



The Cadastral and Parcel Mapping Experts

2018- 2023: Survey Consulting Services for Orange County, California



Overview

Since 2018, MNC has provided consulting services for Orange County Public Works on the County's implementation of a digital plan checking system.

Challenge

The County Surveyor maintains thousands of land and survey-related records within Orange County. Various business units require the checking or creating of land parcels from written Metes and Bounds (M&B) descriptions. Currently this process is manually intensive and error prone. The Orange County Surveyor needs external support to provide Consulting and Training for the automation of Geometry creation and Validation.



Solution

Performing GIS and FME services, MNC provided:

- Consultation and recommendations for Best Practice Requirements for On-Line Survey Plan Submissions
- Consultation for the use of FME/Esri ArcGIS Data Interoperability Extension to perform data validation and translation between AutoCAD and ArcGIS
- As-needed application development and technical support for custom scripting that extends the base features of the FME/Esri ArcGIS Data Interoperability Extension

Read more at:

<https://www.esri.com/about/newsroom/arcuser/decades-of-innovation-by-orange-county/>

Watch the on-stage presentation:

https://mediaspace.esri.com/embed/secure/iframe/entryId/1_ajewiic7/uiConfId/49806163

Parcel Checker

In partnership with Orange County, Silvacom CS developed the Parcel Checker application; a new survey plan-checking tool that revolutionizes how parcel checks can be automated. The Parcel Checker is a cloud-based system that surveyors use to test their files, in advance of submitting to Orange County staff. This saves cost and time in the approval process. The easy-to-use interface and simplified workflows result in an expedited process.

Parcel Checker

Welcome back
New to Parcel Checker? [Create an account.](#)

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Remember for 30 days

LOG IN

Providing instant validation and feedback about your project.
Ensure your plans get a passing grade.

Project Summary

Parcel 1

Meters and Bounds

- Perimeter of POLYGON: 456.123
- Distance to Parcel Boundary: 12.345
- Distance from 1000000: 1234567

Closure Report

Segments: 1,646,783, 3,78e+4

0.00009 1,648,975

201,181

207 1,973,160

Parcel 2

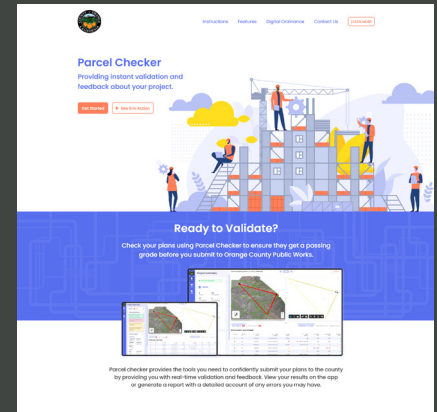
Parcel 3

Dimension Line Check

LINE CHECK	STATUS	VALUE	TOLERANCE	UNIT	TYPE	REASON
11	Pass	7000000	0.001	mm	Length	
12	Fail	0.00001	0.001	mm	Area	Area too small
13	Pass	4000000	0.001	mm	Length	
14	Fail	0.00001	0.001	mm	Area	Area too small
15	Pass	8000000	0.001	mm	Length	
16	Fail	0.00001	0.001	mm	Area	Area too small
17	Pass	12000000	0.001	mm	Length	
18	Fail	0.00001	0.001	mm	Area	Area too small

Results

Through consultation, training, and the development of the Parcel Checker application by MNC and Silvacom CS, the project provided Orange County with efficient tools and workflows to ensure accurate and timely submissions of survey plans, ultimately saving time and costs in the approval process and reducing plan rejections.



Project Summary

✔ File meets standards

Details

3 Parcels	33 Total Segments
31 Line Segments	2 Curve Segments
3 Line Segment Errors	37 Curve Segment Errors
28 Total Passing	5 Total Failing
90% Line Segment Passing %	0% Curve Segment Passing %
85% Total Passing %	

Base Checks

Pass Coordinate System Check	Fail Civil 3D Check
Fail Inside Orange County	Fail Layer Check
Pass	Tract Map

Santa Ana Parkway_Record_of_Survey_Modify.dwg

LINE CHECK 3 **CURVE CHECK** 2 **UPLOAD**

Dimension Line Check

STATUS	PARCEL ID	CAD LENGTH	CAD BEARING	LABEL LENGTH	LABEL BEARING	LENGTH DIFF.	BEARING DIFF.	NORTH ORIENT.
✔	1:1	75399.20	S 43° 12' 41.56" E	13.995		0.00	0.00	✔
✘	1:2	1248.87	S 46° 47' 18.88" W		S46°47' 18.89"W	0.00	0.00	✔
⚠	1:3	43346.29	N 43° 14' 2.75" W	80.300	N43°14'2.76"W			⚠
✘	1:4	81196.81	N 43° 14' 2.53" W			1042.14	7.08	⚠
✔	2:2	111.96	N 43° 14' 2.75" W			0.00	0.00	✔
⚠	2:3	404.52	S 46° 47' 18.88" W	25.381	S46°47'18.89"W	0.00	0.00	✔

About MNC

MNC is the expert in the compilation and maintenance of cadastral and parcel mapping. Providing clients with practical and innovative data collection, mapping and geomatics solutions related to surveyed land information.

