



FRANKLIN, INDIANA King Street

Transforming a Transportation Corridor
into an Urban Park



INAFSM Annual Conference
September 8, 2017

Overview

- **Project Background**
- **Design – King Street**
- **Design – Lover’s Lane**
- **Lessons Learned**



Project Background



Primary Gateway from I-65 into Franklin



Primary Gateway from I-65 into Franklin

Before . . .

EXISTING STREET LEVEL VIEW: Looking West on King Street towards Lovers Lane/Paris Drive Intersection



Primary Gateway from I-65 into Franklin

After...

PROPOSED STREET LEVEL VIEW: Looking West on King Street towards Lovers Lane/Paris Drive Intersection



Pedestrian Improvements



Linear Park



VIEW #1: TRAIL PERSPECTIVE



VIEW #2: ROAD PERSPECTIVE



VIEW #3: ROAD PERSPECTIVE



Linear Park



Economic Development

Before . . .

EXISTING BIRD'S EYE VIEW: Looking Northwest at King Street Gateway Intersection and Development Parcels west of I-65



Economic Development

Before . . .

EXISTING BIRD'S EYE VIEW: Looking Northwest at King Street Gateway Intersection and Development Parcels west of I-65



Economic Development

After . . .

PROPOSED BIRD'S EYE VIEW: Looking Northwest at King Street Gateway Intersection and Development Parcels west of I-65

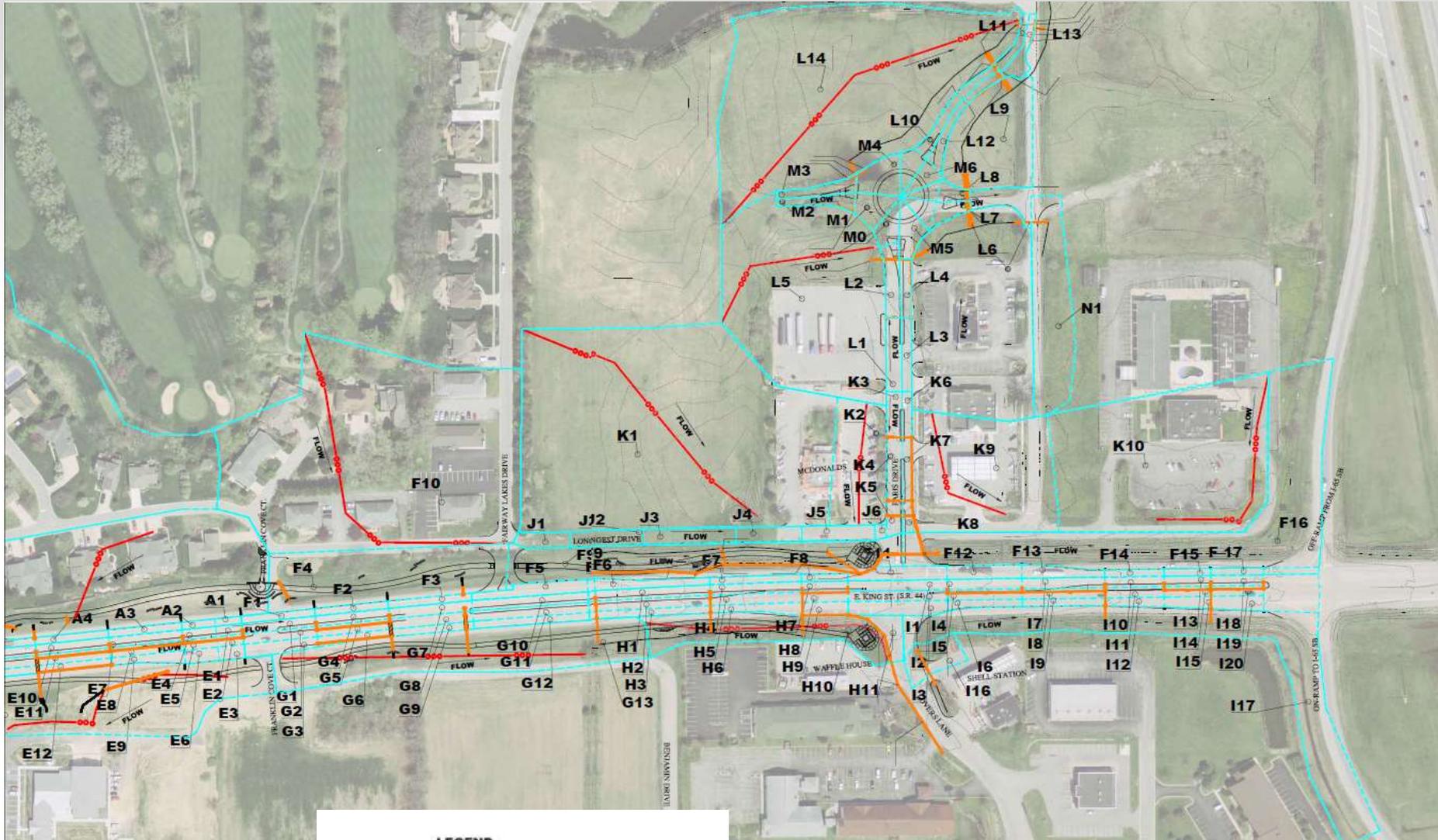




Design King Street



Watershed Delineation



LEGEND

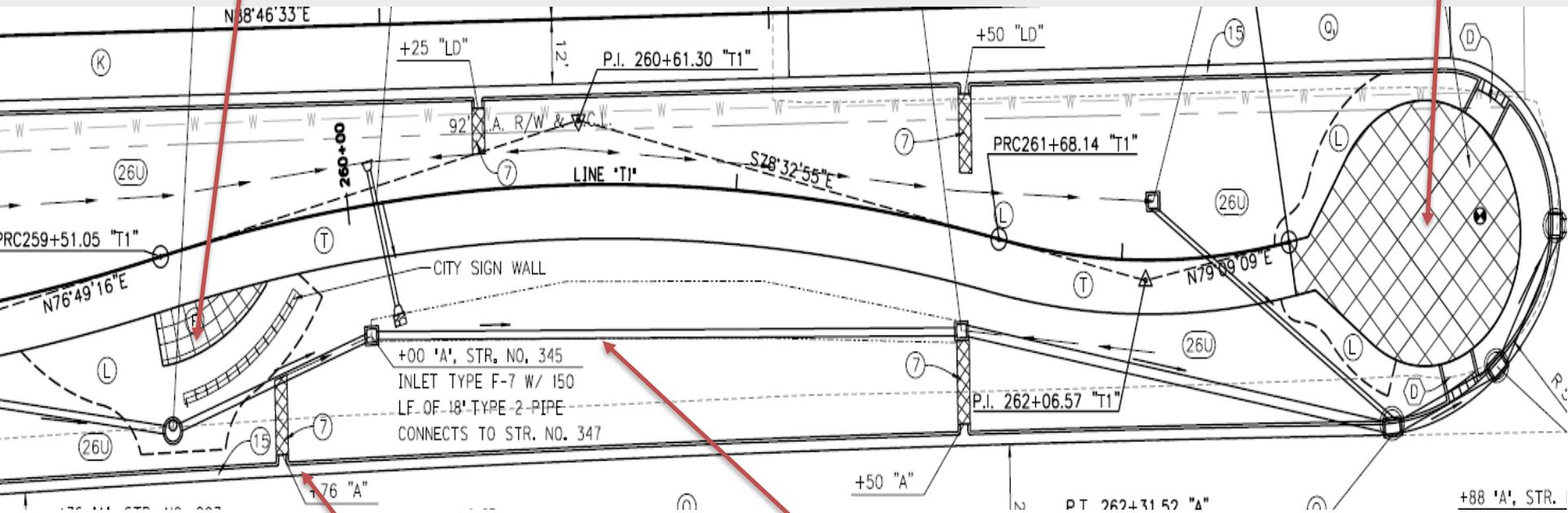
- BASIN BOUNDARY
- ●●● TIME OF CONCENTRATION PATH
- PROPOSED CURB AND GUTTER
- PROPOSED SIDEWALK/TRAIL



Maintaining Impervious Area – Net Zero Addition

Trail Node

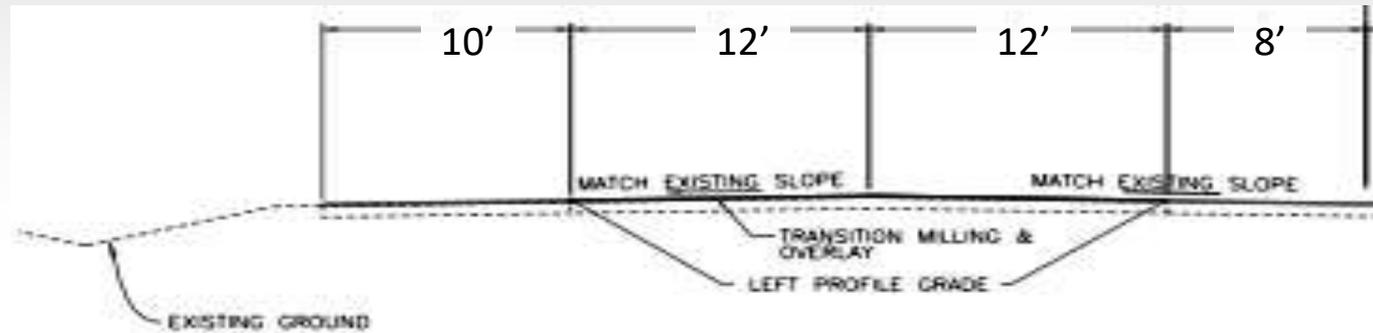
Gateway Tower Location



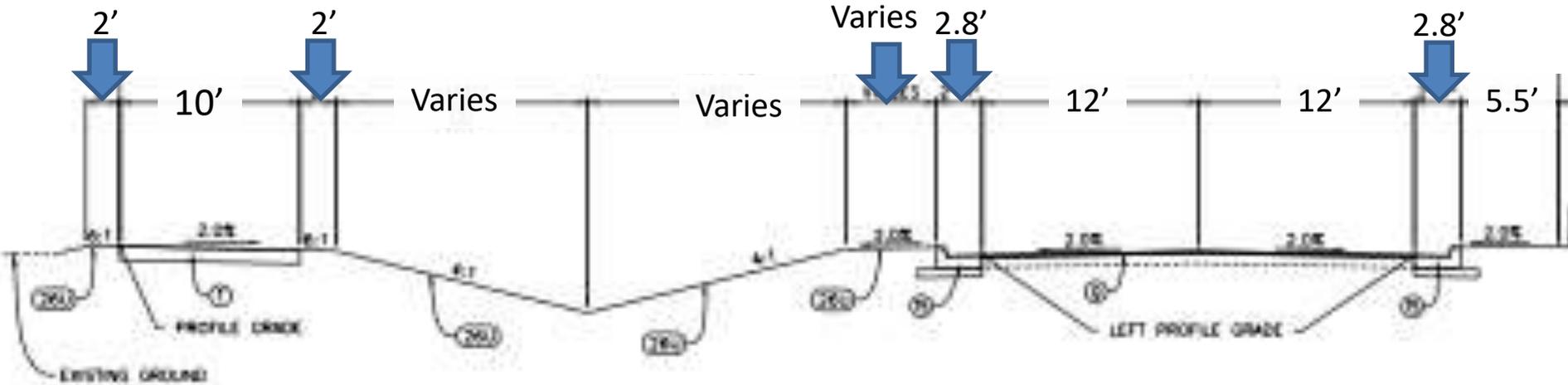
Rain Garden Area

Curb Cuts

Maintaining Impervious Area - Net Zero Addition

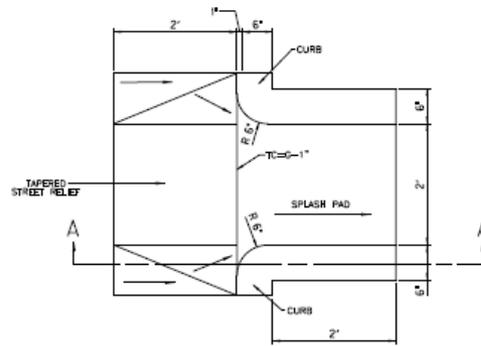


Existing Cross Section

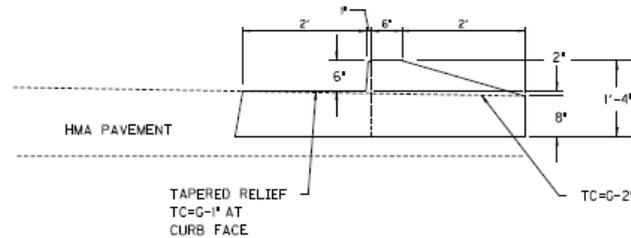


Proposed Cross Section

Curb Turnouts



PLAN VIEW



SECTION A-A

TC = TOP OF CONCRETE

C = CUTTER

CONCRETE CURB TURNOUT DETAILS

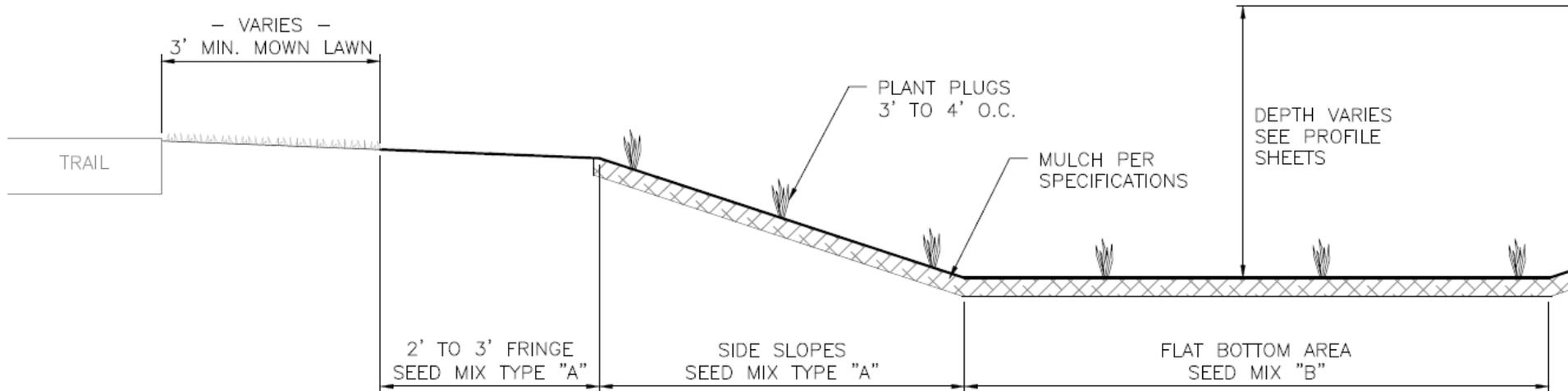
(SEE CONSTRUCTION DETAILS
FOR LOCATION)

Rain Garden Aesthetics

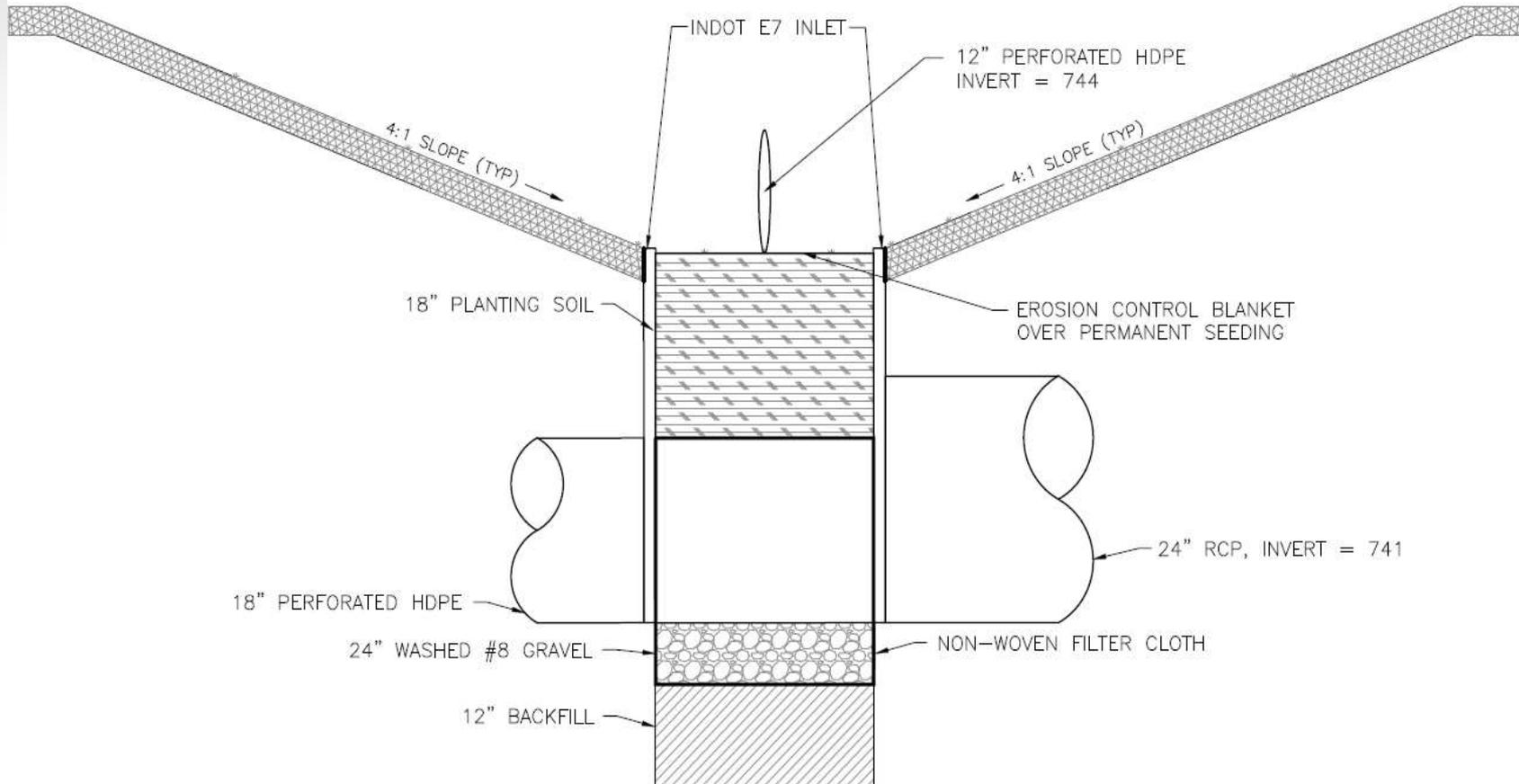


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Rain Garden Detail



Rain Garden Detail



Towers and Nodes



Towers and Nodes



Towers and Nodes



Towers and Nodes



Towers and Nodes

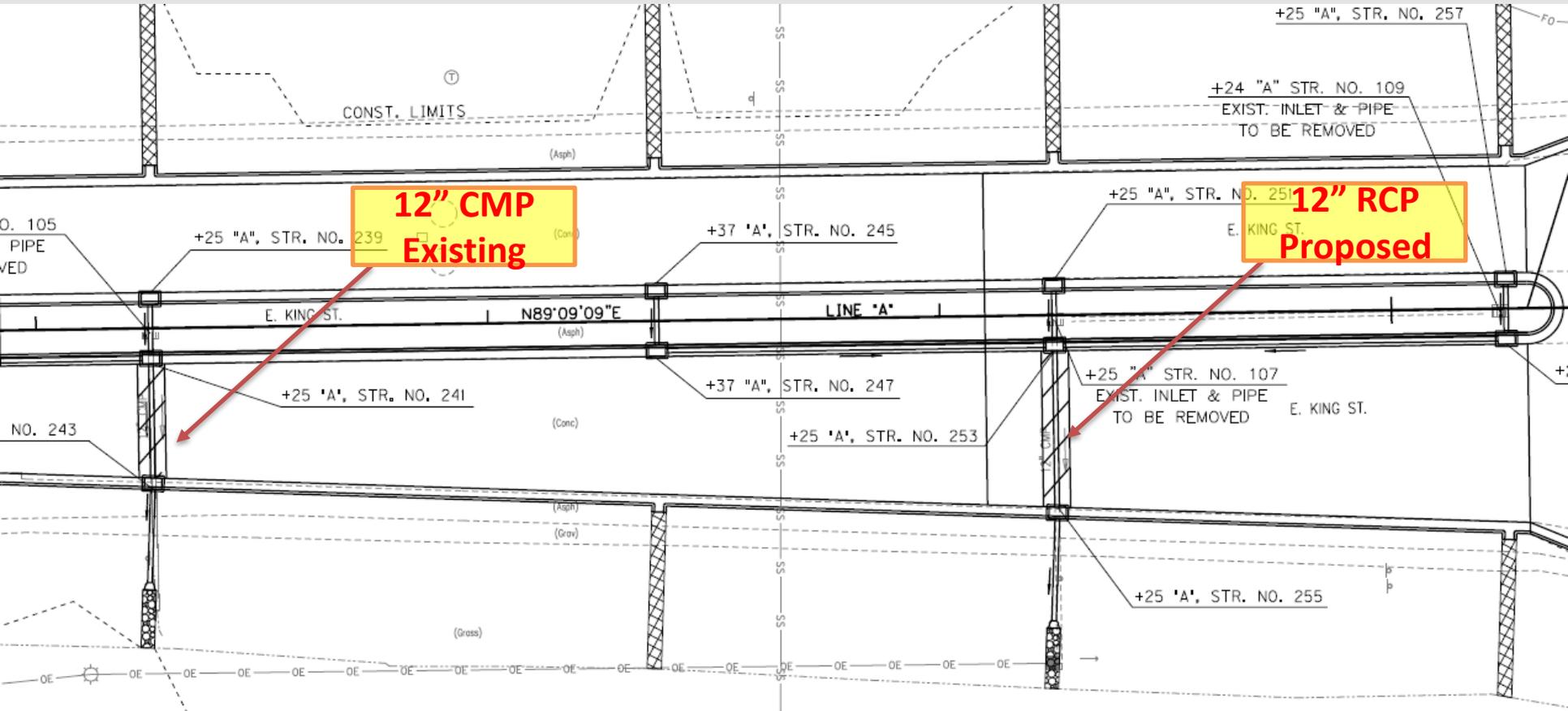


Towers and Nodes



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Reusing Trenches



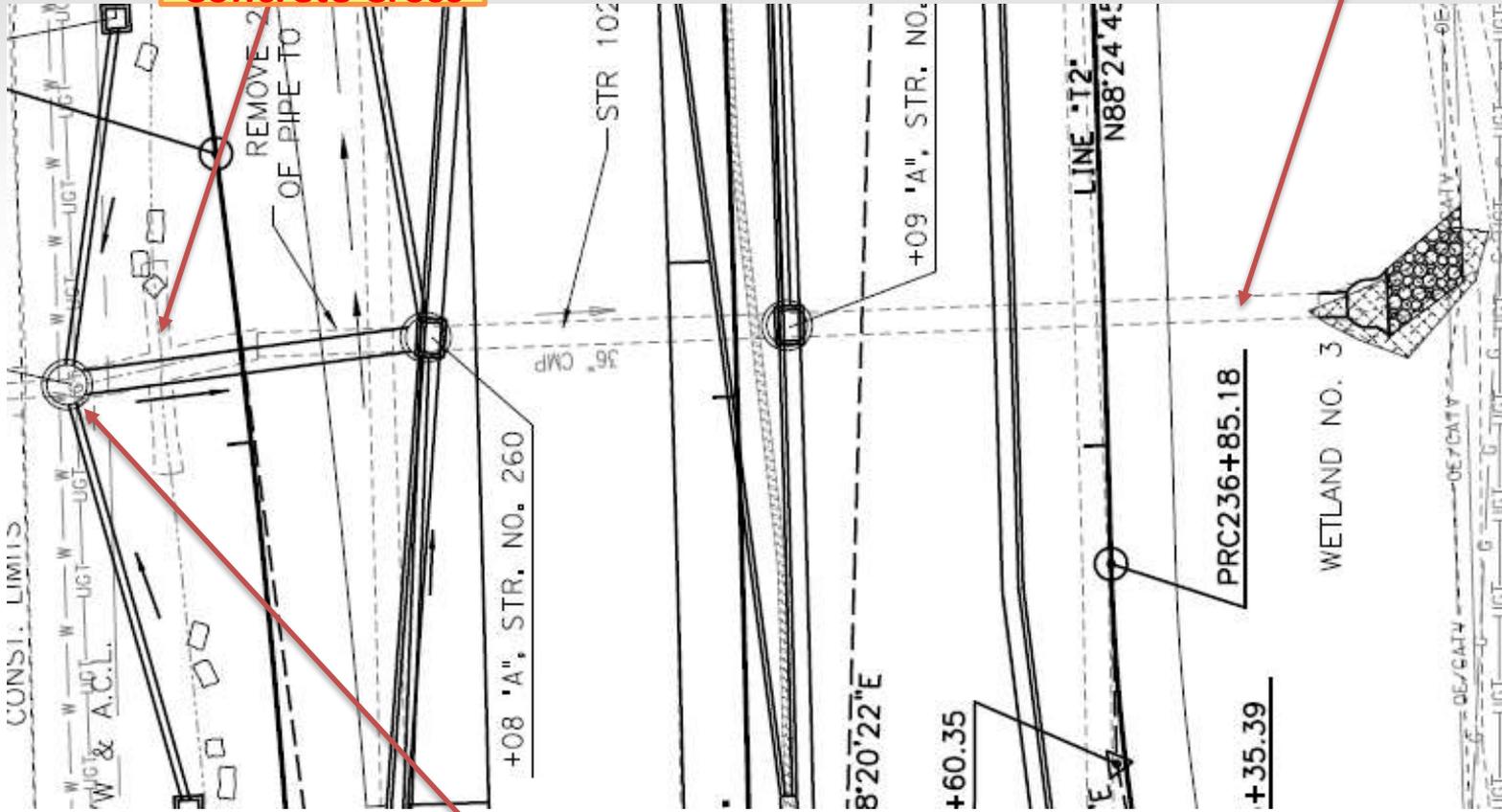
Reusing Pipes Through Lining



Reusing Pipes Through Lining

Eliminated
Concrete Cross

Lined 36" CMP –
No New Pipe, No
Roadcuts



Filled in Ditch and Used
Inlet-Manhole
Infrastructure

Design- Lover's Lane



Economic Development

After . . .

PROPOSED BIRD'S EYE VIEW: Looking Northwest at King Street Gateway Intersection and Development Parcels west of I-65



Roundabout

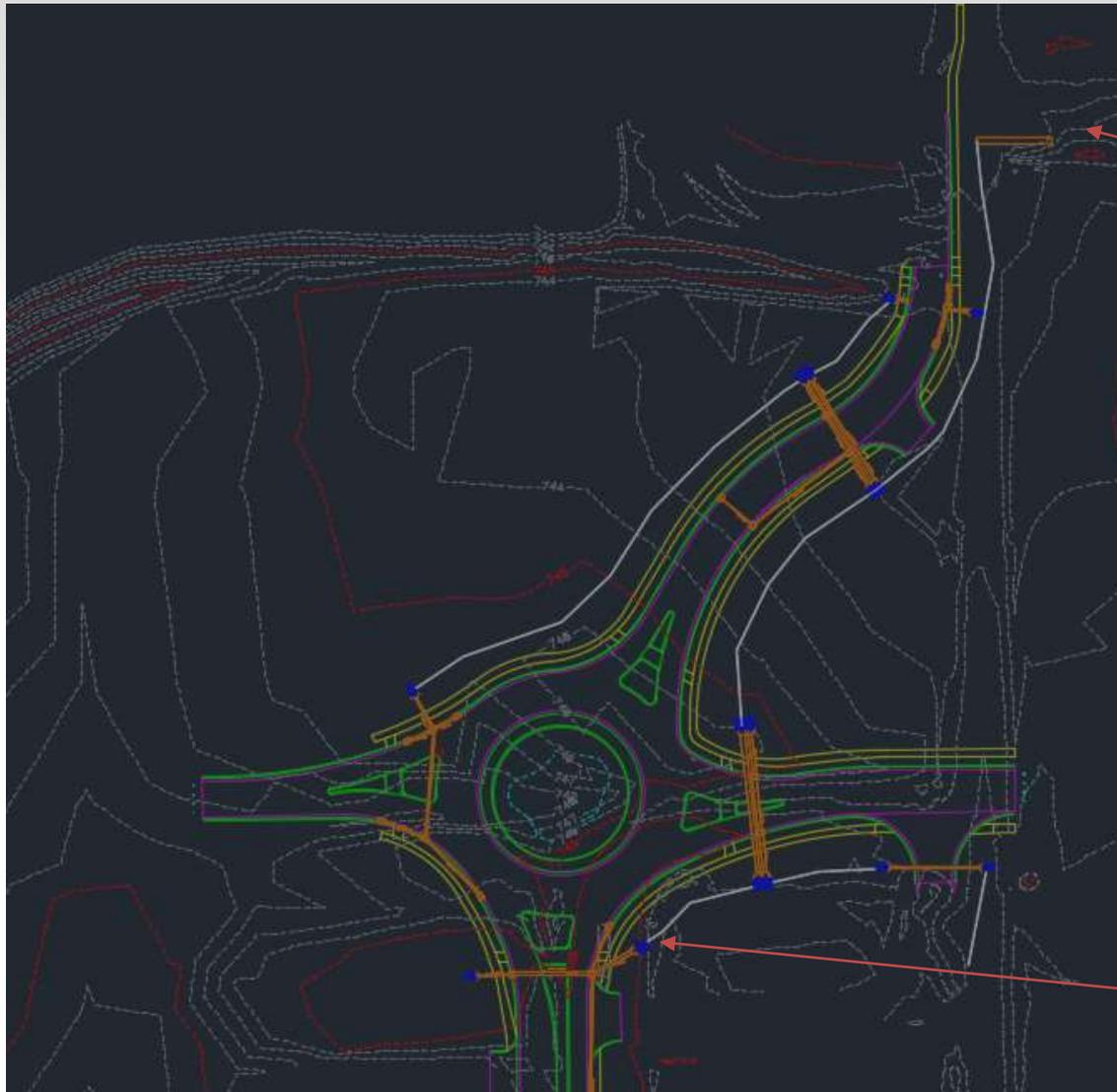


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Roundabout



Roundabout – Fall to Outlet

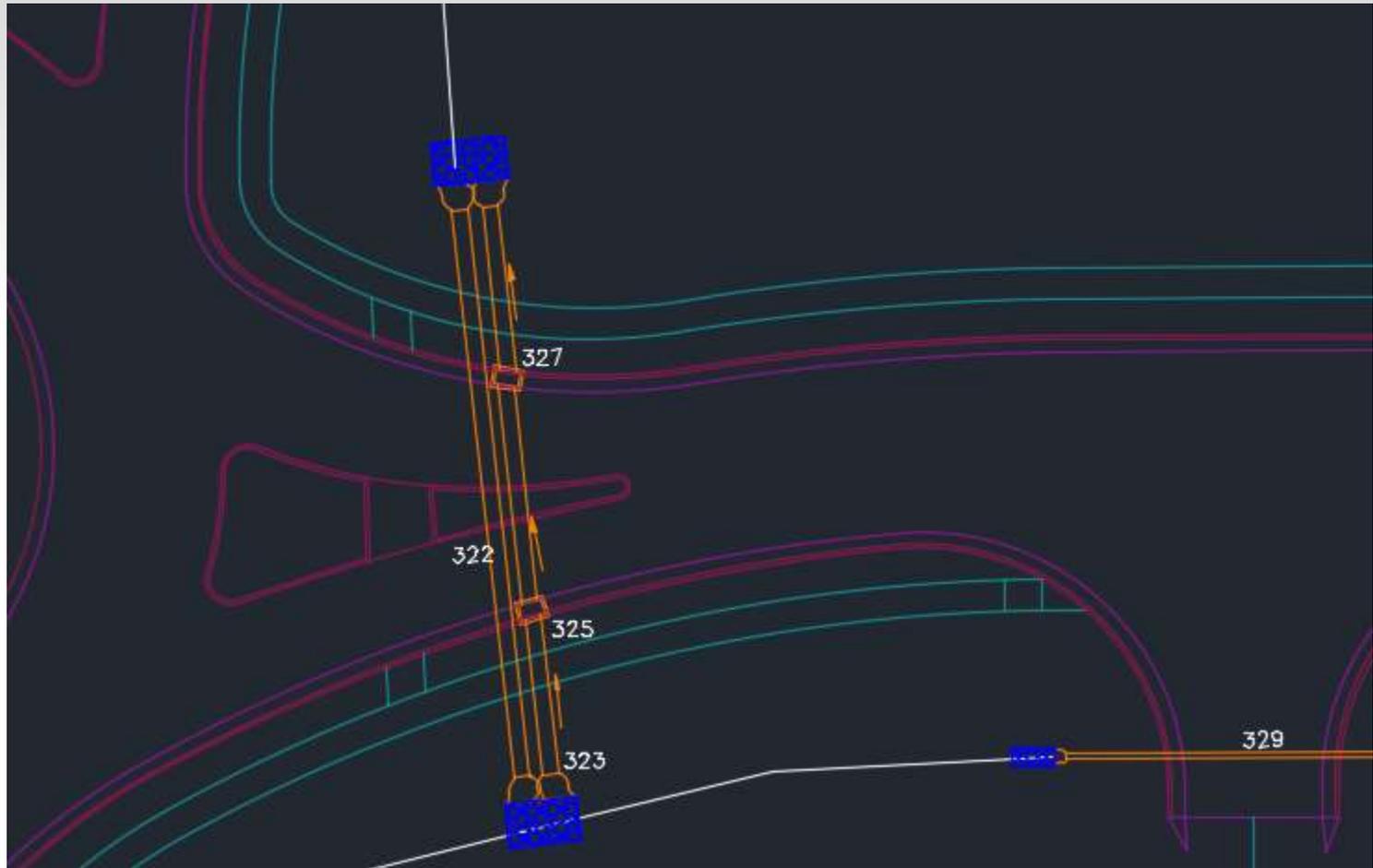


Ditch Invert= 739.69'

Length to Outlet = 715'
Slope = 0.2%

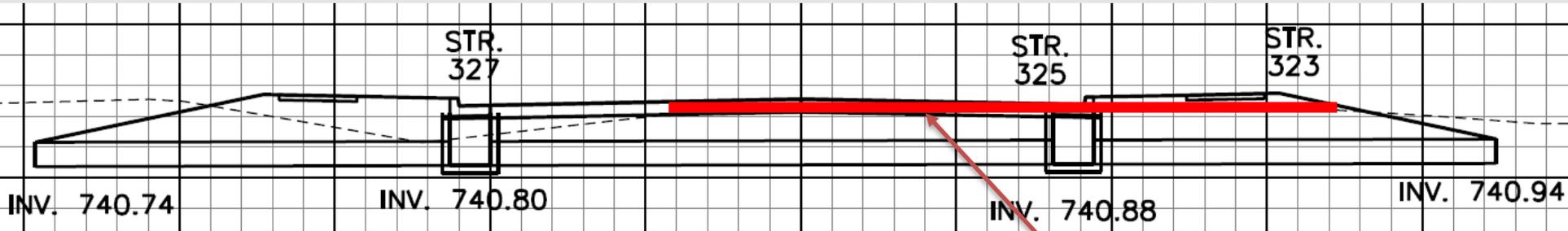
Ditch Invert= 741.17'

Roundabout – Fall to Outlet



Roundabout – Fall to Outlet

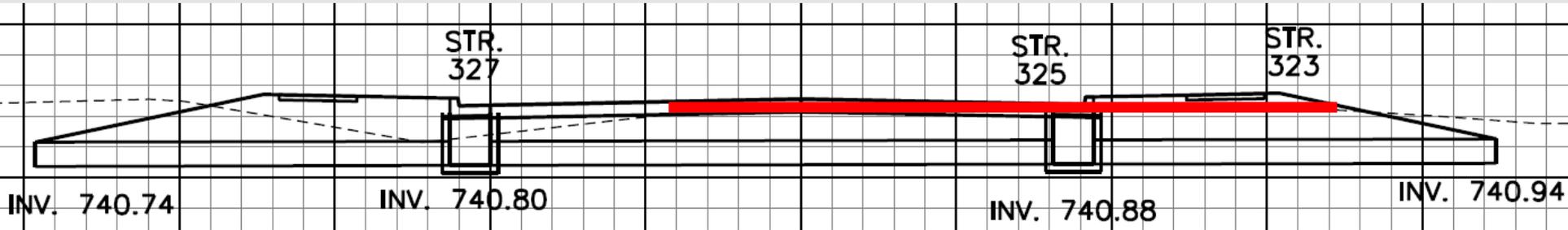
Minimal Cover with Minimal Slope



Existing Roadway –
Matching Elevation

Roundabout – Fall to Outlet

Minimal Cover with Minimal Slope



Pipe Slope = 0.2%, 30" RCP Required for 10-Yr Capacity

Maximum Depth to Invert = 3.92'

Pavement Section = 11"

Subgrade Treatment = 12"

Maximum Depth for Pipe = 3.92' - (1.92') = 2'

30" Elliptical Equivalent = 24" x 38" Elliptical Culvert – Too Tall Still

30" Parallel Pipe Equivalent = 21" and a 24" Parallel Pipes – Too Tall Still

24" Elliptical Pipe Equivalent = 19" x 30" Elliptical Culvert – Fits

Dual 24" Capacity = 33" Circular

Provided Dual 19" x 30" Capacity = 33" Circular



Roundabout – Fall to Outlet



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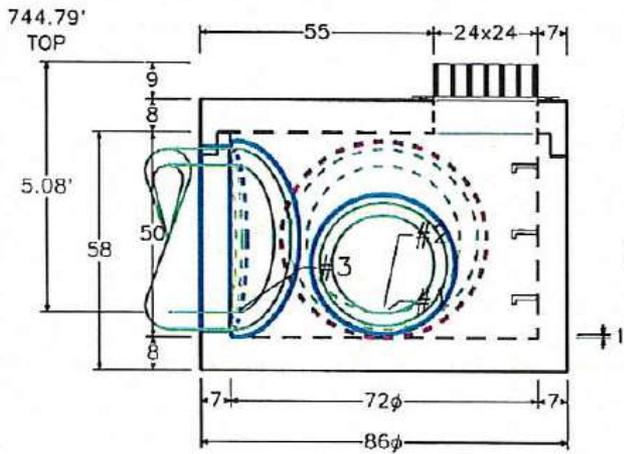
Dedication



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Lessons Learned

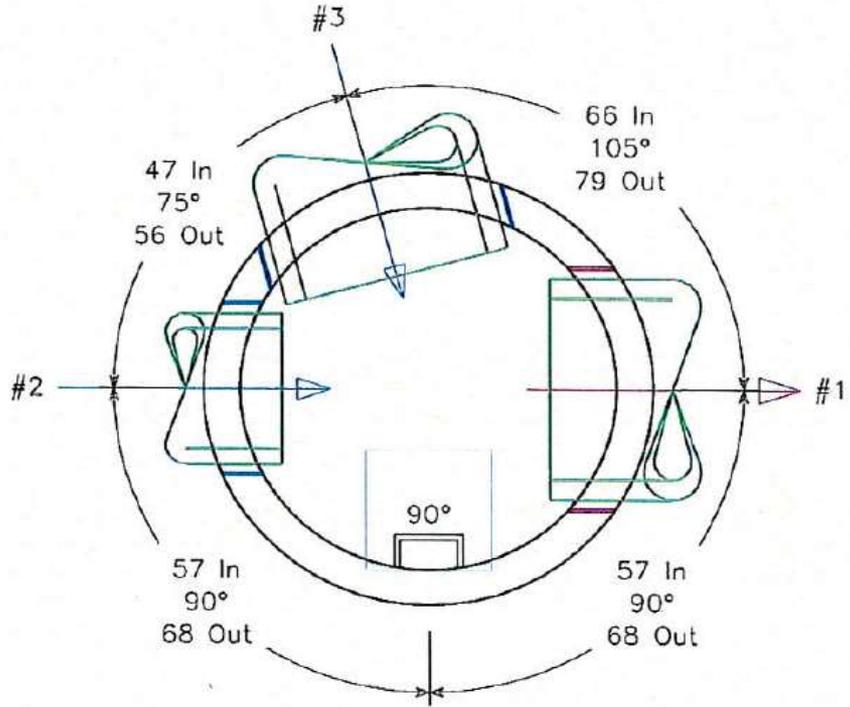
Elevation (View A-A)



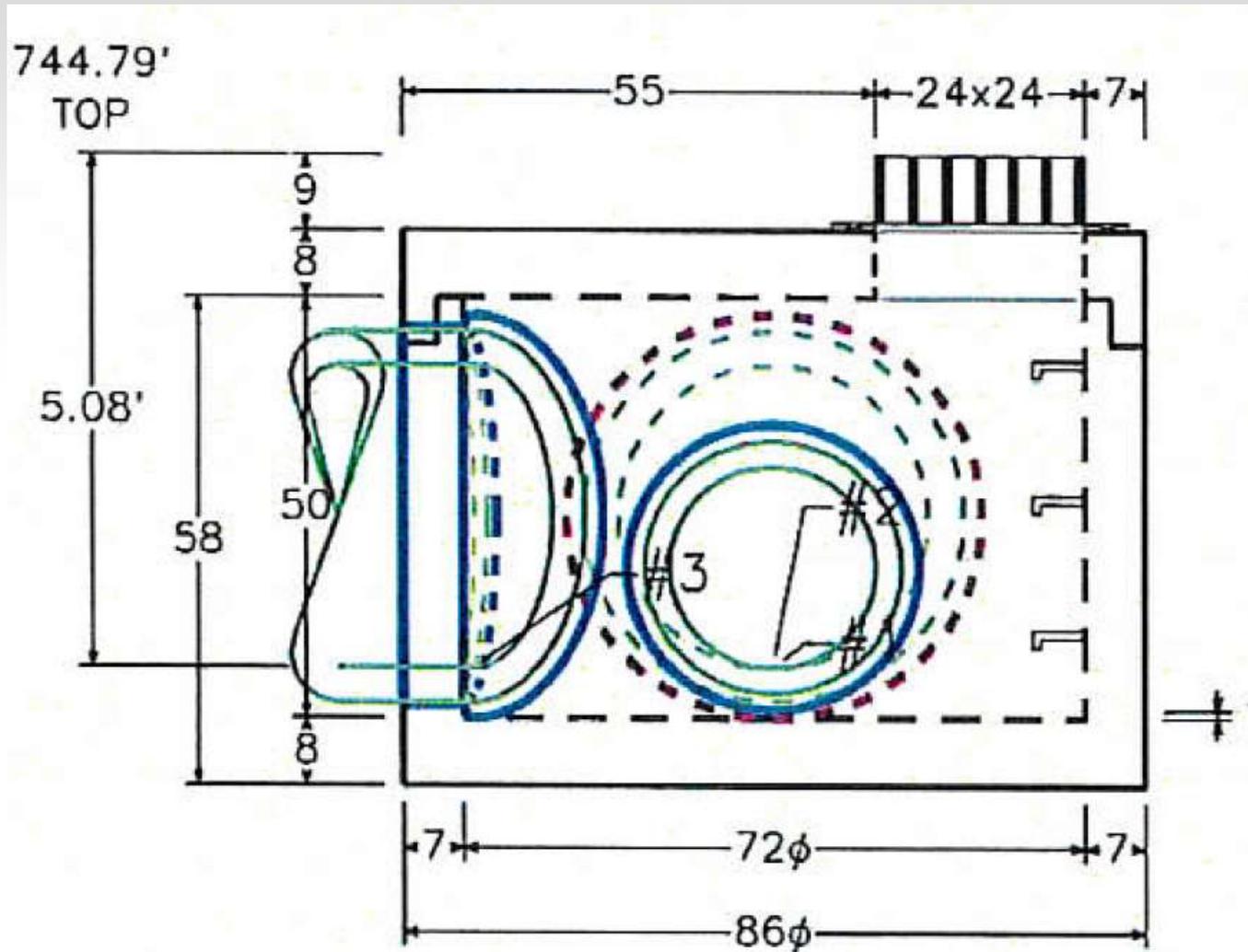
Openings

ID	Invert	Bottom	Pipe Size	Hole Size	Connector	Angle
#1	739.71'	0"	36" RCP B	48.00" Ø	Mortar	0°
#2	739.71'	1"	24" RCP B	34.00" Ø	Mortar	180°
#3	739.71'	0"	36" RCP B	48.00" Ø	Mortar	255°

Plan View



Lessons Learned



Conflict with Top Slab Caused Costly Pipe Size Change - Be wary of top Slabs and Cores

Questions & Answers

Bryan Grotz, EI, CFM, CPESC
Project Engineer

(317)981-1275

Bgrotz@hwcengineering.com

