Interim Transition with SH 114

The Project includes the development of an interim facility for the transition with SH 114, east of the SH 114/SH 121/Internatuional Parkway Interchange, as well as certain design and right of way acquisition services for the Schematic facility to be constructed in the future.

TxDOT Preliminary Plan Package

The Schematic Design and interim SH 114 configuration (Attachment 1-1) have been developed to a limited level and are generally conceptual in nature. Regardless of whether an entirely new plan, or an adaptation of the above referenced preliminary design information, is proposed, Developer is responsible for ensuring that interim SH 114 configuration and Schematic Design satisfies the requirements of the CDA Documents. If the above referenced preliminary design information is utilized, Developer shall diligently review, and verify the accuracy and applicability of, the information prior to use. Deviations from, and/or changes to, the preliminary design information that are necessary in order to satisfy the requirements of the CDA Documents are the responsibility of Developer and any related costs shall be included in the Price.

Accommodation of Schematic Design for SH 114 Interim Transition

Developer shall provide for a smooth transition from the Project's interim SH 114 configuration to the Project's Schematic Design condition. Developer shall endeavor to minimize "throw-away" costs to TxDOT associated with improving the interim SH 114 configuration to meet the requirements of the future Schematic Design configuration. The Development Work shall provide for minimal disruption to traffic during the Schematic Design construction phase. Additionally, Developer shall minimize the cost associated with the future Schematic Design construction to the extent that Developer costs to construct the interim SH 114 configuration does not unreasonably increased. The Development Work, as a minimum, shall accommodate the Schematic Design configuration as described below:

Roadway

The interim SH 114 transition shall be designed and constructed coincident with the Schematic Design horizontal and vertical alignments to the maximum extent practicable. Developer shall provide for a smooth transition from the Project's interim SH 114 configuration to the Project's Schematic Design condition.

Developer shall also have the flexibility to propose revisions to the horizontal alignment and vertical profile of the interim SH 114 configuration and/or Schematic Design that do not modify the design criteria contained herein; however, any horizontal or vertical modifications that cause a change in the Schematic ROW will require prior consent from TxDOT. Developer shall revise the Schematic Design configuration as necessary to reflect any changes to horizontal and vertical alignments. Furthermore, any changes to the Schematic ROW, due to horizontal and/or vertical modifications of the alignment, may affect environmental approval, permitting or right of way parcels maps.

Deviations from these criteria may require revisions to, or re-issuance of, the Environmental Approvals and/or Governmental Approvals, which shall be performed solely at the responsibility and cost of Developer. Developer shall not be entitled to any time extension or additional compensation in connection with such revisions or re-issuances.

Drainage

The drainage systems shall be designed and constructed to accommodate the Schematic Design with minimal throwaway work. Where coincident with the Schematic Design geometry, ditch sections and closed drainage systems (i.e. pipes and inlets) shall be designed and constructed to accommodate the Interim SH 114 configuration or Schematic

Design, whichever controls. The physical location of inlet structures shall accommodate the Schematic Design. Cross drainage structures (i.e. culverts) shall be designed, sized and constructed to satisfy Schematic Design requirements. Developer shall construct culverts to the length required to accommodate the Schematic Design.

At a minimum, the drainage system must meet the following requirements:

A) The analysis, design and construction of all drainage structures and appurtenances shall address the interim SH 114 configuration and Schematic Design improvements.

B) Provide drainage for the interim SH 114 configuration design and Schematic Design to protect the roadway, subsurface and highway structures from water damage.

C) Design and construction of drainage system shall accommodate the interim SH 114 configuration and Schematic Design configuration. Consideration shall be given to, but not limited to, pipe, inlet locations, capacity, culvert inlet and outlet structures locations, and junction/manhole structure locations.

D) Only bridges and bridge-class culverts are shown on the Schematic Design. It is Developer's responsibility to determine the location and appropriate size for all other culverts needed to address the Schematic Design configuration for the Project.

E) The water quality measures shall be designed for the interim SH 114 configuration and Schematic Design conditions.

F) Developer shall perform hydrologic analyses for the design of drainage features for the interim SH 114 configuration and Schematic Design.

Paving

In locations where the interim SH 114 configuration is coincident with the Schematic Design, pavement shall be designed and constructed to Schematic Design requirements. Paving limits shall satisfy the requirements of the interim SH 114 configuration. In determining limits of paving in the interim SH 114 configuration, Developer shall give ample consideration to the Schematic Design geometry and strive to minimize future impact on traffic operations.

Bridges & Walls

Developer shall design and construct bridge structures required for the interim SH 114 configuration to the total length and span arrangement required for the Schematic Design, including spanning future lanes that will be constructed below the structure as a part of the Schematic Design. With the exception of direct-connect flyover structures, Developer shall design and construct bridge structures to the width required to satisfy the requirements of the interim SH 114 configuration. Direct-connect flyover structures shall be designed and built to the width required to satisfy the Schematic Design, striping shall accommodate the interim SH 114 configuration requirements. In locations where the interim SH 114 configuration does not call for the construction of the direct-connect structures, Developer shall make provisions to accommodate the future construction. Reasonable care shall be taken in the Developer design to ensure that bridges constructed for the interim SH 114 configuration can be widened to the Schematic Design width at a later date with minimal impact to aesthetics and minimal impact to traffic. Developer shall, if necessary, construct portions of the Schematic Design (e.g., footings, ducts, bents, etc.) to ensure future impacts are minimized. At bridges with wrap-around MSE wall supported abutments, the MSE wall shall be designed and constructed to the length required to satisfy the interim SH 114 configuration or Schematic Design, whichever governs. The Developer shall design and construct abutments behind MSE walls to the Schematic Design width, or provide specific accommodations for future widening. All retaining walls within the limits of interim SH 114 configuration construction

shall be designed and constructed to meet the requirements of the Schematic Design.

Bridges carrying local roads over the Schematic Design shall, at a minimum, be of a type of construction to accommodate the Schematic Design and any planned expansion or update of each facility by its respective owner while still maintaining the required horizontal and vertical clearances. Each submittal shall also include horizontal and vertical clearance provisions for interim SH 114 configuration and Schematic Design build-out improvements. Fencing shall be required along some bridges, pedestrian overpasses and Schematic ROW of the Schematic Design.

Sign Structures

Where feasible, sign structures shall be located to accommodate the Schematic Design. Sign bridges located within the interim SH 114 configuration construction limits shall span the greater of the Schematic Design or interim SH 114 configuration.

Developer shall take into account the Schematic Design configuration, including potential widening of the Project, in its design of overhead and cantilever sign supports.

Lighting

Lighting shall be designed and constructed to accommodate the Schematic Design or interim SH 114 configuration, whichever governs. The location of high-mast lighting within the interim SH 114 construction limits shall satisfy the Schematic Design.

Landscaping

Where the interim SH 114 configuration is coincident with the Schematic Design, landscaping shall be designed and constructed to meet Schematic Design requirements. In locations where the interim SH 114 configuration does not coincide with the Schematic Design, Developer shall provide additional landscaping to achieve the desired aesthetic affect.

Utilities

Developer shall provide sleeves, for future utility services, under roadway paving consistent with the Schematic Design. Developer shall ensure that the design and construction of all Utility Adjustments are compatible with the Schematic Design and that all such Utilities are compatible with and interface properly with the Project. Developer shall be responsible for verifying that all design plans for Utility Adjustment Work, whether furnished by Developer or by the Utility Owner, are consistent and compatible with the Schematic Design.

With written approval by TxDOT, Utilities may remain in their existing location if (a) the requirements of the UAP are met, (b) the existing location will not adversely affect the Development Work, the future operation of the Project or the Schematic Design, and (c) the Utility Owner's standards of practice are met.

Continuous steel casings shall be provided for all water and pressurized sanitary sewer line crossings under center medians and from center of ditch to center of ditch for cut sections, five (5) feet beyond the toe of slope for fill sections, or five (5) feet beyond the face of curb, based on the Schematic Design.

Developer shall be responsible for Protecting in Place (or causing to be Protected in Place by the Utility Owner at Developer's expense) all Utilities impacted by the Project or projected to be impacted by the Schematic Design (including any Utilities remaining in place and any Utilities newly reinstalled as part of the Utility Adjustment Work or the Early Adjustment Work), as necessary to ensure their continued safe operation and structural integrity and in accordance with the requirements described in the Technical Provisions.

Developer is fully responsible for coordinating its efforts with Utility Owners and for addressing requests by Utility Owners that Developer design and/or construct Utility Enhancements. Under no circumstances shall Developer proceed with any Utility Enhancement which is incompatible with the Project or the Schematic Design or which cannot be performed within the other constraints of applicable Law, the Governmental Approvals and the CDA Documents, including the Completion Deadlines.

Developer shall be required to provide supporting design information and cost information, satisfactory to TxDOT, to ensure that the above requirements have been met. Developer, to the satisfaction of TxDOT, shall provide documentation supporting the feasibility of the Schematic Design with respect to the Developer proposed interim SH 114 configuration. TxDOT shall have no obligation to accept the Schematic Design for any element of the Development Work until TxDOT has determined that Developer has achieved the above requirements.

Texas Department of Transportation

Technical Provisions

Book 2

Attachment 1-2

Interim Transition for SH 114

CURVE DATA

T114NB	TNB-1	T114NB-1	3° 04′ 55.28" RT	0° 30′ 00.00"	308.28′	616.40′	11,459.16′	S 46° 56′ 22.28" E	S 43° 51′ 27.00" E	435+61.74	432+53.46	438+69.87
	TNB-2	T114NB-2	3° 06′ 33.90" LT	0° 30′ 00.00"	311.02′	621.88′	11,459.16′	S 43° 51′ 27.00" E	S 46° 58′ 00.90" E	445+83.46	442+72.44	448+94.32
T114SB	TSB-1	T114SB-1	1° 52′ 25.77" LT	0° 30′ 00.00"	187.40′	374.76′	11,459.16′	S 48° 18′ 53.23" E	S 50° 11′ 19.00" E	79+95.48	78+08.08	81+82.85
	TSB-2	T114SB-2	3° 02′ 53.57" RT	0° 30′ 00.00"	304.89′	609.64′	11,459.16′	S 50° 11′ 19.00" E	S 47° 08′ 25.43" E	88+68.62	85+63.73	91+73.37

N

Scale:
Horizontal 1:600
Vertical 1:600

LEGEND

- SCHEMATIC DESIGN CONSTRUCTED FOR PROJECT
- SCHEMATIC DESIGN NOT CONSTRUCTED FOR PROJECT
- INTERIM TRANSITION

CONTROL LINE T114NB
STA 432+53.46
BEGIN TRANSITION PAVEMENT

TNB-1

CONTROL LINE T114NB

TSB-1

STA 442+90.53 (72′ LT)
BEGIN LANE TAPER

CONTROL LINE T114SB
STA 78+08.08
BEGIN TRANSITION PAVEMENT

TNB-2

CONTROL LINE T114SB

STA 85+70.05 (60′ RT)
BEGIN LANE TAPER

TSB-2

STA 448+94.32 (60′ LT)
END LANE TAPER

CONTROL LINE T114NB
STA 448+94.32
END TRANSITION PAVEMENT

STA 91+73.37 (48′ RT)
END LANE TAPER

CONTROL LINE T114SB
STA 91+73.37
END TRANSITION PAVEMENT

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Preliminary
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SH 114 / SH 121

SHEET
1 OF 1

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MAY 30, 2008

Attachment 1.2
Interim Transition at SH 114

Configuration 1

The Project includes the development of Configuration 1 for DFW Connector, as well as certain design and right of way acquisition services for the Configuration 3 to be constructed in the future.

TxDOT Preliminary Plan Package

Configuration 3 and the Configuration 1 (Attachment 1-4) have been developed to a limited level and are generally conceptual in nature. Regardless of whether an entirely new plan, or an adaptation of the above referenced preliminary design information, is proposed, Developer is responsible for ensuring that the Configuration 1 and Configuration 3 satisfies the requirements of the CDA Documents. If the above referenced preliminary design information is utilized, Developer shall diligently review, and verify the accuracy and applicability of, the information prior to use. Deviations from, and/or changes to, the preliminary design information that are necessary in order to satisfy the requirements of the CDA Documents are the responsibility of Developer and any related costs shall be included in the Development Price.

Accommodation of Configuration 3 for Configuration 1

Developer shall provide for a smooth transition from Configuration 1 to Configuration 3. Developer shall endeavor to minimize "throw-away" costs to TxDOT associated with improving Configuration 1 to meet the requirements of the future Configuration 3 Design. The Development Work shall provide for minimal disruption to traffic during the construction phase. Additionally, Developer shall minimize the cost associated with the future Configuration 3 construction to the extent that Developer cost to construct the Configuration 1 is not unreasonably increased as described below.

Elements of the future build-out of Configuration 3 that require the removal of installed permanent pavement or structure shall be built as part of Configuration 1. Elements of future construction that require removal of installed transition pavement or structure will not have to be part of Configuration 1.

The Development Work, as a minimum, shall accommodate the Configuration 3 configuration as described below:

Roadway

Configuration 1 shall be designed and constructed coincident with the Configuration 3 horizontal and vertical alignments with the exceptions of the transition roadways leading to/from existing pavements as shown in Attachment 1-4. Developer shall provide for a smooth transition from Configuration 1 to Configuration 3.

Developer shall also have the flexibility to propose revisions to the horizontal alignment and vertical profile of Configuration 1 and/or Configuration 3 Design that do not modify the design criteria contained herein; however, any horizontal or vertical modifications that cause a change in the Schematic ROW will require prior consent from TxDOT. Developer shall revise Configuration 3 as necessary to reflect any changes to horizontal and vertical alignments. Furthermore, any changes to the Schematic ROW, due to horizontal and/or vertical modifications of the alignment, may affect environmental approval, permitting or right of way parcels maps.

Deviations from these criteria may require revisions to, or re-issuance of, the Environmental Approvals and/or Governmental Approvals, which shall be performed solely at the responsibility and cost of Developer. Developer shall not be entitled to any time extension or additional compensation in connection with such revisions or re-issuances.

Drainage

The drainage systems shall be designed and constructed to accommodate Configuration 3 with minimal throwaway work where Configuration 1 is coincident with Configuration 3 as shown below. Where Configuration 1 is not coincident with Configuration 3, drainage systems shall only be required to meet Configuration 1 requirements.

Geometry, ditch sections and closed drainage systems (i.e. pipes and inlets) shall be designed and constructed to accommodate Configuration 1 or Configuration 3, whichever controls. The physical location of inlet structures shall accommodate Configuration 3. Cross drainage structures (i.e. culverts) shall be designed, sized and constructed to satisfy Configuration 3 requirements. Developer shall construct culverts to the length required to accommodate the Configuration 3

At a minimum, the drainage system must meet the following requirements:

A) The analysis, design and construction of all drainage structures and appurtenances shall address Configuration 1 and Configuration 3 improvements.

B) Provide drainage for Configuration 1 and Configuration 3 to protect the roadway, subsurface and highway structures from water damage.

C) Design and construction of drainage system shall accommodate Configuration 1 and Configuration 3. Consideration shall be given to, but not limited to, pipe, inlet locations, capacity, culvert inlet and outlet structures locations, and junction/manhole structure locations.

D) Only bridges and bridge-class culverts are shown on Configuration 3. It is Developer's responsibility to determine the location and appropriate size for all other culverts needed to address the Configuration 3.

E) The water quality measures shall be designed for Configuration 1 and Configuration 3 conditions.

F) Developer shall perform hydrologic analyses for the design of drainage features for Configuration 1 and Configuration 3.

Paving

All pavements constructed as part of Configuration 1 shall be designed and constructed to meet all the Technical Provisions. Paving limits shall satisfy the requirements of the Configuration 1.

Bridges & Walls

Developer shall design and construct bridge structures required for Configuration 1, with the exceptions of structures required solely for transition roadways leading to/from existing pavements as shown in Attachment 1-4, to the total length, width, and span arrangement required for Configuration 3, including spanning future lanes that will be constructed below the structure as a part of the Configuration 3. In locations where the Configuration 1 does not call for the construction of direct-connect structures required for Configuration 3, Developer shall make provisions for future construction without allowance for removal of permanent pavement or structures. Removal of transition pavement or structures during future Configuration 3 construction is permitted. Developer shall, if necessary, construct portions of the Configuration 3 (e.g., footings, ducts, bents, etc.) to ensure future impacts are minimized. At bridges with wrap-around MSE wall supported abutments, the MSE wall shall be designed and constructed to the length required to satisfy Configuration 1 or Configuration 3,

whichever governs. The Developer shall design and construct abutments behind MSE walls to Configuration 3 width, or provide specific accommodations for future widening. For all retaining walls required for construction of roadways within the limits of Configuration 1, with the exceptions of retaining walls required solely for the transition roadways leading to/from existing pavements as shown in Attachment 1-4, construction shall be designed and constructed to meet the requirements of the Configuration 3.

Bridges carrying local roads over Configuration 3 shall, at a minimum, be of a type of construction to accommodate Configuration 3. Each submittal shall also include horizontal and vertical clearance provisions for the Configuration 1 and Configuration 3 build-out improvements. Fencing shall be required along some bridges, pedestrian overpasses and Schematic ROW of Configuration 3.

Sign Structures

Where feasible, sign structures shall be located to accommodate the Configuration 3. Sign bridges located within Configuration 1 construction limits, with the exceptions of sign bridges required solely along transition roadways leading to/from existing pavements as shown in Attachment 1-4, shall span the greater of the Configuration 3 or Configuration 1.

Developer shall take into account the Configuration 3 in its design of overhead and cantilever sign supports.

Lighting

Lighting shall be designed and constructed to accommodate the Configuration 3 or the Configuration 1, whichever governs. The location of high-mast lighting within Configuration 1 construction limits shall satisfy Configuration 3.

Landscaping

Where the Configuration 1 is coincident with the Configuration 3, landscaping shall be designed and constructed to meet Configuration 3 requirements. In locations where Configuration 1 is not coincident with the Configuration 3, Developer shall provide additional landscaping to achieve the desired aesthetic affect.

Utilities

Developer shall ensure that the design and construction of all Utility Adjustments are compatible with Configuration 1 and that all such Utilities are compatible with and interface properly with the Project. Developer shall be responsible for verifying that all design plans for Utility Adjustment Work, whether furnished by Developer or by the Utility Owner, are consistent and compatible with Configuration 1.

With written approval by TxDOT, Utilities may remain in their existing location within the Configuration 1 limits if (a) the requirements of the UAP are met, (b) Configuration 1 can be constructed with the utility in its existing location and will not adversely affect the Development Work, and (c) the Utility Owner's standards of practice are met.

Continuous steel casings shall be provided for all water and pressurized sanitary sewer line crossings under center medians and from center of ditch to center of ditch for cut sections, five (5) feet beyond the toe of slope for fill sections, or five (5) feet beyond the face of curb, based on the Configuration 1.

Developer shall be responsible for Protecting in Place (or causing to be Protected in Place by the Utility Owner at Developer's expense) all Utilities impacted by Configuration 1 (including any Utilities remaining in place and any Utilities newly reinstalled as part of the Utility Adjustment Work or the Early Adjustment Work), as necessary to ensure their continued safe operation and structural integrity and in accordance with the requirements described in the Technical Provisions.

Developer is fully responsible for coordinating its efforts with Utility Owners and for addressing requests by Utility Owners that Developer design and/or construct Utility Enhancements. Under no circumstances shall Developer proceed with any Utility Enhancement which is incompatible with Configuration 1 or which cannot be performed within the other constraints of applicable Law, the Governmental Approvals and the CDA Documents, including the Completion Deadlines.

Developer shall be required to provide supporting design information and cost information, satisfactory to TxDOT, to ensure that the above requirements have been met. Developer, to the satisfaction of TxDOT, shall provide documentation supporting the feasibility of Configuration 1. TxDOT shall have no obligation to accept the Configuration 1 for any element of the Development Work until TxDOT has determined that Developer has achieved the above requirements.

Texas Department of Transportation

Technical Provisions

Book 2

Attachment 1-4

Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

WILLIAM D. TATE AVENUE

HWY 121

BEGIN CONSTRUCTION
CONTROL LINE MF321
STA 564+51.19

BEGIN TRANSITION PAVEMENT
CONTROL LINE S14SM36
STA 15+25.73

CONTROL LINE S14SM36

END TRANSITION PAVEMENT
CONTROL LINE S14SM36
STA 27+69.34

RAMP TO BE ELIMINATED IN THIS OPTION.

BEGIN TRANSITION PAVEMENT
CONTROL LINE SN36036
STA 16+13.51

CONTROL LINE SN360MD

END TRANSITION PAVEMENT
CONTROL LINE SN360MD
STA 27+55.00

CONTROL LINE SN36036

RAMP TO BE ELIMINATED IN THIS OPTION.

END TRANSITION PAVEMENT
CONTROL LINE SN36036
STA 33+78.59

BEGIN TRANSITION PAVEMENT
CONTROL LINE S360R36
STA 10+28.02

CONTROL LINE S360R36

END TRANSITION PAVEMENT
CONTROL LINE S360R36
STA 18+82.15

BEGIN TRANSITION PAVEMENT
CONTROL LINE S360ML3
STA 11+55.00

CONTROL LINE S360ML3

END TRANSITION PAVEMENT
CONTROL LINE S360ML3
STA 15+77.09

BEGIN TRANSITION PAVEMENT
CONTROL LINE SML3360
STA 12+38.00

CONTROL LINE SML3360

END TRANSITION PAVEMENT
CONTROL LINE SML3360
STA 14+79.36

BEGIN TRANSITION PAVEMENT
CONTROL LINE SNFRFRN
STA 10+05.00

CONTROL LINE SNFRFRN

END TRANSITION PAVEMENT
CONTROL LINE SNFRFRN
STA 13+50.71

SY-1 SD-1 SD-2 SD-3 SD-4 SY-2 SC-1 SC-2 SC-3 SM-1 SN-1 SN-2 SO-1

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END CONSTRUCTION
CONTROL LINE CS26WB
STA 428+11.10
TIE TO EXISTING

IRA E. WOODS AVENUE

HWY 114

Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

MATCH LINE

BEGIN CONSTRUCTION
CONTROL LINE CSSH26
STA 388+00
END CONSTRUCTION BY OTHERS

MATCH LINE

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Book 2 Attachment 1-4
Configuration 1

Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

BEGIN CONSTRUCTION
CONTROL LINE 114ML1
STA 511+46

BEGIN CONSTRUCTION
CONTROL LINE CS1709W
STA 447+41.21
TIE TO EXISTING

END CONSTRUCTION
CONTROL LINE CS1709W
STA 485+66.50
TIE TO EXISTING

WEST NORTHWEST HIGHWAY

HWY 114

EAST SOUTHLAKE BOULEVARD

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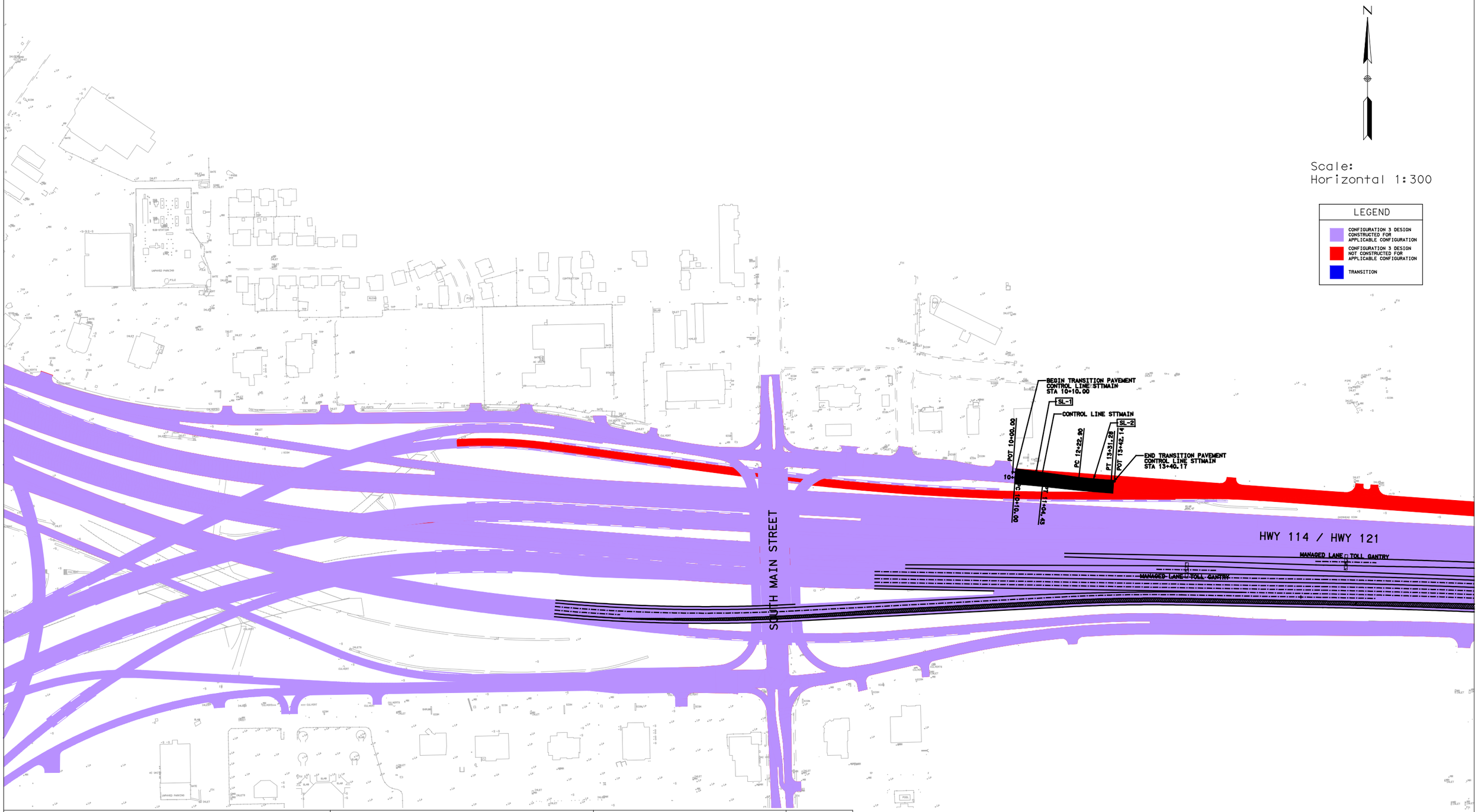
Book 2 Attachment 1-4
Configuration 1



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Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

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NOV 3, 2008

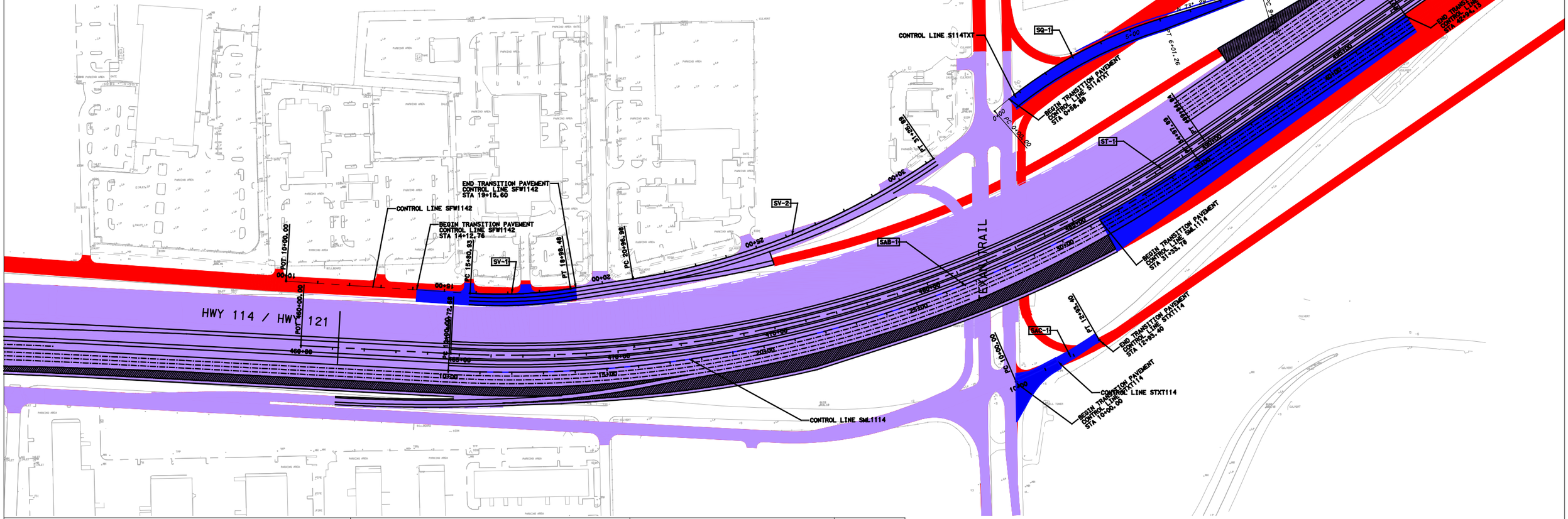
Book 2 Attachment 1-4
Configuration 1

N

Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION



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Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

BEGIN TRANSITION PAVEMENT
CONTROL LINE SE11414
STA 10+00.00

SAA-1

CONTROL LINE SE11414

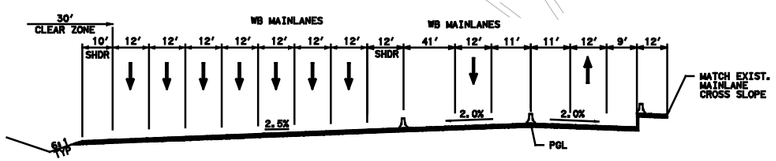
HWY 121

ST-2

HWY 114

BEGIN TRANSITION PAVEMENT
CONTROL LINE S1140L1
STA 518+00.00

END TRANSITION PAVEMENT
CONTROL LINE S1140L1
STA 527+00.00



SECTION A-A
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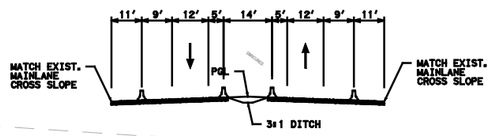

SECTION B-B
N.T.S.

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Book 2 Attachment 1-4
Configuration 1

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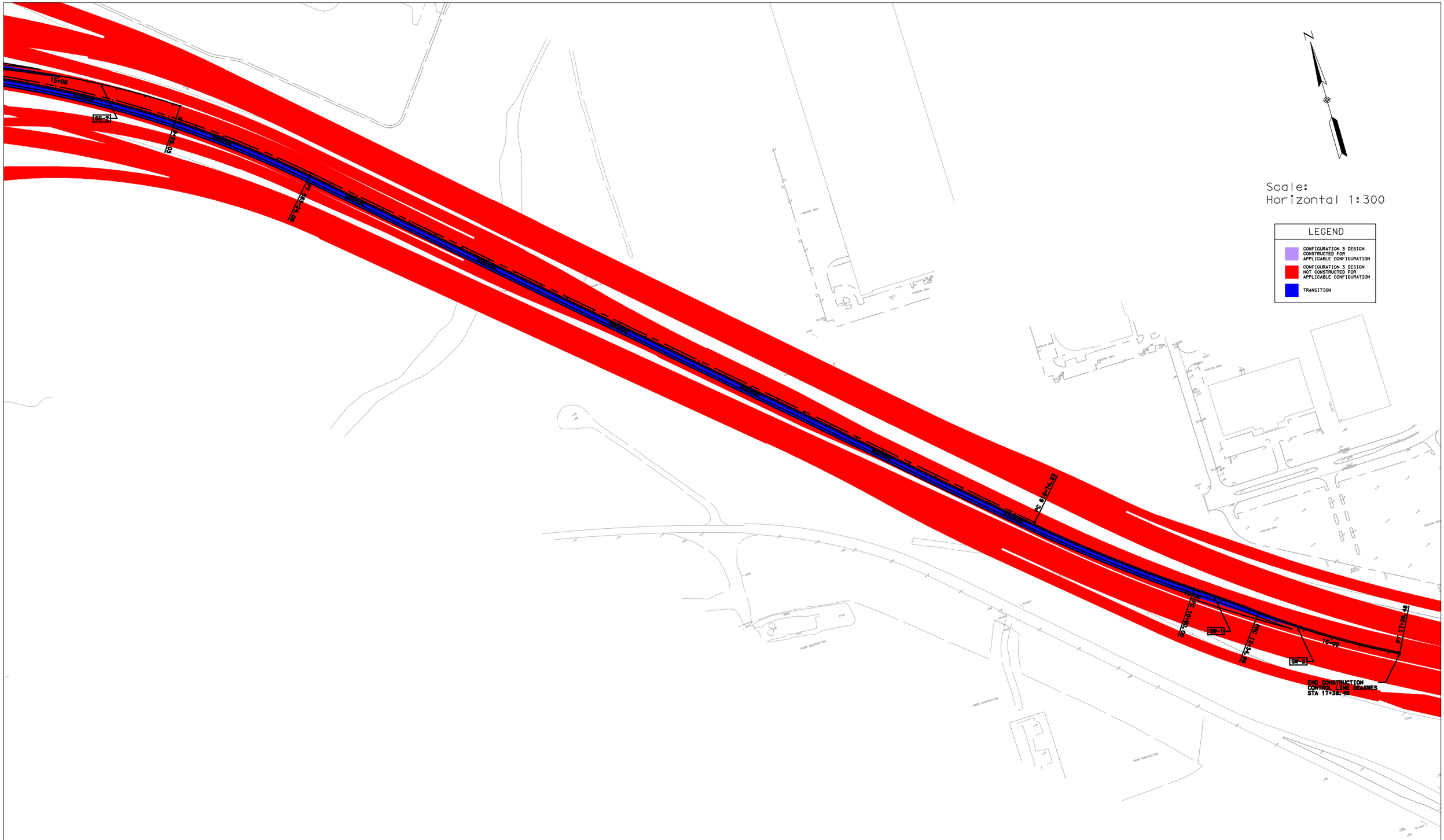
Book 2 Attachment 1-4
Configuration 1



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SH 114 / SH 121

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NOV 3, 2008

Book 2 Attachment 1-4
Configuration 1

BEGIN TRANSITION PAVEMENT
CONTROL LINE SBPDM97
STA 3866+97.37

BEGIN TRANSITION PAVEMENT
BEGIN BRIDGE PAVEMENT
CONTROL LINE S121ML2
STA 8+12.37

END TRANSITION PAVEMENT
CONTROL LINE S121ML5
STA 24+30.00

CONTROL LINE SBPDM97

END BRIDGE PAVEMENT
CONTROL LINE S121ML2
STA 18+67.26

CONTROL LINE SW635S9

CONTROL LINE 121ML2

RAMP TO BE ELIMINATED IN THIS OPTION.

END TRANSITION PAVEMENT
CONTROL LINE SW635S9
STA 27+73.17

END TRANSITION PAVEMENT
CONTROL LINE SBPDM97
STA 3868+66.37

END CONSTRUCTION
END TRANSITION PAVEMENT
CONTROL LINE 121ML2
STA 42+65.42

HWY 121

TO HWY 635

N

Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

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Book 2 Attachment 1-4
Configuration 1

Configuration 2

The Project includes the development of Configuration 2 for DFW Connector, as well as certain design and right of way acquisition services for the Configuration 3 to be constructed in the future.

TxDOT Preliminary Plan Package

Configuration 3 and the Configuration 2 (Attachment 1-6) have been developed to a limited level and are generally conceptual in nature. Regardless of whether an entirely new plan, or an adaptation of the above referenced preliminary design information, is proposed, Developer is responsible for ensuring that the Configuration 2 and Configuration 3 satisfies the requirements of the CDA Documents. If the above referenced preliminary design information is utilized, Developer shall diligently review, and verify the accuracy and applicability of, the information prior to use. Deviations from, and/or changes to, the preliminary design information that are necessary in order to satisfy the requirements of the CDA Documents are the responsibility of Developer and any related costs shall be included in the Development Price.

Accommodation of Configuration 3 for Configuration 2

Developer shall provide for a smooth transition from Configuration 2 to Configuration 3. Developer shall endeavor to minimize "throw-away" costs to TxDOT associated with improving Configuration 2 to meet the requirements of the future Configuration 3 Design. The Development Work shall provide for minimal disruption to traffic during the construction phase. Additionally, Developer shall minimize the cost associated with the future Configuration 3 construction to the extent that Developer cost to construct the Configuration 2 is not unreasonably increased as described below.

Elements of the future build-out of Configuration 3 that require the removal of installed permanent pavement or structure shall be built as part of Configuration 2. Elements of future construction that require removal of installed transition pavement or structure will not have to be part of Configuration 2.

The Development Work, as a minimum, shall accommodate the Configuration 3 configuration as described below:

Roadway

Configuration 2 shall be designed and constructed coincident with the Configuration 3 horizontal and vertical alignments with the exceptions of the transition roadways leading to/from existing pavements as shown in Attachment 1-6. Developer shall provide for a smooth transition from Configuration 2 to Configuration 3.

Developer shall also have the flexibility to propose revisions to the horizontal alignment and vertical profile of Configuration 2 and/or Configuration 3 Design that do not modify the design criteria contained herein; however, any horizontal or vertical modifications that cause a change in the Schematic ROW will require prior consent from TxDOT. Developer shall revise Configuration 3 as necessary to reflect any changes to horizontal and vertical alignments. Furthermore, any changes to the Schematic ROW, due to horizontal and/or vertical modifications of the alignment, may affect environmental approval, permitting or right of way parcels maps.

Deviations from these criteria may require revisions to, or re-issuance of, the Environmental Approvals and/or Governmental Approvals, which shall be performed solely at the responsibility and cost of Developer. Developer shall not be entitled to any time extension or additional compensation in connection with such revisions or re-issuances.

Drainage

The drainage systems shall be designed and constructed to accommodate Configuration 3 with minimal throwaway work where Configuration 2 is coincident with Configuration 3 as shown below. Where Configuration 2 is not coincident with Configuration 3, drainage systems shall only be required to meet Configuration 2 requirements.

Geometry, ditch sections and closed drainage systems (i.e. pipes and inlets) shall be designed and constructed to accommodate Configuration 2 or Configuration 3, whichever controls. The physical location of inlet structures shall accommodate Configuration 3. Cross drainage structures (i.e. culverts) shall be designed, sized and constructed to satisfy Configuration 3 requirements. Developer shall construct culverts to the length required to accommodate the Configuration 3

At a minimum, the drainage system must meet the following requirements:

A) The analysis, design and construction of all drainage structures and appurtenances shall address Configuration 2 and Configuration 3 improvements.

B) Provide drainage for Configuration 2 and Configuration 3 to protect the roadway, subsurface and highway structures from water damage.

C) Design and construction of drainage system shall accommodate Configuration 2 and Configuration 3. Consideration shall be given to, but not limited to, pipe, inlet locations, capacity, culvert inlet and outlet structures locations, and junction/manhole structure locations.

D) Only bridges and bridge-class culverts are shown on Configuration 3. It is Developer's responsibility to determine the location and appropriate size for all other culverts needed to address the Configuration 3.

E) The water quality measures shall be designed for Configuration 2 and Configuration 3 conditions.

F) Developer shall perform hydrologic analyses for the design of drainage features for Configuration 2 and Configuration 3.

Paving

All pavements constructed as part of Configuration 2 shall be designed and constructed to meet all the Technical Provisions. Paving limits shall satisfy the requirements of the Configuration 2.

Bridges & Walls

Developer shall design and construct bridge structures required for Configuration 2, with the exceptions of structures required solely for transition roadways leading to/from existing pavements as shown in Attachment 1-6, to the total length, width, and span arrangement required for Configuration 3, including spanning future lanes that will be constructed below the structure as a part of the Configuration 3. In locations where the Configuration 2 does not call for the construction of direct-connect structures required for Configuration 3, Developer shall make provisions for future construction without allowance for removal of permanent pavement or structures. Removal of transition pavement or structures during future Configuration 3 construction is permitted. Developer shall, if necessary, construct portions of the Configuration 3 (e.g., footings, ducts, bents, etc.) to ensure future impacts are minimized. At bridges with wrap-around MSE wall supported abutments, the MSE wall shall be designed and constructed to the length required to satisfy Configuration 2 or Configuration 3,

whichever governs. The Developer shall design and construct abutments behind MSE walls to Configuration 3 width, or provide specific accommodations for future widening. For all retaining walls required for construction of roadways within the limits of Configuration 2, with the exceptions of retaining walls required solely for the transition roadways leading to/from existing pavements as shown in Attachment 1-6, construction shall be designed and constructed to meet the requirements of the Configuration 3.

Bridges carrying local roads over Configuration 3 shall, at a minimum, be of a type of construction to accommodate Configuration 3. Each submittal shall also include horizontal and vertical clearance provisions for the Configuration 2 and Configuration 3 build-out improvements. Fencing shall be required along some bridges, pedestrian overpasses and Schematic ROW of Configuration 3.

Sign Structures

Where feasible, sign structures shall be located to accommodate the Configuration 3. Sign bridges located within Configuration 2 construction limits, with the exceptions of sign bridges required solely along transition roadways leading to/from existing pavements as shown in Attachment 1-6, shall span the greater of the Configuration 3 or Configuration 2.

Developer shall take into account the Configuration 3 in its design of overhead and cantilever sign supports.

Lighting

Lighting shall be designed and constructed to accommodate the Configuration 3 or the Configuration 2, whichever governs. The location of high-mast lighting within Configuration 2 construction limits shall satisfy Configuration 3.

Landscaping

Where the Configuration 2 is coincident with the Configuration 3, landscaping shall be designed and constructed to meet Configuration 3 requirements. In locations where Configuration 2 is not coincident with the Configuration 3, Developer shall provide additional landscaping to achieve the desired aesthetic affect.

Utilities

Developer shall ensure that the design and construction of all Utility Adjustments are compatible with Configuration 2 and that all such Utilities are compatible with and interface properly with the Project. Developer shall be responsible for verifying that all design plans for Utility Adjustment Work, whether furnished by Developer or by the Utility Owner, are consistent and compatible with Configuration 2.

With written approval by TxDOT, Utilities may remain in their existing location within the Configuration 2 limits if (a) the requirements of the UAP are met, (b) Configuration 2 can be constructed with the utility in its existing location and will not adversely affect the Development Work, and (c) the Utility Owner's standards of practice are met.

Continuous steel casings shall be provided for all water and pressurized sanitary sewer line crossings under center medians and from center of ditch to center of ditch for cut sections, five (5) feet beyond the toe of slope for fill sections, or five (5) feet beyond the face of curb, based on the Configuration 2.

Developer shall be responsible for Protecting in Place (or causing to be Protected in Place by the Utility Owner at Developer's expense) all Utilities impacted by Configuration 2 (including any Utilities remaining in place and any Utilities newly reinstalled as part of the Utility Adjustment Work or the Early Adjustment Work), as necessary to ensure their continued safe operation and structural integrity and in accordance with the requirements described in the Technical Provisions.

Developer is fully responsible for coordinating its efforts with Utility Owners and for addressing requests by Utility Owners that Developer design and/or construct Utility Enhancements. Under no circumstances shall Developer proceed with any Utility Enhancement which is incompatible with Configuration 2 or which cannot be performed within the other constraints of applicable Law, the Governmental Approvals and the CDA Documents, including the Completion Deadlines.

Developer shall be required to provide supporting design information and cost information, satisfactory to TxDOT, to ensure that the above requirements have been met. Developer, to the satisfaction of TxDOT, shall provide documentation supporting the feasibility of Configuration 2. TxDOT shall have no obligation to accept the Configuration 2 for any element of the Development Work until TxDOT has determined that Developer has achieved the above requirements.

Texas Department of Transportation

Technical Provisions

Book 2

Attachment 1-6

Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

WILLIAM D. TATE AVENUE

HWY 121

BEGIN CONSTRUCTION
CONTROL LINE MEM21
STA 564+51.19

BEGIN TRANSITION PAVEMENT
CONTROL LINE S14SM36
STA 15+25.73

CONTROL LINE S14SM36

END TRANSITION PAVEMENT
CONTROL LINE S14SM36
STA 27+69.34

RAMP TO BE ELIMINATED IN THIS OPTION.

BEGIN TRANSITION PAVEMENT
CONTROL LINE SN36036
STA 16+13.51

CONTROL LINE SN360MD

END TRANSITION PAVEMENT
CONTROL LINE SN360MD
STA 27+55.00

CONTROL LINE SN36036

RAMP TO BE ELIMINATED IN THIS OPTION.

END TRANSITION PAVEMENT
CONTROL LINE SN36036
STA 33+78.59

BEGIN TRANSITION PAVEMENT
CONTROL LINE SNFRFRN
STA 10+05.00

CONTROL LINE SNFRFRN

END TRANSITION PAVEMENT
CONTROL LINE SNFRFRN
STA 13+50.71

BEGIN TRANSITION PAVEMENT
CONTROL LINE S360R36
STA 10+28.02

CONTROL LINE S360R36

END TRANSITION PAVEMENT
CONTROL LINE S360R36
STA 18+82.15

BEGIN TRANSITION PAVEMENT
CONTROL LINE S360ML3
STA 11+55.00

CONTROL LINE S360ML3

END TRANSITION PAVEMENT
CONTROL LINE S360ML3
STA 15+77.09

BEGIN TRANSITION PAVEMENT
CONTROL LINE SML3360
STA 12+38.00

CONTROL LINE SML3360

END TRANSITION PAVEMENT
CONTROL LINE SML3360
STA 14+79.36

SY-1 SY-2 SY-3 SD-1 SD-2 SD-3 SD-4 SC-1 SC-2 SC-3 SO-1 SM-1 SN-1 SN-2

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END CONSTRUCTION
CONTROL LINE CS26WB
STA 428+11.10
TIE TO EXISTING

IRA E. WOODS AVENUE

HWY 114

Scale:
Horizontal 1:300

LEGEND

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- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

MATCH LINE

BEGIN CONSTRUCTION
CONTROL LINE CSSH26
STA 388+00
END CONSTRUCTION BY OTHERS

MATCH LINE

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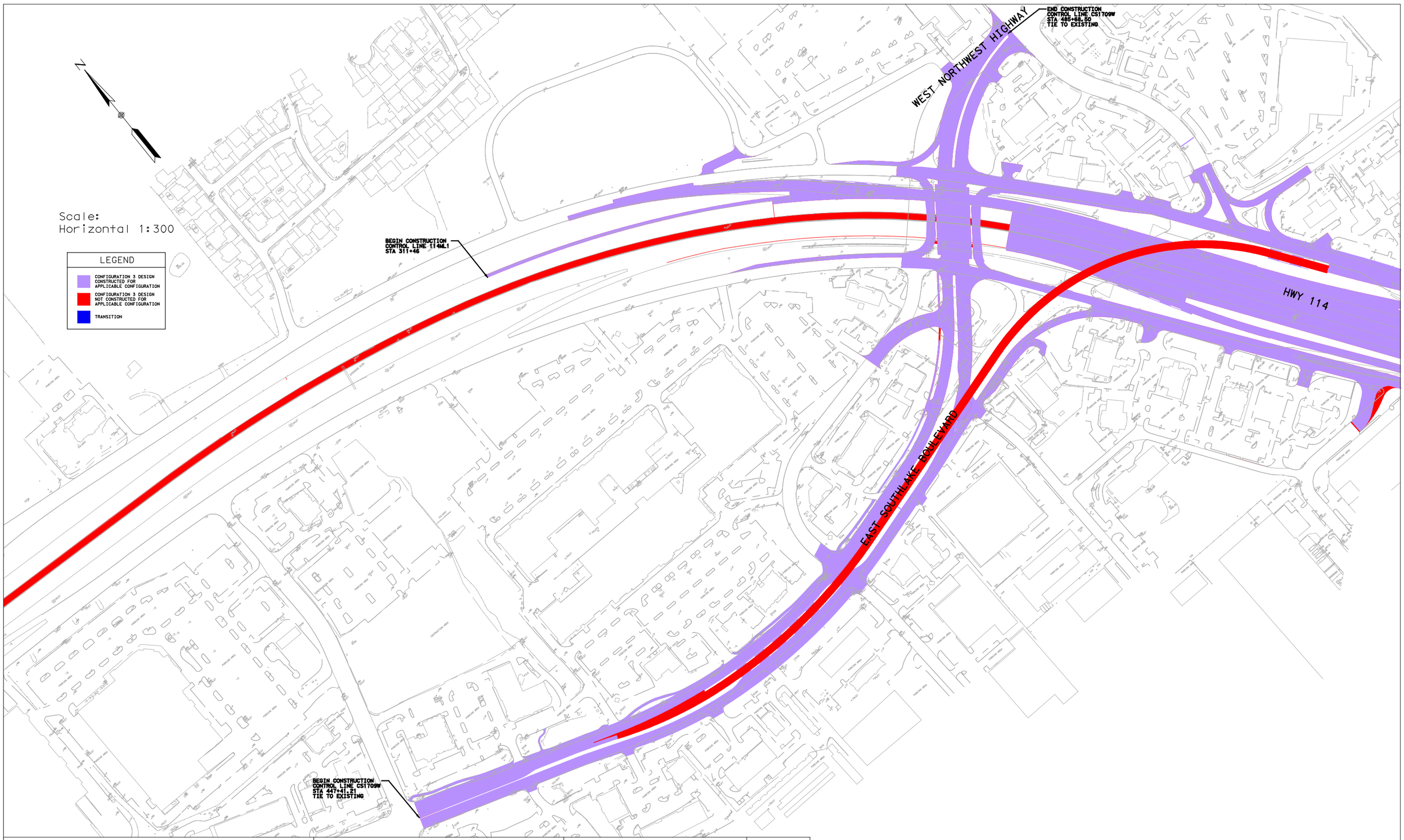
Book 2 Attachment 1-6
Configuration 2



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Configuration 2

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Book 2 Attachment 1-6
Configuration 2

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Horizontal 1:300

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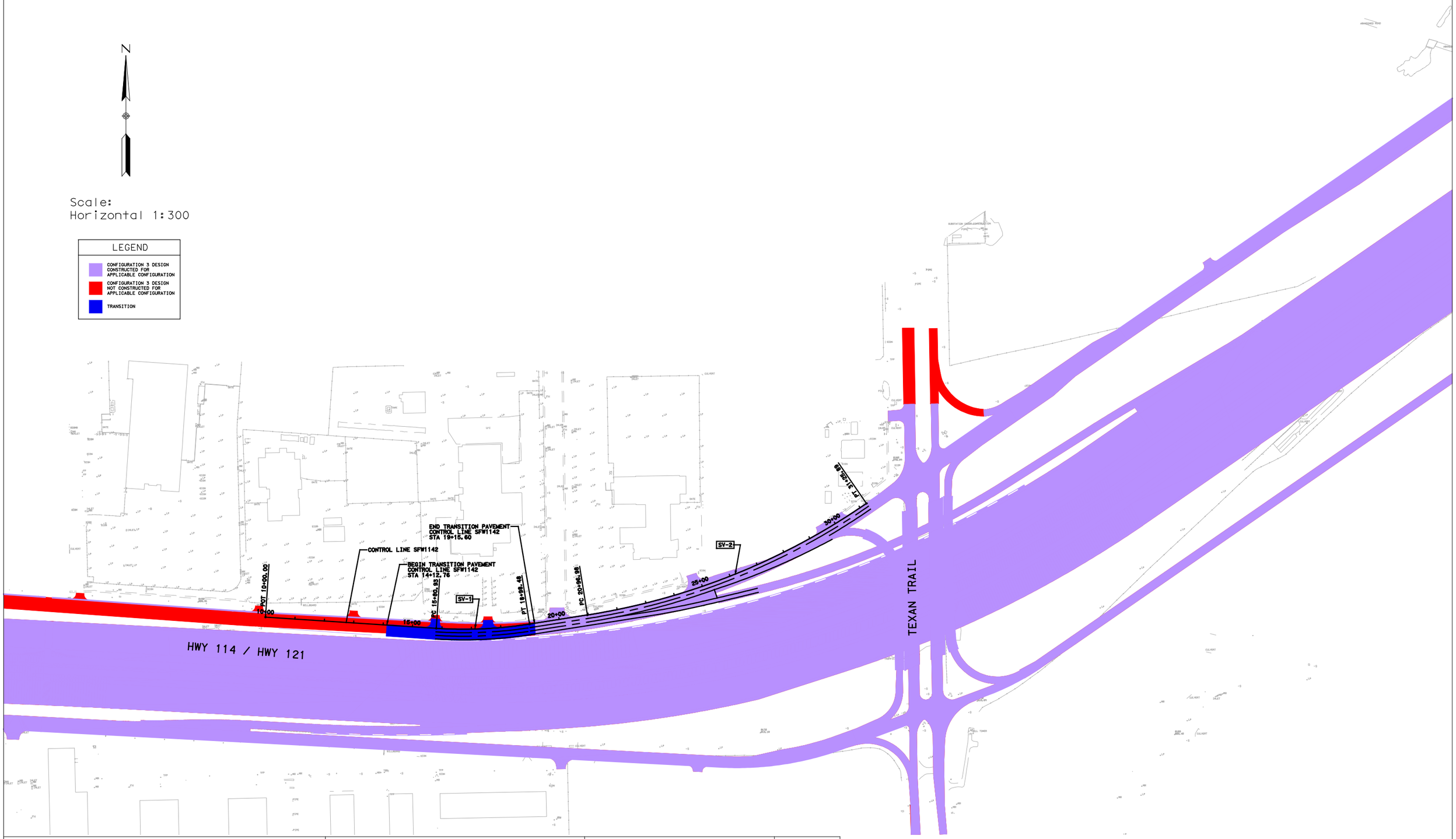
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION



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SH 114 / SH 121

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NOV 3, 2008

Book 2 Attachment 1-6
Configuration 2

Scale:
Horizontal 1:300

LEGEND

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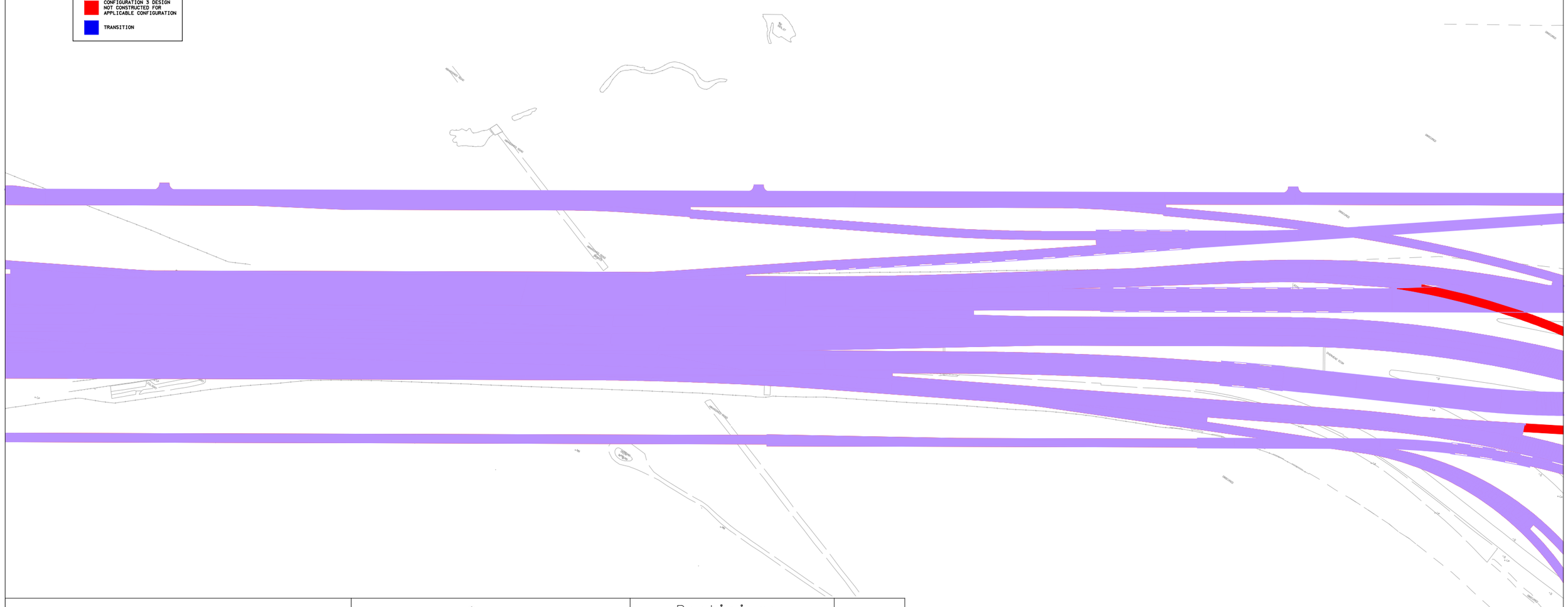
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION



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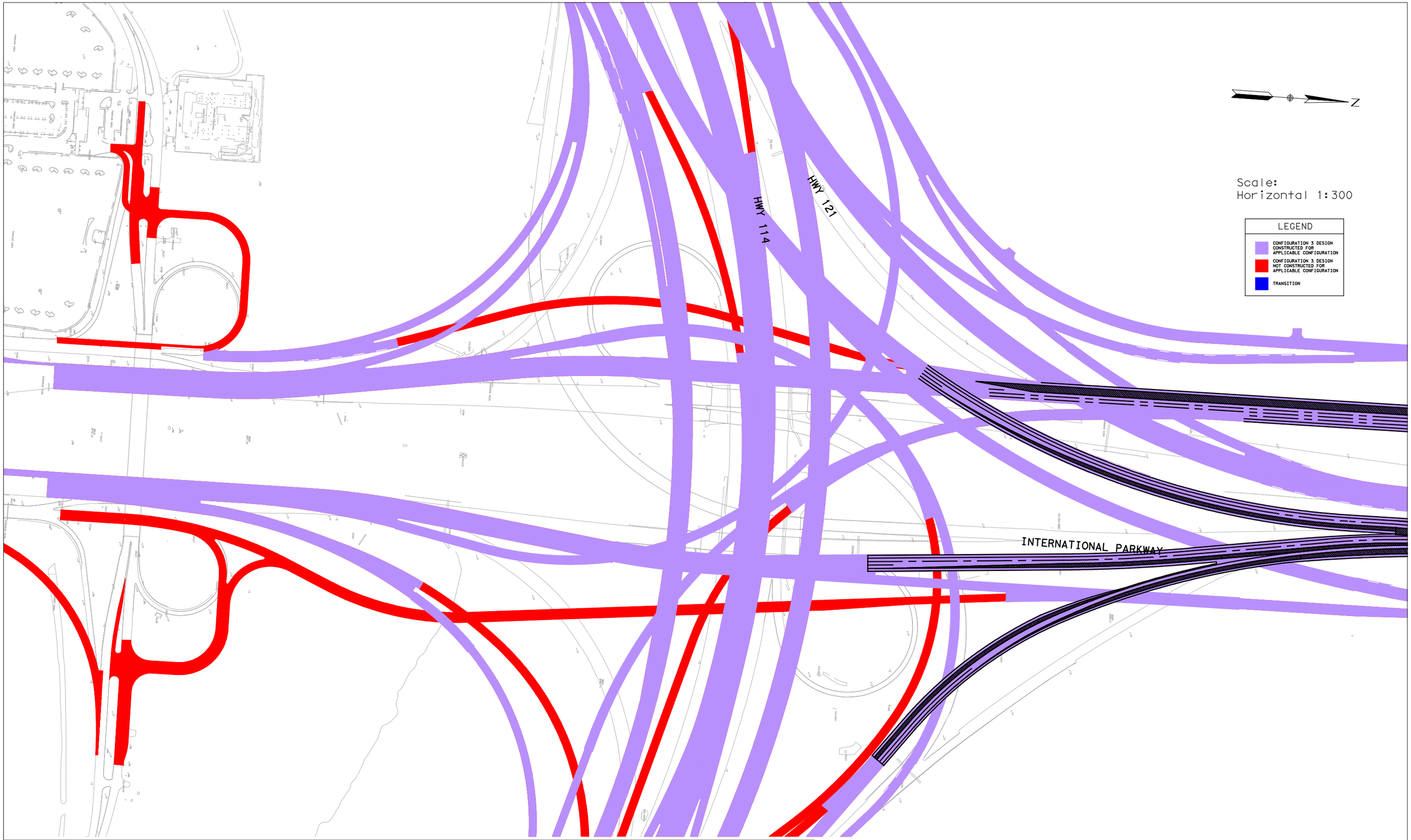
Book 2 Attachment 1-6
Configuration 2



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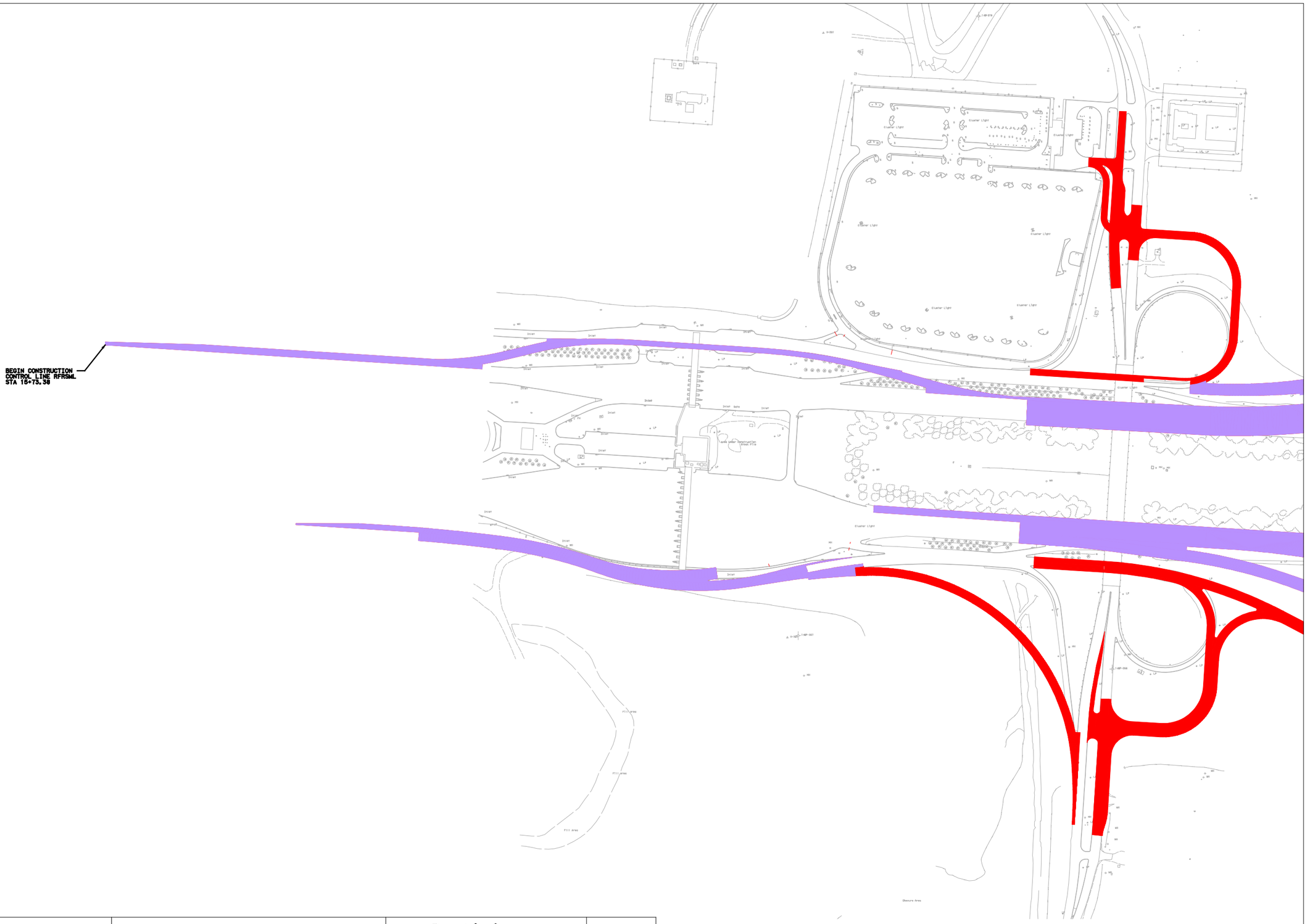
Book 2 Attachment 1-6
Configuration 2

Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

BEGIN CONSTRUCTION CONTROL LINE RFRSML
STA 15+73.38



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Configuration 2

Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

CONTROL LINE T114NB
STA 432+53.46
BEGIN TRANSITION PAVEMENT

TNB-1

CONTROL LINE T114NB

STA 442+90.53 (72' LT)
BEGIN LANE TAPER

STA 448+94.32 (60' LT)
END LANE TAPER

TNB-2

END CONSTRUCTION
CONTROL LINE T114NB
STA 448+94.32
END TRANSITION PAVEMENT

TSB-1

CONTROL LINE T114SB
STA 78+08.08
BEGIN TRANSITION PAVEMENT

CONTROL LINE T114SB

TSB-2

STA 85+70.05 (60' RT)
BEGIN LANE TAPER

STA 91+73.37 (48' RT)
END LANE TAPER

END CONSTRUCTION
CONTROL LINE T114SB
STA 91+73.37
END TRANSITION PAVEMENT

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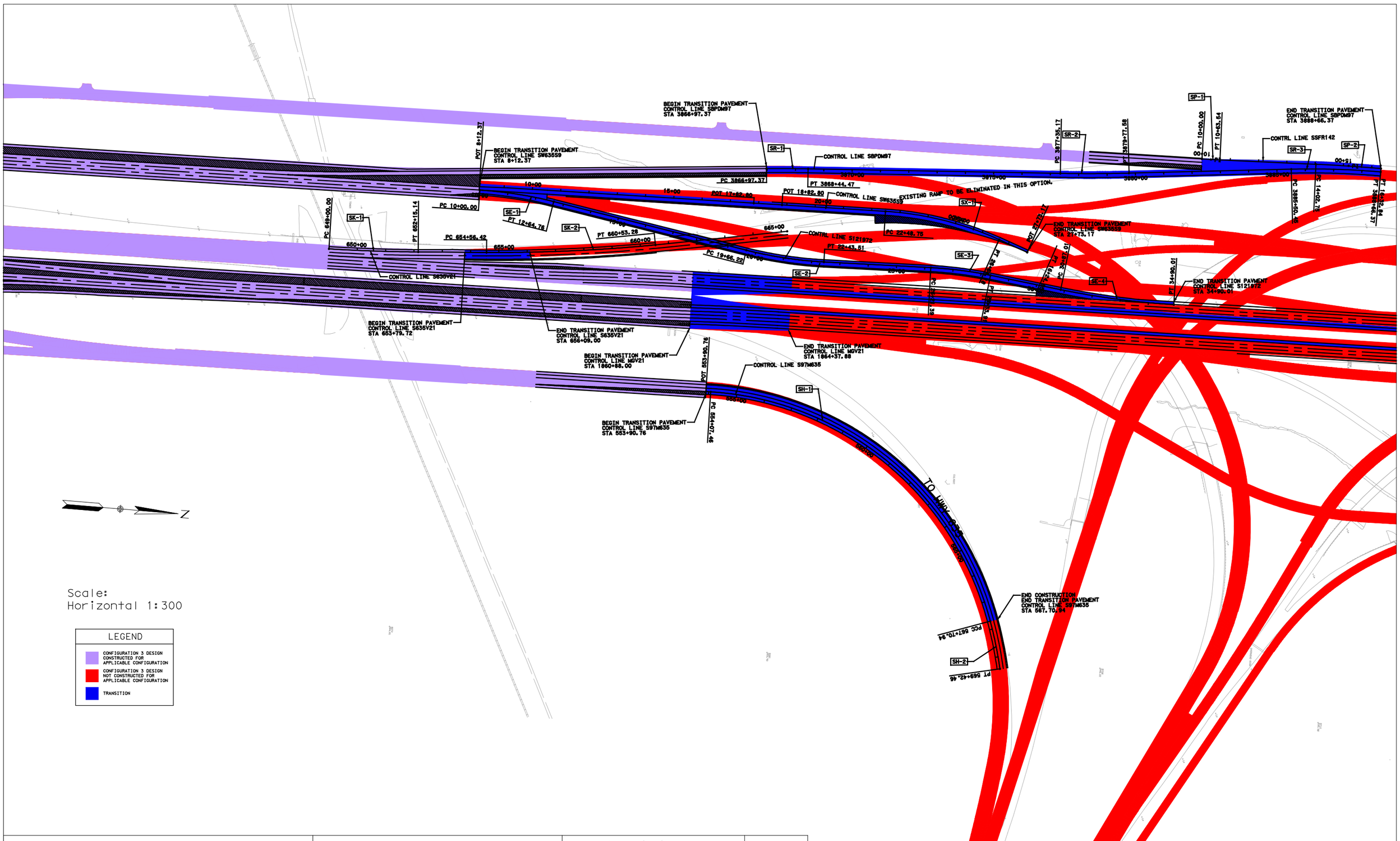
Configuration 2



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- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

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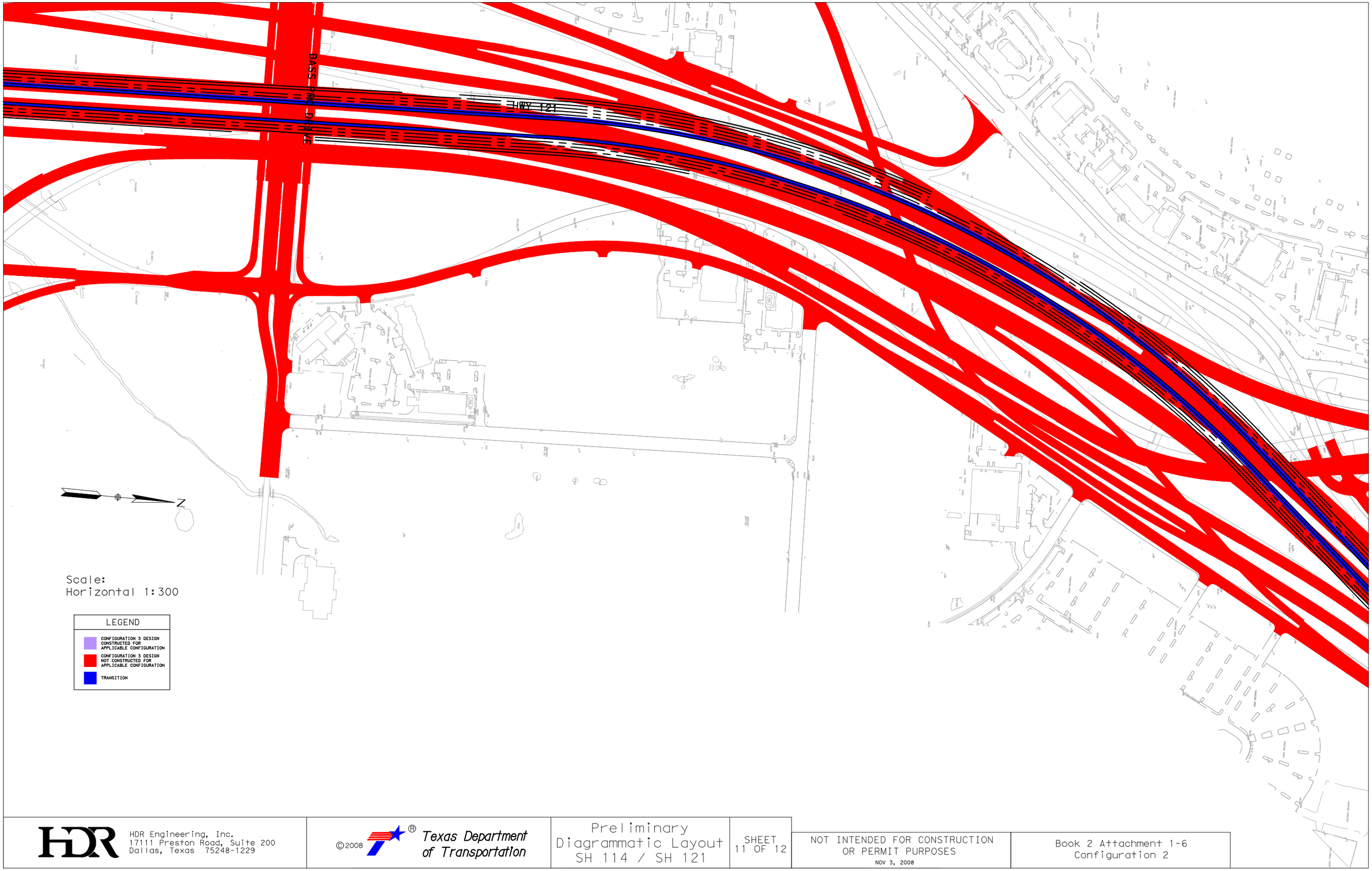
Configuration 2



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Book 2 Attachment 1-6
Configuration 2

END CONSTRUCTION
CONTROL LINE MGV21
STA 1964+46.34
TIE TO PROPOSED PROJECT
BY OTHERS

N

Scale:
Horizontal 1:300

LEGEND

- CONFIGURATION 3 DESIGN CONSTRUCTED FOR APPLICABLE CONFIGURATION
- CONFIGURATION 3 DESIGN NOT CONSTRUCTED FOR APPLICABLE CONFIGURATION
- TRANSITION

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Book 2 Attachment 1-6
Configuration 2

Attachment 1-7: Deferred Work Components

Deferred Work Component No.	Description
1	Defer (2) 12' Managed Lanes and all shoulders, in each direction from sta 568+26 to sta 591+00. Defer all permanent barrier and associated drainage; existing 9-8x6 MBC will be extended instead of rebuilt.
2	Defer 2 lanes on SB International Parkway (IP) Bridge 1-67 over DART. Bridge 1-67 substructure will be built to 6-lane width; superstructure will accommodate 4 lanes.
3	Defer construction of one lane (12') SBIP from sta 1816+00 to sta 1844+65 and from sta 1788+00 tosSta 1807+10. Bridge 1-48 substructure will be built to 4-lane width; superstructure will accommodate 3 lanes.
4	Defer construction of one lane (12') of exit ramp from SBIP to EB 114 from sta 1817+00 to sta 1844+65.
5	Defer construction of one lane (12') of NBIP from sta 1788+00 to sta 1808+00 and from sta 1819+00 to sta 1846+60.
6	Bridge 1-49 substructure will be built to 4-lane width; superstructure will accommodate 3 lanes.
7	Defer construction of one lane (12') of the WB 114 to NB 121 DC from sta 22+00 to sta 38+40.
8	Defer construction of one lane (12') of NB 121 from sta 1835+20 to sta 1846+30.
9	Defer construction of SB 121 from sta 1851+00 to sta 1864+40. Existing conditions will remain in place.
10	Defer the construction of bridge 1-68 leaving existing structure in place.
11	Defer the construction of bridge 1-69 leaving existing structure in place. Defer construction of NB 121 from sta 1851+60 to sta 1865+40. Existing conditions will remain in place.
12	Existing 3-7x5 MBC around sta 1802+50 will be extended instead of rebuilt
13	Defer 2 lanes (24') of WBFR from sta 539+40 to sta 546+65. Defer all lanes, shoulders, and driveways of WBFR from sta 547+50 to sta 558+20, existing drainage and utilities to remain in place. Defer all lanes, shoulders, and driveways of WBFR from sta 571+45 to sta 577+00, existing drainage and utilities to remain in place. Defer right lane (12'), shoulder, and driveways of WBFR from sta 574+00 to sta 585+00, existing drainage and utilities to remain in place.
14	Defer all lanes, shoulders, and driveways of EBFR from sta 608+80 to sta 622+00 and from sta 623+00 to sta 629+00, existing drainage and utilities to remain in place.
15	Defer construction of exit ramp from EB 114 to the DFW International Parkway SBFR from sta 5+96 to sta 21+45 and associated drainage.
16	Defer Mustang to NB 121 entrance ramp construction from sta 3+10 to sta 10+46. Defer construction of bridge 1-29 (sta 8+70 to 22+15) and retaining walls 28LT & 28RT. Defer construction of 121 NBFR from sta 791+66 to sta 810+18 and associated drainage.
17	Defer construction of one lane and shoulders in each direction of 121 GP from sta 1864+40 to sta 1952+10.
18	Defer E-W turn around bridge 1-43 with associated approaches at Texan Trail.
19	Defer E-W turn around bridge 1-5 with assoiciated approaches at Bus 114E.
20	Defer construction and associated ROW acquisition services of FM1709 from sta 448+00 to sta 469+00.
21	Construct only two lanes of 121 SBFR from sta 627+00 to sta 699+85.
22	Defer the construction of bridge 4-65 and exit ramp to Texan Trail from sta 10+85 to sta 26+60 and pavement from bridge 4-65 to WB 114ML from sta 5+15 to sta 19+20.

Texas Department of Transportation
Technical Provisions

Attachment 2.1 – Project Management Plan Contents

The Project Management Plan -Contents and Schedule for provision of the component parts

Legend

A= Submitted by Developer within 30 days of NTP 1 and approved by TxDOT prior to Commencement of Design
B= Submitted by Developer within 90Approved by TxDOT at prior to Commencement of Construction

Note – in this PMP Contents the term "Contractor" shall be taken to mean "Subcontractor"

Part	Ref	Section	Contents	Required by
1. Project Administration				
		Organization	Organizational diagram	A
		Personnel	Names and contact details, titles, and job roles	A
		Contractors	Contracting Plan	A
		Schedule	Baseline Schedule in accordance with Section 2	A
		Quality Control	Procedures to establish and encourage continuous improvement	A
		Audit	Procedures to facilitate review and audit by TxDOT	A
			Auditing and management review of Developer's own activities under the PMP	A
			Auditing and management review of Contractor's activities and management procedures	A
		PMP Update	Procedures for preparation of amendments and submission of amendments to any part of the PMP	A
		Document Management	The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use	A
			Document management procedures in compliance with the Technical Provisions Section 2	A

Part	Ref	Section	Contents	Required by
2. Quality Management				
2A. Design Quality Program				
		Organization	Developer's main contractual arrangements	A
			Organizational structure covering the activities to be performed in accordance with the CDA Documents	A
		Personnel	Resource plan for the Developer and its subcontractors	A
			Arrangements for coordinating and managing staff interaction with TxDOT and its consultants including collocation of Key Personnel and description of approach to coordinating work of off-site personnel	A
			Names and contact details, titles, job roles and specific experience required for the Key Personnel and for other principal personnel during design	A
			Names and contact details, titles, job roles of principal personnel for Contractors and any third party with which Developer will coordinate activities	A
		Offices and equipment	Description of the necessary offices and office equipment to be provided by Developer during design	A
		Contractors	Overall control procedures for Contractors, including consultants and subconsultants	A
			Responsibility of Contractors and affiliates	A
			Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts	A
		Interfaces	Interfacing between the Developer, Contractors and independent certifiers during design including interfaces between the structural design auditor, the safety auditor, and any quality reviewer	A
			Coordination with Utility Owners	A
		Environmental	Control of the interface between environmental requirements (including landscaping) and the design of the Project	A

Part	Ref	Section	Contents	Required by
2. Quality Management				
2A. Professional Services Quality Program (con't.)				
		Procedures	Procedures describing how the principal activities will be performed during the design stage: to include geotechnical site investigation, surveys and mapping, environmental management, safety audit, structural audit, and checking	A
		Quality Control/Quality Assurance	Quality control and quality assurance procedures including a resource table for monitoring and auditing all design services, design review and certification, verification of plans	A
			Procedures for environmental compliance	A
			Procedures to establish Developer's hold points in design process where checking and review will take place	A
			Procedures to ensure accuracy, completion, and quality in submittals to TxDOT and Governmental Entities	A
			Procedures to establish and encourage continuous improvement	A
		Audit	Name of Developer's representative(s) with defined authority for establishing, maintaining, auditing and reporting on the PMP	A
			Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority	A
		Document Management	The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use	A
			Document management procedures in compliance with the Technical Provisions Section 2	A
			Identify environmental documentation and reporting requirements, including Environmental Permits, Issues and Commitments (EPIC) sheets	A
2B. Construction Quality Program (CQP)				
		Organization	Developer's main contractual arrangements	A
			Organizational structure covering the activities to be performed in accordance with the CDA Documents	A
		Personnel	Resource plan for the Developer and its Contractors	B

Part	Ref	Section	Contents	Required by
2. Quality Management				
2B. Construction Quality Program (CQP) (con't.)				
			Arrangements for coordinating and managing staff interaction with TxDOT and its consultants including collocation of Key Personnel and description of approach to coordinating work of off-site personnel	B
			Names and contact details, titles, job roles and specific experience required for the Key Personnel as related to construction	A
			Names and contact details, titles, job roles of principal personnel for Contractors and any third party with which Developer will coordinate his activities	B
			Procedures for implementation of Environmental Protection Training Program for all employees in accordance with Section 4	B
		Offices and equipment	Description of the necessary offices and office equipment to be provided by Developer during construction	A
		Contractors	Overall control procedures for Contractors, including consultants and subconsultants	B
			Responsibility of Contractors and affiliates	B
			Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts	B
			Procedures for implementation of Environmental Protection Training Program for employees of subcontractors in accordance with Section 4	B
		Interfaces	Interfacing between the Developer, Contractors and independent certifiers during construction, including any testing contractor	A
		Procedures	List of Project specific construction procedures	B
			Construction detailed procedure for each major activity whether directly undertaken or subcontracted to include pavement, structures, drainage, communications	B
			Construction Traffic Management Plan	B
		Quality Control/Quality Assurance	Construction Monitoring Plan	B

Part	Ref	Section	Contents	Required by
2. Quality Management				
2B. Construction Quality Program (CQP) (con't.)				
			Construction Monitoring Program (Environmental)	B
			Procedures for environmental compliance	
			Control, identification and traceability of materials, including any material or samples temporarily or otherwise removed from site for testing or other reasons.	B
			Examinations and audit of Construction Work, review of examination and audit, issue of certificates	B
			Observation and reporting of all tests in compliance with Section 2	B
			Procedures for tests and inspections for the purpose of the Contractor certifying that prior to burying, each part of the Works is complete and conforms to the CDA Documents.	B
			Quality control and quality acceptance procedures including a resource table for monitoring and auditing during construction any work and testing undertaken by Contractors and Suppliers both on and off Site	B
			Procedures to establish Developer's hold points in construction	B
			Procedures to ensure accuracy, completion, and quality in submittals to TxDOT and Governmental Entities	B
			Procedures to establish and encourage continuous improvement	A
		Audit	Inspection and test plans that identify the proforma and/or databases to be used for recording the inspection and test results and methodology for transmitting acceptance testing and inspection reports to TxDOT	B
			Name of Developer's representative with defined authority for establishing, maintaining, auditing and reporting on the PMP	A
			Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority	B
		Document Management	The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use.	B

Part	Ref	Section	Contents	Required by
2. Quality Management				
2B. Construction Quality Program (CQP) (con't.)				
			Document management procedures in compliance with the Technical Provisions Section 2	A

Part	Ref	Section	Contents	Required by
3. Environmental Management				
		Organization	Developer's main contractual arrangements	A
			Organizational structure covering the activities to be performed in accordance with the CDA Documents	A
			Environmental Contact Tree	A
		Personnel	Resource plan for the Developer and its Contractors	B
			Arrangements for coordinating and managing staff interaction with TxDOT and its consultants, including collocation of Key Personnel and description of approach to coordinating work of off-site personnel	A
			Names and contact details, titles, job roles and specific experience required for Key Personnel and for other environmental personnel	A
			Implement Environmental Protection Training Program for all employees in accordance with Section 4	A
		Contractors	Overall control procedures for Contractors, including consultants and subconsultants	A
			Responsibility of Contractors and affiliates	A
		Environmental	Comprehensive Environmental Protection Program (CEPP)	B
		Quality Control and Quality Acceptance	Procedures to ensure accuracy, completion, and quality in submittals to TxDOT and Governmental Entities	A
			Procedures to establish and encourage continuous improvement	A
			Procedures for environmental compliance	A
		Audit	Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority	B
		Document Management	The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use	A
			Identify environmental documentation and reporting requirements	A

Part	Ref	Section	Contents	Required by
4. Public Information and Communications				
		Organization	Developer's main contractual arrangements	A
			Organizational structure covering the activities to be performed in accordance with the CDA Documents	A
		Personnel	Resource plan for the Developer and its Contractors	A
			Arrangements for coordinating and managing staff interaction with TxDOT and its consultants, including collocation of Key Personnel and description of approach to coordinating work of off-site personnel	A
			Names and contact details, titles, job roles and specific experience required for Key Personnel and for other principal personnel	A
			Names and contact details, titles, job roles of principal personnel for Contractors and any third party with which Developer will coordinate his activities	A
		Offices and equipment	Description of the necessary offices and office equipment to be provided by Developer during design	A
		Contractors	Overall control procedures for Contractors, including consultants and subconsultants	A
			Responsibility of Contractors and affiliates	A
			Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts	A
			Procedures for implementation of Environmental Protection Training Program for employees of Contractors	A
		Interfaces	Procedures for liaison with the public, the media and other Customer Groups in accordance with Section 3 and the press media policy of TxDOT	A
			Procedures to coordinate with Project stakeholders such as municipalities, counties, MPOs, RMAs and other Customer Groups	A
		Procedures	Procedures describing how the principal activities will be performed	A

Part	Ref	Section	Contents	Required by
4. Public Information and Communications (con't)				
		Quality Control	Quality control procedures including a resource table for monitoring and auditing all public information and communication services	A
			Procedures to ensure accuracy, completion, and quality in submittals to TxDOT, Governmental Entities and Customer Groups	A
			Procedures to establish and encourage continuous improvement	A
		Audit	Name of Developer's representative with defined authority for establishing, maintaining, auditing and reporting on the PMP	A
			Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority	A
		Document Management	The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use	A
			Document management procedures in compliance with the Technical Provisions Section 2	A
			Identify environmental documentation and reporting requirements	A

Part	Ref	Section	Contents	Required by
5. Health & Safety				
			Policies, plans, training programs, Work Site controls, and Incident response plans to ensure the health and safety of personnel involved in the Project and the general public affected by the Project	A
			Procedures for immediately notifying TxDOT of all incidents arising out of or in connection with the performance of the Work	A

Part	Ref	Section	Contents	Required by
6. Communications Plan				
			The manner in which the Developer's organization will respond to unexpected requests for information, communicate changes or revisions to necessary Developer personnel, and notify affected stakeholders before and after changes are made	A
			Processes and procedures for communication of Project information between the Developer's organization and TxDOT.	A

Part	Ref	Section	Contents	Required by
7. ROW Acquisition Management				
		Organization	Developer's main contractual arrangements	A
			Organizational structure covering the activities to be performed in accordance with the CDA Documents	A
		Personnel	Resource plan for the Developer and its Contractors	A
			Arrangements for coordinating and managing staff interaction with TxDOT and its consultants, including collocation of Key Personnel and description of approach to coordinating work of off-site personnel	A
			Names and contact details, titles, job roles and specific experience required for the Key Personnel as related to ROW acquisition and utility adjustment activities.	A
			Names and contact details, titles, job roles of principal personnel for Contractors and any third party with which Developer will coordinate activities	A
		Contractors	Overall control procedures for Contractors, including consultants and subconsultants	A
			Responsibility of Contractors and affiliates	A
			Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts	A
			Procedures for implementation of Environmental Protection Training Program for employees of Contractors in accordance with Section 4	A
		Interfaces	Interfacing between the Developer, Contractors and independent certifiers during Project ROW acquisition including the interfaces between the Project ROW acquisition, Project design, and any quality reviewer	A
			Coordination with Utility Owners	A
			Utility Adjustment Plan	B
		Relocation	Relocation Plan (Right of Way)	B
		Environmental	Control of the interface between environmental requirements (including Hazardous Materials and demolition) and Project ROW acquisition activities	A

Part	Ref	Section	Contents	Required by
7. ROW Acquisition Management (con't)				
			Applicable procedures for the Hazardous Materials Management Plan in accordance with Section 4	A
			Applicable procedures to implement the Pollution Prevention Plan (P2 Plan), recycling program and waste management in accordance with Section 4	A
			Address Project Environmental Mitigation Plan (PEMP) requirements	A
		Schedule Procedures	Logic linked ROW acquisition activities on a parcel-by-parcel basis as part of the Project Baseline Schedule, including adequate time periods for TxDOT review and condemnation activities in accordance with Section 7	A
			Procedures describing how the principal activities will be performed during the Project ROW acquisition, whether directly undertaken or subcontracted	A
		Quality Control	Procedures to ensure accuracy, completion, and quality in submittals to TxDOT and Governmental Entities	A
			Procedures to establish and encourage continuous improvement	A
			Quality control procedures and quality review standards for Project ROW acquisition in accordance with Section 7	A
			Procedures for environmental compliance	A
		Audit	Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority	A
		Document Management	The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems Developer will use	A
			Document management procedures in compliance with the Technical Provisions Section 2	A
			Identify environmental documentation and reporting requirements	A

Part	Ref	Section	Contents	Required by
8. Cost Management				
	2.10		Procedures for cost management and reporting as required by Stakeholders involved in the Project	A

I2MS Test Form Fields

Purpose

The purpose of this document is to provide information on the tables and fields within I2MS.

Material Test Forms

Material Test Forms are forms used to run tests for a sample. A test form contains a header and footer information which all forms have in common. The differentiating factor of each test form is in the body. Each body of a test form contains fields and

Header Fields

The header information is the metadata of the forms. The header information is vital for searching and analyzing records. All the test forms have similar header information.

Table Name	HEADER_VALUE_OVT			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Course / Lift	course_lift	nvarchar	250		No	N
Direction	direction	nvarchar	250	direction	No	N
Distance from Centerline	dist_from_cl	nvarchar	250		No	N
Feature	feature	nvarchar	250	see validators	Yes	Y
Grade	grade	nvarchar	100	see validators	No	Y
Material	material	nvarchar	100	see validators	Yes	Y
Miscellaneous	misc	nvarchar	250		No	N
Report Type	report_type	nvarchar	250	{Original-Complete, Version-Complete}	No	Y
Roadway	roadway	nvarchar	250	{description}	No	N
Sampled Date	sampled_date	datetime	8	MM/DD/YYYY	Yes	Y
Sample ID	sample_id	nvarchar	13	ABCYYMMDDHHMM	Yes	Y
Sample Location	sample_location	nvarchar	250		No	N
Sample Type	sample_type	nvarchar	100	{Random-Independent, Random-Split, Fixed-Independent, Fixed Split, Internal}	Yes	Y
Sampled By	sampled_by	nvarchar	250	{full_name}	Yes	Y
Section	section	nvarchar	100	see validators	No	N
Spec Item	spec_item	nvarchar	100	see validators	Yes	Y
Spec Year	spec_year	nvarchar	250	YYYY	Yes	Y
Special Provision	special_provision	nvarchar	250	{description}	No	N

Split Sample ID	split_sample_id	nvarchar	250		No	N
Station	station	nvarchar	250	0000+00.00	No	N
Structure Number	structure_number	nvarchar	250	see validators	No	N
Supplier / Producer	supplier	nvarchar	100	{supplier_description}	Yes	Y

Footer Fields

The footer information contains the date and approval fields for each of the test forms.

Table Name	FOOTER_VALUE_OVT			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Authorized By	authorized_by	nvarchar	100		No	Y
Authorized Date	authorized_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Completed Date	completed_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Remarks	remarks	text	16		No	N
Reviewed By	reviewed_by	nvarchar	100		No	Y

Form Specific Information

Moisture Content of Aggregates - (DB-103-E)

Test Name	Moisture Content of Aggregates					
Table Name	VALUE_DB103E_SAMPLE			Maximum Rows	6	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Dish Number	dish_no	nvarchar	100		No	N
Mass of Wet Sample + Tare	wet_sample_tare	decimal	9 (19, 8)		No	N
Mass of Dry Sample + Tare	dry_sample_tare	decimal	9 (19, 8)		No	N
Tare Mass	tare_mass	decimal	9 (19, 8)		No	N
Moisture Content	moisture_content	decimal	9 (19, 8)		No	Y
Wet Weight of Class 2 Flex Base:	wet_weight	decimal	9 (19, 8)		No	N
Payable Weight of Class 2 Flex Base:	payable_weight	decimal	9 (19, 8)		No	N
Test Method	test_method	nvarchar	100	DB-103-E	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Atterberg Limits – (DB-104-6)

Test Name	Liquid Limit					
Table Name	VALUE_DB104E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Liquid Limit Average	liquid_limit_total	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-104	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB104E_SAMPLE			Maximum Rows	6	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Dish Number	dish_no	nvarchar	100		Yes	N
Mass of Wet Sample + Tare	mass_wet_sample	decimal	9 (19, 8)		No	N
Mass of Dry Sample + Tare	mass_dry_sample	decimal	9 (19, 8)		No	N
Tare Mass	tare_mass	decimal	9 (19, 8)		No	N
Moisture Content	moisture_content	decimal	9 (19, 8)		No	N
Number of Blows	number_blows	int	4		No	N
Liquid Limit	liquid_limit	decimal	9 (19, 8)		No	N
Test Name	Plastic Limit					N
Table Name	VALUE_DB105E_SAMPLE			Maximum Rows	3	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Dish Number	dish_no	nvarchar	100		No	N
Mass of Wet Sample + Tare	mass_wet_sample	decimal	9 (19, 8)		No	N
Mass of Dry Sample + Tare	mass_dry_sample	decimal	9 (19, 8)		No	N
Tare Mass	tare_mass	decimal	9 (19, 8)		No	N
Mass of Water	water_mass	decimal	9 (19, 8)		No	N
Plastic Limit	plastic_limit	decimal	9 (19, 8)		No	N

Table Name	VALUE_DB105E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Plastic Limit Average	plastic_limit_total	decimal	9 (19, 8)		No	N
Test Method	test_method	nvarchar	100	DB-105	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	N
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	N
Stamp Code	stamp_code	int	4		No	N

Test Name	Plasticity Index					
Table Name	VALUE_DB106E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Plasticity Index	plasticity_index	int	4		No	Y
Use Bar Linear Shrinkage	use_bar_linear	nvarchar	100	{Yes, No}	No	N
Test Number Reference	test_number_reference	nvarchar	100		No	N
Test Method	test_method	nvarchar	100	DB-106	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Bar Linear Shrinkage – (DB-107-E)

Test Name	Bar Linear Shrinkage					
Table Name	VALUE_DB107E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Unit	unit	nvarchar	100		No	N
Initial Length	initial_length	decimal	9 (19, 8)		No	N
Final Length	final_length	decimal	9 (19, 8)		No	N
Linear Shrinkage	linear_shrinkage	decimal	9 (19, 8)		No	Y
Minimum by Specification	minimum_by_specification	decimal	9 (19, 8)		No	N
Maximum by Specification	maximum_by_specification	decimal	9 (19, 8)		No	N
Calculate Plasticity Index	calculate_plasticity_index	Bit	1	{1, 0}	No	N
Plasticity Index	plasticity_index	decimal	9 (19, 8)		No	N
Test Method	test_method	nvarchar	100	DB-107-E	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Particle Size Analysis – (DB-110-E)

Test Name	PARTICLE SIZE ANALYSIS					
Table Name	VALUE_DB110E_SIEVE			Maximum Rows	6	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Cumulative Percent Retained	cumulative_pct_retained	decimal	9 (19, 8)		No	Y
Cumulative/Individual Weight Retained	cumulative_weight_retained	decimal	9 (19, 8)		No	N
Lower Spec Limit	lower_spec_limit	decimal	9 (19, 8)		No	N
Within Master Grading	master_grading	nvarchar	100	{Yes, No}	No	Y
Sieve Size	sieve_size	nvarchar	100	see validator	No	Y
Upper Spec Limit	upper_spec_limit	decimal	9 (19, 8)		No	N
Weight Retained	weight_retained	decimal	9 (19, 8)		No	N
Table Name	VALUE_DB110E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Type of Weight Retained	individual_cumulative	nvarchar	100	{Cumulative, Individual}	No	N
No. -40	negative_no_40	nvarchar	100		No	N
Stamp Code	stamp_code	int	4		No	Y
Test Method	test_method	nvarchar	100	DB-110-E	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Total Weight Retained	total	nvarchar	100		No	N

Moisture-Density Relations of Base Material and Cohesionless Sand – (DB-113-E)

Test Name	Moisture-Density Relations of Base Material and Cohesionless Sand					
Table Name	VALUE_DB113E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Dry Density Scale Max	dry_density_scale_max	decimal	9 (19, 8)		No	N
Dry Density Scale Min	dry_density_scale_min	decimal	9 (19, 8)		No	N
Dry Density Scale unit	dry_density_scale_unit	decimal	9 (19, 8)		No	N
Hygroscopic Moisture	hygroscopic_moisture	decimal	9 (19, 8)		No	N
Max Density, kg/m^3	max_density_kg	decimal	9 (19, 8)		No	N
Max Density, pcf	max_density_pcf	decimal	9 (19, 8)		No	Y
Moisture scale max	moisture_scale_max	decimal	9 (19, 8)		No	N
Moisture scale min	moisture_scale_min	decimal	9 (19, 8)		No	N
Moisture scale unit	moisture_scale_unit	decimal	9 (19, 8)		No	N
Optimum Moisture	optimum_moisture	decimal	9 (19, 8)		No	Y
Oven Dry Weight	oven_dry_weight	decimal	9 (19, 8)		No	N

Soil Description	soil_desc	nvarchar	100		No	Y
Specific Gravity	specific_gravity	decimal	9 (19, 8)		No	N
Stamp Code	stamp_code	int	4		No	Y
Test Method	test_method	nvarchar	100	DB-113-E	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Weight of Aggregate Pycnometer & Water	weight_of_aggr	decimal	9 (19, 8)		No	N
Weight of Pycnometer & Water	weight_of_pycnometer	decimal	9 (19, 8)		No	N
Table Name	VALUE_DB113E_SPECIMEN			Maximum Rows	3	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Percent Water Content	pct_water_content	decimal	9 (19, 8)		No	N
Mass Material	mass_material	decimal	9 (19, 8)		No	N
Mass Water Added	mass_water_added	decimal	9 (19, 8)		No	N
Tare Mass Mold	tare_mass_mold	decimal	9 (19, 8)		No	N
Wet Mass Specimen & Mold	wet_mass_specimen_mold	decimal	9 (19, 8)		No	N
Wet Mass Specimen	wet_mass_specimen	decimal	9 (19, 8)		No	N
Height of Specimen	height_specimen	decimal	9 (19, 8)		No	N
Volume Per Linear	volume_per_linear	decimal	9 (19, 8)		No	N
Volume of Specimen	volume_specimen	decimal	9 (19, 8)		No	N
Wet Density of Specimen	wet_density_specimen	decimal	9 (19, 8)		No	N
Wet Mass Of Pan & Specimen	wet_mass_pan_specimen	decimal	9 (19, 8)		No	N
Dry Mass Pan & Specimen	dry_mass_pan_specimen	decimal	9 (19, 8)		No	N
Tare Mass Pan	tare_mass_pan	decimal	9 (19, 8)		No	N
Dry Mass Material	dry_mass_material	decimal	9 (19, 8)		No	N
Mass Water	mass_water	decimal	9 (19, 8)		No	N
Percent Water On Total	pct_water_total	decimal	9 (19, 8)		No	N
Dry Density	dry_density	decimal	9 (19, 8)		No	N
Estimated Dry Density	est_dry_density	decimal	9 (19, 8)		No	N

Moisture-Density Relationship of Subgrade and Embankment Soils – (DB-114-E)

Test Name	Moisture-Density Relationship of Subgrade and Embankment Soils					
Table Name	VALUE_DB114E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Dry Density Scale Max	dry_density_scale_max	Decimal	9 (19, 8)		No	N
Dry Density Scale Min	dry_density_scale_min	Decimal	9 (19, 8)		No	N
Dry Density Scale unit	dry_density_scale_unit	Decimal	9 (19, 8)		No	N

Hygroscopic Moisture	hygroscopic_moisture	Decimal	9 (19, 8)		No	N
Max Density (kg)	max_density_kg	Decimal	9 (19, 8)		No	N
Max Density (pcf)	max_density_pcf	Decimal	9 (19, 8)		No	Y
Moisture scale max	moisture_scale_max	Decimal	9 (19, 8)		No	N
Moisture scale min	moisture_scale_min	Decimal	9 (19, 8)		No	N
Moisture scale unit	moisture_scale_unit	Decimal	9 (19, 8)		No	N
Optimum Moisture	optimum_moisture	Decimal	9 (19, 8)		No	Y
Oven Dry Weight	oven_dry_weight	Decimal	9 (19, 8)		No	N
Soil Descript	soil_description	nvarchar	100		No	Y
Specific Gravity	specific_gravity	Decimal	9 (19, 8)		No	N
Stamp Code	stamp_code	int	4		No	Y
Test Method	test_method	nvarchar	100		No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4		No	Y
Weight of Aggr., Pycn. & Water	weight_of_aggr	Decimal	9 (19, 8)		No	N
Weight of Pycnometer & Water	weight_of_pycnometer	Decimal	9 (19, 8)		No	N
Table Name	VALUE_DB114E_SPECIMEN			Maximum Rows	4	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Percent Water Content	pct_water_content	Decimal	9 (19, 8)		No	N
Mass Material	mass_material	Decimal	9 (19, 8)		No	N
Mass Water Added	mass_water_added	Decimal	9 (19, 8)		No	N
Wet Mass Specimen & Mold	wet_mass_specimen_mold	Decimal	9 (19, 8)		No	N
Tare Mass Mold	tare_mass_mold	Decimal	9 (19, 8)		No	N
Wet Mass Specimen	wet_mass_specimen	Decimal	9 (19, 8)		No	N
Height of Specimen	height_specimen	Decimal	9 (19, 8)		No	N
Volume Per Linear mm	volume_per_linear	Decimal	9 (19, 8)		No	N
Volume of Specimen	volume_specimen	Decimal	9 (19, 8)		No	N
Wet Density of Specimen	wet_density_specimen	Decimal	9 (19, 8)		No	N
Wet Mass of Pan & Specimen	wet_mass_pan_specimen	Decimal	9 (19, 8)		No	N
Dry Mass Pan & Specimen	dry_mass_pan_specimen	Decimal	9 (19, 8)		No	N
Tare Mass Pan	tare_mass_pan	Decimal	9 (19, 8)		No	N
Dry Mass Material	dry_mass_material	Decimal	9 (19, 8)		No	N
Mass Water	mass_water	Decimal	9 (19, 8)		No	N
Percent Water Total	pct_water_total	Decimal	9 (19, 8)		No	N
Dry Density	dry_density	Decimal	9 (19, 8)		No	N
Estimated Dry Density	est_dry_density	Decimal	9 (19, 8)		No	N

Nuclear Density and Moisture Determination – (DB-115-1)

Test Name	Nuclear Density and Moisture Determination					
Table Name	VALUE_DB115_1			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Determined By Test Method	determined_by_test_method	nvarchar	100	{DB-113-E, DB-114-E}	No	N
Maximum Dry Density, pcf	max_dry_density_pcf	decimal	9 (19, 8)		No	Y
Optimum Moisture Content	optimum_moisture_content_pct	decimal	9 (19, 8)		No	Y
Density Standard	density_standard	int	4		No	N
Moisture Standard	density_count	int	4		No	N
Density Count	moisture_standard	int	4		No	N
Moisture Count	moisture_count	int	4		No	N
Probe Depth	probe_depth	decimal	9 (19, 8)		No	Y
Gauge Number	gauge_no	nvarchar	100		No	Y
Wet Density, pcf	wet_density_pcf	decimal	9 (19, 8)		No	N
Dry Density, pcf	dry_density_pcf	decimal	9 (19, 8)		No	Y
Moisture Content	moisture_content_pct	decimal	9 (19, 8)		No	Y
Moisture Content Pass/Fail	moisture_content_pct_pass_fail	nvarchar	100	{Pass, Fail}	No	N
Density	density_pct	decimal	9 (19, 8)		No	Y
Density Pass/Fail	density_pct_pass_fail	nvarchar	100	{Pass, Fail}	No	N
Density Specification Low Requirement	density_specification_req_min	decimal	9 (19, 8)		No	N
Density Specification High Specification	density_specification_req_max	decimal	9 (19, 8)		No	N
Moisture Specification Requirement Low Specification	moisture_specification_req_min	decimal	9 (19, 8)		No	N
Moisture Specification Requirement High Specification	moisture_specification_req_max	decimal	9 (19, 8)		No	N
Soil Description	soil_desc	nvarchar	100		No	Y
Test Method	test_method	nvarchar	100	DB-115	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Soil / Aggregate Field Unit Weight Tests Sand Cone Method – (DB-115-2)

Test Name	Soil / Aggregate Field Unit Weight Tests Sand Cone Method					
Table Name	VALUE_DB115_2			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Sand bulk unit weight	sand_bulk_unit_weight	decimal	9 (19, 8)		No	N
Initial weight of sand	initial_weight_sand	decimal	9 (19, 8)		No	N

Final weight of sand	final_weight_sand	decimal	9 (19, 8)		No	N
Volume of surface	volume_surface	decimal	9 (19, 8)		No	N
Initial weight of apparatus & sand	initial_weight_apparatus	decimal	9 (19, 8)		No	N
Final weight of apparatus & sand	final_weight_apparatus	decimal	9 (19, 8)		No	N
Total volume-sand used	total_volume	decimal	9 (19, 8)		No	N
Volume of hole	volume_hole	decimal	9 (19, 8)		No	N
Weight of material from hole	weight_material_hole	decimal	9 (19, 8)		No	N
Wet unit weight	wet_unit_weight	decimal	9 (19, 8)		No	N
Optimum moisture	optimum_moisture	decimal	9 (19, 8)		No	Y
Maximum dry unit weight	max_dry_unit_weight	decimal	9 (19, 8)		No	Y
Wet weight total moisture sample	wet_weight_total_moisture	decimal	9 (19, 8)		No	N
Dry weight total moisture sample	dry_weight_total_moisture	decimal	9 (19, 8)		No	N
Percent Moisture	pct_moisture	decimal	9 (19, 8)		No	Y
Dry unit weight	dry_unit_weight	decimal	9 (19, 8)		No	Y
Compaction	compaction_pct	decimal	9 (19, 8)		No	Y
Moisture Required	moisture_req_pct	decimal	9 (19, 8)		No	N
Compaction Required	compaction_req_pct	decimal	9 (19, 8)		No	N
Pass/Fail Percent Moisture	pass_fail_pct_moisture	nvarchar	100	{Pass, Fail}	No	N
Pass/Fail Percent Density	pass_fail_pct_density	nvarchar	100	{Pass, Fail}	No	N
Soil Description	soil_desc	nvarchar	100		No	Y
Test Method	test_method	nvarchar	100	DB-115-2	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Resistance to Degradation by Wet Ball Mill Method - (DB-116-E)

Test Name	Resistance to Degradation by Wet Ball Mill Method					
Table Name	VALUE_DB116E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Type of Weight Retained	cumulative_method	nvarchar	50	{Cumulative, Individual}	No	N
Original Sieve Analysis Total Weight Retained	weight_retained_total	decimal	9 (19, 8)		No	N
Part I 3500g Preparation Total Individual Weight Retained	individual_weight_retained_3500g_total	decimal	9 (19, 8)		No	N
Part II 3000g Preparation Total Individual Weight Retained	individual_weight_retained_3000g_total	decimal	9 (19, 8)		No	N
Part I Wet Ball Mill Initial Weight	wbm_initial_weight	decimal	9 (19, 8)		No	N

Part I Wet Ball Mill Weight Retained (No. 40)	wbm_weight_retained_no40	decimal	9 (19, 8)		No	N
Part I Wet Ball Mill Weight Retained (No. -40)	wbm_weight_retained_minusno40	decimal	9 (19, 8)		No	N
Part I Wet Ball Mill Individual Percent Retained (No. 40)	wbm_individual_pct_retained_no40	decimal	9 (19, 8)		No	N
Part I Wet Ball Mill Individual Percent Retained (-No. 40)	wbm_individual_pct_retained_minusno40	decimal	9 (19, 8)		No	N
Part II Washed Sieve Analysis Initial Weight	wsa_initial_weight	decimal	9 (19, 8)		No	N
Part II Washed Sieve Analysis Weight Retained (No. 40)	wsa_weight_retained_no40	decimal	9 (19, 8)		No	N
Part II Washed Sieve Analysis Weight Retained (No. -40)	wsa_weight_retained_minusno40	decimal	9 (19, 8)		No	N
Part II Washed Sieve Analysis Individual Percent Retained (No. 40)	wsa_individual_pct_retained_no40	decimal	9 (19, 8)		No	N
Part II Washed Sieve Analysis Individual Percent Retained (-No. 40)	wsa_inidividual_pct_retained_minusno40	decimal	9 (19, 8)		No	N
Wet Ball Mill Value	wbm_value	decimal	9 (19, 8)		No	Y
Percent Soil Binder	pct_soil_binder	decimal	9 (19, 8)		No	N
Percent Soil Binder Increase	pct_soil_binder_increase	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-116	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	**VALUE_DB116E_SIEVE**			**Maximum Rows**	**7**	**Data**
Field Description	**Field Name**	**Data Type**	**Length**	**Values**	**Required**	**Transfer**
Original Sieve Analysis Cumulative Percent Retained	cumulative_pct_retained	decimal	9 (19, 8)		No	N
Part II 3000g Preparation Cumulative Weight Retained	cumulative_weight_retained_3000g	decimal	9 (19, 8)		No	N
Part I 3500g Preparation Cumulative Weight Retained	cumulative_weight_retained_3500g	decimal	9 (19, 8)		No	N
Original Sieve Analysis Individual Percent Retained	individual_pct_retained	decimal	9 (19, 8)		No	N
Part II 3000g Preparation Individual Weight Retained	individual_weight_retained_3000g	decimal	9 (19, 8)		No	N
Part I 3500g Preparation Individual Weight Retained	individual_weight_retained_3500g	decimal	9 (19, 8)		No	N
Sieve Size	sieve_size	nvarchar	50		No	N

Original Sieve Analysis Individual Weight Retained	weight_retained	decimal	9 (19, 8)		No	N

Triaxial Compression Tests – (DB-117-E)

Test Name	Triaxial Compression Tests					
Table Name	VALUE_DB117E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Classification	classification	nvarchar	100	Manual : Part II	No	N
Internal Angle of Friction	internal_angle_friction	decimal	9 (19, 8)		No	N
Cohesion, psi	cohesion_psi	decimal	9 (19, 8)		No	N
Correlation Factor	correlation_factor	decimal	9 (19, 8)		No	N
Average Corrected Strength, 00 psi	average_corrected_strength_0psi	decimal	9 (19, 8)		No	Y
Average Corrected Strength, 15 psi	average_corrected_strength_15psi	decimal	9 (19, 8)		No	Y
Grade, 00 psi	grade_0psi	nvarchar	100		No	N
Grade, 15 psi	grade_15psi	nvarchar	100		No	N
Test Method	test_method	nvarchar	100	DB-117-E	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB117E_SPECIMEN			Maximum Rows	8	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Initial Height of Specimen	initial_height	decimal	9 (19, 8)		No	N
Height of Stone 1	height_stone1	decimal	9 (19, 8)		No	N
Height of Stone 2	height_stone2	decimal	9 (19, 8)		No	N
New Height of Specimen	new_height	decimal	9 (19, 8)		No	N
Average Diameter	avg_diameter	decimal	9 (19, 8)		No	N
Area	area	decimal	9 (19, 8)		No	N
Avg. Cross Sectional Area	avg_cross_sectional_area	decimal	9 (19, 8)		No	N
Lateral Pressure	lateral_pressure_psi	decimal	9 (19, 8)		No	N
Weight of Stones and Specimen	weight_stones_specimen	decimal	9 (19, 8)		No	N
Final Weight of Stones	uncorrected_stress_psi	decimal	9 (19, 8)		No	N
Weight of Specimen	final_weight_stones	decimal	9 (19, 8)		No	N
Dry Density of Specimen	weight_specimen	decimal	9 (19, 8)		No	N
Moisture of Specimen	dry_density_specimen_pcf	decimal	9 (19, 8)		No	N
Uncorrected Stress	pct_moisture_specimen	decimal	9 (19, 8)		No	N
% Strain	pct_strain	decimal	9 (19, 8)		No	N
I-Strain	i_strain	decimal	9 (19, 8)		No	N

Corrected Stress	corrected_stress_psi	decimal	9 (19, 8)		No	N

Soil-Cement, Soil-Lime Testing – (DB-120-E)

Test Name	Soil-Cement, Soil-Lime Testing					
Table Name	VALUE_DB120E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Performed By DB-120-E:	performed_by	nvarchar	200	Manual	No	N
Percent Cement, (%)	percent_cement	decimal	9 (19, 8)		No	Y
Avg. Corrected Stress, psi:	avg_corrected_stress_psi	decimal	9 (19, 8)		No	Y
Target Stress, psi:	target_stress_psi	decimal	9 (19, 8)		No	N
Target Percent Cement, %:	target_percent_cement	decimal	9 (19, 8)		No	N
Tested By	tested_by	nvarchar	200	{full_name}	No	Y
Tested Date	tested_date	smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB120E_SPECIMEN			Maximum Rows	3	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Circumference	circumference	decimal	9 (19, 8)		No	N
Area	area	decimal	9 (19, 8)		No	N
Avg. Cross Sectional Area	avg_cross_section_area	decimal	9 (19, 8)		No	N
Lateral Pressure	lateral_pressure	decimal	9 (19, 8)		No	N
Ring Factor	ring_factor	decimal	9 (19, 8)		No	N
Dead Load	dead_load	decimal	9 (19, 8)		No	N
Max. Load Reading	max_load_reading	decimal	9 (19, 8)		No	N
Deformation at Max Load	deformation_at_max_load	decimal	9 (19, 8)		No	N
Uncorrected Stress	uncorrected_stress	decimal	9 (19, 8)		No	N
% Strain	pct_strain	decimal	9 (19, 8)		No	N
I-Strain	i_strain	decimal	9 (19, 8)		No	N
Corrected Stress	corrected_stress	decimal	9 (19, 8)		No	N
Avg. Corrected Stress	avg_corrected_stress	decimal	9 (19, 8)		No	N
Percent Cement	percent_cement	decimal	9 (19, 8)		No	N
Initial Height of Specimen, in.:	initial_height_specimen	decimal	9 (19, 8)		No	N
Height of Stone 1, in.	height_stone1	decimal	9 (19, 8)		No	N
Height of Stone 2, in.	height_stone2	decimal	9 (19, 8)		No	N
New Height of Specimen, in.:	new_height_specimen	decimal	9 (19, 8)		No	N
Average Diameter, in.:	avg_diameter	decimal	9 (19, 8)		No	N

Soil-Lime Testing – (DB-121-E)

Test Name	Soil-Lime Testing					
Table Name	VALUE_DB121E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Performed By DB-117-E	classification	nvarchar	100	Manual : Part II	No	N
Internal Angle Friction	internal_angle_friction	decimal	9 (19, 8)		No	N
Cohesion psi	cohesion_psi	decimal	9 (19, 8)		No	N
Correlation Factor	correlation_factor	decimal	9 (19, 8)		No	N
00 psi Average Corrected Strength	average_corrected_strength_0psi	decimal	9 (19, 8)		No	Y
00 psi Grade	grade_0psi	nvarchar	100		No	N
15 psi Average Corrected Strength	average_corrected_strength_15psi	decimal	9 (19, 8)		No	Y
15 psi Grade	grade_15psi	nvarchar	100		No	N
Test Method	test_method	nvarchar	100	DB-121-E	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB121E_SPECIMEN			Maximum Rows	8	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Initial Height of Specimen	initial_height	decimal	9 (19, 8)		No	N
Height of Stone 1	height_stone1	decimal	9 (19, 8)		No	N
Height of Stone 2	height_stone2	decimal	9 (19, 8)		No	N
New Height of Specimen	new_height	decimal	9 (19, 8)		No	N
Average Diameter	avg_diameter	decimal	9 (19, 8)		No	N
Area	area	decimal	9 (19, 8)		No	N
Avg. Cross Sectional Area	avg_cross_sectional_area	decimal	9 (19, 8)		No	N
Lateral Pressure	lateral_pressure_psi	decimal	9 (19, 8)		No	N
Weight of Stones and Specimen	weight_stones_specimen	decimal	9 (19, 8)		No	N
Final Weight of Stones	final_weight_stones	decimal	9 (19, 8)		No	N
Weight of Specimen	weight_specimen	decimal	9 (19, 8)		No	N
Dry Density of Specimen	dry_density_specimen_pcf	decimal	9 (19, 8)		No	N
Moisture of Specimen	pct_moisture_specimen	decimal	9 (19, 8)		No	N
Uncorrected Stress	uncorrected_stress_psi	decimal	9 (19, 8)		No	N
% Strain	pct_strain	decimal	9 (19, 8)		No	N
I-Strain	i_strain	decimal	9 (19, 8)		No	N
Corrected Stress	corrected_stress_psi	decimal	9 (19, 8)		No	N

Density of Asphalt Stabilized Base – (DB-126-E)

Test Name	Density of Asphalt Stabilized Base					
Table Name	VALUE_DB126E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Gauge Reading Type	broken_method	nvarchar	20	Fast Break, Slow Break	No	N
Max Density Specimen Date Molded	molded_date_max	Smalldatetime	4	MM/DD/YYYY	No	N
Max Density Specimen Mold Number	mold_number_max	nvarchar	100		No	N
Max Density Specimen Percent Asphalt in Mix	asphalt_pct_max	decimal	9 (19, 8)		No	N
Max Density Specimen Weight of Material	weight_of_mat_max	decimal	9 (19, 8)		No	N
Max Density Specimen Height of Specimen	height_max	decimal	9 (19, 8)		No	N
Max Density Specimen Measured Weight	measured_weight_max	decimal	9 (19, 8)		No	N
Max Density Specimen Weight of Plate	weight_of_plates_max	decimal	9 (19, 8)		No	N
Max Density Specimen Weight of Filters	weight_of_filters_max	decimal	9 (19, 8)		No	N
Max Density Specimen Weight of Specimen	weight_of_specimen_max	decimal	9 (19, 8)		No	N
Max Density Specimen Volume of Mold (ft^3/in.)	volume_of_mold_max	decimal	9 (19, 8)		No	N
Max Density Specimen Volume of Specimen(ft^3)	volume_of_specimen_max	decimal	9 (19, 8)		No	N
Max Density Specimen Density of Specimen (lbs./ft^3)	density_of_specimen_max	decimal	9 (19, 8)		No	Y
Max Density Specimen Date Broken	date_broken_max	Smalldatetime	4	MM/DD/YYYY	No	N
Max Density Specimen Gauge Reading (psi)	gague_reading_psi_max	decimal	9 (19, 8)		No	N
Max Density Specimen Unconfined Compressive Strength (psi)	UCS_max	nvarchar	100		No	Y
Lower Density Specimen Date Molded	molded_date_min	Smalldatetime	4	MM/DD/YYYY	No	N
Lower Density Specimen Mold Number	mold_number_min	nvarchar	100		No	N
Lower Density Specimen Percent Asphalt in Mix	asphalt_pct_min	decimal	9 (19, 8)		No	N
Lower Density Specimen Weight of Material	weight_of_mat_min	decimal	9 (19, 8)		No	N
Lower Density Specimen Height of Specimen	height_min	decimal	9 (19, 8)		No	N

Lower Density Specimen Measured Weight	measured_weight_min	decimal	9 (19, 8)		No	N
Lower Density Specimen Weight of Plate (lbs.)(C)	weight_of_plates_min	decimal	9 (19, 8)		No	N
Lower Density Specimen Weight of Filters (lbs.)	weight_of_filters_min	decimal	9 (19, 8)		No	N
Lower Density Specimen Weight of Specimen (lbs.)	weight_of_specimen_min	decimal	9 (19, 8)		No	N
Lower Density Specimen Volume of Mold (ft^3/in.)	volume_of_mold_min	decimal	9 (19, 8)		No	N
Lower Density Specimen Volume of Specimen(ft^3)	volume_of_specimen_min	decimal	9 (19, 8)		No	N
Lower Density Specimen Density of Specimen (lbs./ft^3)	density_of_specimen_min	decimal	9 (19, 8)		No	Y
Lower Density Specimen Date Broken	date_broken_min	Smalldatetime	4	MM/DD/YYYY	No	N
Lower Density Specimen Gauge Reading (psi)	gague_reading_psi_min	decimal	9 (19, 8)		No	N
Lower Density Specimen Unconfined Compressive Strength	UCS_min	nvarchar	100		No	Y
Minimum Allowable Density	min_allowable_density	decimal	9 (19, 8)		No	N
Minimum Percent Density	min_pct_density	decimal	9 (19, 8)		No	N
Minimum Specimen Unconfined Compressive Strength	min_specimen_UCS	decimal	9 (19, 8)		No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Determining Soil PH – (DB-128-E)

Test Name	Determining Soil PH					
Table Name	VALUE_DB128E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Soil pH	soil_ph	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-128-E	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Measuring the Resistivity of Soil Materials – (DB-129-E)

Test Name	Measuring the Resistivity of Soil Materials					
Table Name	VALUE_DB129E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Area of one electrode	sbf_area	decimal	9 (19, 8)		No	N
Distance between electrodes, (cm)	sbf_distance	decimal	9 (19, 8)		No	N
Soil Box Factor	sbf_factor	decimal	9 (19, 8)		No	N
Resistance using resistivity meter, (ohms)	resistance_using_meter	decimal	9 (19, 8)		No	N
Resistivity (ohm-cm)	resistivity_result	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-129-E	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Measuring Thickness of Pavement Layer – (DB-140-E)

Test Name	Measuring Thickness of Pavement Layer					
Table Name	VALUE_DB140E			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Average Depth	avg_depth	decimal	9 (19, 8)		No	Y
Depth 1	depth_1	decimal	9 (19, 8)		No	N
Depth 2	depth_2	decimal	9 (19, 8)		No	N
Depth 3	depth_3	decimal	9 (19, 8)		No	N
Stamp Code	stamp_code	int	4		No	Y
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y

Sieve Analysis of Non-Surface Treatment Aggregates - (DB-200-F)

Test Name	Sieve Analysis of Non-Surface Treatment Aggregates					
Table Name	VALUE_DB200F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Original Dry Weight	original_dry_weight	decimal	9 (19, 8)		No	N
Dry Weight After Washing	dry_weight_after_washing	decimal	9 (19, 8)		No	N
Limit As Percent	limit_as_percent	nvarchar	100	{Passing, Retained}	No	N
Cumulative Weight Retained Minusno14	cumulative_weight_retained_minusno14	decimal	9 (19, 8)		No	N

Sieving Loss	sieving_loss	decimal	9 (19, 8)		No	N
Washing Loss	washing_loss	decimal	9 (19, 8)		No	N
Sieve Analysis Result 1	sieve_analysis_result1	nvarchar	100		No	N
Sieve Analysis Result 2	sieve_analysis_result2	decimal	9 (19, 8)		No	N
Sieve Analysis Result 3	sieve_analysis_result3	decimal	9 (19, 8)		No	N
Sieve Analysis Result 4	sieve_analysis_result4	decimal	9 (19, 8)		No	N
Total Weight	total_weight	decimal	9 (19, 8)		No	N
Test Method	test_method	nvarchar	100	DB-200-F	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB200F_SIEVE			Maximum Rows	12	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Sieve Size	sieve_size	nvarchar	100		No	Y
Cumulative Weight Retained	cumulative_weight_retained	decimal	9 (19, 8)		No	N
Individual Weight Retained	individual_weight_retained	decimal	9 (19, 8)		No	N
Cumulative Percent Retained	cumulative_pct_retained	decimal	9 (19, 8)		No	Y
Cumulative Percent Passing	cumulative_pct_passing	decimal	9 (19, 8)		No	N
Lower Limit Grading	lower_limit_grading	decimal	9 (19, 8)		No	N
Upper Limit Grading	upper_limit_grading	decimal	9 (19, 8)		No	N
Within Grading Limits	within_grading_limits	bit	1		No	Y

Sieve Analysis of Surface Treatment Aggregate – (DB-200-ST)

Test Name	Sieve Analysis of Surface Treatment Aggregate					
Table Name	VALUE_DB200ST			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Type	type	nvarchar	100	{A, B, C, D, E, L, PA, PB, PC, PD, PE, PL}	No	N
Percent Asphalt	asphalt_pct	decimal	9 (19, 8)		No	N
Percent Moisture	moisture_pct	decimal	9 (19, 8)		No	N
Original Dry Weight	orig_dry_weight	decimal	9 (19, 8)		No	N
Dry Weight After Washing	dry_weight_after_washing	decimal	9 (19, 8)		No	N
Weight Retained	weight_retained	decimal	9 (19, 8)		No	N
Sieving Loss	sieving_loss	decimal	9 (19, 8)		No	N
Washing Loss	washing_loss	decimal	9 (19, 8)		No	N
Pan Weight	pan_weight	decimal	9 (19, 8)		No	N
Weight Difference	weight_difference	decimal	9 (19, 8)		No	N

Percent Difference	percent_difference	decimal	9 (19, 8)		No	N
Total	total_weight	decimal	9 (19, 8)		No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB200ST_SIEVE			Maximum Rows	8	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Cumulative Percent Passing	cumulative_percent_passing	decimal	9 (19, 8)		No	Y
Lower Retained Limit	lower_retained_limit	decimal	9 (19, 8)		No	N
Cumulative Percent Retained	percent_retained_cumulative	decimal	9 (19, 8)		No	Y
Individual Percent Retained	percent_retained_individual	decimal	9 (19, 8)		No	N
Sieve Size	sieve_size	nvarchar	100		No	Y
Upper Retained Limit	upper_retained_limit	decimal	9 (19, 8)		No	N
Cumulative Weight Retained	weight_retained_cumulative	decimal	9 (19, 8)		No	N
Individual Weight Retained	weight_retained_individual	decimal	9 (19, 8)		No	N
Within Master Grading	within_master_grading	nvarchar	100	{Pass, Fail}	No	Y

Sand Equivalent – (DB-203-F)

Test Name	Sand Equivalent					
Table Name	VALUE_DB203F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Sand Equivalent No.1 Sand Reading	sand1_reading	decimal	9 (19, 8)		No	N
Sand Equivalent No.1 Clay Reading	clay1_reading	decimal	9 (19, 8)		No	N
Sand Equivalent No.1 Calculated	sand1_calculated	decimal	9 (19, 8)		No	N
Sand Equivalent No.1 Reported	sand1_reported	decimal	9 (19, 8)		No	N
Sand Equivalent No.2 Sand Reading	sand2_reading	decimal	9 (19, 8)		No	N
Sand Equivalent No.2 Clay Reading	clay2_reading	decimal	9 (19, 8)		No	N
Sand Equivalent No.2 Calculated	sand2_calculated	decimal	9 (19, 8)		No	N
Sand Equivalent No.2 Reported	sand2_reported	decimal	9 (19, 8)		No	N
Average Sand Equivalent	average_sand_equivalent	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-203-F	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Placement Density – (DB-207-FPL)

Test Name	Placement Density					
Table Name	VALUE_DB207FPL			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
In Place Air Void	air_void	decimal	9 (19, 8)		No	Y
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	nvarchar	100		No	Y

Deleterious Materials & Verification for Coaese Aggregate – (DB-217-F)

Test Name	Deleterious Materials & Verification for Coaese Aggregate					
Table Name	VALUE_DB217F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Deleterious Material Sieve Size	part1_sieve_size	nvarchar	100		No	N
Deleterious Material Original Weight Retained	part1_orig_weight_retained	decimal	9 (19, 8)		No	N
Weight of Deleterious Material	part1_weight_deleterious_material	decimal	9 (19, 8)		No	N
Percent of Deleterious Material	part1_pct_deleterious_material	decimal	9 (19, 8)		No	Y
Decantation Sieve Size	part2_sieve_size	nvarchar	53		No	N
Decantation Original Weight Retained	part2_orig_weight_retained	decimal	9 (19, 8)		No	N
Dry Weight after Washing	part2_dry_weight_after_washing	decimal	9 (19, 8)		No	N
Percent Loss by Decantation	part2_loss_by_decantation	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-217-F	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Determining Flakiness Index – (DB-224-F)

Test Name	Determining Flakiness Index					
Table Name	VALUE_DB224F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Number of Particles 1	num_particles_1	decimal	9 (19, 8)		No	N
Number of Particles 2	num_particles_2	decimal	9 (19, 8)		No	N
Number of Particles 3	num_particles_3	decimal	9 (19, 8)		No	N
Number of Particles Passing 3/8" slot	slot_3_8	decimal	9 (19, 8)		No	N

Number of Particles Passing 1/4" slot	slot_1_4	decimal	9 (19, 8)		No	N
Number of Particles Passing 5/32" slot	slot_5_32	decimal	9 (19, 8)		No	N
Total Particles	total_particles	decimal	9 (19, 8)		No	N
Total Passing Particles	total_passing_particles	decimal	9 (19, 8)		No	N
Flakiness Index	flakiness_index	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-224-F	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Determining Draindown Characteristics in Bituminous Materials – (DB-235-F)

Test Name	Determining Draindown Characteristics in Bituminous Materials			Maximum Rows	1	Data
Table Name	VALUE_DB235F			Values	Required	Transfer
Field Description	Field Name	Data Type	Length			
Sample 1 Initial Sample Weight(g)	init_sample_weight_1	decimal	9 (19, 8)		No	N
Sample 1 Initial Weight Plate(g)	init_weight_plate_1	decimal	9 (19, 8)		No	N
Sample 1 Final Weight Plate(g)	final_weight_plate_1	decimal	9 (19, 8)		No	N
Sample 1 Percent of Draindown, (%)	pct_draindown_1	decimal	9 (19, 8)		No	N
Sample 2 Initial Sample Weight(g)	init_sample_weight_2	decimal	9 (19, 8)		No	N
Sample 2 Initial Weight Plate(g)	init_weight_plate_2	decimal	9 (19, 8)		No	N
Sample 2 Final Weight Plate(g)	final_weight_plate_2	decimal	9 (19, 8)		No	N
Sample 2 Percent of Draindown, (%)	pct_draindown_2	decimal	9 (19, 8)		No	N
Average Percent of Draindown for Two Samples (%)	avg_pct_draindown	decimal	9 (19, 8)		No	Y
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

QC/QA Asphalt Test – (DB-3146-F)

Test Name	Determining HVEEM Stability of Bituminous Mixtures			Maximum Rows	1	Data
Table Name	VALUE_DB208F			Values	Required	Transfer
Field Description	Field Name	Data Type	Length			
HVEEM Stability	HVEEM	decimal	9 (19, 8)		No	Y
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	nvarchar	100		No	Y

Test Name	Gradation of Extracted Aggregate					
Table Name	VALUE_DB229F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	nvarchar	100		No	Y
Table Name	VALUE_DB229F_SIEVE			Maximum Rows	9	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Sieve Size	sieve_size	nvarchar	100		No	Y
Design JMF	Design_JMF	nvarchar	100		No	N
Current JMF	Current_JMF	nvarchar	100		No	N
Cumulative Percent Passing	pct	decimal	9 (19, 8)		No	Y

Test Name	Determining Density & Properties of Bituminous Mixtures					
Table Name	VALUE_DB207FPR			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Average Actual Specific Gravity	GA	nvarchar	100		No	Y
Lab Molded Density	LMD	decimal	9 (19, 8)		No	Y
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	nvarchar	100		No	Y

Test Name	Determination of Rice Specific Gravity					
Table Name	VALUE_DB227F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Rice Specific Gravity	rice_specific_gravity	decimal	9 (19, 8)		No	Y
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	nvarchar	100		No	Y

Test Name	Determination of Asphalt Content by Ignition Oven Method					
Table Name	VALUE_DB236F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Asphalt Content	AC	decimal	9 (19, 8)		No	Y
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	nvarchar	100		No	Y

Sieve Analysis for Fine & Coarse Aggregate – (DB-401-2)

Test Name	Sieve Analysis					
Table Name	VALUE_DB401A			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Sand Equivalend Exceed 85	equivalent_exceed_85	Bit	1	{1, 0}	No	Y
Stamp Code	stamp_code	int	4		No	Y
Test Method	test_method	nvarchar	100	DB-401-A	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Total Cumulative Weight Retained	total	decimal	9 (19, 8)		No	N
Table Name	VALUE_DB401A_SIEVE			Maximum Rows	8	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Sieve Size	sieve_size	nvarchar	100		No	Y
Cumulative Weight Retained	cumulative_weight_retained	decimal	9 (19, 8)		No	N
Individual Weight Retained	individual_weight_retained	decimal	9 (19, 8)		No	N
Cumulative Percent Retained	cumulative_pct_retained	decimal	9 (19, 8)		No	Y
Cumulative Percent Passing	cumulative_pct_passing	decimal	9 (19, 8)		No	Y
Lower Spec Limit	lower_retained_spec_limit	decimal	9 (19, 8)		No	N
Upper Spec Limit	upper_retained_spec_limit	decimal	9 (19, 8)		No	N
Within Master Grading	within_master_grading	varchar	20	{Pass, Fail}	No	Y

Test Name	Fineness Modulus					
Table Name	VALUE_DB402A			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Fineness Modulus	fineness_modulus	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-402-A	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Decantation Test For Concrete Aggregates – (DB-406-A)

Test Name	Decantation Test For Concrete Aggregates					
Table Name	VALUE_DB406A			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Decantation Test By	test_by	nvarchar	100	{Part I – Lab Method, Part II – Field Method}	No	Y
Original Dry Mass of Sampled	original_dry_mass	decimal	9 (19, 8)		No	N
Dry Mass After Washing	dry_mass_after_washing	decimal	9 (19, 8)		No	N
Part I Percent Loss	percent_loss_part1	decimal	9 (19, 8)		No	Y
Mass of Pycnometer Containing Sample and Water To Fill Before Washing	mass_of_pycnometer_before_washing	decimal	9 (19, 8)		No	N
Mass of Pycnometer Containing Sample and Water To Fill After Washing	mass_of_pycnometer_after_washing	decimal	9 (19, 8)		No	N
Mass of Pycnometer Filled With Water at Approx.	mass_of_pycnometer_with_water	decimal	9 (19, 8)		No	N
Part II Percent Loss	percent_loss_part2	decimal	9 (19, 8)		No	N
Normality of HCL Used	normality_of_hcl	decimal	9 (19, 8)		No	N
Starting	starting_ml	decimal	9 (19, 8)		No	N
Ending	ending_ml	decimal	9 (19, 8)		No	N
Sample Weight	sample_weight	decimal	9 (19, 8)		No	N
Percent of Limestone	pct_limestone	decimal	9 (19, 8)		No	N
Test Method	test_method	nvarchar	100	DB-406-A	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Organic Impurities in Fine Aggregate for Concrete – (DB-408-A)

Test Name	Organic Impurities in Fine Aggregate for Concrete					
Table Name	VALUE_DB224F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Color of the Supernatant Liquid	color_of_supernatant_liquid	nvarchar	100	{LIGHTER THAN STANDARD, EQUAL TO STANDARD, DARKER THAN STANDARD}	No	Y
Test Method	test_method	nvarchar	100	DB-408-A	No	N

Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Resistance to Degradation by Abrasion & Impact in Los Angeles Machine – (DB-410-A)

Test Name	Resistance to Degradation by Abrasion & Impact in Los Angeles Machine					
Table Name	VALUE_DB410A			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
LA Abrasion Type	la_abrasion_type	nvarchar	100	{A,B,C,D}	No	Y
Number of Spheres	number_of_spheres	int	4		No	N
Weight of Spheres	weight_of_charge	nvarchar	100		No	N
Total Weight	weight_total	decimal	9 (19, 8)		No	N
Sieve	sieve	nvarchar	100		No	Y
Initial Weight	initial_weight	decimal	9 (19, 8)		No	N
Final Weight	final_weight	decimal	9 (19, 8)		No	N
Loss of Weight	loss_of_weight	decimal	9 (19, 8)		No	N
Percent Loss	percent_loss	decimal	9 (19, 8)		No	Y
La Abrasion Value	la_abrasion_value	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-410-A	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB410A_SAMPLE			Maximum Rows	4	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Passing Sieve	passing_sieve	nvarchar	100		No	N
Retained Sieve	retained_sieve	nvarchar	100		No	N
Projected Weight	projected_weight	nvarchar	100		No	N
Actual Weight	actual_weight	decimal	9 (19, 8)		No	N
Within Range	within_range	Bit	1	{1,0}	No	N

Magnesium Sulfate Soundness – (DB-411-M)

Test Name	Magnesium Sulfate Soundness					
Table Name	VALUE_DB411M			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Percent Loss Total	pct_loss_total	decimal	9 (19, 8)		No	N

Normalized Individual Percent Total	ni_pct_retained_total	decimal	9 (19, 8)		No	N
Weighted Average Percent Total	weighted_avg_pct_loss_total	decimal	9 (19, 8)		No	N
Soundness Loss	soundness_loss	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-411-M	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB411M_CYCLE			Maximum Rows	5	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Cycle	cycle	nvarchar	5	{I, II, III, IV, V}	No	N
In Solution Date	in_solution_date	Smalldatetime	4	MM/DD/YYYY	No	N
In Solution Time In	in_solution_time_in	Smalldatetime	4	HH:MM AM/PM	No	N
In Solution Time Out	in_solution_time_out	Smalldatetime	4	HH:MM AM/PM	No	N
Out Solution Date	out_solution_date	Smalldatetime	4	MM/DD/YYYY	No	N
Out Solution Time In	out_solution_time_in	Smalldatetime	4	HH:MM AM/PM	No	N
Out Solution Time Out	out_solution_time_out	Smalldatetime	4	HH:MM AM/PM	No	N
In Oven Date	in_oven_date	Smalldatetime	4	MM/DD/YYYY	No	N
In Oven Time In	in_oven_time_in	Smalldatetime	4	HH:MM AM/PM	No	N
In Oven Time Out	in_oven_time_out	Smalldatetime	4	HH:MM AM/PM	No	N
Out Oven Date	out_oven_date	Smalldatetime	4	MM/DD/YYYY	No	N
Out Oven Time In	out_oven_time_in	Smalldatetime	4	HH:MM AM/PM	No	N
Out Oven Time Out	out_oven_time_out	Smalldatetime	4	HH:MM AM/PM	No	N
Remarks	remarks	nvarchar	250		No	N
Table Name	VALUE_DB411M_PARTICLE			Maximum Rows	8	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Particle Size Passing	size_range_passing	nvarchar	100		No	N
Particle Size Retained	size_range_retained	nvarchar	100		No	N
Initial Weight (g)	initial_weight	decimal	9 (19, 8)		No	N
Final Weight (g)	final_weight	decimal	9 (19, 8)		No	N
Loss of Weight (g)	loss_of_weight	decimal	9 (19, 8)		No	N
Percent Loss	pct_loss	decimal	9 (19, 8)		No	N
Normalized Individual Percent Retained	ni_pct_retained	decimal	9 (19, 8)		No	N
Weighted Average Percent Loss	weighted_avg_pct_loss	decimal	9 (19, 8)		No	N

Deleterious Materials – (DB-413-A)

Test Name	Deleterious Materials			
Table Name	VALUE_DB413A	Maximum Rows	1	Data

Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Sieve Size	sieve_size	nvarchar	100		No	Y
Total Weight of Sample	total_weight_sample	decimal	9 (19, 8)		No	N
Weight of Deleterious Material (g) Clay	clay_value1	decimal	9 (19, 8)		No	N
Weight of Deleterious Material (g) Shale	shale_value1	decimal	9 (19, 8)		No	N
Weight of Deleterious Material (g) Friable	friable_value1	decimal	9 (19, 8)		No	N
Weight of Deleterious Material (g) Laminated	laminated_value1	decimal	9 (19, 8)		No	N
Weight of Deleterious Material (g) Other	other_value1	decimal	9 (19, 8)		No	N
Percent of Deleterious Material Clay	clay_value2	decimal	9 (19, 8)		No	Y
Percent of Deleterious Material Shale	shale_value2	decimal	9 (19, 8)		No	Y
Percent of Deleterious Material Friable	friable_value2	decimal	9 (19, 8)		No	Y
Percent of Deleterious Material Laminated	laminated_value2	decimal	9 (19, 8)		No	Y
Percent of Deleterious Material Other	other_value2	decimal	9 (19, 8)		No	Y
Weight of Deleterious Material (g) Total	total	decimal	9 (19, 8)		No	N
Percent Deleterious Material Retained on the +No.4 Sieve	percent_deleterious_material_retained	decimal	9 (19, 8)		No	Y
Test Method	test_method	nvarchar	100	DB-413-M	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Field Form Concrete Sample – Cylinders – (DB-418-A)

Test Name	Field Form Concrete Sample – Cylinders					
Table Name	VALUE_DB418A			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Truck Number	truck_number	nvarchar	100		No	N
Batch Size	batch_size	nvarchar	100		No	N
Sample Time	sample_time	nvarchar	100	HH:MM AM/PM	No	Y
Aggregate. Size	agg_size	nvarchar	100		No	N
Design Water	design_water	nvarchar	100		No	N
Actual Water	actual_water	nvarchar	100		No	N
Batch Time	batch_time	nvarchar	100	HH:MM AM/PM	No	Y
Water Added	water_added	nvarchar	100		No	Y
Total Water	total_water	nvarchar	100		No	Y

Ticket Number	ticket_number	nvarchar	100		No	Y
Pump Slump Loss	pump_slump_loss	decimal	9 (19, 8)		No	N
Placement Slump	placement_slump	decimal	9 (19, 8)	see validator	No	N
Pump Air Loss	pump_air_loss	decimal	9 (19, 8)		No	N
Placement Air	placement_air	decimal	9 (19, 8)		No	N
Concrete Temperature	concrete_temperature	nvarchar	100		No	Y
Slump	slump	decimal	9 (19, 8)	{slump value}	No	Y
Aggregate. Correction Factor	agg_correction_factor	nvarchar	100		No	N
Air Temperature	air_temperature	nvarchar	100		No	Y
Unit Wt	unit_weight	nvarchar	100		No	N
Corrected Air Content	corrected_air_content	decimal	9 (19, 8)		No	N
Class of Concrete	class_of_concrete	nvarchar	100	{A, B, C, D, E, F, H, S, P, DC, CO, SS, K}	No	Y
Req. Strength	req_strength	nvarchar	100		No	Y
Specimen Size	specimen_size	nvarchar	100	see validator	No	Y
Mix ID	mix_id	nvarchar	100		No	Y
Test Method	test_method	nvarchar	100	DB-418-A	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB418A_AVERAGE			Maximum Rows	3	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Average Age	average_age	nvarchar	100	{7, 28}	No	Y
Average Strength	average_strength	decimal	9 (19, 8)		No	Y
Average Required Strength	required_strength	decimal	9 (19, 8)		No	N
Average Pass/Fail	pass_fail	nvarchar	5	{Pass, Fail}	No	N
Table Name	VALUE_DB418A_SPECIMEN			Maximum Rows	7	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Specimen	specimen	nvarchar	100	{A,B,C,D,E,F}	No	Y
Test Date	test_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Age(Days)	age	nvarchar	100		No	Y
Area	area	decimal	9 (19, 8)		No	Y
Area Load(lbs)	load_lbs	decimal	9 (19, 8)		No	Y
Strength(psi)	strength	decimal	9 (19, 8)		No	Y
Type Fracture	type_fracture	varchar	50	{A, B, C, D, E}	No	Y
Pass/Fail	pass_fail	nvarchar	5	{Pass, Fail}	No	N
Tested By	tested_by	nvarchar	100	{full_name}	No	Y

Determining Pavement Thickness by Direct Measurement – (DB-423-A)

Test Name	Determining Pavement Thickness by Direct Measurement					
Table Name	VALUE_DB423A			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Measure Unit	measure_unit	nvarchar	100	{Inches, Millimeters}	No	N
Pavement Depth	pavement_depth	decimal	9 (19, 8)		No	Y
Tested By	tested_by	nvarchar	100		No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB423A_LOCATION			Maximum Rows	2	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Measurement Identification / Location	measurement_id_location	nvarchar	100		No	N
Measurement 1	measurement_1	decimal	9 (19, 8)		No	N
Measurement 2	measurement_2	decimal	9 (19, 8)		No	N
Measurement 3	measurement_3	decimal	9 (19, 8)		No	N
Average	average	decimal	9 (19, 8)		No	Y

Testing of Drilled Cores of Portland Cement Concrete – (DB-424-A)

Test Name	Testing of Drilled Cores of Portland Cement Concrete					
Table Name	VALUE_DB424A			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Tested By	tested_by	nvarchar	100		No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB424A_CORE			Maximum Rows	4	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Core Number 1	core_number1	nvarchar	100		No	Y
Core Number 2	core_number2	nvarchar	100		No	Y
Core Diameter 1	core_diameter1	decimal	9 (19, 8)		No	Y
Core Diameter 2	core_diameter2	decimal	9 (19, 8)		No	Y
Core Length 1	core_length1	decimal	9 (19, 8)		No	Y
Core Length 2	core_length2	decimal	9 (19, 8)		No	Y
Maximum Load 1	max_load1	decimal	9 (19, 8)		No	Y
Maximum Load 2	max_load2	decimal	9 (19, 8)		No	Y
FailureType 1	failure_type1	nvarchar	100		No	Y
Failure Type 2	failure_type2	nvarchar	100		No	Y

Compressive Strength 1	compressive_strength1	decimal	9 (19, 8)		No	Y
Compressive Strength 2	compressive_strength2	decimal	9 (19, 8)		No	Y
Age	age	int	4		No	Y
Average Compressive Strength	avg_compressive_strength	decimal	9 (19, 8)		No	Y

Texture Depth by Sand Patch Method – (DB-436-A)

Test Name	Texture Depth by Sand Patch Method					
Table Name	VALUE_DB224F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Measurement Number 1 Diameter	measurement_1	decimal	9 (19, 8)		No	N
Measurement Number 2 Diameter	measurement_2	decimal	9 (19, 8)		No	N
Measurement Number 3 Diameter	measurement_3	decimal	9 (19, 8)		No	N
Measurement Number 4 Diameter	measurement_4	decimal	9 (19, 8)		No	N
Volume of Cylinder	vol_cylinder	decimal	9 (19, 8)		No	N
Average Diameter	avg_diameter	decimal	9 (19, 8)		No	N
Thickness	thickness	decimal	9 (19, 8)		No	Y
Tested By	tested_by	varchar	200		No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Concrete Sample – Beams – (DB-448-A)

Test Name	Concrete Sample - Beams					
Table Name	VALUE_DB448A			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Truck Number	truck_num	decimal	9 (19, 8)		No	N
Qty Load	qty_load	decimal	9 (19, 8)		No	N
Sample Time	sample_time	Smalldatetime	4	HH:MM AM/PM	No	Y
Agg. Size	agg_size	nvarchar	100	see validator	No	N
Destination Water	des_water	decimal	9 (19, 8)		No	N
Actual Water	act_water	decimal	9 (19, 8)		No	N
Added Gal	added_gal	decimal	9 (19, 8)		No	Y
Total Water	total_water	decimal	9 (19, 8)		No	Y
Batch Time	batch_time	Smalldatetime	4	HH:MM AM/PM	No	Y
Ticket Number	ticket_num	decimal	9 (19, 8)		No	Y
Concrete Temperature	concrete_temp	decimal	9 (19, 8)		No	Y

Air Temperature	air_temp	decimal	9 (19, 8)		No	Y
Slump	slump	decimal	9 (19, 8)	{slump value}	No	Y
Unit Wt	unit_weight	decimal	9 (19, 8)		No	N
Aggregate Correction Factor	agg_corr_factor	decimal	9 (19, 8)		No	N
Corrected Air Content	corrected_air_content	decimal	9 (19, 8)		No	N
Class of Concrete	class_concrete	nvarchar	100		No	Y
Specimen Dimensions	spec_dimensions	nvarchar	100	see validator	No	Y
Required Strength	req_strength	decimal	9 (19, 8)		No	Y
Mix ID	mix_id	nvarchar	100		No	Y
Test Method	test_method	nvarchar	100	DB-448-A	No	N
Tested By	tested_by	nvarchar	100		No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y
Table Name	VALUE_DB448A_SPECIMEN			Maximum Rows	6	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Specimen	specimen	nvarchar	100	{A,B,C,D,E,F}	No	Y
Test Date	test_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Age	age	nvarchar	100		No	Y
Average Width	avg_width	decimal	9 (19, 8)		No	Y
Average Depth	avg_depth	decimal	9 (19, 8)		No	Y
Maximum Load, lbs.	max_load_psi	decimal	9 (19, 8)		No	Y
Correction Factor	corr_factor	decimal	9 (19, 8)		No	Y
Mod. Of Rupture	mod_rupture	decimal	9 (19, 8)		No	Y
Pass/Fail	pass_fail	nvarchar	100	{Pass, Fail}	No	N
Tested By	tested_by	nvarchar	100		No	Y

Coarse Aggregate Angularity by Fractured Faces Count – (DB-460-A)

Test Name	Coarse Aggregate Angularity by Fractured Faces Count					
Table Name	VALUE_DB460A			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Sieve Size	sieve_size	nvarchar	100		No	Y
Number of Particle w/ 2 or more FF	number_of_particles_with_two	int	4		No	Y
Number of Particles w/ one or no FF	number_of_particles_with_one	int	4		No	Y
Number of Questionable Particles	number_of_questionable_particles	int	4		No	Y
Total Number of Particles	total_number_of_particles	int	4		No	Y
Percent Crushed Particles	percent_crushed_particles	decimal	9 (19, 8)		No	Y
Total Percent Crushed Particles	percent_crushed_particles_result	decimal	9 (19, 8)		No	Y

Test Method	test_method	nvarchar	100	DB-460-A	No	N
Tested By	tested_by	nvarchar	100		No	Y
Tested Date	tested_date	Smalldatetime	4	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Effect of Water on Bituminous Paving Mixtures (boiling & stripping) – (DB-530-C)

Test Name	Effect of Water on Bituminous Paving Mixtures (boiling & stripping)					
Table Name	VALUE_DB224F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Estimated Percent of Stripping	est_pct_stripping	nvarchar	100		No	Y
Tested By	tested_by	nvarchar	100		No	Y
Tested Date	tested_date	datetime	8	MM/DD/YYYY	No	Y
Stamp Code	stamp_code	int	4		No	Y

Determining Chloride and Sulfate Content in Soils – (DB-620-J)

Test Name	Determining Chloride and Sulfate Content in Soils					
Table Name	VALUE_DB620F			Maximum Rows	1	Data
Field Description	Field Name	Data Type	Length	Values	Required	Transfer
Chloride (Cl) (PPM)	chloride_ppm	decimal	9 (19, 8)		No	Y
Sulfate Crucible + Residue Weight	crucible_residue_weight	decimal	9 (19, 8)		No	N
Sulfate Crucible Weight	crucible_weight	decimal	9 (19, 8)		No	N
Chloride Ending	ending	decimal	9 (19, 8)		No	N
Normality of AgNO3	normality_of_agno3	decimal	9 (19, 8)		No	N
Sulfate Residue Weight	residue_weight	decimal	9 (19, 8)		No	N
Chloride Sample Weight	sample_weight_chloride	decimal	9 (19, 8)		No	N
Sulfate Sample Weight	sample_weight_sulfate	decimal	9 (19, 8)		No	N
Stamp Code	stamp_code	int	4		No	Y
Chloride Starting	starting	decimal	9 (19, 8)		No	N
Sulfate (SO4) (PPM)	sulfate_ppm	decimal	9 (19, 8)		No	Y
Tested By	tested_by	nvarchar	100		No	Y
Tested Date	tested_date	nvarchar	100	MM/DD/YYYY	No	Y
Chloride Total	total	decimal	9 (19, 8)		No	N