ProLogis Park 70 E-Commerce Site

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Hull & Associates, Inc.

Improving quality of life for all by solving complex problems related to environment, energy, and infrastructure

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Project Overview

Project Location: Etna, Ohio

Project Site Area: ~96 acres

Proposed Development: 855,000 SF E-Commerce facility with supporting parking & maneuvering area

Existing Site Features: Stormwater basin, vacant – previously graded ground

Coordination With: ODOT, Etna Township, Southwest Licking Community Water & Sewer District

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Existing Site

- Etna Township, Licking County
- 96 acres – 4 parcels
- Purchased in the early 2000’s
- Partially wooded, partially agricultural site

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Existing Site

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Jurisdiction

- Unincorporated area falls in county jurisdiction
- 7 agencies
  - Licking County Planning Commission
  - Licking County Engineer
  - Licking County Soil & Water Conservation District
  - West Licking Joint Fire District
  - Southwest Licking Community Water & Sewer District
  - Etna Township Zoning
  - ODOT

Development Process & Sketch Plan – July, 2013

- Typically 3-stage process
  - Sketch plan – soft start in July, 2013
  - Preliminary Plan
  - Construction Drawings
  - Optional 4th stage – Mass Grading Plan
- Township Requests
  - Swale to provide relief of flooding
  - Additional adjacent buffer

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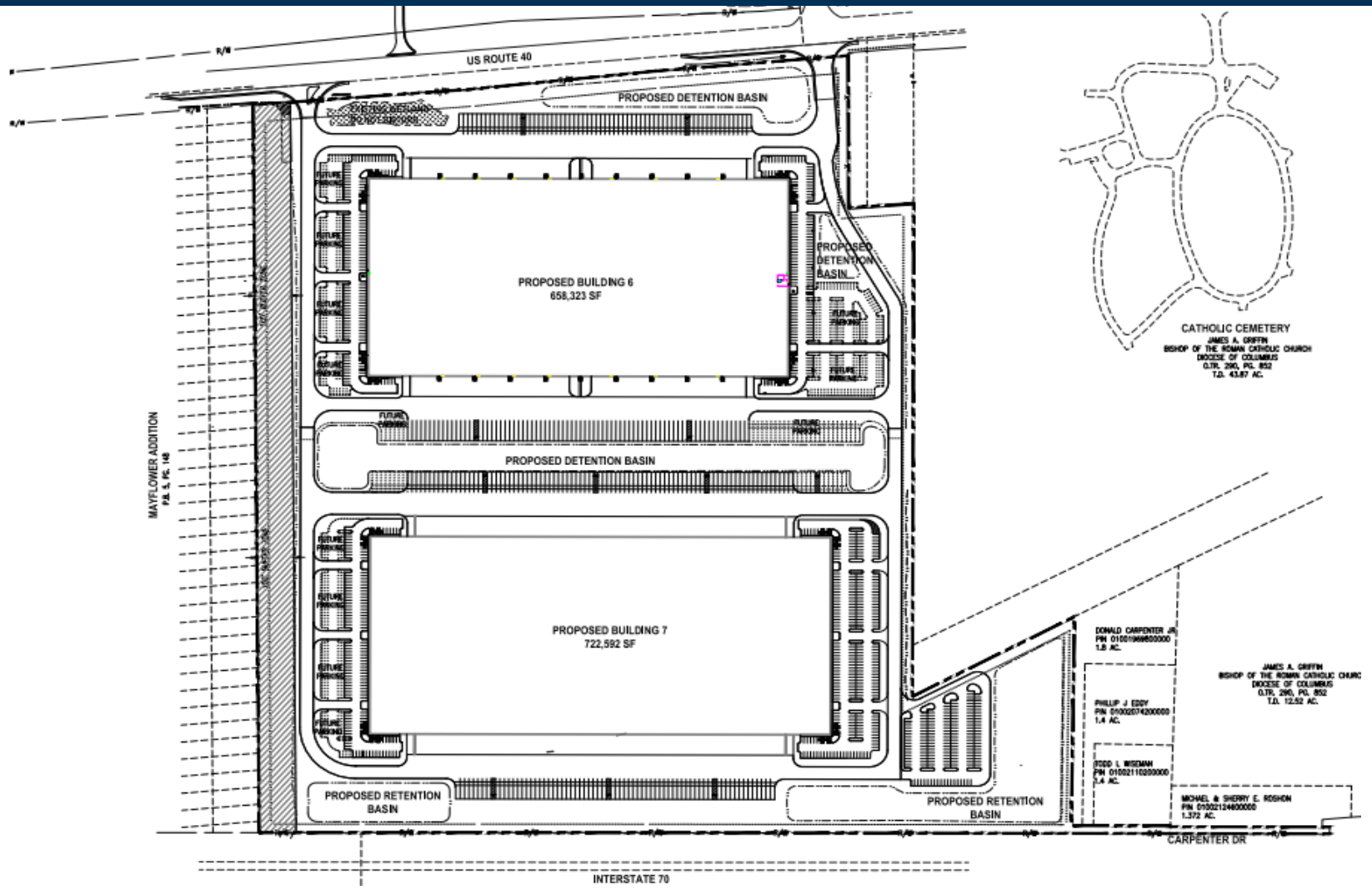
Initial Site Layout



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Preliminary Plan - October, 2013

- AutoCAD SSA (Storm & Sanitary Analysis)
- 7 tributary areas
- Onsite ponding occurring in 2 tributary areas
  - Trib. Area D – 26.44 acres
    - Trib. Area D ponding limits – 7.24 ac-ft storage
  - Trib. Area E – 22.84 acres
    - Trib. Area E ponding limits – 2.25 ac-ft storage
- Adjacent drainage approximately 20 acres – Trib. Area E
- Reduced runoff for 1-year predevelopment 6.7 cfs

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Predevelopment Tributary Map

TRIBUTARY AREA A

HYDRO GROUP	GROUND COVER	SOILS GROUP	CN	ACRES
D	WOODS, GOOD	Pe	77	1.718
C	WOODS, GOOD	BeB	70	2.377
C	SMALL GRAIN ROW CROPS	BeB	82	0.035
			73.01	4.13

TRIBUTARY AREA B

HYDRO GROUP	GROUND COVER	SOILS GROUP	CN	ACRES
D	WOODS, GOOD	Pe	77	0.699
D	SMALL GRAIN ROW CROPS	Pe	82	1.087
D	GRASS, GOOD	Pe	80	0.219
C	GRASS, GOOD	BeB	74	0.581
C	GRASS, GOOD	BeA	74	0.409
C	SMALL GRAIN ROW CROPS	BeB	82	2.399
C	WOODS, GOOD	BeB	70	1.184
C	SMALL GRAIN ROW CROPS	BeA	82	1.762
C	GRAVEL, BUILDINGS	BeA	98	0.42
			79.79	8.76

TRIBUTARY AREA C

HYDRO GROUP	GROUND COVER	SOILS GROUP	CN	ACRES
D	WOODS, GOOD	Pe	77	9.903
C	WOODS, GOOD	BeB	70	5.482
C	WOODS, GOOD	BeA	70	1.622
C	SMALL GRAIN ROW CROPS	BeA	82	2.583
			75.12	19.59

TRIBUTARY AREA D

HYDRO GROUP	GROUND COVER	SOILS GROUP	CN	ACRES
D	WOODS, GOOD	Pe	77	1.022
D	SMALL GRAIN ROW CROPS	Pe	87	9.53
C	SMALL GRAIN ROW CROPS	Pe	82	4.636
C	WOODS, GOOD	BeB	70	0.29
C	WOODS, GOOD	BeA	70	0.325
C	SMALL GRAIN ROW CROPS	BeB	82	3.676
C	SMALL GRAIN ROW CROPS	CeB	82	0.866
C	SMALL GRAIN ROW CROPS	BeA	82	6.092
			83.33	26.45

TRIBUTARY AREA E

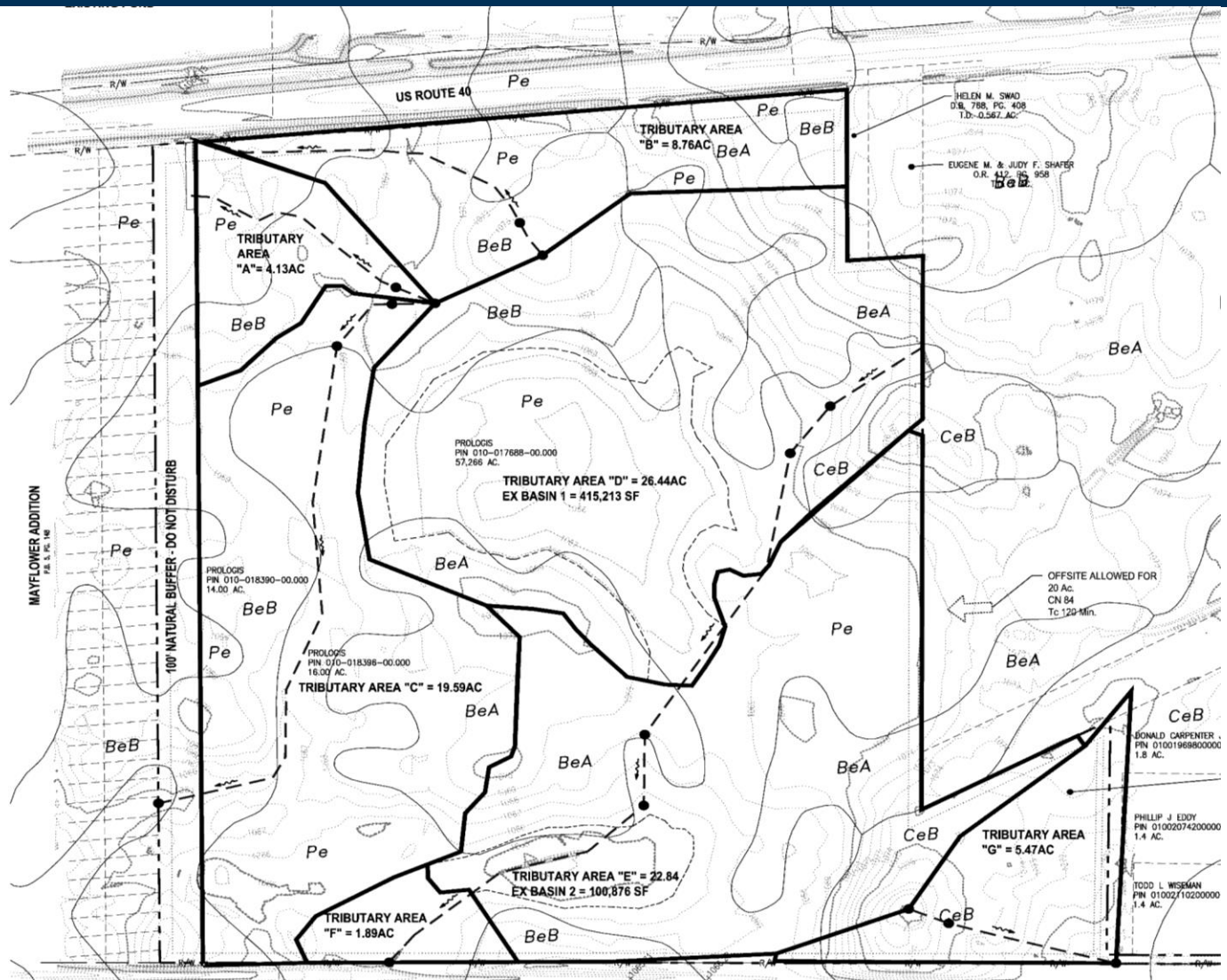
HYDRO GROUP	GROUND COVER	SOILS GROUP	CN	ACRES
D	WOODS, GOOD	Pe	77	0.13
D	SMALL GRAIN ROW CROPS	Pe	87	2.32
D	WOODS-GRASS COMBINATION	Pe	82	0.517
C	SMALL GRAIN ROW CROPS	Pe	82	9.36
C	WOODS-GRASS COMBINATION	BeB	76	0.178
C	SMALL GRAIN ROW CROPS	BeB	82	0.649
C	GRAVEL, BUILDINGS	CeB	98	0.019
C	WOODS, GOOD	CeB	70	0.428
C	SMALL GRAIN ROW CROPS	CeB	82	2.141
C	WOODS, GOOD	BeA	70	0.087
C	SMALL GRAIN ROW CROPS	BeA	82	7.01
			82.18	22.85

TRIBUTARY AREA F

HYDRO GROUP	GROUND COVER	SOILS GROUP	CN	ACRES
D	WOODS, GOOD	Pe	77	1.161
D	SMALL GRAIN ROW CROPS	PE	82	0.587
C	SMALL GRAIN ROW CROPS	BeB	82	0.14
			78.93	1.89

TRIBUTARY AREA G

HYDRO GROUP	GROUND COVER	SOILS GROUP	CN	ACRES
D	SMALL GRAIN ROW CROPS	Pe	82	0.074
C	SMALL GRAIN ROW CROPS	CeB	82	3.718
C	GRASS, GOOD	CeB	74	1.175
C	GRAVEL, BUILDINGS	CeB	98	0.503
			81.75	5.47



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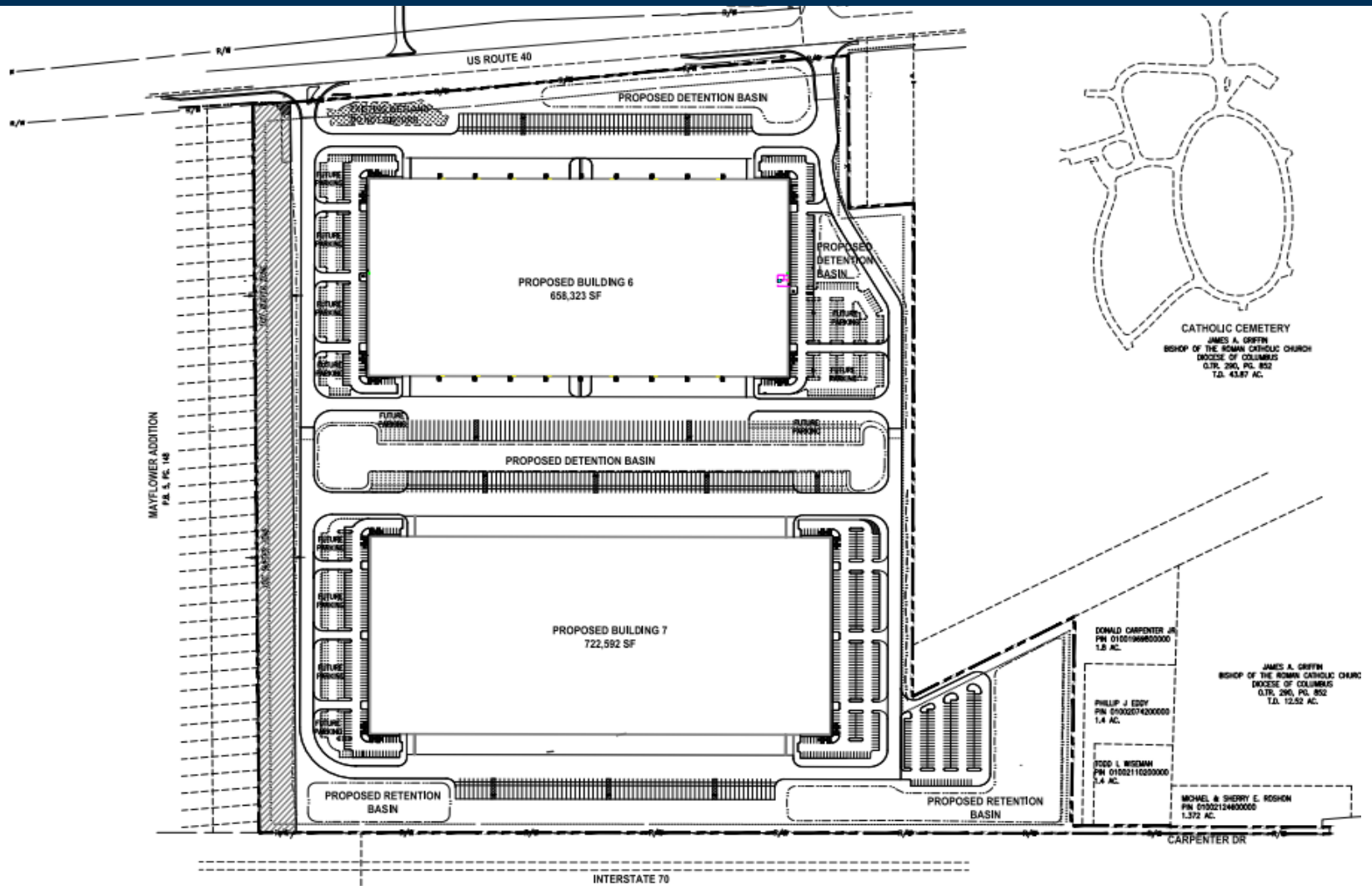
Site Layout



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*Mass Grading Plan – October, 2014

- *Optional submittal to allow earth moving activities to begin early
- Coordinated with site contractor during design
  - Location of swales
  - Grading of building pads
- Storm sewer outlet structure only storm sewer permitted
- Overflow swale design

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Mass Grading Activities

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Construction Plans – May, 2015

- Construction Plans for Building 6 (north building)
  - Final grading & utility design
  - OEPA PTI
  - OEPA Water Permit
- Construction Plans for US Route 40 Improvement
  - ODOT Approval
- STOP!

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New Development

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High Profile - Build to Suit User

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BTS Site Criteria

- Single 855k SF building
- 2,400 passenger vehicle parking area
- Cross dock facility
- Existing site constraints
  - Fixed entrance locations
  - Existing wetland – not permitted
  - Existing stream
  - Fixed outlet for site constructed with Mass Grading

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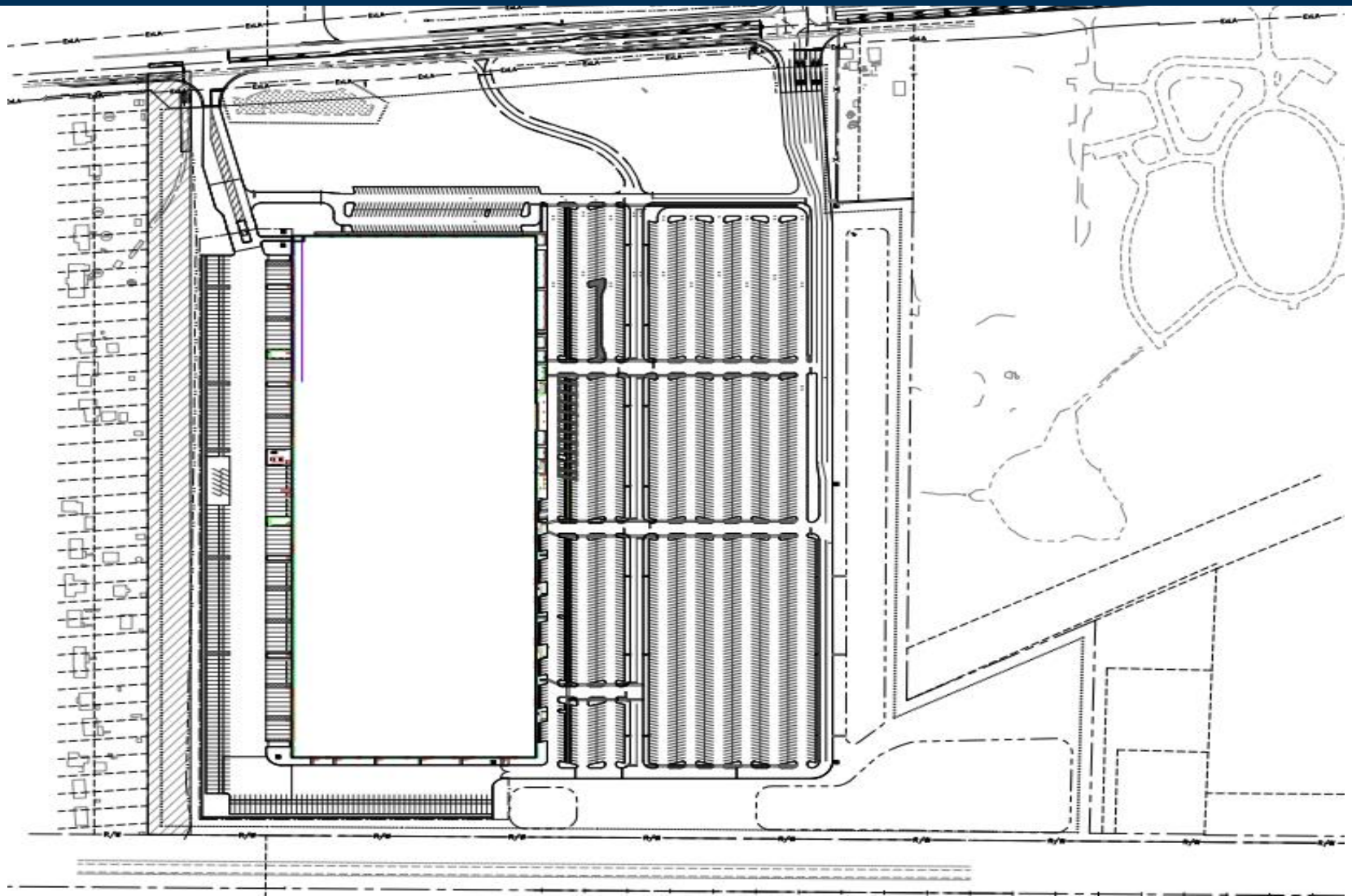
BTS Site Layout



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Revised Mass Grading Plan – June, 2015

- Revised grading
  - New pond locations
  - Maintain existing outfall in I70 ditch at southwest corner
  - Proposed site drains west to east
  - Lack of storm sewer included in design required excess storage
    - ~52 ac-ft storage above normal pool elevation
    - 2.5 ft freeboard at 100-year storm event
  - Coordinated with site contractor
    - Maintained existing sediment pond during construction of new basins
    - Pumped and filled once drainage pattern was changed

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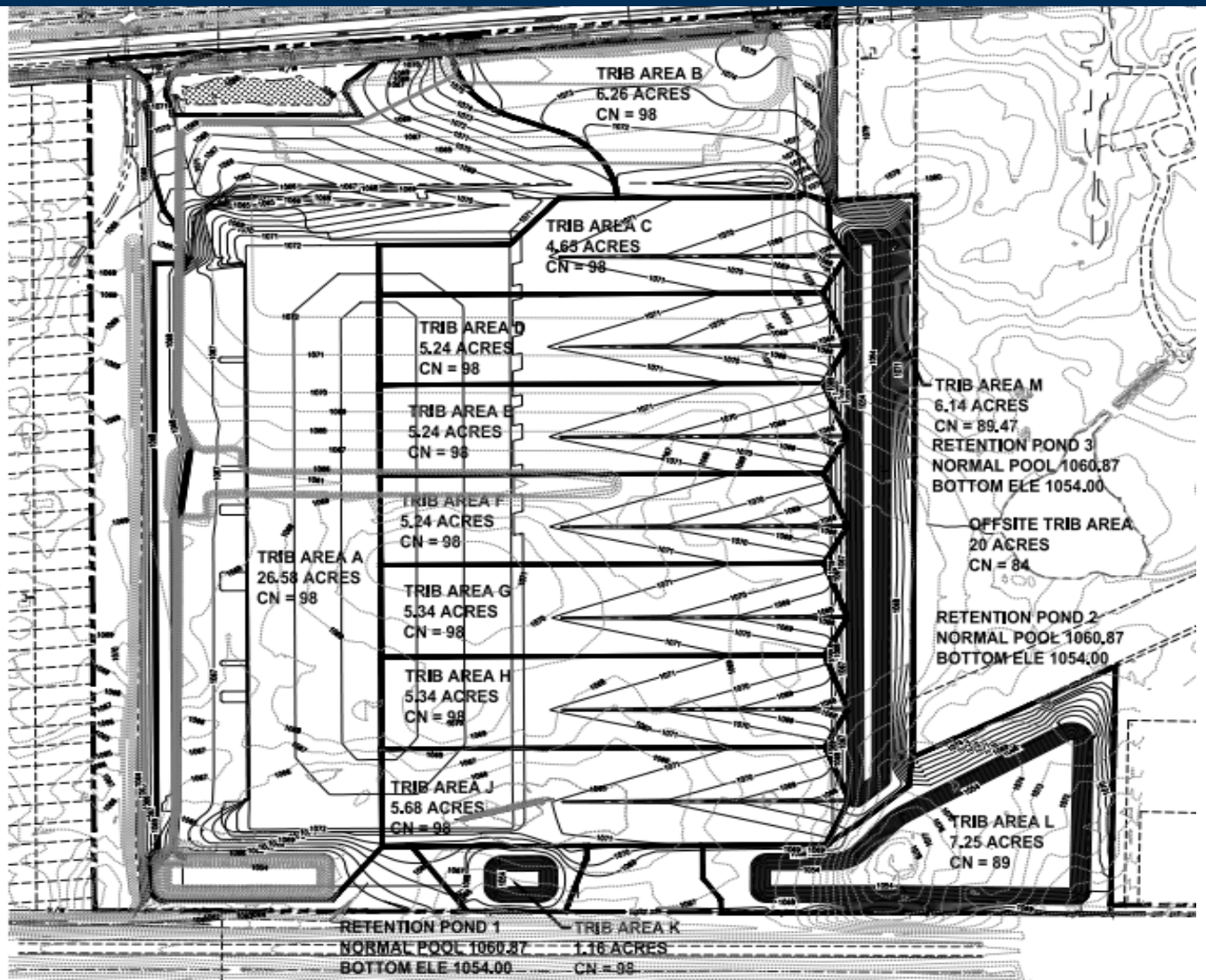
Revised Mass Grading Plan



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Revised Construction Plans – August, 2015

- Finalized onsite grading & storm sewer design
  - Revised model allowed for reduction of storage - ~8ac-ft.
  - Maintained over 1’ freeboard at 100-year storm event with final design
- Revised plans submitted to the OEPA
  - Revised PTI
  - Revised Water Permit

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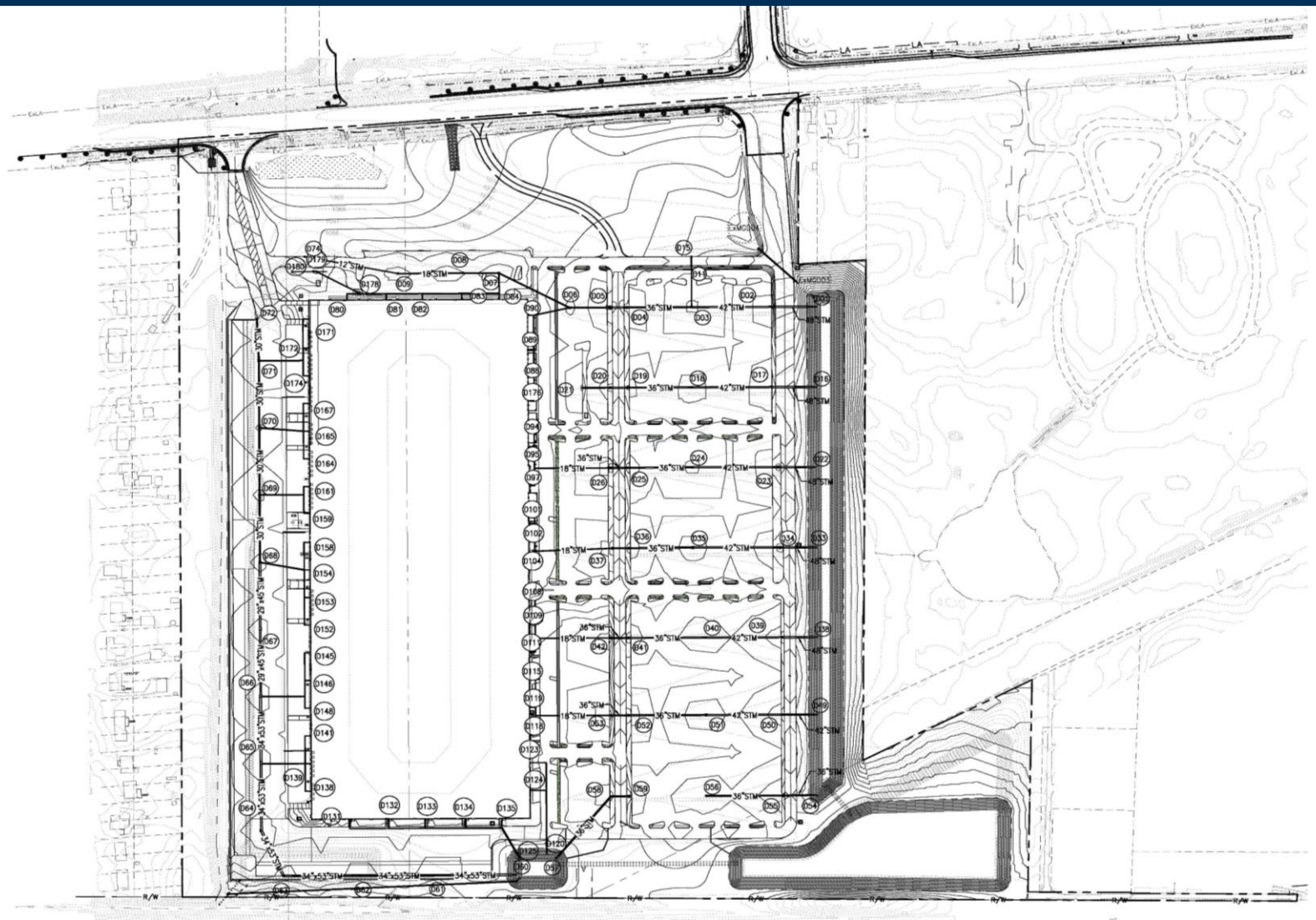
Revised Final Site Design



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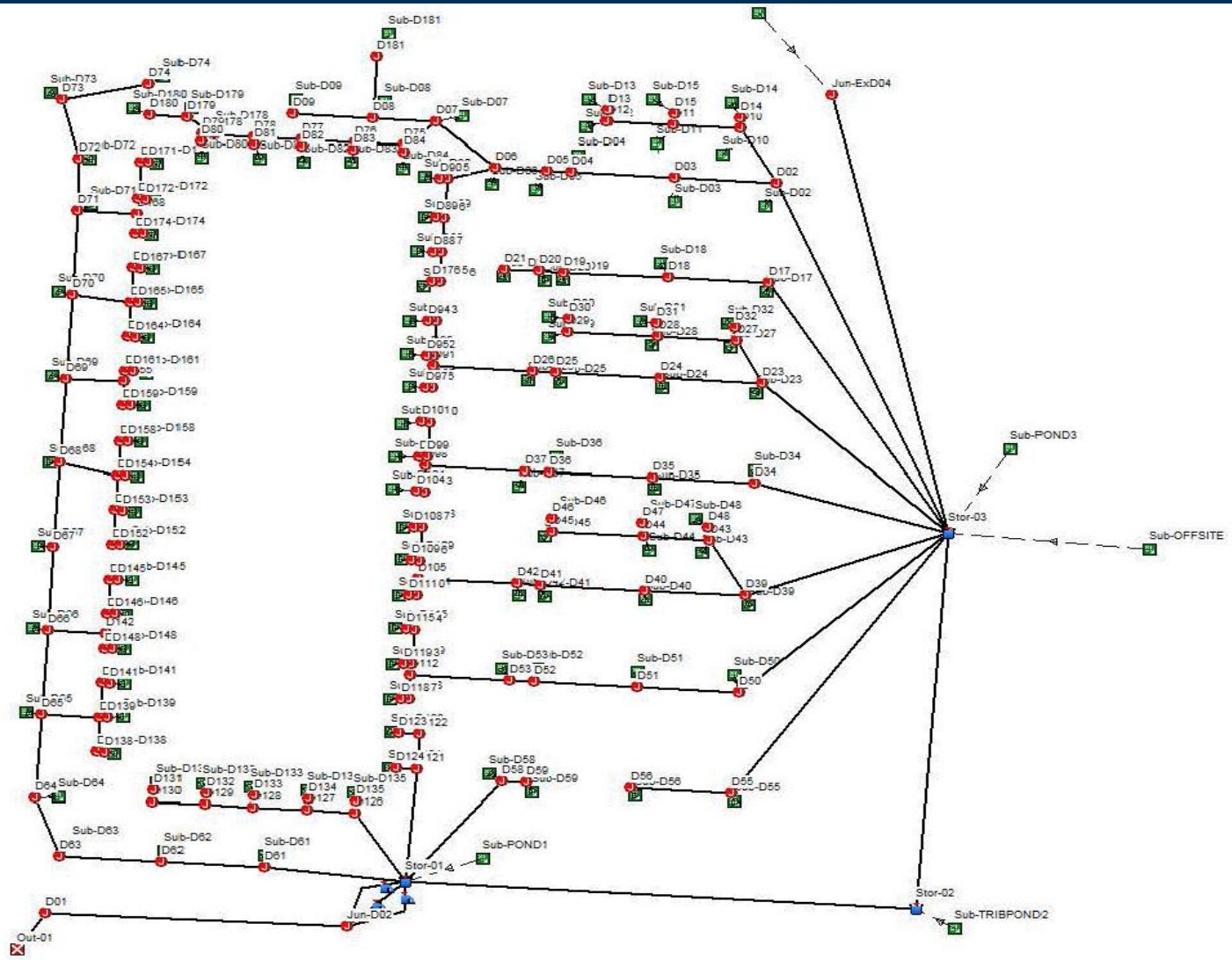
AutoCAD SSA Node Diagram



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Roadway Stormwater

- US Route 40 Improvements Identified
  - 2 – westbound left turn lanes – east entrance
  - 1 – eastbound right turn lane – both entrances
  - 1 – southbound thru lane – east entrance
  - 1 – westbound left turn lane – west entrance
- Required additional right-of-way
- Water Quality/Water Quantity required
  - Initially maintain private vs. public runoff
  - Public runoff passes through site storm sewer system

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