page of the wizard.
Once registered, you can proceed to insert the feature placement metadata, define symbology and perform any other administrator tasks required. Once saved and exported, the same columns are available for review using the Data Browser:
Using Oracle views is a great way to show limited property data in Bentley Map. In this example, you could query the data and easily save the mailing address into a CSV file to use with a Microsoft Word mail merge.

Lastly, you can also consider creating Oracle user roles to provide further protection to the data. For example, a GIS_EDITOR role for the users who require full access to the spatial tables and data, and a GIS_VIEWER role for those users who only need to view the data.

~ End