

IH 41 Ramps and Auxiliary lanes (2-1-A): The County BB Northbound on-ramp is a single-lane parallel type on-ramp that when reconstructed will impact the golf course along the east side. See Right-of-way impacts discussion below for further information.

IH 41 RAMPs AND AUXILIARY LANES (2-1-B): THE COUNTY BB SOUTHBOUND OFF-RAMP IS A SINGLE-LANE TAPERED TYPE OFF-RAMP CONFIGURATION THAT DEVELOPS INTO A DUAL RIGHT TURN AND SINGLE THRU/LEFT TURN LANE AT THE RAMP TERMINAL. ADDITIONAL RIGHT-OF-WAY WILL BE REQUIRED ALONG THE OUTSIDE OF THE RAMP AND ALONG THE NORTH SIDE OF CTH BB TO ACCOMMODATE THE REQUIRED OFF RAMP CONFIGURATION. SEE RIGHT-OF-WAY IMPACTS DISCUSSION BELOW FOR FURTHER INFORMATION.

FRONTAGE ROADS (2-1-E): NORTHERN ROAD LOCATED TO THE SOUTHEAST OF THE COUNTY BB INTERCHANGE IS SHOWN TO BE RECONSTRUCTED TO MOVE THE ROADWAY FURTHER TO THE EAST ALLOWING ROOM FOR IH 41 EXPANSION AND COUNTY BB INTERCHANGE RECONSTRUCTION INCLUDING THE NORTHBOUND OFF-RAMP.

RIGHT-OF-WAY IMPACTS (2-1-I): THE IH 41 NORTHBOUND ON-RAMP AT COUNTY BB WILL IMPACT THE GOLF COURSE PROPERTY ALONG THE EAST SIDE OF IH 41. THE GOLF COURSE IS A PRIVATE GOLF COURSE AND IS NOT ANTICIPATED TO BE A 4F OR 6F ENVIRONMENTAL CONCERN. APPROXIMATELY 1.0 ACRE WILL BE IMPACTED. NO IMPACT TO GOLF COURSE LAYOUT IS ANTICIPATED.

RIGHT-OF-WAY IMPACTS (2-1-J): THE IH 41 SOUTHBOUND OFF-RAMP AT COUNTY BB WILL IMPACT RIGHT-OF-WAY ALONG THE OUTSIDE OF THE RAMP AND ALONG THE NORTH SIDE OF COUNTY BB. STRIP TAKINGS ARE ANTICIPATED FROM MULTIPLE BUSINESSES SUCH AS MOBILE GAS STATION, FOX CONVENIENCE, WITH SIGNIFICANT IMPACTS SHOWN TO THE VAN ZEELAND'S AUTO CARE CENTER PARKING LOT. APPROXIMATELY 0.4 ACRES WILL BE IMPACTED INCLUDING EXISTING FLUME DRAINAGE STRUCTURE. SEE FURTHER ANALYSIS RECOMMENDATIONS.

END SEGMENT 1

2-1-J

B-70-135
RECONSTRUCT

2-1-B

IH 41 SB OFF RAMP

IH 41 SB

IH 41 NB

2-1-A IH 41 NB ON RAMP

2-1-I

GEOMETRIC DEFICIENCY (2-1-G):
DEFICIENT SUPERELEVATION
ACTUAL 4.1%
DESIRED 4.5%UTILITIES (2-1-O)
UTILITIES (2-1-Q)
UTILITIES (2-1-M)

UTILITIES (2-1-L): THE TOWN OF MENASHA HAS A 12-INCH WATER LINE CROSSING IH 41 AT THE COUNTY BB INTERCHANGE.

UTILITIES (2-1-M): TDS METROCOM HAS A BURIED FIBER OPTIC LINE CROSSING IH 41 JUST NORTH OF THE COUNTY BB INTERCHANGE.

UTILITIES (2-1-N): TIME WARNER HAS A BURIED CABLE LINE CROSSING IH 41 JUST NORTH OF THE COUNTY BB INTERCHANGE.

UTILITIES (2-1-O): WE ENERGIES HAS AN OVERHEAD ELECTRIC CROSSING APPROXIMATELY 100 FEET NORTH OF THE COUNTY BB INTERCHANGE.

UTILITIES (2-1-P): WE ENERGIES HAS A BURIED GAS LINE CROSSING AT APPROXIMATELY THE COUNTY BB INTERCHANGE.

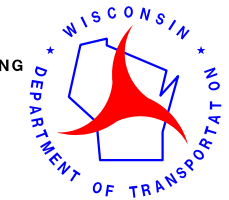
UTILITIES (2-1-Q): TIME WARNER HAS AN OVERHEAD LINE CROSSING IH 41 APPROXIMATELY 100 FEET NORTH OF THE COUNTY BB INTERCHANGE.

FURTHER ANALYSIS RECOMMENDATIONS (2-1-AB): FURTHER STUDY IS RECOMMENDED TO MINIMIZE IMPACTS TO THE NORTHWEST QUADRANT OF THE CTH BB INTERCHANGE DUE TO THE COUNTY BB INTERCHANGE SOUTHBOUND OFF RAMP. THERE IS ADDITIONAL OPEN SPACE TO THE SOUTHWEST SIDE OF THE INTERCHANGE. REVIEW ROUNDABOUT GEOMETRY TO DETERMINE IF THE WEST SIDE ROUNDABOUT CAN BE LOCATED FURTHER TO THE SOUTH MINIMIZING IMPACTS TO THE NORTH PROPERTIES. A CONSTRAINT IS THE SKEW DEVELOPED BETWEEN THE WEST AND EAST SIDE ROUNDABOUTS WHICH IMPACTS ROUNDABOUT EXIT AND APPROACH GEOMETRY. ANY REDUCTION IN IMPACTS WILL NEED TO BE BALANCED WITH ANY IMPACTS RESULTING IN THE OTHER SOUTHWEST QUADRANT TO THE COMMERCIAL OFFICE BUILDING OR NORTHEAST QUADRANT WITH THE PRIVATE GOLF COURSE. ANOTHER CONSIDERATION IS TO INCLUDE RETAINING WALLS ALONG THE RAMPS TO MINIMIZE RIGHT-OF-WAY NEEDED FOR EMBANKMENT SLOPE CONSTRUCTION AND LONG TERM DRAINAGE MAINTENANCE.

RIGHT-OF-WAY IMPACTS (2-1-AD): POTENTIAL IMPACT TO FIRST BUSINESS CENTER PROPERTY.

LEGEND

- APPROXIMATE UTILITY CROSSING
- EXISTING ROW
- PROPOSED ROW
- EXISTING ROADWAYS
- PROPOSED LOCAL ROADS
- PROPOSED IH 41
- PROPOSED STRUCTURE
- PROPOSED CONCRETE BARRIER
- PROPOSED LOCAL SIDEWALK
- ROADWAY OBLITERATION
- PROPOSED NOISE WALL



0' 100' 200'



DRAFT

FRONTAGE ROADS (2-1-F): SOUTH WESTLAND DRIVE ABUTS THE IH 41 MAINLINE ALONG THE EAST SIDE AND IS SHOWN TO BE RECONSTRUCTED TO MOVE THE FRONTAGE ROADWAY FURTHER TO THE EAST ALLOWING ROOM FOR IH 41 EXPANSION. RIGHT-OF-WAY STRIP TAKINGS ARE ANTICIPATED ALONG SOUTH WESTLAND DRIVE. THE CUL-DE-SAC RECONSTRUCTION LOCATED AT THE SOUTH END OF SOUTH WESTLAND DRIVE NEAR WEST GOLF TERRACE IS ANTICIPATED TO IMPACT RIGHT-OF-WAY DUE TO A LARGER RADIUS REQUIREMENT TO MEET CURRENT DESIGN STANDARDS. SEE RIGHT-OF-WAY IMPACTS DISCUSSION BELOW.

RIGHT-OF-WAY IMPACTS (2-1-K): SOUTH WESTLAND DRIVE WILL REQUIRE STRIP TAKINGS FOR THE FRONTAGE ROAD AND CUL-DE-SAC AREAS. NO RELOCATIONS OR ACQUISITIONS ARE ANTICIPATED, ONLY STRIP TAKINGS. SOME COMMERCIAL BUSINESSES AND PRIVATE RESIDENTS WILL BE IMPACTED AND INCLUDE THE FOLLOWING: AMERICAN MOTOR INN, RJ KAMPO PLUMBING AND HEATING, GROW BIG HYDROPONICS, CROSS FIT APPLETON, BBR CONTRACTING, DIVER'S REALM, U HAUL NEIGHBORHOOD DEALER, PROTECTIVE COATING SPECIALISTS, MACCO'S FLOOR COVERING CENTER. OTHER COMMERCIAL BUSINESSES AND PRIVATE RESIDENTS ALONG SOUTH WESTLAND DRIVE WERE NOT ABLE TO BE IDENTIFIED AND WILL REQUIRE FURTHER RESEARCH TO IDENTIFY. APPROXIMATELY 0.6 ACRES WILL BE IMPACTED ALONG SOUTH WESTLAND DRIVE AND WEST GOLF TERRACE.

UTILITIES (2-1-R): TIME WARNER HAS A BURIED CABLE CROSSING IH 41 APPROXIMATELY JUST SOUTH OF PINE STREET.

UTILITIES (2-1-S): WE ENERGIES HAS AN OVERHEAD ELECTRIC CROSSING IH 41 APPROXIMATELY JUST SOUTH OF PINE STREET.

UTILITIES (2-1-T): WE ENERGIES HAS A BURIED GAS LINE CROSSING IH 41 APPROXIMATELY JUST NORTH OF PINE STREET.

GEOMETRIC DEFICIENCY (2-1-H):
APPROXIMATE END OF DEFICIENT
VERTICAL GRADE
ACTUAL 0.19%
DESIRED 0.5%
MINIMUM 0.3%

PROPOSED IH 41

IH 41 SB

IH 41 NB

S. WESTLAND DR

2-1-F

2-1-K

UTILITIES (2-1-T)

EXISTING RIGHT OF WAY

UTILITIES (2-1-S)

UTILITIES (2-1-R)

GEOMETRIC DEFICIENCY (2-1-H):
APPROXIMATE START OF
DEFICIENT VERTICAL GRADE
ACTUAL 0.19%
DESIRED 0.5%
MINIMUM 0.3%

LEGEND

- APPROXIMATE UTILITY CROSSING
- - - EXISTING ROW
- - - PROPOSED ROW
- - - EXISTING ROADWAYS
- - - PROPOSED LOCAL ROADS
- - - PROPOSED IH 41
- - - PROPOSED STRUCTURE
- - - PROPOSED CONCRETE BARRIER
- - - PROPOSED LOCAL SIDEWALK
- XXXXX ROADWAY OBLITERATION
- - - PROPOSED NOISE WALL



0 100' 200'



MATCHLINE SEGMENT 2 / SECTION 1 / SHEET 1

MATCHLINE SEGMENT 2 / SECTION 1 / SHEET 3

DRAFT

2-1-C) IH 41 RAMPS AND AUXILIARY LANES (2-1-C): THE WIS 125 NORTHBOUND OFF-RAMP IS A SINGLE LANE TAPERED TYPE OFF-RAMP CONFIGURATION THAT AFTER THE GORE AREA QUICKLY DEVELOPS INTO A MULTIPLE 5-LANE RAMP SECTION. BARRIER WALL IS INCLUDED ALONG THE OUTSIDE SHOULDER FOR THE RAMP TO MINIMIZE IMPACTS TO THE ADJACENT PARKING LOT AREA.

2-1-D) IH 41 RAMPS AND AUXILIARY LANES (2-1-D): THE WIS 125 SOUTHBOUND ON-RAMP IS A DUAL-LANE PARALLEL TYPE ON-RAMP CONFIGURATION THAT IS TIGHT ALONG THE WEST SIDE IH 41 RIGHT-OF-WAY LINE. A RETAINING WALL IS ANTICIPATED SOUTH OF THE BRIDGE. FURTHER STUDY IS REQUIRED TO DETERMINE DRAINAGE AND WALL STRUCTURE REQUIREMENTS.

2-1-U) UTILITIES (2-1-U): TDS METROCOM HAS A BURIED FIBER OPTIC LINE CROSSING IH 41 ALONG THE SOUTH SIDE OF SPENCER STREET.

2-1-V) UTILITIES (2-1-V): TIME WARNER HAS A BURIED CABLE CROSSING IH 41 AT APPROXIMATELY SPENCER STREET.

2-1-W) UTILITIES (2-1-W): WE ENERGIES HAS TWO BURIED GAS LINES CROSSING IH 41. ONE IS JUST ALONG THE SOUTH SIDE OF SPENCER STREET AND THE OTHER CROSSING AT SPENCER STREET.

2-1-X) UTILITIES (2-1-X): WE ENERGIES HAS AN OVERHEAD ELECTRIC CROSSING APPROXIMATELY 100 FEET NORTH OF SPENCER STREET (2 LINES).

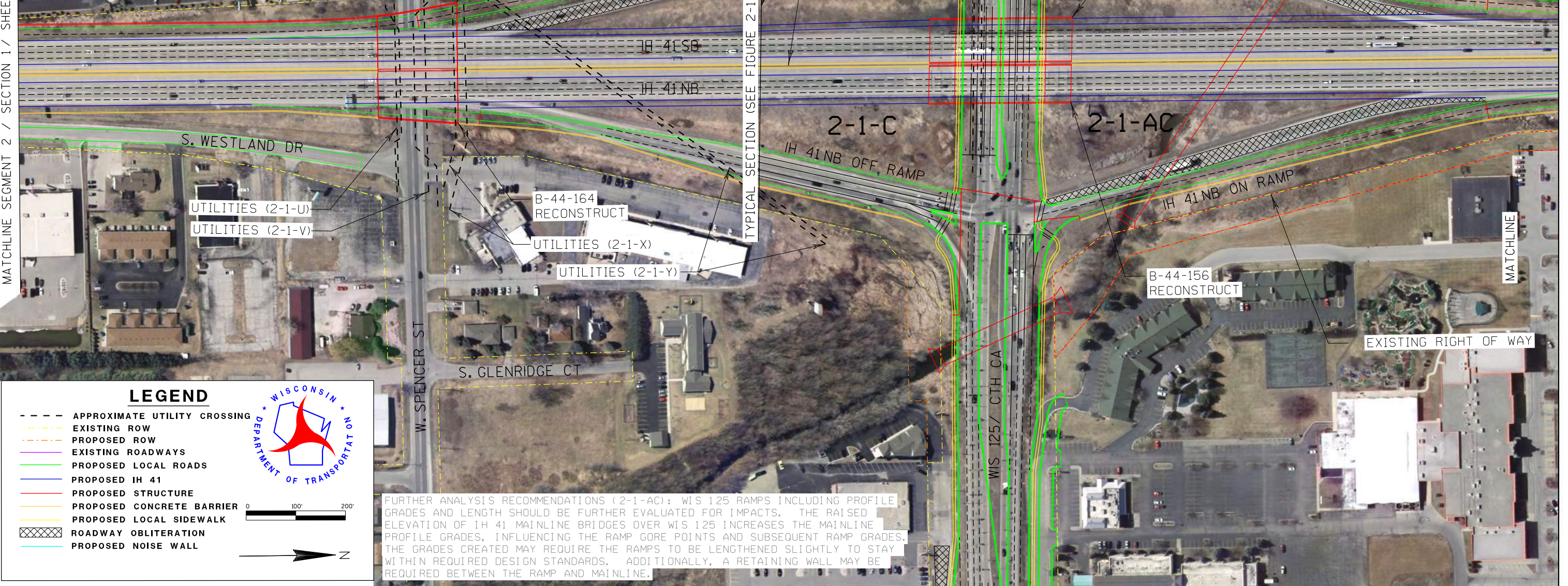
2-1-Y) UTILITIES (2-1-Y): ANR PIPELINE HAS AN 8-INCH AND A 16-INCH BURIED GAS LINE CROSSING IH 41 APPROXIMATELY 350 FEET NORTH OF SPENCER STREET. THESE LINES CROSS AT AN ANGLE OVER THE MAINLINE, SB ON RAMP, AND NB OFF RAMP.

2-1-Z) UTILITIES (2-1-Z): AT&T HAS A BURIED CABLE LINE CROSSING IH 41 AT APPROXIMATELY COLLEGE AVENUE.

2-1-AA) UTILITIES (2-1-AA): TDS METROCOM HAS A BURIED FIBER OPTIC LINE CROSSING IH 41 AT APPROXIMATELY COLLEGE AVENUE.

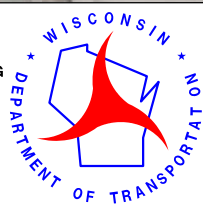
2-1-D

MATCHLINE SEGMENT 2 / SECTION 1 / SHEET 2



LEGEND

- APPROXIMATE UTILITY CROSSING
- - - EXISTING ROW
- - - PROPOSED ROW
- - - EXISTING ROADWAYS
- - - PROPOSED LOCAL ROADS
- - - PROPOSED IH 41
- - - PROPOSED STRUCTURE
- - - PROPOSED CONCRETE BARRIER
- - - PROPOSED LOCAL SIDEWALK
- XXXXX ROADWAY OBLITERATION
- - - PROPOSED NOISE WALL



0 100' 200'

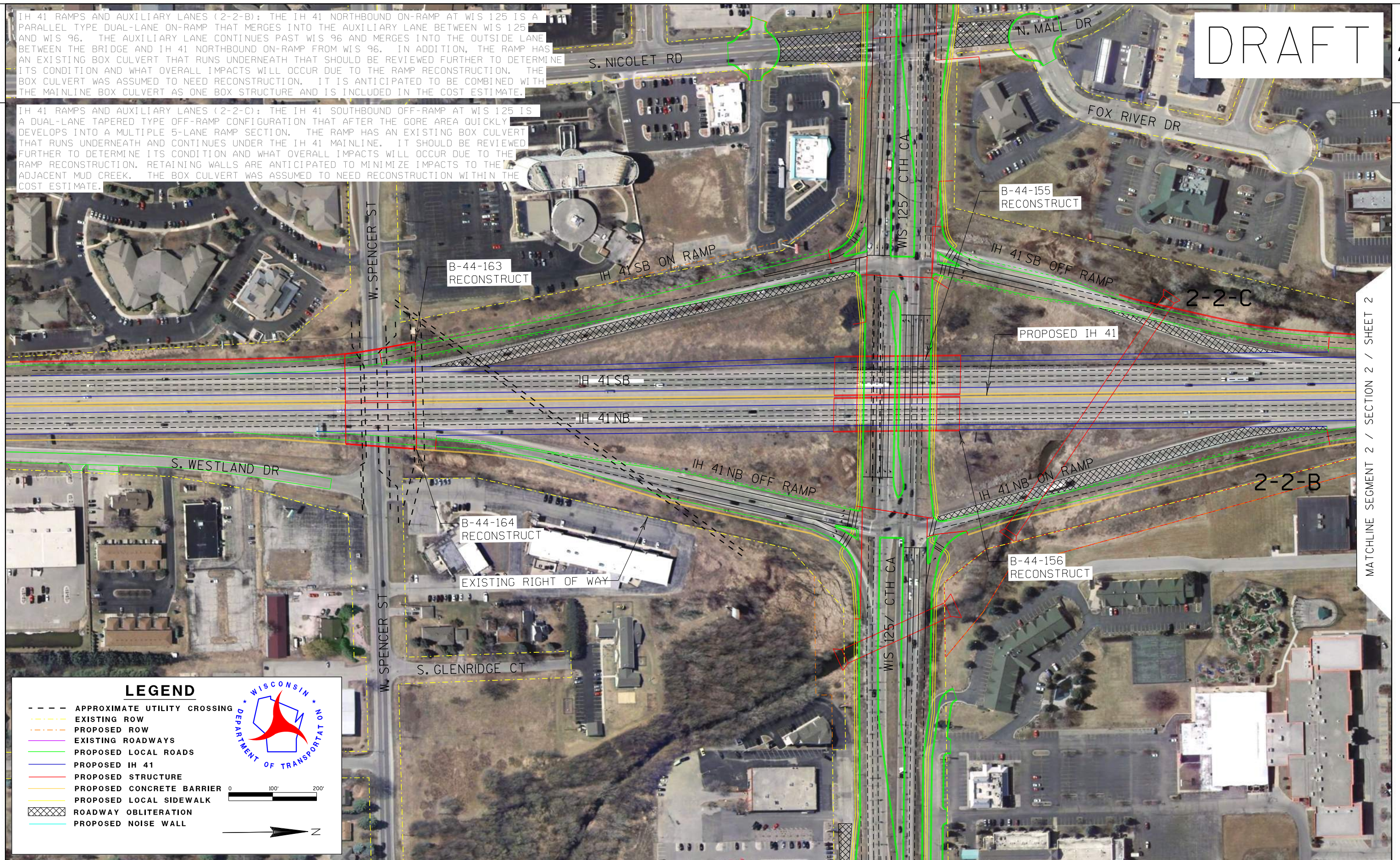


FURTHER ANALYSIS RECOMMENDATIONS (2-1-AC): WIS 125 RAMPS INCLUDING PROFILE GRADES AND LENGTH SHOULD BE FURTHER EVALUATED FOR IMPACTS. THE RAISED ELEVATION OF IH 41 MAINLINE BRIDGES OVER WIS 125 INCREASES THE MAINLINE PROFILE GRADES, INFLUENCING THE RAMP GORE POINTS AND SUBSEQUENT RAMP GRADES. THE GRADES CREATED MAY REQUIRE THE RAMPS TO BE LENGTHENED SLIGHTLY TO STAY WITHIN REQUIRED DESIGN STANDARDS. ADDITIONALLY, A RETAINING WALL MAY BE REQUIRED BETWEEN THE RAMP AND MAINLINE.

IH 41 RAMPS AND AUXILIARY LANES (2-2-B): THE IH 41 NORTHBOUND ON-RAMP AT WIS 125 IS A PARALLEL TYPE DUAL-LANE ON-RAMP THAT MERGES INTO THE AUXILIARY LANE BETWEEN WIS 125 AND WIS 96. THE AUXILIARY LANE CONTINUES PAST WIS 96 AND MERGES INTO THE OUTSIDE LANE BETWEEN THE BRIDGE AND IH 41 NORTHBOUND ON-RAMP FROM WIS 96. IN ADDITION, THE RAMP HAS AN EXISTING BOX CULVERT THAT RUNS UNDERNEATH THAT SHOULD BE REVIEWED FURTHER TO DETERMINE ITS CONDITION AND WHAT OVERALL IMPACTS WILL OCCUR DUE TO THE RAMP RECONSTRUCTION. THE BOX CULVERT WAS ASSUMED TO NEED RECONSTRUCTION. IT IS ANTICIPATED TO BE COMBINED WITH THE MAINLINE BOX CULVERT AS ONE BOX STRUCTURE AND IS INCLUDED IN THE COST ESTIMATE.

IH 41 RAMPS AND AUXILIARY LANES (2-2-C): THE IH 41 SOUTHBOUND OFF-RAMP AT WIS 125 IS A DUAL-LANE TAPERED TYPE OFF-RAMP CONFIGURATION THAT AFTER THE GORE AREA QUICKLY DEVELOPS INTO A MULTIPLE 5-LANE RAMP SECTION. THE RAMP HAS AN EXISTING BOX CULVERT THAT RUNS UNDERNEATH AND CONTINUES UNDER THE IH 41 MAINLINE. IT SHOULD BE REVIEWED FURTHER TO DETERMINE ITS CONDITION AND WHAT OVERALL IMPACTS WILL OCCUR DUE TO THE RAMP RECONSTRUCTION. RETAINING WALLS ARE ANTICIPATED TO MINIMIZE IMPACTS TO THE ADJACENT MUD CREEK. THE BOX CULVERT WAS ASSUMED TO NEED RECONSTRUCTION WITHIN THE COST ESTIMATE.

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IH 41 ALIGNMENT (2-2-A): THIS SECTION OF IH 41 FROM WIS 125 TO WIS 96 IS SHOWN ON EXISTING ALIGNMENT. THIS ALIGNMENT IS CONSTRAINED WITH COMMERCIAL PROPERTY CLOSE TO THE EAST RIGHT-OF-WAY AND MUD CREEK ALONG THE WEST SIDE OF IH 41. TWO EXISTING MUD CREEK BOX CULVERTS RUN UNDERNEATH THE IH 41 MAINLINE NORTHBOUND AND SOUTHBOUND LANES. THE FIRST IS APPROXIMATELY 350-FOOT NORTH OF WIS 125 AT A 38-DEGREE LEFT FORWARD SKEW (REFER TO EXHIBIT 2-4). THE SECOND IS APPROXIMATELY 1200-FOOT SOUTH OF WIS 96 AT A 34-DEGREE RIGHT FORWARD SKEW. RETAINING WALLS ALONG IH 41 MAINLINE AT THESE BOX CULVERT LOCATIONS HAVE BEEN INCORPORATED INTO THE COST ESTIMATE ALONG WITH RECONSTRUCTION OF THESE BOX CULVERTS.

IH 41 RAMPS AND AUXILIARY LANES (2-2-D): THE IH 41 SOUTHBOUND ON-RAMP AT WIS 96 IS A PARALLEL TYPE DUAL-LANE ON-RAMP THAT DEVELOPS INTO THE AUXILIARY LANE BETWEEN WIS 96 AND WIS 125. RETAINING WALLS ARE ANTICIPATED ALONG THE OUTSIDE OF THE AUXILIARY RAMP MINIMIZING IMPACTS TO THE ADJACENT MUD CREEK AND CONNECTING INTO THE MUD CREEK BOX CULVERTS. THE AUXILIARY LANE CONTINUES PAST WIS 125 AND MERGES INTO THE OUTSIDE LANE BETWEEN THE BRIDGE AND IH 41 SOUTHBOUND ON-RAMP FROM WIS 125.

IH 41 RAMPS AND AUXILIARY LANES (2-2-E): THE IH 41 NORTHBOUND OFF-RAMP AT WIS 96 IS A SINGLE-LANE TAPERED TYPE OFF-RAMP CONFIGURATION THAT AFTER THE GORE AREA QUICKLY DEVELOPS INTO A MULTIPLE 5-LANE RAMP SECTION.

FRONTAGE ROADS (2-2-F): THE ONLY FRONTAGE ROAD WITHIN THIS STRETCH OF IH 41 IS THE MALL CIRCULATION ROADWAY AT THE FOX RIVER MALL ALONG THE WEST SIDE OF IH 41 MAINLINE AND THE IH 41 SOUTHBOUND ON-RAMP AT WIS 96. NO IMPACTS ARE ANTICIPATED WITH THE FOX RIVER MALL FRONTAGE ROAD SYSTEM.

MATCHLINE SEGMENT 2 / SECTION 2 / SHEET 1



RIGHT-OF-WAY IMPACTS (2-2-G): THE RIGHT-OF-WAY LINE IS EXTREMELY CLOSE BETWEEN IH 41 SOUTHBOUND MAINLINE AND MUD CREEK. A BERM SECTION IS LOCATED JUST OFF THE IH 41 RIGHT-OF-WAY LINE BETWEEN THE MAINLINE AND MUD CREEK. APPROXIMATELY 1.5 ACRES OF RIGHT-OF-WAY ACQUISITION IS SHOWN BEING NEEDED WITHIN THIS AREA. FURTHER REVIEW OF RIGHT-OF-WAY IMPACTS, RETAINING WALLS (SEE IH 41 ALIGNMENT DISCUSSION ABOVE) AND MAINLINE SIDE SLOPE REQUIREMENTS ARE NEEDED IN THIS AREA TO MINIMIZE THE ENVIRONMENTAL IMPACTS TO MUD CREEK. IN ADDITION, SEE FURTHER ANALYSIS RECOMMENDATIONS BELOW.

RIGHT-OF-WAY IMPACTS (2-2-H): ALONG IH 41 NORTHBOUND MAINLINE, APPROXIMATELY 1.9 ACRES IS SHOWN AS REQUIRED ACQUISITION WITHIN TWO LOCATIONS. THESE LOCATIONS ARE IN TIGHT RIGHT-OF-WAY AREAS WHERE ADDITIONAL STRIP TAKINGS ARE NEEDED TO AVOID ADDITIONAL COSTLY RETAINING WALLS FOR IH 41.

RIGHT-OF-WAY IMPACTS (2-2-I): ALONG WIS 96 NORTHBOUND OFF-RAMP, A RETAINING WALL AND CONCRETE BARRIER WALL IS REQUIRED ALONG THE RAMP OUTSIDE SHOULDER TO MINIMIZE IMPACTS TO THE ADJACENT KWIK TRIP AND COMFORT SUITES APPLETON AIRPORT COMMERCIAL PARCELS. APPROXIMATELY 0.3 ACRES IS SHOWN AS REQUIRED FOR DRAINAGE AND MAINTENANCE NEEDS IN FRONT OF THE WALL AND BARRIER.

FURTHER ANALYSIS RECOMMENDATIONS (2-2-L): CONSIDER SHIFTING THE IH 41 MAINLINE ALIGNMENT TO THE EAST TO AVOID FURTHER IMPACTS TO MUD CREEK. BY SHIFTING THE ALIGNMENT TO THE EAST, ADDITIONAL RIGHT-OF-WAY IMPACTS MAY OCCUR TO THE FOLLOWING COMMERCIAL PROPERTIES ALONG IH 41: COMFORT SUITES APPLETON AIRPORT, BURLINGTON COAT FACTORY, WOODMAN'S FOOD MARKET, GANDER MOUNTAIN, UNIVERSITY OF PHOENIX, AND THE LA QUINTA. IN ADDITION TO SHIFTING IH 41 ALIGNMENT TO THE EAST, ANOTHER CONSIDERATION IS TO INCLUDE RETAINING WALLS ALONG THE AUXILIARY LANE TO MINIMIZE RIGHT-OF-WAY NEEDED FOR EMBANKMENT SLOPE CONSTRUCTION AND LONG TERM DRAINAGE MAINTENANCE.

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MATCHLINE SEGMENT 2 / SECTION 2 / SHEET 3

DRAFT

UTILITIES (2-2-J): WE ENERGIES HAS AN OVERHEAD ELECTRIC FACILITY (3 LINES) CROSSING IH 41 AT APPROXIMATELY 100 FEET NORTH OF WIS 96.

UTILITIES (2-2-K): WE ENERGIES HAS A BURIED GAS LINE CROSSING APPROXIMATELY AT WIS 96.

FURTHER ANALYSIS RECOMMENDATIONS (2-2-M): WIS 96 RAMPs INCLUDING PROFILE GRADES AND LENGTH SHOULD BE FURTHER EVALUATED FOR IMPACTS. THE RAISED ELEVATION OF IH 41 MAINLINE BRIDGES OVER WIS 96 INCREASES THE MAINLINE PROFILE GRADES, INFLUENCING THE RAMP GORE POINTS AND SUBSEQUENT RAMP GRADES. THE GRADES CREATED MAY REQUIRE THE RAMPs TO BE LENGTHENED TO STAY WITHIN REQUIRED DESIGN STANDARDS. ADDITIONALLY, A RETAINING WALL MAY BE REQUIRED BETWEEN RAMP AND MAINLINE.

