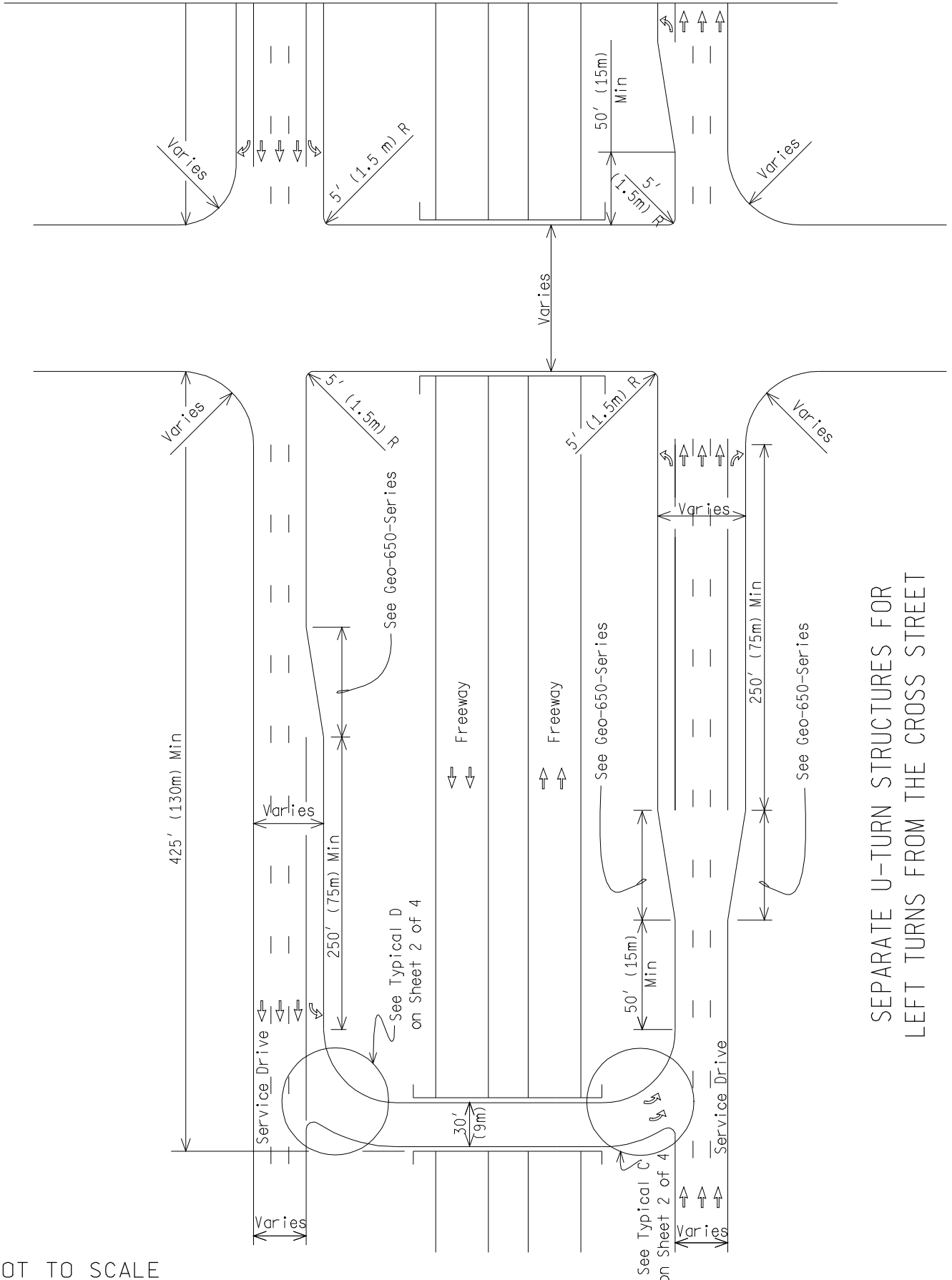


Match Line - See Sheet 2



SEPARATE U-TURN STRUCTURES FOR LEFT TURNS FROM THE CROSS STREET

NOT TO SCALE



BY: *John C. Friend*
ENGINEER OF DELIVERY

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ENGINEER OF DEVELOPMENT

GEOMETRIC DESIGN GUIDE FOR
URBAN DIAMOND
INTERCHANGE

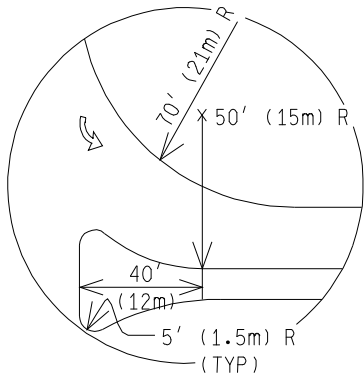
DRAWN BY: ECH
CHECKED BY: IRG/JAT

06/03/2010
PLAN DATE:

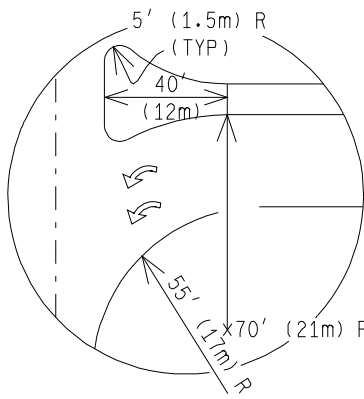
GEO-400-B

SHEET 1 OF 4

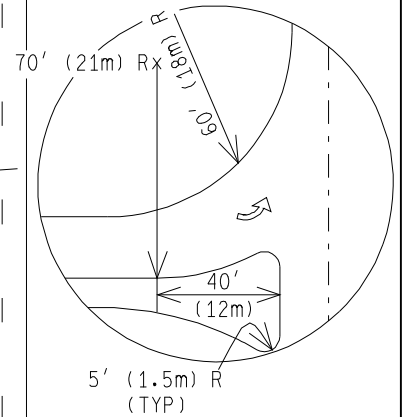
Typical A
Single Lane
Structure



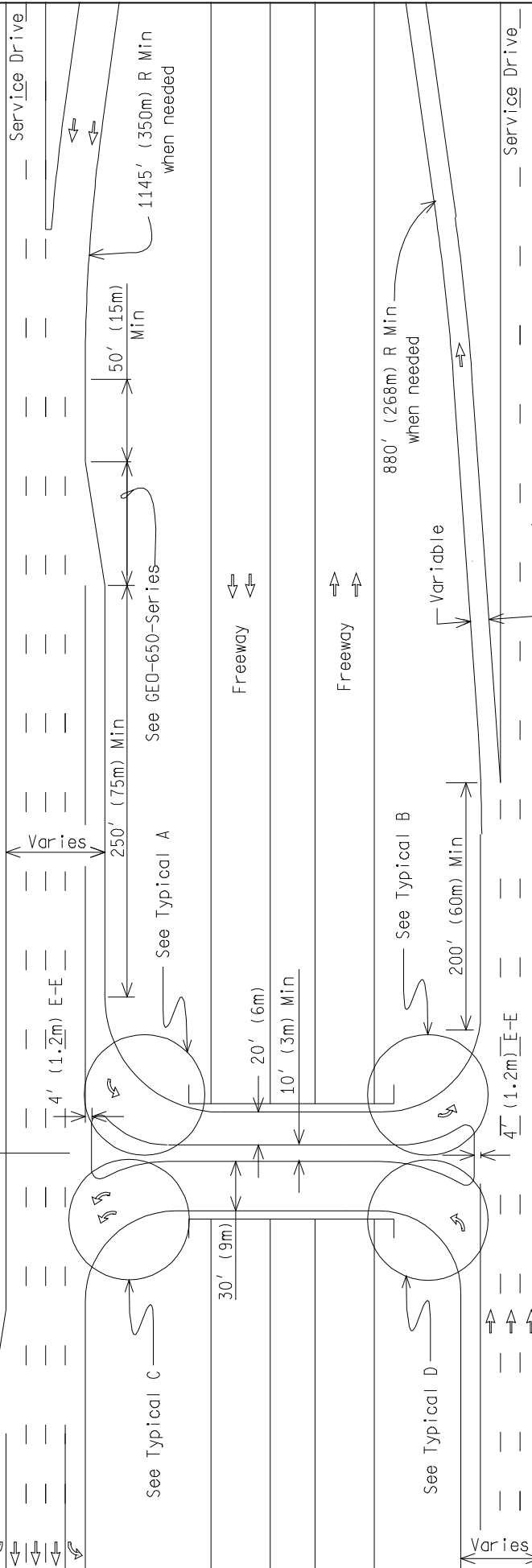
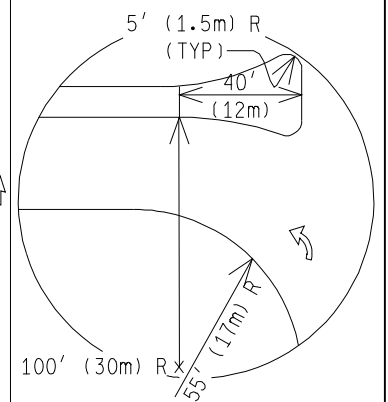
Typical C
2 Lane
Structure



Typical B
Single Lane
Structure

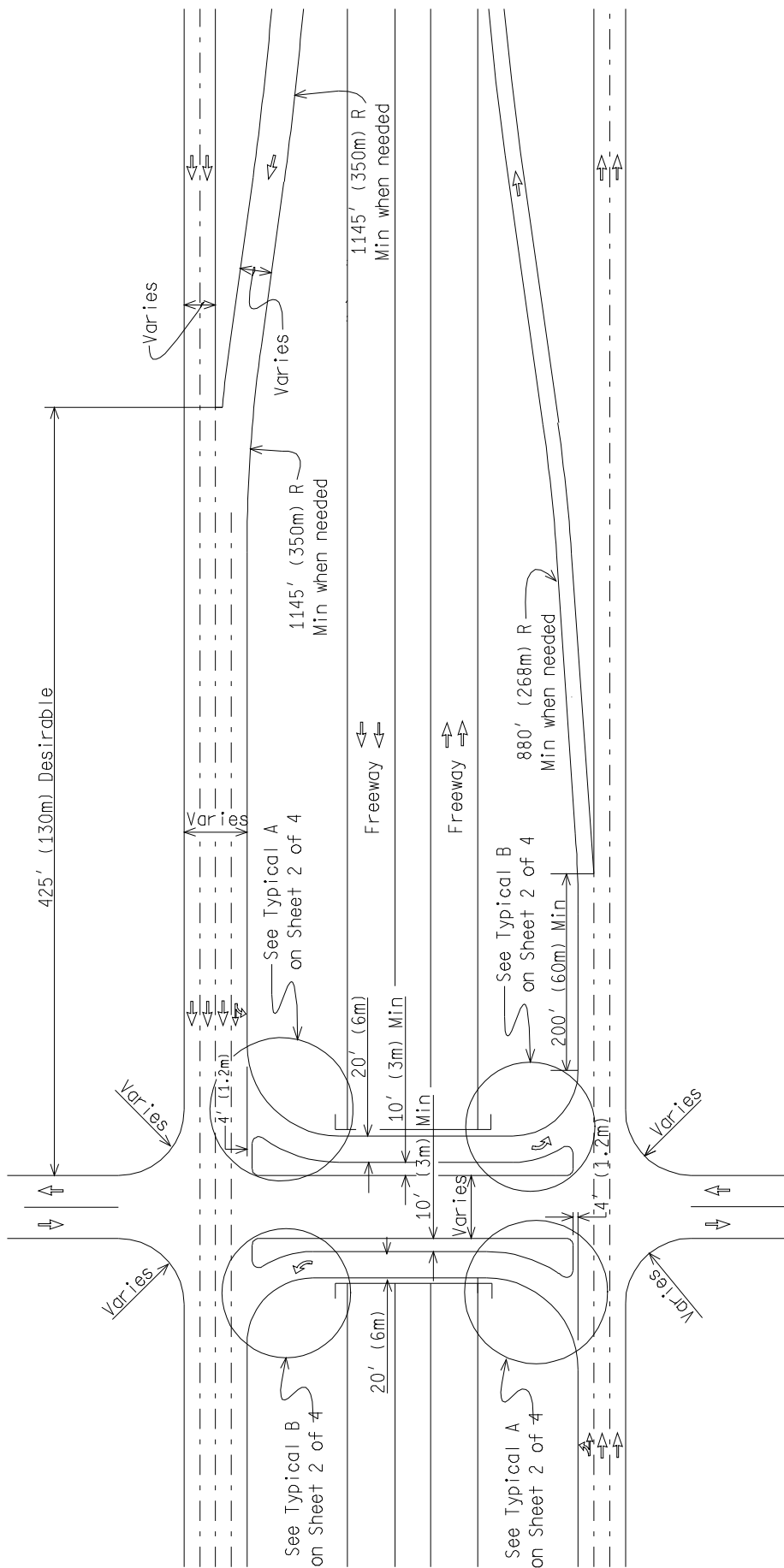


Typical D
2 Lane
Structure



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Match Line - See Sheet 1



U-TURN FACILITY AT THE STRUCTURE

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NOTES:

1. Vertical curb on ramps should be removed for a minimum distance of 200' (60m) from the ramp nose or bifurcation and entirely removed on freeway mainlines.
2. Where curb is called for on a service drive or cross street, provide a minimum 100' (30m) of sloped curb beyond the exit nose.
3. Refer to geometric design guide GEO-650-Series for taper lengths, intersection radii, and auxiliary lane storage length.
4. A capacity analysis should be performed at each intersection to determine the type and number of lanes needed.
5. If radii shown can not be obtained at the u-turn structure, bridge width may need to be widened.
6. Current AASHTO "A Policy on Geometric Design of Highways and Streets" and MDOT Guidelines should be used for sight distance requirements.
7. Spirals should be used on new alignments based on the design speed of the curve and the radius as shown in the table of the Road Standard Plan R-107-Series.
8. The cross slope in the gore area between the 2' (0.6m) point and the 22' (6.7m) point should not exceed 8%, with a 6% maximum algebraic difference in grades between the gore and the adjacent paved shoulder.
9. The design speed of the vertical alignment should meet or exceed the design speed of the horizontal alignment.
10. Each ramp should be carefully studied to provide maximum vision at its merge points. See Geometric Design Guide GEO-300-Series.
11. These design concepts are for new construction. Where modification may be needed for retrofitting to existing road features, consult the Geometric Review and Congestion Analysis Unit, Division of Operations.

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