





MINNESOTA DEPARTMENT OF TRANSPORTATION  
GOODHUE COUNTY, MINNESOTA  
S.E. COLLECTOR (C.S.A.H. 24)

PLAN SYMBOLS

STATE LINE	----
COUNTY LINE	-----
TOWNSHIP OR RANGE LINE	-----
SECTION LINE	-----
QUARTER LINE	-----
SIXTEENTH LINE	-----
RIGHT-OF-WAY LINE	=====
PRESENT RIGHT-OF-WAY LINE	=====
CONTROL OF ACCESS LINE	-----
PROPERTY LINE (Except Land Lines)	-----
VACATED PLATTED PROPERTY	-----
CORPORATE OR CITY LIMITS	-----
TRUNK HIGHWAY CENTER LINE	-----
CONC. RETAINING WALL	=====
RAILROAD	=====
RAILROAD RIGHT-OF-WAY LINE	=====
RIVER OR CREEK	=====
DRY RUN	-----
DRAINAGE DITCH	-----
DRAIN TILE	-----
CULVERT	-----
DROP INLET	-----
GUARD RAIL	-----
BARBED WIRE FENCE	-----
WOVEN WIRE FENCE	-----
CHAIN LINK FENCE	-----
RAILROAD SNOW FENCE	-----
STONE WALL OR FENCE	-----
HEDGE	-----
RAILROAD CROSSING SIGN	-----
RAILROAD CROSSING BELL	-----
ELECTRIC WARNING SIGN	-----
CROSSING GATE	-----
MEANDER CORNER	-----
MAIL BOX	-----
SPRINGS	-----
MARSH	-----
TIMBER	-----
ORCHARD	-----
BRUSH	-----
NURSERY	-----
CATCH BASIN	-----
FIRE HYDRANT	-----
CATTLE GUARD	-----
OVERPASS (Highway Over)	-----
UNDERPASS (Highway Under)	-----
BRIDGE	-----
BUILDING (One Story Frame)	-----
F-FRAME	-----
C-CONCRETE	-----
S-STONE	-----
T-TILE	-----
B-BRICK	-----
ST-STUCCO	-----
IRON PIPE OR ROD	-----
MONUMENT (STONE, CONCRETE, OR METAL)	-----
WOODEN HUB	-----
GRAVEL PIT	-----
SAND PIT	-----
BORROW PIT	-----
ROCK QUARRY	-----

SPRINGS	-----
MARSH	-----
TIMBER	-----
ORCHARD	-----
BRUSH	-----
NURSERY	-----
CATCH BASIN	-----
FIRE HYDRANT	-----
CATTLE GUARD	-----
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WOODEN HUB	-----
GRAVEL PIT	-----
SAND PIT	-----
BORROW PIT	-----
ROCK QUARRY	-----

UTILITY SYMBOLS

POWER POLE LINE	-----
TELEPHONE OR TELEGRAPH POLE LINE	-----
JOINT TELEPHONE AND POWER ON POWER POLES	-----
JOINT TELEPHONE AND POWER ON TELEPHONE POLES	-----
ANCHOR	-----
STEEL TOWER	-----
STREET LIGHT	-----
PEDESTAL (TELEPHONE CABLE TERMINAL)	-----
GAS MAIN	-----
WATER MAIN	-----
CONDUIT	-----
TELEPHONE CABLE IN CONDUIT	-----
ELECTRIC CABLE IN CONDUIT	-----
TELEPHONE MANHOLE	-----
ELECTRIC MANHOLE	-----
BURIED TELEPHONE CABLE	-----
BURIED ELECTRIC CABLE	-----
AERIAL TELEPHONE CABLE	-----
SEWER (SANITARY)	-----
SEWER (STORM)	-----
SEWER MANHOLE	-----
HANDHOLE	-----

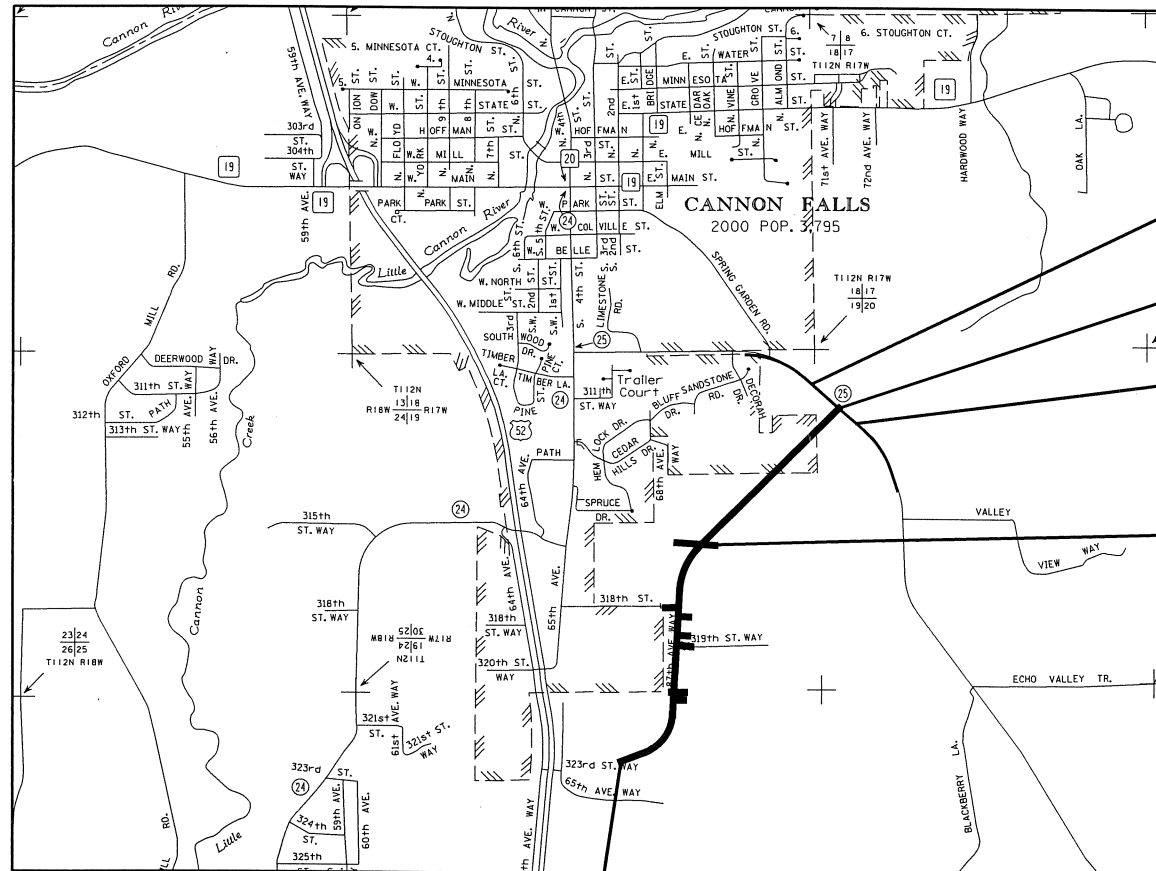
CONSTRUCTION PLAN FOR GRADING, AGGREGATE BASE AND SHOULDER, DRAINAGE, STORM SEWER, LIGHTING, CURB AND GUTTER AND BRIDGE NO. 25J74  
LOCATED ON C.S.A.H. 24 FROM THE EAST FRONTAGE ROAD ROUNDABOUT OF THE T.H. 52/C.S.A.H. 24 INTERCHANGE TO C.S.A.H. 25 APPROXIMATELY 4400 FEET EAST OF SOUTH 4TH STREET

C.S.A.H. 24 - S.A.P. NO. 025-624-017

GROSS LENGTH 6851.6 FEET 1.298 MILES  
BRIDGES-LENGTH 38.7 FEET 0.007 MILES  
EXCEPTIONS-LENGTH 0 FEET 0 MILES  
NET LENGTH 6890.3 FEET 1.305 MILES  
REF. POINT N/A TO REF. POINT N/A  
LENGTH AND DESCRIPTION BASED UPON (C.S.A.H. 24)

C.S.A.H. 25 - S.A.P. NO. 025-625-005

GROSS LENGTH 933.2 FEET 0.177 MILES  
BRIDGES-LENGTH 0 FEET 0 MILES  
EXCEPTIONS-LENGTH 0 FEET 0 MILES  
NET LENGTH 933.2 FEET 0.177 MILES  
REF. POINT N/A TO REF. POINT N/A  
LENGTH AND DESCRIPTION BASED UPON (C.S.A.H. 25)



BEGIN S.A.P. 025-625-005

C.S.A.H. 25  
STA. 2011+67.53

END S.A.P. 025-624-017

S.E. COLLECTOR  
STA. 1068+85.71

END S.A.P. 025-625-005

C.S.A.H. 25  
STA. 2021+00.72

PROPOSED BRIDGE  
NO. 25J74

S.E. COLLECTOR  
STA. 1038+43.39 TO  
STA. 1038+82.07

BEGIN S.A.P. 025-624-017

S.E. COLLECTOR  
STA. 999+95.41

DESIGN DESIGNATION FOR:

R-VALUE	C.S.A.H. 24	C.S.A.H. 25
ADT (Current Year) 2013 =	20	20
ADT (Future Year) 2033 =	N/A	1,329
PAVEMENT DESIGN	9,000 (2033)	7,600 (2033)
FUNCTIONAL CLASSIFICATION	10 TON	10 TON
NO. OF TRAFFIC LANES	MAJOR COLLECTOR	MINOR COLLECTOR
NO. OF PARKING LANES	2	2
ESALS (20)	0	0
Design Speed	1,055,000 (20 YRS.)	515,000 (20 YRS.)
Based on Sight Distance	STA. 999+95 TO 1038+80 40 MPH	55 MPH
Height of eye / Height of Object	STA. 1038+80 TO 1068+86 45 MPH	
Design Speed not achieved at:	STOPPING	HEAD LIGHT
	3.5' / 2.0'	3.5' / 2.0'
	N/A	N/A

SCALES

INDEX MAP	1500'
GENERAL LAYOUT	200'
PLAN	50'
PROFILE	50' HORIZ. 5' VERT.
X-SECTION	10' HORIZ. 10' VERT.

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

STATE PROJ. NO. CHARGE IDENTIFIER

I HEREBY CERTIFY THAT THE FINAL FIELD CHANGES, IF ANY, OF THIS PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_ LIC. NO. \_\_\_\_\_ PRINT NAME \_\_\_\_\_

FED. PROJ. NO.

GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION", SHALL GOVERN.  
ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE INSTALLED IN ACCORDANCE WITH THE LATEST VERSION OF THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD) AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

INDEX

SHEET NO.	SHEET DESCRIPTION
1	TITLE SHEET
2	GENERAL LAYOUT
3-4	STATEMENT OF ESTIMATED QUANTITIES
5	CONSTRUCTION/SOILS NOTES
6	STANDARD PLATES AND UTILITY CONTACT INFORMATION
7-10	EARTHWORK SUMMARY, BALANCE, TABULATIONS
11	TABULATIONS
12-22	STANDARD PLAN SHEETS
23-27	TYPICAL SECTIONS
28	TRAFFIC CONTROL PLAN
29	ALIGNMENT TABULATIONS
30-33	REMOVAL PLANS
34-40	CONSTRUCTION PLANS
41	PROFILES
42-45	INTERSECTION DETAILS
46-49	SURVEILLANCE PLANS
50	WATER RESOURCES NOTES
51-58	STORM SEWER TABULATIONS, PROFILES AND DETAILS
59	STORM WATER POLLUTION PREVENTION PLAN
60-63	EROSION CONTROL AND TURF ESTABLISHMENT PLANS
64-67	LIGHTING PLANS AND DETAILS
68-69	CONTOUR PLANS
X1-X83	CROSS SECTIONS
B1-B5	BRIDGE PLANS

THIS PLAN CONTAINS 157 SHEETS



Consulting Group, Inc.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE \_\_\_\_\_  
DATE 5/14/13 LIC. NO. 42395 PRINT NAME \_\_\_\_\_ JOEL JOHNSON

APPROVED \_\_\_\_\_ 20  
GOODHUE COUNTY ENGINEER

APPROVED \_\_\_\_\_ 20  
CITY ENGINEER, CITY OF CANNON FALLS

APPROVED \_\_\_\_\_ 20  
DISTRICT STATE AID ENGINEER REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY

APPROVED FOR STATE AID FUNDING: STATE AID ENGINEER \_\_\_\_\_ 20

S.A.P. 025-624-017, 025-625-005  
STATE PROJ. NO.

SHEET NO. 1 OF 69 SHEETS

THIS PLAN AND/OR SPECIFICATION WAS PREPARED SPECIFICALLY FOR THIS PROJECT, AND ANY RE-USE OF DETAILS OR SPECIFICATIONS ON OTHER PROJECTS IS NOT INTENDED OR AUTHORIZED BY THE DESIGNER. LIABILITY FOR ANY RE-USE ON OTHER PROJECTS IS THE RESPONSIBILITY OF THE PERSON, AGENCY, OR CORPORATION USING PLAN OR SPECIFICATION DATA FROM THIS PROJECT.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO GUIDELINES OF C1/ASCE 38-02. ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

LEGEND

ROAD AND ROADWAY FEATURES

PROJECTED ROAD  
PRIMITIVE ROAD  
UNIMPROVED ROAD  
GRADED AND DRAINED ROAD  
SOIL SURFACE ROAD  
GRAVEL OR STONE ROAD  
BITUMINOUS ROAD  
PAVED ROAD  
DIVIDED ROAD

ROAD SYSTEM DESIGNATIONS

INTERSTATE TRUNK HIGHWAY  
U.S. NUMBERED TRUNK HIGHWAY  
STATE NUMBERED TRUNK HIGHWAY  
COUNTY STATE AID HIGHWAY  
COUNTY ROAD  
COUNTY STATE AID IN ADJOINING COUNTY

TERMINATION OF DESIGNATED ROUTE

INTERSTATE EXIT  
GREAT RIVER ROAD  
FEDERAL AID INTERSTATE SYSTEM  
NATIONAL FOREST HIGHWAY  
NATIONAL FOREST DEVELOPMENT  
INDIAN SERVICE ROAD  
STATE FOREST ROAD  
STATE PARK ROAD

STRUCTURES

General Symbols (over 20' span)

HIGHWAY BRIDGE  
SMALL BRIDGES CLOSELY SPACED  
DRAWBRIDGE

DRAINAGE

INTERMITTENT STREAM  
NARROW STREAM  
WIDE STREAMS  
MARSH OR SWAMP LAND  
DRAINAGE DITCH  
LAKE OR POND

BOUNDARIES

NATIONAL OR STATE  
COUNTY  
CIVIL TOWNSHIP  
CONGRESSIONAL TOWNSHIP (U.S. LAND)  
CORPORATE LINE  
SECTION LINE  
CONGESTED AREA  
NATIONAL OR STATE PARK  
NATIONAL OR STATE FOREST  
INDIAN RESERVATION  
GAME REFUGE  
AIRPORT  
WILDLIFE MANAGEMENT AREA (STATE) OR  
WATERFOWL AREA (FEDERAL)  
MATCH LINE BETWEEN ADJOINING SHEETS OF THE SAME COUNTY

RAILROADS

RAILROAD (ANY NUMBER OF TRACKS) USED BY A SINGLE  
OPERATING COMPANY OR BY TRAINS OF ANOTHER  
CARRIER UNDER TRACKAGE RIGHTS  
RAILROADS IN JUNCTAPPOSITION (TWO OR MORE TRACKS  
OF SEPARATELY OPERATED COMPANIES ON  
ADJACENT RIGHTS OF WAY)  
RAILROAD STATION  
GRADE CROSSING  
UNDERPASS (HIGHWAY BELOW)  
OVERPASS (HIGHWAY ABOVE)

FOR PLANS AND UTILITIES SYMBOLS  
SEE TECHNICAL MANUAL

MINNESOTA DEPARTMENT OF TRANSPORTATION  
GOODHUE COUNTY, MINNESOTA  
S.E. COLLECTOR ( C.S.A.H. 24 )

CONSTRUCTION PLAN FOR BITUMINOUS SURFACING, AGGREGATE BASE, AND AGGREGATE SHOULDERING  
LOCATED ON C.S.A.H. 24 FROM THE EAST FRONTAGE ROAD ROUNDABOUT OF THE T.H. 52/C.S.A.H. 24 INTERCHANGE TO C.S.A.H. 25 APPROXIMATELY 4400 FEET EAST OF SOUTH 4TH STREET

C.S.A.H. 24 - S.A.P. NO. 025-624-019

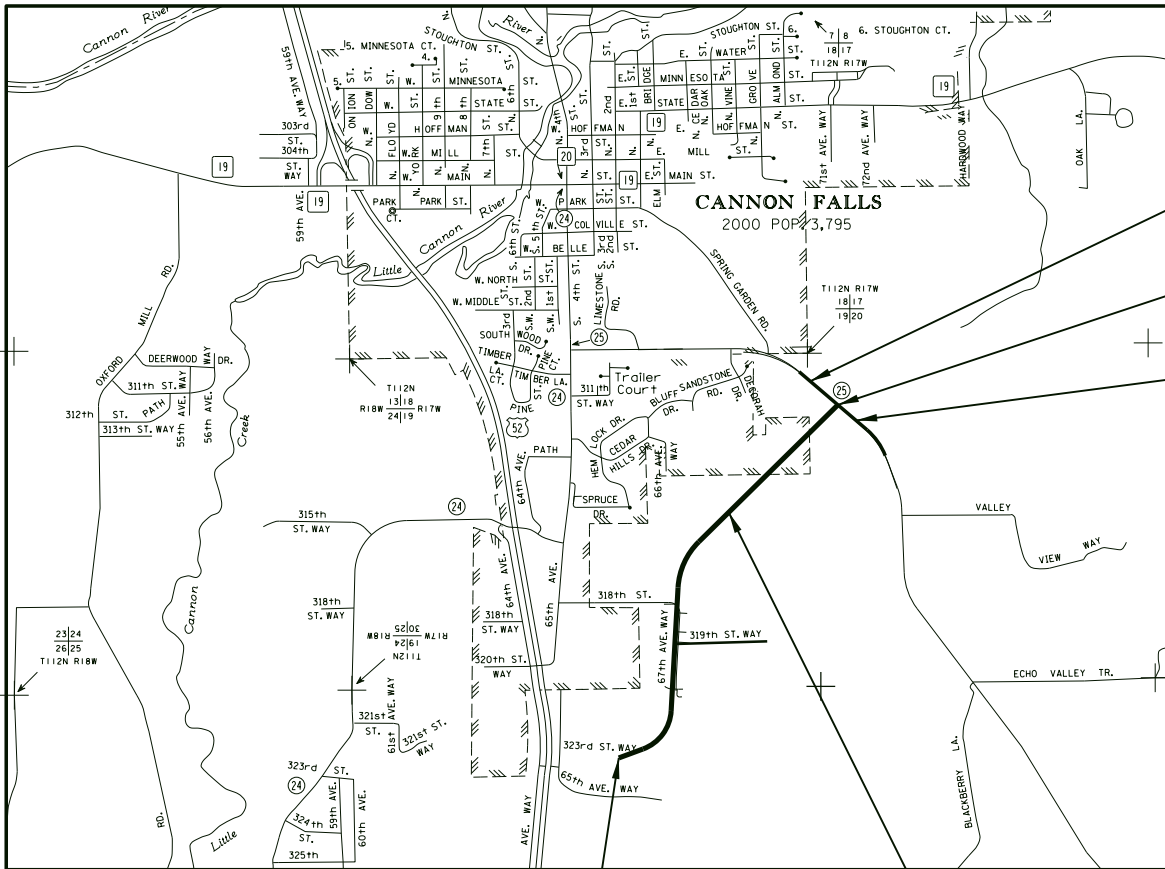
GROSS LENGTH 6890.3 FEET 1.305 MILES  
BRIDGES-LENGTH 31 FEET 0.006 MILES  
EXCEPTIONS-LENGTH 0 FEET 0 MILES  
NET LENGTH 6890.3 FEET 1.305 MILES  
REF. POINT N/A TO REF. POINT N/A

LENGTH BASED UPON (C.S.A.H. 24)

C.S.A.H. 25 - S.A.P. NO. 025-625-006

GROSS LENGTH 933.2 FEET 0.177 MILES  
BRIDGES-LENGTH 0 FEET 0 MILES  
EXCEPTIONS-LENGTH 0 FEET 0 MILES  
NET LENGTH 933.2 FEET 0.177 MILES  
REF. POINT N/A TO REF. POINT N/A

LENGTH BASED UPON (C.S.A.H. 25)



BEGIN S.A.P. 025-625-006

C.S.A.H. 25  
STA. 2011+67.53

END S.A.P. 025-624-019  
S.E. COLLECTOR  
STA. 1068+85.71

END S.A.P. 025-625-006  
C.S.A.H. 25  
STA. 2021+00.72

BEGIN S.A.P. 025-624-019

S.E. COLLECTOR  
STA. 999+95.41

BRIDGE NO. 25J74

DESIGN DESIGNATION FOR:

C.S.A.H. 24

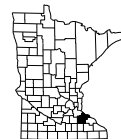
R-VALUE 60  
ADT (Current Year) 2014 = N/A  
ADT (Future Year) 2034 = 9,184 (2034)  
PAVEMENT DESIGN 10 TON  
FUNCTIONAL CLASSIFICATION MAJOR COLLECTOR  
NO. OF TRAFFIC LANES 2  
NO. OF PARKING LANES 0  
ESALS (20) 1,356,260 (20 YRS.)  
Design Speed STA. 999+95 TO 1038+80 40 MPH  
STA. 1038+80 TO 1068+86 45 MPH  
Based on Sight Distance STOPPING  
Height of Eye / Height of Object 3.5' / 2.0'  
Design Speed not achieved at: N/A

C.S.A.H. 25

R-VALUE 60  
ADT (Current Year) 2014 = 1,329  
ADT (Future Year) 2034 = 7,756 (2034)  
PAVEMENT DESIGN 10 TON  
FUNCTIONAL CLASSIFICATION MINOR COLLECTOR  
NO. OF TRAFFIC LANES 2  
NO. OF PARKING LANES 0  
ESALS (20) 763,524 (20 YRS.)  
Design Speed 55 MPH  
Based on Sight Distance STOPPING  
Height of Eye / Height of Object 3.5' / 2.0'  
Design Speed not achieved at: N/A

SCALES

GENERAL LAYOUT N/A  
PLAN N/A  
PROFILE N/A  
X-SECTION N/A



PROJECT LOCATION

COUNTY : GOODHUE

DISTRICT : 6

GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

INDEX

- TITLE SHEET
- ESTIMATED QUANTITIES, STANDARD PLATES, AND NOTES
5. TYPICAL SECTIONS
8. STRIPING PLAN

COUNTY ENGINEER: I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE GREGORY ISAKSON - GOODHUE COUNTY ENGINEER

DATE LIC. NO. 21765

D6 STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH STATE-AID RULES/POLICY

STATE AID ENGINEER: APPROVED FOR STATE AID FUNDING

I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THIS PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE LIC. NO.