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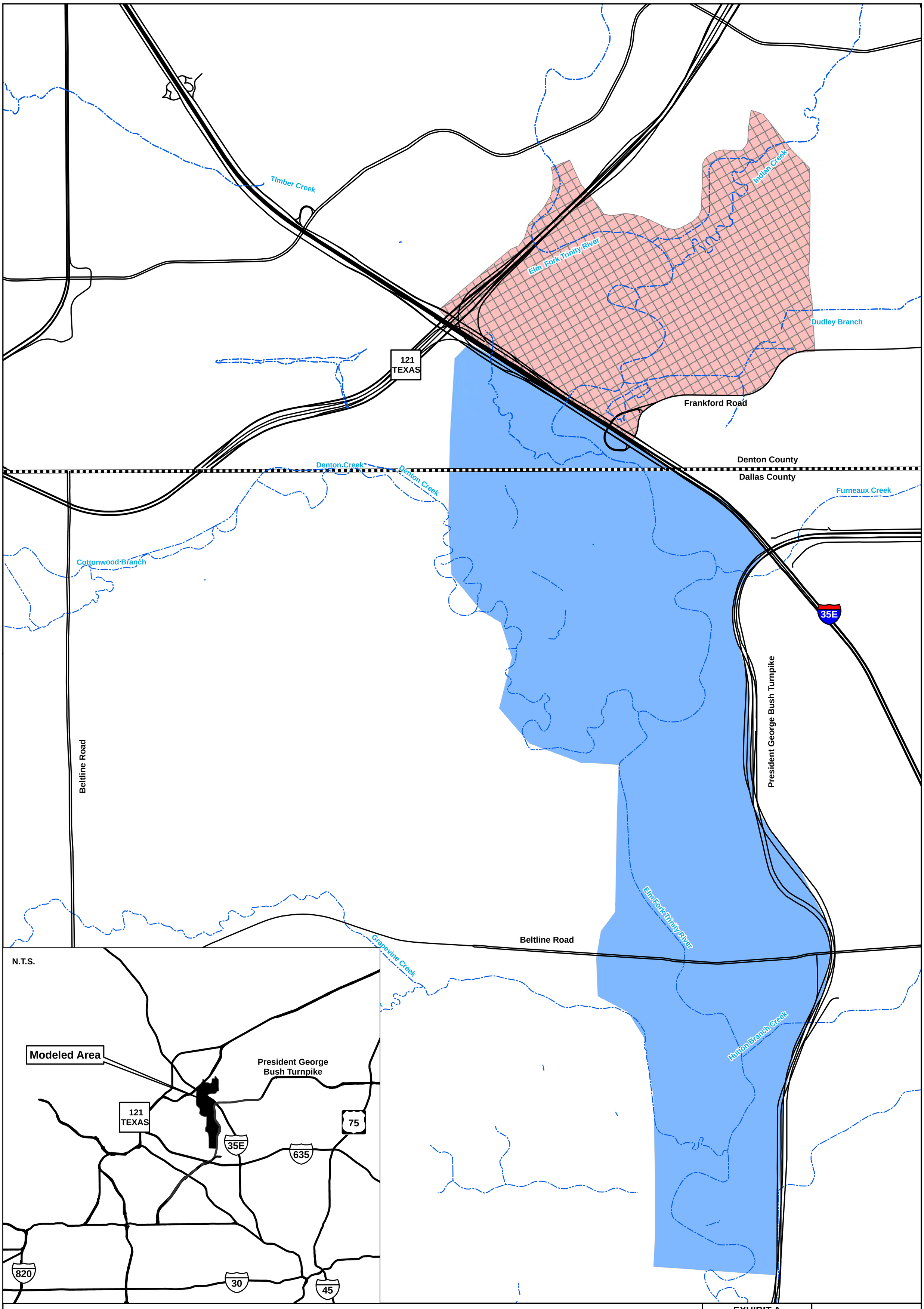

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- Streams
- 1D Only Extension
- 2D Study Area
- County Line

EXHIBIT A
City of Carrollton
Lower Dudley Branch
Flood Study

Disclaimer:
Every effort has been made to ensure the accuracy of the basemap data. Brown & Gay Engineers, Inc. assumes no liability or damages due to errors or omissions.

Date: March 2013 | Project: 912-00

N

0 1,200 2,400
Feet

Vicinity Map

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EXHIBIT B: Photo Locations

Date:	Proj. No:	Exhibit No:
March 2013	912-00	EXHIBIT B

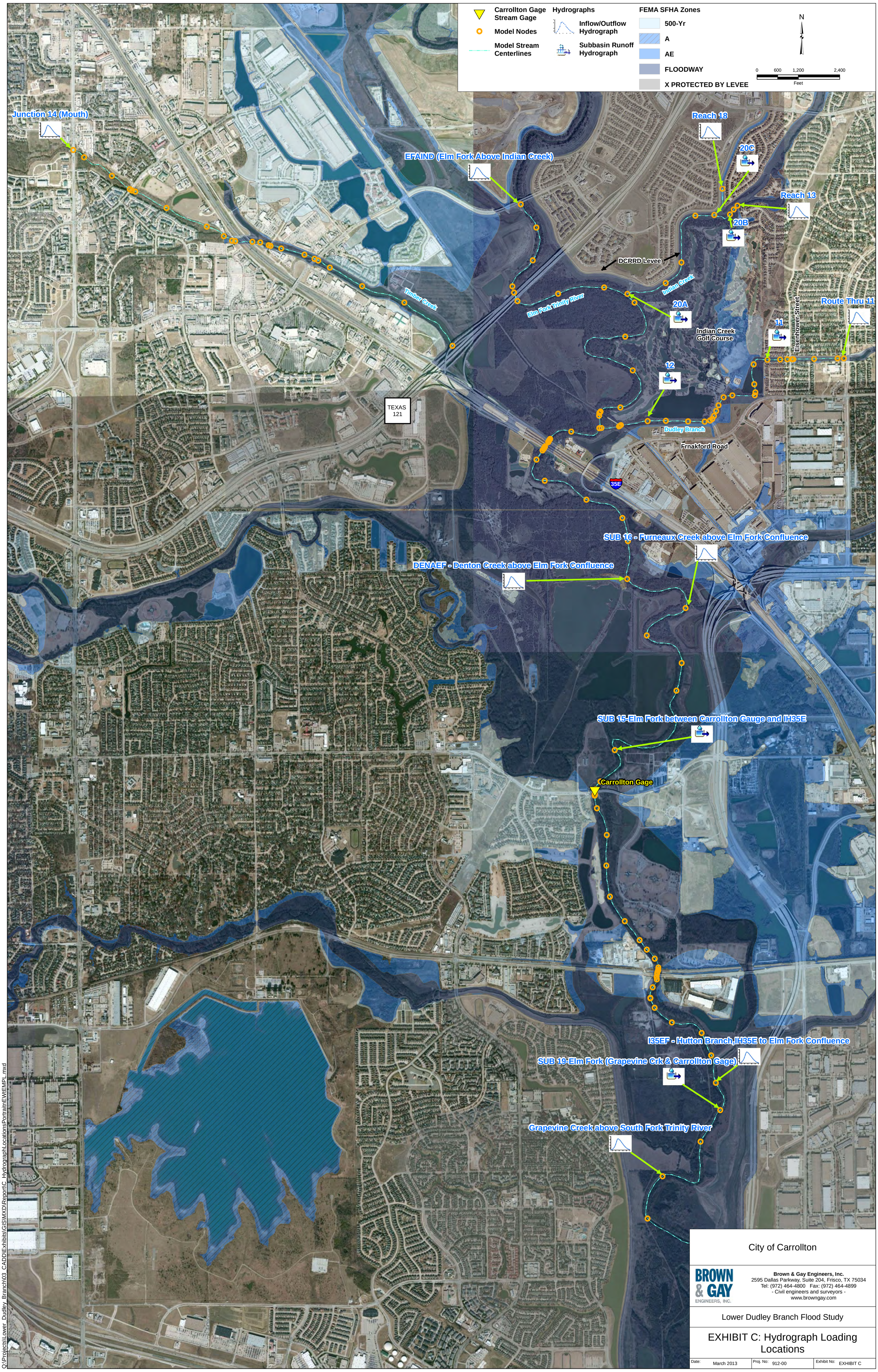

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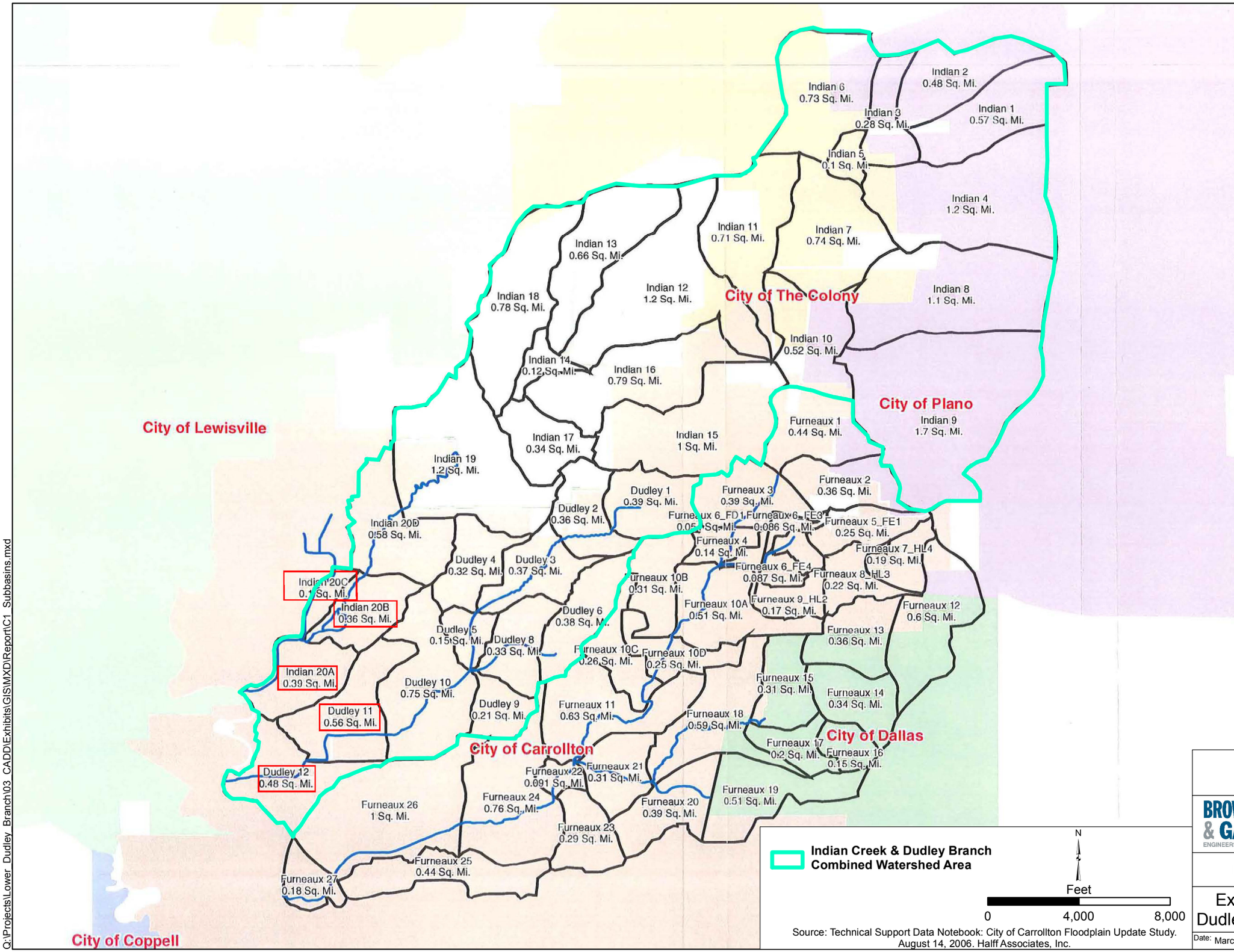
EXHIBIT C: Hydrograph Loading Locations

Date:	Proj. No:	Exhibit No:
March 2013	912-00	EXHIBIT C

Q:\Projects\Lower_Dudley_Branch\03_CADD\Exhibits\GIS\MXD\Report\C_HydrographLocationsPortraitnEWtEMPL.mxd



Source: Technical Support Data Notebook: City of Carrollton Floodplain Update Study. August 14, 2006. Halff Associates, Inc.

CARROLLTON

City of Carrollton
Denton County, Texas
Floodplain Update Study

Key to Features

- Study Streams
- Drainage Areas

Figure 3. City of Carrollton Drainage Area Map

N

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Lower Dudley Branch Flood Study

Exhibit C-1: Indian Creek and Dudley Branch Subbasin Locations

Date: March 2013	Proj. No: 912-00	Exhibit No: EXHIBIT C-1

Q:\Projects\Lower_Dudley_Branch\03_CADD\Exhibits\GIS\MXD\Report\C1_Subbasins.mxd

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EXHIBIT D: 2D Model Schematic

Date:	Proj. No:	Exhibit No:
March 2013	912-00	EXHIBIT D

Q:\Projects\Lower_Dudley_Branch\03_CADD\Exhibits\GIS\MXD\Report\D_ModelSchematic.mxd

Land Use Description	Manning's n Value
Default - Dense tree canopy with heavy underbrush, from the CDC HEC-RAS model	0.18
Tall Grass, un-mowed fields in floodplain, from CDC HEC-RAS model	0.06
Short Grass, well groomed on the golf course, from Indian Creek HEC-RAS model	0.045
Piers under SH121, from HEC-RAS hydraulic reference manual	0.12
Golf course ponds, from Dudley Branch HEC-RAS model	0.03
Tree stands in golf course, medium density, little to no underbrush, from Indian Creek HEC-RAS model	0.07
Light industrial, predominantly concrete, some landscaping, obstructions from buiklings, from Dudley Branch HEC-RAS model	0.01

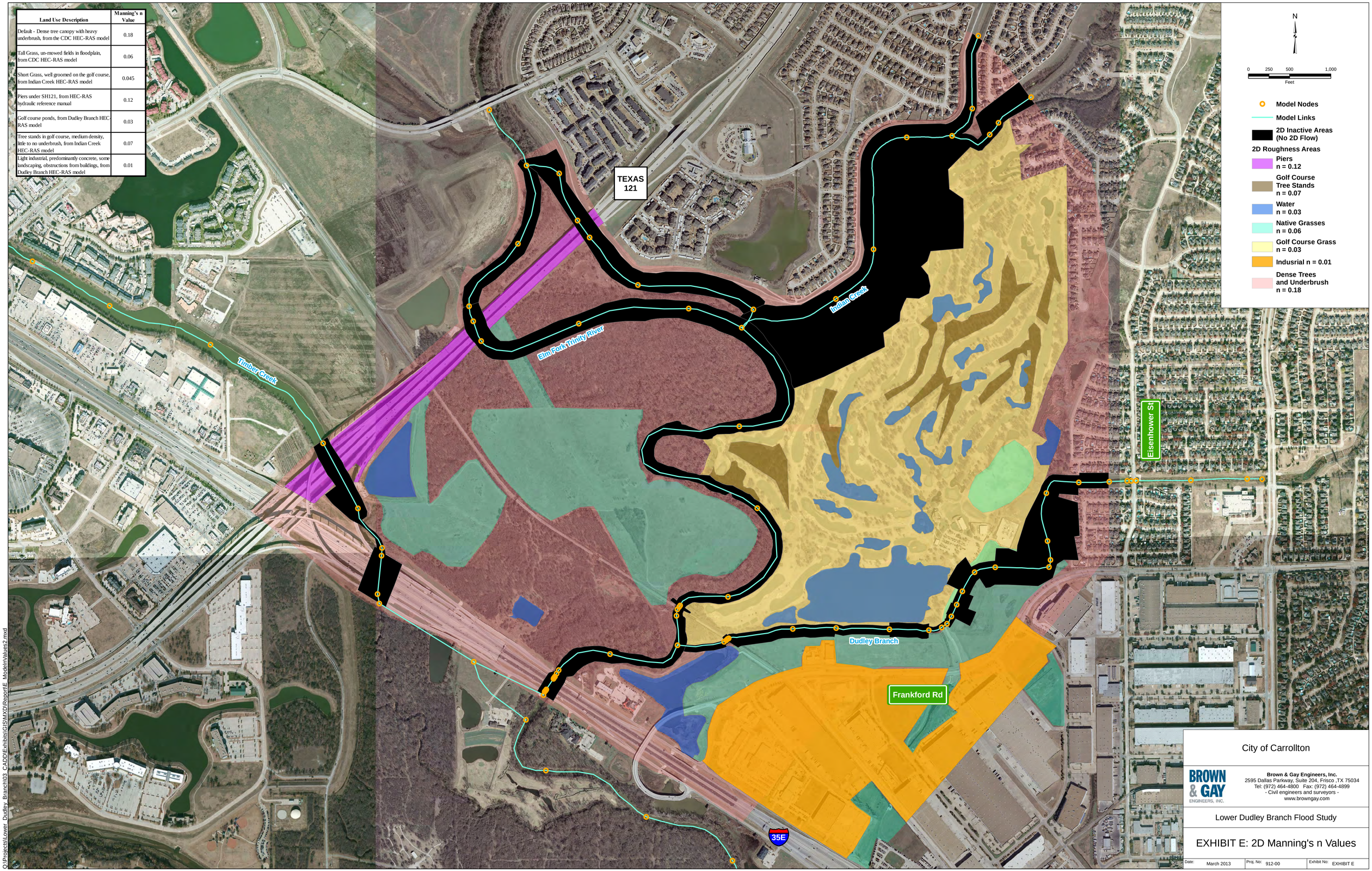

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EXHIBIT E: 2D Manning's n Values

Date:	Proj. No:	Exhibit No:
March 2013	912-00	EXHIBIT E

Q:\Projects\Lower Dudley Branch\03_CADD\Exhibits\GIS\MXD\ReportE_ModelnValues2.mxd

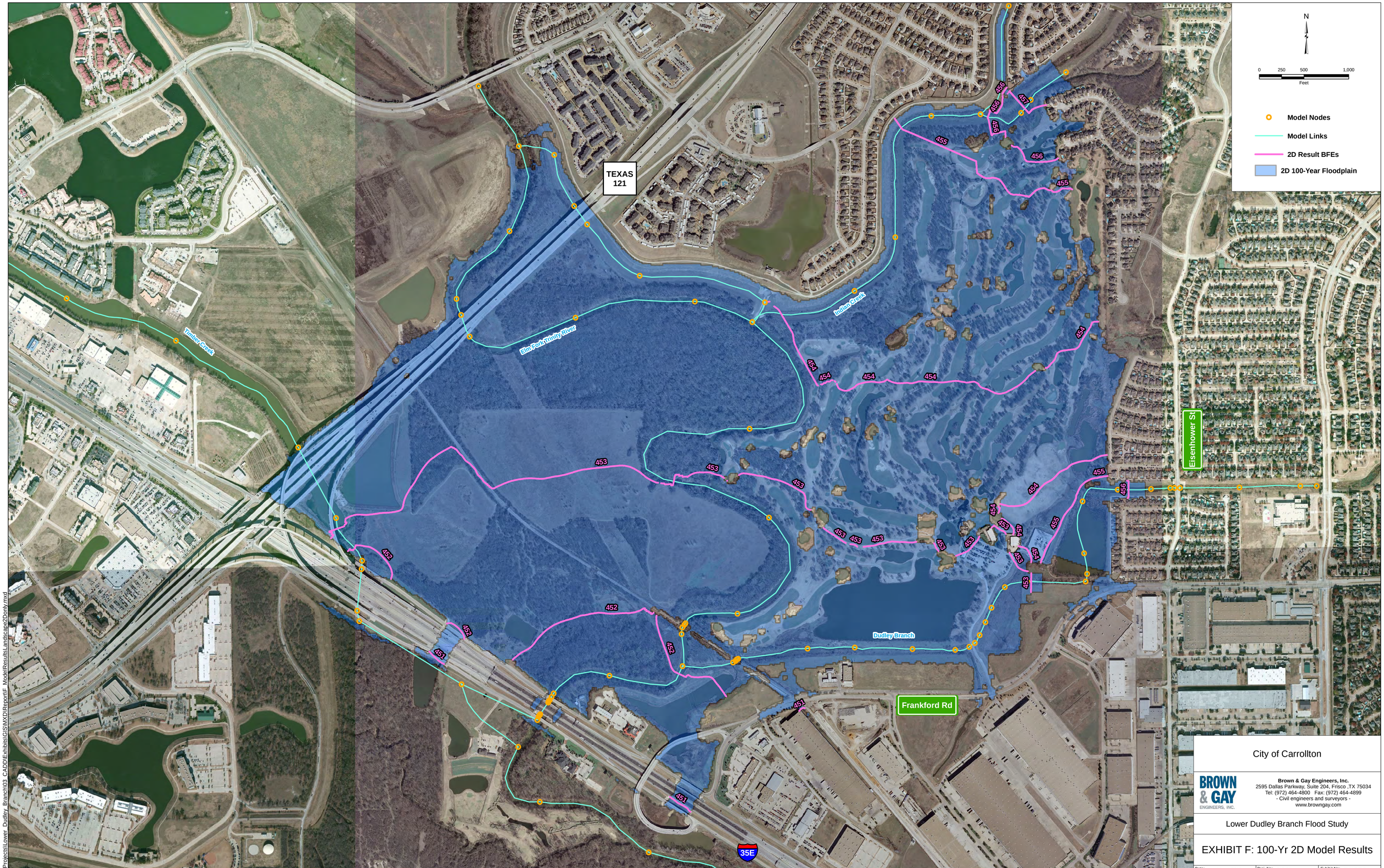

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EXHIBIT F: 100-Yr 2D Model Results

Date:	Proj. No:	Exhibit No:
March 2013	912-00	EXHIBIT F

Q:\Projects\Lower_Dudley_Branch\03_CADD\Exhibits\GIS\MXD\ReportF_ModelResultsLandscape2Donly.mxd

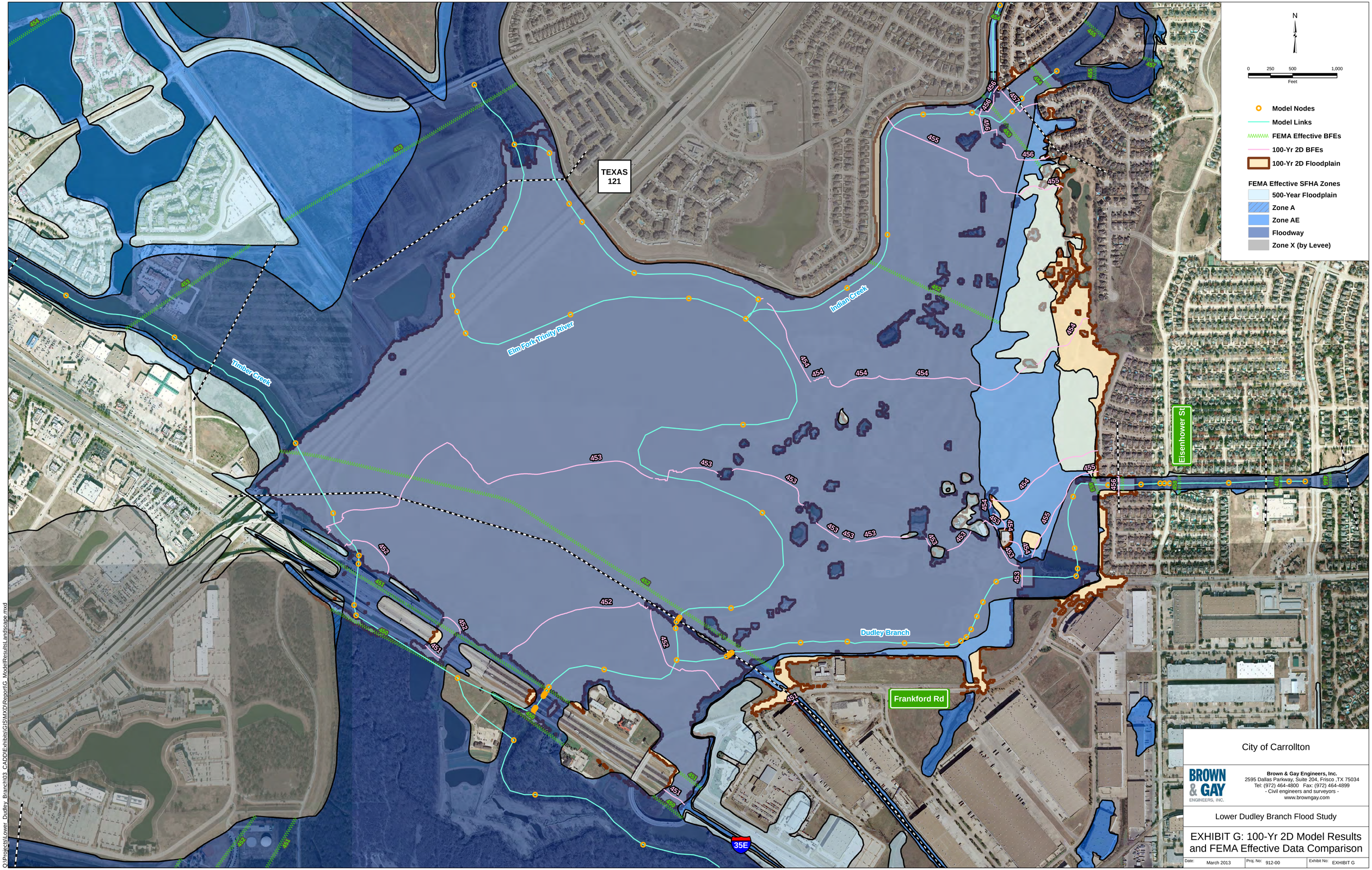

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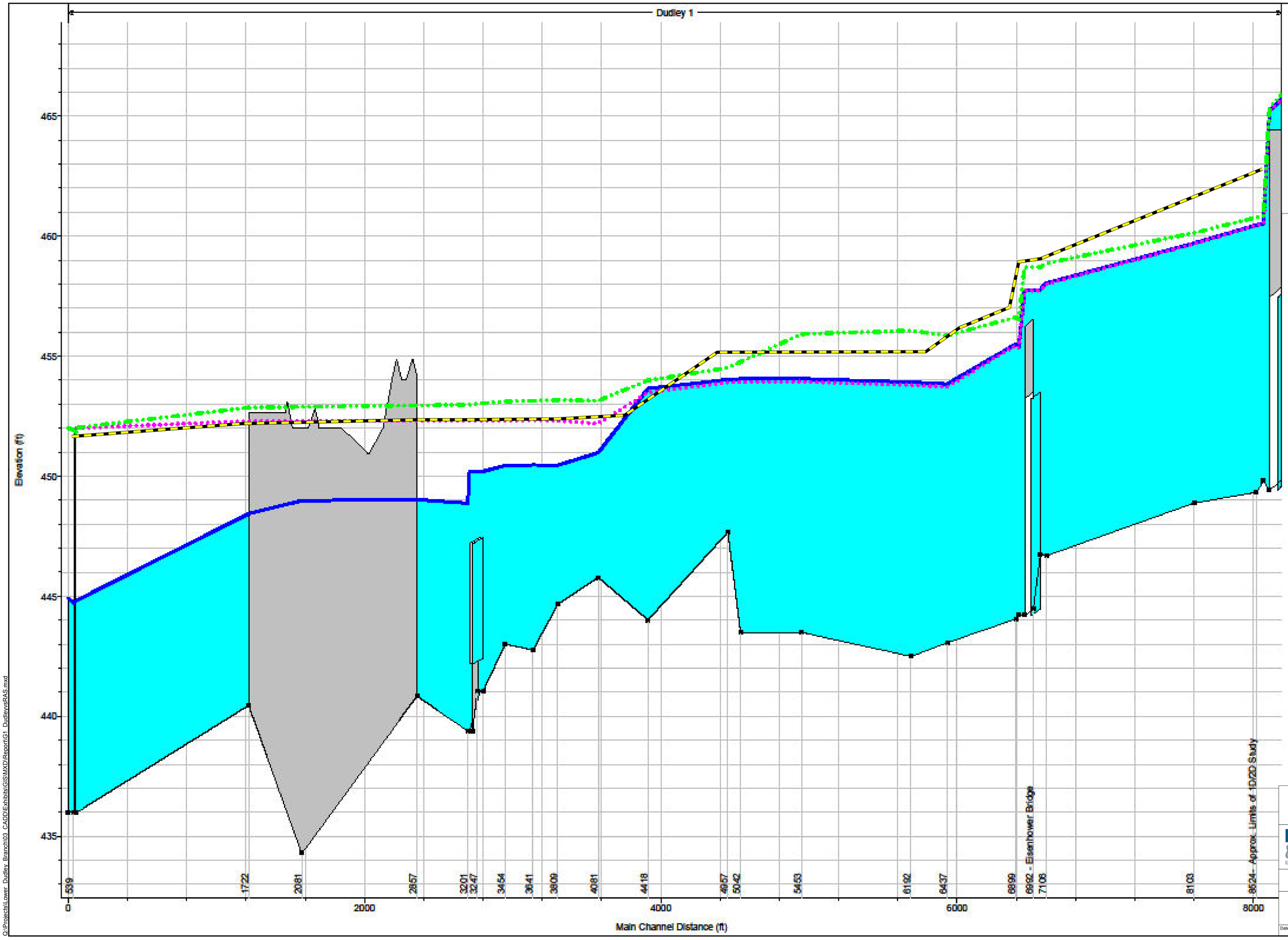
EXHIBIT G: 100-Yr 2D Model Results and FEMA Effective Data Comparison

Date:	Proj. No:	Exhibit No:
March 2013	912-00	EXHIBIT G

O:\Projects\Lower_Dudley_Branch\03_CADD\Exhibits\GIS\MXD\Report\G_ModelResultsLandscape.mxd



N.T.S.

FEMA Effective HEC-RAS Water Surface (Normal Depth Tailwater)

FEMA HEC-RAS Water Surface (Using Known Water Surface)

Revised HEC-RAS Water Surface (Based on 2D Results)

XPSWMM 2D Results (Approximate)

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Lower Dudley Branch Flood Study

EXHIBIT G1: Revised HEC-RAS Model Results - Dudley Branch

Date:	Proj. No:	Exhibit No:
March 2013	912-00	EXHIBIT F

Q:\Projects\Lower_Dudley_Branch\03_CADD\Exhibits\GIS\MXD\Report\G1_DudleyvsRAS.mxd

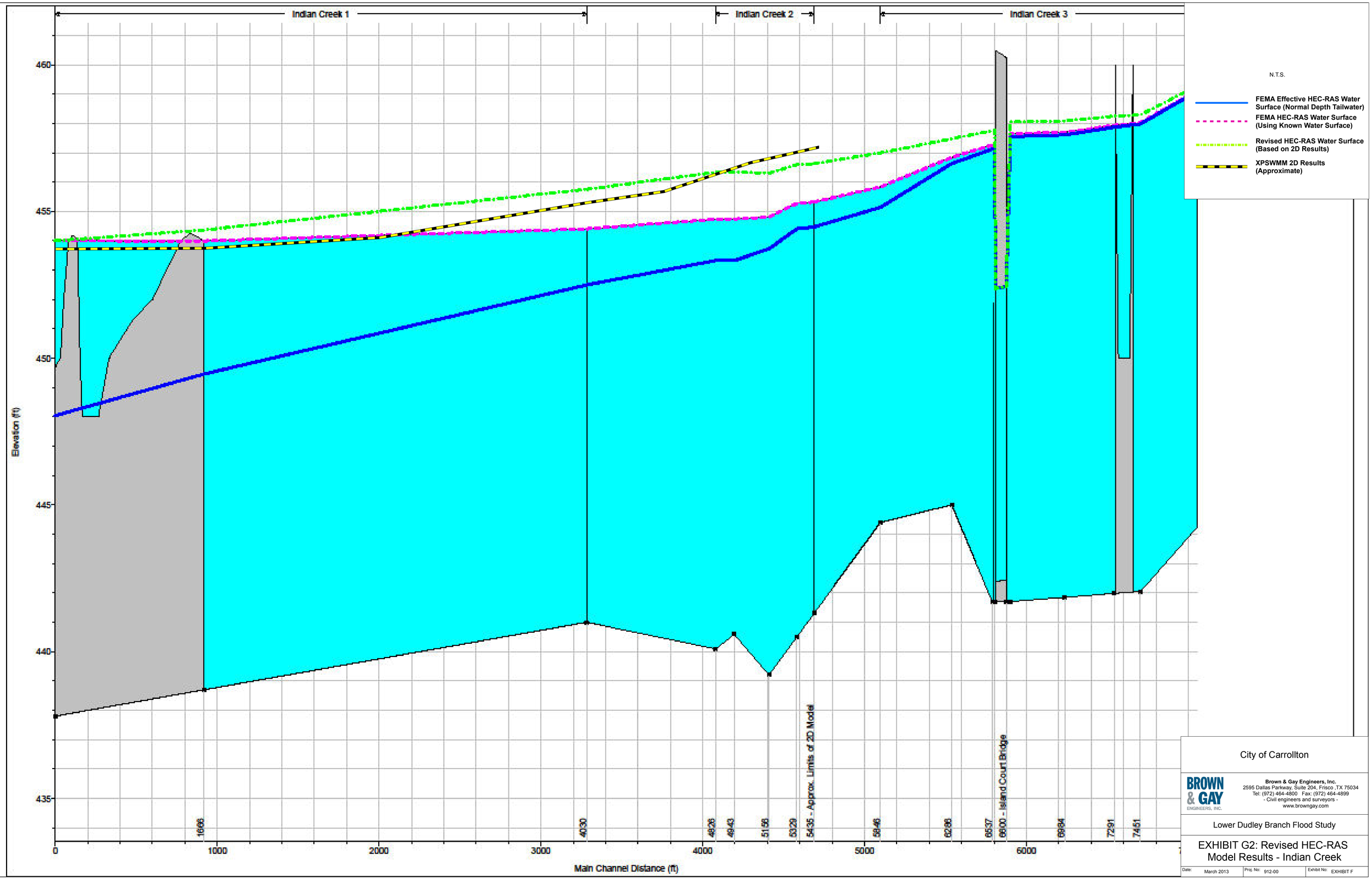

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EXHIBIT G2: Revised HEC-RAS Model Results - Indian Creek

Date:	Proj. No:	Exhibit No:
March 2013	912-00	EXHIBIT F

Q:\Projects\Lower_Dudley_Branch\03_CADD\Exhibits\GIS\MXD\Report\G2_RevisedIndianRAS.mxd

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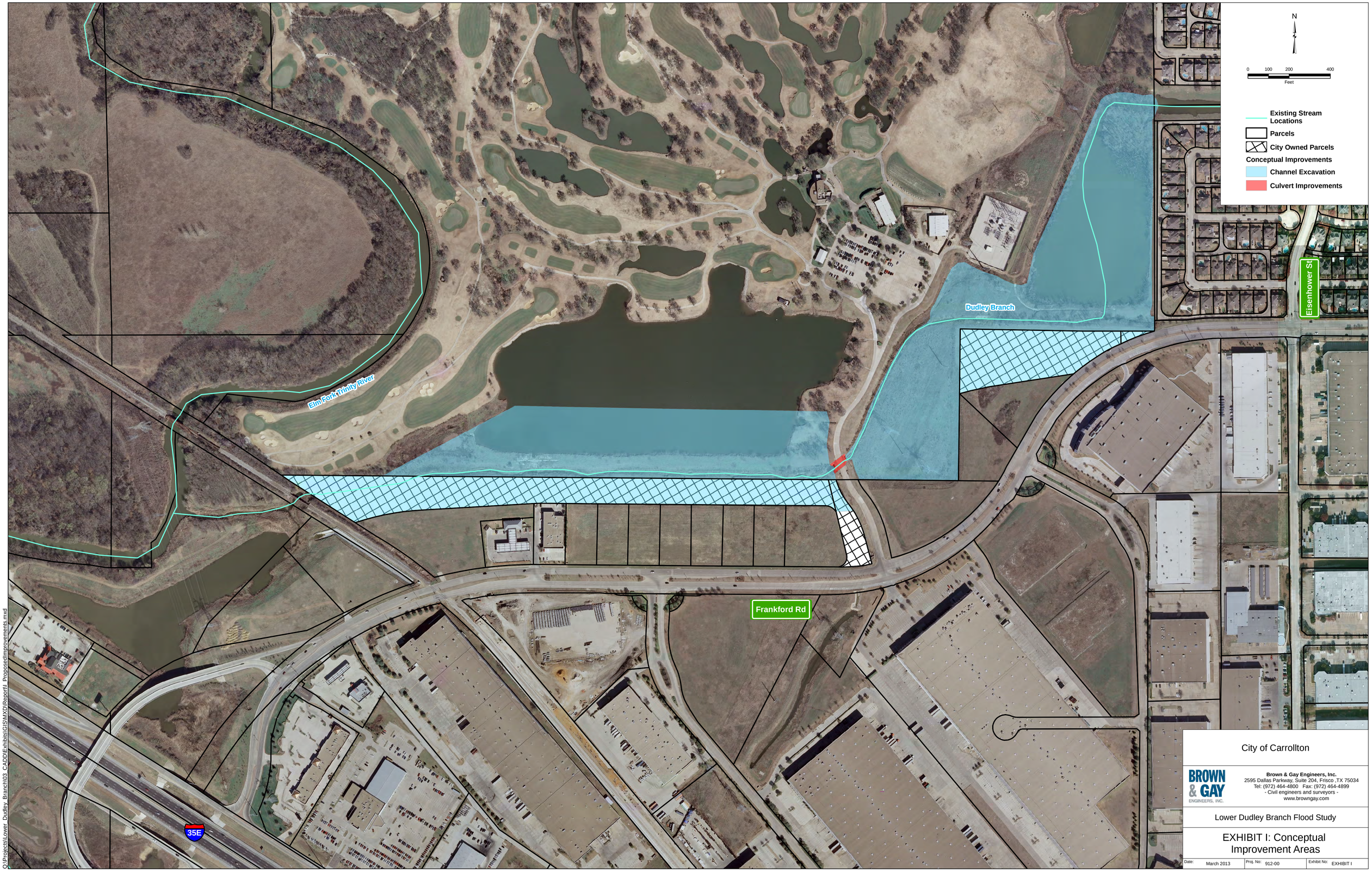
EXHIBIT H: Levee Elevations vs. "All-100 Yr" Water Surface Elevations

Date:	Proj. No:	Exhibit No:
March 2013	912-00	EXHIBIT H

Q:\Projects\Lower_Dudley_Branch\03_CADD\Exhibits\GIS\MXD\ReportH_LeveeElevs_Exist.mxd



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Lower Dudley Branch Flood Study

EXHIBIT I: Conceptual Improvement Areas

Date:	Proj. No:	Exhibit No:
March 2013	912-00	EXHIBIT I

Q:\Projects\Lower_Dudley_Branch\03_CADD\Exhibits\GIS\MXD\Report_ProposedImprovements.mxd