# COMPLEX CAD PRODUCTION — SAMPLE WORKFLOWS

Four concept projects presented as coordinated drawing sets, with details and QA checkpoints.

**01**

## ALTA-STYLE COMMERCIAL SITE

Boundary control, easements, improvements, tables and encroachments.

**02**

## TOPOGRAPHIC SURFACE + DRAINAGE

TIN contours, breaklines, spot elevations, catchments and profile.

**03**

## ROADWAY / SUBDIVISION CORRIDOR

Alignment, stationing, grading, sections and earthwork quantities.

**04**

## UTILITY COORDINATION PLAN

Water, sanitary, storm systems, crossings, schedules and details.

### PRODUCTION FOCUS

Layer and xref discipline
Annotation hierarchy
Surface / profile workflows
Coordinate and unit checks
Revision tracking
Plot-ready sheets

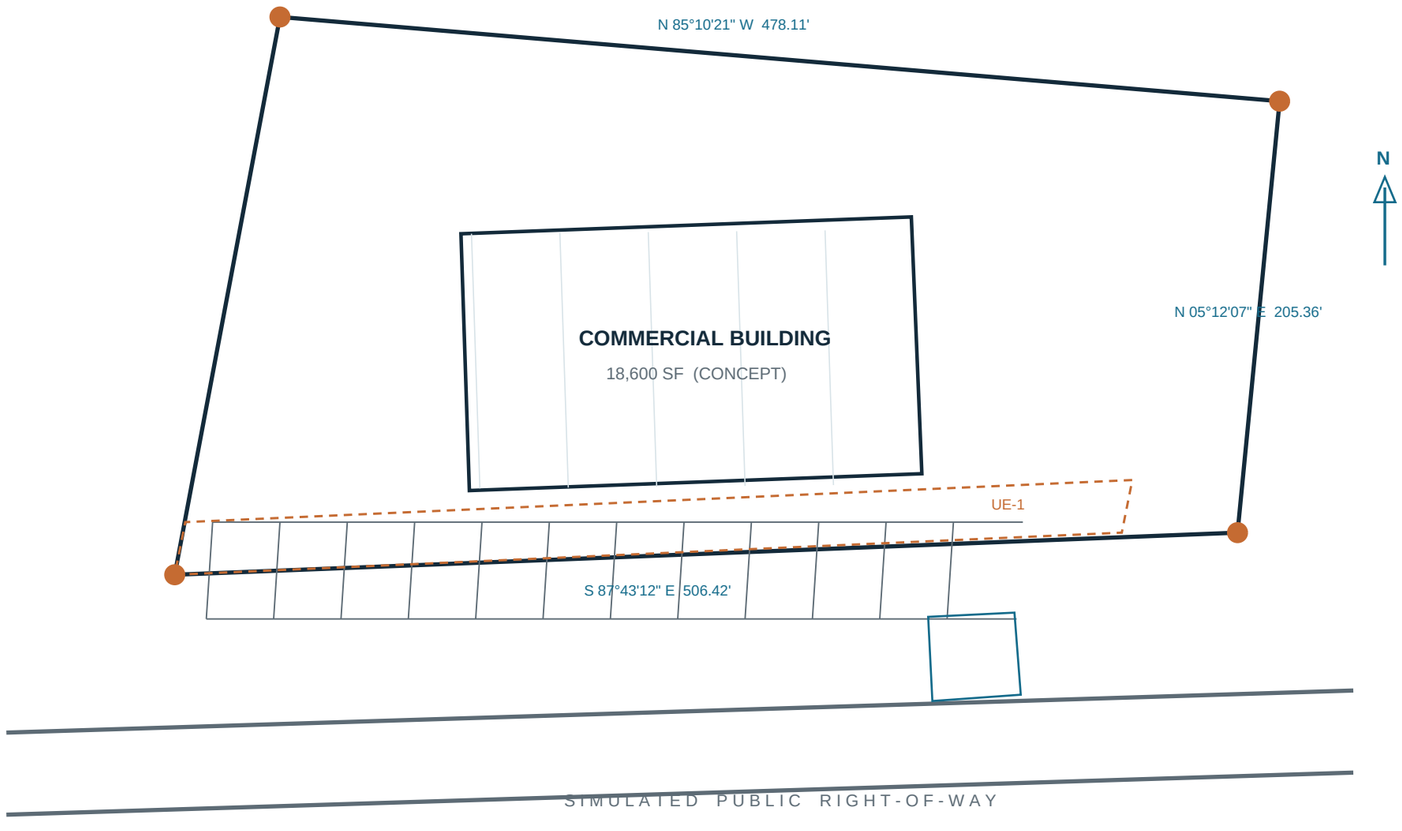
QA BEFORE DELIVERY
Scale and label review
Closure / geometry checks
Conflict and clearance review
Licensed professional review

ILLUSTRATIVE DEMONSTRATION ONLY | NOT A SURVEY, ENGINEERING DESIGN OR CONSTRUCTION DOCUMENT

Synthetic geometry, elevations, coordinates and quantities. No real parcel, client, or licensed certification.

# COMMERCIAL PARCEL / ALTA-STYLE EXHIBIT

Synthetic 4.8-acre commercial tract • boundary / improvements / easements




## BOUNDARY / CONTROL

P-01 N 10,245.227
E 8,515.116
P-02 N 10,267.004
E 9,021.069
P-03 N 10,472.112
E 9,039.738
P-04 N 10,511.383
E 8,562.009

Coordinate system: LOCAL
Units: US survey feet
Closure: synthetic only

## LEGEND / QA

- ● Found / set point (sample)
- - - Utility easement UE-1
- ■■ Parcel boundary
- ■ Building footprint

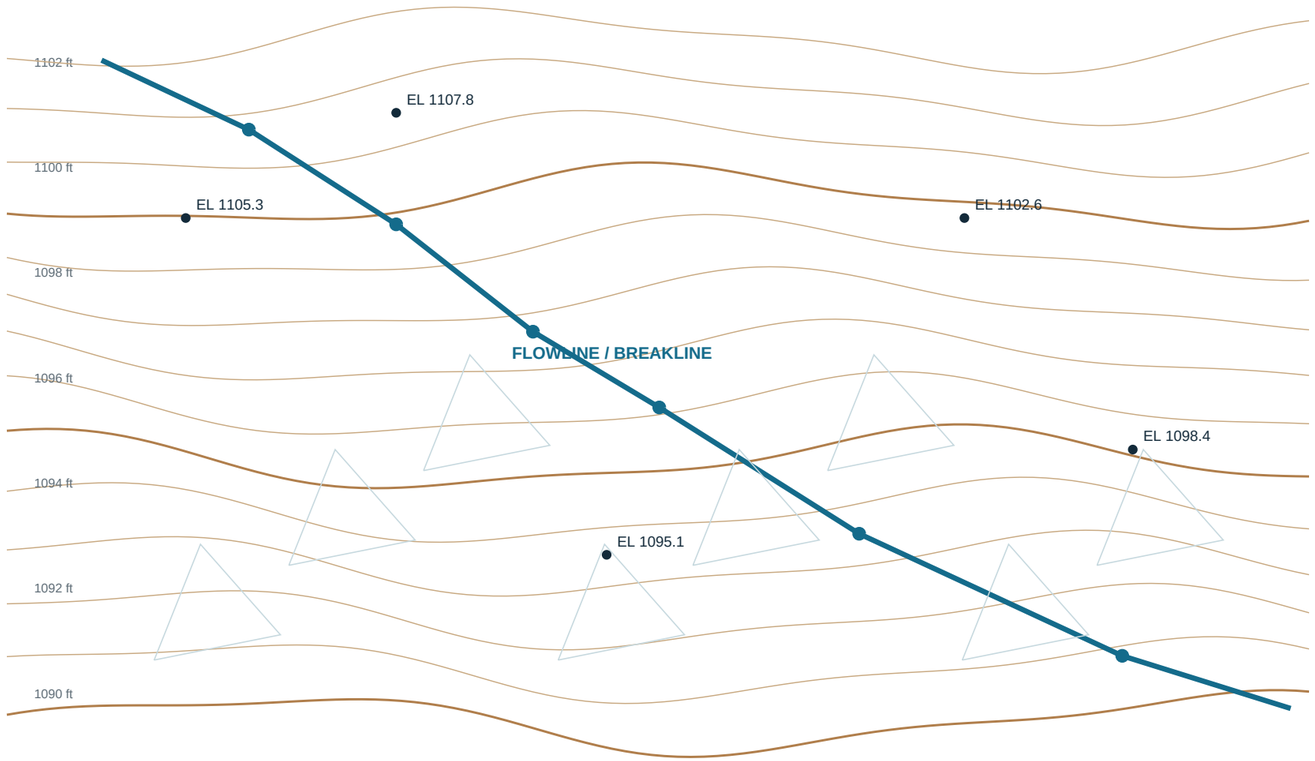
CHECKS
Boundary call consistency
Easement intersection review
Building setback review
Improvement annotation
No legal opinion provided

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# TOPOGRAPHIC SURFACE + DRAINAGE

Synthetic existing ground model • 1-ft contours • drainage breaklines




N

## SURFACE BUILD

Synthetic point grid: 148
Breaklines: 6 modeled
Contour interval: 1 ft
Index contour: 5 ft
Surface limits: 4.8 acres

DRAINAGE REVIEW
Catchment A: 1.72 ac
Catchment B: 2.13 ac
Outlet: south-east
Flow path: 612 ft

All values illustrative

## CAD DELIVERABLES

EG surface / contours
Point and breakline layers
Spot elevations
Slope arrows / watershed
Surface boundary
Longitudinal profile
Data validation report

CHECKS
Point duplicates / spikes
Breakline crossing
Contour labeling

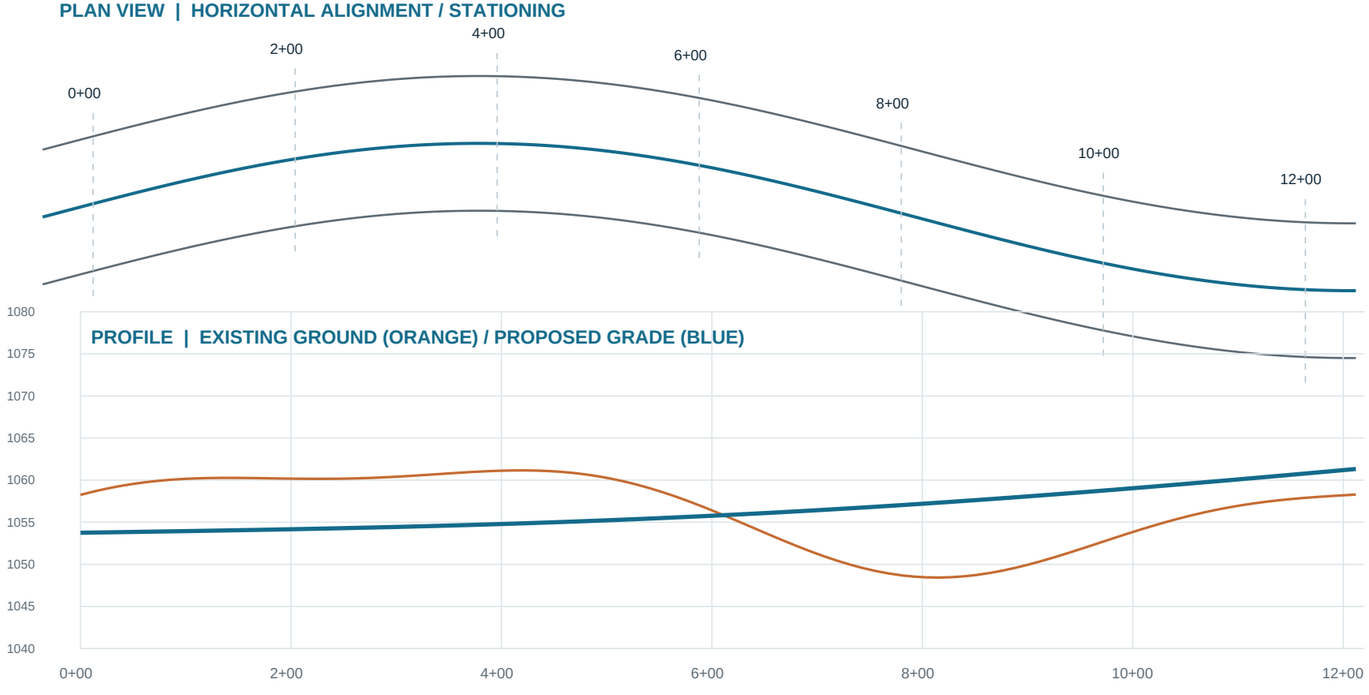
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# ROADWAY CORRIDOR / SUBDIVISION

Concept 1,200-ft residential collector • plan, profile and typical section

## PLAN VIEW | HORIZONTAL ALIGNMENT / STATIONING




## TYPICAL SECTION



5' WALK | 12' | 12' | 5'

2% crossfall (concept)

30' curb-to-curb

## CORRIDOR QA

Horizontal: 1,200 ft

Vertical: 2 PVIs

Design speed: illustrative

Sample max grade: 4.5%

EARTHWORK (CONCEPT)

Cut: 2,840 CY

Fill: 3,190 CY

Net: 350 CY import

CHECKS

Station / offset labels

Profile continuity

Section daylight review

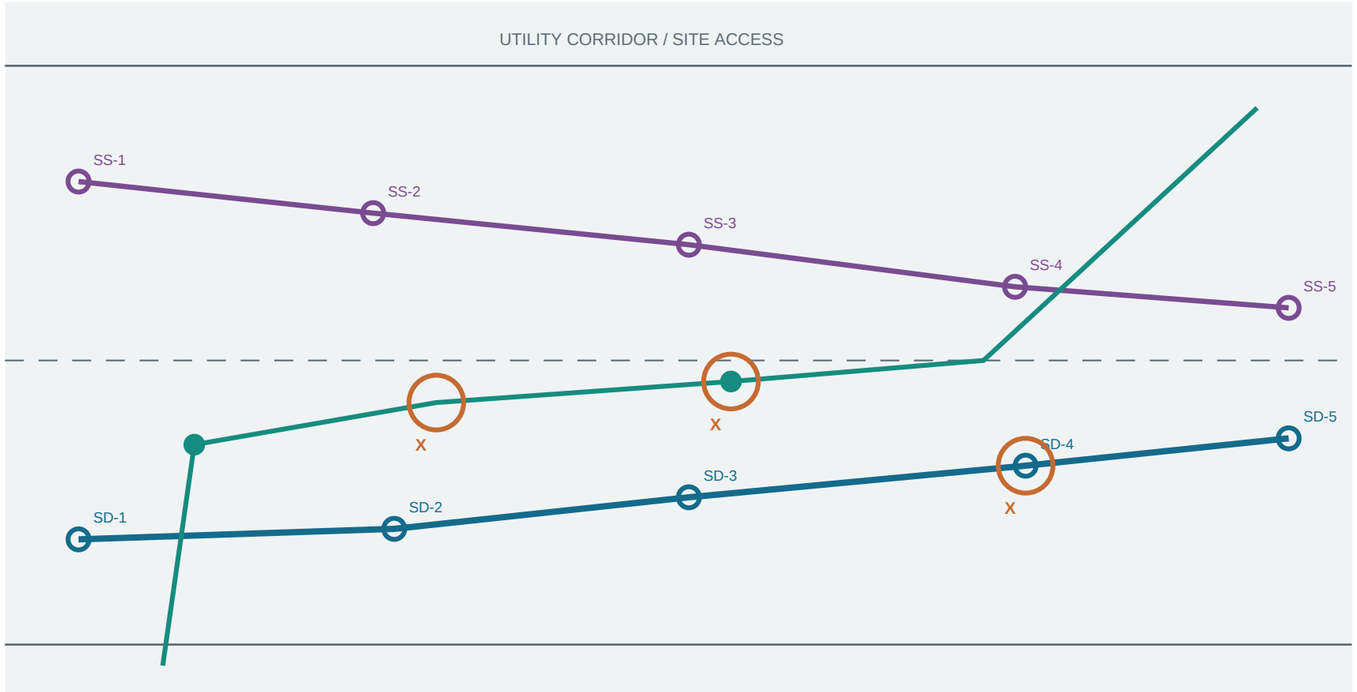
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# UTILITY COORDINATION / CONFLICT REVIEW

Concept site utility plan • storm / sanitary / domestic water / crossing matrix

## UTILITY PLAN | SCHEMATIC ALIGNMENTS / STRUCTURES / POTENTIAL CROSSINGS




### SYSTEM LEGEND

BLUE Storm drain
PURPLE Sanitary sewer
TEAL Domestic water
ORANGE Conflict check

SAMPLE PIPE SCHEDULE
SD-1 to SD-3: 18 in RCP
SS-1 to SS-3: 8 in PVC
W-1: 8 in DIP

Linework is schematic

### CROSSING REVIEW

X-01 W / SS crossing
Check invert / cover
X-02 W / storm crossing
Verify vertical separation
X-03 SD / service tie-in
Review utility clearance

COORDINATION CHECKS
Structure rim / invert table
Slope and cover verification
Horizontal conflict scan
Profile coordination
Agency standards review

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# DELIVERY PACKAGE / QUALITY CONTROL

How a production team converts raw survey data into consistent review-ready CAD sheets

## 01 / INTAKE

Source DWG / DGN and point files
Coordinate basis / units / datum
Client CAD standards and CTB
Scope, revisions and deadlines

## 02 / PRODUCTION

Xrefs and named layers
Surface build / breakline QA
Alignments, profiles, sections
Labels, tables and callouts

## 03 / INTERNAL QA

Geometry closure / continuity
Contours / profiles / crossings
Plot scale and lineweights
Unresolved issues log

## 04 / CLIENT REVIEW

Redline incorporation
Revision clouds and delta log
DWG + plotted PDF delivery
Final licensed professional review

**DEMONSTRATION NOTICE: All project studies are invented to illustrate production complexity and visual standards.**

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