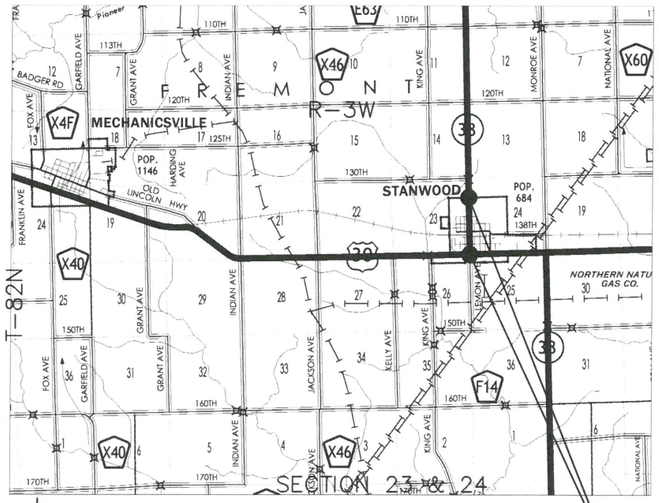
PCC PAVEMENT – REPLACE
LETTING DATE
JULY 19, 2016

STP-038-2(37)--2C-16

CITY OF STANWOOD, CEDAR COUNTY

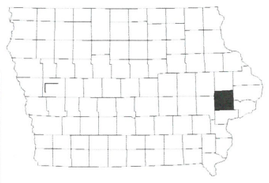
IOWA DNR STORM WATER PERMIT

THIS PROJECT IS COVERED BY THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2. THE CONTRACTOR SHALL CARRY OUT THE TERMS AND CONDITIONS OF GENERAL PERMIT NO. 2 AND THE STORM WATER POLLUTION PREVENTION PLAN WHICH IS PART OF THESE CONTRACT DOCUMENTS. REFER TO SECTION 2602 OF THE IDOT STANDARD SPECIFICATIONS FOR ADDITIONAL INFORMATION.



APPROX. SCALE: 0 1 2 SCALE IN MILES

LOCATION MAP



IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENTS ON THE

PRIMARY ROAD SYSTEM

CITY OF STANWOOD
CEDAR COUNTY
STP-038-2(37)--2C-16
PCC PAVEMENT – REPLACE
IA 38
FROM W JCT US 30 TO NCL STANWOOD

SCALES: As Noted

REFER TO THE PROPOSAL FORM FOR LIST OF APPLICABLE SPECIFICATIONS.

VALUE ENGINEERING SAVES. REFER TO ARTICLE 1105.15 OF THE SPECIFICATIONS.

SEE SHEET C.9 FOR STANDARD ROAD PLAN TABULATION

DESIGN SPEED: 25 MPH STA 0+12.71 TO 10+22
45 MPH STA 10+22.00 TO 39+78.32

B.O.P. STATION 0+12.71 M.P. 34.98
E.O.P. STATION 39+78.32 M.P. 35.73

AADT 1500 V.P.D. 2015, 15% TRUCKS
AADT 2420 V.P.D. 2035, 15% TRUCKS

WORKING DRAWINGS WILL BE CHECKED BY IIW, P.C.
4155 PENNSYLVANIA AVE., DUBUQUE, IA 52002 (563) 556-2464

APPROVED _____ DATE
MAYOR, CITY OF STANWOOD, IOWA

IIW, P.C.
iiw
ARCHITECTURE
CIVIL ENGINEERING
CONSTRUCTION SERVICES
ENVIRONMENTAL ENGINEERING
LAND SURVEYING
MUNICIPAL ENGINEERING
STRUCTURAL ENGINEERING
TRANSPORTATION ENGINEERING
INTEGRITY.EXPERTISE.SOLUTIONS
www.iiwengr.com • 800.556.4491

TOTAL SHEETS: 144

PROJECT NUMBER: STP-038-2(37)--2C-16

INDEX OF SHEETS

105-3
10-18-05

NO.	DESCRIPTION
A.1, A.2	TITLE SHEET, LEGENDS AND ABBREVIATIONS
B.1 – B.6	TYPICAL SECTIONS AND DETAILS
C.1 – C.17	ESTIMATE OF QUANTITIES, STANDARD ROAD PLANS, & GENERAL INFORMATION
D.1 – D.8	PLAN & PROFILES (MAINLINE)
E.1, E.2	PLAN & PROFILE (SIDE ROAD)
EC.1 – EC.4	EROSION CONTROL
G.1 – G.5	SURVEY
H.1 – H.3	RIGHT OF WAY
J.1 – J.10	TRAFFIC CONTROL
L.1 – L.10	INTERSECTION STAKING & JOINTING
M.1 – M.5	MUNICIPAL UTILITIES (STORM)
MU.1 – MU.7	MUNICIPAL UTILITIES (SANITARY & WATER)
S.1 – S.5	SIDEWALK SHEETS
T.1 – T.2	EARTHWORK QUANTITY
U.1 – U.3	MODIFIED STANDARDS AND DETAIL SHEETS
V.1 – V.4	RETAINING WALL – PLAN, PROFILE & DETAILS
W.1 – W.47	CROSS SECTIONS (MAINLINE)
X.1 – X.4	CROSS SECTIONS (SIDE ROADS)

MILEAGE SUMMARY

105-1
09-27-94

DIV.	LOCATION		LIN. FT.	MILES
1	HWY 38 / ASH STREET	STA 0+12.71 TO 12+98.96	1286.25	0.24
	HWY 38 / ASH STREET	STA 13+22.73 TO 39+78.32	2655.59	0.50
	TOTAL		3941.84	0.74

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com

UTILITY CONTACTS:

ALLIANT ENERGY
LAURA BARR
319-286-1315
LOCATE_JPL@ALLIANTENERGY.COM

CLARENCE TELEPHONE CO
CURTIS ELDRED
563-452-3852
CLARENCE@NETINS.NET

IOWA DEPT OF TRANSPORTATION
WILLIAM KREINBRING
563-946-2391
WILLIAM.KREINBRING@DOT.IOWA.GOV

WINDSTREAM COMMUNICATIONS / WINDSTREAM MCLEOD
JOEL SCHROEDER
800-289-1901
LOCATE.DESK@WINDSTREAM.COM

MEDIACOM
SHELLEY MARTIN/DON COOK
319-395-9699
SHMARTIN@MEDIACOMCC.COM
DCOOK@MEDIACOMCC.COM

SPRINT NEXTEL
GERRY CRAIN
847-737-1279
GERRY.A.CRAIN@SPRINT.COM

CITY OF STANWOOD
STEVE IHNS
563-942-3340
STANWOODPW@GMAIL.COM

CENTURYLINK
TOM STURMER
303-664-8090
THOMAS.STURMER@CENTURYLINK.COM

LICENSED PROFESSIONAL ENGINEER
JULIE P. NEEBEL
14690
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA

FOR IIW, P.C.
JULIE P. NEEBEL — DATE
PE 14690 — 12/31/2016
LICENSE # — RENEWAL DATE

PAGES OR SHEETS COVERED BY THIS CERTIFICATION:
J SHEETS

LICENSED PROFESSIONAL ENGINEER
GEOFFRY T. BLANDIN
15274
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA

FOR IIW, P.C.
GEOFFRY T. BLANDIN — DATE
PE 15274 — 12/31/2017
LICENSE # — RENEWAL DATE

PAGES OR SHEETS COVERED BY THIS CERTIFICATION:
ALL SHEETS EXCEPT J SHEETS

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA			A.1	144

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STP-038-2(37)--2C-16

ABBREVIATIONS

Δ	CENTRAL ANGLE
A/C	AIR CONDITIONING(ER)
AC	ACRES
A.F.F.	ABOVE FINISHED FLOOR
AGG	AGGREGATE
AOH	ARROW ON HYDRANT
ARCH	ARCHITECTURAL
ASPH	ASPHALT
AVG	AVERAGE
B-B	B/C - B/C
B/C, BOC	BACK OF CURB
B/DITCH	BOTTOM OF DITCH
BFP	BACKFLOW PREVENTOR
B/L	BASE LINE
B/S	BOTTOM OF SLOPE
BLDG	BUILDING
B.M.	BENCH MARK
BOP	BEGINNING OF PROJECT
BOT	BOTTOM
BSMT	BASEMENT
BV	BUTTERFLY VALVE
C&G	CURB AND GUTTER
CATV	CABLE TELEVISION
CB	CATCH BASIN
C-C	CENTER TO CENTER
CF	CUBIC FEET
CH	CHORD
CH BRG	CHORD BEARING
CIP	CAST IRON PIPE
C-I-P	CAST-IN-PLACE
CISP	CAST IRON SOIL PIPE
CJ	CONTROL JOINT
℄, CL	CENTERLINE
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
COMP	COMPACTED
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COR	CORNER
CP	CONTROL POINT
CPE	CORRUGATED POLYETHYLENE PIPE
CRST	CRUSHED STONE
CSP	CORRUGATED STEEL PIPE
CTRD	CENTERED
CTR	CENTER
CULT	CULTIVATED
CV	CHECK VALVE
CY	CUBIC YARD
D	DEGREE OF CURVE
DIA (ø)	DIAMETER
DIP	DUCTILE IRON PIPE
DN	DOWN
DRWY	DRIVEWAY
DS	DOWNSPOUT
DWG(S)	DRAWING(S)
DWL(S)	DOWEL(S)
E	EAST
E'LY	EASTERLY
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMBED	EMBEDMENT
ENGR	ENGINEER
ENTR	ENTRANCE
EOP	END OF PROJECT
EOR	END OF RADIUS
E/P	EDGE OF PAVEMENT
EQ	EQUAL
E/S	EDGE OF SHOULDER
ESMT	EASEMENT
EST	ESTIMATE
EX	EXISTING
EXC	EXCAVATE/EXCAVATION
EXP	EXPANSION
EXT	EXTERIOR
EXTD	EXTEND
EW	EACH WAY

FD	FLOOR DRAIN
FDN	FOUNDATION
F.E.	FIELD ENTRANCE
FES	FLARED END SECTION
F-F	FACE TO FACE
FFE	FINISH FLOOR ELEVATION
FG	FORM GRADE
FIN GR	FINISHED GRADE
FL	FLOWLINE
FLG	FLANGE
FLR	FLOOR
FM	FORCE MAIN
FND	FOUND
FT	FOOT/FEET
FTG	FOOTING
FUT	FUTURE
FV	FIELD VERIFY
G	GUTTER
GC	GENERAL CONTRACTOR
GALV	GALVANIZED
GND	GROUND
GRAN	GRANULAR
GRD	GRADE
GV	GATE VALVE
HMA	HOT MIX ASPHALT
HORIZ	HORIZONTAL
HPT	HIGH POINT
HYD	HYDRANT
ID	INSIDE DIA/INSIDE DIM
IE	INVERT ELEVATION
IMP	IMPROVEMENTS
IN	INCHES
INV	INVERT
IP	IRON PIPE
JB	JUNCTION BOX
JT	JOINT/JOINT LENGTH
K	RATE OF VERT CURVATURE
L	LENGTH OF CURVE
LAT	LATERAL
LF	LINEAL FOOT
LONG	LONGITUDINAL
LP	LIGHT POLE
LPT	LOW POINT
LT	LEFT
MAX	MAXIMUM
ME	MATCH EXISTING
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
M.P.	MILE POST
N	NORTH
N/A	NOT APPLICABLE
NE'LY	NORTHEASTERLY
N'LY	NORTHERLY
NO/#	NUMBER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NW'LY	NORTHWESTERLY
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVE
PERF	PERFORATED
PI	POINT OF INTERSECTION
P/L	PROPERTY LINE
PM	PRINCIPAL MERIDIAN
POB	POINT OF BEGINNING
POC	POINT OF CURVE
POT	POINT OF TANGENT
PRC	POINT OF REVERSE CURVE
PRELIM	PRELIMINARY
PROP	PROPOSED
PRV	PRESSURE REDUCING VALVE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY

R	RADIUS
R&R	REMOVE & REPLACE
R&S	REMOVE & SALVAGE
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REBAR	REINFORCING BAR
REF	REFERENCE
REINF	REINFORCING/REINFORCED
REV	REVISION
RIM	RIM ELEVATION
ROW	RIGHT OF WAY
RP	RADIUS POINT
RS	RESILIENT SEAT
RT	RIGHT
S	SOUTH
S=	SUPERELEVATION
SAN	SANITARY
SANS	SANITARY SEWER
SB	SOIL BORING
SCH	SCHEDULE
SD	SUB DRAIN
SEC	SECTION
SE'LY	SOUTHEASTERLY
SF	SQUARE FOOT
S.F.D.	STEP FOOTING DOWN
SHT	SHEET
SIG.	SIGNAL
SIM.	SIMILAR
S'LY	SOUTHERLY
SOG	SLAB ON GRADE
SPEC	SPECIFICATION
SS	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STM	STORM
STMS	STORM SEWER
SW'LY	SOUTHWESTERLY
SY	SQUARE YARD
T	TANGENT LENGTH
T/B	TOP OF BANK
T/DITCH	TOP OF DITCH
T/C, TC	TOP OF CURB
T/GRAV	TOP OF GRAVEL
T/WALL	TOP OF WALL
T/P, TP	TOP OF PAVEMENT
T/S	TOP OF SLOPE
T/SUB	TOP OF SUBGRADE
T/W, TW	TOP OF WALK
T & B	TOP AND BOTTOM
T.O.B.	TOP OF BEAM
T.O.B.L.	TOP OF BRICK LEDGE
T.O.C.	TOP OF CONCRETE
T.O.E.F.	TOP OF EXISTING FOOTING
T.O.F.	TOP OF FOOTING
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PIER
T.O.S.	TOP OF STEEL
TCE	TEMP CONSTRUCTION EASEMENT
TEL	TELEPHONE
TEMP	TEMPORARY
THK	THICK / THICKNESS
TWP	TOWNSHIP
TYP	TYPICAL
U	UTILITY
UAC	USE AS CONSTRUCTED
UE	UTILITY EASEMENT
UL	UNDERWRITERS LABORATORIES, INC.
ULFM	UNDERWRITERS LABORATORIES FACTORY MUTUAL
UNO	UNLESS NOTED OTHERWISE
VAR	VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VER	VERIFY
VERT	VERTICAL
VOL	VOLUME
VPC	VERT POINT OF CURVE
VPI	VERT POINT OF INTERSECTION
VPT	VERT POINT OF TANGENCY
W	WEST
W/	WITH
W'LY	WESTERLY
WM	WATER MAIN
W/O	WITHOUT
W.P.	WORKING POINT
WD	WOOD
WSO	WATER SHUT OFF
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
YD	YARD

LEGEND

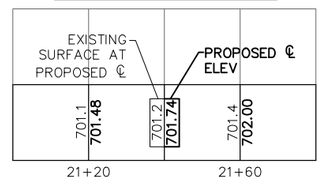
EXISTING		PROPOSED
	PROPERTY LINE	
	EASEMENT	
	SECTION LINE	
	QUARTER SECTION LINE	
	QUARTER QUARTER SECTION LINE	
	CENTERLINE	
D	STORM SEWER	D
SD	SUB DRAIN	SD
S	SANITARY SEWER	S
FM	FORCE MAIN	FM
W	WATER LINE	W
G	GAS LINE	G
OHE	OVERHEAD ELECTRIC	OHE
E	UNDERGROUND ELECTRIC	E
OHT	OVERHEAD TELEPHONE	OHT
T	UNDERGROUND TELEPHONE	T
OHTV	OVERHEAD TELEVISION	OHTV
TV	UNDERGROUND TELEVISION	TV
FIB	FIBER OPTIC	FIB
X	WIRE FENCE	X
O	CHAINLINK FENCE	O
□	WOOD FENCE	□
--000--	CONTOUR LINE	000
	RAILROAD TRACKS	
	GUARD RAIL	
+ 0.00	SPOT ELEVATION	+ 0.00
	DIRECTION OF FLOW	
	TREE LINE	

EXISTING		PROPOSED
	CATCH BASIN	
	AREA INTAKE	
Ⓓ	STORM MANHOLE	Ⓓ
Ⓢ	SANITARY MANHOLE	Ⓢ
Ⓤ	UTILITY MANHOLE	Ⓤ
Ⓥ	WATER VALVE MANHOLE	Ⓥ
	FIRE HYDRANT	
	WATER SHUT OFF	
WV	WATER VALVE	WV
	YARD HYDRANT	
GV	GAS VALVE	GV
	SIGN	
	UTILITY POLE	
	UTILITY POLE WITH LIGHT	
	TRAFFIC SIGNAL POLE	
	GUY ANCHOR	
	LIGHT POLE	
	UTILITY PEDESTAL	
Ⓦ	WELL	Ⓦ
	MAILBOX	
	WATER LEVEL	
	BOLLARD	
	SOIL BORING	
PIV	POST INDICATOR VALVE	PIV
	DECIDUOUS TREE W/ TRUNK DIA.	
	CONIFEROUS TREE W/ TRUNK DIA.	
	SHRUB OR BUSH	
	STUMP	

SURVEY

- ■ FOUND REBAR
- ● FOUND IRON PIPE
- ○ SET REBAR

PROFILE LEGEND



Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

CIVIL ABBREVIATIONS & LEGEND

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

iiw 563.556.2464 ◆ 800.556.4491
IIW, P.C. ◆ www.iiwengr.com

CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
			IOWA	.	2016	A.2	144

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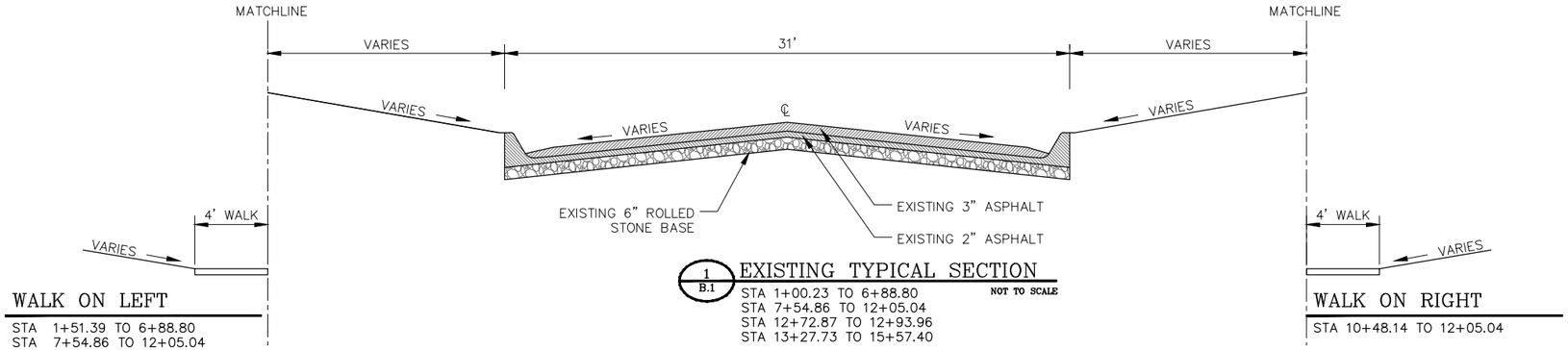


1 B.1 EXISTING TYPICAL SECTION
STA 1+00.23 TO 6+88.80
STA 7+54.86 TO 12+05.04
STA 12+72.87 TO 12+93.96
STA 13+27.73 TO 15+57.40
NOT TO SCALE

WALK ON LEFT
STA 1+51.39 TO 6+88.80
STA 7+54.86 TO 12+05.04
STA 12+72.87 TO 12+93.96
STA 13+27.73 TO 15+57.40

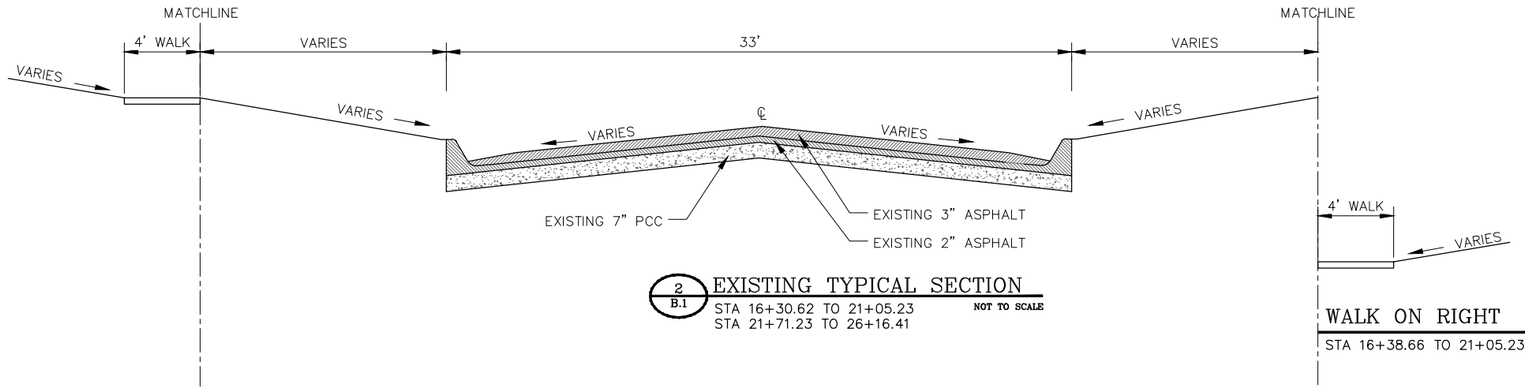
WALK ON RIGHT
STA 10+48.14 TO 12+05.04

NOTES:

EXISTING UTILITY POLES ARE TO BE RELOCATED (BY OTHERS) TO LOCATIONS BETWEEN THE RIGHT OF WAY AND PROPOSED SIDEWALK.

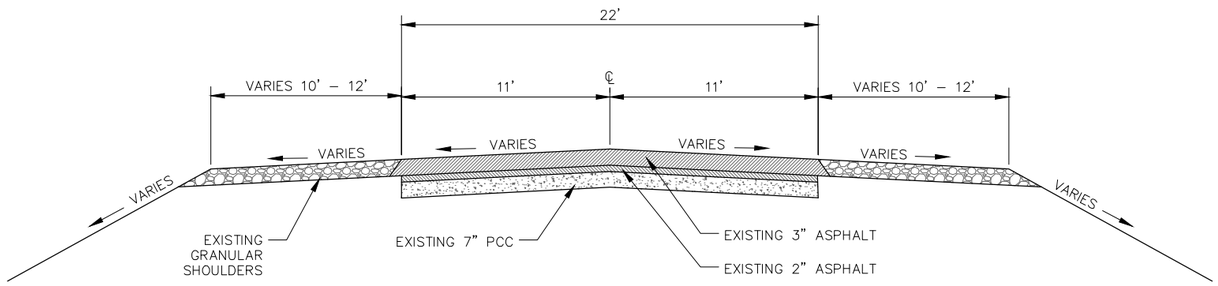
INTERSECTIONS ASSUMED TO BE SAME PAVEMENT STRUCTURE AND THICKNESS AS TYPICAL SECTIONS.

STA TO STA	INTERSECTION
0+12.71 TO 1+00.23	US HWY 30
6+88.80 TO 7+54.86	PRESTON ST
12+05.04 TO 12+72.87	CENTER ST
12+93.96 TO 13+27.73	UNION PACIFIC RR
15+57.40 TO 16+30.62	BROADWAY ST
21+05.23 TO 21+71.23	NORTH ST
26+16.41 TO 26+92.73	FARMERS ST



2 B.1 EXISTING TYPICAL SECTION
STA 16+30.62 TO 21+05.23
STA 21+71.23 TO 26+16.41
NOT TO SCALE

WALK ON RIGHT
STA 16+38.66 TO 21+05.23



3 B.1 EXISTING TYPICAL SECTION
STA 26+92.73 TO 39+78.32
NOT TO SCALE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD
TYPICAL SECTIONS
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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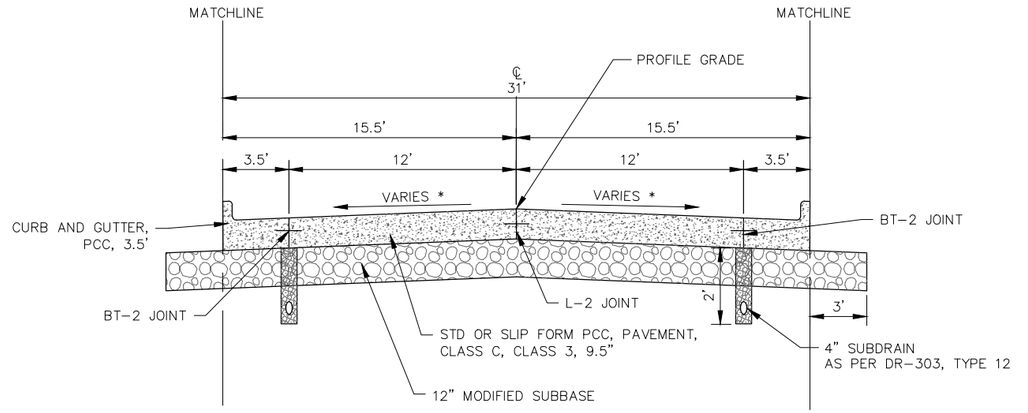
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	B.1	144

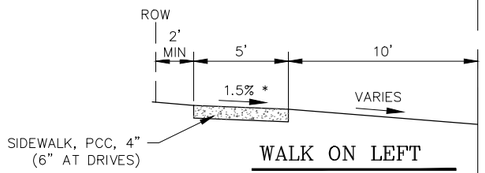


1 / B.2 PROPOSED TYPICAL SECTION

NOT TO SCALE

STA 1+00.23 TO 6+88.80
STA 7+54.86 TO 12+05.04
STA 12+72.87 TO 12+93.96
STA 13+27.73 TO 15+57.40
STA 16+30.62 TO 21+05.23
STA 21+71.23 TO 26+16.41

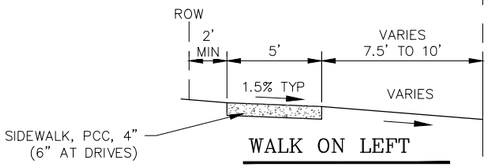
* SEE D SHEETS AND CROSS SECTIONS FOR ROADWAY CROSS SLOPES



WALK ON LEFT

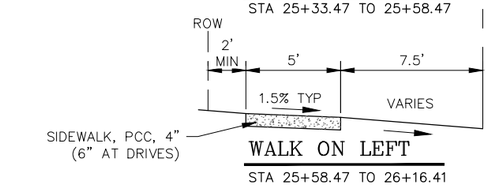
STA 1+51.39 TO 6+88.80
STA 7+54.86 TO 12+05.04
STA 12+72.87 TO 12+93.96
STA 13+27.73 TO 15+57.40
STA 16+30.62 TO 21+05.23
STA 21+71.23 TO 25+33.47

* TYPICAL SLOPE IS 1.5%, VARIES RAILROAD TRACKS APPROACHES, SEE CROSS SECTIONS



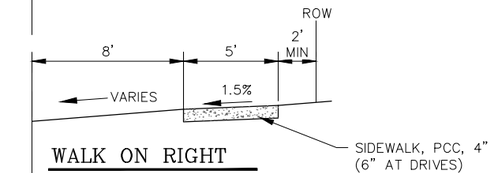
WALK ON LEFT

STA 25+33.47 TO 25+58.47



WALK ON LEFT

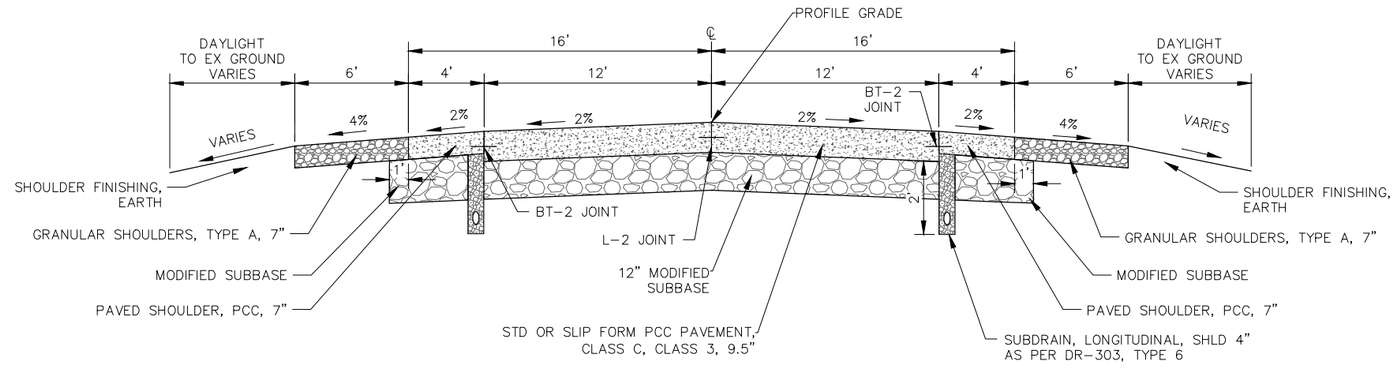
STA 25+58.47 TO 26+16.41



WALK ON RIGHT

STA 10+48.13 TO 12+05.04
STA 15+44.77 TO 15+57.40
STA 16+30.62 TO 21+05.23

STA TO STA	INTERSECTION
0+12.71 TO 1+00.23	US HWY 30
6+88.80 TO 7+54.86	PRESTON ST
12+05.04 TO 12+72.87	CENTER ST
12+93.96 TO 13+27.73	UNION PACIFIC RR
15+57.40 TO 16+30.62	BROADWAY ST
21+05.23 TO 21+71.23	NORTH ST
26+16.41 TO 26+92.73	FARMERS ST



2 / B.2 PROPOSED TYPICAL SECTION

STA 26+92.73 TO 39+78.32

NOT TO SCALE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TYPICAL SECTIONS

Station:. Date:.

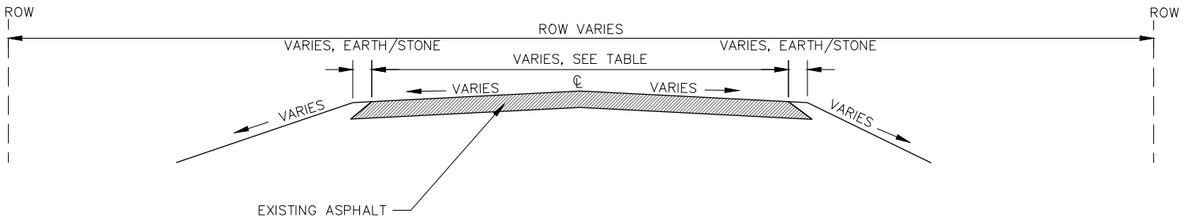
CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

iiw 563.556.2464 ◆ 800.556.4491
IIW, P.C. ◆ www.iiwengr.com

CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	B.2	144

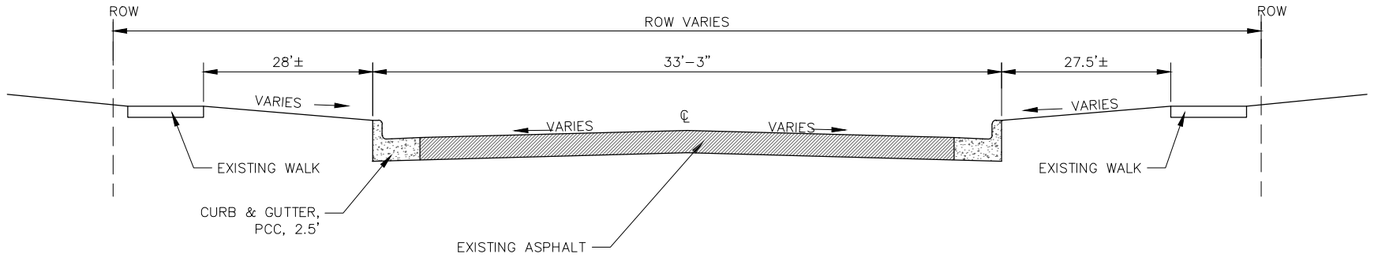


EXISTING HMA WIDTH	
PRESTON	19' – 21'
CENTER ST.	24'–4"
W. BROADWAY ST.	24'–6"
NORTH ST.	23'–6"
W. FARMERS ST.	20'–6"
E. FARMERS ST.	15'–6"

1 / B.3 EXISTING TYPICAL SECTION

NOT TO SCALE

EX SIDE STREETS
PRESTON ST
W. BROADWAY ST
CENTER ST
NORTH ST
FARMERS ST



2 / B.3 EXISTING TYPICAL SECTION

NOT TO SCALE

E. BROADWAY ST
EAST OF IA 38/ASH ST

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TYPICAL SECTIONS
SIDE STREETS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
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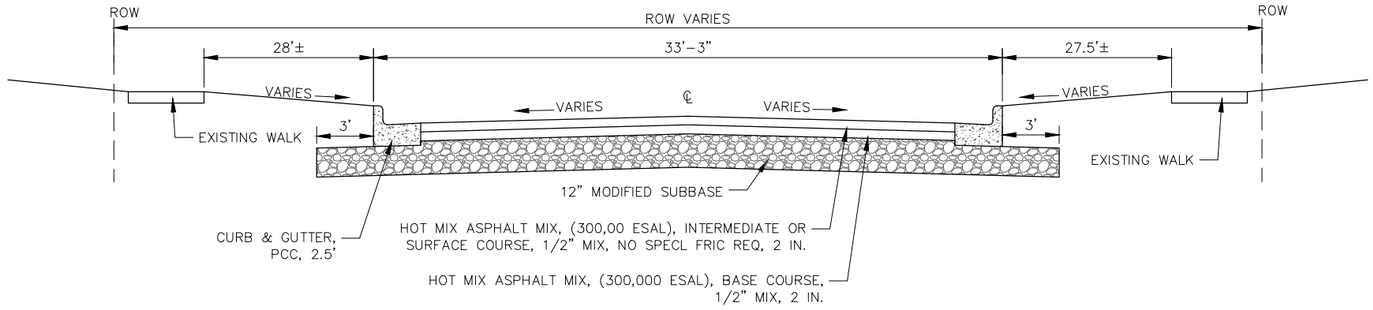
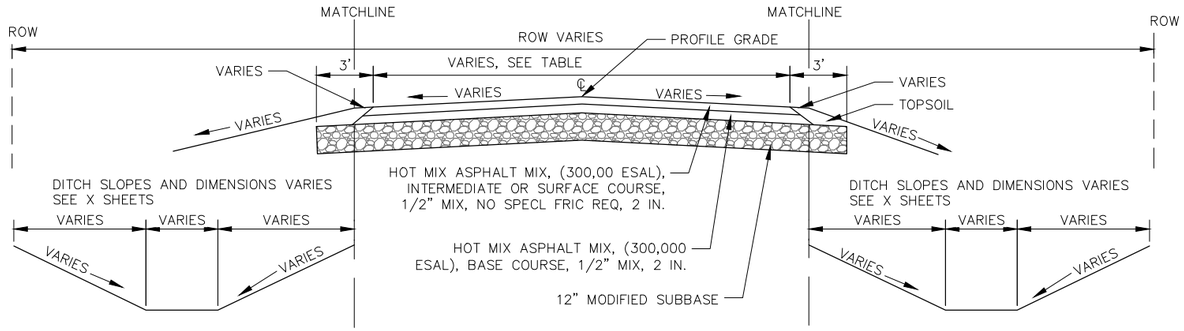
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	B.3	144



1 B.4 **TYPICAL SECTION**
HMA TRANSITION AT BROADWAY ST
EAST OF IA 38/ASH ST
STA 301+02.02 TO 301+15.01
NOT TO SCALE



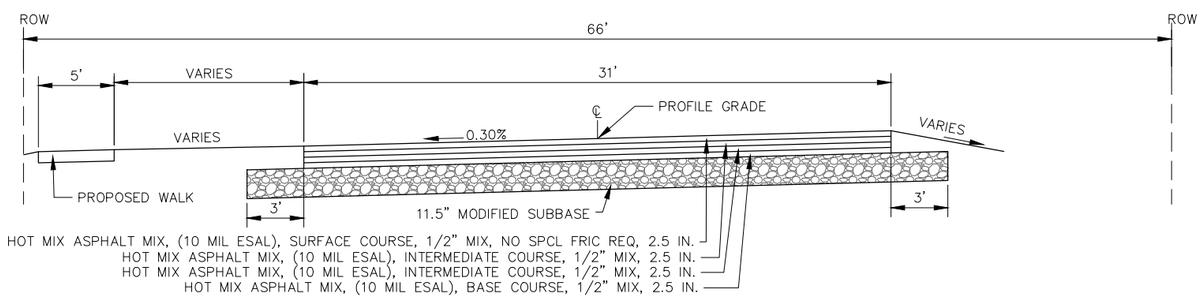
DITCH ON LEFT
PRESTON ST
STA 100+46 TO 101+51
STA 102+16 TO 102+87

2 B.4 **PROPOSED TYPICAL SECTION**
HMA TRANSITIONS
SIDE STREETS
NOT TO SCALE

PRESTON ST	STA 100+00 TO 101+55.31
PRESTON ST	STA 102+26.31 TO 103+75
CENTER ST	STA 200+21.26 TO 200+31.44
CENTER ST	STA 201+04.14 TO 201+09.16
W. BROADWAY ST	STA 300+00 TO 300+31.01
NORTH ST	STA 401+46.31 TO 401+61.31
NORTH ST	STA 402+37.33 TO 402+47.33
FARMERS ST	STA 500+70.57 TO 500+93.57
FARMERS ST	STA 510+35 TO 510+51.88

DITCH ON RIGHT
PRESTON ST
STA 102+17 TO 102+37

HMA WIDTH	
PRESTON ST.	22'-0"
CENTER ST.	24'-6"
W. BROADWAY ST.	24'-6"
NORTH ST.	24'-6"
FARMERS ST.	25'-3"



3 B.4 **PROPOSED TYPICAL SECTION**
HMA TRANSITIONS
ASH ST @ UNION PACIFIC RAILROAD
STA 12+93.96 TO 12+98.96
STA 13+22.73 TO 13+27.73
NOT TO SCALE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TYPICAL SECTIONS
SIDE STREETS & RR CROSSING TRANSITION
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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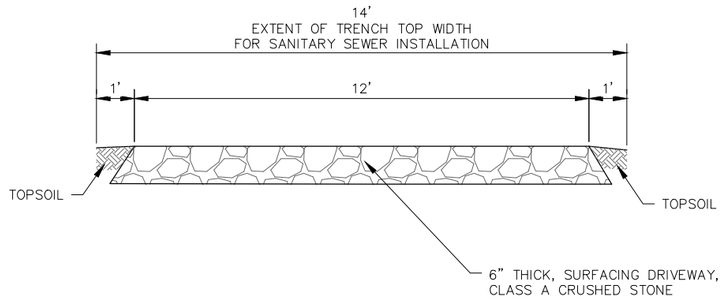
CITY OF STANWOOD, CEDAR COUNTY

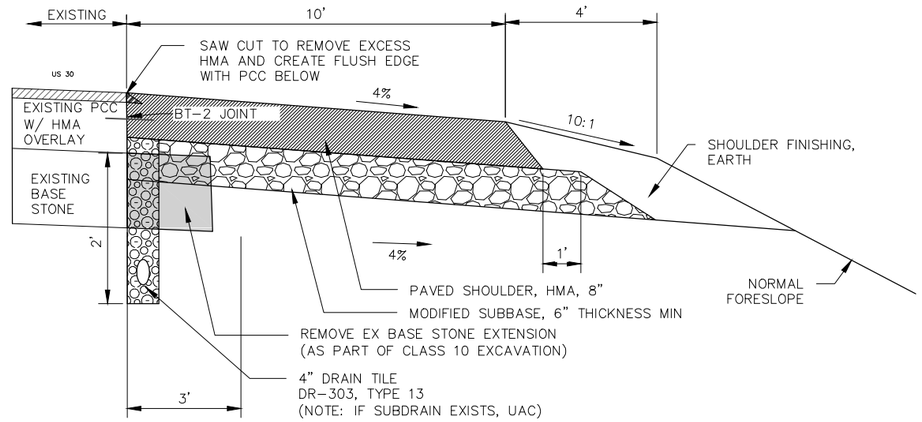
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	B.4	144



1 B.5 TYPICAL SECTION – ALLEY

NOT TO SCALE

GRAVEL ALLEY AT SANITARY SEWER
SEE SHEETS MU.5 & MU.7
STA 2+43.46, 23.5' R TO 170.0' R
STA 10+88.42, 23.5' R TO 176.0' R
STA 10+78, 168' L TO STA 10+98, 168' L

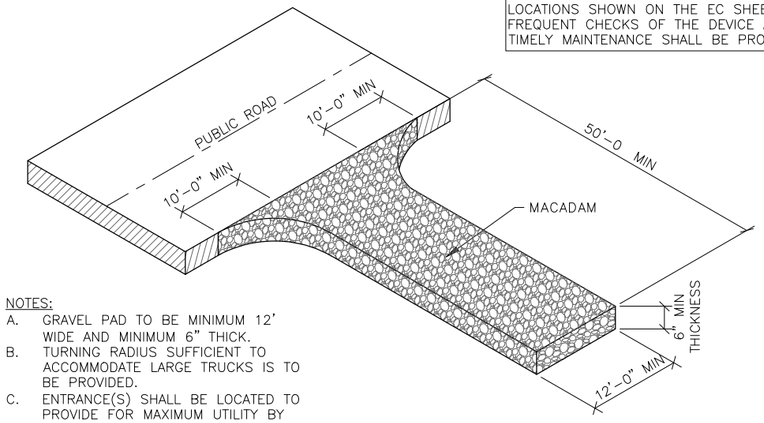


2 B.5 TYPICAL SECTION – SHOULDER ON US 30

NOT TO SCALE

SEE SHEET E.1
STA 90+95 TO 96+95

NOTE:
APPLICABLE AT ALL POINTS OF INGRESS & EGRESS UNTIL SITE IS STABILIZED. LOCATIONS SHOWN ON THE EC SHEETS. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE SHALL BE PROVIDED.



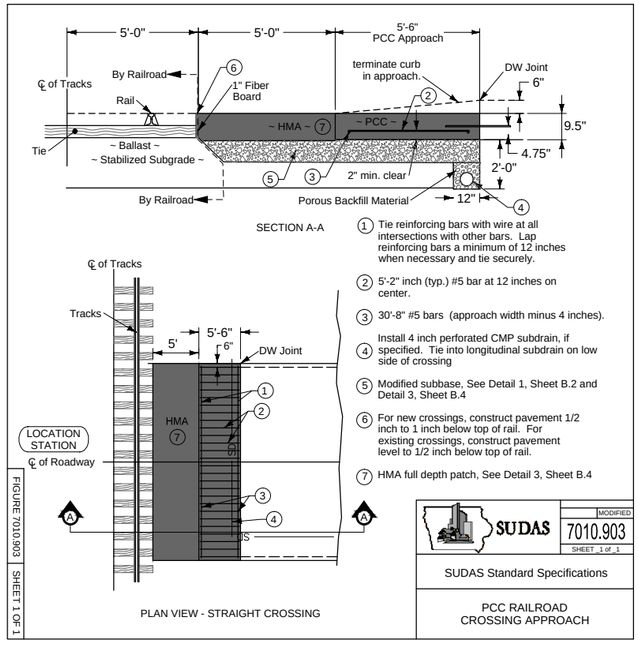
NOTES:

A. GRAVEL PAD TO BE MINIMUM 12' WIDE AND MINIMUM 6" THICK.
B. TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS IS TO BE PROVIDED.
C. ENTRANCE(S) SHALL BE LOCATED TO PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.
D. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOP DRESSING WITH STONE IS REQUIRED.
E. ANY TRACKED MATERIAL ON THE PUBLIC ROAD MUST BE CLEANED UP DAILY.

PAID FOR AS TONS OF BASE MACADAM STONE PLACED. MAINTAINING STABILIZED CONSTRUCTION ENTRANCE TO PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS, AND PERIODIC TOP DRESSING WITH STONE IS INCIDENTAL.

3 B.5 DETAIL – STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



1. Tie reinforcing bars with wire at all intersections with other bars. Lap reinforcing bars a minimum of 12 inches when necessary and tie securely.
2. 5'-2" inch (typ.) #5 bar at 12 inches on center.
3. 30'-8" #5 bars (approach width minus 4 inches).
4. Install 4 inch perforated CMP subdrain, if specified. Tie into longitudinal subdrain on low side of crossing
5. Modified subbase, See Detail 1, Sheet B.2 and Detail 3, Sheet B.4
6. For new crossings, construct pavement 1/2 inch to 1 inch below top of rail. For existing crossings, construct pavement level to 1/2 inch below top of rail.
7. HMA full depth patch, See Detail 3, Sheet B.4

SUDAS MODIFIED 7010.903 SHEET 1 of 1

SUDAS Standard Specifications

PCC RAILROAD CROSSING APPROACH

FIGURE 7010.903 SHEET 1 OF 1

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD
.
.
TYPICAL SECTIONS AND DETAILS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	B.5	144

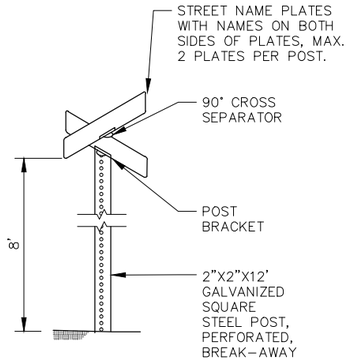
NOTES:

D3-1 STREET NAME SIGN, WHITE LETTERS ON GREEN BACKGROUND WITH WHITE BORDER. UPPER AND LOWER CASE, 6" / 4.5" LETTERS.

SUBMIT SHOP DRAWINGS.

S1 – S Ash St
S2 – S Ash St / E Preston St
S3 – S Ash St / E Center St
S4 – N Ash St / E Broadway St
S5 – N Ash St / E North St
S6 – N Ash St / W Farmers St

BID ITEM INCLUDES COMPLETE SIGN, WITH STREET NAME PLATES, BRACKETS, POST, AND FOUNDATION, INSTALLED IN THE NORTHEAST CORNER OF EACH INTERSECTION.



1 B.6 STREET NAME SIGNS DETAIL — NOT TO SCALE

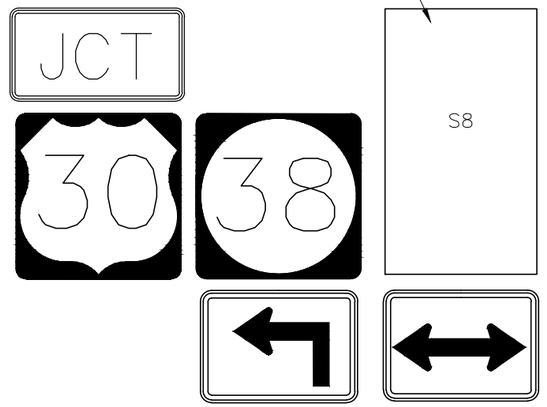
D1-3A DESTINATION SIGN. WHITE ON GREEN WITH WHITE BORDER. 6" CAPITAL LETTERS AND 4.5" SMALL LETTERS. SEE TABULATION ON C SHEETS FOR LOCATION.

SUBMIT SHOP DRAWINGS.

PAID FOR AS TYPE A SIGNS, ALUMINUM. ESTIMATED TO BE 35.0 SF

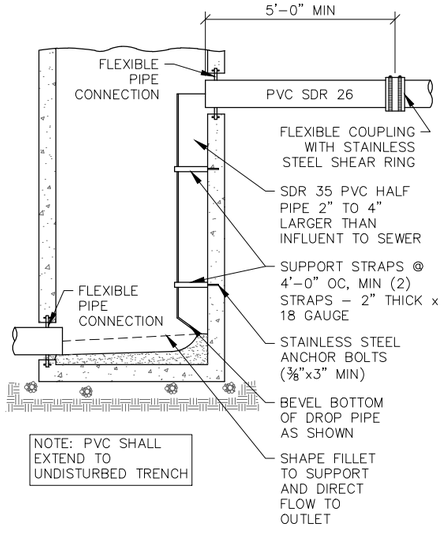
2 B.6 DESTINATION SIGN DETAIL – S7 DETAIL — NOT TO SCALE

IOWA BYWAYS SIGN WITH LINCOLN HIGHWAY GRAPHIC IMAGE. SEE TABULATION ON C SHEETS FOR LOCATION. PAID FOR AS TYPE A SIGNS, ALUMINUM. ESTIMATED TO BE 7.0 SF.

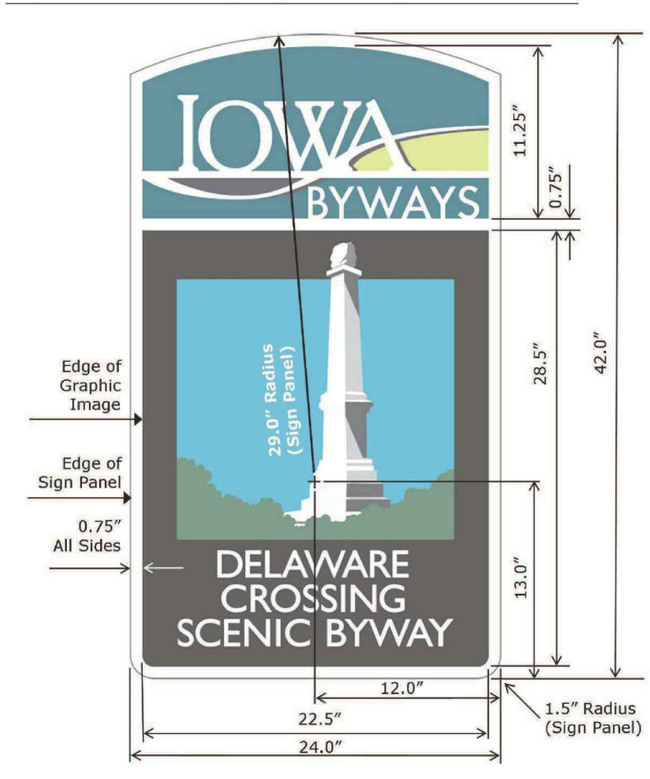


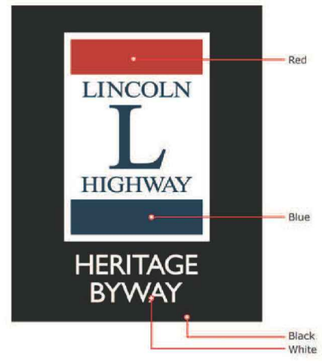
3 B.6 IOWA BYWAYS SIGN DETAIL — NOT TO SCALE

AVERAGE GRADE	MINIMUM DROP THROUGH MANHOLE
0.00 – 2.5%	0.10'
2.51 – 5.0%	0.20'
5.01 – 7.5%	0.30'
7.51 – 10.0%	0.40'
10.01 – 12.5%	0.50'
12.51 – 15.0%	0.60'
15.01 – 17.5%	0.70'
17.51 – 20.0%	0.80



4 B.6 INSIDE DROP MANHOLE DETAIL — NOT TO SCALE





The typeface for "LINCOLN HIGHWAY HERITAGE BYWAY" is Gill Sans set in all caps. Colors for the Lincoln Highway graphic identity:

Red: C20 M100 Y100
Blue: C100 M70 Y20
Black
White

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

DETAILS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: TRACED BY:
DETAILED BY: CHECKED BY:

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	B.6	144

ESTIMATED PROJECT QUANTITIES - IA 38 From W Jct US 30 to NCL Stanwood

STP-038-2(37)--2C-16

CONSTRUCTION USE ONLY	REF. NO.	ITEM CODE	BID ITEM DESCRIPTION	UNITS	DIVISION 1 Paving	DIVISION 2 Sidewalk/Ret Wall/Steps	DIVISION 3 Storm	DIVISION 4 Sanitary/Water	QUANTITY TOTAL
	1	2101-0850002	CLEARING & GRUBBING	UNIT	192		14	301	507
	2	2102-0425070	SPECIAL BACKFILL	TON	1224	19			1243
	3	2102-2710070	EXCAVATION CL 10, RDWY & BORROW	CY	6941.2		91.5	55.6	7088.3
	4	2102-2712015	EXCAVATION CL 12, BOULDERS OR ROCK FRAG.	CY	4				4
	5	2105-8425015	TOPSOIL STRIP SALVAGE & SPREAD	CY	1085		72	103	1260
	6	2113-0001100	SUBGRADE STABILIZATION MAT'L, POLYMER GRID	SY	556				556
	7	2115-0100000	MODIFIED SUBBASE	CY	6099.4			316.4	6415.8
	8	2121-7425010	SHOULDER GRANULAR, TYPE A	TON	629.7				629.7
	9	2122-5190007	PAVED SHOULDER, PCC, 7 IN	SY	1142.2				1142.2
	10	2122-5500080	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 8 IN.	SY	666.7				666.7
	11	2123-7450020	SHOULDER FINISHING, EARTH	STA	31.71				31.71
	12	2125-2225050	RESHAPING DITCHES	STA			0.5		0.5
	13	2210-0475290	BASE MACADAM STONE	TON	91				91
	14	2301-1033095	STANDARD OR SLIP FORM PCC PAVEMENT, CLASS C, CLASS 3 DURABILITY, 9.5 IN	SY	13784.2				13784.2
	15	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES	LS	1				1
	16	2303-0021500	HMA (300,000 ESAL), BASE COURSE,1/2 IN. MIX	TON	41.6			84.0	125.6
	17	2303-0023500	HMA (300,000 ESAL), INTER OR SURF, 1/2 IN.MIX, NO FRIC REQ	TON	43.0			86.8	129.8
	18	2303-0051500	HMA (10M ESAL) BASE COURSE, 1/2" MIX	TON	4.8				4.8
	19	2303-0052500	HMA (10M ESAL) INTERMEDIATE, 1/2" MIX	TON	9.7				9.7
	20	2303-0053500	HMA (10M ESAL) SURFACE COURSE, 1/2" MIX, NO SPCL FRIC REQ	TON	5				5
	21	2303-0246428	ASPHALT BINDER, PG 64-28	TON	6.3			10.2	16.5
	22	2315-8275025	SURFACING, DRIVEWAY, CLASS A CRUSHED STONE	TON				134.4	134.4
	23	2401-6745650	REMOVAL OF EXIST STRUCTURES	LS		1			1
	24	2401-6745910	REMOVAL OF SIGN	EACH	51				51
	25	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS)	CY		5.2			5.2
	26	2404-7775005	STEEL REINFORC EPOXY COATED	LB	4062	273			4335
	27	2416-0102230	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 30 IN.	EACH			1		1
	28	2416-0102236	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 36 IN.	EACH			1		1
	29	2435-0130148	MANHOLE, SANITARY SEWER, SW-301, 48 IN.	EACH				5	5
	30	2435-0130160	MANHOLE, SANITARY SEWER, SW-301, 60 IN.	EACH				2	2
	31	2435-0140200	MANHOLE, STORM SEWER, SW-402	EACH			2		2
	32	2435-0250700	INTAKE, SW-507	EACH			5		5
	33	2435-0250800	INTAKE, SW-508	EACH			1		1
	34	2435-0250810	INTAKE, SW-508 MODIFIED	EACH			1		1
	35	2435-0250900	INTAKE, SW-509	EACH			5		5
	36	2435-0251010	INTAKE, SW-510 MODIFIED	EACH			1		1
	37	2435-0251224	INTAKE, SW-512, 24 IN.	EACH			3		3
	38	2435-0600010	MANHOLE ADJUSTMENT, MINOR	EACH				3	3
	39	2435-0700010	CONNECTION TO EXISTING MANHOLE	EACH			1		1
	40	2502-8212204	SUBDRAIN PERFORATED PLASTIC PIPE 4 IN	LF	8729				8729
	41	2502-8221303	SUBDRAIN OUTLET, DR-303	EACH	18				18
	42	2502-8221304	SUBDRAIN OUTLET, DR-304	EACH	20				20
	43	2503-0114215	STORM SEWER GRAVITY MAIN, TRENCHED, RCP, 2000D (CLASS III), 15 IN.	LF			130		130
	44	2503-0114218	STORM SEWER GRAVITY MAIN, TRENCHED, RCP, 2000D (CLASS III), 18 IN.	LF			253		253
	45	2503-0114224	STORM SEWER GRAVITY MAIN, TRENCHED, RCP, 2000D (CLASS III), 24 IN.	LF			583		583
	46	2503-0116318	STORM SEWER GRAVITY MAIN, TRENCHED, RCAP, 2000D LOW CLEARANCE CONCRETE PIPE, EQIV DIA. 18 IN.	LF			37		37
	47	2503-0116330	STORM SEWER GRAVITY MAIN, TRENCHED, RCAP, 2000D LOW CLEARANCE CONCRETE PIPE, EQIV DIA. 30 IN.	LF			55		55
	48	2503-0116336	STORM SEWER GRAVITY MAIN, TRENCHED, RCAP, 2000D LOW CLEARANCE CONCRETE PIPE, EQIV DIA. 36 IN.	LF			101		101
	49	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF			663		663
	50	2504-0114008	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC, 8 IN.	LF				955	955
	51	2504-0134008	SANITARY SEWER GRAVITY MAIN WITH CASING PIPE, TRENCHED, PVC, 8 IN.	LF				151	151

ESTIMATED PROJECT QUANTITIES - IA 38 From W Jct US 30 to NCL Stanwood

STP-038-2(37)--2C-16

CONSTRUCTION USE ONLY	REF. NO.	ITEM CODE	BID ITEM DESCRIPTION	UNITS	DIVISION 1 Paving	DIVISION 2 Sidewalk/Ret Wall/Steps	DIVISION 3 Storm	DIVISION 4 Sanitary/Water	QUANTITY TOTAL
	52	2504-0200404	SANITARY SEWER SERVICE STUB, PVC, 4 IN.	LF				30	30
	53	2504-0200406	SANITARY SEWER SERVICE STUB, PVC, 6 IN.	LF				30	30
	54	2504-0240036	REMOVE SANITARY SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF				941	941
	55	2504-0240236	SANITARY SEWER ABANDONMENT, FILL AND PLUG, LESS THAN OR EQUAL TO 36 IN.	LF				5	5
	56	2510-6745850	REMOVAL OF PAVEMENT	SY	14283.7			707.9	14991.6
	57	2510-6750600	REMOVAL OF INTAKES AND UTILITY ACCESSES	EACH			12	5	17
	58	2511-6745900	REMOVAL OF SIDEWALK	SY		1507.1		4.7	1511.8
	59	2511-7526004	SIDEWALK PCC 4 IN	SY		1726.2			1726.2
	60	2511-7526006	SIDEWALK, PCC, 6 IN.	SY		91.5			91.5
	61	2511-7528101	DETECTABLE WARNINGS	SF		260			260
	62	2512-1725256	CURB AND GUTTER PCC 2.5'	LF	86				86
	63	2515-2475006	DRIVEWAY, P.C. CONCRETE, 6 IN.	SY	519.6				519.6
	64	2515-6745600	REMOVAL OF PAVED DRIVEWAY	SY	348.9				348.9
	65	2518-6910000	SAFETY CLOSURE	EACH	14			6	20
	66	2519-4200020	REMOVAL AND REINSTALLATION OF FENCE, CHAIN LINK	LF				88	88
	67	2524-6765010	REMOVE AND RE-INSTALL SIGN, AS PER PLAN	EACH	1				1
	68	2524-9100030	OBJECT MARKER, TYPE 3	EACH	2				2
	69	2524-9210000	MILEPOST MARKER	EACH	2				2
	70	2524-9276027	PERFORATED SQUARE STEEL TUBE POST ANCHOR, TRIANGULAR SLIP BASE ASSEMBLY	EACH	38				38
	71	2524-9325001	TYPE A SIGNS ALUM	SF	292				292
	72	2524-9325150	INSTALL TYPE A SIGN	EACH	48				48
	73	2527-9263109	PAINTED PAVEMENT MARKING WATERBORNE OR SOLVENT	STA	95.81				95.81
	74	2527-9263131	WET RETROREFLECTIVE REMOVABLE TAPE MARKINGS	STA	15.14				15.14
	75	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT	EACH	2				2
	76	2527-9263180	PAVEMENT MARKINGS REMOVED	STA	21.58				21.58
	77	2528-8445110	TRAFFIC CONTROL	LS	0.8		0.1	0.1	1
	78	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	21				21
	79	2533-4980005	MOBILIZATION	LS	0.59	0.05	0.1	0.26	1
	80	2552-0000210	TRENCH FOUNDATION	TON				16	16
	81	2554-0112006	WATER MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 6 IN.	LF				56	56
	82	2554-0114004	WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 4 IN.	LF				27	27
	83	2554-0114006	WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 6 IN.	LF				1619	1619
	84	2554-0132006	WATER MAIN WITH CASING PIPE, TRENCHED, DUCTILE IRON PIPE LF STD (DIP), 6 IN.	LF				138	138
	85	2554-0203000	FITTINGS BY WEIGHT, DUCTILE IRON	LB				2169	2169
	86	2554-0204110	WATER SERVICE STUB, COPPER, 1 IN.	EACH				14	14
	87	2554-0207004	VALVE, GATE, DIP, 4 IN.	EACH				1	1
	88	2554-0207006	VALVE, GATE, DIP, 6 IN.	EACH				18	18
	89	2554-0210201	FIRE HYDRANT ASSEMBLY, WM-201	EACH				7	7
	90	2595-0005150	RAILROAD PROTECTIVE LIABILITY INSURANCE FOR UNION PACIFIC RAILROAD	LS	1				1
	91	2599-9999005	STREET NAME SIGNS, COMPLETE, INSTALLED	EACH	6				6
	92	2599-9999009	CASING, PVC, 3 INCH	LF				525	525
	93	2599-9999009	CASING, STEEL, 12 INCH	LF				114	114
	94	2599-9999009	FULL DEPTH SAW CUT	LF	675				675

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

BID ITEMS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

iiw 563.556.2464 ◆ 800.556.4491
IIW, P.C. ◆ www.iiwengr.com

CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.1	144

ESTIMATED PROJECT QUANTITIES - IA 38 From W Jct US 30 to NCL Stanwood

STP-038-2(37)--2C-16

CONSTRUCTION USE ONLY	REF. NO.	ITEM CODE	BID ITEM DESCRIPTION	UNITS	DIVISION 1 Paving	DIVISION 2 Sidewalk/Ret Wall/Steps	DIVISION 3 Storm	DIVISION 4 Sanitary/Water	QUANTITY TOTAL
	95	2599-9999009	ORNAMENTAL METAL RAILING	LF		28.6			28.6
	96	2599-9999018	POLYSTRENE BOARD INSULATION	SY				126	126
	97	2599-9999020	SUBGRADE STABILIZATION MATERIAL, MODIFIED MACADAM	TON	200				200
	98	2601-2634100	MULCH	ACRE	1.4		0.1	0.1	1.6
	99	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE	0.2				0.2
	100	2601-2636044	SEEDING AND FERTILIZING (URBAN)	ACRE	1.2		0.1	0.1	1.4
	101	2601-2640350	SPECIAL DITCH CONTROL, WOOD EXCELSIOR MAT	SQ			39		39
	102	2602-0000020	SILT FENCE	LF	426				426
	103	2602-0000030	SILT FENCE-DITCH CHECKS	LF	22.5		112.5		135
	104	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	178		37.5		215.5
	105	26020000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	36		8		44
	106	2602-0000309	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 9 IN. DIA.	LF	520				520
	107	2602-0000350	REMOVAL OF PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	LF	520				520
	108	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	11				11
	109	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	2				2

REF. NO.	DATA BELOW IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE A BASIS FOR EXTRA WORK ORDER REQUESTS ESTIMATE REFERENCE INFORMATION
1	GRUBBING OF TOPPED TREES THROUGHOUT PROJECT CORRIDOR. CLEARING AND GRUBBING OF 12" AND 18" TREES LOCATED NEAR SANITARY SEWER 10+25, (MU.5) AS DIVISION 4, IF NECESSARY. CLEARING OF TREES PRIOR TO APRIL 1, AND AFTER SEPTEMBER 30, ONLY. SEE TABULATION 110-17.
2	PLACE 4 INCHES OF SPECIAL BACKFILL UNDER 6" PCC SIDEWALK AND UNDER PCC DRIVEWAYS. QUANTITY OF SPECIAL BACKFILL UNDER 6" PCC SIDEWALKS AND PCC DRIVEWAYS CALCULATED TO BE 128 TONS. REMAINDER OF QUANTITY ESTIMATED BASED UPON 2 FOOT DEPTH, AND A 3-FOOT WIDTH FROM APPROXIMATELY US 30 TO APPROXIMATELY FARMER'S STREET. ACTUAL LENGTHS, WIDTHS AND DEPTH WILL VARY FROM AREA TO AREA DEPENDING ON ACTUAL CONDITION OF PROPOSED SUBGRADE. DETERMINATION OF NEED FOR SPECIAL BACKFILL MADE AFTER OPERATIONS ASSOCIATED WITH MODIFIED SUBBASE COMPLETE. ASSOCIATED WITH REMOVAL AND REPLACEMENT OF UNSUITABLE OR UNSTABLE PAVEMENT SUBGRADE SOILS. SUITABLE SOILS EXCAVATED AS CLASS 10 MAY BE USED TO REPLACE UNSUITABLE OR UNSTABLE SOILS TO BE REPLACED.
3	SEE T SHEETS. IF EXCAVATED MATERIAL ASSOCIATED WITH INSTALLATION OF STORM SEWER, WATER MAIN, OR SANITARY SEWER IS SUITABLE, THE CONTRACTOR MAY USE THE SUITABLE EXCESS MATERIAL FOR ROADWAY FILL. CLASS 10 QUANTITY INCLUDES QUANTITY ASSOCIATED WITH DITCH FROM 27+25 TO 27+75 LT. QUANTITY ALSO INCLUDES EARTHWORK ASSOCIATED WITH GRANULAR AND PCC SHOULDERS. METHOD OF MEASUREMENT SHALL BE THE QUANTITY IN THE CONTRACT DOCUMENTS. BASIS OF PAYMENT SHALL INCLUDE ALL EQUIPMENT, MATERIALS, TOOLS AND LABOR NECESSARY TO EXCAVATE FOR THE STREET AND SIDEWALK AREAS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. VOLUME OF CLASS 10 EXCAVATION, ROADWAY AND BORROW IS ESTIMATED TO BE 6858 CY CUT (0% SHRINKAGE) AND 574 CY FILL (0% SHRINKAGE). ALL CLASS 10 EXCAVATION, ROADWAY AND BORROW MOVED TO OR WITHIN THIS PROJECT SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF ANY UNSUITABLE OR EXCESS MATERIAL AT LOCATIONS PROVIDED BY THE CONTRACTOR.
4	REMOVAL OF LANSCAPING BOULDERS LOCATED AT STATIONS 14+25 RT, 15+66 RT, AND 15+72 RT.
5	TO BE PLACED AS NEEDED AND AS AUTHORIZED BY THE ENGINEER IN ALL AREAS WHERE GRASS IS TO BE THE FINAL SURFACE. STRIP TO A DEPTH OF 6 INCHES AND PLACE AT A DEPTH OF 6 INCHES. METHOD OF MEASUREMENT SHALL BE THE QUANTITY MEASURED BY THE ENGINEER. FOR THE AMOUNT OF TOPSOIL PLACED. THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE PER CY. THIS PAYMENT SHALL INCLUDE ALL EQUIPMENT, MATERIALS, TOOLS AND LABOR NECESSARY TO INSTALL TOPSOIL IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6	USE IN LOCATIONS WHERE SUBGRADE STABILIZATION MATERIAL, MODIFIED MACADAM IS PLACED.
7	FOR USE UNDER 9.5 INCH PCC PAVEMENT, 4' WIDE 7 INCH THICK PAVED SHOULDERS, AND HMA. SHALL BE PLACED AS SHOWN ON THE B SHEETS.
8	SHALL BE PLACED AS SHOWN ON THE B SHEETS. SEE TABULATION 112-9.
9	SHALL BE PLACED AS SHOWN IN THE TYPICAL SECTIONS ON THE B SHEETS. SPECIAL BACKFILL ASSOCIATED WITH THIS ITEM SHALL BE INCIDENTAL AND NOT PAID FOR SEPARATELY. CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION. SEE QUANTITIES FOR SPECIAL BACKFILL MATERIAL (SECTION 4132) ASSOCIATED WITH PAVED SHOULDERS IN SHOULDER TABULATION 112-9.
10	SHALL BE PLACED AS SHOWN IN THE TYPICAL SECTIONS ON THE B SHEETS. SPECIAL BACKFILL ASSOCIATED WITH THIS ITEM SHALL BE INCIDENTAL AND NOT PAID FOR SEPARATELY. CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION. SEE QUANTITIES FOR SPECIAL BACKFILL MATERIAL (SECTION 4132) ASSOCIATED WITH PAVED SHOULDERS IN SHOULDER TABULATION 112-9.
11	FOR SHOULDERS FROM STA 26+92.73 TO 39+78.32 IN BOTH DIRECTIONS, AND SHOULDER ALONG US 30 FROM STA 90+95 TO 96+95. SEE B SHEETS.
12	FOR RESHAPING DRAINAGEWAY/IA 38 DITCHES ASSOCIATED WITH EXISTING CULVERT AT 29+54 RT, SUBDRAIN OUTLET INSTALLATION AND SCOUR REPAIR.
13	USED FOR CONSTRUCTION OF CONSTRUCTION ENTRANCES FOR EROSION CONTROL AS LOCATED ON THE EC SHEETS (PLAN VIEW) AND THE DETAIL AS SHOWN ON B.5.
14	FOR IA 38/ASH STREET INCLUDING INTEGRAL CURB AND GUTTER. FOR PLACEMENT OF ALL PCC STREET PAVEMENT ACCORDING TO THE CONTRACT DOCUMENTS. SEE B AND L SHEETS FOR DETAILS. CONTRACTOR SHALL NOT USE KEYWAY FOR PAVEMENT JOINTS. ALL CURB DROPS SHALL BE HAND FORMED. NO CUTS ALLOWED WITHOUT PERMISSION FROM THE ONSITE REPRESENTATIVE.
15	

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16	TO BE PLACED AS SHOWN ON THE B SHEETS. CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION. SEE TABULATION 100-25.
17	TO BE PLACED AS SHOWN ON THE B SHEETS. CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION. SEE TABULATION 100-25.
18	TO BE PLACED AS SHOWN ON THE B SHEETS. CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION. SEE TABULATION 100-25.
19	TO BE PLACED AS SHOWN ON THE B SHEETS. CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION. SEE TABULATION 100-25.
20	TO BE PLACED AS SHOWN ON THE B SHEETS. CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION. SEE TABULATION 100-25.
21	SEE TABULATION 110.25.
22	FOR USE WHERE NEW CONSTRUCTION ABUTS EXISTING STONE-SURFACE DRIVEWAY. WIDTH, LENGTH AND THICKNESS AS INDICATED ON THE MU SHEETS. METHOD OF MEASUREMENT WILL BE THE QUANTITY, IN TONS, COMPUTED BY THE ENGINEER FROM WEIGHTS OF INDIVIDUAL TRUCK LOADS (TICKETS). WIDTHS AND DEPTHS SHALL BE AS INDICATED IN THE B SHEETS. LENGTHS SHALL BE APPROVED BY THE ENGINEER. MATERIAL SHALL CONFORM TO GRADATION NUMBER 11 (4120.04).
23	FOR REMOVAL OF STAIRS AND PORTIONS OF EXISTING RETAINING WALLS STATIONS 25+50 TO 26+00 LT. SEE V SHEETS FOR DETAILS.
24	SEE TABULATION 190-62. THREE SIGNS IN CHURCH PARKING LOT (NEAR STA 1+50) TO BE SALVAGED AND RETURNED TO OWNER. CONTRACTOR TO NOTIFY CHURCH PRIOR TO REMOVAL AND TO CAREFULLY REMOVE THE SIGNS AND PLACE IN R.O.W. FOR CITY PICKUP. FOR ALL OTHER SIGNS, CONTRACTOR SHALL NOTIFY TIPTON MAINTENANCE AT 563-946-2391, AND CAREFULLY REMOVE AND STORE SIGNS IN R.O.W. FOR PICKUP BY STATE MAINTENANCE CREWS.
25	FOR RETAINING WALL AND STAIRS, AS DETAILED IN THE V SHEETS, 25+50 TO 26+00 LT. CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION.
26	FOR REINFORCED PCC PANELS AS SHOWN ON PLAN SHEET L.9 (DIV 1 = 4062 LBS). ALSO FOR RETAINING WALL AND STAIRS, AS DETAILED IN THE V SHEETS, 25+50 TO 26+00 LT (DIV 2 = 273 LBS).
27	SEE M SHEETS FOR DETAILS AND TABULATION 104-5B. INCLUDES TRASH RACKS.
28	SEE M SHEETS FOR DETAILS AND TABULATION 104-5B. INCLUDES TRASH RACKS.
29	AT LOCATIONS AS INDICATED ON THE MU SHEETS. INTERNAL CHIMNEY SEAL ONLY. ITEM SHALL BE PRECAST ONLY. CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION FOR CAST IN PLACE COMPONENTS. INCLUDES CONNECTIONS TO EXISTING PIPE. SHALL INCLUDE O-RINGS.
30	ALL ADDITIONAL COSTS NECESSARY FOR THE COMPONENTS ASSOCIATED WITH AN INTERNAL DROP MANHOLE SHALL BE INCLUDED IN THIS BID ITEM. SHALL INCLUDE THE FLEXIBLE CONNECTION WITH SS SHEAR BAND LOCATED 5 FOOT OUTSIDE OF THE INTERNAL DROP MANHOLE. SHALL INCLUDE O-RINGS AND INTERNAL CHIMNEY SEAL.
31	SIZE SHALL BE 60 INCH INSIDE DIMENSION WITH 6-INCH WALL THICKNESS.
32	CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION FOR ANY CAST-IN-PLACE COMPONENTS.
33	CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION FOR ANY CAST-IN-PLACE COMPONENTS.
34	CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION FOR ANY CAST-IN-PLACE COMPONENTS. SEE PLAN SHEET U.1.
35	CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION FOR ANY CAST-IN-PLACE COMPONENTS.
36	CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION FOR ANY CAST-IN-PLACE COMPONENTS. SEE PLAN SHEET U.2 AND U.3.
37	CONTRACTOR SHALL SUPPLY CERTIFIED PLANT INSPECTION FOR ANY CAST-IN-PLACE COMPONENTS.
38	FOR ADJUSTMENT OF EXISTING SANITARY SEWER MANHOLES LOCATED NEAR STATIONS 14+14 LT, 15+57 LT AND 29+59 LT.
39	FOR CONNECTION TO SANITARY MANHOLE AT STATION 23+52.94 (MH 4). SEE PLAN SHEET M U.6.
40	TO BE PLACED AS SHOWN ON THE D SHEETS. COST FOR SUBDRAIN CONNECTIONS AND END-CAPS SHALL BE INCIDENTAL TO AND INCLUDED IN THE PAYMENT UNDER THIS ITEM. LOCATION SHALL BE AS SHOWN ON TYPICAL SECTIONS. CONNECTIONS SHALL BE IN ACCORDANCE TO SPECIFICATION 2502. FOR CONNECTION TO INLETS FROM BEGINNING OF PROJECT TO STATION 27+00, A 6 INCH CPE SLEEVE SHALL BE INSERTED INTO THE INLET/MANHOLE AT A MAXIMUM OF 1 INCH ABOVE THE FILLET. INSERT DRAIN TILE THROUGH SLEEVE. CONNECTION LOCATION SHALL BE AT THE DISCRETION OF THE CONTRACTOR. STEEL POSTS ARE REQUIRED AT OUTLETS FROM STATION 27+00 TO EOP ONLY. TABULATION ON C SHEETS.
41	SEE TABULATION 104-9
42	SEE TABULATION 104-9
43	REFER TO TABULATION 104-5B AND ROAD STANDARDS SW-101 AND SW-102. INCLUDES COST OF BEDDING, HAUNCH SUPPORT, AND PRIMARY, SECONDARY AND FINAL TRENCH BACKFILL USING GRADATION 30 OR GRADATION 32 MATERIAL IN ALL AREAS WHERE PIPE IS PLACED UNDER OR WITHIN FIVE FEET OF PROPOSED PAVEMENT. CONNECTIONS TO EXISTING PIPES SHALL BE IN ACCORDANCE TO STANDARD ROAD PLAN SW-211 UNLESS EXACT MATING OF BELL AND SPIGOT OR TONGUE AND GROOVE CAN BE ACHIEVED.
44	REFER TO TABULATION 104-5B AND ROAD STANDARDS SW-101 AND SW-102. INCLUDES COST OF BEDDING, HAUNCH SUPPORT, AND PRIMARY, SECONDARY AND FINAL TRENCH BACKFILL USING GRADATION 30 OR GRADATION 32 MATERIAL IN ALL AREAS WHERE PIPE IS PLACED UNDER OR WITHIN FIVE FEET OF PROPOSED PAVEMENT. CONNECTIONS TO EXISTING PIPES SHALL BE IN ACCORDANCE TO STANDARD ROAD PLAN SW-211 UNLESS EXACT MATING OF BELL AND SPIGOT OR TONGUE AND GROOVE CAN BE ACHIEVED.

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

REFERENCE NOTES

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

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45	REFER TO TABULATION 104-5B AND ROAD STANDARDS SW-101 AND SW-102. INCLUDES COST OF BEDDING, HAUNCH SUPPORT, AND PRIMARY, SECONDARY AND FINAL TRENCH BACKFILL USING GRADATION 30 OR GRADATION 32 MATERIAL IN ALL AREAS WHERE PIPE IS PLACED UNDER OR WITHIN FIVE FEET OF PROPOSED PAVEMENT. CONNECTIONS TO EXISTING PIPES SHALL BE IN ACCORDANCE TO STANDARD ROAD PLAN SW-211 UNLESS EXACT MATING OF BELL AND SPIGOT OR TONGUE AND GROOVE CAN BE ACHIEVED.
46	REFER TO TABULATION 104-5B AND ROAD STANDARDS SW-101 AND SW-102. INCLUDES COST OF BEDDING, HAUNCH SUPPORT, AND PRIMARY, SECONDARY AND FINAL TRENCH BACKFILL USING GRADATION 30 OR GRADATION 32 MATERIAL IN ALL AREAS WHERE PIPE IS PLACED UNDER OR WITHIN FIVE FEET OF PROPOSED PAVEMENT. CONNECTIONS TO EXISTING PIPES SHALL BE IN ACCORDANCE TO STANDARD ROAD PLAN SW-211 UNLESS EXACT MATING OF BELL AND SPIGOT OR TONGUE AND GROOVE CAN BE ACHIEVED.
47	REFER TO TABULATION 104-5B AND ROAD STANDARDS SW-101 AND SW-102. INCLUDES COST OF BEDDING, HAUNCH SUPPORT, AND PRIMARY, SECONDARY AND FINAL TRENCH BACKFILL USING GRADATION 30 OR GRADATION 32 MATERIAL IN ALL AREAS WHERE PIPE IS PLACED UNDER OR WITHIN FIVE FEET OF PROPOSED PAVEMENT. CONNECTIONS TO EXISTING PIPES SHALL BE IN ACCORDANCE TO STANDARD ROAD PLAN SW-211 UNLESS EXACT MATING OF BELL AND SPIGOT OR TONGUE AND GROOVE CAN BE ACHIEVED.
48	REFER TO TABULATION 104-5B AND ROAD STANDARDS SW-101 AND SW-102. INCLUDES COST OF BEDDING, HAUNCH SUPPORT, AND PRIMARY, SECONDARY AND FINAL TRENCH BACKFILL USING GRADATION 30 OR GRADATION 32 MATERIAL IN ALL AREAS WHERE PIPE IS PLACED UNDER OR WITHIN FIVE FEET OF PROPOSED PAVEMENT. CONNECTIONS TO EXISTING PIPES SHALL BE IN ACCORDANCE TO STANDARD ROAD PLAN SW-211 UNLESS EXACT MATING OF BELL AND SPIGOT OR TONGUE AND GROOVE CAN BE ACHIEVED.
49	SEE M SHEETS AND TABULATION 110-14 FOR REMOVAL LOCATIONS. TO BE REMOVED AS NECESSARY FOR THE INSTALLATION OF THE NEW STORM SEWER OR AS NEEDED FOR ROADWAY CONSTRUCTION. EXCAVATION TRENCH SHALL BE BACKFILLED WITH CLASS A (GRADATION 11) STONE COMPACTED TO 95% MAXIMUM STANDARD PROCTOR DENSITY IN 8-INCH LIFTS. PAYMENT UNDER THIS ITEM WILL INCLUDE FULL COMPENSATION FOR FURNISHING AND PLACEMENT OF BACKFILL. NO SEPARATE PAYMENT WILL BE MADE FOR BACKFILL.
50	REFER TO MU PLAN SHEETS AND ROAD STANDARD SW-103. INCLUDES COST OF BEDDING, HAUNCH SUPPORT, AND PRIMARY, SECONDARY AND FINAL TRENCH BACKFILL USING TYPE II BEDDING ONLY WHERE PIPE IS PLACED UNDER OR WITHIN FIVE FEET OF PROPOSED PAVEMENT OR GRANULAR SURFACING. IN LOCATIONS NOT WITHIN 5 FEET OF PROPOSED PAVEMENT OR GRANULAR SURFACING THE FINAL BACKFILL MAY BE DONE USING TYPE III, IVA, OR IVB. THE APPROXIMATE LOCATIONS WHERE TYPE II BACKFILL WILL NOT BE REQUIRED ARE AS FOLLOWS: STA 10+08 TO 11+33; STA 11+90 TO 12+13; STA 30+12 TO 31+33; AND STA 32+03 TO 33+44. CONNECTIONS TO EXISTING PIPES SHALL BE WITH FLEXIBLE COUPLING WITH SS SHEAR RINGS. CONNECTION SHALL BE INCIDENTAL TO THIS BID ITEM AND SHALL NOT BE PAID FOR SEPARATELY. ONLY SOLID WALL PVC SHALL BE ACCEPTED. SHALL BE PVC SDR 26 PER ASTM D3034 WITH ELASTOMERIC GASKETS.
51	REFER TO MU PLAN SHEETS AND ROAD STANDARDS SW-103. INCLUDES COST OF BEDDING, HAUNCH SUPPORT, AND PRIMARY, SECONDARY AND FINAL TRENCH BACKFILL USING GRADATION 30 OR GRADATION 32 MATERIAL IN ALL AREAS WHERE PIPE IS PLACED UNDER OR WITHIN FIVE FEET OF PROPOSED PAVEMENT. CONNECTIONS TO EXISTING PIPES SHALL BE IN ACCORDANCE TO STANDARD ROAD PLAN SW-211 UNLESS EXACT MATING OF BELL AND SPIGOT OR TONGUE AND GROOVE CAN BE ACHIEVED. THE CASING PIPE SHALL BE 16 INCH. THERE SHALL BE A MINIMUM OF 3/8 INCH WALL THICKNESS FOR THE CARRIER PIPE. ONLY SOLID WALL PVC SHALL BE ACCEPTED. SHALL BE PVC SDR 26 PER ASTM D3034 WITH ELASTOMERIC GASKETS. CASING SPACERS ARE TO BE INCLUDEDED AND AT A MINIMUM EACH PIPE SHALL HAVE A MINIMUM OF 3 CASING SPACERS. CASING SPACERS SHALL BE STAINLESS STEEL WITH POLYMERIC GUIDES. ALL BOLTS AND NUTS USED TO ASSEMBLE THE CASING SPACERS SHALL BE STAINLESS STEEL. THE CASING SPACERS SHALL CENTER THE SANITARY SEWER IN THE STEEL CASING.
52	REFER TO MU PLAN SHEETS AND ROAD STANDARDS SW-201. INCLUDES COST OF BEDDING, HAUNCH SUPPORT, AND PRIMARY, SECONDARY AND FINAL TRENCH BACKFILL USING GRADATION 30 OR GRADATION 32 MATERIAL IN ALL AREAS WHERE PIPE IS PLACED UNDER OR WITHIN FIVE FEET OF PROPOSED PAVEMENT OR GRANULAR SURFACING. IN LOCATIONS NOT WITHIN 5 FEET OF PROPOSED PAVEMENT OR GRANULAR SURFACING THE FINAL BACKFILL MAY BE DONE USING TYPE III, IVA, OR IVB. CONNECTIONS TO EXISTING PIPES SHALL BE IN ACCORDANCE TO STANDARD ROAD PLAN SW-211 UNLESS EXACT MATING OF BELL AND SPIGOT OR TONGUE AND GROOVE CAN BE ACHIEVED. SANITARY SEWER SERVICE STUBS SHALL BE PVC SDR 26 PER ASTM D3034 WITH ELASTOMERIC GASKETS.
53	REFER TO MU PLAN SHEETS AND ROAD STANDARDS SW-201. INCLUDES COST OF BEDDING, HAUNCH SUPPORT, AND PRIMARY, SECONDARY AND FINAL TRENCH BACKFILL USING GRADATION 30 OR GRADATION 32 MATERIAL IN ALL AREAS WHERE PIPE IS PLACED UNDER OR WITHIN FIVE FEET OF PROPOSED PAVEMENT OR GRANULAR SURFACING. IN LOCATIONS NOT WITHIN 5 FEET OF PROPOSED PAVEMENT OR GRANULAR SURFACING THE FINAL BACKFILL MAY BE DONE USING TYPE III, IVA, OR IVB. CONNECTIONS TO EXISTING PIPES SHALL BE IN ACCORDANCE TO STANDARD ROAD PLAN SW-211 UNLESS EXACT MATING OF BELL AND SPIGOT OR TONGUE AND GROOVE CAN BE ACHIEVED. SANITARY SEWER SERVICE STUBS SHALL BE PVC SDR 26 PER ASTM D3034 WITH ELASTOMERIC GASKETS.
54	APPLIES TO ALL SANITARY SEWER REPLACED AS PART OF THIS PROJECT, AS INDICATED TABULATION 110-14.
55	AS INDICATED ON MU SHEETS AND TABULATION 110-14 , APPROXIMATE MAINLINE STATION 2+43 TO WEST TO EXISTING MANHOLE BEHIND CHURCH. PLUG ONLY, FILL NOT REQUIRED.
56	FOR FULL-DEPTH SAWCUTTING AND REMOVAL OF ALL EXISTING STREET PAVEMENT, INCLUDING CURB AND GUTTER, TO THE LIMITS NECESSARY TO CONSTRUCT THE IMPROVEMENT. VERIFY REMOVAL LIMITS WITH THE ENGINEER PRIOR TO REMOVAL.
57	SEE TABULATION 110-15. EXCEPT WHERE PIPE IS NOTED TO BE REMOVED, CAREFUL REMOVAL OF EXISTING INTAKES AND UTILITY ACCESSES SO AS NOT TO DAMAGE THE EXISTING STORM SEWER PIPE.
58	SEE TABULATION 110-5. VERIFY REMOVAL LIMITS WITH THE ENGINEER PRIOR TO REMOVAL. INCLUDES REMOVAL OF SIDEWALK THROUGH DRIVEWAYS.
59	SEE TABULATION 113-1 FOR SIDEWALK, L SHEETS FOR JOINTING AND STAKING INFORMATION. CONTRACTOR TO SUPPLY CERTIFIED PLANT INSPECTION. PEDESTRIAN RAMP CURB SHALL BE PLACED AS SHOWN ON THE S SHEETS AND IN SECTION D-D ON STANDARD ROAD PLAN MI-220 AND SHALL BE INTEGRALLY CAST WITH SIDEWALK. NO ADDITIONAL PAYMENT WILL BE MADE SHOULD THE CONTRACTOR CHOOSE TO UTILIZE STONE FOR LEVELING PURPOSES.
60	SEE TABULATION 113-1 FOR SIDEWALK, L SHEETS FOR JOINTING AND STAKING INFORMATION. CONTRACTOR TO SUPPLY CERTIFIED PLANT INSPECTION. PEDESTRIAN RAMP CURB SHALL BE PLACED AS SHOWN ON THE S SHEETS AND IN SECTION D-D ON STANDARD ROAD PLAN MI-220 AND SHALL BE INTEGRALLY CAST WITH SIDEWALK. SIDEWALK AREA WITHIN DRIVEWAYS WILL BE PAID FOR AS DRIVEWAY. CREATE AN ADA-COMPLIANT PATH A MINIMUM OF 5 FEET WIDE THROUGH DRIVEWAY. NO ADDITIONAL PAYMENT WILL BE MADE SHOULD THE CONTRACTOR CHOOSE TO UTILIZE STONE FOR LEVELING PURPOSES.
61	DETECTABLE WARNINGS SHALL BE IN ACCORDANCE WITH IDOT "MATERIALS I.M. 411". TYPES OF ACCEPTABLE PANELS SHALL BE PRECAST AND MODULAR TYPES ONLY. SURFACE-APPLIED AND STAMPED CONCRETE TYPES OF WARNING PANELS SHALL NOT BE ACCEPTABLE. CAST-IN-PLACE COMPONENTS INCLUDE CERTIFIED PLANT INSPECTION. THE QUANTITY OF DETECTABLE WARNINGS INSTALLED SHALL BE THE QUANTITY MEASURED BY THE ENGINEER TO THE NEAREST 0.1 SF.
62	CONTRACTOR TO SUPPLY CERTIFIED PLANT INSPECTION. METHOD OF MEASUREMENT: THE QUANTITY OF CURB AND GUTTER CONSTRUCTED SHALL BE QUANTITY MEASURED BY THE ENGINEER TO THE NEAREST 0.1 LF. 2.5' PCC CURB AND GUTTER FOR SIDE STREETS, AS INDICATED IN THE PLAN DRAWINGS, IN ASSOCIATION WITH HMA PAVING.

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63	SEE C SHEETS FOR DRIVEWAY PLACEMENT LOCATIONS. CONTRACTOR TO SUPPLY CERTIFIED PLANT INSPECTION. INCLUDES AREA FROM THE BACK OF THE CURB TO THE FRONT OF THE SIDEWALK AND FROM THE BACK OF THE SIDEWALK TO THE POINT WHERE THE EXISTING DRIVEWAY MATCHES. AREA WITHIN SIDEWALK WILL BE PAID FOR AS DRIVEWAY. CREATE AN ADA PATH A MINIMUM OF 5 FEET WIDE. CONSTRUCTION SHALL BE AS PROVIDED IN STANDARD ROAD PLAN MI-210, 'CASE 2 ENTRANCE'.
64	REMOVAL AT LOCATIONS AS DIRECTED BY THE ENGINEER. INCLUDES CORE OUT AND PREPARATION OF EXISTING MATERIAL TO ALLOW PLACEMENT OF 6 INCHES OF MODIFIED SUBBASE (SEE DETAIL ON B SHEETS). MODIFIED SUBBASE SHALL BE PAID FOR SEPARATELY. METHOD OF MEASUREMENT: THE QUANTITY OF DRIVEWAY REMOVED, SHALL BE THE AMOUNT MEASURED BY THE ENGINEER TO THE NEAREST 0.1 SY. FOR THE AMOUNT OF DRIVEWAY SUCCESSFULLY REMOVED THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE PER SY. THIS PAYMENT SHALL INCLUDE ALL EQUIPMENT, MATERIALS, TOOLS AND LABOR NECESSARY TO REMOVE PAVED DRIVEWAYS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
65	PLACEMENT ON ROADWAY FOR CLOSURE DURING CONSTRUCTION OPERATIONS. SEE TABULATION ON C SHEETS.
66	FOR FENCE AT STA 30+29, 3.79R TO STA 31+04, 2.63R AS SHOWN ON SHEET M.U.7. CAREFULLY REMOVE AND REINSTALL FENCE FABRIC AND TOP RAIL FOR REINSTALLATION. ALL FENCE POSTS AND ASSESSORIES SHALL BE REPLACED. THE FENCE POSTS AND ASSESSORIES WILL BE CONSIDERED INCIDENTAL TO THIS BID ITEM.
67	INCLUDES EXISTING SIGN AT APPROX. STA. 24+90 L. SEE SHEET D.5 FOR LOCATION. CONTRACTOR SHALL CAREFULLY REMOVE AND STORE THE SIGN WITH FLASHER AND POST. ANY DAMAGE TO ANY OF THE EXISTING MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACT WILL RE-INSTALL SIGN AT APPROXIMATELY THE SAME LOCATION, FOLLOWING MUTCD AND IDOT SPECIFICATIONS. METHOD OF MEASUREMENT: CONTRACTOR SHALL BE PAID AS EACH. BASIS OF PAYMENT: THE QUANTITY OF SUCCESSFUL REMOVAL AND INSTALLATION SHALL BE CONSIDERED AS ONE COUNT. THIS PAYMENT SHALL INCLUDE ALL EQUIPMENT, MATERIALS, TOOLS AND LABOR NECESSARY TO REMOVE AND REPLACE THE SIGN AND APPURTENANCES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
68	TO BE INSTALLED AT RAILROAD CROSSING TO DELINEATE CROSSING SIGNAL. SEE TABULATION 190-25.
69	SEE TABULATION 190.25.
70	SEE TABULATION 190-51.
71	SEE TABULATION 190.66.
72	REFER TO TABULATIONS 190-51 AND 190-66.
73	PLACEMENT SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARD ROAD PLANS. SEE TABULATION 108-22.
74	FOR TRAFFIC SHIFT ON US 30 DURING STAGED CONSTRUCTION AT IA 38. SEE DETAIL ON J SHEETS AND APPLICABLE STANDARD ROAD PLANS. SEE TABULATION 108-22.
75	SEE TABULATION 108-29.
76	FOR TRAFFIC SHIFT ON US 30 DURING STAGED CONSTRUCTION AT IA 38. SEE DETAIL ON J SHEETS AND APPLICABLE STANDARD ROAD PLANS. SEE TABULATION 108-22.
77	SEE J SHEETS FOR DETOUR AND TRAFFIC CONTROL NOTES.
78	TO BE PLACED AS INDICATED ON THE J SHEETS.
79	FOR MOBILIZATION.
80	AS INDICATED ON MU SHEETS, INTENDED FOR USE WITH SANITARY SEWER LOCATED AT APPROXIMATE MAINLINE STATION 2+43 TO WEST TO EXISTING MANHOLE BEHIND CHURCH. QUANTITY ESTIMATE BASED UPON 110 LF, 1 FOOT THICK, WITH A TRENCH BOTTOM WIDTH OF 2 FEET 3 INCHES. TO BE USED TO STABILIZE UNSUITABLE, AND/OR UNSTABLE SOILS ENCOUNTERED IN UTILITY TRENCHES. ANTICIPATED TO BE NEED IN TRENCHES GREATER THAN 5-FEET IN DEPTH, WHERE EXISTING UTILITY ALIGNMENT DIFFERS FROM PROPOSED.
81	6" DIP WATER MAIN SHALL BE CLASS 350 OR 50 PER AWWA C151 WITH ELASTOMERIC JOINTS. POLYETHYLENE ENCASEMENT REQUIRED.

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

REFERENCE NOTES

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

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DETAILED BY: _____ CHECKED BY: _____

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.3	144

REF. NO.	DATA BELOW IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE A BASIS FOR EXTRA WORK ORDER REQUESTS ESTIMATE REFERENCE INFORMATION
82	4" PVC WATER MAIN SHALL BE PVC CLASS 235 DR 18 PER AWWA C900, WITH ELASTOMERIC GASKET JOINTS.
83	6" PVC WATER MAIN SHALL BE PVC CLASS 235 DR 18 PER AWWA C900, WITH ELASTOMERIC GASKET JOINTS. POLYSTYRENE BOARD INSULATION WITH MINIMUM R VALUE OF 5 PER 1" THICKNESS TO BE INSTALLED IN 2" MIN. THICKNESS FOR A MINIMUM WIDTH OF 3' CENTERED ON WATER MAIN IN DITCH CUT, NORTH OF FARMERS STREET, FROM STA 27+50 TO 28+00, AS SHOWN ON MU SHEETS. INSULATION BOARD INCIDENTAL TO BID ITEM.
84	THE CASING PIPE SHALL BE 12 INCH WITH MINIMUM OF 3/8 INCH WALL THICKNESS. POLYETHYLENE ENCASEMENT REQUIRED. CASING SPACERS ARE TO BE INCLUDED, AT A MINIMUM EACH PIPE SHALL HAVE A MINIMUM OF 2 CASING SPACERS. CASING SPACERS SHALL BE STAINLESS STEEL WITH POLYMERIC GUIDES. ALL BOLTS AND NUTS USED TO ASSEMBLE THE CASING SPACERS SHALL BE STAINLESS STEEL. THE CASING SPACERS SHALL CENTER THE WATER MAIN IN THE STEEL CASING.
85	POLYETHYLENE ENCASEMENT REQUIRED. CONNECTIONS WITH EXISTING WATER MAIN SHALL BE MADE WITH FITTINGS. COUPLINGS MAY BE USED FOR THE CONNECTIONS WITH EXISTING. THE COUPLINGS SHALL HAVE DUCTILE IRON OR STAINLESS STEEL BODIES AND STAINLESS STEEL FASTENERS AND HARDWARE. CONNECTIONS WITH THE EXISTING WATER MAIN WILL BE PAID FOR BY THE POUND FOR THE APPROPRIATELY SIZED SLEEVE. NO ADDTIONAL WEIGHT WILL BE PAID FOR IF THE CONTRACTOR WISHES TO UTILIZE COUPLINGS. BID QUANTITY INCLUDES AN ESTIMATE OF 51 MEGALUGS.
86	TAPPING SADDLES ARE REQUIRED FOR EACH SERVICE STUB INSTALLED. TAPPING SADDLES SHALL BE DUCTILE IRON BODY WITH STAINLESS STEEL STRAPS AND FASTENERS AND HARDWARE. THE TAPPING SADDLES SHALL HAVE AWWA/CC THREADED OUTLETS. THE CORPORATION STOPS FOR THE WATER SERVICES SHALL BE MUELLER B25008N. THE CURB STOPS FOR THE WATER SERVICES SHALL BE MUELLER B25155N. THE CURB BOXES FOR THE WATER SERVICES SHALL BE MUELLER H-10332. THE FOLLOWING IS ONLY APPLICABLE TO THE PROPOSED WATER SERVICES LOCATED ON THE EAST SIDE OF HIGHWAY 38 (ASH STREET): HOUSE/PRIVATE SIDE OF THE CURB STOP THE CONTRACTOR SHALL UTILIZE A 1 FOOT (MINIMUM) LONG SEGMENT OF POLYETHYLENE TUBE BETWEEN THE PROPOSED CURB STOP AND EXISTING WATER SERVICE. THE POLYETHYLENE TUBE SHALL BE CTS POLYETHYLENE (PE) PER ASTM D-2737 SDR-9. THE CONNECTION TO EXISTING WATER SERVICE SHALL BE MADE WITH A BRASS COMPRESSION COUPLING. COMPRESSION CONNECTIONS WITH POLYETYLENE TUBE WILL REQUIRE STAINLESS STEEL INSERT STIFFENER LINERS.
87	GATE VALVES SHALL BE MUELLER 2361 RESILIENT WEDGE GATE VALVES.
88	GATE VALVES SHALL BE MUELLER 2361 RESILIENT WEDGE GATE VALVES.
89	FIRE HYDRANTS SHALL BE EITHER: MUELLER SUPER CENTURION OR WATEROUR PACER (5-1/4") FIRE HYDRANTS. NO SEPARATE PAYMENT WILL BE MADE FOR HYDRANT EXTENSIONS. HYDRANT ASSEMBLY FOR HYDRANT NO. 3 SHALL INCLUDE ALL ITEMS FROM HYDRANT TO 6 INCH VALVE, 3 FEET WEST OF HYDRANT, INCLUDING THE ASSOCIATED VALVE. ALL OTHER HYDRANT ASSEMBLIES WOULD BE PER DETAIL WM-201.
90	RAILROAD PROTECTIVE LIABILITY INSURANCE AS REQUIRED BY DS-15027.
91	SEE DETAIL ON B SHEETS. BID ITEM INCLUDES 2 INCH X 2 INCH X 8 FOOT PERFORATED SQUARE STEEL TUBE POST, ANCHOR, FOUNDATION, SIGN PANELS WITH STREET NAMES ON BOTH SIDES, BRACKETS AND LABOR NECESSARY TO INSTALL SIGN ASSEMBLY. TO BE INSTALLED ON THE NORTHEAST CORNER OF EACH INTERSECTION. METHOD OF MEASUREMENT IS FOR EACH SIGN ASSEMBLY. BASIS OF PAYMENT IS CONTRACT UNIT PRICE FOR FULL COMPENSATION TO FURNISH AND INSTALL EACH SIGN ASSEMBLY.
92	FOR WATER SERVICES CROSSING IA 38. ALSO FOR FUTURE WATER MAIN CONSTRUCTION NORTH OF THE UP RAILROAD. PVC SHALL BE SCHEDULE 80. ENDS OF CASINGS FOR FUTURE CONSTRUCTION TO BE WRAPPED ENGINEERING FABRIC AND AFFIXED WITH DUCT TAPE. PREVENT PUNCTURING OF ENGINEERING FABRIC DURING BACKFILL OF TRENCH. METHOD OF MEASUREMENT: THE ENGINEER MEASURE LF OF CASING. BASIS OF PAYMENT: FOR THE QUANTITY OF CASING, PVC, 3 INCH, THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE PER LF. THIS PAYMENT WILL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR AND EQUIPMENT NEEDED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS
93	FOR FUTURE WATER MAIN CONSTRUCTION NORTH OF THE UP RAILROAD. ENDS OF CASINGS FOR FUTURE CONSTRUCTION TO BE WRAPPED ENGINEERING FABRIC AND AFFIXED WITH DUCT TAPE. PREVENT PUNCTURING OF ENGINEERING FABRIC DURING BACKFILL OF TRENCH. METHOD OF MEASUREMENT: THE ENGINEER MEASURE LF OF CASING. BASIS OF PAYMENT: FOR THE QUANTITY OF CASING, PVC, 12 INCH, THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE PER LF. THIS PAYMENT WILL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR AND EQUIPMENT NEEDED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS
94	INCLUDES SAWCUT ALONG EDGE OF US30 FOR PAVED SHOULDER CONSTRUCTION (APPROXIMATE STATION 90+15 TO 91+73, 620 LF). RADIUS AT INTERSECTION OF ASH AND BROADWAY STREET (55 LF). ALL OTHER SAW CUTS SHALL BE CONSIDERED INCIDENTAL TO THE REMOVALS ITEM. METHOD OF MEASUREMENT: THE QUANTITY OF FULL DEPTH SAW CUT, SHALL BE THE AMOUNT MEASURED BY THE ENGINEER TO THE NEAREST 0.1 LF. BASIS OF PAYMENT: FOR THE AMOUNT OF FULL DEPTH SAW CUT THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE PER LF. THIS PAYMENT SHALL INCLUDE ALL EQUIPMENT, MATERIALS, TOOLS AND LABOR NECESSARY TO FULL DEPTH SAW CUT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
95	FURNISH AND INSTALL ORNAMENTAL METAL RAILING ASSOCIATED WITH STEPS/STAIRS (25+50 TO 26+00 LT) AS INDICATED IN DETAILS ON THE V SHEETS. MEASUREMENT WILL BE IN LINEAR FEET FOR ORNAMENTAL SAFETY RAIL, MEASURED ALONG THE TOP OF THE RAIL FROM END OF RAIL TO END OF RAIL. PAYMENT WILL BE AT THE UNIT PRICE PER LINEAR FOOT OF ORNAMENTAL SAFETY RAIL. PAYMENT SHALL INCLUDE ALL EQUIPMENT, MATERIALS, TOOLS AND LABOR NECESSARY TO INSTALL ORNAMENTAL SAFETY RAIL.
96	POLYSTYRENE BOARD INSULATION, WITH A MINIMUM R VALUE OF 5 PER 1" THICKNESS, TO BE INSTALLED IN 2" MIN. THICKNESS FOR A MINIMUM WIDTH OF 3' CENTERED ON WATER MAIN. INSTALL ON WATER MAIN IN DITCH CUT, NORTH OF FARMERS STREET, FROM STA 27+45 TO 28+01, AND ON EXISTING WATER MAIN AND SERVICES FROM STA 14+25 TO 16+60, AS SHOWN ON MU SHEETS. THE POLYSTYRENE BOARD INSULATION AT STA 14+25 TO 16+60 (ALONG ASH ST/HWY 38), NEAR THE BROADWAY STREET INTERSECTION, SHALL BE INSTALLED A MINIMUM 6" BELOW THE PROPOSED FLOW LINE OF THE NEARBY SUBDRAIN. METHOD OF MEASUREMENT: ENGINEER WILL MEASURE SY OF INSULATION INSTALLED. BASIS OF PAYMENT: FOR THE QUANTITY OF INSULATION INSTALLED, THE CONTRACTOR WILL BE PAID THE CONTRACT UNIT PRICE PER SY. PAYMENT WILL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, AND EQUIPMENT NEEDED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
97	ANTICIPATED BETWEEN 16+00 AND 18+50, SUBJECT TO APPROVAL OF THE ENGINEER AS DETERMINED THROUGH PROOF-ROLLING OF THE PROPOSED SUBRADE PRIOR TO PLACEMENT OF BASE STONE. USE MACADAM MATERIAL IDOT GRADATION 13 EXCEPT THAT IT SHALL NOT BE SCREENED OVER THE 3/4 INCH OR 1 INCH SCREEN. THIS MATERIAL IS TO BE USED AS SUBGRADE STABILIZATION MATERIAL IF SUBGRADE STABILIZATION IS NECESSARY, AND IF AUTHORIZED IN LOCATIONS IN ADVANCE BY THE ENGINEER OR OWNER, THE BID UNIT PRICES SHALL GOVERN. ENGINEER WILL DETERMINE AREA AND THICKNESS TO BE STABILIZED. INCLUDES EXCAVATION AND DISPOSAL OF THE EXCAVATED MATERIAL. METHOD OF MEASUREMENT: THE ENGINEER WILL MEASURE THE TONS PLACED BASED ON WEIGHT TICKETS. BASIS OF PAYMENT: FOR THE TONS PLACED, THE CONTRACTOR WILL BE PAID THE UNIT PRICE PER TON WHICH INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR SUBGRADE STABILIZATION.

REF. NO.	DATA BELOW IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE A BASIS FOR EXTRA WORK ORDER REQUESTS ESTIMATE REFERENCE INFORMATION
98	ALL DISTURBED AREAS WITHOUT PAVEMENT, SIDEWALK OR STONE.
99	DISTURBED AREAS WITHOUT PAVEMENT, SIDEWALK OR STONE AS SHOWN ON THE EC PLAN SHEETS.
100	DISTURBED AREAS WITHOUT PAVEMENT, SIDEWALK OR STONE AS SHOWN ON THE EC PLAN SHEETS.
101	PLACED IN ACCORDNACE WITH STANDARD ROAD PLAN EC-101 AND TO THE LIMITS IDENTIFIED IN THE EROSION CONTROL PLANS.
102	REFER TO EC SHEETS FOR LOCATIONS AND TABULATION ON C SHEETS FOR QUANTITIES. THE EC SHEETS INCLUDE ESTIMATED LOCATIONS OF SILT FENCE TO ADDRESS EROSION TO BE ENCOUNTERED DURING CONSTRUCTION. VERIFY THE SPECIFIC LOCATIONS WITH THE ENGINEER PRIOR TO BEGINNING PLACEMENT. BID ITEM INCLUDES 25% ADDITIONAL QUANITTY FOR FIELD ADJUSTMENTS AND REPLACEMENTS.
103	REFER TO EC SHEETS FOR LOCATIONS AND TABULATION ON C SHEETS FOR QUANTITIES. THE EC SHEETS INCLUDE ESTIMATED LOCATIONS OF SILT FENCE TO ADDRESS EROSION THAT MAY BE ENCOUNTERED DURING CONSTRUCTION. VERIFY THE SPECIFIC LOCATIONS WITH THE ENGINEER PRIOR TO BEGINNING PLACEMENT. BID ITEM ~~DOES~~ INCLUDES 50% ADDITIONAL QUANITTY FOR FIELD ADJUSTMENTS AND REPLACEMENTS.
104	FOR REMOVAL OF SILT FENCE AND SILT FENCE FOR DITCH CHECKS.
105	THIS ITEM IS INCLUDED FOR CLEAN-OUT AND REPAIR OF THE SILT FENCE DURING THE CONSTRUCTION OF THE PROJECT. QUANTITY IS ESTIMATED TO BE 10% OF THE INSTALLED QUANTITY.
106	PLACED AS INDICATED IN A DETAIL ON THE B SHEETS AND THE TABULATION ON C SHEETS. FOR INLET PROTECTION AND SEDIMENT CONTROL. PLACE IN ACCORDANCE WITH STANDARD ROAD PLAN EC-204 AS SHOWN ON THE EC SHEETS AND TABULATED ON THE C SHEETS.
107	FOR REMOVAL OF PERIMETER AND SLOPE SEDIMENT CONTROL DEVICES
108	WILL BE BY COUNT FOR EACH MOBILIZATION IN THE ACCEPTED ECIP AND ACCEPTABLY PERFORMED, AS WELL AS ADDITIONAL MOBILIZATIONS ORDERED OR APPROVED BY THE ENGINEER AND ACCEPTABLY PERFORMED.
109	THIS ITEM IS INCLUDED FOR A SUDDEN OCCURRENCE OF A SERIOUS AND URGENT NATURE WHICH IS BEYOND NORMAL MAINTENANCE OF EROSION CONTROL ITEMS. REFER TO SECTION 2602.

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD
.
NOTES AND TABULATIONS
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

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DETAILED BY: _____ CHECKED BY: _____

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.4	144

STP-038-2(37)--2C-16

111-25
10-18-11

INDEX OF TABULATIONS

GENERAL NOTES:

ALL UNSALVAGEABLE MATERIAL AND RUBBLE GENERATED DURING THIS PROJECT SHALL BE DISPOSED OF OFF THE HIGHWAY RIGHT-OF-WAY IN A WASTE AREA PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE WASTED MATERIAL MUST NOT CREATE AN UNSIGHTLY CONDITION WHEN VIEWED FROM PUBLIC HIGHWAYS. REMOVALS AND DISPOSALS SHALL BE IN ACCORDANCE WITH SECTION 2401 OF THE STANDARD SPECIFICATIONS. ALSO, ALL EXCESSIVE EXCAVATED MATERIAL AND UNSUITABLE MATERIAL FOR BACKFILL WILL BECOME THE PROPERTY OF THE CONTRACTOR AND WILL BE DISPOSED OF OFF SITE. ALL BORROW MATERIAL SHALL BE SUPPLIED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE, AND TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERE TO. NO CLAIMS FOR ANY INTERFERENCE, DELAY, OR ANY AND ALL DAMAGES CAUSED BY SUCH WORK WILL BE GRANTED.

IOWA DOT WILL PROVIDE THE CONSTRUCTION STAKING FOR USE BY THE CONTRACTOR.

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

This Data Entry Sheet fills Tab 111-01 effective 04-17-12

Project	Type of Work
STPN-38-2(42)--2J-16	SEAL COAT

100-7
10-16-12

FENCING

* Bid Item

Refer to MI-101, MI-102, MI-103, MI-104, 510-3, and 510-5

Location From Station	Location From Offset	Location To Station	Location To Offset	Side	Chain Link Fence Length* LF	Chain Link Fence Type	Chain Link Gate No.* EACH	Chain Link Gate Type	Deer Fence Length* LF	Deer Brace Panels* EACH	Deer Gate No.* EACH	Deer Gate Type	Field Fence Length* LF	Field Brace Panels* EACH	Field Gate No.* EACH	Field Gate Type	Channel Crossing Length* LF	Channel Crossing Type	Remarks
10+78.00	66.0	10+84.00	66.0	LT	6.0	42 IN.													DIVISION 4
10+84.00	66.0	10+84.00	138.0	LT	72.0	42 IN.													DIVISION 4
10+74.00	138.0	10+84.00	138.0	LT	10.0	42 IN.													DIVISION 4
				TOTAL	88.0														

100-19
10-16-12

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

Refer to EC-204

Location Begin Station	Location End Station	Side	Length of Installation 6 inch Dia LF	9 inch Dia LF	12 inch Dia LF	20 inch Dia LF	Remarks
+43.62		L		20.0			INLET PROTECTION
+49.05		R		20.0			INLET PROTECTION
6+38.06		L		30.0			INLET PROTECTION
6+38.06		R		30.0			INLET PROTECTION
6+99.60		R		20.0			INLET PROTECTION
7+41.75		R		20.0			INLET PROTECTION
7+39.84		L		20.0			INLET PROTECTION
7+98.37		L		30.0			INLET PROTECTION
7+98.37		R		30.0			INLET PROTECTION
15+55.43		L		20.0			INLET PROTECTION
15+55.43		R		20.0			INLET PROTECTION
15+73.00		R		20.0			INLET PROTECTION
21+00.00		L		20.0			INLET PROTECTION
21+00.00		R		30.0			INLET PROTECTION
21+21.59		L		20.0			INLET PROTECTION
21+25.25		R		20.0			INLET PROTECTION
21+75.00		L		20.0			INLET PROTECTION
21+75.00		R		20.0			INLET PROTECTION
26+13.41		L		20.0			INLET PROTECTION
26+13.41		R		20.0			INLET PROTECTION
26+72.55		R		30.0			NORTH SIDE OF FARMERS ST
26+79.47		L		40.0			NORTH SIDE OF FARMERS ST
			TOTAL	520.0			

100-17
04-20-10

TABULATION OF SILT FENCES

Refer to EC-201

Location Begin Station	Location End Station	Side	Length LF	Remarks
90+05.00	91+72.00	R	177.0	US 30 SHOULDER, DIV 1
29+13.00	30+15.00	L	122.0	CULVERT OUTLET, DIV 1
34+22.00	34+58.00	L	42.0	CULVERT OUTLET, DIV 1
TOTAL			341.0	
ADD 25%			85.0	
TOTAL BID QTY			426.0	

100-18
04-20-10

TABULATION OF SILT FENCES FOR DITCH CHECKS

Refer to EC-201

Location Station	Side	Length LF	Remarks
27+32.00	R	15.0	DIV 1
24+60.00	L	25.0	DIV 3
28+00.00	L	25.0	DIV 3
28+40.00	L	25.0	DIV 3
TOTAL		90.0	
ADD 50%		45.0	
TOTAL BID QTY		135.0	

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.5	144

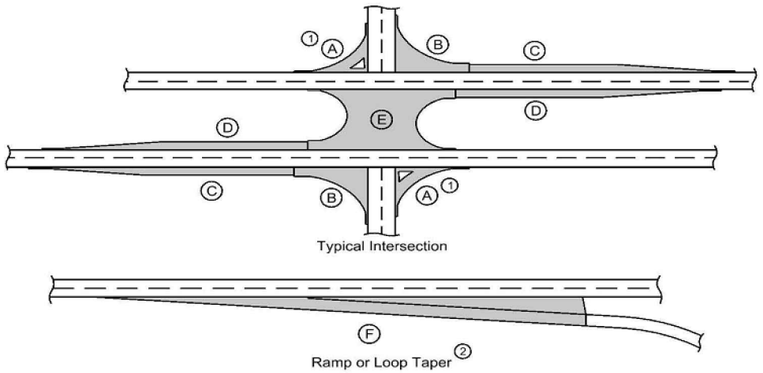
P:\14\183\DRAWINGS\CIVIL\14183_ZZ_C.DWG 5/2/2016 8:39:42 AM JERI M. VONDERA

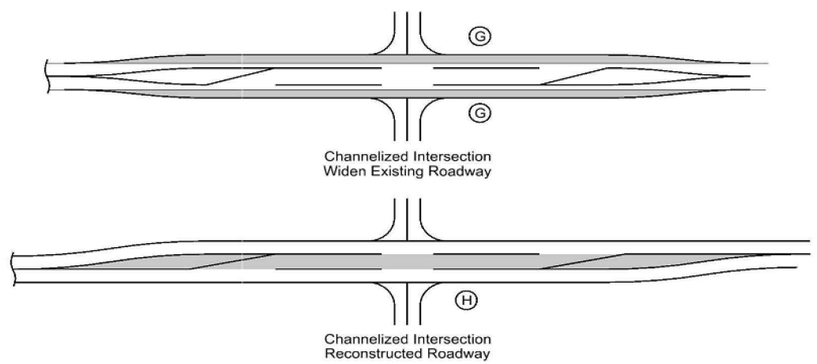
ROLLED EROSION CONTROL

Refer to EC-101, EC-103 and EC-104

Location				L	W	Turf Reinforcement Mat (TRM) (EC-104)				Slope Protection (EC-103)	Special Ditch Control (EC-101)	Remarks
Road Identification	Begin Station	End Station	Side			Type 1	Type 2	Type 3	Type 4			
				FT	FT	Squares	Squares	Squares	Squares	Squares	Squares	
PRESTON ST	100+45	101+51	L	106	19						20	DIV 3
IA 38	27+12.00	28+02.00	L	90	21						19	DIV 3
										TOTAL	39	

PCC PAVEMENT





(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.

(2) Refer to PV-410, PV-411, PV-412, and PV-414.

(3) Quantity includes Pavement Header.

Location				Mainline			Area (3)								Total Area By Pavement Thickness		Special Backfill	Modified Subbase	Granular Subbase	Remarks
Road Identification	Direction of Travel	Station to Station		Width	Length	Area	A (1)	B	C	D	E	F (2)	G	H	SY					
				FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	10 IN	10½ IN	TONS	CY	SY	
IA 38 / Ash St	N&S	1+00.00	12+94.00	31.0	1194.0	4112.7												1636.2		South of UPRR, Urban section, Includes RR Approach
IA 38 / Ash St	N&S	13+28.00	26+16.00	31.0	1288.0	4436.4												1765.0		North of UPRR, Urban section, Includes RR Approach
IA 38 / Ash St	N&S	26+16.00	26+93.00	VARIES	77.0	234.9												96.2		North of UPRR, Urban section, Width transition at Farmer St Intersection
IA 38 / Ash St	N&S	26+93.00	39+78.00	VARIES	1285.0	3421.8												1140.7		North of UPRR, Rural section, 24' Wide w/ exception of Taper
	N&S	+13.00	1+00.00	VARIES	87.0	748.6												275.6		Returns at Hwy 30
	E&W	6+89.00	7+55.00	VARIES	66.0	76.8												24.7		Preston St West Return
	E&W	6+89.00	7+55.00	VARIES	66.0	76.9												24.8		Preston St East Return
	E&W	12+07.00	12+73.00	VARIES	66.0	79.3												25.7		Center St West Return
	E&W	12+07.00	12+73.00	VARIES	66.0	79.3												25.8		Center St East Return
	E&W	15+61.00	16+27.00	VARIES	66.0	76.9												24.8		Broadway St West Return
	E&W	15+61.00	16+27.00	VARIES	66.0	93.0												29.3		Broadway St East Return
	E&W	21+05.00	21+71.00	VARIES	66.0	76.9												24.8		North St West Return
	E&W	21+05.00	21+71.00	VARIES	66.0	91.3												30.6		North St East Return
	E&W	26+27.00	26+93.00	VARIES	66.0	81.8												26.8		Farmers St West Return
	E&W	26+16.00	26+93.00	VARIES	77.0	97.6												30.4		Farmers St East Return
					TOTAL	13784.2												5181.4		

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

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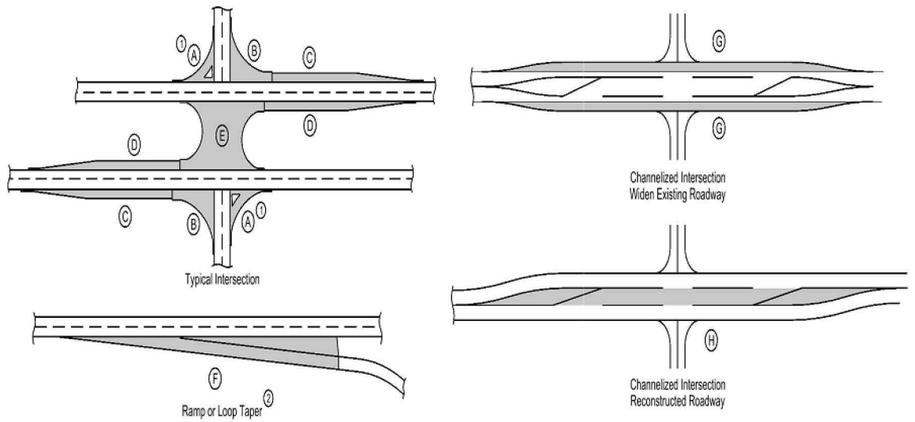
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.6	144

HMA PAVEMENT



(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.

(2) Refer to PV-410, PV-411, PV-412, and PV-414.

(3) Quantity includes Pavement Header.

Calculations assume a surface course unit weight (lbs/cf) of 155, an intermediate course unit weight (lbs/cf) of 150, a base course unit weight (lbs/cf) of 150, and a special backfill unit weight (lbs/cf) of 140.

Location				Mainline			Bid Items													
							Hot Mix Asphalt Pavement						Binder							
Road Identification	Direction of Travel	Station to Station		Width	Length	Area	Surface		Intermediate		Base		Surface	Intermediate	Base	Special Backfill	Modified Subbase	Granular Subbase	Pavement Scarification	Remarks
				FT	FT	SF	TONS	SY	TONS	SY	TONS	SY	TONS	TONS	TONS	TONS	CY	SY	SY	
Preston St	E&W	100+00.00	101+55.00	VARIES	155.0	3434.8	44.361	381.6			42.930	381.6	2.662		2.576		161.7			DIV 4
Preston St	E&W	102+26.00	103+75.00	VARIES	149.0	3284.2	42.420	364.9			41.051	364.9	2.545		2.463		154.7			DIV 4
Center St	E&W	200+21.00	200+31.00	VARIES	10.0	240.9	3.116	26.8			3.015	26.8	0.187		0.181		11.3			DIV 1, 300,000 ESAL
Center St	E&W	201+04.00	201+09.00	VARIES	5.0	122.0	1.581	13.6			1.530	13.6	0.095		0.092		5.7			DIV 1, 300,000 ESAL
Broadway St	E&W	300+00.00	300+31.00	VARIES	31.0	757.8	9.788	84.2			9.473	84.2	0.587		0.568		35.0			DIV 1, 300,000 ESAL
Broadway St	E&W	301+02.00	301+15.00	VARIES	13.0	366.6	4.731	40.7			4.579	40.7	0.284		0.275		18.9			DIV 1, 300,000 ESAL
North St	E&W	401+46.00	401+61.00	VARIES	15.0	332.7	4.301	37.0			4.163	37.0	0.258		0.250		15.6			DIV 1, 300,000 ESAL
North St	E&W	402+37.00	402+47.00	VARIES	10.0	242.5	3.127	26.9			3.026	26.9	0.188		0.182		11.3			DIV 1, 300,000 ESAL
Farmers St	E&W	500+71.00	500+94.00	VARIES	23.0	505.0	6.522	56.1			6.311	56.1	0.391		0.379		24.2			DIV 1, 300,000 ESAL
Farmers St	E&W	510+35.00	510+52.00	VARIES	17.0	327.6	4.232	36.4			4.095	36.4	0.254		0.246		16.1			DIV 1, 300,000 ESAL
Ash St	N&S	12+94.00	12+99.00	VARIES	5.0	155.0	2.499	17.2	4.838	17.2	2.419	17.2	0.150	0.290	0.145		6.9			DIV 1, 10M ESAL, RR APPROACH
Ash St	N&S	13+23.00	13+28.00	VARIES	5.0	155.0	2.499	17.2	4.838	17.2	2.419	17.2	0.150	0.290	0.145		6.9			DIV 1, 10M ESAL, RR APPROACH
Broadway & Ash	N/A	16+09.00	16+42.00	VARIES	33.0	437.4	5.650	48.6			5.468	48.6	0.339		0.328		13.5			DIV 1, 300,000 ESAL
						300,000 ESAL	129.8				125.6		7.8		7.5		481.8			
						10M ESAL	5.0		9.7		4.8		0.3	0.6	0.3					

PAVEMENT SMOOTHNESS + PCC TEXTURE

Road Identification	Begin Station	End Station	Proposed Posted Speed			Remarks
			35 or less	40 - 45	over 45	
IA 38 / ASH ST	+12.71	26+92.73	2680.02			URBAN SECTION - 25 MPH
IA 38 / ASH ST	26+92.73	39+78.32		1285.59		RURAL SECTION - 45 MPH

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

iiw
563.556.2464 ◆ 800.556.4491
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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.7	144

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.
(1) Refer to MI-210
(2) Refer to EW-501.
(3) Refer to EW-501 or EW-502.
*Predetermined for access point not constructed with this project.

Location		Type	Length of Opening (1)			W	(1)(2) PR	(2) SR	Pipe Culvert (3)					Aprons	Driveway Surface Area		Driveway Surfacing Material	Remarks
Station	Side	A, B, C, Safety Ramp, or Predetermined*	Case	1½" Dropped Curb	3" Dropped Curb				H	Size	Pipe Length	Lt.	Rt.		HMA	PCC		
			1 or 2	LF	LF	FT	FT	FT	FT	IN	LF	LF	LF	No.	SY	SY	TON	
1+69.00	L		2	21.2		17.0										24.8		
2+44.00	R		2	17.7		12.7										12.9		
3+40.00	L		2	19.2		13.9										21.3		
4+34.00	R		2	24.8		16.0										33.0		
4+38.00	L		2	17.3		11.0										18.0		
4+94.00	L		2	12.1		8.8										15.0		
5+09.00	R		2	21.3		20.6										23.1		
5+45.00	L		2	14.0		10.5										15.8		
5+61.00	R		2	12.7		10.0										19.6		
6+71.00	L		2	16.8		11.8										23.8		
9+04.00	L		2	19.3		10.0										20.6		
9+66.00	R		2	24.4		19.9										19.7		
9+97.00	R		2	16.8		11.0										11.9		
10+88.00	R		2	11.0		9.0										11.4		
11+23.00	R		2	25.0		20.0										24.9		
13+96.00	L		2	26.0		21.0										36.2		
17+28.00	R		2	35.0		32.0										39.0		
17+56.00	R		2	18.0		13.0										16.2		
17+79.00	L		2	18.0		11.0										18.7		
19+02.00	L		2	20.0		12.0										21.3		
19+15.00	R		2	22.0		12.0										17.6		
20+21.00	L		2	20.0		13.0										21.6		
22+46.00	L		2	21.0		14.0										20.0		
23+77.00	L		2	17.0		14.0										17.1		
25+77.00	L		2	16.0		9.0										16.2		
															TOTAL	519.6		

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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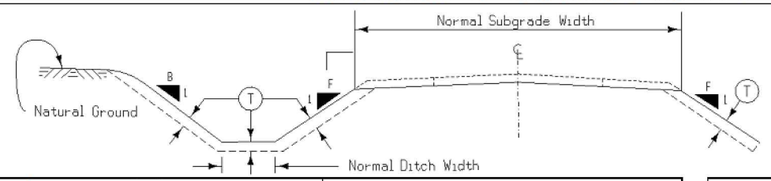
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.8	144

TABULATION OF SPREADING TOPSOIL



Perform this work according to Section 2105. Prior to placing topsoil on any cohesive soil, scarify the area to be covered to a minimum depth of 3 inches.

Appropriate adjustments have been made in the template quantities to reflect the placement of topsoil on foreslope, backslope and ditch bottom as detailed hereon.

Placement Description						Topsoil Excavation Available From		
Area	Quantity	Location		Side	Remarks	Amount Reserved	Station to Station	Remarks
No.	CY	Station to Station		L. or R.		CY		
	29.4	+25.00	1+60.00	L	UNLESS NOTED, ALL PART OF DIV 1			
	35.1	+22.00	2+33.00	R				
	7.1	2+33.00	2+50.00	R	FOR SANITARY SEWER, DIVISION 4			
	8.7	1+77.00	3+34.00	L				
	42.0	2+63.00	2+79.00	L	FOR SANITARY SEWER, DIVISION 4			
	22.6	2+50.00	4+27.00	R				
	18.1	3+47.00	4+32.00	L				
	9.6	4+43.00	4+89.00	L				
	6.6	4+43.00	4+99.00	R				
	8.9	4+98.00	5+39.00	L				
	2.3	5+19.00	5+56.00	R				
	25.6	5+50.00	6+65.00	L				
	20.8	5+56.00	6+91.00	R				
	10.5	6+77.00	7+11.00	L				
	5.9	6+96.00	7+11.00	R	DIV 3			
	2.2	7+11.00	7+11.00	R	SOUTH SIDE OF PRESTON, DIV 4			
	6.0	7+05.00	7+33.00	L	SOUTH SIDE OF PRESTON, DIV 4			
	1.1	7+32.00	7+35.00	R	NORTH SIDE OF PRESTON, DIV 4			
	13.6	7+34.00	7+56.00	R	NORTH SIDE OF PRESTON, DIV 3			
	36.0	7+33.00	7+54.00	L	NORTH SIDE OF PRESTON, DIV 3			
	17.9	7+54.00	9+55.00	R				
	38.7	7+33.00	8+98.00	L				
	70.9	9+11.00	12+29.00	L				
	38.3	10+80.00	10+96.00	L	FOR SANITARY SEWER, DIVISION 4			
	15.3	9+76.00	11+13.00	R				
	5.8	10+83.00	10+98.00	R	FOR SANITARY SEWER, DIVISION 4			
	19.5	11+33.00	12+25.00	R				
	12.4	12+52.00	12+78.00	L				
	4.6	12+50.00	12+78.00	R	AROUND THE RADIUS			
	16.7	13+58.00	13+83.00	L				
	55.3	13+59.00	15+77.00	R				
	47.1	14+05.00	15+82.00	L				
	44.4	16+07.00	17+73.00	L				
	24.5	16+10.00	17+11.00	R				
	26.6	17+43.00	19+10.00	R				
	24.9	17+84.00	18+96.00	L				
	24.5	19+08.00	20+15.00	L				
	38.9	19+21.00	21+27.00	R				
	37.3	20+27.00	21+28.00	L	AROUND THE RADIUS, SOUTH SIDE OF NORTH ST			
	21.0	21+48.00	22+39.00	L				
	116.5	21+51.00	26+42.00	R				
	23.8	22+54.00	23+70.00	L				
	46.0	23+84.00	25+72.00	L				
	17.7	25+82.00	26+47.00	L				
	21.2	26+56.00	27+77.00	R	END OF URBAN SEEDING RIGHT			
	16.1	26+72.00	28+00.00	L	DIVISION 3, END URBAN SEEDING LEFT			
	46.1	27+77.00	33+10.00	R	BEGIN RURAL SEEDING			
	36.8	28+25.00	32+86.00	L	BEGIN RURAL SEEDING			
	13.9	33+24.00	38+25.00	L				
	21.4	33+39.00	39+78.00	R				
	3.8	39+49.00	39+78.00	L				

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

DR-101	04-19-16	Pipe Culvert (Bedding and Backfill)
DR-102	04-21-15	Pipe Culvert (Cover and Camber)
DR-103	04-21-15	Pipe Culvert (Installation Details)
DR-121	10-20-15	Connected Pipe Joints
DR-201	04-21-15	Concrete Aprons
DR-202	04-21-15	Low Clearance Concrete Pipe Aprons
DR-213	04-21-15	Pipe Apron Guard
DR-303	10-20-15	Subdrains (Longitudinal)
DR-304	04-21-15	Outlets for Longitudinal, Transverse and Backslope Subdrains
EC-101	04-19-16	Wood Excelsior Mat for Ditch Protection
EC-201	04-21-15	Silt Fence
EC-204	04-19-16	Perimeter and Slope Sediment Control Devices
EC-502	04-21-15	Seeding in Rural Areas
EW-102	10-20-15	Allowable Placement of Unsuitable Soil in Embankments
EW-105	04-21-15	Reshaping Slopes and Ditches
EW-501	10-20-15	Rural Entrance
MI-102	10-20-15	Chain Link Fence Construction
MI-210	10-20-15	PCC Driveways and Alleys
MI-220	10-20-15	Detectable Warnings and Pedestrian Ramp
PM-110	04-16-13	Line Types
PM-111	04-21-15	Symbols and Legends
PM-120	10-21-14	Stop Lines and Islands
PM-240	04-21-15	Railroad Crossing on Two-Lane Roadway
PM-520	04-19-11	Two-Lane Roadway with no Turn Lanes (Two-Way Stop Condition)
PV-101	04-19-16	Joints
PV-102	04-15-14	PCC Curb Details
PV-103	04-19-11	Manhole Boxouts in PCC Pavement
SI-101	04-19-16	Locations - Type 'A' Signs
SI-112	04-19-16	Footings For Steel Breakaway Posts
SI-113	04-19-16	Support Structures - Steel Breakaway Posts
SI-119	04-19-16	Support Structures - Mounting Brackets
SI-121	04-19-16	Fabrication - Sign Legend Components
SI-131	10-18-11	Installation - Type 'A' Signs
SI-171	04-19-16	Reference Posts
SI-173	04-19-16	Object Markers
SI-241	10-18-11	Sign Placement Approaching a Railroad Crossing
SW-101	04-21-09	Trench Bedding and Backfill Zones
SW-102	10-20-15	Rigid Gravity Pipe Trench Bedding
SW-103	10-20-15	Flexible Gravity Pipe Trench Bedding
SW-104	04-21-09	Pressure Pipe Trench Bedding
SW-201	04-21-09	Sanitary Sewer Service Stub
SW-211	10-16-12	Special Pipe Connections for Storm Sewer
SW-301	10-21-14	Circular Sanitary Sewer Manhole
SW-306	04-21-15	Chimney Seals for Sanitary Sewer Manholes
SW-402	04-21-09	Rectangular Storm Sewer Manhole
SW-507	10-21-14	Single Open-Throat Intake, Small Box
SW-508	10-21-14	Single Open-Throat Intake, Large Box
SW-509	10-21-14	Double Open-Throat Curb Intake, Small Box
SW-512	10-21-14	Circular Area Intake
SW-602	04-21-15	Castings for Storm Sewer Manholes
TC-1	04-16-13	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	04-21-15	Work Within 15 ft of Traveled Way
TC-213	04-17-12	Lane Closure with Flaggers
TC-214	04-16-13	Lane Closure with Flaggers for use with Pilot Car
TC-252	04-19-16	Routes Closed to Traffic
TC-601	10-18-11	Pedestrian Detour
TC-602	10-18-11	Sidewalk Diversion
WM-101	04-21-09	Thrust Blocks
WM-102	04-21-09	Tracer System
WM-201	04-19-11	Fire Hydrant Assembly

SAFETY CLOSURES

Refer to Section 2518 of the Standard Specifications

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
+31.00	1		BOP - DIV 1
7+22.00	2		PRESTON ST - DIV 1
12+39.00	2		CENTER ST - DIV 1
12+67.00	1		S SIDE UPRR - DIV 1
13+67.00	1		N SIDE UPRR - DIV 1
15+94.00	2		BROADWAY ST - DIV 1
21+38.00	2		NORTH ST - DIV 1
26+55.00	2		FARMERS ST - DIV 1
39+78.00	1		EOP - DIV 1
2+45.00	1		173' R, Alley - DIV 4
2+60.00	1		170' L, Alley - DIV 4
2+81.00	1		170' L, Alley - DIV 4
10+87.00	1		178' R, Alley - DIV 4
10+78.00	1		170' L, Alley - DIV 4
10+98.00	1		170' L, Alley - DIV 4

Design For

IA 38

FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____

DETAILED BY: _____ CHECKED BY: _____

iiw 563.556.2464 ◆ 800.556.4491
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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.9	144

PAVEMENT MARKING LINE TYPES

See PM-110

*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY4 - Factor of 1.00 as value includes number of 4-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.25 DCY4: Double Centerline (Yellow) @ 2.00 NPY4: No Passing Zone Line (Yellow) @ 1.25 SLW2: Stop Line (White) @ 6.00 CLW6: Crosswalk Line (White) @ 3.00
ELW4: Edge Line Right (White) @ 1.00

Location								Length by Line Type (Unfactored)																	
Road ID	Station to Station		Dir. of Travel	Marking Type	Side			BCY4*	DCY4	NPY4**	SLW2	CLW6	ELW4												Remarks
					L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	
IA 38	+50.00	3+74.00	BOTH	Waterborne/Solvent Paint		C			3.24																
IA 38	3+74.00	6+41.00	SB	Waterborne/Solvent Paint		C				2.67															NO PASSING SOUTHBOUND
IA 38	6+41.00	9+49.00	BOTH	Waterborne/Solvent Paint		C		3.08																	
IA 38	9+49.00	12+25.00	NB	Waterborne/Solvent Paint		C				2.76															NO PASSING, NORTHBOUND
IA 38	12+25.00	12+93.96	BOTH	Waterborne/Solvent Paint		C			0.69																MATCH TO EXISTING AT RAILROAD
IA 38	12+84.00		NB	Waterborne/Solvent Paint			R				0.15														STOP LINE FOR RR, PM-240
IA 38	13+48.00		SB	Waterborne/Solvent Paint			R				0.15														STOP LINE FOR RR, PM-240
IA 38	13+27.73	15+62.00	SB	Waterborne/Solvent Paint		C				2.34															NO PASSING, SOUTHBOUND
IA 38	15+62.00	16+33.21	BOTH	Waterborne/Solvent Paint		C		0.71																	
IA 38	16+33.21	21+73.14	NB	Waterborne/Solvent Paint		C				5.40															NO PASSING, NORTHBOUND
IA 38	21+73.14	24+19.00	BOTH	Waterborne/Solvent Paint		C			2.46																
IA 38	24+19.00	33+92.00	SB	Waterborne/Solvent Paint		C				9.73															NO PASSING SOUTHBOUND
IA 38	33+92.00	39+78.32	BOTH	Waterborne/Solvent Paint		C		5.86																	
IA 38	+50.00		SB	Waterborne/Solvent Paint			R				0.30														AT INTERSECTION US30 & IA38
IA 38	21+67.00		BOTH	Waterborne/Solvent Paint		C						0.33													SCHOOL CROSSWALK AT NORTH ST
IA 38	26+82.41	39+78.32	NB	Waterborne/Solvent Paint			R						12.96												EDGE LINE IN RURAL SECTION
IA 38	26+92.38	39+78.32	SB	Waterborne/Solvent Paint			R						12.86												EDGE LINE IN RURAL SECTION
US 30	90+88.00	93+47.50	WB	Removal of Paint			R						2.60												230' E OF IA 38, SHEET J.2
US 30	94+60.32	97+07.94	WB	Removal of Paint			R						2.48												260' W OF IA 38, SHEET J.2
US 30	90+88.00	93+77.92	EB	Removal of Paint			R						2.90												295' W OF IA 38, SHEET J.2
US 30	94+16.86	97+07.94	EB	Removal of Paint			R						2.91												275' E OF IA 38, SHEET J.2
US 30	90+88.00	97+07.94	BOTH	Removal of Paint		C		6.20																	602' CENTERLINE, SHEET J.2
US 30	92+59.85	93+09.81	WB	Wet Retroreflective Removable Tape			R						0.50												DIAGONAL LINES ONLY
US 30	95+07.94	97+07.90	WB	Wet Retroreflective Removable Tape			R						2.00												DIAGONAL LINES ONLY
US 30	90+88.00	93+09.81	EB	Wet Retroreflective Removable Tape			R						2.20												DIAGONAL LINES ONLY
US 30	95+07.94	97+07.94	EB	Wet Retroreflective Removable Tape			R						2.00												DIAGONAL LINES ONLY
US 30	90+88.00	93+09.78	BOTH	Wet Retroreflective Removable Tape		C			2.22																DIAGONAL LINES ONLY
US 30	95+07.94	97+07.94	BOTH	Wet Retroreflective Removable Tape		C			2.00																DIAGONAL LINES ONLY
US 30	90+88.00	92+59.85	WB	Waterborne/Solvent Paint			R						1.72												TEMP. PAINT
US 30	93+09.81	95+07.94	WB	Waterborne/Solvent Paint			R						1.98												TEMP. PAINT
US 30	93+09.81	95+07.94	EB	Waterborne/Solvent Paint			R						1.98												TEMP. PAINT
US 30	93+09.81	93+89.14	BOTH	Waterborne/Solvent Paint		C			0.79																TEMP. PAINT
US 30	94+14.39	95+07.94	BOTH	Waterborne/Solvent Paint		C			0.94																TEMP. PAINT
US 30	90+88.00	92+59.85	WB	Removal of Paint			R						1.72												REMOVE TEMP. PAINT
US 30	93+09.81	95+07.94	WB	Removal of Paint			R						1.98												REMOVE TEMP. PAINT
US 30	93+09.81	95+07.94	EB	Removal of Paint			R						1.98												REMOVE TEMP. PAINT
US 30	93+09.81	93+89.14	BOTH	Removal of Paint		C			0.79																REMOVE TEMP. PAINT
US 30	94+14.39	95+07.94	BOTH	Removal of Paint		C			0.94																REMOVE TEMP. PAINT
US 30	90+88.00	93+47.50	WB	Waterborne/Solvent Paint			R						2.60												REPLACE ORINGIAL MARKINGS
US 30	94+60.32	97+07.94	WB	Waterborne/Solvent Paint			R						2.48												REPLACE ORINGIAL MARKINGS
US 30	90+88.00	93+77.92	EB	Waterborne/Solvent Paint			R						2.90												REPLACE ORINGIAL MARKINGS
US 30	94+16.86	97+07.94	EB	Waterborne/Solvent Paint			R						2.91												REPLACE ORINGIAL MARKINGS
US 30	90+88.00	97+07.94	BOTH	Waterborne/Solvent Paint		C		6.20																	REPLACE ORINGIAL MARKINGS
				Factored Total: Waterborne/Solvent Paint				3.96	16.24	28.63	3.60	0.99	42.39	-	-	-	-	-	-	-	-	-			
				Factored Total: Wet Retroreflective Removable Tape				-	8.44	-	-	-	6.70	-	-	-	-	-	-	-	-	-			
				Factored Total: Removal of Paint				1.55	3.46	-	-	-	16.57	-	-	-	-	-	-	-	-	-			
				Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based							95.81														
				Bid Quantity: Wet Retroreflective Removable Tape Markings							15.14														
				Bid Quantity: Pavement Markings Removed							21.58														

PAVEMENT MARKING SYMBOLS AND LEGENDS

Refer to PM-111

Road Identification	Location		STAW	RTAW	LTAW	CSRW	CSLW	CSTW	CRLW	FERW	LLRW	RLRW	RRCW	BLSW	WCSW	WPSB	SCLW			Remarks
	Station	Side																		
IA 38	9+60.00																			
	TO 10+20	R											1							
IA 38	15+04.00																			
	TO 15+64	R											1							

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.10	144

STP-038-2(37)--2C-16

110-1
04-16-13

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5

* Not a Bid Item

Begin Station	End Station	Side	Pavement Type	Area SY	Saw Cut* LF	Remarks
+13.00	12+99.00	L & R	HMA/PCC	5258.4	280.6	IA 38/ASH ST, RETURNS SOUTH OF UPRR - Division 1
13+23.00	39+78.00	L & R	HMA/PCC	8906.8	184.8	IA 38/ASH ST, RETURNS NORTH OF UPRR - Division 1
100+00.00	100+58.00	L & R	HMA	348.2	18.9	PRESTON ST - WEST OF IA 38/ASH ST - Division 4
102+24.00	103+75.00	L & R	HMA	359.7	19.6	PRESTON ST - EAST OF IA 38/ASH ST - Division 4
4+30.00	4+45.00	L	HMA	17.2	0.0	DRIVEWAY - Division 1
6+64.00	6+80.00	L	HMA	24.8	0.0	DRIVEWAY - Division 1
17+45.00	17+67.00	R	HMA	27.9	0.0	DRIVEWAY - Division 1
16+09.00	16+42.00	R	HMA	48.6	55.0	RADIUS AT INTERSECTION OF ASH & BROADWAY STREETS

110-5
10-20-15

SIDEWALK REMOVAL

* Not a bid item

Begin Station	End Station	Area SY	Saw Cut* LF	Remarks
1+51.00	7+07.00	268.1	5.0	INCLUDES COURTESY WALKS AND PED RAMPS - Division 2
2+63.00	2+79.00	4.7	6.0	SANITARY SEWER INSTALL - Division 4
7+38.00	12+25.00	235.7	5.0	INCLUDES COURTESY WALKS AND PED RAMPS - Division 2
12+56.00	13+00.00	23.2	5.0	Division 2
13+23.00	15+76.00	124.2	10.0	INCLUDES COURTESY WALKS AND PED RAMPS - Division 2
16+10.00	21+25.00	237.7	5.0	INCLUDES COURTESY WALKS AND PED RAMPS - Division 2
21+50.00	25+72.00	197.1	15.0	INCLUDES COURTESY WALKS AND PED RAMPS - Division 2
21+51.00	21+73.00	15.9	5.0	INCLUDES COURTESY WALKS AND PED RAMPS - Division 2
25+83.00	26+46.00	31.0	5.0	INCLUDES WALK TO WEST AT FARMERS ST - Division 2
3+06.00	3+10.00	4.8		COURTESY WALK - Division 2
6+92.00	6+95.00	9.4	5.0	PED RAMP SE QUAD OF PRESTON ST
10+48.00	12+08.00	75.2	5.0	INCLUDES PED RAMP AND WALK TO EAST - Division 2
15+45.00	15+77.00	25.9	5.0	INCLUDES PED RAMP AND WALK TO EAST - Division 2
16+11.00	21+25.00	222.2	5.0	INCLUDES PED RAMP AND WALK TO EAST - Division 2
21+50.00	21+70.00	14.7	10.0	INCLUDES PED RAMPS - Division 2
26+65.00	27+22.00	22.0	0.0	
	TOTAL	1511.8		

104-9
04-21-15

LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

(1) Refer to EW-203, EW-204, or EW-211.
*Not a bid item

Location					Depth	Longitudinal Subdrain (DR-303)							Subdrain Outlet		Porous* Backfill	Class "A"* Crushed Stone	Remarks
Line No.	Road or Lane Ident.	Station to Station		Side	D	Shoulder		Backslope		Bridge Berm (1)			DR-303, DR-304, or DR-305				
						Size	Length	Size	Length	Size	Type	Length	Station	Standard Road Plan and Type			
					IN	IN	FT	IN	FT	IN		FT			CY	CY	
1	HWY 30	90+95.00	92+18.00	RT	24.0	4.0	163.0						90+95.00	DR-304	7.5		TYPE 13, SHOULDER OF HWY 30
													92+18.00	DR-304			
2	HWY 30	92+18.00	95+00.00	RT	24.0	4.0	322.0						92+18.00	DR-304	14.9		TYPE 13, SHOULDER OF HWY 30
													95+00.00	DR-304			
3	HWY 30	95+00.00	96+95.00	RT	24.0	4.0	235.0						95+00.00	DR-304	10.9		TYPE 13, SHOULDER OF HWY 30
													96+95.00	DR-304			
4	IA 38	+41.00	6+38.06	LT	24.0	4.0	609.0						+41.00	DR-303	28.2		
													6+38.06	DR-303			
5	IA 38	+44.00	6+38.06	RT	24.0	4.0	603.0						+44.00	DR-303	27.9		
													6+38.06	DR-303			
6	IA 38	6+38.06	7+98.37	LT	24.0	4.0	161.0						6+38.06	DR-303	7.5		
													7+98.37	DR-303			
7	IA 38	7+98.37	12+89.00	LT	24.0	4.0	510.6						7+98.37	DR-303	23.6		TIES INTO RR APPROACH SUBDRAIN
8	IA 38	7+98.37	12+89.00	RT	24.0	4.0	510.6						7+98.37	DR-303	23.6		TIES INTO RR APPROACH SUBDRAIN
9	IA 38	13+33.00	15+55.43	LT	24.0	4.0	242.4						15+55.43	DR-303	11.2		TIES INTO RR APPROACH SUBDRAIN
10	IA 38	13+33.00	15+55.43	RT	24.0	4.0	242.4						15+55.43	DR-303	11.2		TIES INTO RR APPROACH SUBDRAIN
11	IA 38	15+55.43	21+00.00	LT	24.0	4.0	564.6						21+00.00	DR-303	26.1		
12	IA 38	15+55.43	21+00.00	RT	24.0	4.0	564.6						21+00.00	DR-303	26.1		
13	IA 38	21+00.00	21+75.00	LT	24.0	4.0	75.0						21+00.00	DR-303	3.5		
14	IA 38	21+00.00	21+75.00	RT	24.0	4.0	75.0						21+00.00	DR-303	3.5		
15	IA 38	21+75.00	26+13.00	LT	24.0	4.0	438.0						21+75.00	DR-303	20.3		
													26+13.00	DR-303			
16	IA 38	21+75.00	26+13.00	RT	24.0	4.0	438.0						21+75.00	DR-303	20.3		
													26+13.00	DR-303			
17	IA 38	26+13.00	29+47.00	LT	24.0	4.0	354.0						29+47.00	DR-304	16.4		
18	IA 38	26+13.00	29+47.00	RT	24.0	4.0	354.0						29+47.00	DR-304	16.4		
19	IA 38	29+47.00	30+74.00	LT	24.0	4.0	167.0						29+47.00	DR-304	7.7		
													30+74.00	DR-304			
20	IA 38	29+47.00	30+74.00	RT	24.0	4.0	167.0						29+47.00	DR-304	7.7		
													30+74.00	DR-304			
21	IA 38	30+74.00	34+40.00	LT	24.0	4.0	406.0						30+74.00	DR-304	18.8		
													34+40.00	DR-304			
22	IA 38	30+74.00	34+40.00	RT	24.0	4.0	406.0						30+74.00	DR-304	18.8		
													34+40.00	DR-304			
23	IA 38	34+40.00	39+60.00	LT	24.0	4.0	560.0						34+40.00	DR-304	25.9		
													39+60.00	DR-304			
24	IA 38	34+40.00	39+60.00	RT	24.0	4.0	560.0						34+40.00	DR-304	25.9		
													39+60.00	DR-304			
						Totals	8728.3		0.0					38	403.9	0.0	

NOTE: TYPE 12 IN URBAN SECTION, TYPE 6 IN RURAL SECTION, UNLESS NOTED

110-8
08-01-08

REMOVAL OF CONCRETE DRIVES

Location Station	Side	Area SY	Remarks
1+69.00	L	27.4	
3+40.00	L	22.4	
9+04.00	L	19.6	
13+96.00	L	31.3	
17+79.00	L	14.6	
19+02.00	L	15.0	
20+21.00	L	16.2	
22+46.00	L	15.3	
25+77.00	L	17.7	
4+34.00	R	30.0	
5+09.00	R	19.7	
9+66.00	R	19.8	
11+23.00	R	27.3	
17+28.00	R	40.8	
19+15.00	R	17.2	
20+19.00	R	14.6	
TOTAL		348.9	

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

POLLUTION PREVENTION PLAN

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

P:\14\183\DRAWINGS\CIVIL\14183_ZZ_C.DWG 4/26/2016 2:12:02 PM JERI M. VONDERA

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.11	144

POLLUTION PREVENTION PLAN

This Base Pollution Prevention Plan (PPP) includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed per plan revisions or by contract modification, will be readily available for review.

All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The prime contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

I. ROLES AND RESPONSIBILITES

A. Designer:
1. Prepares Base PPP included in the project plan.
2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
3. Signature authority on the Base PPP and NOI.

B. Contractor/Subcontractor:
1. Affected contractors/subcontractors are co-permittees with the IDOT and will sign a certification statement adhering to the requirements of the NPDES permit and this PPP plan. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Submit a detailed schedule according to Article 2602 of the Specifications and any additional plan notes.
3. Install and maintain appropriate controls.
4. Supervise and implement good housekeeping practices.
5. Conduct joint required inspections of the site with inspection staff.
6. Signature authority on Co-Permittee Certification Statements and storm water inspection reports.

C. RCE/Inspector:
1. Update PPP whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the discharge of pollutants from the project.
2. Maintain an up-to-date list that identifies contractors and subcontractors as co-permittees.
3. Make these plans available to the DNR upon their request.
4. Conduct joint required inspections of the site with the contractor/subcontractor.
5. Complete an inspection report after each inspection.
6. Signature authority on storm water inspection reports and Notice of Discontinuation (NOD).

II. PROJECT SITE DESCRIPTION

A. This Pollution Prevention Plan (PPP) is for the construction of a PCC Pavement Replacement on IA 38 from Jct. US 30 to NCS Stanwood.

B. This PPP covers approximately 6.1 acres with an estimated 6.1 acres being disturbed. The portion of the PPP covered by this contract has 6.1 acres disturbed.

C. The PPP is located in an area of 1 soil association Tama-Muscatine-Downs.
The estimated average SCS runoff curve number for this PPP after completion will be 87.

D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:
1. Drainage patterns – Plan and Profile sheets and Situation plans.
2. Proposed Slopes – Cross Sections.
3. Areas of Soil Disturbance – construction limits shown on Plan and Profile sheets.
4. Location of Structural Controls – Tabulations on C sheets.
5. Locations of Non-structural Controls – Tabulations on C sheets.
6. Locations of Stabilization Practices – generally within construction limits shown on Plan and Profile sheets.
7. Surface Waters (including wetlands) – Plan and Profile sheets.
8. Locations where storm water is discharged – Plan and Profile sheets.

E. The base site map is amended by contract modifications and progress payments of completed erosion control work.

F. Runoff from this work will flow into storm water inlets to small streams to Wapsipinicon River to Mississippi River.

III. CONTROLS

A. The contractor's work plan and sequence of operations specified in Article 2602.03 for accomplishment of storm water controls should clearly describe the intended sequence of major activities and for each activity define the control measure and the timing during the construction process that the measure will be implemented.

B. Preserve vegetation in areas not needed for construction.

C. Section 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water monitoring inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B.

1. EROSION AND SEDIMENT CONTROLS

a. Stabilization Practices
1) Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized.
2) Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased.
3) Temporary stabilizing seeding shall be completed as the disturbed areas are constructed. If construction activity is not planned to occur in a disturbed area for at least 21 days, the area shall be stabilized by temporary seeding or mulching within 14 days. Other stabilizing methods shall be used outside the seeding time period.
4) Stabilization measures to be used for this project are located in the Estimated Project Quantities (100-1A) and Estimate Reference Information (100-4A) located on the C sheets of the plan. Additional items may be found in the Inspector's Daily Reports (IDR) or Contract Modifications.

b. Structural Practices
1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
2) Structural items to be used for this project are located in the Estimated Project Quantities (100-1A) and Estimate Reference Information (100-4A) located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B sheets of the plan or are referenced in the Standard Road Plans Tabulation.

c. Storm Water Management
1) Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

110-12A
Modified

POLLUTION PREVENTION PLAN

2. OTHER CONTROLS
a. Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.
1) Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
2) Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
3) Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
4) Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
5) Spill Prevention and Control - Implement procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.
6) Concrete Residuals and Washout Wastes - Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located.
7) Vehicle and Equipment Cleaning - Employ washing practices that prevent contamination of surface and ground water from wash water.
8) Vehicle and Equipment Fueling and Maintenance - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onside fuels and proper disposal of used engine oil or other fluids on site.
9) Litter Management - Ensure employees properly dispose of litter.

3. APPROVED STATE OR LOCAL PLANS
During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES

The contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

V. INSPECTION REQUIREMENTS

A. Inspections shall be made jointly by the contractor and the contracting authority at least once every seven calendar days. Storm water monitoring inspections will include:
1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
4. Rainfall amount.
5. Review erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identify corrective actions required to maintain or modify erosion and sediment control measures.

B. Include storm water monitoring inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found and complete all actions within 3 calendar days of the inspection.

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of patio blocks, Class A stone, erosion stone or other appropriate materials.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION

Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

VIII. DEFINITIONS

A. Base PPP - Initial Pollution Prevention Plan.
B. Amended PPP - May include Plan Revisions or Contract Modifications for new items and fieldbook entries made by the inspector.
C. IDR - Inspector's Daily Report – this contains the inspector's daily diary and item postings.
D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials.
E. Signature Authority - Representative from Designer, Contractor/Subcontractor, or RCE/Inspector authorized to sign various storm water documents.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Consultant Signature — Contracting Authority Signature

Printed or Typed Name — Printed or Typed Name

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: TRACED BY:
DETAILED BY: CHECKED BY:

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.12	144

SANITARY OR STORM SEWER ABANDONMENT OR REMOVAL

110-14
04-16-13

* Not a bid item

Location/Description	Sanitary or Storm Sewer	Abandonment, Plug Only or Abandonment, Plug and Fill or Removal	Length of Pipe ≤ 36 inch diameter LF	Length of Pipe > 36 inch diameter LF	Remarks
Sta 6+32, 15" RCP	Storm Sewer	Removal	30		Div. 3
Sta 6+77, 31' L, 15" RCP	Storm Sewer	Removal	77		Div. 3
Sta 6+90, 34' R, 12" CMP	Storm Sewer	Removal	14		Div. 3
Sta 7+13, 5' L, 24" RCP	Storm Sewer	Removal	92		Div. 3
Sta 7+43, 42' L, 36" RCP	Storm Sewer	Removal	8		Div. 3
Sta 7+46, 2' L, 18" RCP	Storm Sewer	Removal	71		Div. 3
Sta 7+63, 27' L, 18" RCP	Storm Sewer	Removal	42		Div. 3
Sta 7+80, 15' R, 15" RCP	Storm Sewer	Removal	30		Div. 3
Sta 15+72, 1' L, 10" CLAY	Storm Sewer	Removal	65		Div. 3
Sta 15+96, 24' L, 10" CLAY	Storm Sewer	Removal	42		Div. 3
Sta 21+08, 12" CMP	Storm Sewer	Removal	32		Div. 3
Sta 21+15, 46' L, 10" CLAY	Storm Sewer	Removal	56		Div. 3
Sta 21+19, 25' R, 8" CLAY	Storm Sewer	Removal	21		Div. 3
Sta 21+46, 15' R, 10" CLAY	Storm Sewer	Removal	56		Div. 3
Sta 26+61, 36' L, 12" CMP	Storm Sewer	Removal	27		Div. 3
Sta 2+44, 100' R, 8"	Sanitary Sewer	Removal	137		Div. 4
Sta 2+44, 100' R	Sanitary Sewer	Removal	10		Div. 4
Sta 2+71, 169' L, 8"	Sanitary Sewer	Removal	10		Div. 4
Sta 7+21, 90' R, 8"	Sanitary Sewer	Removal	186		Div. 4
Sta 7+21, 90' L, 8"	Sanitary Sewer	Removal	167		Div. 4
Sta 7+20, 169' L	Sanitary Sewer	Removal	20		Div. 4
Sta 10+88, 8"	Sanitary Sewer	Removal	336		Div. 4
Sta 10+88, 169' L	Sanitary Sewer	Removal	5		Div. 4
Sta 10+87, 167' R	Sanitary Sewer	Removal	10		Div. 4
Service Stub, 4"	Sanitary Sewer	Removal	30		Div. 4
Service Stub, 6"	Sanitary Sewer	Removal	30		Div. 4
Sta 2+40.77, 168.61' L to Sta 2+43.48, 24.82' R	Sanitary Sewer	Abandonment, Plug Only	5.0		Div. 4 - Near Lutheran Church
		Total Storm Removal	663		
		Total Sanitary Removal	941		

REMOVAL OF INTAKES AND UTILITY ACCESSES

110-15
04-16-13

No.	Location/Description	Type	Remarks
1	Sta 6+32, 16' L	Intakes	Div. 3
2	Sta 6+32, 16' R	Intakes	Div. 3
3	Sta 6+82, 32' R	Intakes	Div. 3
4	Sta 7+43, 36' L	Intakes	Div. 3
5	Sta 7+80, 16' L	Intakes	Div. 3
6	Sta 7+80, 16' R	Intakes	Div. 3
7	Sta 15+71, 24' L	Intakes	Div. 3
8	Sta 16+15, 24' L	Intakes	Div. 3
9	Sta 21+08, 16' L	Intakes	Div. 3
10	Sta 21+08, 16' R	Intakes	Div. 3
11	Sta 21+19, 25' R	Intakes	Div. 3
12	Sta 21+64, 15' R	Intakes	Div. 3
13	Sta 2+45.41, 164.83' R	Utilities	Div. 4
14	Sta 7+19.93, 169.05' L	Utilities	Div. 4
15	Sta 7+20.88, 2.20' L	Utilities	Div. 4
16	Sta 10+86.97, 167.13' R	Utilities	Div. 4
17	Sta 10+88.17, 169.02' L	Utilities	Div. 4

CLEARING AND GRUBBING

110-17
04-15-14

Location: Station to Station or Milepost to Milepost or Description	Location: Direction of Travel	Work and Material Type	Trees, Stumps, and Logs and Down Timber Material Diameters: 3"-6"	>6"-9"	>9"-12"	>12"-15"	>15"-18"	>18"-24"	>24"-30"	>30"-36"	>36"-42"	>42"-48"	Estimated Quantities: Units Units	Area Acres	Herbicide Application Each	Remarks
1+24, L		Stumps - Grubbing					1						8.8			DIV 4
1+50, L		Stumps - Grubbing						1					13.6			DIV 4
1+87, L		Stumps - Grubbing						1					13.6			DIV 4
2+15, R		Stumps - Grubbing							1				17.6			DIV 1
2+57, R		Stumps - Grubbing										1	80.0			DIV 1
2+67, L		Trees - Clearing and Grubbing			1								6.7			DIV 4-FOR SANITARY SEWER
2+73, L		Trees - Clearing and Grubbing			1								6.7			DIV 4-FOR SANITARY SEWER
2+78, L		Trees - Clearing and Grubbing					1						13.5			DIV 4-FOR SANITARY SEWER
2+84, L		Trees - Clearing and Grubbing					1						13.5			DIV 4-FOR SANITARY SEWER
3+00, L		Stumps - Grubbing									1		50.0			DIV 4
4+24, L		Stumps - Grubbing						1					13.6			DIV 4
4+48, L		Stumps - Grubbing							1				17.6			DIV 4
4+84, L		Stumps - Grubbing								1			28.0			DIV 4
5+21, L		Stumps - Grubbing			1								4.8			DIV 4
5+54, L		Stumps - Grubbing							1				17.6			DIV 4
5+95, L		Stumps - Grubbing							1				17.6			DIV 4
7+47, L		Trees - Clearing and Grubbing								1			50.0			DIV 4
7+97, L		Stumps - Grubbing						1					13.6			DIV 4
10+42, L		Stumps - Grubbing					1						8.8			DIV 4
10+75, L		Stumps - Grubbing	1										1.1			DIV 4
11+52, R		Stumps - Grubbing							1				17.6			DIV 1
11+94, L		Stumps - Grubbing	1										1.1			DIV 4
13+78, L		Stumps - Grubbing					1						8.8			DIV 1
18+52, R		Stumps - Grubbing				1							6.6			DIV 1
18+73, R		Stumps - Grubbing					1						8.8			DIV 1
19+02, R		Stumps - Grubbing						1					13.6			DIV 1
19+35, R		Stumps - Grubbing						1					13.6			DIV 1
19+37, L		Stumps - Grubbing			1								4.8			DIV 1
19+62, L		Stumps - Grubbing			1								4.8			DIV 1
20+11, R		Stumps - Grubbing			1								4.8			DIV 1
20+27, R		Stumps - Grubbing			1								4.8			DIV 1
20+38, L		Stumps - Grubbing	1										1.1			DIV 1
20+61, R		Stumps - Grubbing			1								4.8			DIV 1
20+96, L		Stumps - Grubbing	1										1.1			DIV 4
23+72, R		Trees - Clearing and Grubbing				1							9.4			DIV 3
24+87, R		Trees - Clearing and Grubbing	1										1.6			DIV 3
25+15, R		Trees - Clearing and Grubbing	1										1.6			DIV 3
25+45, R		Trees - Clearing and Grubbing	1										1.6			DIV 3
													507.2			

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

iiw 563.556.2464 ◆ 800.556.4491
IIW, P.C. ◆ www.iiwengr.com

CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.13	144

CURBS AND RAISED ISLANDS

Refer to PV-20, PV-102, and 6000s Detail Series.

(1) Bid Item

Point No.	Station	Offset	Island Interior Area (1) SY	Curb and Gutter: Curb Type	Curb and Gutter: Gutter Width FT	Curb and Gutter: Length (1) LF	Remarks
1	101+50.00	13' L		6" Standard PCC	2.5	5.0	Preston St West Transition
2	101+50.00	13' R		6" Standard PCC	2.5	5.0	Preston St West Transition
3	102+26.00	13' L		6" Standard PCC	2.5	5.0	Preston St East Transition
4	102+26.00	13' R		6" Standard PCC	2.5	5.0	Preston St East Transition
5	200+26.00	13' L		6" Standard PCC	2.5	5.0	Center St West Transition
6	200+26.00	13' R		6" Standard PCC	2.5	5.0	Center St West Transition
7	201+04.00	13' L		6" Standard PCC	2.5	5.0	Center St East Transition
8	201+04.00	13' R		6" Standard PCC	2.5	5.0	Center St East Transition
9	300+26.00	13' L		6" Standard PCC	2.5	5.0	Broadway St East Transition
10	300+26.00	13' L		6" Standard PCC	2.5	5.0	Broadway St East Transition
11	301+02.00	16.6' L		6" Standard PCC	2.5	5.0	Broadway St East Transition
12	301+02.00	16.6' R		6" Standard PCC	2.5	5.0	Broadway St East Transition
13	401+55.00	12' L		6" Standard PCC	2.5	5.0	North St West Transition
14	401+55.00	12' R		6" Standard PCC	2.5	5.0	North St West Transition
15	402+41.00	13' R		6" Standard PCC	2.5	6.0	North St East Transition
16	500+89.00	12.5' R		6" Standard PCC	2.5	5.0	Farmers St West Transition
17	510+35.00	13' R		6" Standard PCC	2.5	5.0	Farmers St East Transition
				TOTAL		86.0	

SHOULDERS

(1) Lane(s) to which the shoulder is adjacent.
(2) Bid Item
(3) Applies only for Paved Shoulders constructed on project with existing granular shoulders.
(4) Does not include shrink.

Calculations assume a HMA unit weight (lbs/cf) of 140, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

Location: Road Identification	Direction (1) Of Traffic	Station to Station		Side	(P) Width FT	(G) Width FT	(L) Length FT	Quantities: Class 10 Excavation (3) CY (2)	Hot Mix Asphalt: TON	Hot Mix Asphalt: TON/STA	Binder TONS	Paved Shoulder SY (2)	Modified Subbase CY (2)	Granular Shoulder: TON (2)	Granular Shoulder: TON/STA	Remarks
Hwy 30	East	90+95.00	96+95.00	R	10.0		600.0	388.9	290.6	48.4	17.4	666.7	124.4			8" HMA
IA 38	South	26+93.00	39+78.00	L	4.0	6.0	1285.0					571.1	314.1	314.8	24.5	7" PCC
IA 38	North	26+93.00	39+78.00	R	4.0	6.0	1285.0					571.1	314.1	314.8	24.5	7" PCC
											TOTALS	1808.9	752.6	629.7		

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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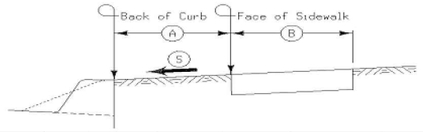
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.14	144

SIDEWALKS

See MI-220 and S Sheets

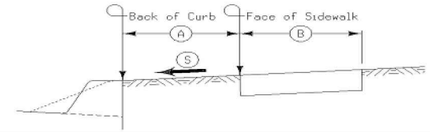


Road Identification	Station to Station		Side	A	B	S	4" PCC Sidewalk	6" PCC Sidewalk	Detectable Warnings	Remarks
				FT	FT	%	SY	SY	SF	
ASH STREET	1+51.39	2+33.01	L	10.00	5.00	VARIES	45.3			
ASH STREET	2+33.01	2+36.59	L	10.00	7.00	VARIES	2.0			Ex walk tie-in
ASH STREET	2+36.59	3+33.70	L	10.00	5.00	VARIES	54.0			
ASH STREET	3+33.70	3+47.58	L	10.00	5.00	VARIES		7.7		
ASH STREET	3+47.58	4+32.15	L	10.00	5.00	VARIES	47.0			
ASH STREET	4+32.15	4+43.19	L	10.00	5.00	VARIES		6.1		
ASH STREET	4+43.19	4+89.28	L	10.00	5.00	VARIES	25.6			
ASH STREET	4+89.28	4+98.10	L	10.00	5.00	VARIES		4.9		
ASH STREET	4+98.10	5+13.66	L	10.00	5.00	VARIES	8.6			
ASH STREET	5+13.66	5+16.95	L	10.00	7.00	VARIES	1.8			Ex walk tie-in
ASH STREET	5+16.95	5+39.51	L	10.00	5.00	VARIES	12.5			
ASH STREET	5+39.51	5+50.03	L	10.00	5.00	VARIES		5.8		
ASH STREET	5+50.03	5+59.64	L	10.00	5.00	VARIES	5.3			
ASH STREET	5+59.64	5+64.87	L	10.00	7.00	VARIES	2.9			Ex walk tie-in
ASH STREET	5+64.87	6+07.38	L	10.00	5.00	VARIES	23.6			
ASH STREET	6+07.38	6+12.84	L	10.00	7.00	VARIES	3.0			
ASH STREET	6+12.84	6+65.22	L	10.00	5.00	VARIES	29.1			
ASH STREET	6+65.22	6+77.03	L	10.00	5.00	VARIES		6.6		
ASH STREET	6+77.03	6+95.80	L	10.00	5.00	VARIES	10.4			
ASH STREET	6+95.80	7+06.12	L	10.00	5.00	VARIES	5.7		10	RAMP
ASH STREET	7+37.48	7+50.54	L	10.00	5.00	VARIES	7.3		10	RAMP
ASH STREET	7+50.54	8+17.32	L	10.00	5.00	VARIES	37.1			
ASH STREET	8+17.32	8+21.93	L	10.00	7.00	VARIES	2.6			Ex walk tie-in
ASH STREET	8+21.93	8+97.30	L	10.00	5.00	VARIES	41.9			
ASH STREET	8+97.30	9+10.70	L	10.00	5.00	VARIES		7.4		
ASH STREET	9+10.70	9+32.03	L	10.00	5.00	VARIES	11.9			
ASH STREET	9+32.03	9+36.93	L	10.00	7.00	VARIES	2.7			Ex walk tie-in
ASH STREET	9+36.93	10+53.08	L	10.00	5.00	VARIES	64.5			
ASH STREET	10+53.08	10+56.81	L	10.00	7.00	VARIES	2.1			Ex walk tie-in
ASH STREET	10+56.81	10+72.34	L	10.00	5.00	VARIES	8.6			
ASH STREET	10+72.34	10+76.83	L	10.00	7.00	VARIES	2.5			Ex walk tie-in
ASH STREET	10+76.83	11+06.08	L	10.00	5.00	VARIES	16.3			
ASH STREET	11+06.08	11+08.88	L	10.00	7.00	VARIES	1.6			Ex walk tie-in
ASH STREET	11+08.88	11+33.63	L	10.00	5.00	VARIES	13.8			
ASH STREET	11+33.63	11+37.45	L	10.00	7.00	VARIES	2.1			Ex walk tie-in
ASH STREET	11+37.45	11+81.55	L	10.00	5.00	VARIES	24.5			
ASH STREET	11+81.55	11+85.55	L	10.00	7.00	VARIES	2.2			Ex walk tie-in
ASH STREET	11+85.55	12+12.31	L	10.00	5.00	VARIES	14.9			
ASH STREET	12+12.31	12+23.42	L	10.00	5.00	VARIES	6.2		10	RAMP
ASH STREET	12+54.80	12+99.58	L	10.00	5.00	VARIES	24.9		20	RAMP, UPRR
ASH STREET	13+23.06	13+84.65	L	10.00	5.00	VARIES	34.2		10	UPRR
ASH STREET	13+84.65	14+06.12	L	10.00	5.00	VARIES		11.9		
ASH STREET	14+06.12	14+32.73	L	10.00	5.00	VARIES	14.8			
ASH STREET	14+32.73	14+35.73	L	10.00	7.00	VARIES	1.7			Ex walk tie-in
ASH STREET	14+35.73	14+92.93	L	10.00	5.00	VARIES	31.8			
ASH STREET	14+92.93	14+95.93	L	10.00	7.00	VARIES	1.7			Ex walk tie-in
ASH STREET	14+95.93	15+49.77	L	10.00	5.00	VARIES	29.9			
ASH STREET	15+49.77	15+78.24	L	10.00	5.00	VARIES	15.8		10	RAMP
ASH STREET	16+09.60	16+38.70	L	10.00	5.00	VARIES	16.2		10	RAMP
ASH STREET	16+38.70	17+62.55	L	10.00	5.00	VARIES	68.8			
ASH STREET	17+62.55	17+65.55	L	10.00	7.00	VARIES	1.7			Ex walk tie-in
ASH STREET	17+65.55	17+72.71	L	10.00	5.00	VARIES	4.0			
ASH STREET	17+72.71	17+84.11	L	10.00	5.00	VARIES		6.3		
ASH STREET	17+84.11	18+14.38	L	10.00	5.00	VARIES	16.8			
ASH STREET	18+14.38	18+17.38	L	10.00	7.00	VARIES	1.7			Ex walk tie-in
ASH STREET	18+17.38	18+96.04	L	10.00	5.00	VARIES	43.7			
ASH STREET	18+96.04	19+08.51	L	10.00	5.00	VARIES		6.9		
ASH STREET	19+08.51	19+52.32	L	10.00	5.00	VARIES	24.3			
ASH STREET	19+52.32	19+56.95	L	10.00	7.00	VARIES	2.6			Ex walk tie-in
ASH STREET	19+56.95	20+14.60	L	10.00	5.00	VARIES	32.0			
ASH STREET	20+14.60	20+27.16	L	10.00	5.00	VARIES		7.0		
ASH STREET	20+27.16	20+46.50	L	10.00	5.00	VARIES	10.7			
ASH STREET	20+46.50	20+51.20	L	10.00	7.00	VARIES	2.6			Ex walk tie-in
ASH STREET	20+71.20	21+05.25	L	10.00	5.00	VARIES	18.9			
ASH STREET	21+05.25	21+22.55	L	10.00	5.00	VARIES	9.6		10	RAMP
ASH STREET	21+53.91	21+65.07	L	10.00	5.00	VARIES	6.2		10	RAMP
ASH STREET	21+65.07	22+39.11	L	10.00	5.00	VARIES	41.1			
ASH STREET	22+39.11	22+53.59	L	10.00	5.00	VARIES		8.0		
ASH STREET	22+53.59	23+70.61	L	10.00	5.00	VARIES	65.0			
ASH STREET	23+70.61	23+84.15	L	10.00	5.00	VARIES		7.5		
ASH STREET	23+84.15	25+33.47	L	10.00	5.00	VARIES	83.0			
ASH STREET	25+33.47	25+58.47	L	VARIES	5.00	VARIES	13.9			

113-1
04-16-13

SIDEWALKS

See MI-220 and S Sheets



Road Identification	Station to Station		Side	A	B	S	4" PCC Sidewalk	6" PCC Sidewalk	Detectable Warnings	Remarks
				FT	FT	%	SY	SY	SF	
ASH STREET	25+58.47	25+72.20	L	7.50	5.00	VARIES	7.6			
ASH STREET	25+72.20	25+81.45	L	7.50	5.00	VARIES		5.1		
ASH STREET	25+81.45	26+31.46	L	7.50	5.00	VARIES	27.8			
ASH STREET	26+31.46	26+42.35	L	7.50	5.00	VARIES	6.0		10	RAMP
ASH STREET	26+73.14	26+83.93	L	VARIES	5.00	VARIES	6.0		10	RAMP
ASH STREET	26+83.93	26+92.73	L	VARIES	4.00	VARIES	4.9			
ASH STREET	10+48.13	10+52.02	R	8.00	7.00	VARIES	2.2			Ex walk tie-in
ASH STREET	10+52.02	11+60.72	R	8.00	5.00	VARIES	60.4			
ASH STREET	11+60.72	11+64.28	R	8.00	7.00	VARIES	2.0			Ex walk tie-in
ASH STREET	11+64.28	12+07.33	R	8.00	5.00	VARIES	23.9			
ASH STREET	15+49.77	15+73.40	R	8.00	5.00	VARIES	13.1		10	RAMP
ASH STREET	16+14.62	17+93.69	R	8.00	5.00	VARIES	99.5			
ASH STREET	17+93.69	17+96.69	R	8.00	7.00	VARIES	1.7			Ex walk tie-in
ASH STREET	17+96.69	18+68.90	R	8.00	5.00	VARIES	40.1			
ASH STREET	18+68.90	18+71.90	R	8.00	7.00	VARIES	1.7			Ex walk tie-in
ASH STREET	18+71.90	20+44.66	R	8.00	5.00	VARIES	96.0			
ASH STREET	20+44.66	20+49.56	R	8.00	7.00	VARIES	2.7			Ex walk tie-in
ASH STREET	20+49.56	21+05.25	R	8.00	5.00	VARIES	30.9			
ASH STREET	21+05.25	21+21.25	R	VARIES	5.00	VARIES	8.9		10	RAMP
ASH STREET	21+55.25	21+64.84	R	VARIES	5.00	VARIES	5.3		10	RAMP
ASH STREET	21+69.84	21+72.38	R	VARIES	4.00	VARIES	1.4		10	RAMP
PRESTON STREET	101+45.25	101+60.25	R	VARIES	VARIES	VARIES	6.7			
PRESTON STREET	101+65.25	101+73.99	R	VARIES	5.00	VARIES	4.9		10	RAMP
PRESTON STREET	102+07.50	102+16.75	R	VARIES	5.00	VARIES	5.1		10	RAMP
PRESTON STREET	102+16.75	102+29.95	R	VARIES	VARIES	VARIES	7.1			
CENTER STREET	200+27.98	200+37.97	R	VARIES	VARIES	VARIES	5.2			
CENTER STREET	200+43.10	200+53.06	R	VARIES	5.00	VARIES	5.5		10	RAMP
CENTER STREET	200+84.32	200+92.09	R	VARIES	5.00	VARIES	4.3		10	RAMP
CENTER STREET	200+97.08	201+07.08	R	VARIES	VARIES	VARIES	5.2			
BROADWAY STREET	300+21.00	300+36.00	R	VARIES	5.00	VARIES	8.3			
BROADWAY STREET	300+41.00	300+51.00	R	VARIES	5.00	VARIES	5.6		10	RAMP
BROADWAY STREET	300+82.00	300+90.00	R	VARIES	5.00	VARIES	4.4		10	RAMP
BROADWAY STREET	300+90.00	301+05.00	R	VARIES	VARIES	VARIES	5.4			
BROADWAY STREET	300+21.02	300+36.02	L	VARIES	VARIES	0.00%	7.6			
BROADWAY STREET	300+41.02	300+51.02	L	VARIES	5.00	VARIES	5.6		10	RAMP
BROADWAY STREET	300+82.02	300+90.02	L	VARIES	5.00	VARIES	4.4		10	RAMP
BROADWAY STREET	300+95.02	301+10.02	L	VARIES	5.00	VARIES	8.3			
NORTH STREET	401+51.33	401+66.33	L	VARIES	VARIES	VARIES	7.4			
NORTH STREET	401+71.33	401+80.34	L	VARIES	5.00	VARIES	5.0		10	RAMP
NORTH STREET	402+13.38	402+20.33	L	VARIES	5.00	VARIES	3.9		10	RAMP
NORTH STREET	402+20.33	402+28.11	L	VARIES	5.00	VARIES	4.3			
FARMERS STREET	500+86.07	501+01.07	R	VARIES	VARIES	VARIES	7.2			
ASH STREET	2+62.92	2+79.06	L	N/A	3.00	N/A	5.4			Div 4
						TOTALS	1726.2	91.5	260	

Design For

IA 38

FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____

DETAILED BY: _____ CHECKED BY: _____

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.15	144

190-51
10-15-13

MATERIALS FOR TYPE 'A' SIGNS

TYPE A SIGNING TYPICALS	SIGN NUMBER	DIR OF TRAVEL	SIGN LOCATION	PERFORATED SQUARE STEEL TUBE						WOOD, 4 X 6			TYPE A SIGN MOUNTING BRACKETS			INSTALLATION			REMARKS
				LEG 1	LEG 2	LEG 3	ANCHOR			NO. OF POSTS	POST LENGTH	POST LENGTH	ONE POST BRACKET	TWO POST	AUXILIARY	TYPE	DIM 'X' FT	SEE SIGNING NOTES	
			STATION	FT	FT	FT	CONC	SOIL	SLIPBASE		FT	FT							
	R1-1	SB	0+58, L	12					1							1	2		STOP 36X36
	M3-1	NB	1+20, R	12					1							1	2		NORTH
	M1-5	NB	1+20, R													1	2		IOWA 38
	R2-1	NB	1+42, R	12					1							1	2		SPEED LIMT 25
2/B.5 S7	D1-3a	SB	3+73, L	12	12				2					1		1	2		DESTINATION
	R7-1	NB	4+57, R	12					1							1	2		NO PARKING
3/B.5	M2-1	SB	5+05, L	12	12				2					1	1	1	2		JCT
3/B.5	M1-4	SB	5+05, L																US 30
3/B.5	M1-5	SB	5+05, L																IA 38
3/B.5	M5-1	SB	5+05, L																ADV. LEFT
3/B.5 S8	BYWAYS	SB	5+05, L																BYWAYS
3/B.5	M6-4	SB	5+05, L																DBL ARROW
	W14-3	SB	6+41, R	12					1							1	2		NO PASSING
	W3-1	SB	6+44, L	12					1							1	2		STOP AHEAD
	R12-1	EB	7+05, R	12					1							1	2		LIMIT 10 TON
	R1-1	EB	7+05, L	12					1							1	2		STOP 30X30
	R1-1	WB	7+42, R	12					1							1	2		STOP 30X30
	W14-3	NB	9+49, L	12					1							1	2		NO PASSING
	W10-1	NB	9+83, R	12					1							1	2		RR X-ING
	R7-1	NB	11+75, R	12					1							1	2		NO PARKING
	R1-1	EB	12+22, L	12					1							1	2		STOP 30X30
	R1-1	WB	12+54, R	12					1							1	2		STOP 30X30
	R7-1	NB	13+66, R	12					1							1	2		NO PARKING
	S1-1	NB	15+39, R	12					1							1	2		SCHOOL X-ING
	W16-9P	NB	15+39, R																SHOOL AHEAD
	W10-1	SB	15+40, L	12					1							1	2		RR X-ING
	W14-3	SB	15+62, R	12					1							1	2		NO PASSING
	R1-1	EB	15+75, L	12					1							1	2		STOP 30X30
	R1-1	WB	16+14, R	12					1							1	2		STOP 30X30
	R12-1	WB	16+15, L	12					1							1	2		10 TON
	W14-3	NB	16+33, L	12					1							1	2		NO PASSING
	M1-5	SB	19+75, L	12					1							1	2		IA 38
	R1-1	EB	21+21, L	12					1							1	2		STOP 30X30
	R1-1	WB	21+56, R	12					1							1	2		STOP 30X30
	S1-1	NB	21+61, R	12					1							1	2		SCHOOL X-ING
	W16-7P	NB	21+61, R																SCHOOL ARROW
	S1-1	SB	21+77, L	12					1							1	2		SCHOOL X-ING
	W16-7P	SB	21+77, L																SCHOOL ARROW
	R7-1	NB	22+07, R	12					1							1	2		NO PARKING
	R7-1	NB	24+76, R	12					1							1	2		NO PARKING
	R2-1	SB	26+10, L	12					1							1	2		SPEED LIMT 25
	R6-2L	SB	26+35, R	12					1							1	2		ONE WAY
	R6-2R	NB	26+35, R																ONE WAY
	R5-1A	WB	26+35, R																WRONG WAY
	R1-1	EB	26+43, L	12					1							1	2		STOP 30X30
	R12-1	WB	26+79, L	12					1							1	2		10 TON
	M1-5	NB	27+04, R	12					1							1	16		IA-38
	M3-1	NB	27+04, R																NORTH
								TOTAL	38										

190-25
10-21-14

REFERENCE LOCATION SIGNS AND DELINEATORS

Refer to SI-171, SI-172 and SI-173.

Begin Station	End Station	Location	Reference Location Signs								Delineators								Object Markers			Installation	
											Type I		Type IA		Type II		Type III		Type 1	Type 2	Type 3	Type	Offset
			D10-1	D10-2	D10-3	D10-5	D10-6	D10-7	D10-8	D10-9	White	Yellow	White	Yellow	White	Yellow	White	Yellow					
1+29.9, R		MILE MARKER 35		1																			
1+29.9, L		MILE MARKER 35		1																			
12+83.84, R		OM3-R, TO DELINEATE CROSSING SIGNAL																			1		
13+39.52, L		OM3-R, TO DELINEATE CROSSING SIGNAL																			1		

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: TRACED BY:
DETAILED BY: CHECKED BY:

iiw 563.556.2464 ◆ 800.556.4491
IIW, P.C. ◆ www.iiwengr.com

CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.16	144

190-62
10-15-13

EXISTING SIGNS TO BE REMOVED

SIGN NUMBER OR DESCRIPTION	LOCATION STATION	DIRECTION OF TRAVEL	TYPE 'A' SIGN ASSEMBLY (RA) EACH	TYPE 'B' SIGN ASSEMBLY (RB) EACH	REMOVE & REINSTALL EXISTING SIGNS TYPE 'A' (RR) EACH	REMOVE & REINSTALL EXISTING SIGNS TYPE 'B' (RR) EACH	CONCRETE FOUNDATION (RF) EACH	SUPPORT STRUCTURE & FOUNDATION (RS) EACH	APPLICABLE SIGNING NOTES	REMARKS
D3-1, STREET NAME SIGN	0+61, R		1							
R1-1, STOP	0+63, L	SB	1							
M1-5, M3-1, ROUTE SIGN	1+20, R	NB	1							
D10-2, MILE MARKER	1+30, R	NB	1							
R2-1, SPEED LIMIT	1+42, R	NB	1							
PRIVATE	1+43, L		1						CHURCH LOT	
PRIVATE	1+51, L		1						CHURCH LOT	
PRIVATE	APPROX 1+79		1						CHURCH LOT	
D1-3a, DESTINATION	3+72, L	SB	1							2 POSTS
R7-1, NO PARKING	4+57, R	NB	1							
ROUTE ASSEMBLY	5+05, L	SB	1							2 POSTS
W14-3, NO PASSING	6+41, R	SB	1							
W3-1, STOP AHEAD	6+44, L	SB	1							
R12-1, WEIGHT LIMIT	7+05, R	EB	1							
R1-1, STOP	7+05, L	EB	1							
R1-1, STOP	7+42, R	WB	1							
D3-1, STREET NAME SIGN	7+54, R		1							
M1-5, ROUTE SIGN	7+68, R	NB	1							
W14-3, NO PASSING	10+15, L	NB	1							
W10-1. GRADE X-ING	10+25, R	NB	1							
R7-1, NO PARKING	11+75, R	NB	1							
D3-1, STREET NAME SIGN	12+10, R		1							
R1-1, STOP	12+22, L	EB	1							
R1-1, STOP	12+54, R	WB	1							
OM3-L	12+86, L	NB	1							
OM3-L	13+40, L	SB	1							
R7-1, NO PARKING	13+66, R	NB	1							
M1-5, ROUTE SIGN	14+82, L	SB	1							
S1-1, SCHOOL X-ING	15+39, R	NB	1							
W10-1. GRADE X-ING	15+40, L	SB	1							
W14-3, NO PASSING	15+62, R	SB	1							
R1-1, STOP	15+75, L	EB	1							
R1-1, STOP	16+14, R	WB	1							
R12-1, WEIGHT LIMIT	16+15, L	WB	1							
D3-1, STREET NAME SIGN	16+22, L		1							
D3-1, STREET NAME SIGN	16+33, R		1							
W14-3, NO PASSING	16+33, L	NB	1							
M1-5, ROUTE SIGN	16+57, R	NB	1							
M1-5, ROUTE SIGN	19+75, L	SB	1							
R1-1, STOP	21+21, L	EB	1							
R1-1, STOP	21+56, R	WB	1							
D3-1, STREET NAME SIGN	21+63, R		1							
S1-1, SCHOOL X-ING	21+77, L	SB	1							
R7-1, NO PARKING	22+07, R	NB	1							
R7-1, NO PARKING	24+76, R	NB	1							
R2-1, SPEED LIMIT	26+13, L	SB	1							
D3-1, STREET NAME SIGN	26+29, R	NB	1							
D6-2 ONE WAY, WRONG WAY	26+35, R		1							
R1-1, STOP	26+43, L	EB	1							
R12-1, WEIGHT LIMIT	26+79, L	WB	1							
M1-5, ROUTE SIGN	27+04, R	NB	1							
		TOTAL	51							

190-66
10-21-14

SUMMARY OF TYPE 'A' SIGNS

Sign Number	Quantity EACH	Size IN	Total Sign Area SF
R1-1	1	36 X 36	9.0
R1-1	9	30 X 30	56.3
M1-5 (IA 38)	4	24 X 24	16.0
M3-1	2	24 X 12	4.0
R2-1	2	24 X 30	10.0
R7-1AB	5	12X18	7.5
M2-1	1	24 X 12	2.0
M1-4	1	24 X 24	4.0
M5-1	1	24 X 24	4.0
BYWAYS SEE DETAIL 3/B.5	1	24 X 42	7.0
M6-4	1	24 X 12	2.0
W14-3B	4	36 X 48 X 48	48.0
W3-1	1	36 X 36	9.0
R12-1	3	24 X 30	15.0
W10-1	2	36DIA	14.1
S1-1	3	36 X 36	27.0
W16-9P	1	24 X 12	2.0
W16-7P DIAGONAL DWN ARROW	2	24 X 12	4.0
R6-2	2	24 X 30	10.0
R5-1a WRONG WAY	1	36 X 24	6.0
D1-3 DESTINATION DETAIL 2/B.5	1	42 X 120	35.0
TOTAL	48		291.9

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

iiw 563.556.2464 ◆ 800.556.4491
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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	C.17	144

STP-038-2(37)--2C-16

ABBREVIATIONS

Δ	CENTRAL ANGLE
A/C	AIR CONDITIONING(ER)
AC	ACRES
A.F.F.	ABOVE FINISHED FLOOR
AGG	AGGREGATE
AOH	ARROW ON HYDRANT
ARCH	ARCHITECTURAL
ASPH	ASPHALT
AVG	AVERAGE
B-B	B/C - B/C
B/C, BOC	BACK OF CURB
B/DITCH	BOTTOM OF DITCH
BFP	BACKFLOW PREVENTOR
B/L	BASE LINE
B/S	BOTTOM OF SLOPE
BLDG	BUILDING
B.M.	BENCH MARK
BOP	BEGINNING OF PROJECT
BOT	BOTTOM
BSMT	BASEMENT
BV	BUTTERFLY VALVE
C&G	CURB AND GUTTER
CATV	CABLE TELEVISION
CB	CATCH BASIN
C-C	CENTER TO CENTER
CF	CUBIC FEET
CH	CHORD
CH BRG	CHORD BEARING
CIP	CAST IRON PIPE
C-I-P	CAST-IN-PLACE
CISP	CAST IRON SOIL PIPE
CJ	CONTROL JOINT
℄, CL	CENTERLINE
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
COMP	COMPACTED
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COR	CORNER
CP	CONTROL POINT
CPE	CORRUGATED POLYETHYLENE PIPE
CRST	CRUSHED STONE
CSP	CORRUGATED STEEL PIPE
CTRD	CENTERED
CTR	CENTER
CULT	CULTIVATED
CV	CHECK VALVE
CY	CUBIC YARD
D	DEGREE OF CURVE
DIA (ø)	DIAMETER
DIP	DUCTILE IRON PIPE
DN	DOWN
DRWY	DRIVEWAY
DS	DOWNSPOUT
DWG(S)	DRAWING(S)
DWL(S)	DOWEL(S)
E	EAST
E'LY	EASTERLY
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMBED	EMBEDMENT
ENGR	ENGINEER
ENTR	ENTRANCE
EOP	END OF PROJECT
EOR	END OF RADIUS
E/P	EDGE OF PAVEMENT
EQ	EQUAL
E/S	EDGE OF SHOULDER
ESMT	EASEMENT
EST	ESTIMATE
EX	EXISTING
EXC	EXCAVATE/EXCAVATION
EXP	EXPANSION
EXT	EXTERIOR
EXTD	EXTEND
EW	EACH WAY

FD	FLOOR DRAIN
FDN	FOUNDATION
F.E.	FIELD ENTRANCE
FES	FLARED END SECTION
F-F	FACE TO FACE
FFE	FINISH FLOOR ELEVATION
FG	FORM GRADE
FIN GR	FINISHED GRADE
FL	FLOWLINE
FLG	FLANGE
FLR	FLOOR
FM	FORCE MAIN
FND	FOUND
FT	FOOT/FEET
FTG	FOOTING
FUT	FUTURE
FV	FIELD VERIFY
G	GUTTER
GC	GENERAL CONTRACTOR
GALV	GALVANIZED
GND	GROUND
GRAN	GRANULAR
GRD	GRADE
GV	GATE VALVE
HMA	HOT MIX ASPHALT
HORIZ	HORIZONTAL
HPT	HIGH POINT
HYD	HYDRANT
ID	INSIDE DIA/INSIDE DIM
IE	INVERT ELEVATION
IMP	IMPROVEMENTS
IN	INCHES
INV	INVERT
IP	IRON PIPE
JB	JUNCTION BOX
JT	JOINT/JOINT LENGTH
K	RATE OF VERT CURVATURE
L	LENGTH OF CURVE
LAT	LATERAL
LF	LINEAL FOOT
LONG	LONGITUDINAL
LP	LIGHT POLE
LPT	LOW POINT
LT	LEFT
MAX	MAXIMUM
ME	MATCH EXISTING
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
M.P.	MILE POST
N	NORTH
N/A	NOT APPLICABLE
NE'LY	NORTHEASTERLY
N'LY	NORTHERLY
NO/#	NUMBER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NW'LY	NORTHWESTERLY
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVE
PERF	PERFORATED
PI	POINT OF INTERSECTION
P/L	PROPERTY LINE
PM	PRINCIPAL MERIDIAN
POB	POINT OF BEGINNING
POC	POINT OF CURVE
POT	POINT OF TANGENT
PRC	POINT OF REVERSE CURVE
PRELIM	PRELIMINARY
PROP	PROPOSED
PRV	PRESSURE REDUCING VALVE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY

R	RADIUS
R&R	REMOVE & REPLACE
R&S	REMOVE & SALVAGE
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCAP	REINFORCED CONCRETE ARCH PIPE
RD	ROAD
REBAR	REINFORCING BAR
REF	REFERENCE
REINF	REINFORCING/REINFORCED
REV	REVISION
RIM	RIM ELEVATION
ROW	RIGHT OF WAY
RP	RADIUS POINT
RS	RESILIENT SEAT
RT	RIGHT
S	SOUTH
S=	SUPERELEVATION
SAN	SANITARY
SANS	SANITARY SEWER
SB	SOIL BORING
SCH	SCHEDULE
SD	SUB DRAIN
SEC	SECTION
SE'LY	SOUTHEASTERLY
SF	SQUARE FOOT
S.F.D.	STEP FOOTING DOWN
SHT	SHEET
SIG.	SIGNAL
SIM.	SIMILAR
S'LY	SOUTHERLY
SOG	SLAB ON GRADE
SPEC	SPECIFICATION
SS	STAINLESS STEEL
SSD	STOPPING SIGHT DISTANCE
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STM	STORM
STMS	STORM SEWER
SW'LY	SOUTHWESTERLY
SY	SQUARE YARD
T	TANGENT LENGTH
T/B	TOP OF BANK
T/DITCH	TOP OF DITCH
T/C, TC	TOP OF CURB
T/GRAV	TOP OF GRAVEL
T/WALL	TOP OF WALL
T/P, TP	TOP OF PAVEMENT
T/S	TOP OF SLOPE
T/SUB	TOP OF SUBGRADE
T/W, TW	TOP OF WALK
T & B	TOP AND BOTTOM
T.O.B.	TOP OF BEAM
T.O.B.L.	TOP OF BRICK LEDGE
T.O.C.	TOP OF CONCRETE
T.O.E.F.	TOP OF EXISTING FOOTING
T.O.F.	TOP OF FOOTING
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PIER
T.O.S.	TOP OF STEEL
TCE	TEMP CONSTRUCTION EASEMENT
TEL	TELEPHONE
TEMP	TEMPORARY
THK	THICK / THICKNESS
TWP	TOWNSHIP
TYP	TYPICAL
U	UTILITY
UAC	USE AS CONSTRUCTED
UE	UTILITY EASEMENT
UL	UNDERWRITERS LABORATORIES, INC.
ULFM	UNDERWRITERS LABORATORIES FACTORY MUTUAL
UNO	UNLESS NOTED OTHERWISE
VAR	VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VER	VERIFY
VERT	VERTICAL
VOL	VOLUME
VPC	VERT POINT OF CURVE
VPI	VERT POINT OF INTERSECTION
VPT	VERT POINT OF TANGENCY
W	WEST
W/	WITH
W'LY	WESTERLY
WM	WATER MAIN
W/O	WITHOUT
W.P.	WORKING POINT
WD	WOOD
WSO	WATER SHUT OFF
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
YD	YARD

LEGEND

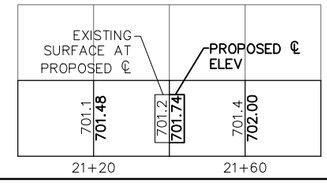
EXISTING		PROPOSED
	PROPERTY LINE	
	EASEMENT	
	SECTION LINE	
	QUARTER SECTION LINE	
	QUARTER QUARTER SECTION LINE	
	CENTERLINE	
D	STORM SEWER	D
SD	SUB DRAIN	SD
S	SANITARY SEWER	S
FM	FORCE MAIN	FM
W	WATER LINE	W
G	GAS LINE	G
OHE	OVERHEAD ELECTRIC	OHE
E	UNDERGROUND ELECTRIC	E
OHT	OVERHEAD TELEPHONE	OHT
T	UNDERGROUND TELEPHONE	T
OHTV	OVERHEAD TELEVISION	OHTV
TV	UNDERGROUND TELEVISION	TV
FIB	FIBER OPTIC	FIB
X	WIRE FENCE	X
O	CHAINLINK FENCE	O
	WOOD FENCE	
000	CONTOUR LINE	000
	RAILROAD TRACKS	
	GUARD RAIL	
+ 0.00	SPOT ELEVATION	+ 0.00
	DIRECTION OF FLOW	
	TREE LINE	

EXISTING		PROPOSED
	CATCH BASIN	
	AREA INTAKE	
Ⓓ	STORM MANHOLE	Ⓓ
Ⓢ	SANITARY MANHOLE	Ⓢ
Ⓤ	UTILITY MANHOLE	Ⓤ
Ⓥ	WATER VALVE MANHOLE	Ⓥ
	FIRE HYDRANT	
	WATER SHUT OFF	
	WATER VALVE	
	YARD HYDRANT	
GV	GAS VALVE	GV
	SIGN	
	UTILITY POLE	
	UTILITY POLE WITH LIGHT	
	TRAFFIC SIGNAL POLE	
	GUY ANCHOR	
	LIGHT POLE	
	UTILITY PEDESTAL	
Ⓦ	WELL	Ⓦ
	MAILBOX	
	WATER LEVEL	
	BOLLARD	
	SOIL BORING	
PIV	POST INDICATOR VALVE	PIV
	DECIDUOUS TREE W/ TRUNK DIA.	
	CONIFEROUS TREE W/ TRUNK DIA.	
	SHRUB OR BUSH	
	STUMP	

SURVEY

- ■ FOUND REBAR
- ● FOUND IRON PIPE
- ○ SET REBAR

PROFILE LEGEND



Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

CIVIL ABBREVIATIONS & LEGEND

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

P:\14\183\DRAWINGS\CIVIL\14183_ZZ_D.DWG 4/26/2016 1:47:34 PM JERI M. VONDERA

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
			IOWA	.	2016	D.1	144

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE been REDUCED
NORTH

EXISTING WALK, UAC
Lutheran Church
EX MH, UAC
EX INTAKE, UAC
LINCOLN HIGHWAY / US HWY 30
REMOVE PCC DRIVE REPLACE WITH PCC STA 1+69, L
REMOVE EXISTING STEPS
REMOVE EXISTING COURTESY WALKS, TYPICAL
5' PCC WALK
REMOVE EXISTING STEPS
REMOVE PCC DRIVE REPLACE WITH PCC STA 3+40, L
TEMPORARY CONSTRUCTION EASEMENT
EXISTING ROW
GRADING LIMITS
St. John
D Scott
REMOVE HMA DRIVE REPLACE WITH PCC STA 4+38, L
REMOVE GRANULAR DRIVE REPLACE WITH PCC STA 4+94, L
Connelly, Shon O & Lynn M
REMOVE GRANULAR DRIVE REPLACE WITH PCC STA 5+45, L
PROTECT EX. PLANTS
ASPHALT
PROPOSED ℄
STA 0+12.71
N: 696703.4622
E: 2279695.7523
START OF PROJECT
IA HWY 38 / ASH STREET
GRADING LIMIT
EXISTING ROW
66' ROW
31'
10'
5'
REMOVE GRANULAR DRIVE REPLACE WITH PCC STA 2+44, R
REMOVE GRANULAR DRIVE ABANDON STA 1+71, R
REMOVE GRANULAR DRIVE ABANDON STA 3+58, R
REMOVE PCC DRIVE REPLACE WITH PCC STA 4+34, R
REMOVE PCC DRIVE REPLACE WITH PCC STA 5+09, R
EX INTAKE, UAC
Lutheran Church
Beers, David B & Ruth Ann
Sander, Carol Ann
Siebels, David E & Sue Ann

NOTES:
PROTECT EXISTING AND RELOCATED UTILITY POLES AND OVERHEAD LINES DURING CONSTRUCTION.

FOR SURVEY CONTROL AND ALIGNMENT INFORMATION, REFER TO G SHEETS
FOR TEMPORARY AND PERMANENT EASEMENTS, REFER TO H SHEETS
FOR GEOMETRIC, STAKING & JOINTING DETAILS, REFER TO L SHEETS
FOR STORM SEWER INFORMATION, REFER TO M SHEETS
FOR SANITARY SEWER AND WATER MAIN INFORMATION, REFER TO MU SHEETS

DESIGN SPEED: 30 MPH
SSD: 201'
CURVE LEN: 175.00'
K = 29.86
VPI STA: 2+75
VPI EL: 840.43

DESIGN SPEED: 30 MPH
SSD: 99'
CURVE LEN: 75.00'
K = 12.30
VPI STA: 0+53.57
VPI EL: 831.57

EXISTING GRADE AT PROPOSED ℄
PROPOSED GRADE AT PROPOSED ℄

BVCS: 0+16.87
BVCE: 832.36
LPT STA: 0+41.87
LPT EL: 832.09
EVCS: 0+91.07
EVCE: 833.07
BVCS: 1+87.50
BVCE: 836.93
HPT STA: 3+06.93
HPT EL: 839.32
EVCS: 3+62.50
EVCE: 838.80
EVCS: 5+48.05
EVCE: 835.35

-2.10%
4.00%
-1.86%

PROPOSED WATER MAIN SHOWN FOR REFERENCE
PROPOSED SANITARY SEWER SHOWN FOR REFERENCE

0+00	0+50	1+00	1+50	2+00	2+50	3+00	3+50	4+00	4+50	5+00	5+50
EXISTING ELEV @ ℄	832.4	832.0	832.8	833.6	834.8	835.9	836.9	837.8	838.4	839.0	839.2	839.3	839.2	839.0	838.6	838.3	837.8	837.4	837.0	836.5	836.1	835.7
PROPOSED ELEV @ ℄	832.43	832.20	832.53	833.43	834.43	835.43	836.43	837.40	838.19	838.77	839.15	839.31	839.26	839.01	838.57	838.10	837.64	837.17	836.71	836.24	835.78	835.31

VERTICAL SCALE IN FEET
0 5 10
DRAWING MAY HAVE BEEN REDUCED

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	D.2	144

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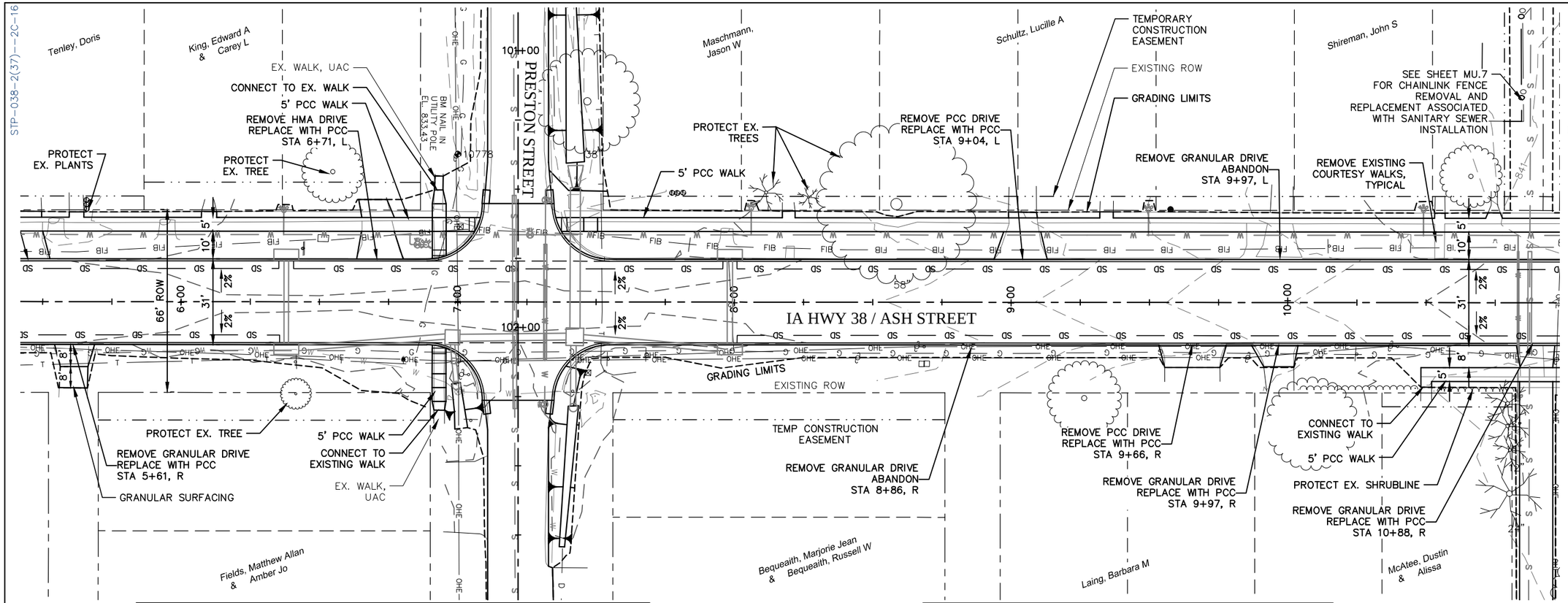

NOTES:
PROTECT EXISTING AND RELOCATED UTILITY POLES AND OVERHEAD LINES DURING CONSTRUCTION.

FOR SURVEY CONTROL AND ALIGNMENT INFORMATION, REFER TO G SHEETS
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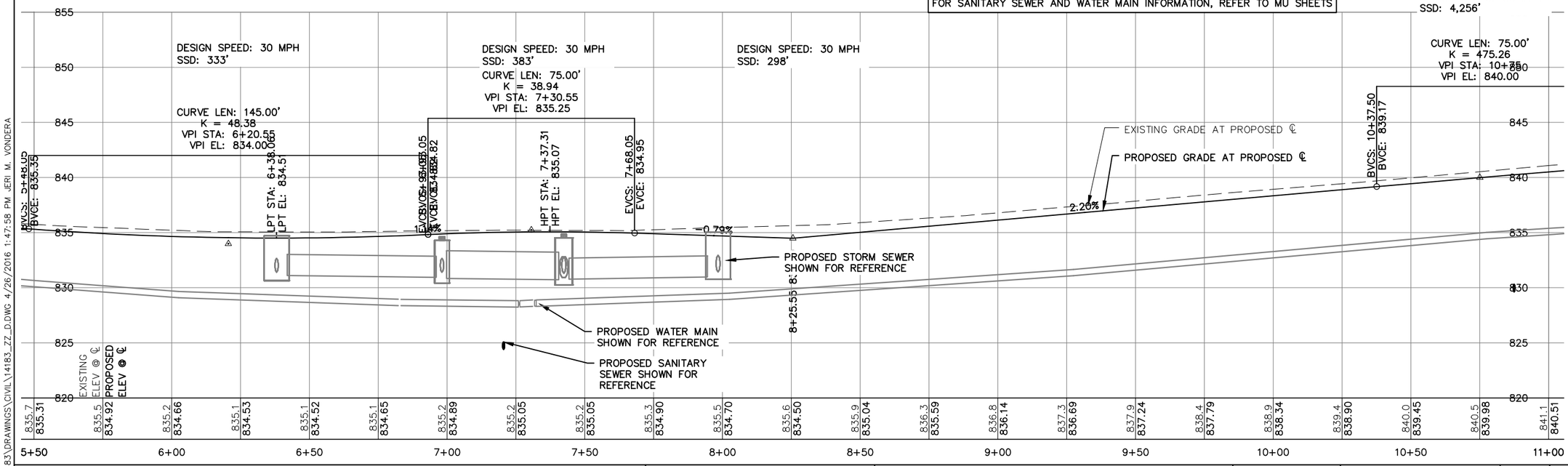
FOR SANITARY SEWER AND WATER MAIN INFORMATION, REFER TO MU SHEETS



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DESIGNED BY:	TRACED BY:	iiw 563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:					IOWA		2016	D.3	144

STP-038-2(37)--2C-16

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED

NORTH

Dauber, Lois G
WOOD DECK
Speer, Edward W & Lenora
EX. WALK, UAC
CONNECT TO EXISTING WALK
5' PCC WALK
CENTER STREET
200+00
HMA TRANSITION
UNION PACIFIC RAILROAD
5' HMA TRANSITION
501
SPRINT SIGN
UNION PACIFIC RR, UAC
REMOVE PCC DRIVE REPLACE WITH PCC STA 13+96, L
TEMPORARY CONSTRUCTION EASEMENT
EXISTING ROW
GRADING LIMITS
5' PCC WALK
Young, Brad W & Leah M
Brown, Melissa J & Troy
EX. WALK, UAC
CONNECT TO EX. WALK
5' PCC WALK
PROTECT EX TREE
300+00
HMA TRANSITION
EX. WALK, UAC
CONNECT TO EXISTING WALK
5' PCC WALK
11+00
12+00
13+00
14+00
15+00
16+00
31'
66' ROW
10'
5'
2% TRANSITION SLOPES
1%
3%
MATCH CROSSING
PROPOSED ℄
IA HWY 38 / ASH STREET
15+25
15+50
16+50
16+75
STA 13+27.73 BEGIN PCC PAVING
STA 12+93.96 END PCC PAVING
5' HMA TRANSITION
EX. GRANULAR DRIVE, UAC
EX. LANDSCPAPING, BOULDER AND FENCE TO BE REMOVED
PROTECT EX. FLAGPOLE DO NOT DISTURB
NOTE: SEE DETAIL 7010.903 ON SHEET B.5 FOR RAILROAD CROSSING APPROACH
EXISTING ROW
5' PCC WALK
CONNECT TO EXISTING WALK
EX. WALK, UAC
PROTECT EX TREE
EX RR TIE RETAINING WALL TO BE REMOVED REGRADE TO B/C
REMOVE BOULDERS
301+00
BROADWAY STREET
PROTECT EX LANDSCAPING
5' PCC WALK
CONNECT TO EXISTING WALK
EX. WALK, UAC
HMA TRANSITION
REMOVE PCC DRIVE REPLACE WITH PCC STA 11+23, R
5' PCC WALK
CONNECT TO EXISTING WALK
EX. WALK, UAC
HMA TRANSITION
201+00
IBM MANHOLE
UTILITY POLE
GAS VENT
Federal National Mortgage Association
Knoll, Paul W & Colette, Kay
Griswold, William L

NOTES:
PROTECT EXISTING AND RELOCATED UTILITY POLES AND OVERHEAD LINES DURING CONSTRUCTION.

DESIGN SPEED: 30 MPH
SSD: 1,006'
CURVE LEN: 75.00'
K = 37.14
VPI STA: 11+85
VPI EL: 842.25

DESIGN SPEED: 30 MPH
SSD: 276'
CURVE LEN: 75.00'
K = 26.93
VPI STA: 12+60
VPI EL: 845.30

DESIGN SPEED: 30 MPH
SSD: 419'
CURVE LEN: 75.00'
K = 312.69
VPI STA: 13+59.50
VPI EL: 845.22

DESIGN SPEED: 30 MPH
SSD: 1,276.781'
CURVE LEN: 74.99'
K = 51.37
VPI STA: 14+34.50
VPI EL: 843.75

DESIGN SPEED: 30 MPH
SSD: 713'
CURVE LEN: 75.00'
K = 79.11
VPI STA: 17+00
VPI EL: 842.42
HPT STA: 16+62.50
HPT EL: 842.61
BVCS: 16+62.50
BVCE: 842.61
EVCS: 17+37.50
EVCE: 841.88

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EVCS: 11+12.50
EVCE: 840.77
2.05%
BVCS: 11+47.50
BVCE: 841.48
4.07%
EXISTING GRADE AT PROPOSED ℄
PROPOSED GRADE AT PROPOSED ℄
BVCS: 12+22.50
BVCE: 843.78
EVCS: 12+97.50
EVCE: 845.78
1.28%
0.28%
END PCC PAVING
12+99 845.80
BVCS: 13+22
BVCE: 845.86
-1.72%
13+22 845.86
BEGIN PCC PAVING
BVCS: 13+97
BVCE: 844.48
-1.96%
EVCS: 14+72
EVCE: 843.56
-0.50%
PROPOSED WATER MAIN SHOWN FOR REFERENCE
PROPOSED STORM SEWER SHOWN FOR REFERENCE

EXISTING ELEV @ ℄	PROPOSED ELEV @ ℄	
841.6	841.02	11+00
842.2	841.53	11+50
842.8	842.15	12+00
843.3	842.93	12+50
844.0	843.88	13+00
844.6	844.75	13+50
845.2	845.40	14+00
845.8	845.80	14+50
845.8	845.81	15+00
845.5	845.37	15+50
845.0	844.91	16+00
844.5	844.43	16+50
844.4	844.01	17+00
844.2	843.72	
844.2	843.55	
844.2	843.42	
844.1	843.30	
844.1	843.17	
844.1	843.05	
844.0	842.92	
843.9	842.80	
843.6	842.67	
843.2	842.54	
842.8	842.33	

VERTICAL SCALE IN FEET
10
5
0
DRAWING MAY HAVE BEEN REDUCED

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CITY OF STANWOOD, CEDAR COUNTY

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STP-038-2(37)--2C-16	IOWA		2016	D.4	144

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED

NORTH

Crist, Grayland J & Kathaleen M
Boothe, Larry R & Hack, Suzanne K
Klawiter, William A & Cynthia R
Wachendorf, Michael & Rebecca J
Pierson, Steven K & Natasha L
Zink, Kyle C & Baker, Marinna L
Hines, Carol & Flockhart, Donald

PROTECT EX. TREE
REMOVE HMA DRIVE REPLACE WITH PCC STA 17+79, L
REMOVE PCC DRIVE REPLACE WITH PCC STA 19+02, L
PROPOSED 5' PCC WALK
TEMPORARY CONSTRUCTION EASEMENT
EXISTING ROW
GRADING LIMITS
REMOVE PCC DRIVE REPLACE WITH PCC STA 20+21, L
PROTECT EX. LANDSCAPING
EX. WALK, UAC
HMA TRANSITION
CONNECT TO EXISTING WALK
PROPOSED 5' PCC WALK
REMOVE PCC DRIVE REPLACE WITH PCC STA 22+46, L
PROTECT EX. LANDSCAPING

17+00 | 18+00 | 19+00 | 20+00 | 21+00 | 22+00
401+00 | 401+50 | 402+00 | 402+50
10' | 5' | 31' | 66' ROW | 5' | 8'
PROPOSED ℄
20+50 TRANSITION SLOPES 20+75
1% | 3% | 2% | 2% | 2% | 2%

IA HWY 38 / ASH STREET

REMOVE HMA DRIVE REPLACE WITH PCC STA 17+28, R
REMOVE GRANULAR DRIVE REPLACE WITH PCC STA 17+56, R
PROTECT EX. WOOD FENCE
PROPOSED 5' PCC WALK
REMOVE HMA DRIVE REPLACE WITH PCC STA 19+15, R
PROTECT EX. PLANTS
PROTECT EX. TREE
REMOVE PCC DRIVE ABANDON STA 20+19, R
TEMPORARY CONSTRUCTION EASEMENT
HMA TRANSITION
EXISTING ROW
EX. WALK, UAC
PROPOSED 5' PCC WALK
GRADING LIMITS
CONNECT TO EXISTING WALK
EXISTING DRIVEWAY
NORTH STREET

Saltzman, Leroy Edward
Childers, Elizabeth J
Koob, Kevin Michael & Koob, Kenneth Robert
Flockhart, Robert R & Darlene

NOTES:
PROTECT EXISTING AND RELOCATED UTILITY POLES AND OVERHEAD LINES DURING CONSTRUCTION.

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DESIGN SPEED: 30 MPH
SSD: N/A
CURVE LEN: 75.00'
K = 136.86
VPI STA: 19+50
VPI EL: 838.80
BVCS: 19+12.50
BVCE: 839.35
EVCS: 19+87.50
EVCE: 838.46

DESIGN SPEED: 30 MPH
SSD: 406'
CURVE LEN: 95.00'
K = 37.48
VPI STA: 21+13.43
VPI EL: 837.33
BVCS: 20+65.93
BVCE: 837.76
LPT STA: 20+99.66
LPT EL: 837.61
EVCS: 21+60.93
EVCE: 838.11

EXISTING GRADE AT PROPOSED ℄
PROPOSED GRADE AT PROPOSED ℄
-1.45%
-0.90%
1.63%
PROPOSED STORM SEWER SHOWN FOR REFERENCE

855 | 850 | 845 | 840 | 835 | 830 | 825 | 820

VERTICAL SCALE IN FEET
10 5 0
DRAWING MAY HAVE BEEN REDUCED

	EXISTING ELEV @ ℄	PROPOSED ELEV @ ℄
17+00	842.8	842.33
17+50	842.4	842.05
18+00	842.0	841.70
18+50	841.7	841.34
19+00	841.3	840.97
19+50	841.0	840.61
20+00	840.6	840.25
20+50	840.3	839.89
21+00	839.9	839.53
21+50	839.6	839.17
22+00	839.3	838.85
22+50	838.9	838.58
23+00	838.6	838.35
	838.3	838.13
	838.0	837.90
	837.8	837.69
	837.6	837.61
	837.6	837.69
	837.8	837.95
	838.1	838.34
	838.5	838.75
	838.8	839.16
	839.4	839.56
	839.9	839.97
	840.4	840.38

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		IOWA		2016	D.5	144

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STP-038-2(37)--2C-16

REMOVE GRANULAR DRIVE REPLACE WITH PCC STA 23+77, L

PROTECT EX. LANDSCAPING

5' PCC WALK

TEMPORARY CONSTRUCTION EASEMENT

EXISTING ROW

GRADING LIMITS

REMOVE AND REINSTALL, EX. SIGN W/FLASHER, S1-1 (ADVANCE SCHOOL CROSSING ASSEMBLY)

REMOVE PCC DRIVE REPLACE WITH PCC STA 25+77, L

EX. WALK

CONNECT TO EXISTING

HMA TRANSITION

PROTECT EX. ROW OF TREES (6)

ARROWS INDICATE DRAINAGE DIRECTION

EXISTING DITCH

PROPOSED ℄

66' ROW

IA HWY 38 / ASH STREET

4' PAVED SHOULDER, PCC, TYP

6' GRANULAR SHOULDER, TYP

PROTECT EX. TREE

EX. WALK, TO BE REMOVED

HMA TRANSITION

FARMERS STREET

Tenley, James

Franck, Kaitlin

North Cedar School

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED

NORTH

NOTES:
PROTECT EXISTING AND RELOCATED UTILITY POLES AND OVERHEAD LINES DURING CONSTRUCTION.

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DESIGN SPEED: 30 MPH
SSD: 210.66'
CURVE LEN: 150.00'
K = 30.53
VPI STA: 23+92.04
VPI EL: 841.89

DESIGN SPEED: 30 MPH
SSD: 8,208.56'
CURVE LEN: 75.00'
K = 42.18
VPI STA: 25+75
VPI EL: 835.89

DESIGN SPEED: 30 MPH
SSD: 519.34'
CURVE LEN: 100.00'
K = 70.62
VPI STA: 26+75
VPI EL: 834.39

BVCS: 23+17.04
BVCE: 840.66

HPT STA: 23+66.95
HPT EL: 841.07

EVCS: 24+67.04
EVCE: 839.43

BVCS: 25+37.50
BVCE: 837.12

EVCS: 26+12.50
EVCE: 835.33

BVCS: 26+25
BVCE: 835.14

EVCS: 27+25
EVCE: 832.93

BVCS: 27+50
BVCE: 832.20

EXISTING GRADE AT PROPOSED ℄

PROPOSED GRADE AT PROPOSED ℄

3.28%

-1.50%

-2.92%

PROPOSED STORM SEWER SHOWN FOR REFERENCE

VERTICAL SCALE IN FEET
0 5 10
DRAWING MAY HAVE BEEN REDUCED

	EXISTING ELEV @ ℄	PROPOSED ELEV @ ℄
23+00	840.4	840.38
23+50	840.8	840.78
24+00	841.1	841.02
24+50	841.2	841.06
25+00	841.0	840.89
25+50	840.9	840.52
26+00	840.3	839.94
26+50	839.6	839.17
27+00	838.9	838.35
27+50	838.0	837.53
28+00	837.2	836.73
28+50	836.4	836.05
29+00	835.6	835.53
	834.8	835.14
	834.1	834.72
	833.4	834.21
	832.6	833.61
	831.8	832.93
	831.1	832.20
	830.7	831.50
	830.2	830.86
	829.8	830.27
	829.5	829.74
	829.1	829.26
	828.9	828.84

DESIGNED BY:
DETAILED BY:
TRACED BY:
CHECKED BY:

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CITY OF STANWOOD, CEDAR COUNTY

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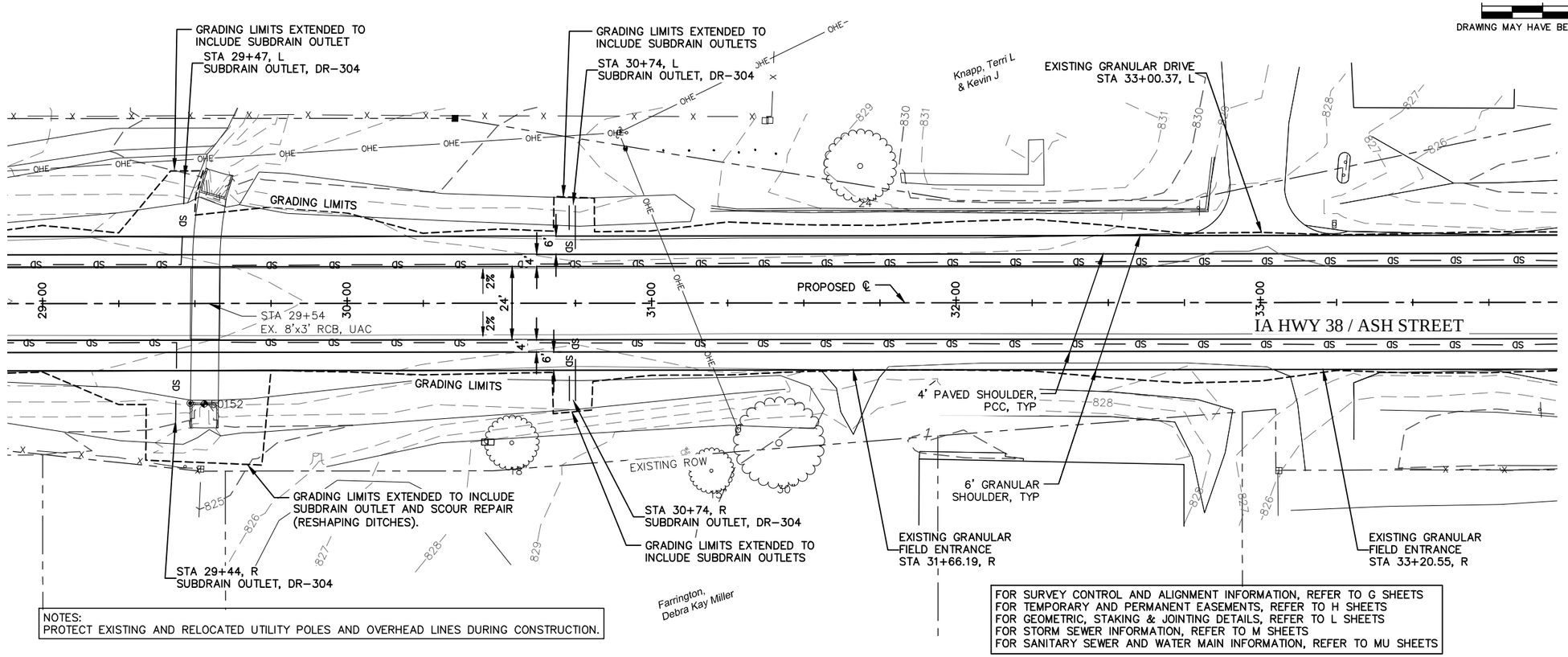
HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED

NORTH



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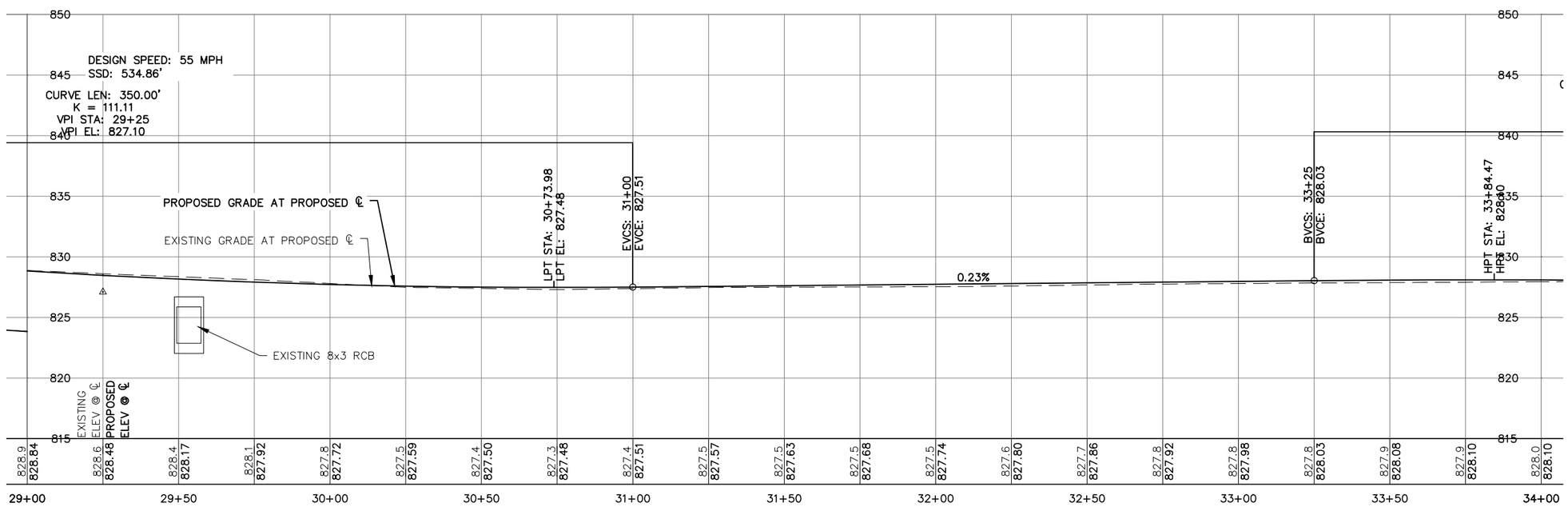

VERTICAL SCALE IN FEET
10 5 0
DRAWING MAY HAVE BEEN REDUCED

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	D.7	144

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED

NORTH

STA 34+40, L
SUBDRAIN OUTLET, DR-304

GRADING LIMITS EXTENDED TO INCLUDE SUBDRAIN OUTLETS

EXISTING ROW

GRADING LIMITS

70405

824
825
826

6'
4'
2%
24'
2%
4'
6'

35+00
36+00
37+00
38+00
39+00
40+00

PROPOSED ℄

EX. 3'x3' RCB, UAC

IA HWY 38 / ASH STREET

Knapp, Terri L
& Kevin J

EXISTING GRANULAR
FIELD ENTRANCE
STA 38+33.75, L

STA 39+60, L
SUBDRAIN OUTLET, DR-304

GRADING LIMITS EXTENDED TO INCLUDE SUBDRAIN OUTLETS

EXISTING GRANULAR
FIELD ENTRANCE
STA 39+24.17, L

PI: 39+78.32

STA 39+78.32
N: 700667.9460
E: 2279601.0750
END OF PROJECT

827
826
825
824
823

GRADING LIMITS

4' PAVED SHOULDER,
PCC, TYP

STA 39+50
BEGIN WIDTH TAPER,
BOTH SIDES,
PAVED SHOULDER TO TAPER
& MAINTAIN 4' WIDTH

6' GRANULAR
SHOULDER, TYP

EXISTING ROW

GRADING LIMITS EXTENDED TO INCLUDE SUBDRAIN OUTLETS

STA 39+60, R
SUBDRAIN OUTLET, DR-304

GRADING LIMITS EXTENDED TO
INCLUDE SUBDRAIN OUTLETS

STA 34+40, R
SUBDRAIN OUTLET, DR-304

Tenley, James D ½,
& Tenley, Scott J ⅛,
& Tenley, William J & Scott J ½

NOTES:
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DESIGN SPEED: 55 MPH
SSD: 943.97'
CURVE LEN: 200.00'
K = 253.99
VPI STA: 34+25
VPI EL: 828.27

EVCS: 35+25
EVCE: 827.72

PROPOSED GRADE AT PROPOSED ℄
EXISTING GRADE AT PROPOSED ℄

-0.55%

EXISTING 3x3 RCB

	850	845	840	835	830	825	820	815
EXISTING ELEV @ ℄								
PROPOSED ELEV @ ℄								
34+00	828.0	828.0	827.9	827.8	827.6	827.5	827.4	827.3
34+50	828.10	828.07	828.02	827.94	827.84	827.72	827.58	827.44
35+00	827.1	827.0	826.9	826.8	826.7	826.6	826.5	826.3
35+50	827.30	827.16	827.02	826.89	826.75	826.61	826.47	826.33
36+00	826.2	826.0	825.8	825.7	825.5	825.4	825.2	
36+50	826.19	826.06	825.92	825.78	825.64	825.50	825.36	
37+00	825.23							
37+50								
38+00								
38+50								
39+00								
39+50	39+78.50 825.21							
40+00								

VERTICAL SCALE IN FEET
10 5 0
DRAWING MAY HAVE BEEN REDUCED

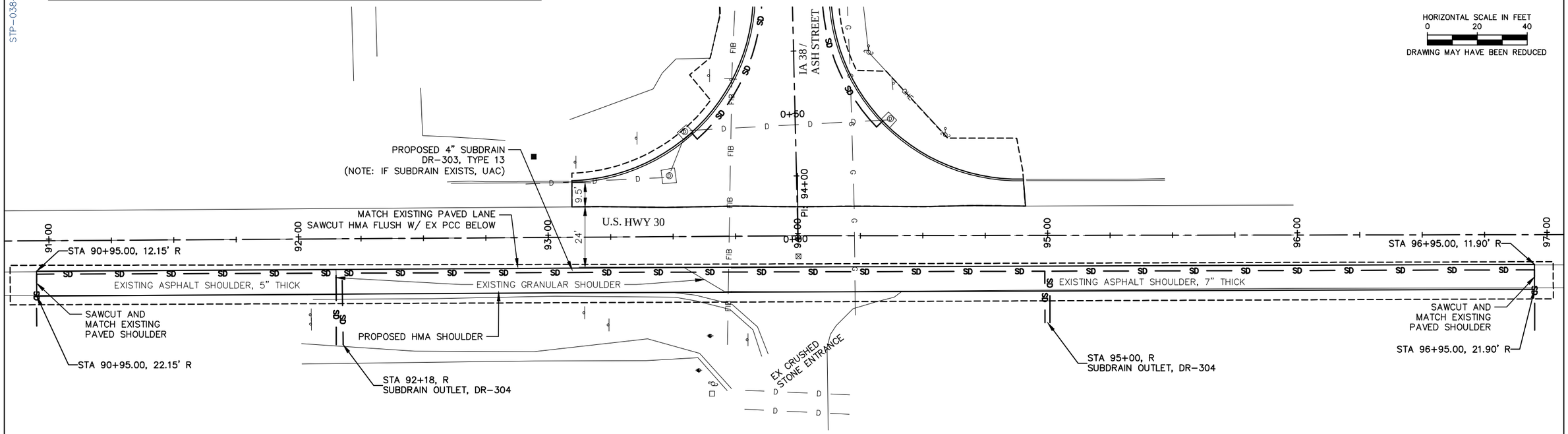
P:\14\183\DRAWINGS\CIVIL\14183_ZZ_D.DWG 4/26/2016 1:49:01 PM JERI M. VONDERA

DESIGNED BY:	TRACED BY:	iiw 563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:					IOWA		2016	D.8	144

PRIOR TO CONSTRUCTION AT THE INTERSECTION OF US 30, EXISTING SHOULDER ON SOUTH SIDE OF US 30 SHALL BE PAVED. SEE STAGE 1 NOTES ON J.1 & DETAILS ON J.2 & J.3.

NORTH

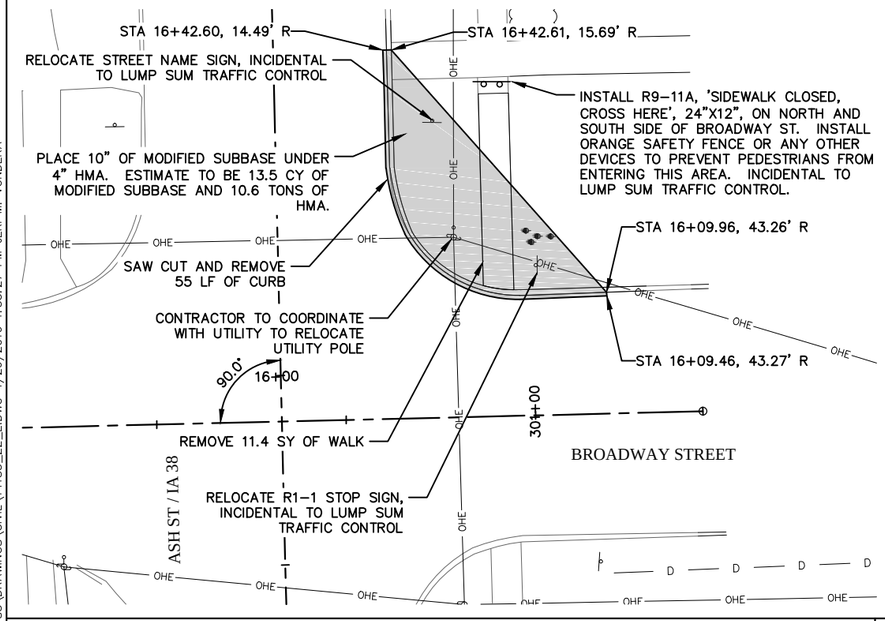
HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED



PRIOR TO STAGE 1 DETOUR, INCREASE RADIUS IN NORTHEAST CORNER OF INTERSECTION AT ASH ST/BROADWAY ST TO ACCOMMODATE TRUCK TRAFFIC. SEE STAGE 1 NOTES ON J.1, AND DETAIL ON J.4.

HORIZONTAL SCALE IN FEET
0 10 20
DRAWING MAY HAVE BEEN REDUCED

NORTH



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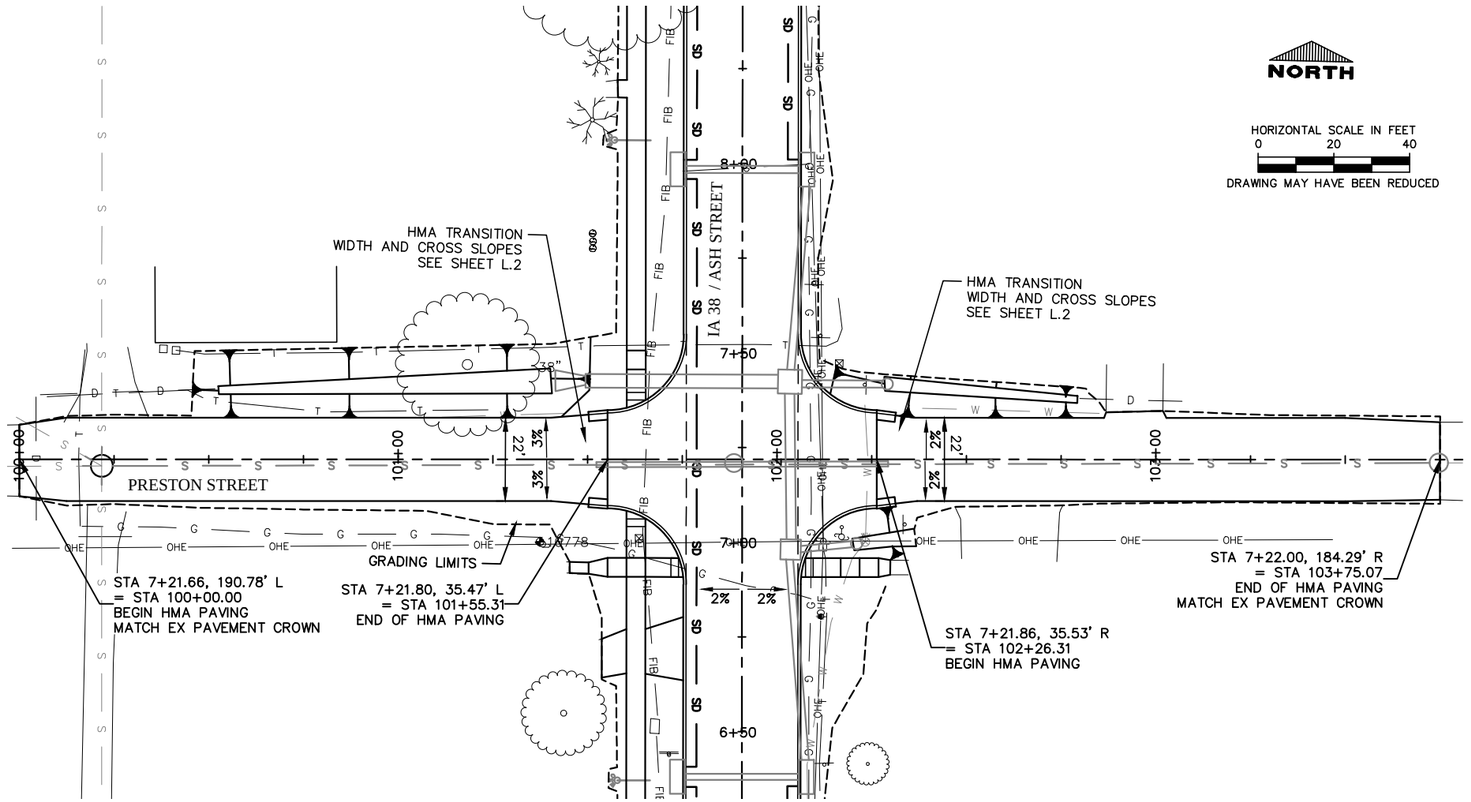
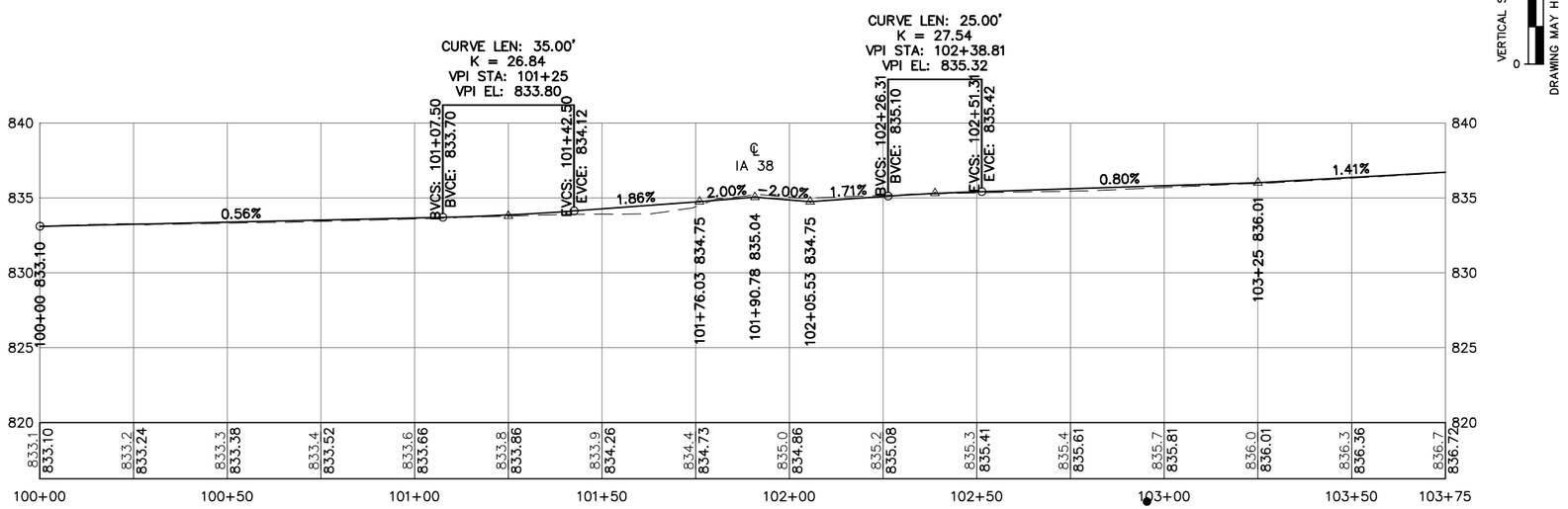
DESIGNED BY:	TRACED BY:	iiw	563.556.2464 ◆ 800.556.4491	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:		IIW, P.C. ◆ www.iiwengr.com				IOWA		2016	E.1	144



NOTES:
PROTECT EXISTING AND RELOCATED UTILITY POLES AND OVERHEAD LINES DURING CONSTRUCTION.

FOR SURVEY CONTROL AND ALIGNMENT INFORMATION, REFER TO G SHEETS
FOR TEMPORARY AND PERMANENT EASEMENTS, REFER TO H SHEETS
FOR GEOMETRIC, STAKING & JOINTING DETAILS, REFER TO L SHEETS
FOR STORM SEWER INFORMATION, REFER TO M SHEETS
FOR SANITARY SEWER AND WATER MAIN INFORMATION, REFER TO MU SHEETS



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DESIGNED BY:	TRACED BY:	iiw 563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:					IOWA		2016	E.2	144

STP-038-2(37)--2C-16

EROSION CONTROL LEGEND

- 9" ø DEVICE
- SF — SILT FENCE
- (IP) INLET PROTECTION – 9" PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE PER STANDARD ROAD PLAN EC-204.
- (OP) OUTLET PROTECTION – WOOD EXCELSIOR MAT PER STANDARD ROAD PLAN EC-101
- (CE) CONSTRUCTION ENTRANCE
- WOOD EXCELSIOR MAT PER STANDARD ROAD PLAN EC-101, SEED AND FERTILIZE

SEEDING LEGEND

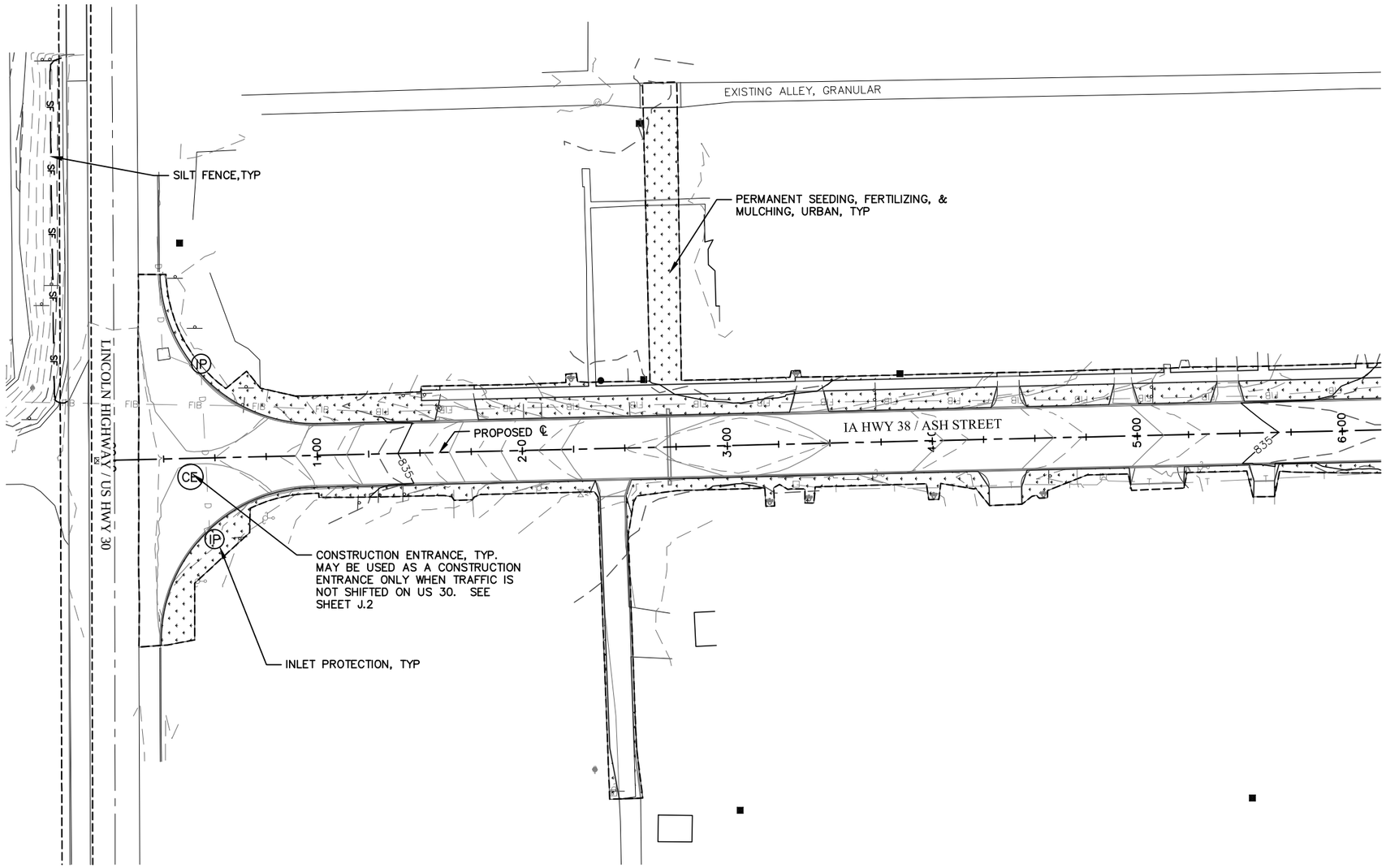
- SEEDING AND FERTILIZING (URBAN)
- SEEDING AND FERTILIZING (RURAL)

NORTH

HORIZONTAL SCALE IN FEET
0 30 60
DRAWING MAY HAVE BEEN REDUCED

IMPORTANT:
GRAPHICS SHOWN FOR THE EROSION AND SEDIMENT CONTROL DEVICES ON THIS DRAWING ARE GENERAL AND INTENDED ONLY TO SHOW THE LOCATIONS OF THE MINIMUM SEDIMENT AND EROSION CONTROL THAT IS ANTICIPATED. THE LOCATIONS AND DEVICES USED WILL DEPEND ON THE FIELD CONDITIONS ENCOUNTERED. THE GRAPHICS DO NOT SHOW THE REQUIRED "J-HOOKS", OVERLAPS NOR REFLECT THE MAXIMUM ALLOWABLE LENGTHS OF THE VARIOUS EROSION AND SEDIMENT CONTROL DEVICES.

ALL EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED PER IDOT STANDARDS AND SPECIFICATIONS, AS APPLICABLE. ALL LOCATIONS TO BE FIELD VERIFIED WITH ENGINEER.



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DESIGNED BY:	TRACED BY:	iiw 563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:					IOWA		2016	EC.1	144

STP-038-2(37)--2C-16

EROSION CONTROL LEGEND

- 9" ø DEVICE
- SF — SILT FENCE
- (IP) INLET PROTECTION – 9" PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE PER STANDARD ROAD PLAN EC-204.
- (OP) OUTLET PROTECTION – WOOD EXCELSIOR MAT PER STANDARD ROAD PLAN EC-101
- (CE) CONSTRUCTION ENTRANCE
- WOOD EXCELSIOR MAT PER STANDARD ROAD PLAN EC-101, SEED AND FERTILIZE

SEEDING LEGEND

- SEEDING AND FERTILIZING (URBAN)
- SEEDING AND FERTILIZING (RURAL)

NORTH

HORIZONTAL SCALE IN FEET
0 30 60
DRAWING MAY HAVE BEEN REDUCED

IMPORTANT:
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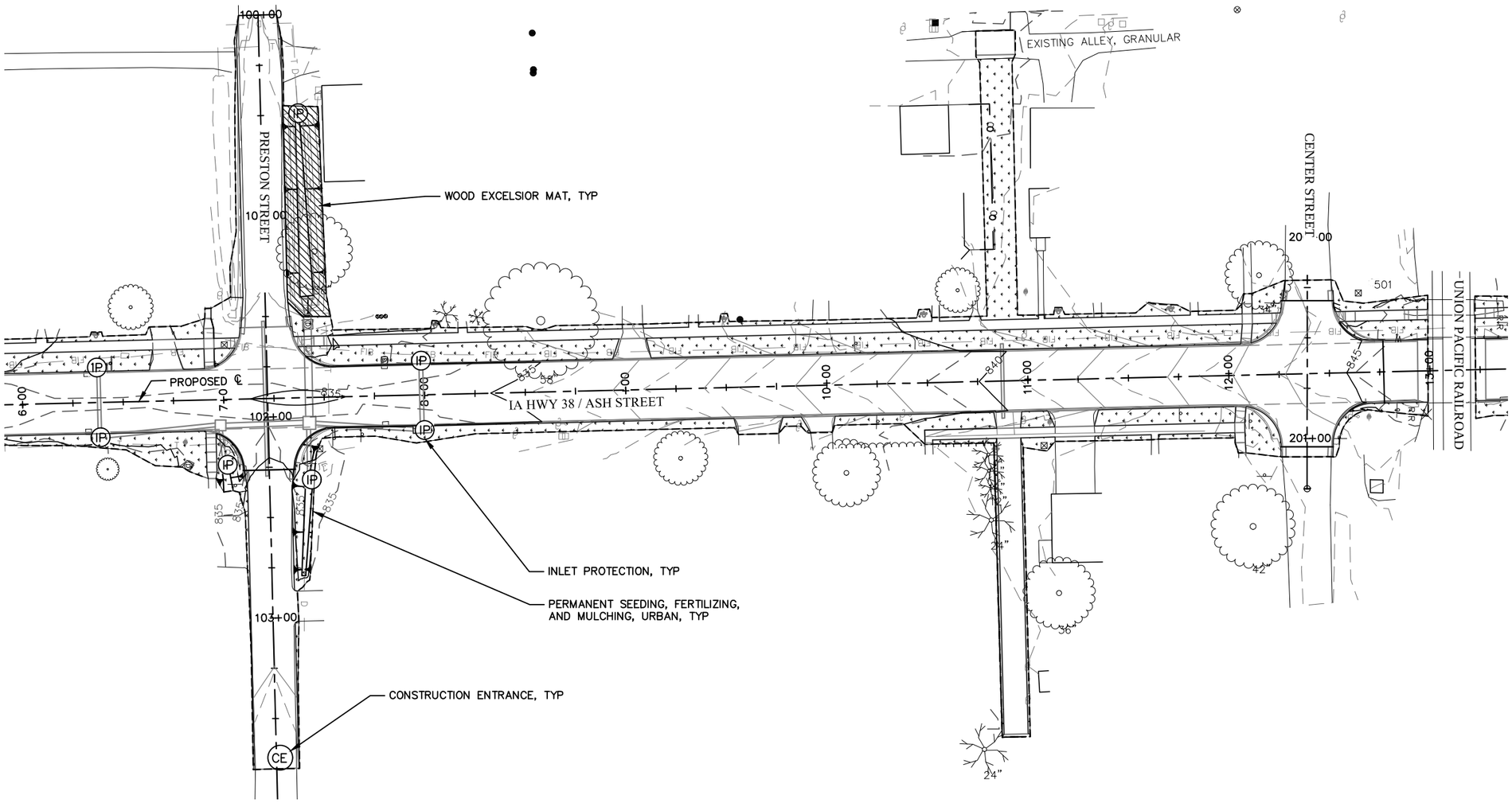

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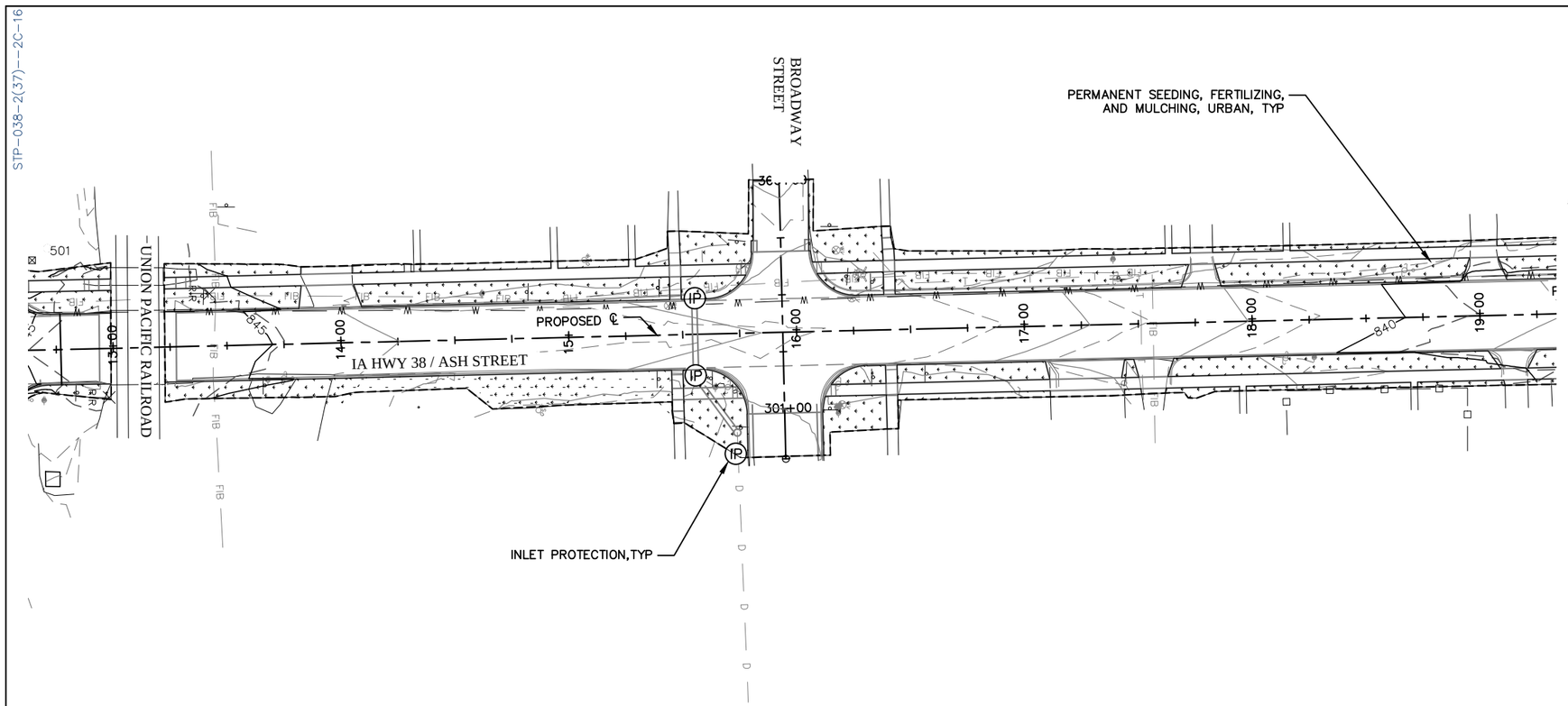
DESIGNED BY:	TRACED BY:	iiw 563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:					IOWA		2016	EC.2	144

STP-038-2(37)--2C-16



SEEDING LEGEND

SEEDING AND FERTILIZING (URBAN)

SEEDING AND FERTILIZING (RURAL)

EROSION CONTROL LEGEND

9" ø DEVICE

SF SILT FENCE

IP INLET PROTECTION – 9" PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE PER STANDARD ROAD PLAN EC-204.

OP OUTLET PROTECTION – WOOD EXCELSIOR MAT PER STANDARD ROAD PLAN EC-101

CE CONSTRUCTION ENTRANCE

WOOD EXCELSIOR MAT PER STANDARD ROAD PLAN EC-101, SEED AND FERTILIZE

NORTH

HORIZONTAL SCALE IN FEET
0 30 60
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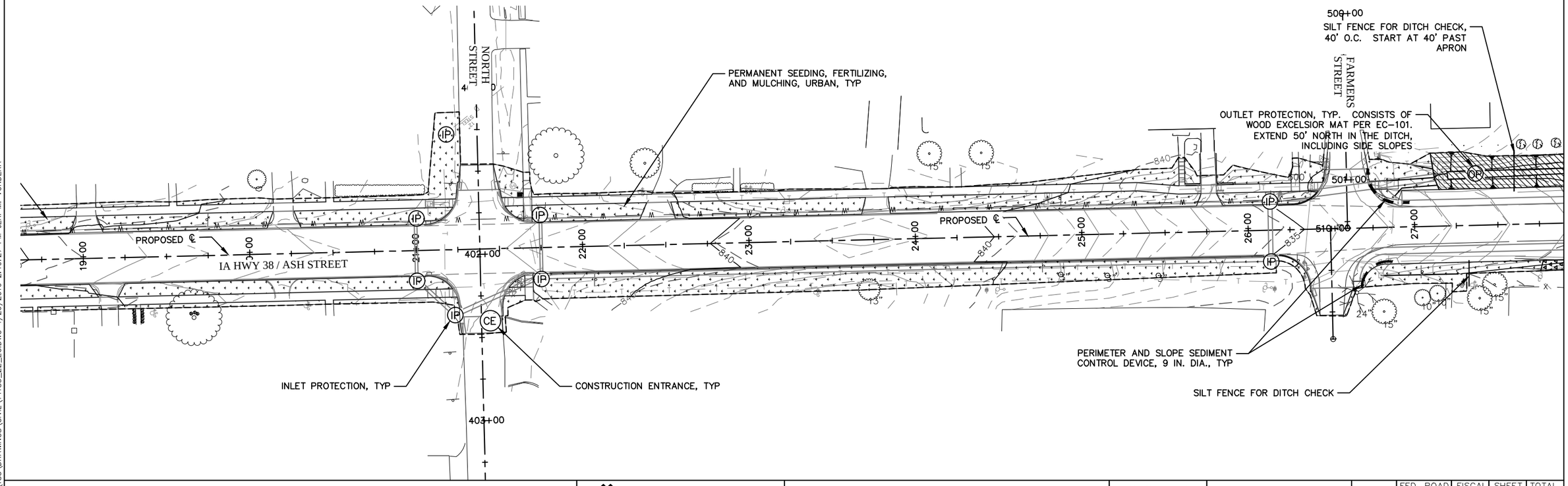

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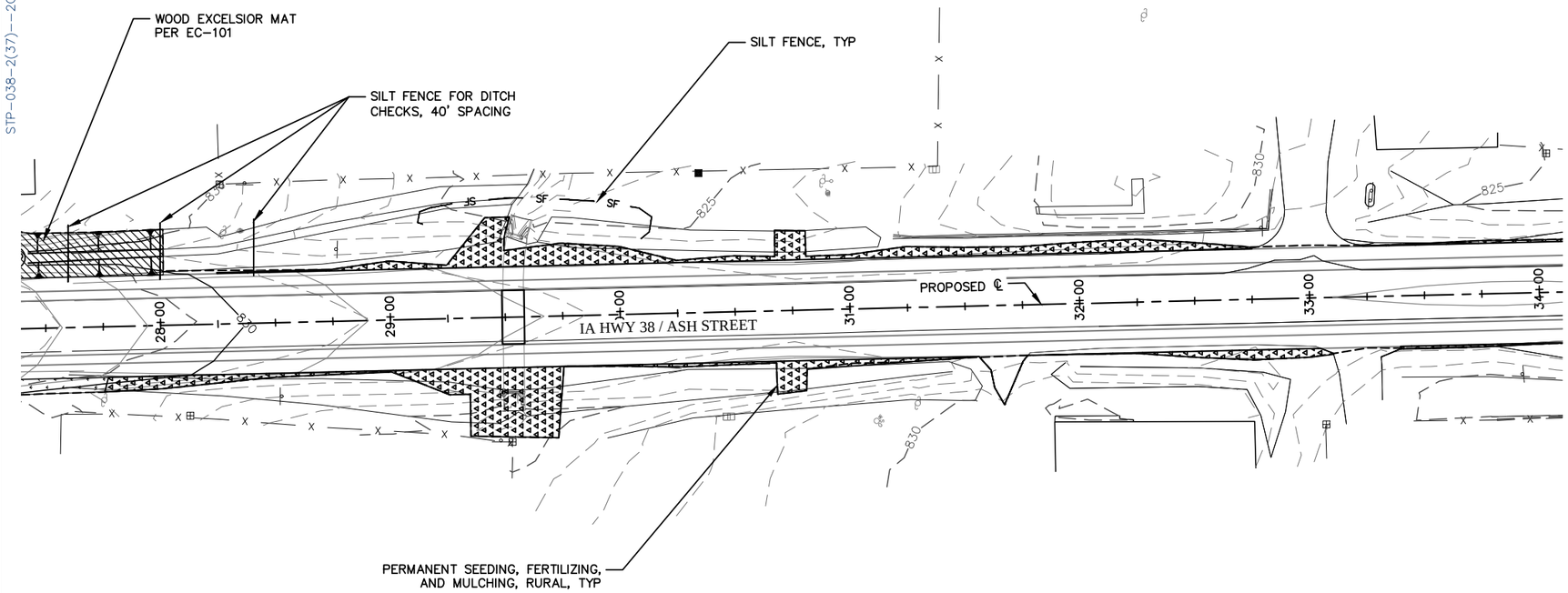

SEEDING LEGEND

SEEDING AND FERTILIZING (URBAN)

SEEDING AND FERTILIZING (RURAL)

NORTH

HORIZONTAL SCALE IN FEET
0 30 60
DRAWING MAY HAVE BEEN REDUCED

EROSION CONTROL LEGEND

9" ø DEVICE

SF SILT FENCE

(IP) INLET PROTECTION – 9" PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE PER STANDARD ROAD PLAN EC-204.

(OP) OUTLET PROTECTION – WOOD EXCELSIOR MAT PER STANDARD ROAD PLAN EC-101

(CE) CONSTRUCTION ENTRANCE

WOOD EXCELSIOR MAT PER STANDARD ROAD PLAN EC-101, SEED AND FERTILIZE

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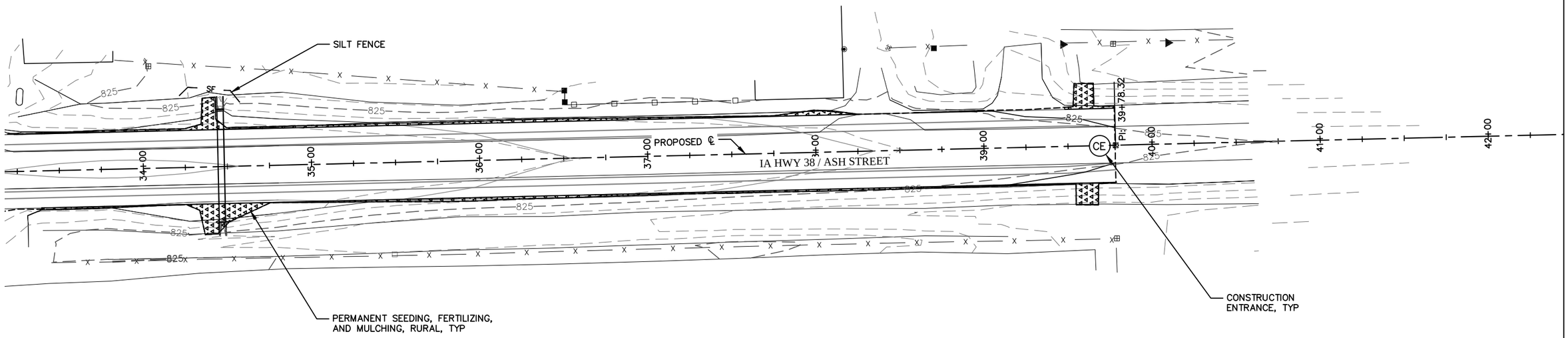

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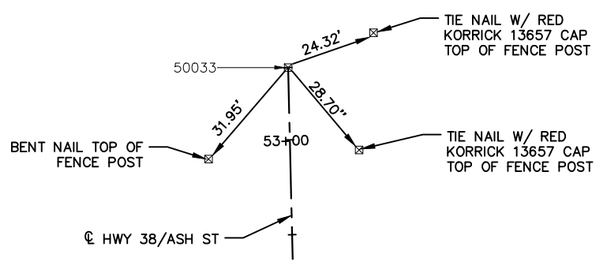
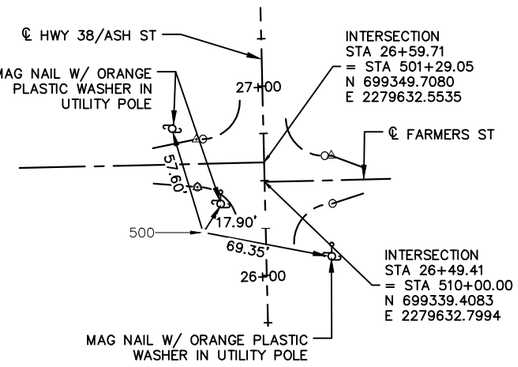
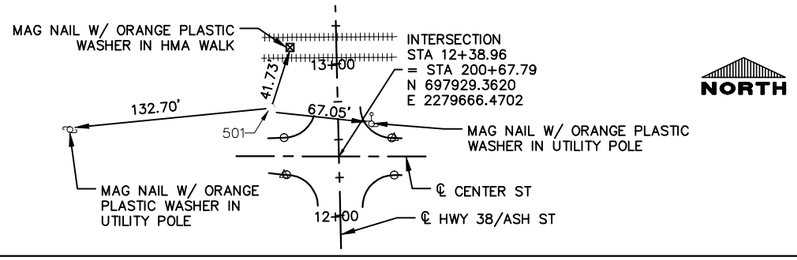
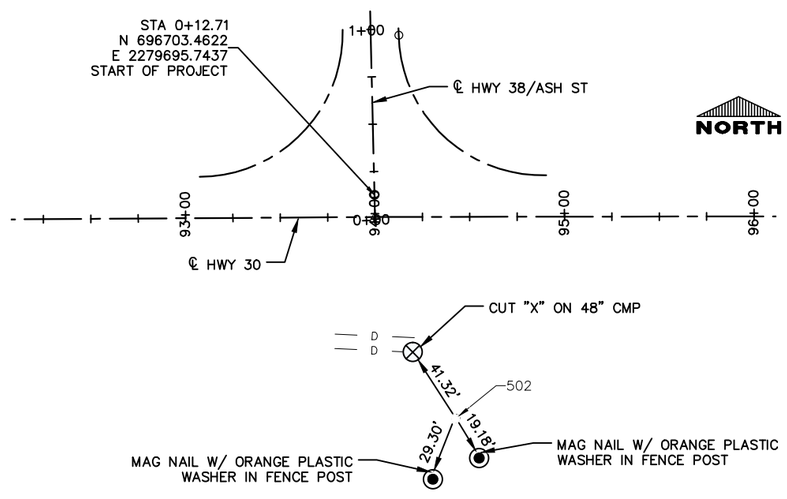








GENERAL INFORMATION:

MEASUREMENT UNITS FOR THIS SURVEY ARE US SURVEY FEET. THIS SURVEY WAS STARTED AS PART OF A CITY OF STANWOOD PROJECT AND ADDED TO AS PART OF AN IOWA DOT PROJECT. THIS PROJECT IS A COMPLETE TOPOGRAPHICAL SURVEY. NO AERIAL SURVEY WILL BE ADDED.

VERTICAL CONTROL

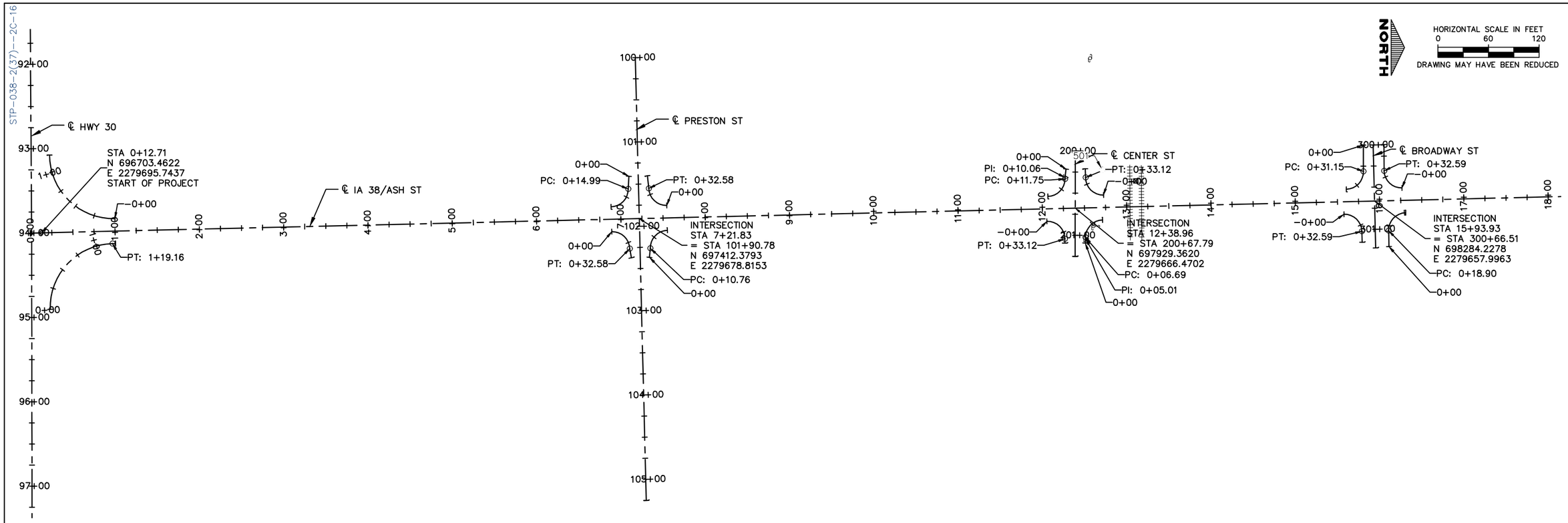
THE ORTHOMETRIC HEIGHT OF CONTROL POINT #92, ELEVATION 822.73, WAS ESTABLISHED USING STATIC GPS ON NAVD 88 VERTICAL DATUM AND SUBSEQUENTLY HELD FOR THIS SURVEY. ALL ELEVATIONS ARE RELATIVE TO THIS CONTROL POINT ELEVATION.

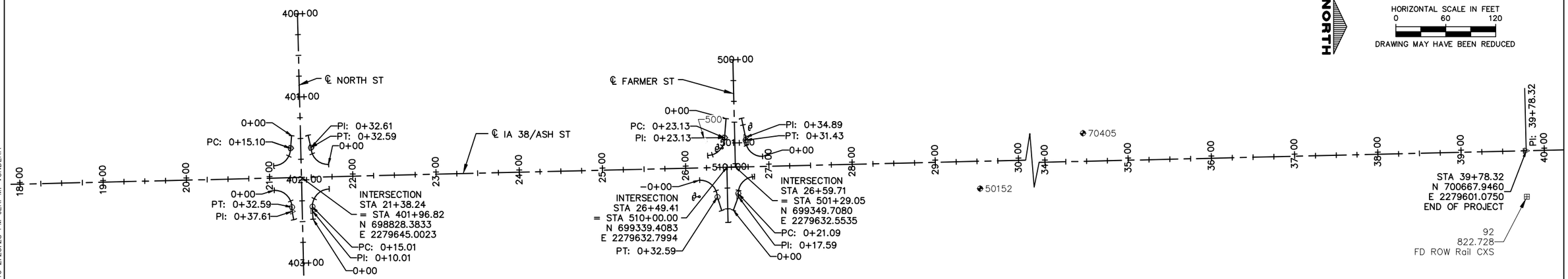
HORIZONTAL CONTROL

HORIZONTAL DATUM IS BASED ON AN ASSUMED IIW COORDINATE SYSTEM. CONTROL WAS SET USING A GPS BASE AND ROVER SYSTEM ON CONTROL POINT #92.

HORIZONTAL CONTROL						
POINT NO.	NORTHING	EASTING	STATION	OFFSET	ELEVATION	DESCRIPTION
92	700668.75	2279656.39	39+77.81	55.32 R	822.73	FD ROW Rail CXS
500	699312.65	2279600.74	26+23.42	32.69 L	836.50	REBAR 5/8X24
501	697961.54	2279621.12	12+72.21	44.57 L	844.83	REBAR 5/8X24
502	696585.46	2279738.58			828.21	REBAR 5/8X24
50033	702008.30	2279568.81	53+19.07	0.00 R	824.21	MAG NAIL AT NW COR SEC 24-82-3

BENCH MARKS						
BENCHMARK NO.	NORTHING	EASTING	STATION	OFFSET	ELEVATION	DESCRIPTION
50152	699643.7320	2279658.4960	29+53.03	32.95 R	828.16	IOWA DOT BRASS CAP IN HEADWALL
70405	700135.4320	2279580.0230	34+46.47	33.76 L	826.71	IOWA DOT BRASS CAP IN HEADWALL





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DETAILED BY:	CHECKED BY:					IOWA		2016	G.2	144

Alignment: Ash St
Description: proposed CL of Ash St (US 38)

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	696690.755	2279696.047
End:	39+78.325	700667.946	2279601.075

Tangent Data

Parameter	Value	Parameter	Value
Length:	3978.325	Course:	N 01° 22' 04.5015" W

Alignment: Hwy 30
Description:

Tangent Data

Description	PT Station	Northing	Easting
Start:	90+00.000	696689.167	2279296.031
End:	94+00.000	696691.797	2279696.022

Tangent Data

Parameter	Value	Parameter	Value
Length:	400	Course:	N 89° 37' 23.8285" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	94+00.000	696691.797	2279696.022
End:	100+00.000	696692.733	2280296.021

Tangent Data

Parameter	Value	Parameter	Value
Length:	600	Course:	N 89° 54' 38.2170" E

Alignment: Hwy 30 Return NE
Description: Ash St and Hwy 30 NE Return

NOTE:
RETURN ALIGNMENTS ARE AT THE GUTTER LINE

Curve Point Data

Description	Station	Northing	Easting
PC	0+00.000	696713.823	2279786.315
RP:		696788.656	2279784.294
PT:	1+19.165	696787.64	2279708.461

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 00' 10.7041"	Type:	RIGHT
Radius:	75.86		
Length:	119.165	Tangent:	75.864
Mid-Ord:	22.22	External:	31.425
Chord:	107.285	Course:	N 46° 31' 29.7488" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+19.165	696787.64	2279708.461
End:	1+22.854	696791.329	2279708.4

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.689	Course:	N 00° 56' 58.8220" W

Alignment: Hwy 30 Return NW
Description: Ash St and Hwy 30 NW Return

Curve Point Data

Description	Station	Northing	Easting
PC	0+00.000	696790.62	2279678.88
RP:		696788.792	2279603.152
PT:	1+20.533	696713.042	2279608.435

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	91° 10' 08.0407"	Type:	RIGHT
Radius:	75.75		
Length:	120.533	Tangent:	77.311
Mid-Ord:	22.736	External:	32.486
Chord:	108.214	Course:	S 44° 12' 05.9854" W

Alignment: Preston St
Description: Centerline of Preston St

Tangent Data

Description	PT Station	Northing	Easting
Start:	100+00.000	697407.65	2279488.096
End:	105+25.000	697420.664	2280012.935

Tangent Data

Parameter	Value	Parameter	Value
Length:	525	Course:	N 88° 34' 46.6935" E

Alignment: Preston Return NE
Description: Preston and Ash St NE Return

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	697424.522	2279724.751
End:	0+10.765	697425.506	2279714.031

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.765	Course:	N 84° 45' 07.7107" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+10.765	697425.506	2279714.031
RP:		697446.25	2279713.517
PT:	0+43.378	697445.754	2279692.773

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 03' 08.8049"	Type:	RIGHT
Radius:	20.75		
Length:	32.613	Tangent:	20.769
Mid-Ord:	6.084	External:	8.608
Chord:	29.358	Course:	N 46° 23' 38.9040" W

Alignment: Preston Return NW
Description: Preston and Ash St NW Return

Curve Point Data

Description	Station	Northing	Easting
PC:	0+00.000	697444.985	2279683.283
RP:		697444.49	2279642.538
PT:	0+32.575	697423.746	2279643.053

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	89° 56' 51.1951"	Type:	RIGHT
Radius:	20.75		
Length:	32.575	Tangent:	20.731
Mid-Ord:	6.071	External:	8.582
Chord:	29.331	Course:	S 43° 36' 21.0960" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+32.575	697423.746	2279643.053
End:	0+47.627	697422.125	2279628.088

Tangent Data

Parameter	Value	Parameter	Value
Length:	15.052	Course:	S 83° 48' 57.5835" W

NOTE:
RETURN ALIGNMENTS ARE AT THE GUTTER LINE

Alignment: Preston Return SE
Description: Preston and Ash St SE return

Curve Point Data

Description	Station	Northing	Easting
PC:	0+00.000	697379.773	2279694.348
RP:		697380.269	2279715.092
PT:	0+32.575	697401.012	2279714.578

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	89° 56' 51.1951"	Type:	RIGHT
Radius:	20.75		
Length:	32.575	Tangent:	20.731
Mid-Ord:	6.071	External:	8.582
Chord:	29.331	Course:	N 43° 36' 21.0960" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+32.575	697401.012	2279714.578
End:	0+43.469	697403.028	2279725.284

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.894	Course:	N 79° 20' 07.7796" E

Alignment: Preston Return SW
Description: Preston and Ash St SW Return

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	697400.132	2279628.634
End:	0+14.992	697399.252	2279643.6

Tangent Data

Parameter	Value	Parameter	Value
Length:	14.992	Course:	S 86° 38' 15.1692" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+14.992	697399.252	2279643.6
RP:		697378.509	2279644.114
PT:	0+47.605	697379.004	2279664.858

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 03' 08.8049"	Type:	RIGHT
Radius:	20.75		
Length:	32.613	Tangent:	20.769
Mid-Ord:	6.084	External:	8.608
Chord:	29.358	Course:	S 46° 23' 38.9040" E

Alignment: Center St
Description: Centerline of Center St

Tangent Data

Description	PT Station	Northing	Easting
Start:	200+00.000	697929.47	2279598.683
End:	201+25.000	697929.271	2279723.682

Tangent Data

Parameter	Value	Parameter	Value
Length:	125	Course:	S 89° 54' 31.5794" E

NOTE:
RETURN ALIGNMENTS ARE AT THE GUTTER LINE

Alignment: Center Return NE
Description: Center and Ash St NE Return

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	697941.159	2279707.86
End:	0+05.034	697941.554	2279702.842

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.034	Course:	N 85° 30' 03.2847" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+05.034	697941.554	2279702.842
End:	0+06.715	697941.557	2279701.161

Tangent Data

Parameter	Value	Parameter	Value
Length:	1.681	Course:	N 89° 54' 31.5794" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+06.715	697941.557	2279701.161
RP:		697962.307	2279701.194
PT:	0+38.781	697961.811	2279680.45

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	88° 32' 27.0779"	Type:	RIGHT
Radius:	20.75		
Length:	32.066	Tangent:	20.228
Mid-Ord:	5.892	External:	8.228
Chord:	28.969	Course:	N 45° 38' 18.0405" W

Alignment: Center Return NW
Description: Center and Ash St Return NW

Curve Point Data

Description	Station	Northing	Easting
PC:	0+00.000	697962.915	2279650.915
RP:		697962.42	2279630.171
PT:	0+33.122	697941.67	2279630.138

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	91° 27' 32.9223"	Type:	RIGHT
Radius:	20.75		
Length:	33.122	Tangent:	21.285
Mid-Ord:	6.266	External:	8.976
Chord:	29.716	Course:	S 44° 21' 41.9595" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+33.122	697941.67	2279630.138
End:	0+43.519	697941.244	2279619.75

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.396	Course:	S 87° 39' 12.7791" W

Alignment: Center Return SE
Description: Center and Ash St SE Return

Curve Point Data

Description	Station	Northing	Easting
PC:	0+00.000	697895.809	2279682.045
RP:		697896.304	2279702.789
PT:	0+33.122	697917.054	2279702.822

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	91° 27' 32.9222"	Type:	RIGHT
Radius:	20.75		
Length:	33.122	Tangent:	21.285
Mid-Ord:	6.266	External:	8.976
Chord:	29.716	Course:	N 44° 21' 41.9595" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+33.122	697917.054	2279702.822
End:	0+38.122	697917.031	2279707.822

Tangent Data

Parameter	Value	Parameter	Value
Length:	5	Course:	S 89° 44' 06.9281" E

Alignment: Center Return SW
Description: Center and Ash St SW Return

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	697918.396	2279620.128
End:	0+10.065	697917.17	2279630.118

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.065	Course:	S 83° 00' 01.4774" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+10.065	697917.17	2279630.118
End:	0+11.746	697917.167	2279631.799

Tangent Data

Parameter	Value	Parameter	Value
Length:	1.681	Course:	S 89° 54' 31.5794" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+11.746	697917.167	2279681.799
RP:		697896.417	2279631.766
PT:	0+43.811	697896.913	2279652.51

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	88° 32' 27.0778"	Type:	RIGHT
Radius:	20.75		
Length:	32.066	Tangent:	20.228
Mid-Ord:	5.892	External:	8.228
Chord:	28.969	Course:	S 45° 38' 18.0405" E

Alignment: Broadway St
Description: Centerline of Broadway St

Tangent Data

Description	PT Station	Northing	Easting
Start:	300+00.000	698282.62	2279591.507
End:	301+22.088	698285.571	2279713.559

Tangent Data

Parameter	Value	Parameter	Value
Length:	122.088	Course:	N 88° 36' 54.8232" E

NOTE:
RETURN ALIGNMENTS ARE AT THE GUTTER LINE

Alignment: Broadway Return NE
Description: Broadway and Ash St NE Return

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	698301.329	2279706.093
End:	0+12.985	698301.015	2279693.112

Tangent Data

Parameter	Value	Parameter	Value
Length:	12.985	Course:	S 88° 36' 54.8232" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+12.985	698301.015	2279693.112
RP:		698321.759	2279692.61
PT:	0+45.585	698321.264	2279671.866

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 01' 00.6752"	Type:	RIGHT
Radius:	20.75		
Length:	32.6	Tangent:	20.756
Mid-Ord:	6.08	External:	8.599
Chord:	29.349	Course:	N 46° 22' 34.8392" W

Alignment: Broadway Return NW
Description: Broadway and Ash St NW Return

Curve Point Data

Description	Station	Northing	Easting
PC:	0+00.000	698316.856	2279642.463
RP:		698316.36	2279621.719
PT:	0+32.588	698295.617	2279622.22

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	89° 58' 59.3248"	Type:	RIGHT
Radius:	20.75		
Length:	32.588	Tangent:	20.744
Mid-Ord:	6.075	External:	8.591
Chord:	29.341	Course:	S 43° 37' 25.1608" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+32.588	698295.617	2279622.22
End:	0+63.732	698295.446	2279591.077

Tangent Data

Parameter	Value	Parameter	Value
Length:	31.144	Course:	S 89° 41' 10.6720" W

Alignment: Broadway Return SE
Description: Broadway and Ash St SE Return

Curve Point Data

Description	Station	Northing	Easting
PC:	0+00.000	698248.059	2279673.614
RP:		698248.554	2279694.358
PT:	0+32.588	698269.298	2279693.857

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	89° 58' 59.3248"	Type:	RIGHT
Radius:	20.75		
Length:	32.588	Tangent:	20.744
Mid-Ord:	6.075	External:	8.591
Chord:	29.341	Course:	N 43° 37' 25.1608" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+32.588	698269.298	2279693.857
End:	0+45.603	698269.613	2279706.869

Tangent Data

Parameter	Value	Parameter	Value
Length:	13.016	Course:	N 88° 36' 54.8232" E

Alignment: Broadway Return SW
Description: Broadway and Ash St SW Return

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	698271.126	2279591.645
End:	0+31.148	698271.123	2279622.793

Tangent Data

Parameter	Value	Parameter	Value
Length:	31.148	Course:	S 89° 59' 39.2644" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+31.148	698271.123	2279622.793
RP:		698250.379	2279623.294
PT:	0+63.748	698250.875	2279644.039

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 01' 00.6752"	Type:	RIGHT
Radius:	20.75		
Length:	32.6	Tangent:	20.756
Mid-Ord:	6.08	External:	8.599
Chord:	29.349	Course:	S 46° 22' 34.8392" E

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	G.4	144

Alignment: North St
Description: Centerline of North St

Tangent Data

Description	PT Station	Northing	Easting
Start:	400+00.000	698823.627	2279448.239
End:	404+49.100	698834.48	2279897.208

Tangent Data

Parameter	Value	Parameter	Value
Length:	449.1	Course:	N 88° 36' 54.8232" E

Alignment: North Return NE
Description: North and Ash St NE Return

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	698842.358	2279695.189
End:	0+10.013	698841.609	2279685.205

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.013	Course:	S 85° 42' 39.7346" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+10.013	698841.609	2279685.205
End:	0+15.014	698841.488	2279680.205

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.001	Course:	S 88° 36' 54.8232" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+15.014	698841.488	2279680.205
RP:		698862.232	2279679.704
PT:	0+47.614	698861.736	2279658.96

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 01' 00.6752"	Type:	RIGHT
Radius:	20.75		
Length:	32.6	Tangent:	20.756
Mid-Ord:	6.08	External:	8.589
Chord:	29.349	Course:	N 46° 22' 34.8392" W

Alignment: North Return NW
Description: North and Ash St Return NW

Curve Point Data

Description	Station	Northing	Easting
PC:	0+00.000	698861.011	2279629.469
RP:		698860.516	2279608.725
PT:	0+32.588	698839.772	2279609.226

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	89° 58' 59.3248"	Type:	RIGHT
Radius:	20.75		
Length:	32.588	Tangent:	20.744
Mid-Ord:	6.075	External:	8.591
Chord:	29.341	Course:	S 43° 37' 25.1608" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+32.588	698839.772	2279609.226
End:	0+32.607	698839.772	2279609.207

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.019	Course:	S 88° 36' 54.8226" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+32.607	698839.772	2279609.207
End:	0+47.897	698836.449	2279594.283

Tangent Data

Parameter	Value	Parameter	Value
Length:	15.29	Course:	S 77° 26' 51.2770" W

NOTE:
RETURN ALIGNMENTS ARE AT THE GUTTER LINE

Alignment: North Return SE
Description: North and Ash St SE Return

Curve Point Data

Description	Station	Northing	Easting
PC:	0+00.000	698795.755	2279660.585
RP:		698796.251	2279681.279
PT:	0+32.588	698816.995	2279680.778

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	89° 58' 59.3248"	Type:	RIGHT
Radius:	20.75		
Length:	32.588	Tangent:	20.744
Mid-Ord:	6.075	External:	8.591
Chord:	29.341	Course:	N 43° 37' 25.1608" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+32.588	698816.995	2279680.778
End:	0+37.608	698817.116	2279685.797

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.02	Course:	N 88° 36' 54.8232" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+37.608	698817.116	2279685.797
End:	0+47.761	698819.114	2279695.751

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.153	Course:	N 78° 39' 08.4336" E

Alignment: North Return SW
Description: North and Ash St SW Return

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	698816.627	2279594.762
End:	0+15.097	698815.279	2279609.799

Tangent Data

Parameter	Value	Parameter	Value
Length:	15.097	Course:	S 84° 52' 35.3269" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+15.097	698815.279	2279609.799
End:	0+15.097	698815.279	2279609.799

Tangent Data

Parameter	Value	Parameter	Value
Length:	0	Course:	S 84° 52' 35.3220" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+15.097	698815.279	2279609.799
RP:		698794.535	2279610.3
PT:	0+47.697	698795.03	2279631.044

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 01' 00.6752"	Type:	RIGHT
Radius:	20.75		
Length:	32.6	Tangent:	20.756
Mid-Ord:	6.08	External:	8.589
Chord:	29.349	Course:	S 46° 22' 34.8392" E

Alignment: Farmer St W
Description: Centerline of Farmer St West of Ash St

Tangent Data

Description	PT Station	Northing	Easting
Start:	500+00.000	699346.708	2279503.537
End:	501+29.052	699349.708	2279632.553

Tangent Data

Parameter	Value	Parameter	Value
Length:	129.052	Course:	N 88° 40' 05.2515" E

NOTE:
RETURN ALIGNMENTS ARE AT THE GUTTER LINE

Alignment: Farmer Return NE
Description: Farmer and Ash St NE Return

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	699347.23	2279684.51
End:	0+17.595	699353.253	2279667.978

Tangent Data

Parameter	Value	Parameter	Value
Length:	17.595	Course:	N 69° 58' 59.5723" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+17.595	699353.253	2279667.978
End:	0+21.098	699353.169	2279664.48

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.498	Course:	S 88° 37' 50.2000" W

Curve Point Data

Description	Station	Northing	Easting
PC:	0+21.098	699353.169	2279664.48
RP:		699373.164	2279664.002
PT:	0+52.509	699372.686	2279644.008

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 00' 05.2985"	Type:	RIGHT
Radius:	20		
Length:	31.416	Tangent:	20.001
Mid-Ord:	5.858	External:	8.285
Chord:	28.285	Course:	N 46° 22' 07.1508" W

Alignment: Farmer Return NW
Description: Farmer and Ash St NW Return

Curve Point Data

Description	Station	Northing	Easting
PC:	0+00.000	699382.432	2279619.769
RP:		699381.955	2279599.774
PT:	0+31.429	699361.96	2279600.239

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	90° 02' 09.7530"	Type:	RIGHT
Radius:	20		
Length:	31.429	Tangent:	20.013
Mid-Ord:	5.862	External:	8.293
Chord:	28.293	Course:	S 43° 39' 00.8749" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+31.429	699361.96	2279600.239
End:	0+34.887	699361.88	2279596.782

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.458	Course:	S 88° 40' 05.0687" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+34.887	699361.88	2279596.782
End:	0+58.262	699357.191	2279573.882

Tangent Data

Parameter	Value	Parameter	Value
Length:	23.375	Course:	S 78° 25' 42.6274" W

Alignment: Farmer St E
Description: Centerline Farmer St East of Ash St

Tangent Data

Description	PT Station	Northing	Easting
Start:	510+00.000	699339.408	2279632.799
End:	510+66.334	699340.994	2279699.114

Tangent Data

Parameter	Value	Parameter	Value
Length:	66.334	Course:	N 88° 37' 50.2000" E

Alignment: Farmer Return SE
Description: Farmer and Ash St SE Return

Curve Point Data

Description	Station	Northing	Easting
PC:	0+000.000	699306.771	2279648.333
RP:		699307.266	2279669.077
PT:	0+32.593	699328.01	2279668.581

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	89° 59' 54.7015"	Type:	RIGHT
Radius:	20.75		
Length:	32.593	Tangent:	20.749
Mid-Ord:	6.077	External:	8.595
Chord:	29.345	Course:	N 43° 37' 52.8492" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+32.593	699328.01	2279668.581
End:	0+49.676	699333.238	2279684.844

Tangent Data

Parameter	Value	Parameter	Value
Length:	17.082	Course:	N 72° 10' 46.0898" E

Alignment: Farmer Return SW
Description: Farmer and Ash St SW Return

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	699338.536	2279574.316
End:	0+23.131	699336.637	2279597.368

Tangent Data

Parameter	Value	Parameter	Value
Length:	23.131	Course:	S 85° 17' 25.3077" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+23.131	699336.637	2279597.368
End:	0+23.131	699336.637	2279597.369

Tangent Data

Parameter	Value	Parameter	Value
Length:	0	Course:	S 81° 48' 30.4995" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+23.131	699336.637	2279597.369
RP:		699315.892	2279597.851
PT:	0+55.712	699316.388	2279618.595

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	89° 57' 50.2470"	Type:	RIGHT
Radius:	20.75		
Length:	32.581	Tangent:	20.737
Mid-Ord:	6.073	External:	8.586
Chord:	29.336	Course:	S 46° 20' 59.6251" E

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	G.5	144

STP-038-2(37)--2C-16

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED
NORTH

STA 2+61.44, 158.08' L
STA 2+81.44, 158.09' L
12"
18"
St. John D Scott
Connelly, Shon O & Lynn M
Tenley, Doris
King, Edward A & Carey L
Lutheran Church
STA 5+86.61, 43.19' L
STA 5+86.61, 38.19' L
STA 5+36.65, 38.17' L
STA 5+36.66, 33.17' L
STA 0+76.22, 38.03' L
STA 0+82.24, 33.03' L
EXISTING ROW
GRADING LIMITS
STA 4+86.69, 38.15' L
STA 4+86.70, 33.15' L
STA 6+86.53, 43.22' L
STA 6+86.54, 33.22' L
STA 2+61.48, 33.08' L
STA 2+81.48, 33.09' L
PRESTON STREET
LINCOLN HIGHWAY / US HWY 30
STA 0+12.71
N: 696703.4622
E: 2279695.7437
START OF PROJECT
PROPOSED ℄
1+00 2+00 3+00 4+00 5+00 66' ROW 6+00 7+00
IA HWY 38 / ASH STREET
STA 5+52.12, 32.83' R
STA 5+70.12, 32.82' R
STA 5+70.12, 42.82' R
STA 6+90.12, 32.78' R
STA 6+90.12, 42.78' R
Lutheran Church
Beers, David B & Ruth Ann
Sander, Carol Ann
Siebels, David E & Sue Ann
Fields, Matthew Allan & Amber Jo

STA 10+78.23, 158.34' L
STA 10+98.23, 158.35' L
Maschmann, Jason W
Schultz, Lucille A
Shireman, John S
Dauber, Lois G
Speer, Edward W & Lenora
PRESTON STREET
EXISTING ROW
GRADING LIMITS
STA 7+52.53, 38.24' L
STA 7+52.54, 33.24' L
STA 10+78.27, 33.34' L
STA 10+98.27, 33.35' L
STA 12+02.17, 38.38' L
STA 12+02.18, 33.38' L
CENTER STREET
STA 12+68.18, 33.40' L
UNION PACIFIC RAILROAD
Young, Brad W & Leah M
Brown, Melissa J & Troy
STA 13+68.28, 38.43' L
STA 13+68.20, 33.43' L
STA 15+43.66, 38.48' L
STA 15+43.66, 33.48' L
501
Union Pacific Railroad
7+00 8+00 9+00 10+00 11+00 66' ROW 12+00 13+00 14+00 15+00 16+00
PROPOSED ℄
IA HWY 38 / ASH STREET
STA 8+96.12, 32.72' R
STA 8+76.12, 32.72' R
STA 8+76.12, 42.45' R
STA 7+56.12, 32.76' R
STA 7+56.12, 42.54' R
STA 10+34.12, 32.67' R
STA 10+34.12, 37.67' R
STA 10+81.12, 32.66' R
STA 10+81.12, 37.66' R
STA 11+01.12, 32.65' R
STA 11+01.12, 37.65' R
STA 12+67.13, 32.60' R
STA 13+67.14, 32.57' R
STA 12+01.12, 32.62' R
STA 12+01.12, 37.62' R
STA 15+43.68, 32.52' R
BROADWAY STREET
Bequeaith, Marjorie Jean & Bequeaith, Russell W
Laing, Barbara M
McAtee, Dustin & Alissa
Federal National Mortgage Association
Knoll, Paul W & Colette, Kay

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TEMPORARY EASEMENT
PERMANENT EASEMENT
PROPERTY LINE

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	H.1	144

P:\14\183\DRAWINGS\CIVIL\14183_ZZ_H.DWG 4/26/2016 2:33:03 PM JERI M. VONDERA

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED
NORTH

Crist, Grayland J & Kathaleen M
Boothe, Larry R & Hack, Suzanne K
Klawiter, William A & Cynthia R
Wachendorf, Michael & Rebecca J
Pierson, Steven K & Natasha L
Zink, Kyle C & Baker, Marinna L
Hines, Carol & Flockhart, Donald
Kintz, John M. & Cherise R.

STA 16+43.66, 38.52' L
STA 16+43.66, 33.52' L
EXISTING ROW
GRADING LIMITS
STA 21+04.28, 96.43' L
STA 20+92.68, 96.46' L
STA 21+04.30, 33.66' L
STA 20+92.55, 38.66' L
STA 21+70.30, 38.68' L
STA 21+70.30, 33.68' L

16+00 17+00 18+00 66' ROW 19+00 20+00 21+00 22+00 23+00 24+00
PROPOSED ℄
IA HWY 38 / ASH STREET

STA 16+43.68, 32.48' R
STA 16+43.68, 37.48' R
STA 17+63.83, 32.45' R
STA 17+63.83, 37.45' R
STA 17+43.83, 32.45' R
STA 17+43.83, 37.45' R
STA 21+04.32, 32.34' R
STA 21+04.32, 37.34' R
STA 21+70.32, 32.32' R
GRADING LIMITS
BROADWAY STREET
NORTH STREET
Griswold, William L
Saltzman, Leroy Edward
Childers, Elizabeth J
Koob, Kevin Michael & Koob, Kenneth Robert
Flockhart, Robert R & Darlene
North Cedar School

Kintz, John M. & Cherise R.
Tenley, James
Franck, Kaitlin
Knapp, Terri L & Kevin J

STA 24+73.71, 48.78' L
STA 24+73.71, 38.78' L
STA 26+23.93, 48.82' L
STA 26+23.93, 33.82' L
EXISTING ROW
GRADING LIMITS
STA 26+85.93, 48.68' L
STA 26+85.93, 40.81' L
STA 28+27.06, 48.62' L
STA 28+27.07, 60.82' L
STA 28+27.05, 40.72' L
EXISTING ROW
STA 30+35.53, 60.69' L
EXISTING DITCH

24+00 25+00 66' ROW 26+00 27+00 28+00 29+00 30+00 31+00 32+00
PROPOSED ℄
IA HWY 38 / ASH STREET

STA 26+23.95, 32.18' R
STA 27+25.00, 32.21' R
STA 26+85.95, 32.19' R
STA 26+85.96, 37.69' R
STA 28+10.00, 40.00' R
STA 27+84.42, 37.66' R
STA 29+52.00, 55.00' R
EXISTING ROW
STA 30+48.00, 55.00' R
FARMERS STREET
North Cedar School
Farrington, Debra Kay Miller

FOR INFORMATION ONLY

TEMPORARY EASEMENT
PERMANENT EASEMENT
PROPERTY LINE

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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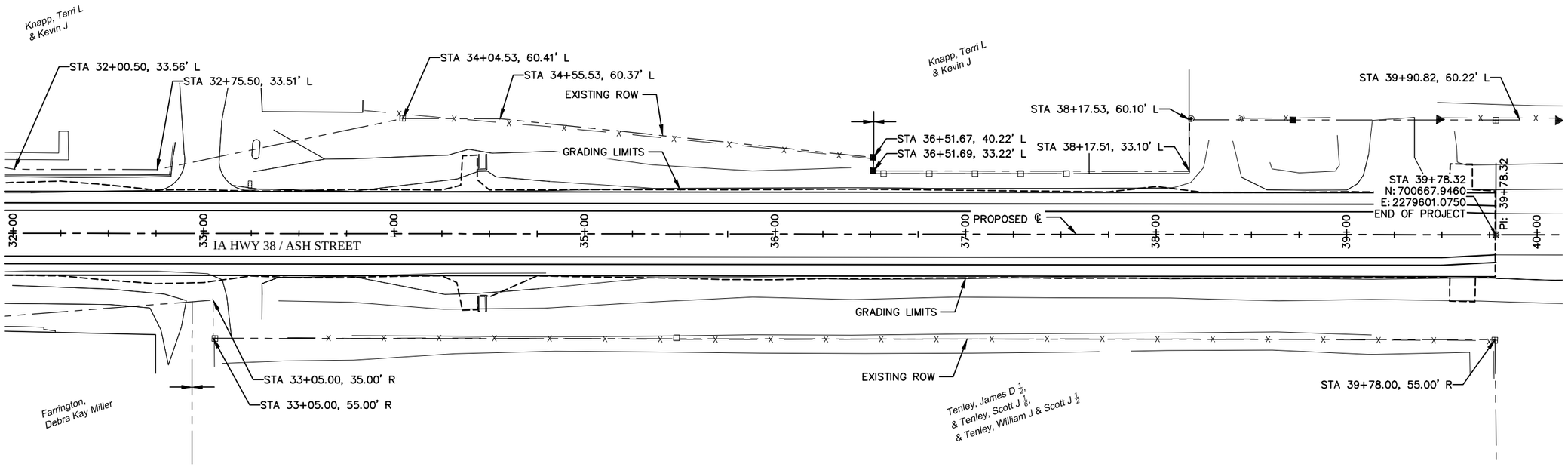
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	H.2	144

HORIZONTAL SCALE IN FEET
0 30 60
DRAWING MAY HAVE BEEN REDUCED
NORTH



NOTE:
NO EASEMENTS REQUIRED, THIS SHEET

FOR INFORMATION ONLY

TEMPORARY EASEMENT PERMANENT EASEMENT PROPERTY LINE

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	H.3	144

STP-038-2(37)--2C-16

TRAFFIC CONTROL PLAN

THIS ROAD SHALL BE CLOSED TO VEHICULAR AND PEDESTRIAN TRAFFIC DURING CONSTRUCTION. ALL TRAFFIC CONTROL DEVICES, PROCEDURES, AND LAYOUTS WITHIN THE LIMITS OF THIS PROJECT SHALL CONFORM TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS, (MUTCD) AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC), CHAPTER 130." CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DETOUR SIGNING. CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL DEVICES ON A 24 HOUR PER DAY, 7 DAYS A WEEK BASIS DURING THE CONSTRUCTION PERIOD. CONTRACTOR TO PROVIDE 24 HOUR CALL NUMBER FOR REPAIR OF DEFICIENCIES.

GENERAL TRAFFIC CONTROL NOTES:

1. CONSTRUCTION SHALL BE PERFORMED IN TWO STAGES: STAGE 1 IS ALL WORK NECESSARY TO COMPLETE CONSTRUCTION SOUTH OF THE UNION PACIFIC RAILROAD (UPRR). STAGE 2 IS ALL WORK NECESSARY TO COMPLETE CONSTRUCTION NORTH OF THE UPRR. LANE CLOSURES, FOR LONGER THAN 8 HOURS, MAY NOT OCCUR ON SECOND STAGE UNTIL CONSTRUCTION OF FIRST STAGE IS COMPLETED SUCH THAT (2) LANES ARE OPEN TO TRAFFIC.

2. DURING STAGE 1, IA 38 / ASH STREET IS CLOSED TO ALL TRAFFIC FROM US 30 TO THE SOUTHERN LIMITS OF THE UNION PACIFIC RAILROAD (UPRR) RIGHT OF WAY. IA 38 TRAFFIC WILL BE DETOURED TO MAIN STREET AND BROADWAY STREET.

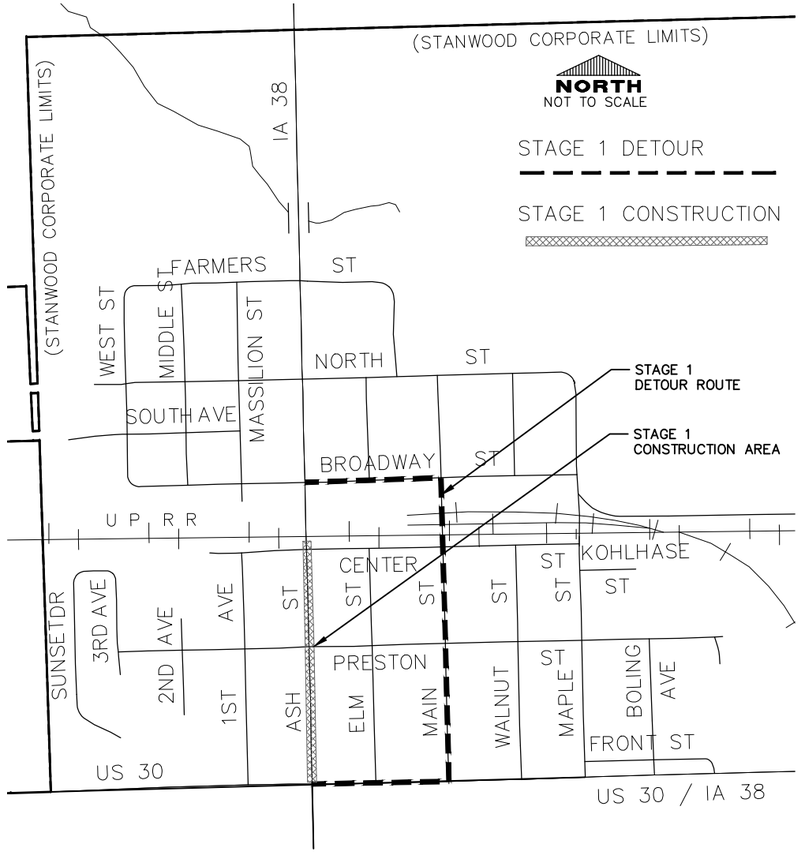
3. DURING STAGE 2, THROUGH TRAFFIC ON IA 38 (ASH ST.) WILL BE DETOURED USING US HWY 30, IA 1, AND US HWY 151 THROUGH MOUNT VERNON, ANAMOSA, AND MONTICELLO. IA 38 (ASH ST.) IS CLOSED TO ALL TRAFFIC FROM THE NORTHERN LIMITS OF UPRR TO THE NORTH END OF THE PROJECT, EXCEPT FOR:
   - 3.1. INTERSECTION OF ASH ST/IA 38 AND FARMERS STREET SHALL BE CONSTRUCTED IN STAGES SO THAT ½ OF THE INTERSECTION IS OPEN TO EMERGENCY VEHICLES, MAIL DELIVERY, AND TO PROVIDE ACCESS TO ONE RESIDENCE BETWEEN FARMERS STREET AND THE NORTH END OF THE PROJECT.
   - 3.2. ASH ST/IA 38, NORTH OF FARMERS STREET SHALL BE CONSTRUCTED IN STAGES SO THAT AT LEAST A 10' TRAVEL PATH (WHICH MAY INCLUDE THE SHOULDER) IS AVAILABLE TO EMERGENCY VEHICLES, MAIL DELIVERY, AND TO PROVIDE ACCESS TO ONE RESIDENCE BETWEEN FARMERS STREET AND THE NORTH END OF THE PROJECT.
   - 3.3. CONTRACTOR SHALL MAINTAIN TRAFFIC ACROSS IA 38 (ASH STREET) AT ONE OF THE THREE INTERSECTIONS NORTH OF THE UPRR, EITHER BROADWAY ST., NORTH ST., OR FARMERS ST., TO PROVIDE ACCESS TO RESIDENTS NORTH OF THE UPRR AND WEST OF IA 38 (ASH ST).
   - 3.4. TRAFFIC ON IA 38 (ASH ST.), NORTH OF THE UPRR, SHOULD NOT BE DETOURED DURING THE WINTER.

4. CONTRACTOR IS RESPONSIBLE FOR DETOUR SIGNING. CONTRACTOR TO NOTIFY IOWA DOT MAINTENANCE SUPERVISORS PRIOR TO SIGN PLACEMENT ON STATE ROADS. FOR SUPERVISOR IN JONES COUNTY – CALL 319-462-3676, FOR SUPERVISOR IN LINN COUNTY – CALL 319-364-8189, AND FOR SUPERVISOR IN CEDAR COUNTY – CALL 563-946-2391. THE MAINTENANCE SUPERVISORS MAY DETERMINE IF DETOUR SIGNING MAY BE PLACED ON STATE ROUTE MARKING SIGNING BY ATTACHING BRACKETS TO EXISTING SIGN POSTS. STAGE 1 DETOUR OCCURS ENTIRELY IN CEDAR COUNTY. STAGE 2 DETOUR OCCURS IN JONES, LINN, AND CEDAR COUNTIES. SEE EACH DETAIL FOR COUNTY LOCATION.

5. (3) PORTABLE CHANGEABLE MESSAGE SIGNS, PAID FOR AS BID ITEM 'PORTABLE DYNAMIC MESSAGE SIGN', SHALL BE INSTALLED (7) CALENDAR DAYS BEFORE STAGE 2 DETOUR IS INSTALLED TO GIVE ADVANCE WARNING TO MOTORISTS OF ROAD CLOSURE. SIGNS MAY BE REMOVED, AND WILL NOT BE PAID FOR, AFTER DETOUR IS INSTALLED. LOCATION OF PORTABLE SIGNS AND MESSAGE DISPLAYED IS SHOWN ON DETAIL 1/J.7.

6. THE DEPTH OF ANY DROP-OFF ADJACENT TO TRAFFIC SHOULD BE LIMITED TO A NOMINAL 10 INCHES DURING NON-WORKING HOURS.

7. THE CONTRACTOR IS RESPONSIBLE FOR PEDESTRIAN AND HAZARD PROTECTION NOT SPECIFICALLY SHOWN ON THESE PLANS BUT DICTATED BY CONSTRUCTION OPERATIONS FOR THE WORK AREA ESTABLISHED BY THIS CONTRACT. THE PEDESTRIAN PROTECTION SHALL CONSIST OF BARRICADES, AND SIGNS AS NEEDED FOR THE GUIDANCE OF PEDESTRIANS. TYPICALLY PEDESTRIAN SIGNING IS PLACED AT INTERSECTIONS SO PEDESTRIANS ARE NOT CONFRONTED WITH MID-BLOCK CROSSINGS. INSTALL R9-9 (24"X12" SIDEWALK CLOSED) SIGNS WHERE SIDEWALKS ARE NOT OPEN TO PEDESTRIAN TRAFFIC. IF AN ALTERNATE SIDEWALK IS AVAILABLE, THE R9-11 (24"X18" SIDEWALK CLOSED AHEAD, CROSS HERE) SIGNS SHOULD BE USED, PROVIDED THE PEDESTRIANS ARE NOT BEING LED INTO DIRECT CONFLICTS WITH WORK SITE VEHICLES, EQUIPMENT, OPERATIONS OR EXCAVATIONS. ORANGE PLASTIC SAFETY FENCE AND BARRICADES SHOULD BE USED FOR ADDITIONAL PROTECTION IN AREAS WHERE PEDESTRIANS ARE PRESENT WITHIN THE SIDEWALK CLOSED AREA UNLESS TEMPORARY FENCING IN ALREADY INSTALLED IN THESE AREAS.



STAGE 1:

CONSTRUCTION OCCURS ON IA 38 / ASH ST FROM US 30 TO THE SOUTHERN LIMIT OF UNION PACIFIC RAILROAD (UPRR) RIGHT-OF-WAY.

PRIOR TO CONSTRUCTION AT THE INTERSECTION OF US 30, EXISTING GRANULAR SHOULDER ON SOUTH SIDE OF US 30 SHALL BE PAVED. SEE E SHEET. PRIOR TO PAVING OF SHOULDER, SHIFT TRAFFIC ON US 30, 6' TO THE NORTH. SEE DETAIL 1/J.2. AFTER SHOULDER ON SOUTH SIDE OF US 30 IS PAVED, SHIFT TRAFFIC 6' TO THE SOUTH PRIOR TO BEGINNING CONSTRUCTION NEXT TO THRU LANES OF US 30 ON IA 38/ASH STREET. SEE DETAIL 1/J.3

IA 38 / ASH STREET IS CLOSED TO ALL TRAFFIC FROM US 30 TO THE SOUTHERN LIMITS OF THE UNION PACIFIC RAILROAD (UPRR) RIGHT OF WAY. IA 38 TRAFFIC WILL BE DETOURED TO MAIN STREET AND BROADWAY STREET. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING ALL DETOUR SIGNING AND DEVICES. WHILE DETOUR FOR STAGE 1 IS IN PLACE, CONTRACTOR IS RESPONSIBLE FOR ALL SIGNING TO RESTRICT PARKING ON BOTH SIDES OF MAIN ST. FROM US 30 TO CENTER STREET, AND ON BROADWAY ST. FROM ASH ST / IA 38 TO ELM STREET. SEE DETAIL 1/J.5.

AT THE INTERSECTION OF BROADWAY ST. AND ASH ST / IA 38, RADIUS IN NORTH EAST CORNER IS NOT SUFFICIENT FOR LARGE SEMI-TRAILERS TO MAKE RIGHT TURN WITHOUT ENCROACHING ON OPPOSING LANES. CONTRACTOR SHALL INCREASE RADIUS WITH TEMPORARY HMA PAVEMENT PAID FOR AT THE CONTRACT UNIT PRICE OF HMA PER TON. IN STAGE 2, TEMPORARY PAVEMENT SHALL BE REMOVED. SEE DETAIL 2/J.4 AND E SHEET.

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TRAFFIC CONTROL
GENERAL NOTES & STAGE 1 OVERVIEW
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

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CITY OF STANWOOD, CEDAR COUNTY

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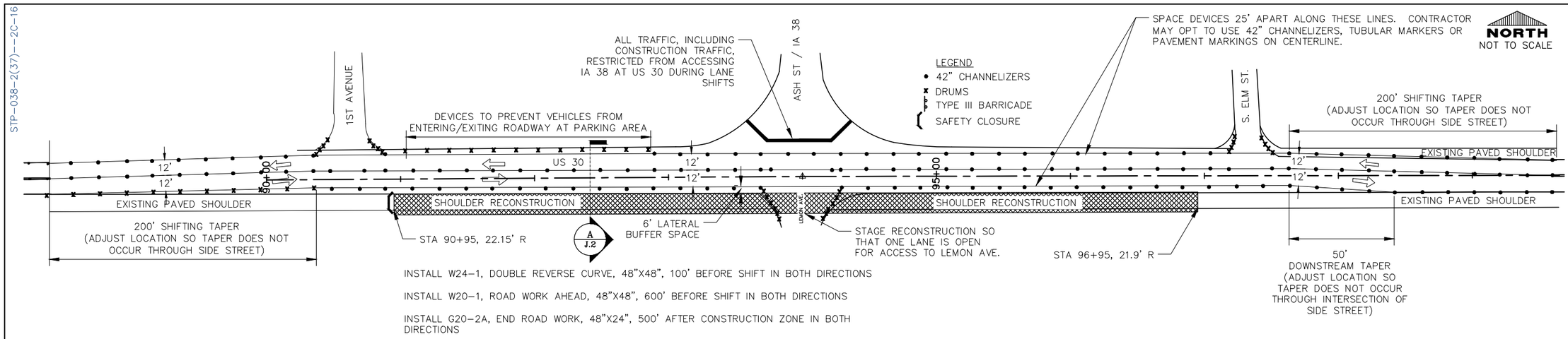


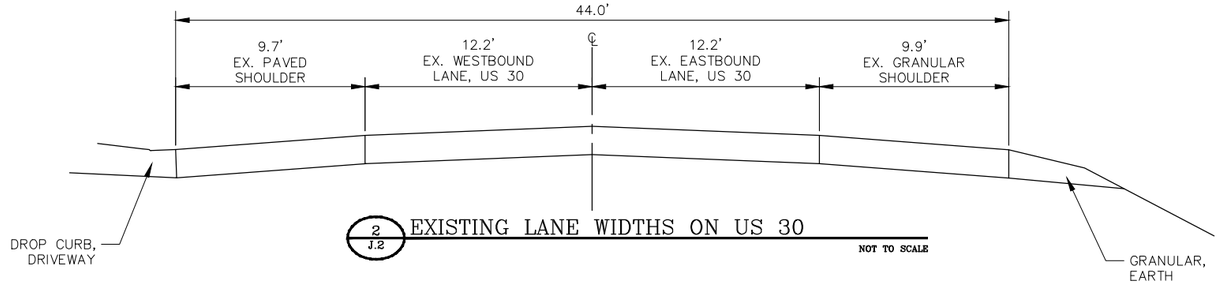
INSTALL W24-1, DOUBLE REVERSE CURVE, 48"X48", 100' BEFORE SHIFT IN BOTH DIRECTIONS

INSTALL W20-1, ROAD WORK AHEAD, 48"X48", 600' BEFORE SHIFT IN BOTH DIRECTIONS

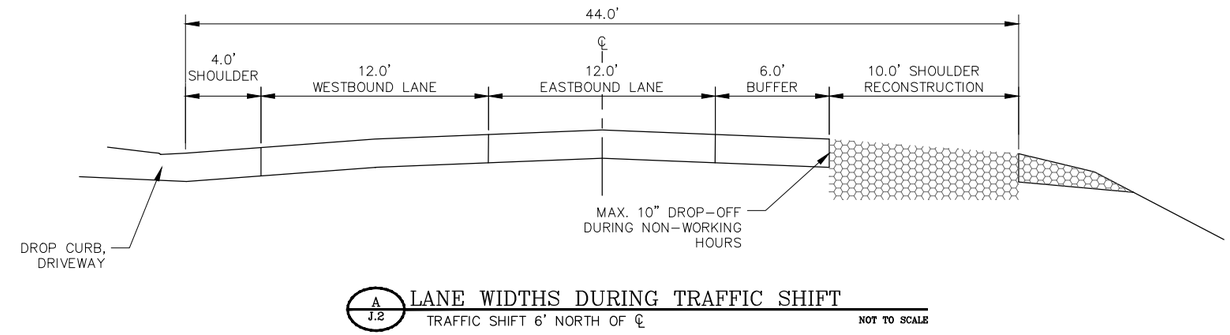
INSTALL G20-2A, END ROAD WORK, 48"X24", 500' AFTER CONSTRUCTION ZONE IN BOTH DIRECTIONS

1 / J.2 TRAFFIC SHIFT ON US 30 — CEDAR COUNTY

PAVE SHOULDER ON SOUTH SIDE OF US 30 PRIOR TO STAGE 1 WORK IN IA 38 / US 30 INTERSECTION — NOT TO SCALE



2 / J.2 EXISTING LANE WIDTHS ON US 30 — NOT TO SCALE



A / J.2 LANE WIDTHS DURING TRAFFIC SHIFT — TRAFFIC SHIFT 6' NORTH OF ℄ — NOT TO SCALE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TRAFFIC CONTROL
STAGE 1 DETAILS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

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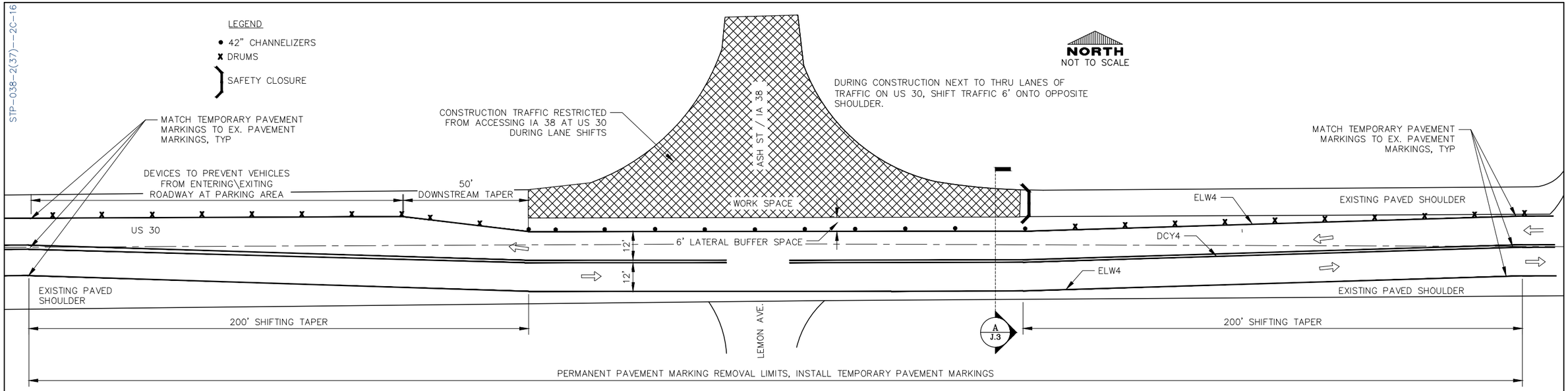
STP-038-2(37)--2C-16	IOWA	.	2016	J.2	144

STP-038-2(37)--2C-16

LEGEND

- ● 42" CHANNELIZERS
- ✖ DRUMS
- SAFETY CLOSURE

NORTH
NOT TO SCALE



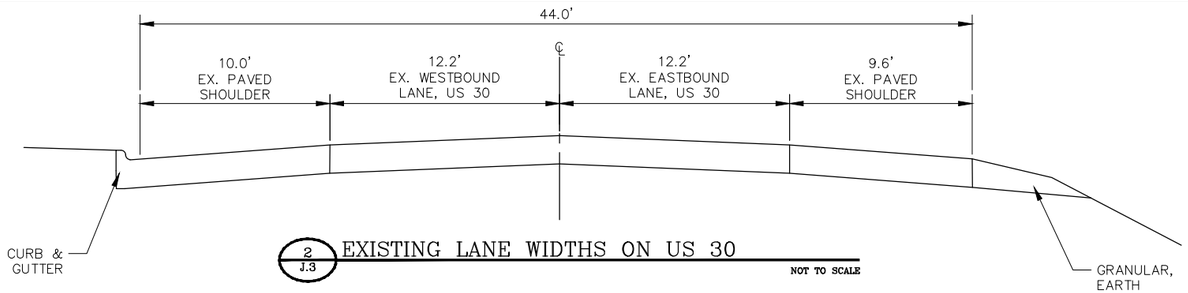
INSTALL W24-1, DOUBLE REVERSE CURVE, 48"X48", 100' BEFORE SHIFT IN BOTH DIRECTIONS

INSTALL W20-1, ROAD WORK AHEAD, 48"X48", 600' BEFORE SHIFT IN BOTH DIRECTIONS

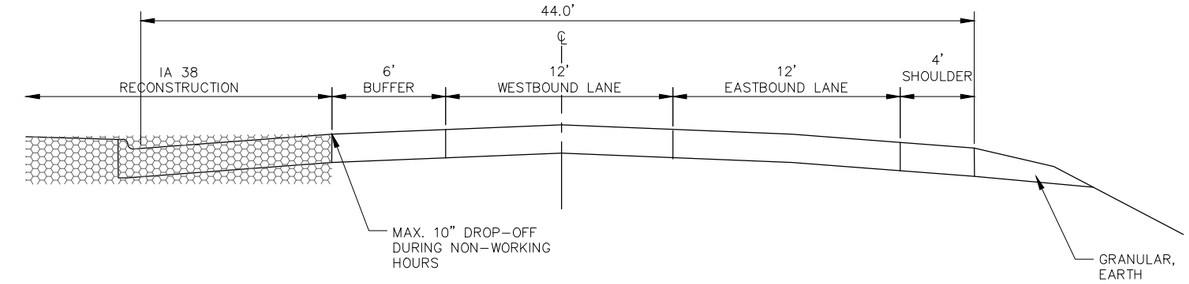
INSTALL G20-2A, END ROAD WORK, 48"X24", 500' AFTER CONSTRUCTION ZONE IN BOTH DIRECTIONS

DIAGONAL TEMPORARY PAVEMENT MARKINGS PAID FOR AS 'WET RETROREFLECTIVE REMOVABLE TAPE', ALL OTHER PAVEMENT MARKINGS PAID FOR AS 'PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED'

1 / J.3 TRAFFIC SHIFT ON US 30 — CEDAR COUNTY
PAVE ASH ST NEXT TO THRU LANES ON US 30 — NOT TO SCALE
PART OF STAGE 1 WORK



2 / J.3 EXISTING LANE WIDTHS ON US 30 — NOT TO SCALE



A / J.3 LANE WIDTHS DURING TRAFFIC SHIFT — NOT TO SCALE
TRAFFIC SHIFT 6' SOUTH OF ℄

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TRAFFIC CONTROL
STAGE 1 DETAILS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

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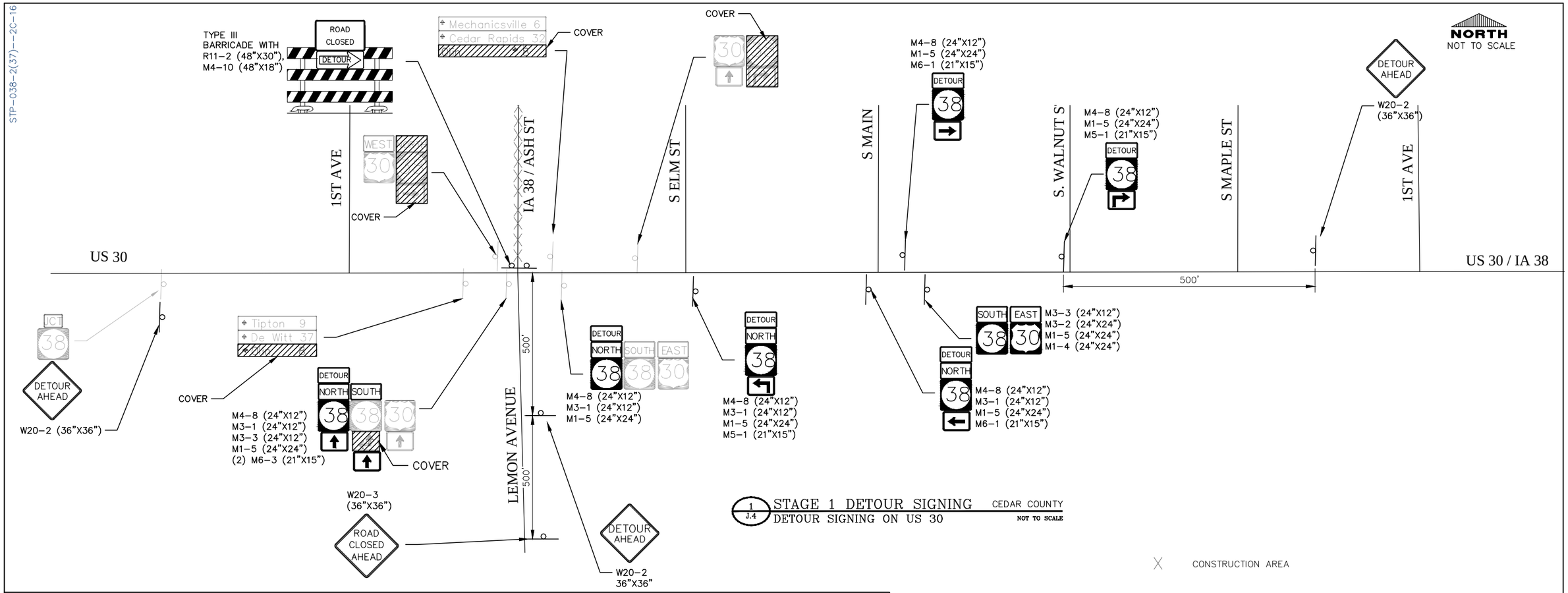
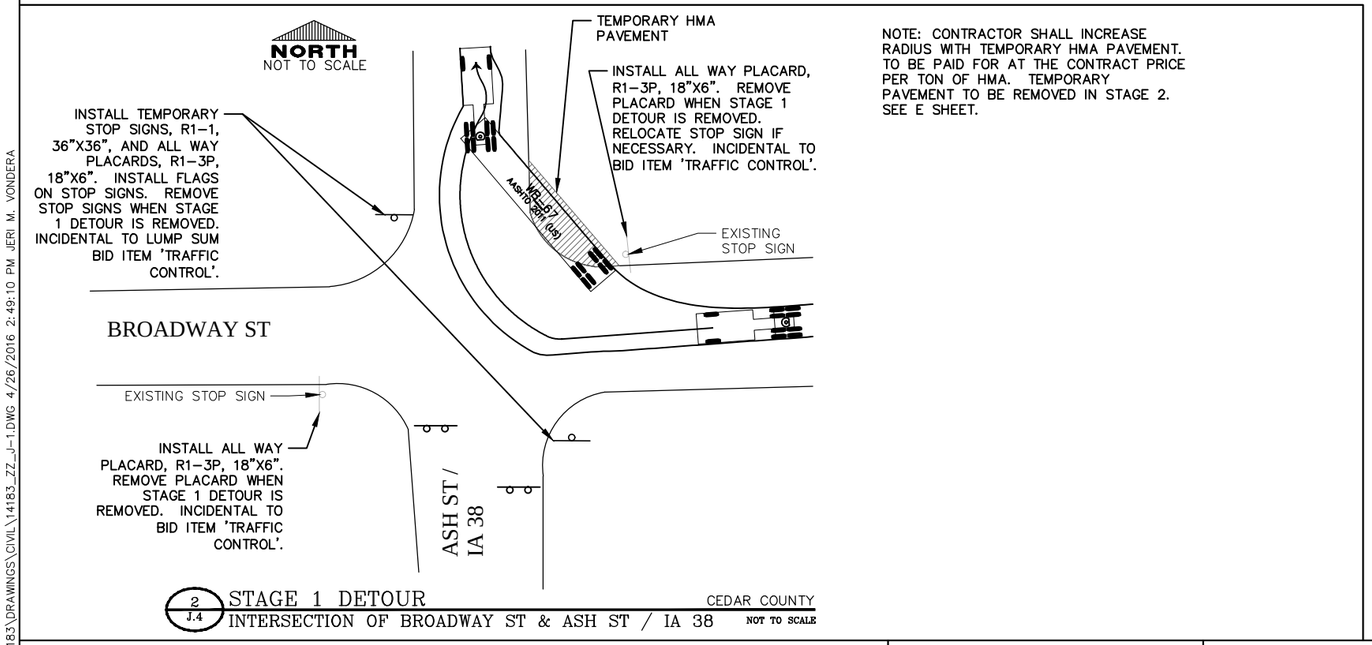
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	J.3	144



1 J.4 STAGE 1 DETOUR SIGNING — CEDAR COUNTY
DETOUR SIGNING ON US 30 — NOT TO SCALE



2 J.4 STAGE 1 DETOUR INTERSECTION OF BROADWAY ST & ASH ST / IA 38 — CEDAR COUNTY — NOT TO SCALE

NOTE: CONTRACTOR SHALL INCREASE RADIUS WITH TEMPORARY HMA PAVEMENT. TO BE PAID FOR AT THE CONTRACT PRICE PER TON OF HMA. TEMPORARY PAVEMENT TO BE REMOVED IN STAGE 2. SEE E SHEET.

X CONSTRUCTION AREA

38 EXISTING SIGN, TYPICAL

38 PROPOSED TEMPORARY SIGN, TYPICAL

COVER EXISTING SIGN, TYPICAL

TYPE III BARRICADE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TRAFFIC CONTROL
STAGE 1 DETOUR SIGNING
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

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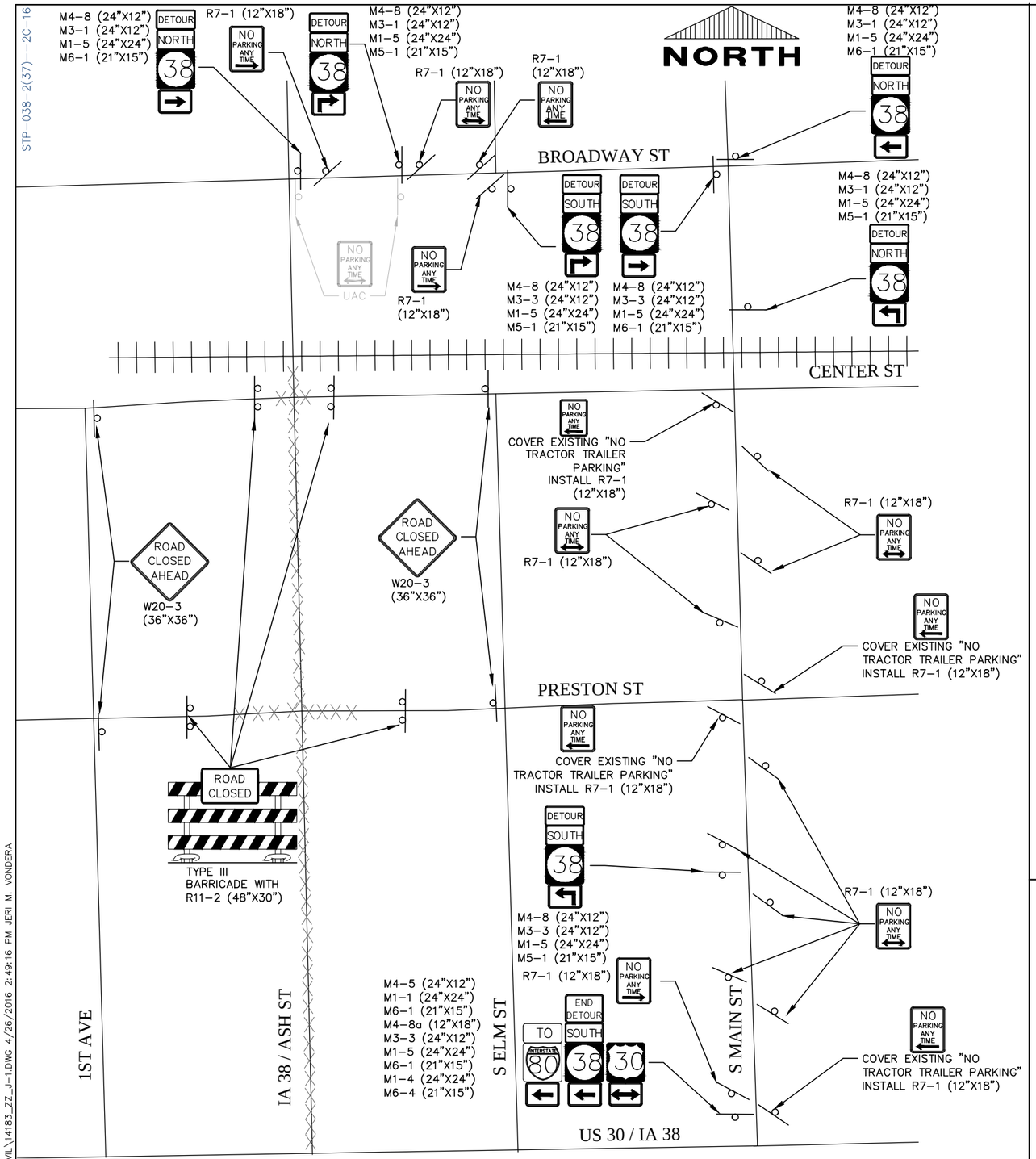
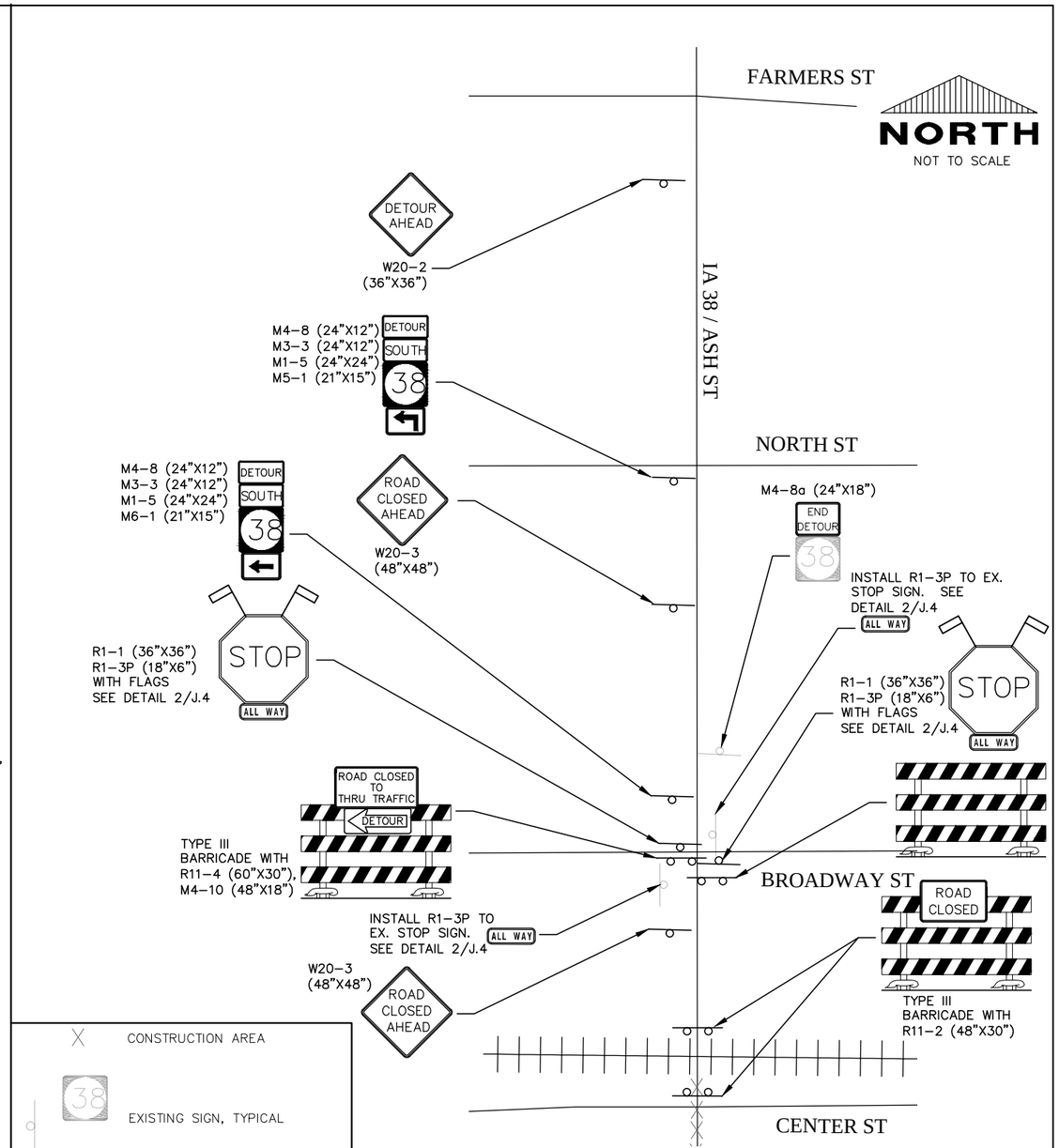
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	J.4	144



1 J.5 STAGE 1 DETOUR SIGNING ON MAIN ST. & BROADWAY ST. AND ROAD CLOSURES BARRICADES ON SIDE STREETS — CEDAR COUNTY — NOT TO SCALE



2 J.5 STAGE 1 DETOUR SIGNING ON ASH ST DETOUR SIGNING NORTH OF UPRR — CEDAR COUNTY — NOT TO SCALE

CONSTRUCTION AREA

EXISTING SIGN, TYPICAL

PROPOSED TEMPORARY SIGN, TYPICAL

COVER EXISTING SIGN, TYPICAL

TYPE III BARRICADE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TRAFFIC CONTROL
STAGE 1 DETOUR SIGNING

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

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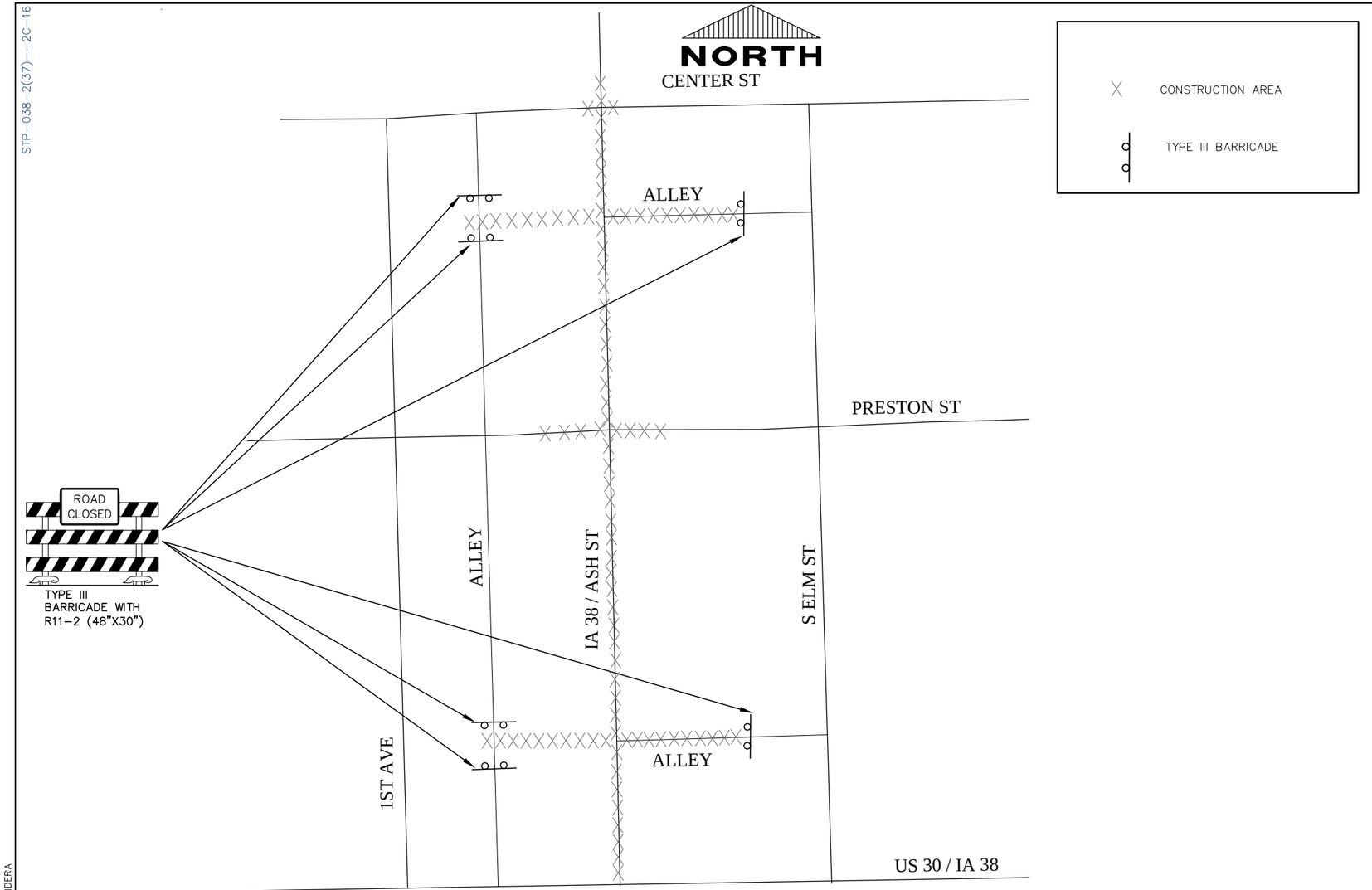
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	J.5	144



1 / J.6 STAGE 1 TRAFFIC CONTROL — CEDAR COUNTY
ADDITIONAL SAFETY CLOSURES DURING UTILITY WORK — NOT TO SCALE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TRAFFIC CONTROL
STAGE 1 TRAFFIC CONTROL

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

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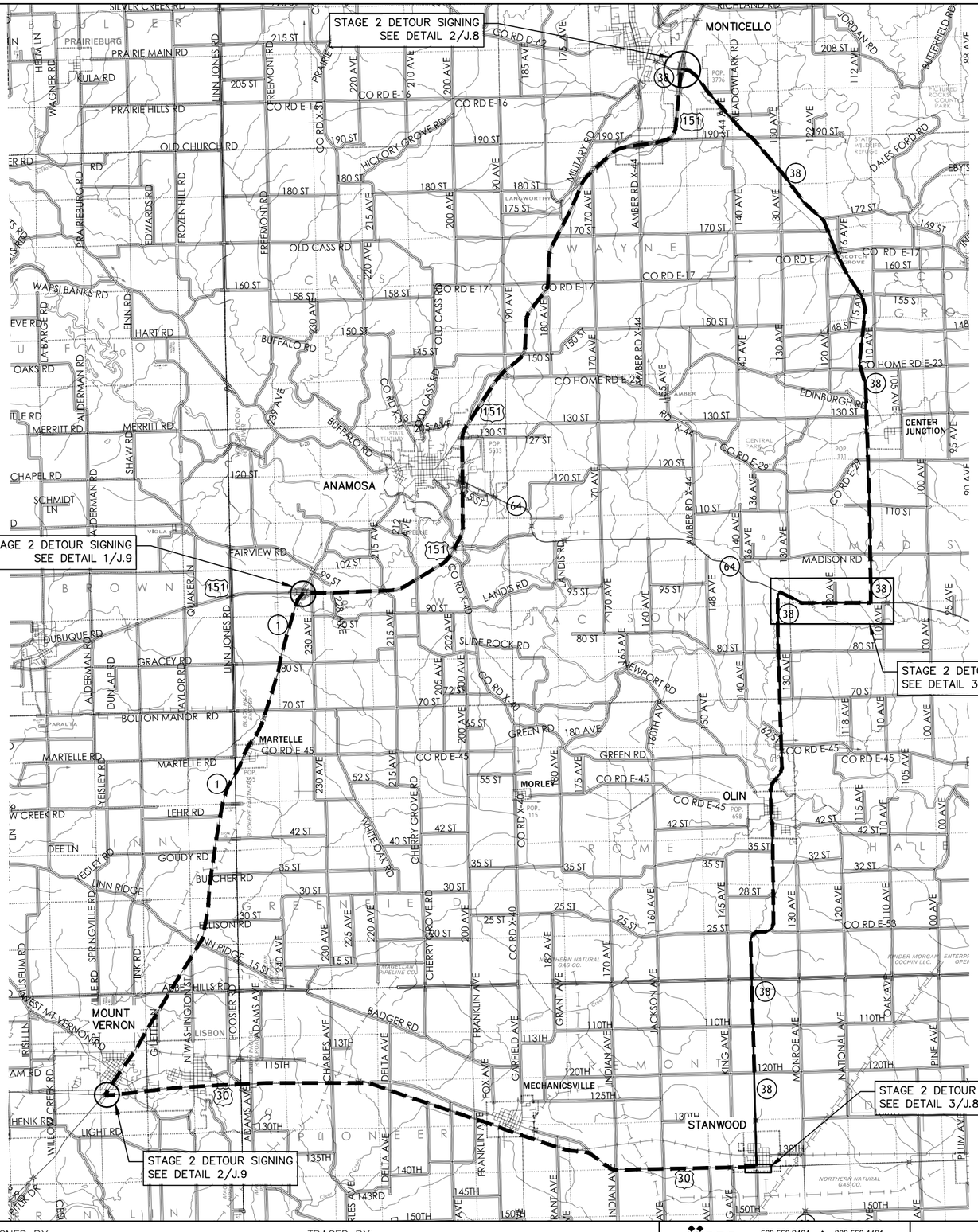
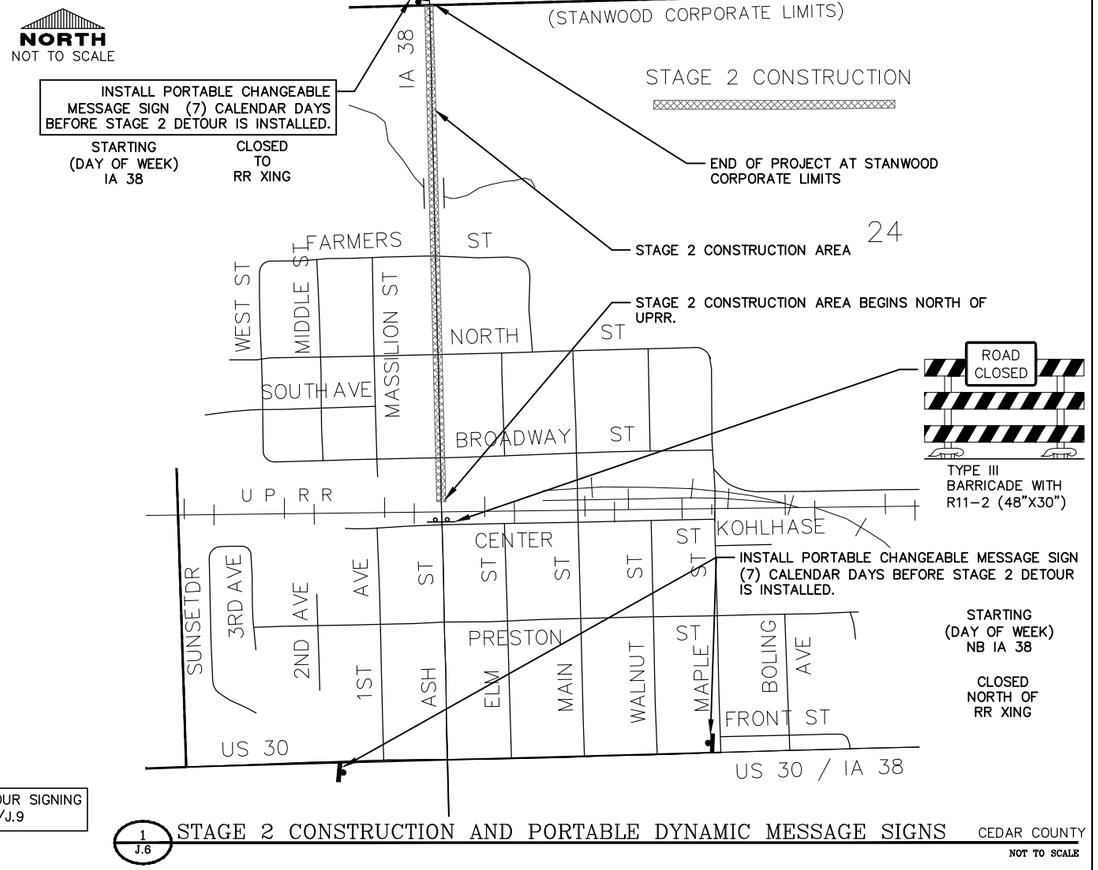
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	J.6	144





1 J.6 STAGE 2 CONSTRUCTION AND PORTABLE DYNAMIC MESSAGE SIGNS — CEDAR COUNTY
NOT TO SCALE

STAGE 2:

CONSTRUCTION OCCURS ON IA 38 (ASH ST.) FROM THE NORTH OF UNION PACIFIC RAILROAD (UPRR) RIGHT-OF-WAY TO STANWOOD NORTH CORPORATE LIMITS.

(3) PORTABLE CHANGEABLE MESSAGE SIGNS, PAID FOR AS BID ITEM 'PORTABLE DYNAMIC MESSAGE SIGN', SHALL BE INSTALLED A MINIMUM OF (7) CALENDAR DAYS BEFORE STAGE 2 DETOUR IS INSTALLED TO GIVE ADVANCE WARNING TO MOTORISTS OF ROAD CLOSURE. SIGNS SHOULD BE REMOVED, AND WILL NOT BE PAID FOR, ONCE DETOUR IS INSTALLED. LOCATION OF PORTABLE SIGNS AND MESSAGE DISPLAYED SHOWN ABOVE IN DETAIL 1/J.7, AND MAY BE CHANGED AS DIRECTED BY THE ENGINEER.

STAGE 2 DETOUR CANNOT BE INSTALLED UNTIL IA 38 (ASH STREET) IS OPEN TO TRAFFIC SOUTH OF THE UPRR. IN STAGE 2, IA 38 (ASH ST.) IS CLOSED TO ALL TRAFFIC FROM THE NORTH OF UPRR TO THE NORTH END OF THE PROJECT, EXCEPT FOR:

- INTERSECTION OF ASH ST/IA 38 AND FARMERS STREET SHALL BE CONSTRUCTED IN STAGES SO THAT $\frac{1}{2}$ OF THE INTERSECTION IS OPEN TO EMERGENCY VEHICLES, MAIL DELIVERY, AND TO PROVIDE ACCESS TO ONE RESIDENCE BETWEEN FARMERS STREET AND THE NORTH END OF THE PROJECT.
- ASH ST/IA 38, NORTH OF FARMERS STREET SHALL BE CONSTRUCTED IN STAGES SO THAT AT LEAST A 10' TRAVEL PATH (WHICH MAY INCLUDE THE SHOULDER) IS AVAILABLE TO EMERGENCY VEHICLES, MAIL DELIVERY, AND TO PROVIDE ACCESS TO ONE RESIDENCE BETWEEN FARMERS STREET AND THE NORTH END OF THE PROJECT.
- CONTRACTOR SHALL MAINTAIN TRAFFIC ACROSS IA 38 (ASH STREET) AT ONE OF THE THREE INTERSECTIONS NORTH OF THE UPRR, EITHER BROADWAY ST., NORTH ST., OR FARMERS ST., TO PROVIDE ACCESS TO RESIDENTS NORTH OF THE UPRR AND WEST OF IA 64 (ASH ST).
- TRAFFIC ON IA 38 (ASH ST.), NORTH OF THE UPRR, SHOULD NOT BE DETOURED DURING THE WINTER.

THROUGH TRAFFIC ON IA 38 (ASH ST.) WILL BE DETOURED USING US HWY 30, IA 1, AND US HWY 151 THROUGH MOUNT VERNON, ANAMOSA, AND MONTICELLO. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING ALL DETOUR SIGNING AND DEVICES.

STAGE 2 DETOUR ROUTE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TRAFFIC CONTROL
STAGE 2 DETOUR SIGNING
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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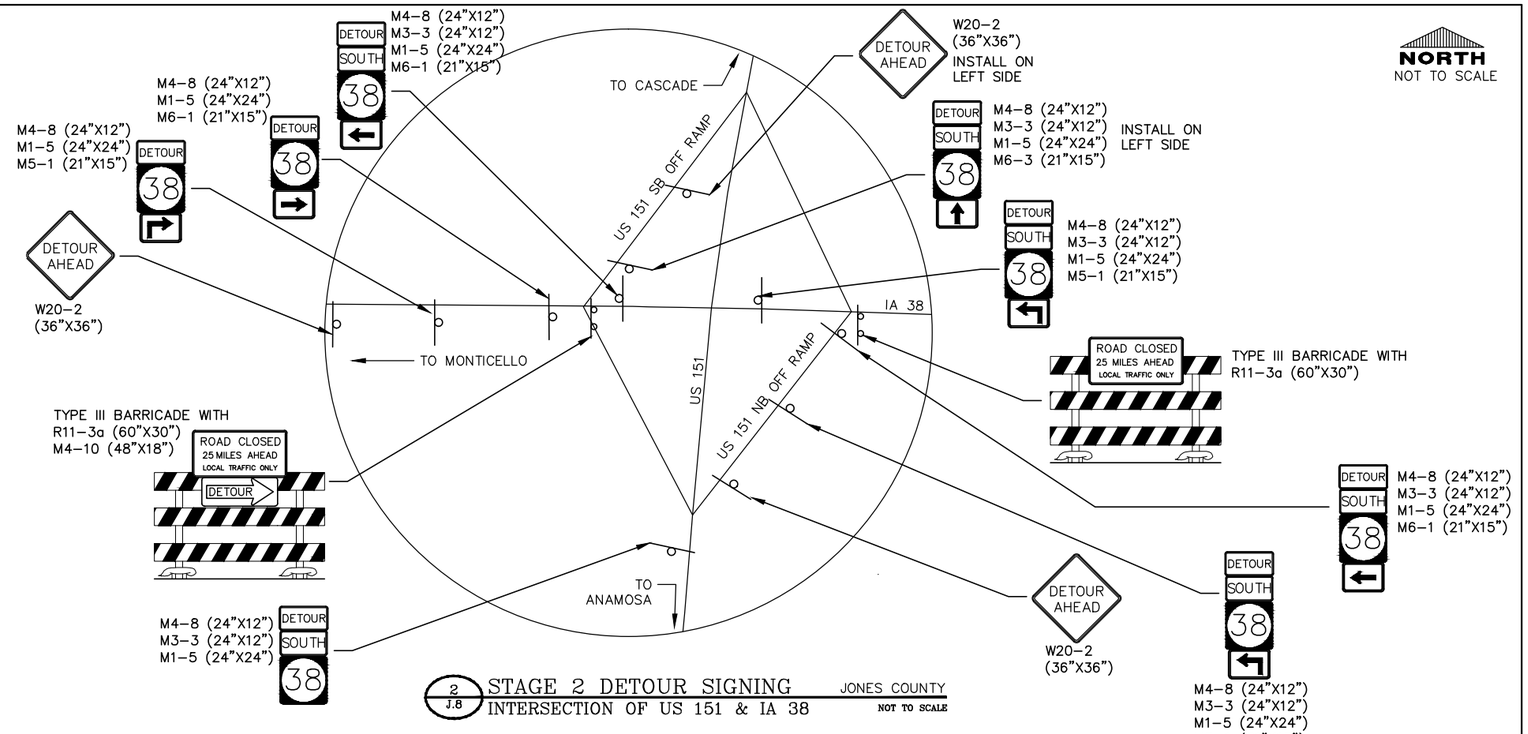
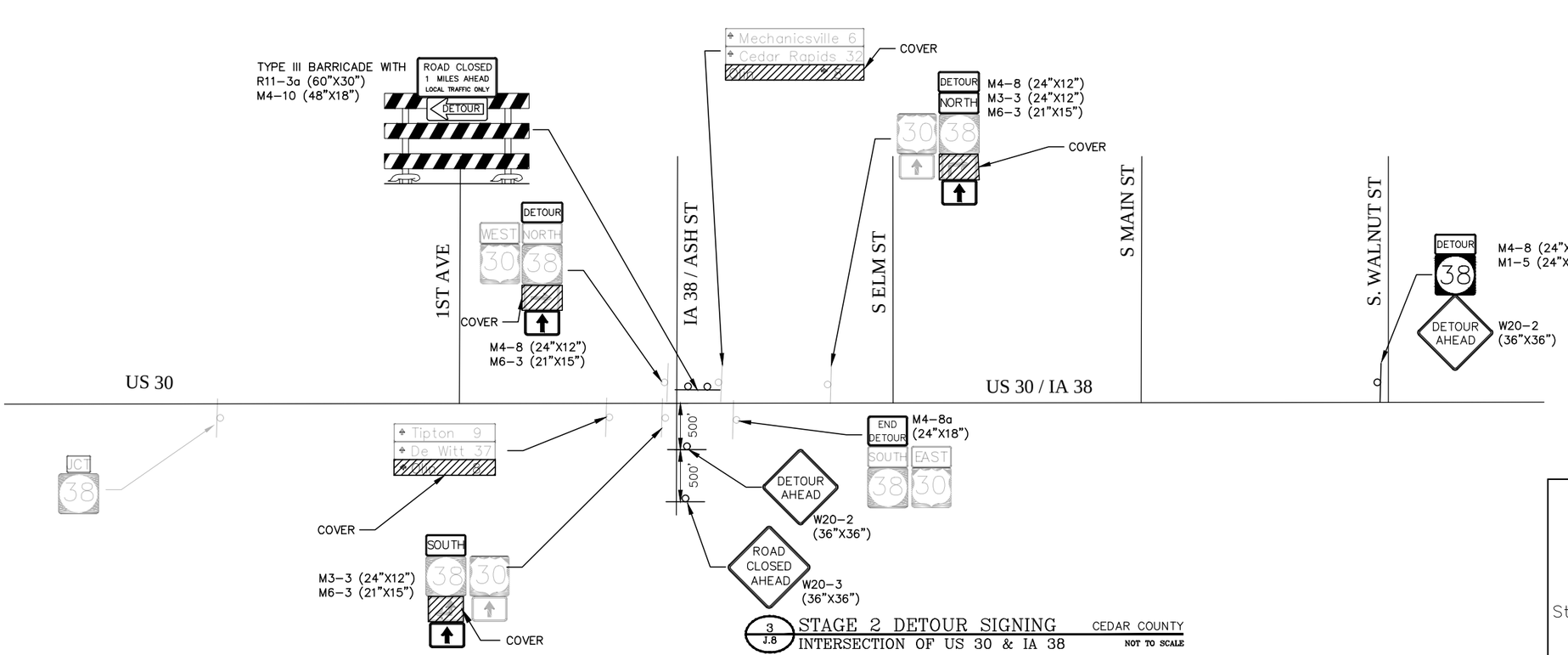
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	J.7	144



2 / J.8 STAGE 2 DETOUR SIGNING — JONES COUNTY
INTERSECTION OF US 151 & IA 38 — NOT TO SCALE



3 / J.8 STAGE 2 DETOUR SIGNING — CEDAR COUNTY
INTERSECTION OF US 30 & IA 38 — NOT TO SCALE

38 EXISTING SIGN, TYPICAL

38 PROPOSED TEMPORARY SIGN, TYPICAL

COVER EXISTING SIGN, TYPICAL

TYPE III BARRICADE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TRAFFIC CONTROL
STAGE 2 DETOUR SIGNING

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: TRACED BY:
DETAILED BY: CHECKED BY:

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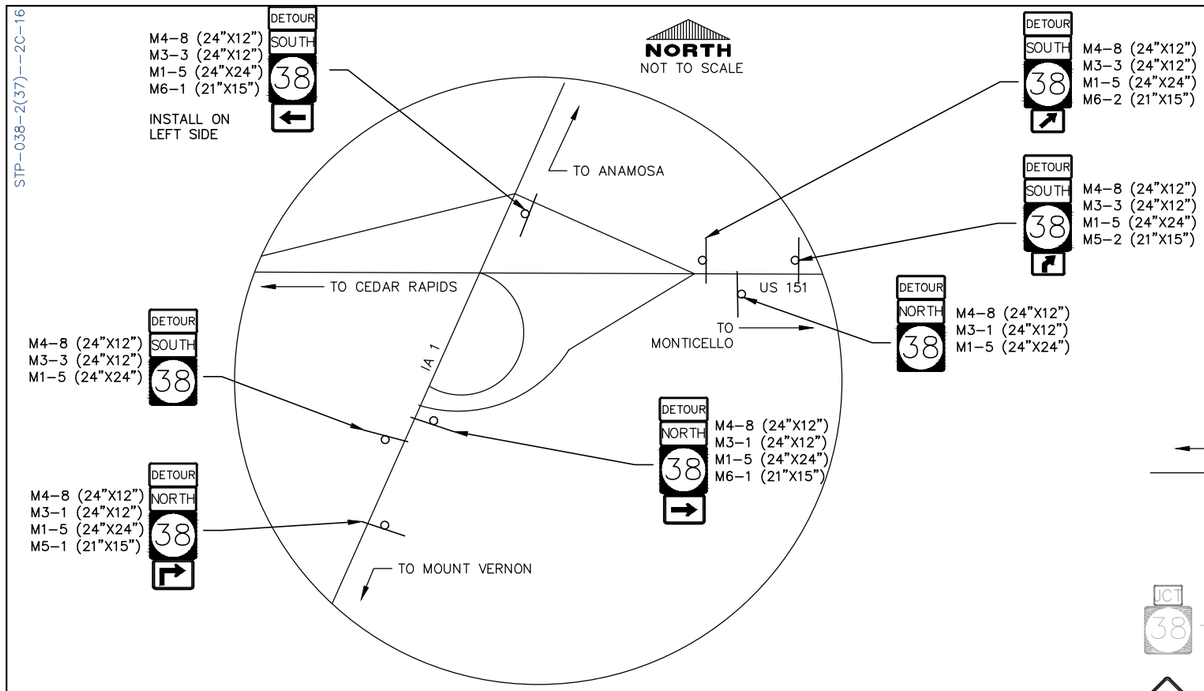
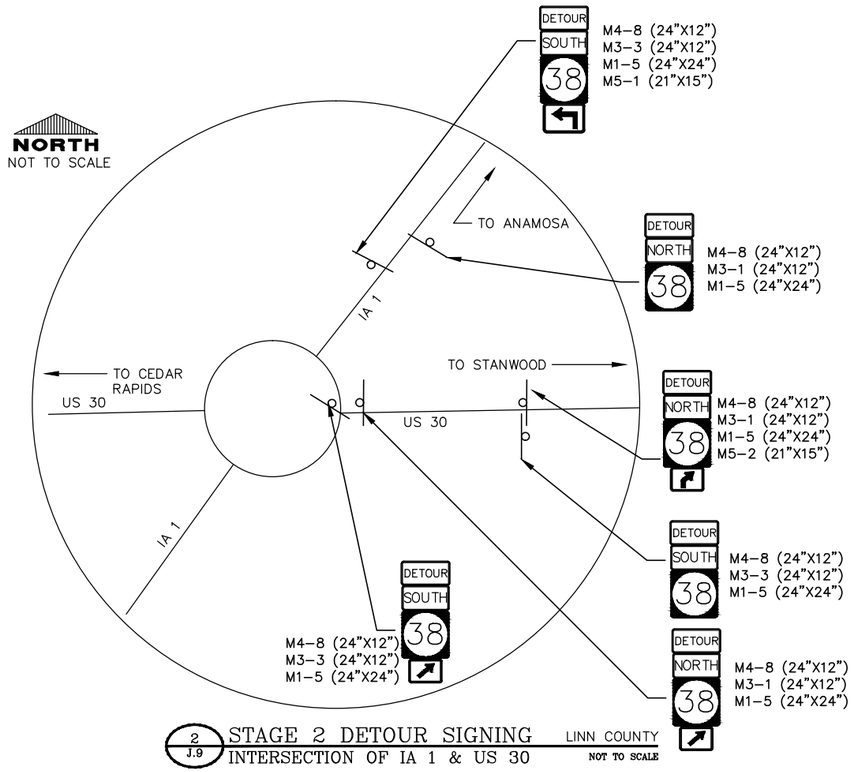
CITY OF STANWOOD, CEDAR COUNTY

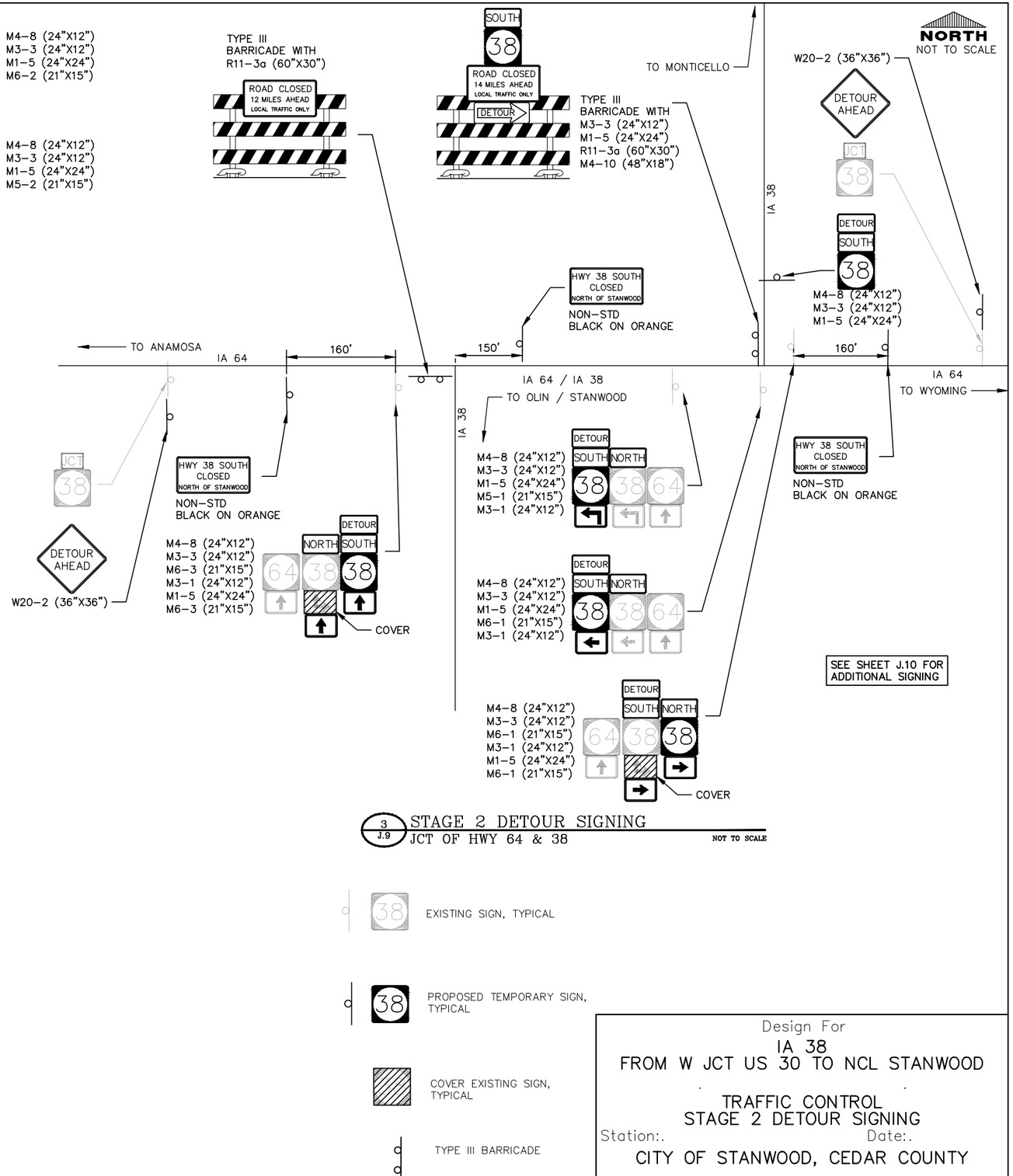
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	J.8	144



1 J.9 STAGE 2 DETOUR SIGNING — JONES COUNTY
INTERSECTION OF IA 1 & US 151 — NOT TO SCALE



2 J.9 STAGE 2 DETOUR SIGNING — LINN COUNTY
INTERSECTION OF IA 1 & US 30 — NOT TO SCALE



3 J.9 STAGE 2 DETOUR SIGNING
JCT OF HWY 64 & 38 — NOT TO SCALE

38 EXISTING SIGN, TYPICAL

38 PROPOSED TEMPORARY SIGN, TYPICAL

COVER EXISTING SIGN, TYPICAL

TYPE III BARRICADE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD
TRAFFIC CONTROL
STAGE 2 DETOUR SIGNING
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

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PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	J.9	144

STP-038-2(37)--2C-16

CONFIRMATION SIGNING (8 LOCATIONS)
M4-8, 24"X12" BLACK ON ORANGE
M3-1 (NORTH) OR M3-3 (SOUTH), 24"X12"
M1-5, 24"X24"

DETOUR NORTH 38 — JONES COUNTY

DETOUR SOUTH 38 — JONES COUNTY

DETOUR NORTH 38 — JONES COUNTY

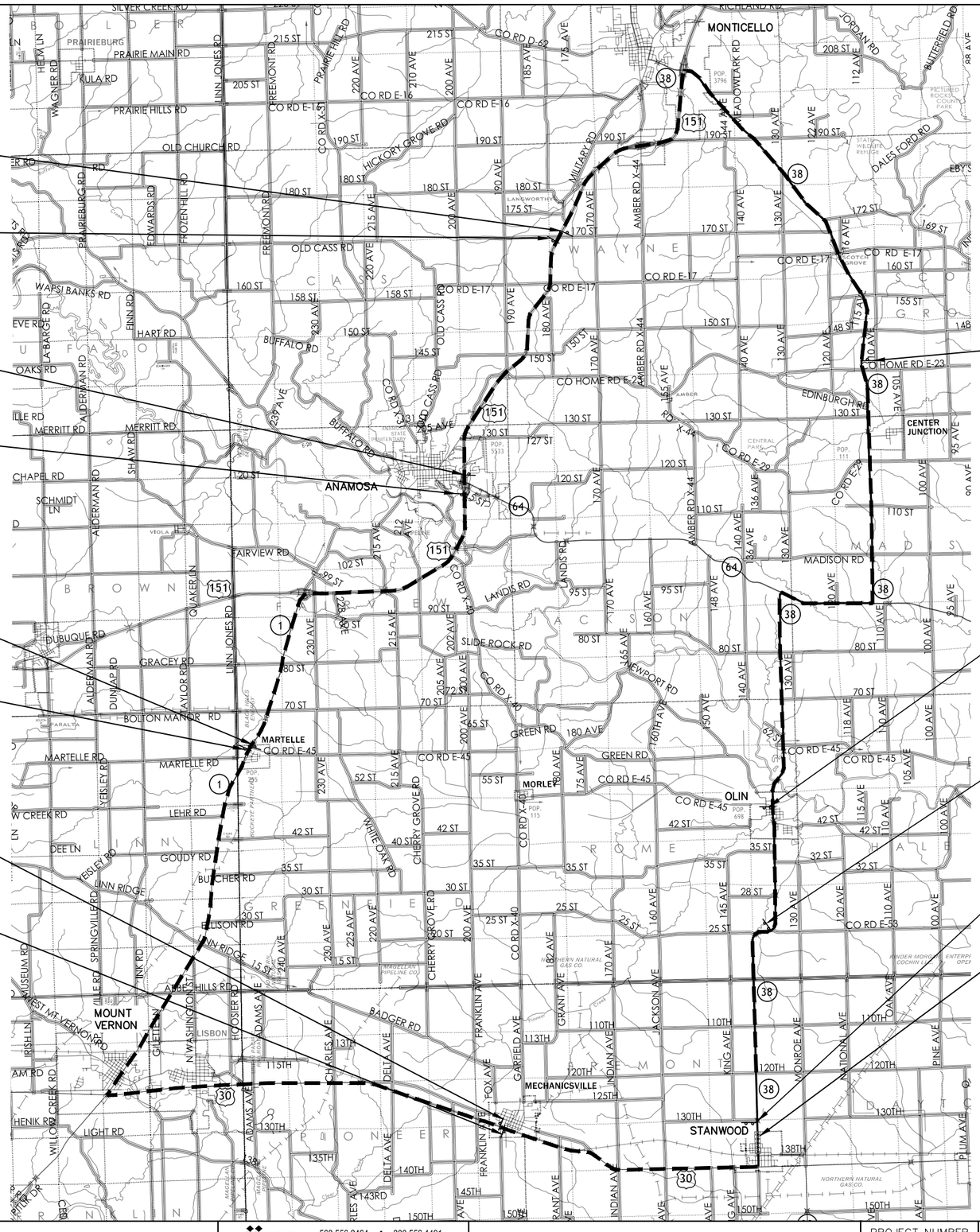
DETOUR SOUTH 38 — JONES COUNTY

DETOUR NORTH 38 — JONES COUNTY

DETOUR SOUTH 38 — JONES COUNTY

DETOUR NORTH 38 — CEDAR COUNTY

DETOUR SOUTH 38 — CEDAR COUNTY



DETOUR SOUTH 38 — CONFIRMATION SIGNING
M4-8, (24"X12")
M3-3 (24"X12")
M1-5 (24"X24")
JONES COUNTY

ROAD CLOSED 7 MILES AHEAD LOCAL TRAFFIC ONLY — TYPE III BARRICADE WITH R11-3a (60"X30") — JONES COUNTY

ROAD CLOSED 4 MILES AHEAD LOCAL TRAFFIC ONLY — TYPE III BARRICADE WITH R11-3a (60"X30") — CEDAR COUNTY

INSTALL STANDARD ROAD PLAN TC-252, ROUTES CLOSED TO TRAFFIC, SITUATION 1, RURAL. (130TH ST. IS LAST PUBLIC ROAD, ROAD CLOSED 0.3 MILES AHEAD)

CONSTRUCTION AREA

38 — PROPOSED TEMPORARY SIGN, TYPICAL

TYPE III BARRICADE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TRAFFIC CONTROL
STAGE 2 DETOUR SIGNING
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

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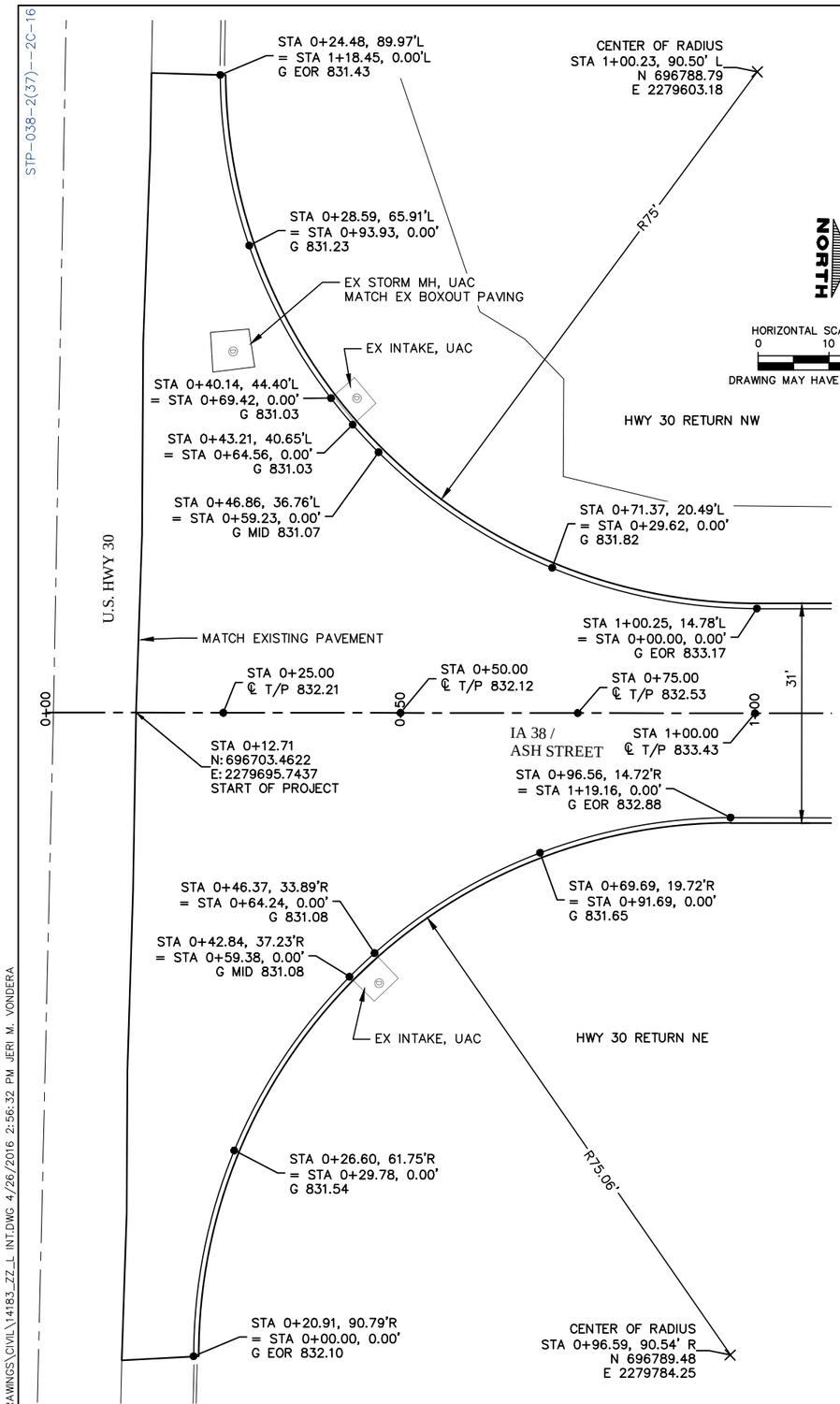
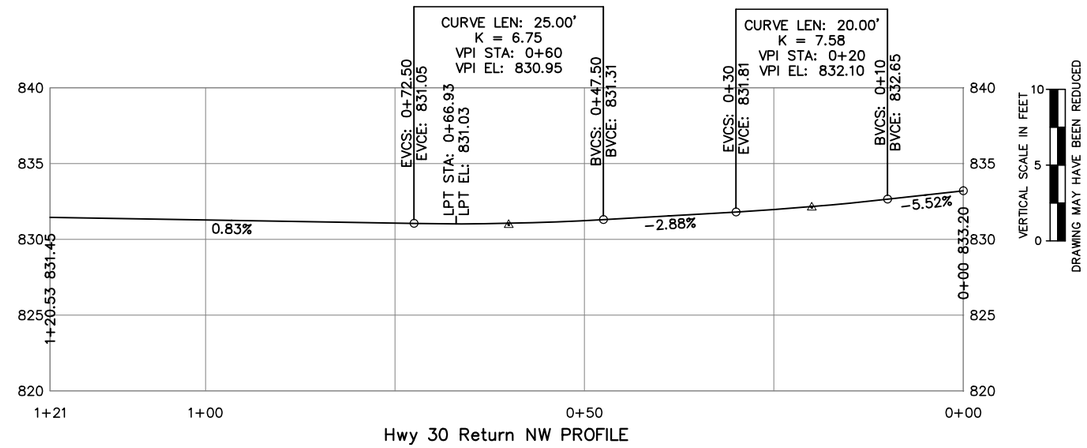
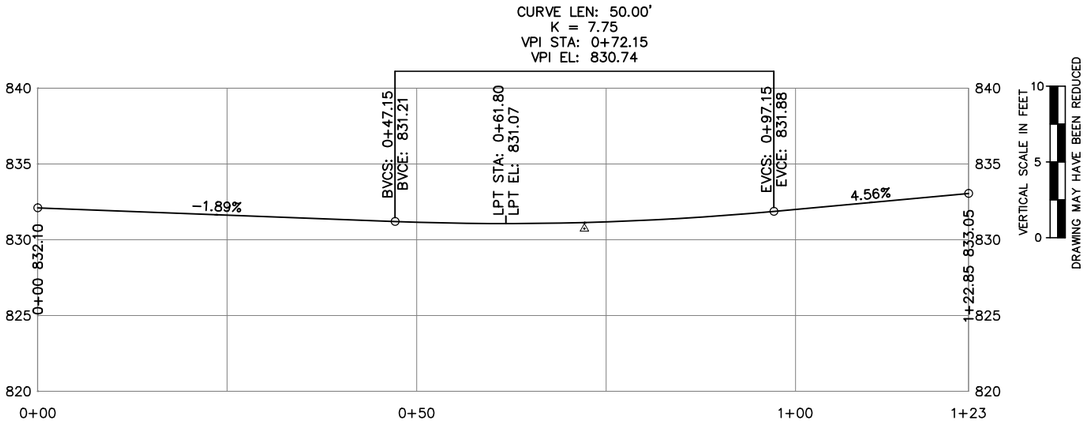
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	J.10	144





Hwy 30 Return NW PROFILE



Hwy 30 Return NE PROFILE

GEOMETRIC, STAKING DETAILS
AND EDGE RETURN PROFILES
INTERSECTION OF
HWY 38 (ASH ST.) AND HWY 30

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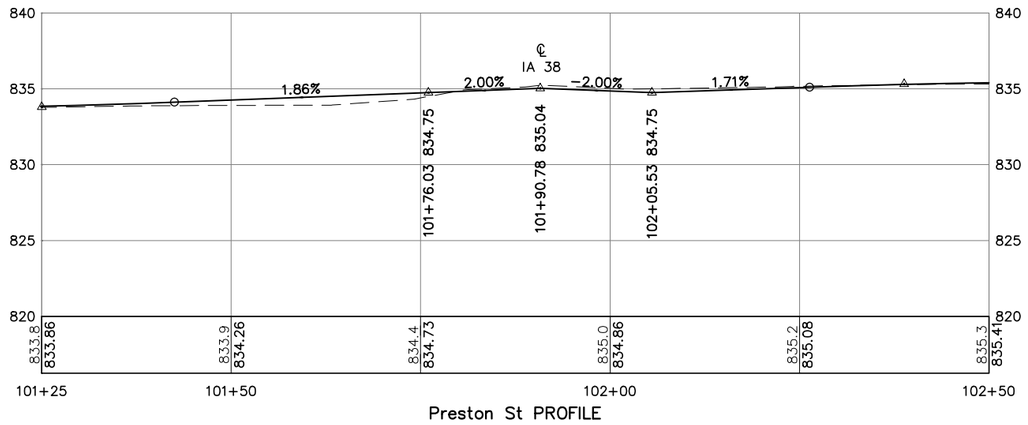
CITY OF STANWOOD, CEDAR COUNTY

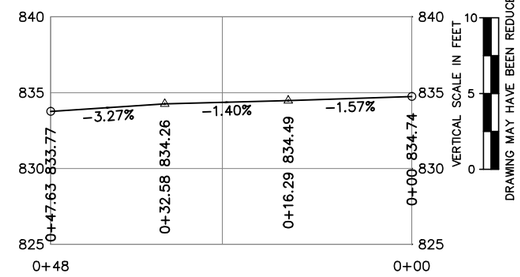
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	L.1	144

SEE SHEET E.2 FOR PRESTON STREET PLAN AND PLAN AND PROFILE

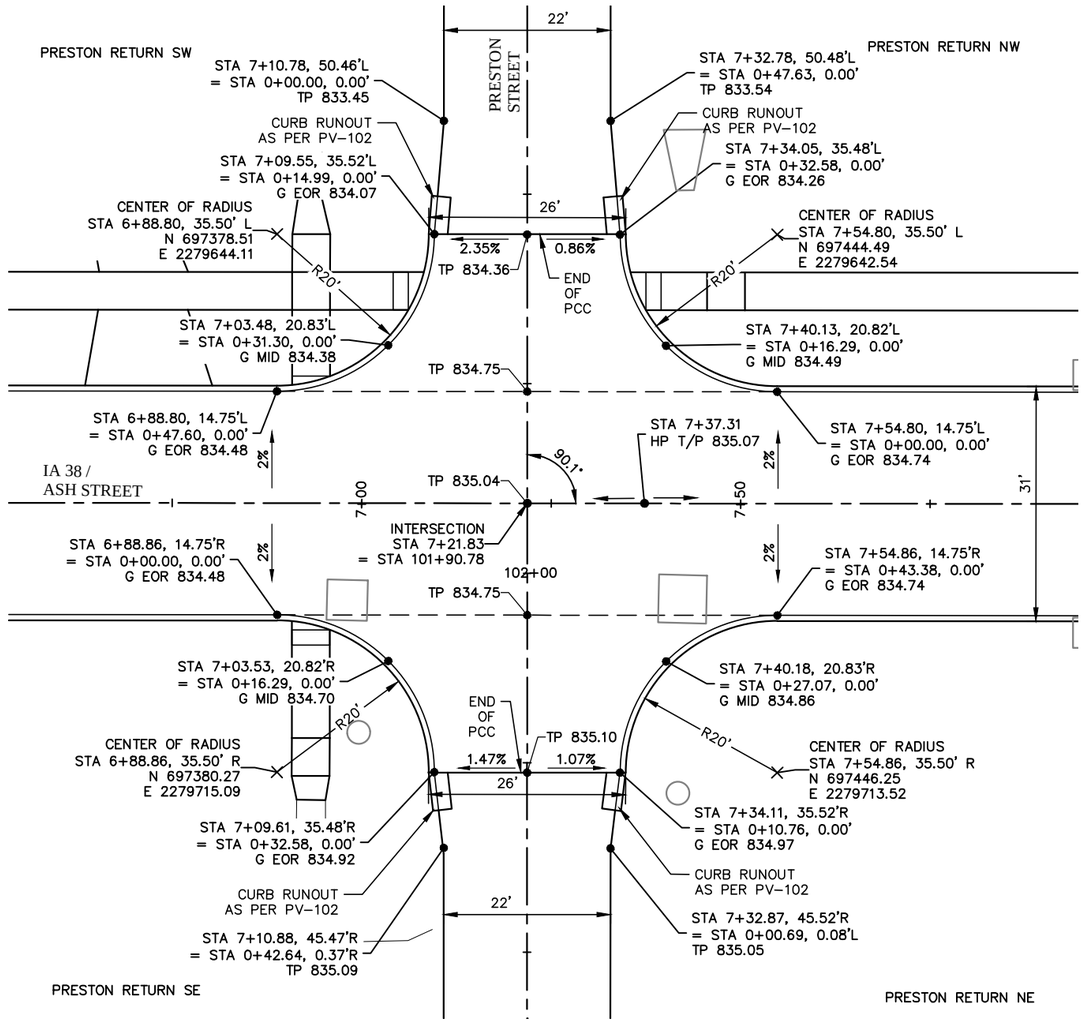
Preston Return SW PROFILE

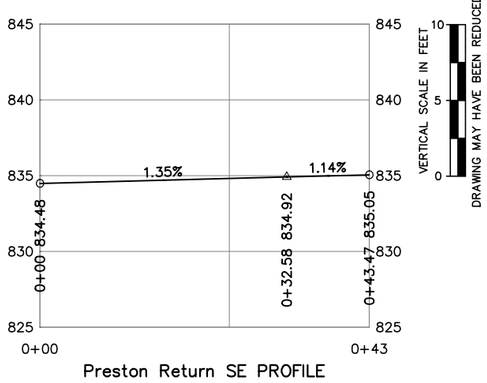


Preston St PROFILE



Preston Return NW PROFILE





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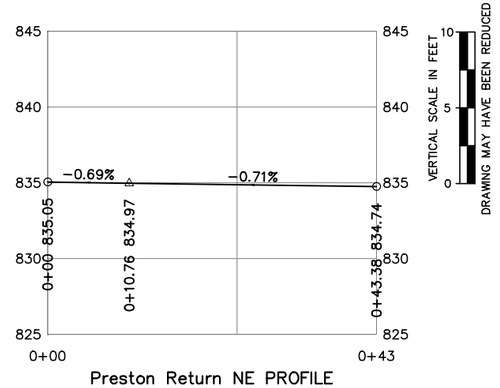

Preston Return NE PROFILE

NORTH

HORIZONTAL SCALE IN FEET
0 10 20
DRAWING MAY HAVE BEEN REDUCED

GEOMETRIC, STAKING DETAILS
AND EDGE RETURN PROFILES
INTERSECTION OF
HWY 38 (ASH ST.) AND PRESTON ST.

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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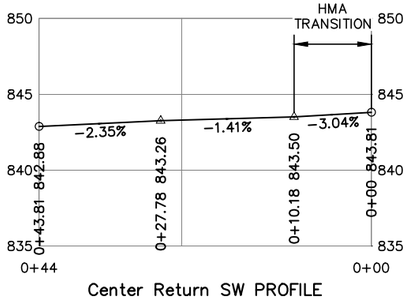
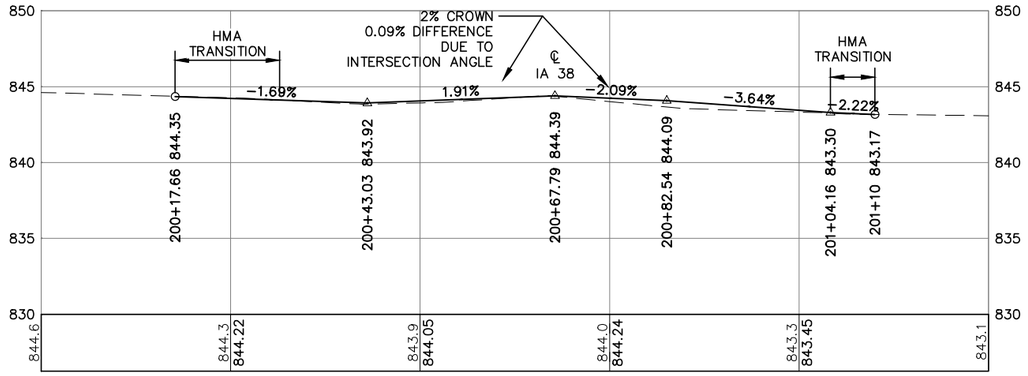
CITY OF STANWOOD, CEDAR COUNTY

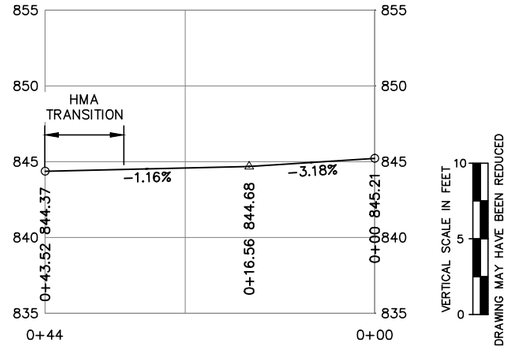
PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		IOWA		2016	L.2	144



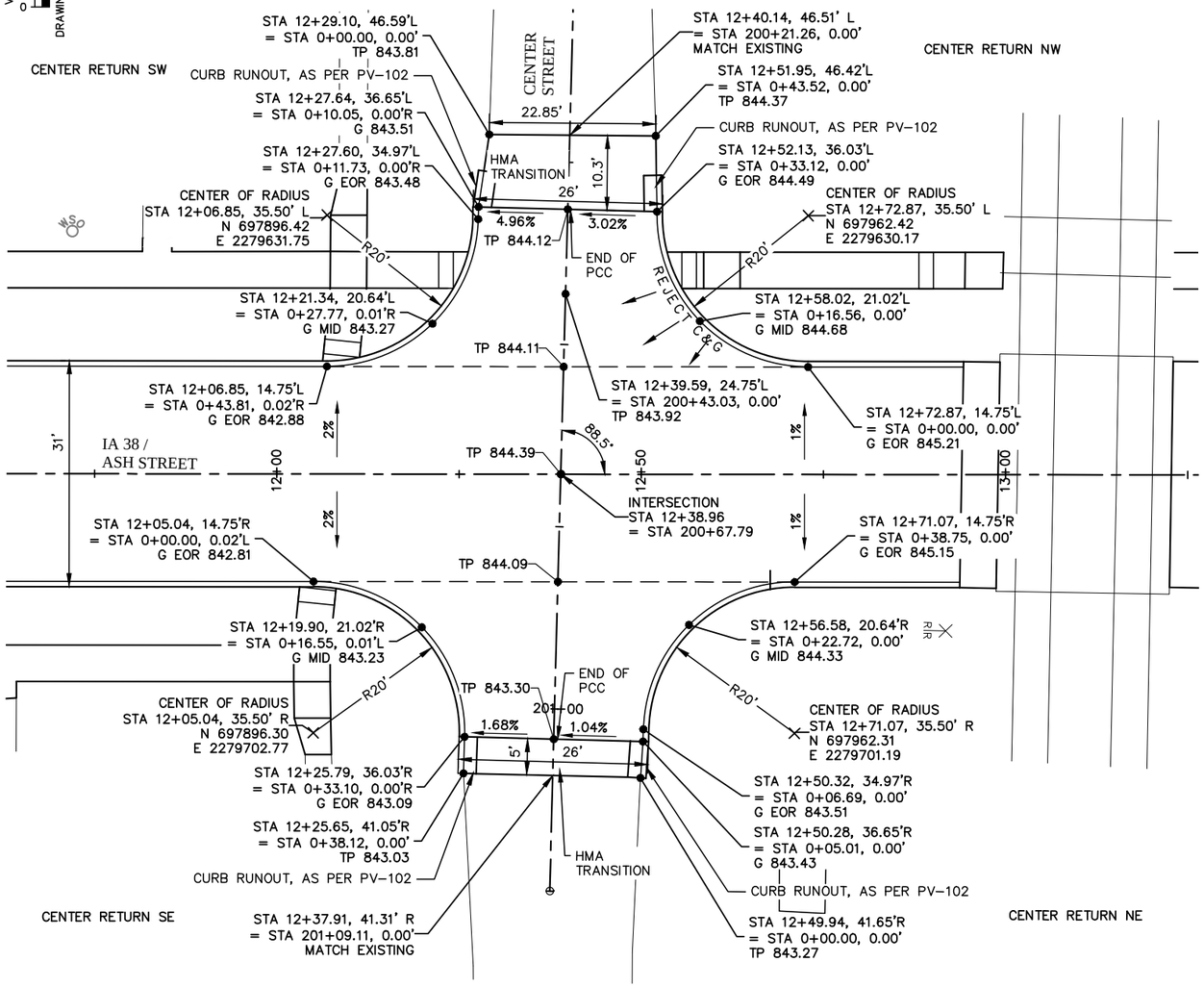
Center Return SW PROFILE

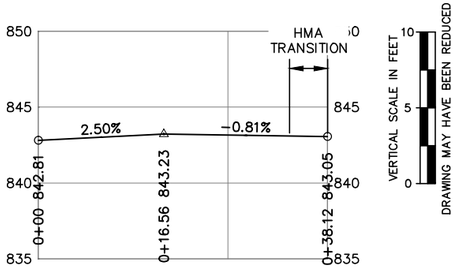


Center St PROFILE

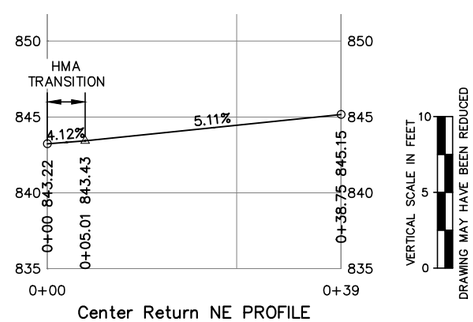


Center Return NW PROFILE





Center Return SE PROFILE



Center Return NE PROFILE

GEOMETRIC, STAKING DETAILS AND EDGE RETURN PROFILES INTERSECTION OF HWY 38 (ASH ST.) AND CENTER ST.

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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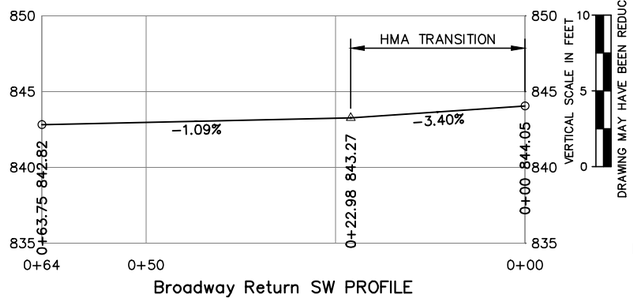
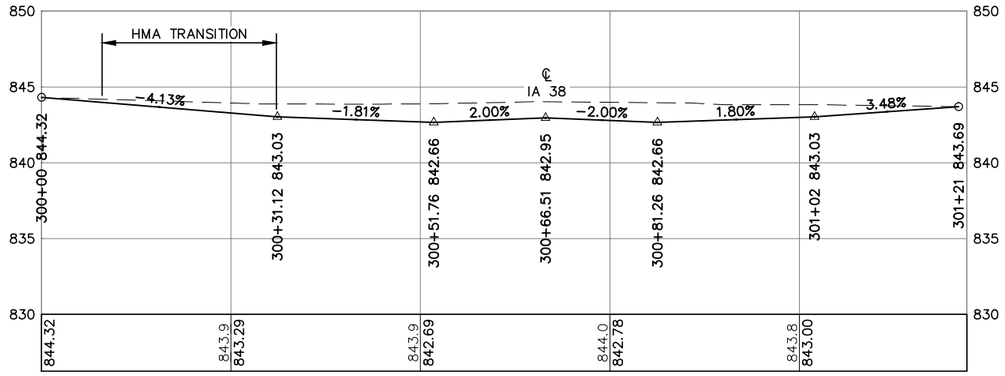
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	L.3	144

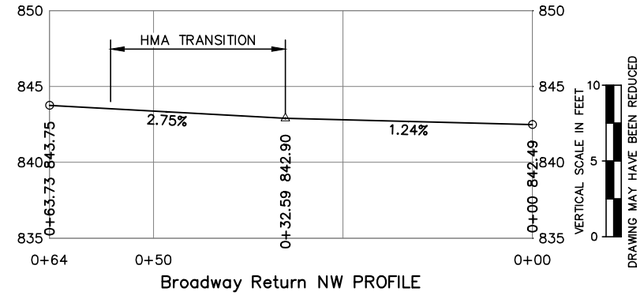
STP-038-2(37)--2C-16



Broadway Return SW PROFILE



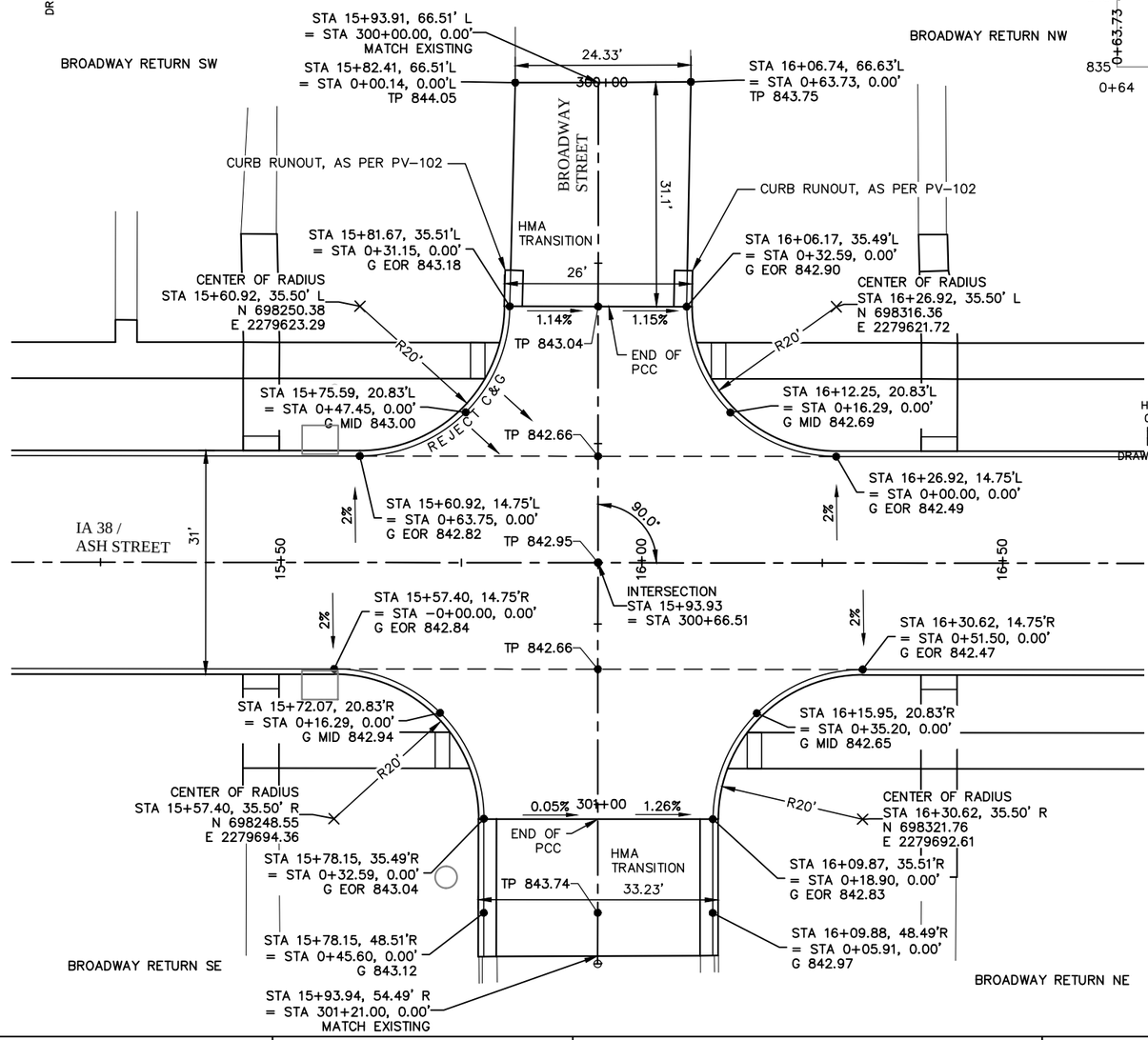
Broadway St PROFILE



Broadway Return NW PROFILE

BROADWAY RETURN SW

BROADWAY RETURN NW

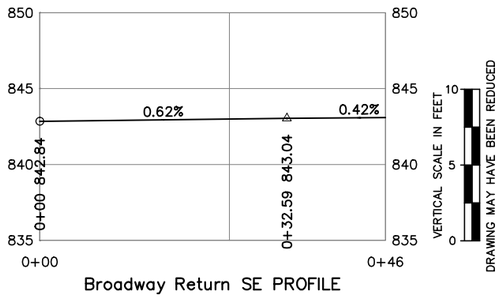


BROADWAY RETURN SE

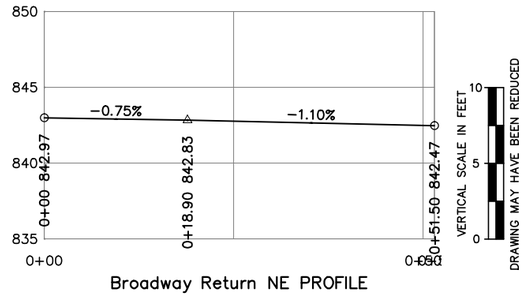
BROADWAY RETURN NE

NORTH

HORIZONTAL SCALE IN FEET
0 10 20
DRAWING MAY HAVE BEEN REDUCED



Broadway Return SE PROFILE



Broadway Return NE PROFILE

GEOMETRIC, STAKING DETAILS
AND EDGE RETURN PROFILES
INTERSECTION OF
HWY 38 (ASH ST.) AND BROADWAY ST.

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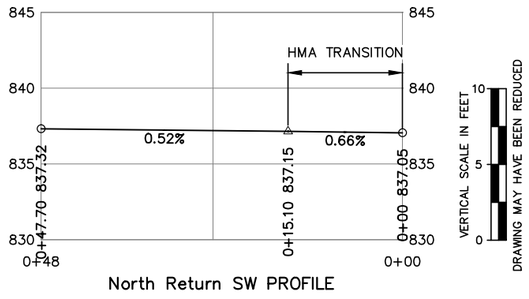
CITY OF STANWOOD, CEDAR COUNTY

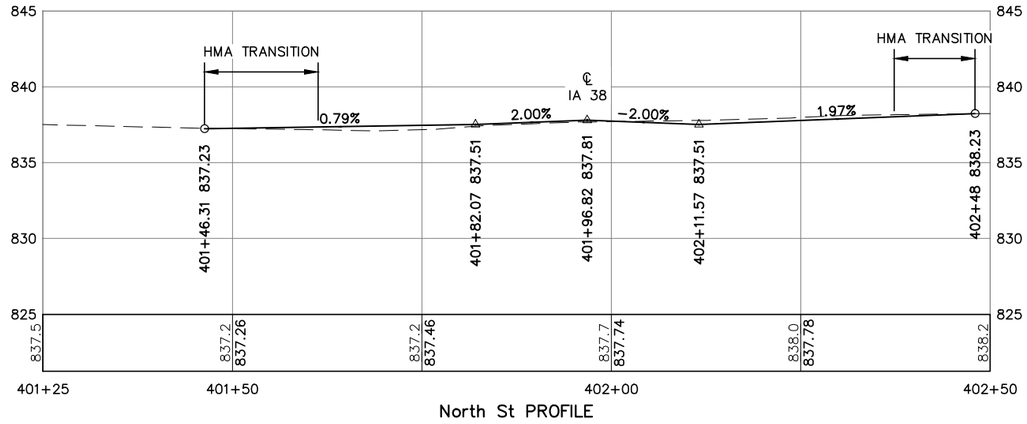
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	L.4	144

HORIZONTAL SCALE IN FEET
0 10 20
DRAWING MAY HAVE BEEN REDUCED

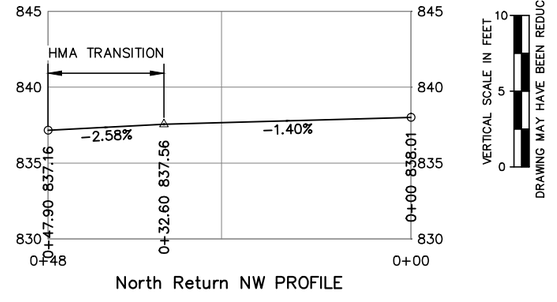
NORTH



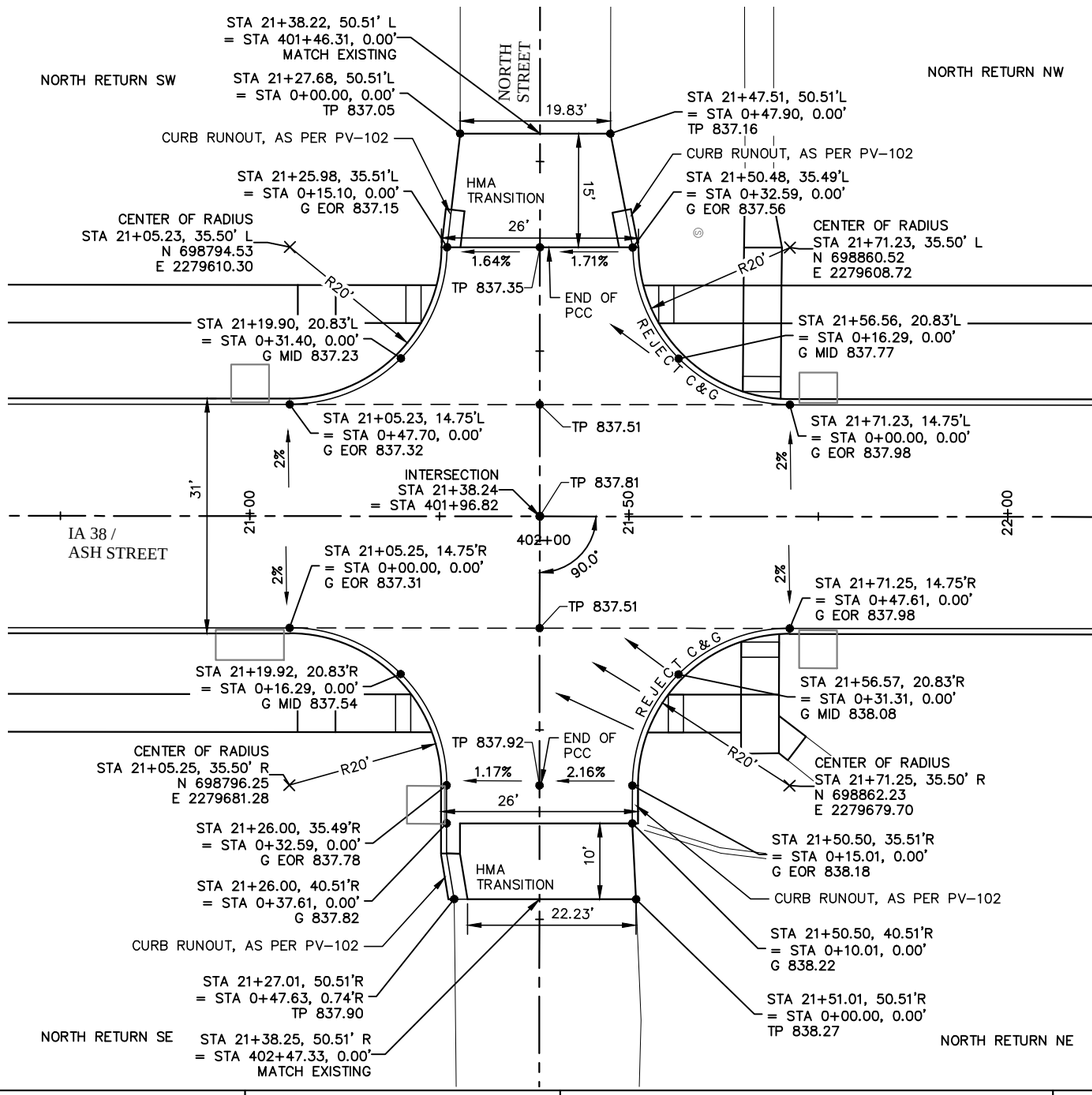
North Return SW PROFILE

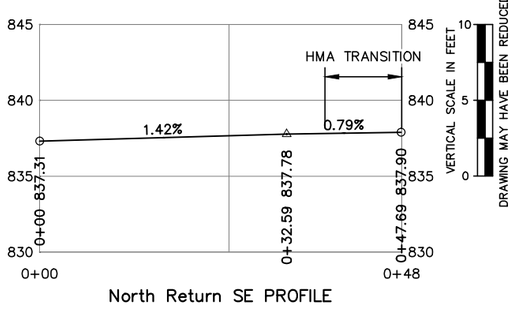


North St PROFILE

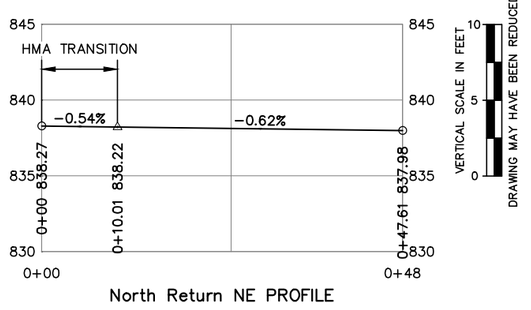


North Return NW PROFILE





North Return SE PROFILE



North Return NE PROFILE

GEOMETRIC, STAKING DETAILS
AND EDGE RETURN PROFILES
INTERSECTION OF
HWY 38 (ASH ST.) AND NORTH ST.

DESIGNED BY: _____ TRACED BY: _____
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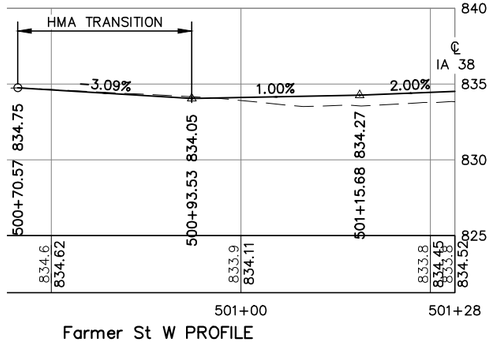
CITY OF STANWOOD, CEDAR COUNTY

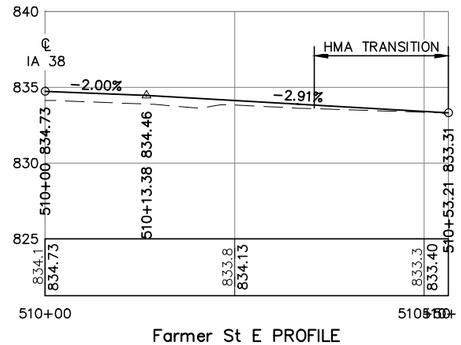
PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		IOWA		2016	L.5	144

HORIZONTAL SCALE IN FEET
0 10 20
DRAWING MAY HAVE BEEN REDUCED

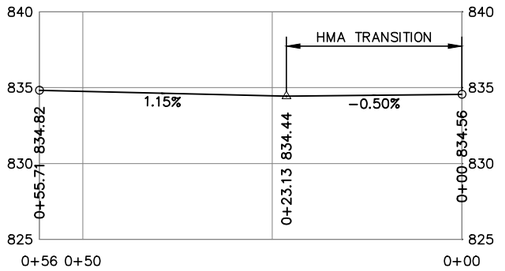
NORTH



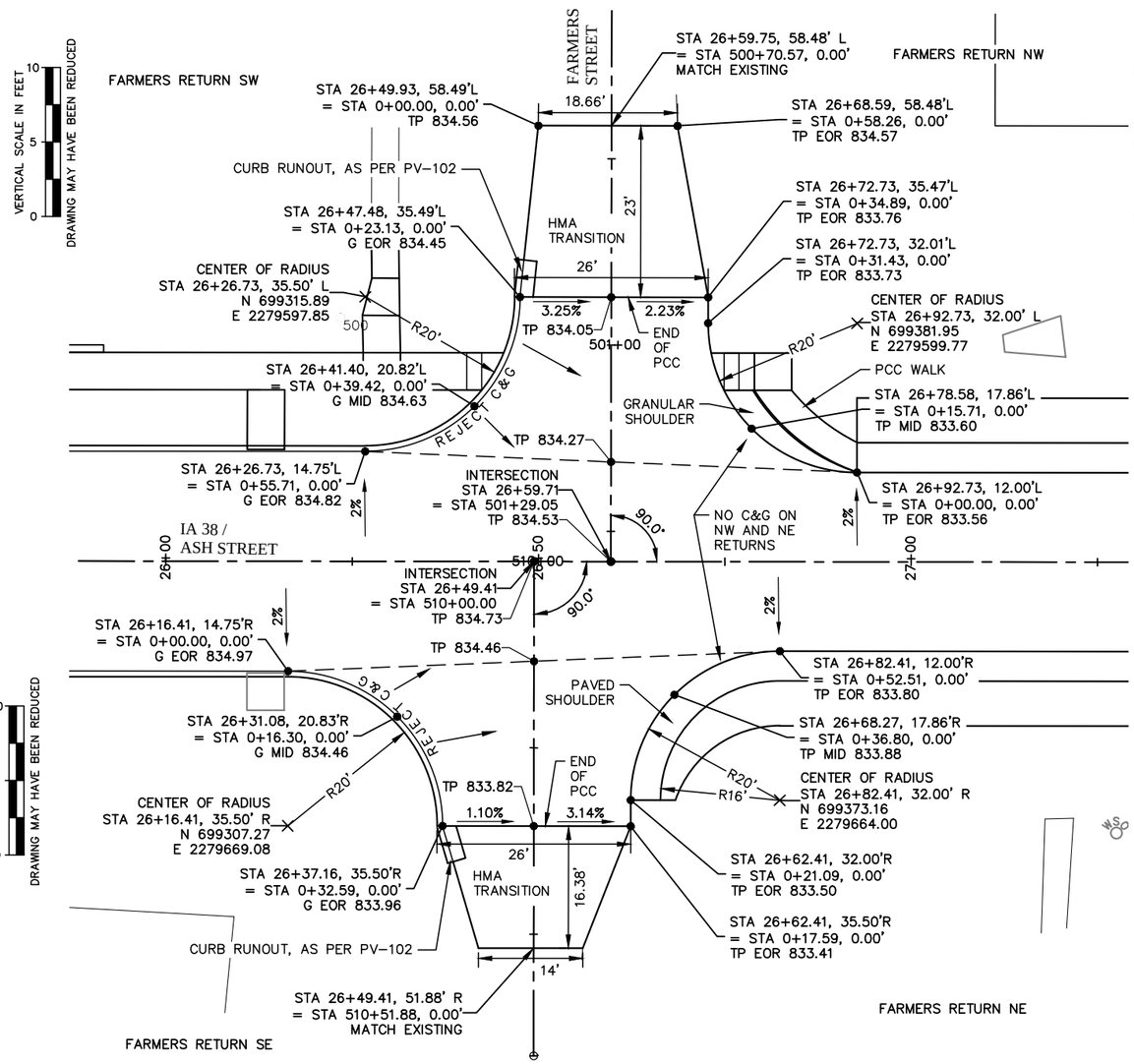
Farmer St W PROFILE

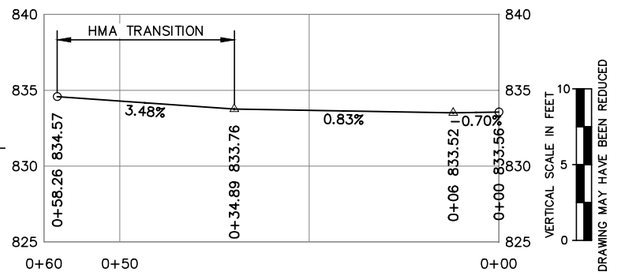


Farmer St E PROFILE



Farmer Return SW PROFILE





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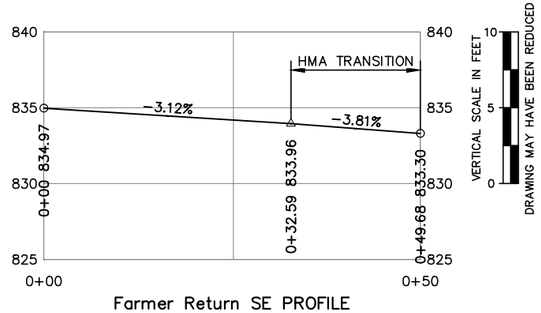

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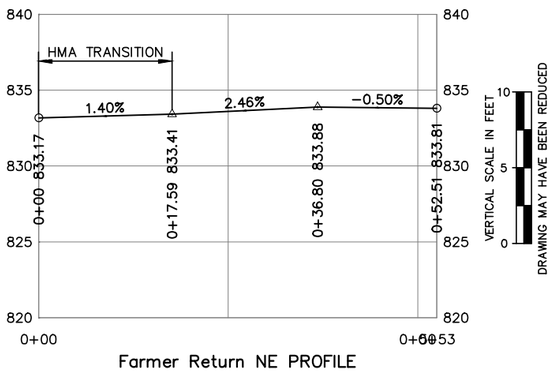

Farmer Return NE PROFILE

GEOMETRIC, STAKING DETAILS
AND EDGE RETURN PROFILES
INTERSECTION OF
HWY 38 (ASH ST.) AND FARMERS ST.

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

iiw
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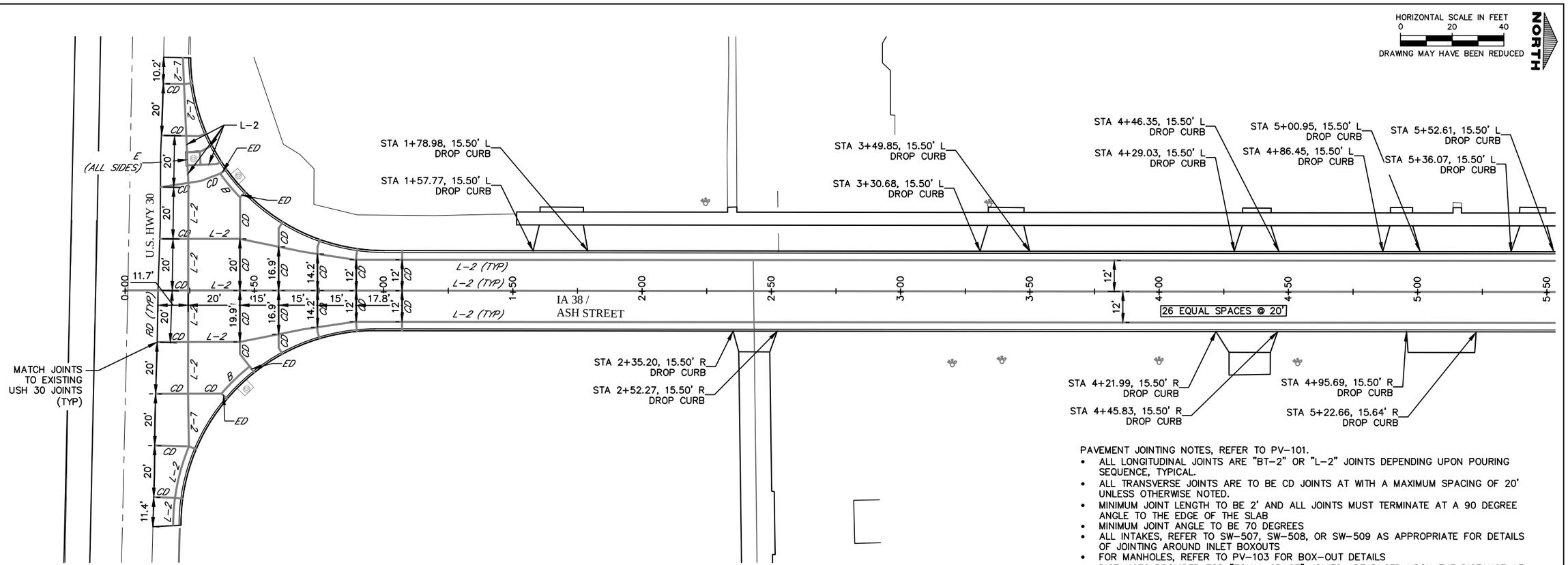
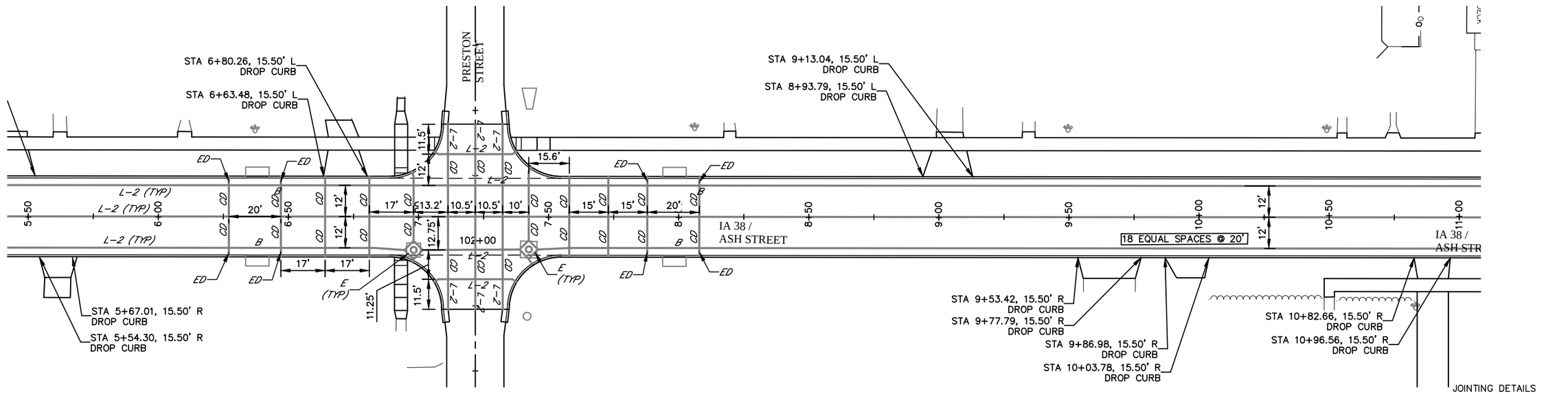
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	L.6	144



PAVEMENT JOINTING NOTES, REFER TO PV-101.

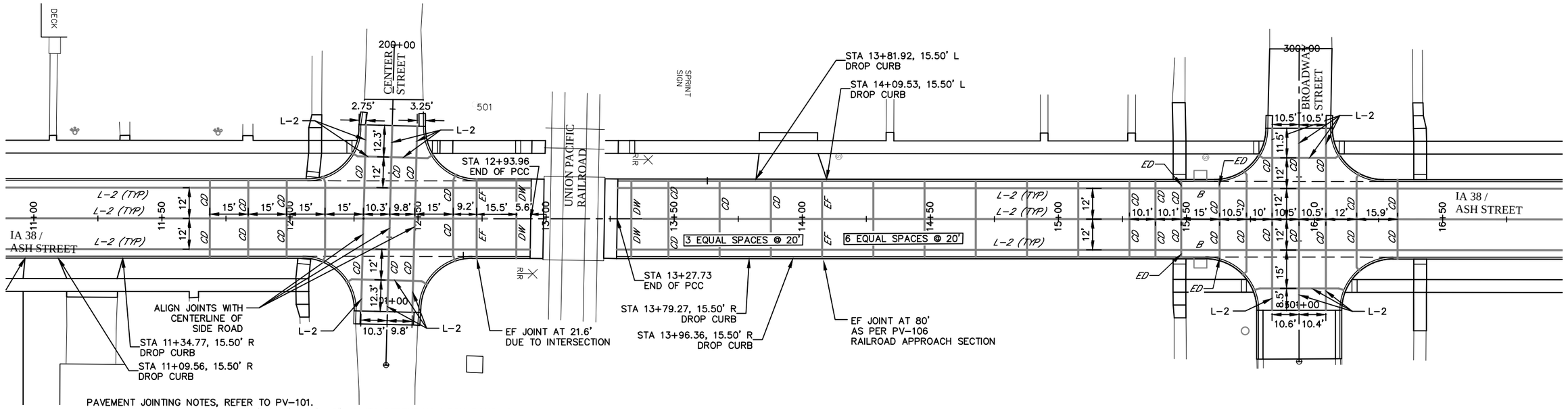
- ALL LONGITUDINAL JOINTS ARE "BT-2" OR "L-2" JOINTS DEPENDING UPON POURING SEQUENCE, TYPICAL.
- ALL TRANSVERSE JOINTS ARE TO BE CD JOINTS AT WITH A MAXIMUM SPACING OF 20' UNLESS OTHERWISE NOTED.
- MINIMUM JOINT LENGTH TO BE 2' AND ALL JOINTS MUST TERMINATE AT A 90 DEGREE ANGLE TO THE EDGE OF THE SLAB
- MINIMUM JOINT ANGLE TO BE 70 DEGREES
- ALL INTAKES, REFER TO SW-507, SW-508, OR SW-509 AS APPROPRIATE FOR DETAILS OF JOINTING AROUND INLET BOXOUTS
- FOR MANHOLES, REFER TO PV-103 FOR BOX-OUT DETAILS
- DISTANCES PROVIDED FOR "EQUAL SPACE" JOINTS ARE BASED UPON THE DISTANCE AT THE CENTERLINE



JOINTING DETAILS
HWY 38 (ASH ST.)
STA 0+12.72 TO 11+00

DESIGNED BY:	TRACED BY:	iiw 563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:					IOWA		2016	L.7	144

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED
NORTH



PAVEMENT JOINTING NOTES, REFER TO PV-101.

- ALL LONGITUDINAL JOINTS ARE "BT-2" OR "L-2" JOINTS DEPENDING UPON POURING SEQUENCE, UNLESS OTHERWISE NOTED
- ALL TRANSVERSE JOINTS ARE TO BE CD JOINTS AT WITH A MAXIMUM SPACING OF 20' UNLESS OTHERWISE NOTED.
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- ALL INTAKES, REFER TO SW-507, SW-508, OR SW-509 AS APPROPRIATE FOR DETAILS OF JOINTING AROUND INLET BOXOUTS
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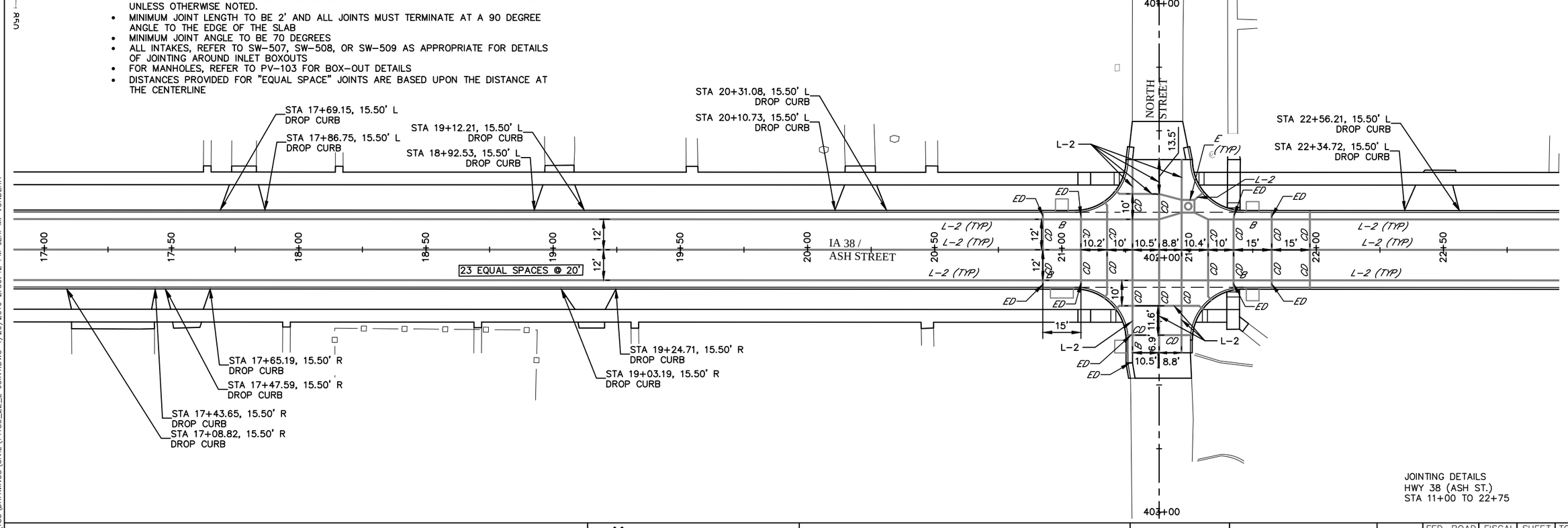
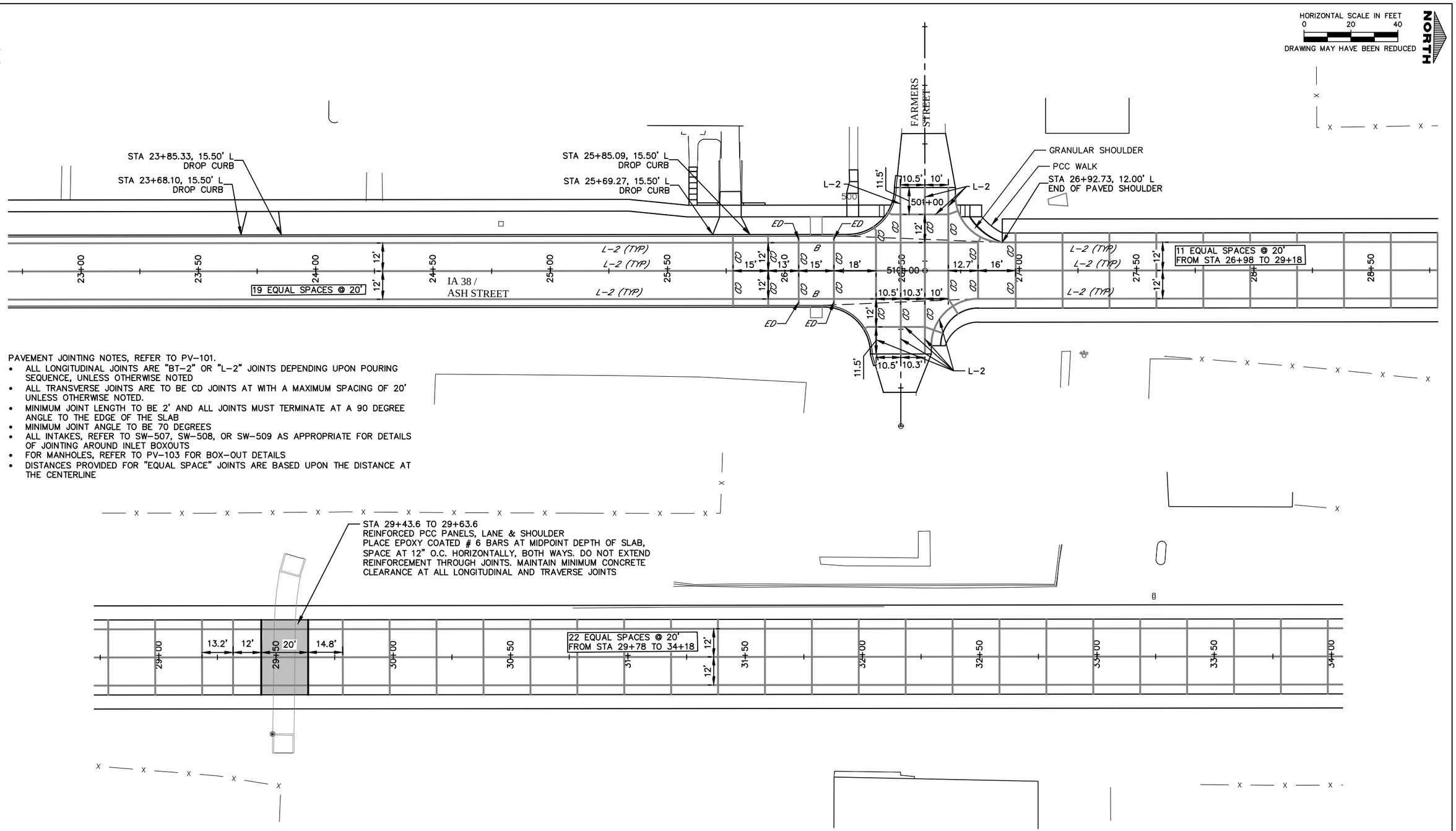


JOINTING DETAILS
HWY 38 (ASH ST.)
STA 11+00 TO 22+75

DESIGNED BY:	TRACED BY:	iiw 563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:					IOWA		2016	L.8	144



PAVEMENT JOINTING NOTES, REFER TO PV-101.

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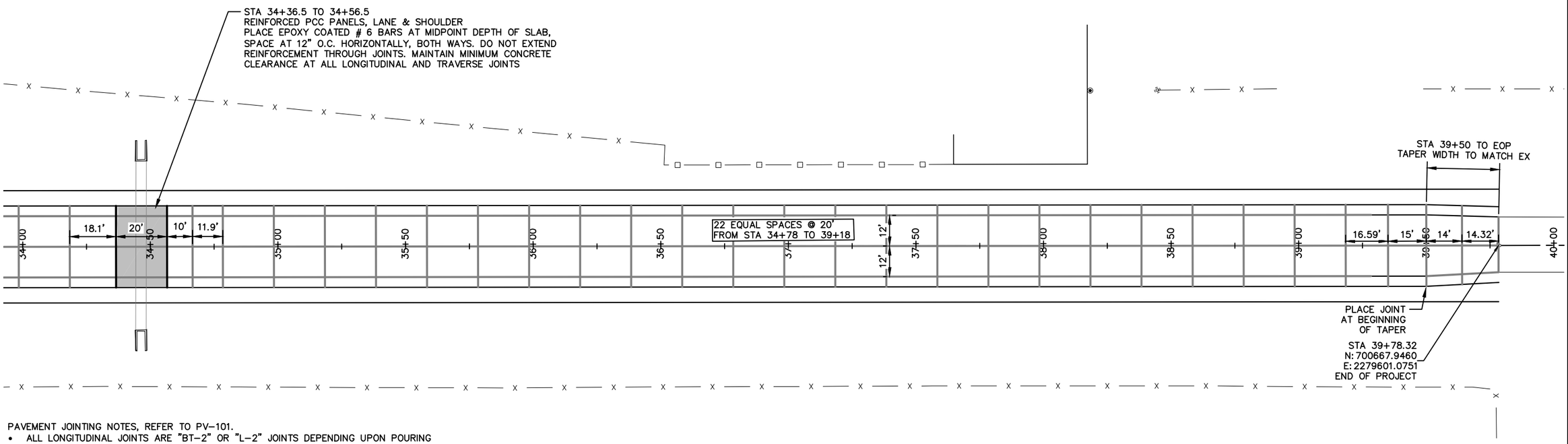
- FOR MANHOLES, REFER TO PV-103 FOR BOX-OUT DETAILS
- DISTANCES PROVIDED FOR "EQUAL SPACE" JOINTS ARE BASED UPON THE DISTANCE AT THE CENTERLINE

JOINTING DETAILS
HWY 38 (ASH ST.)
STA 22+75 TO 34+00

DESIGNED BY:	TRACED BY:	iiw 563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:					IOWA		2016	L.9	144

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED

NORTH



PAVEMENT JOINTING NOTES, REFER TO PV-101.

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- FOR MANHOLES, REFER TO PV-103 FOR BOX-OUT DETAILS
- DISTANCES PROVIDED FOR "EQUAL SPACE" JOINTS ARE BASED UPON THE DISTANCE AT THE CENTERLINE

JOINTING DETAILS
HWY 38 (ASH ST.)
STA 34+00 TO 39+78.32

DESIGNED BY:	TRACED BY:	iiw	563.556.2464 ◆ 800.556.4491	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:		IIW, P.C. ◆ www.iiwengr.com				IOWA		2016	L.10	144

STORM SEWER

(1) Diameter or equivalent diameter

* Bid Item

** For SW-545

INTAKES AND UTILITY ACCESSES

No.	Location Station and Offset	*Type or Standard Road Plan	Form Grade Elev.	Bottom Well Elev.	Extension Length** FT	Notes
IN-100	6+38.06, 15.5' L	SW-509	834.21	831.49		
IN-101	6+38.06, 15.5' R	SW-509	834.21	831.31		
JB-102	6+98.1, 12.81' R	SW 402, 48"X48"	834.62	831.1		
JB-104	7+42.35, 12.59' R	SW-402, 60"X60"	834.85	830.93		
APRON106	7+42.56, 49.33' L	DR-202, 37"X23"				
IN-103	6+99.60, 30.26' R	SW-512	834.5	831.5		
IN-108	7+41.75, 38.23' R	SW-512	834	831.5		
IN-106	7+98.37, 15.5' L	SW-509	834.54	831.44		
IN-105	7+98.37, 15.5' R	SW-509	834.54	831.19		
IN-200	15+55.43, 15.5' L	SW-507	842.85	840.37		
IN-201	15+55.43, 15.5' R	SW-507	842.85	840.18		
IN-202	15+72.91, 43.59' R	SW-512	843.68	840.07		
IN-300	21+00, 15.50' L	SW-508	837.31	834.47		
IN-301	21+00, 15.50' R	SW-509	837.31	834.07		
IN-305	21+25.25, 38.08' R	SW-508 MOD	837.8	833.43		
IN-304	21+75.0, 15.50' R	SW-507	838.04	833.06		
IN-400	26+13.41, 15.50' R	SW-507	835.02	830.79		
IN-401	26+13.41, 15.50' L	SW-510 MOD	835.02	830.31		
APRON402	27+20, 30' L	DR-202				
IN-303	21+75.0, 15.50' L	SW-507	838.04	834.07		
		Total:				
		DR-202	1			
		DR-202, 37"X23"	1			
		SW 402, 48"X48"	1			
		SW-402, 60"X60"	1			
		SW-507	5			
		SW-508	1			
		SW-508 MOD	1			
		SW-509	5			
		SW-510 MOD	1			
		SW-512	3			

PIPES

Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 3 ft length is added to each side of the Design Length to account for estimated length to center of structures (Except at DR-201 and SW-512).

Line Number	Intake/Utility Access No. From	To	Class 'D'	Pipe Size (1) IN	Bid* Length FT	Design Length FT	Slope %	Connected Pipe Joint (DR-121) Type	Flow Lines Inlet Elevation	Outlet Elevation	Other Elevation	Pipe Profile Sheet No.	Notes
P-106	IN-100	IN-101	2000	15	37	31.0	0.3	1	831.49	831.4		M.3	
P-104	IN-101	JB-102	2000	18	60	54.4	0.3	1	831.31	831.15		M.3	
P-103	JB-102	JB-104	2000	24	47	40.7	0.3	1	831.1	830.98		M.3	
P-101	JB-104	APRON106	2000	30	55	52.4	0.3	3	830.93	830.75		M.3	RCAP 37"X23"X52.4'
P-105	IN-103	JB-102	2000	15	19	16.0	0.625	1	831.5	831.4		M.3	
P-102	IN-108	JB-104	2000	18	30	24.0	0.833	1	831.5	831.3		M.3	
P-108	IN-106	IN-105	2000	18	37	31.0	0.496	1	831.44	831.29		M.3	
P-107	IN-105	JB-104	2000	18	56	50.4	0.425	1	831.19	830.98		M.3	
P-202	IN-200	IN-201	2000	18	37	31.0	0.3	1	840.37	840.28		M.3	RCAP 22"X14"X31'
P-201	IN-201	IN-202	2000	18	34	31.1	0.325	1	840.18	840.07		M.3	
P-306	IN-300	IN-301	2000	15	37	31.0	0.5	1	834.47	834.32		M.4	
P-304	IN-301	IN-305	2000	18	36	30.0	0.478	1	834.07	833.92		M.4	
P-305	IN-305	IN-304	2000	24	59	52.6	0.5	1	833.43	833.16		M.4	
P-307	IN-304	IN-400	2000	24	441	434.8	0.5	1	833.06	830.89		M.4	
P-402	IN-400	IN-401	2000	24	37	31.3	0.5	1	830.79	830.63		M.5	
P-401	IN-401	APRON402	2000	36	101	97.9	0.3	3	830.31	830.01		M.5	44"X27"X98'
P-308	IN-303	IN-304	2000	15	37	31.0	0.5	1	834.07	833.91		M.4	
			Total:										
			2000	15	130								
			2000	18	290	**253 LF 18", AND 37 LF LOW CLEARANCE CONC PIPE EQIV DIA 18"**							
			2000	24	583								
			2000	30	55								
			2000	36	101								

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

TABULATIONS

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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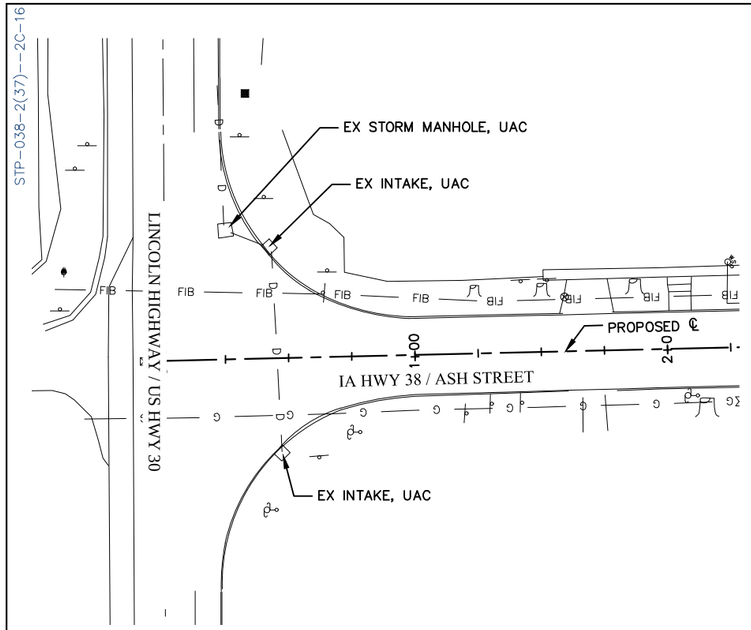
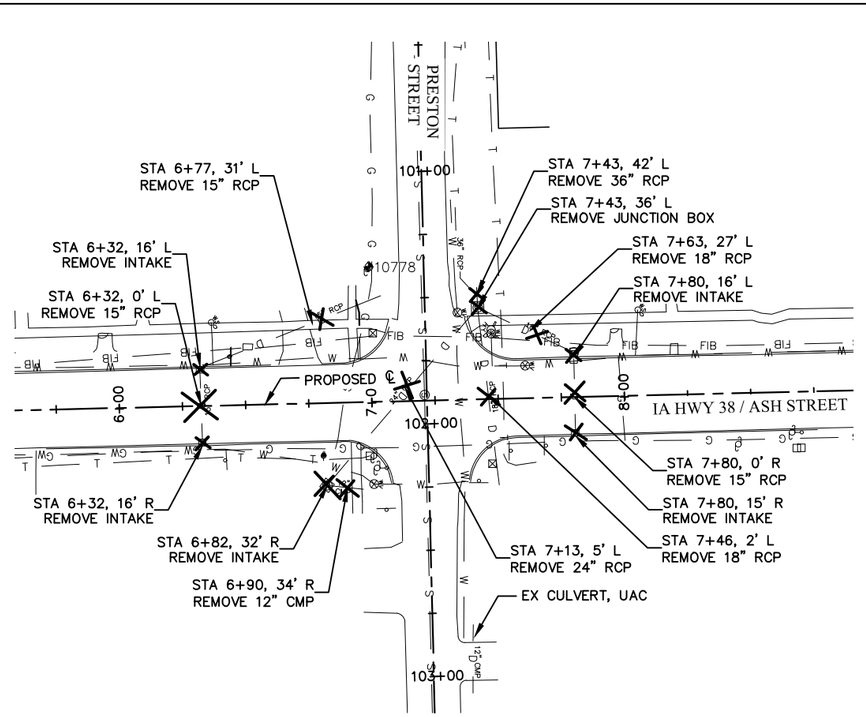
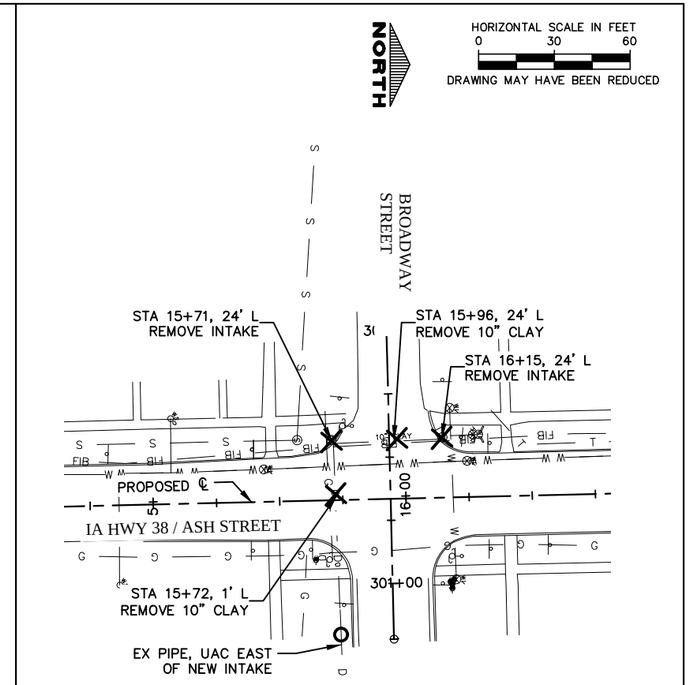
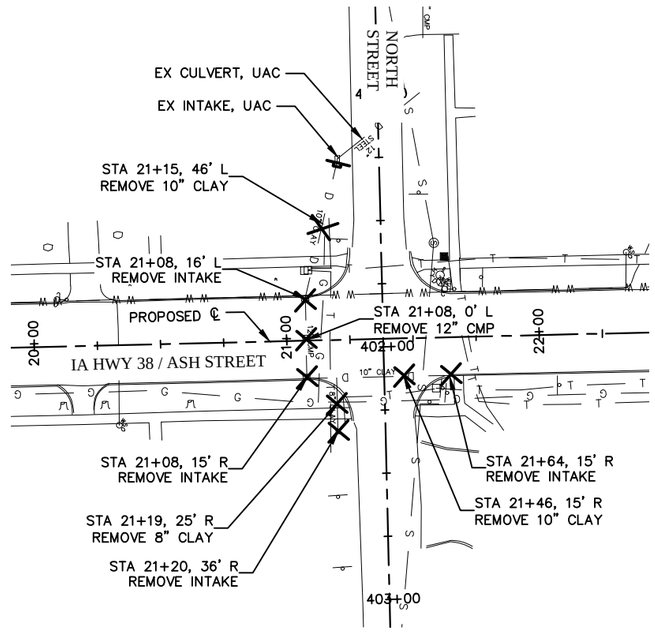
CITY OF STANWOOD, CEDAR COUNTY

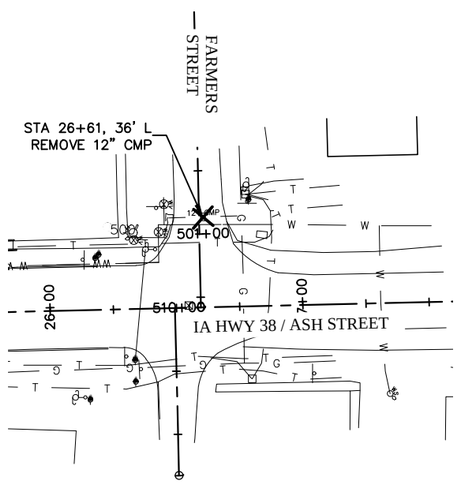
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	M.1	144

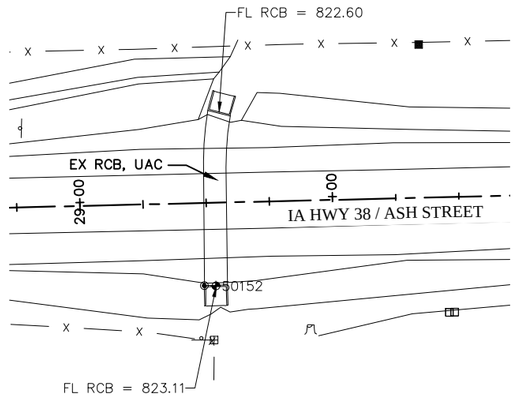


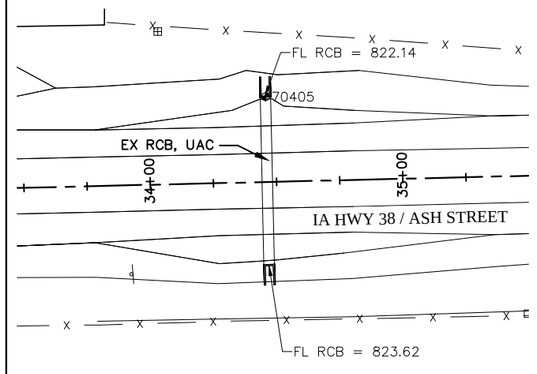












EXISTING STORM SEWER
UAC / FILL, PLUG & ABANDON / REMOVALS

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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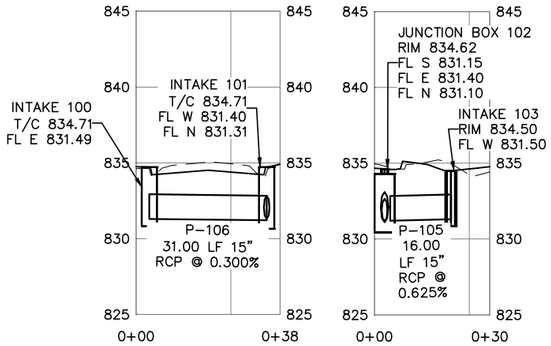
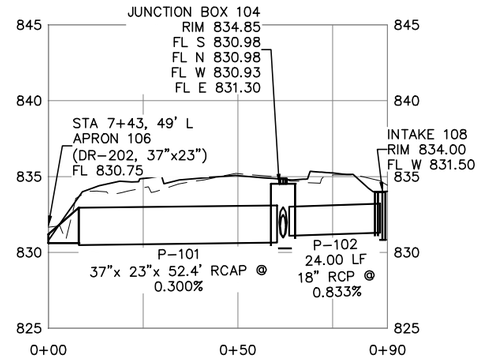
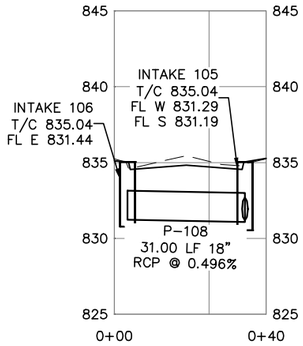
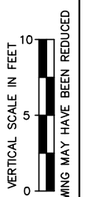
CITY OF STANWOOD, CEDAR COUNTY

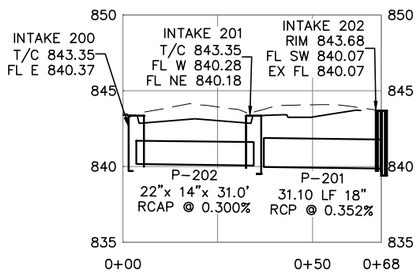
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	M.2	144

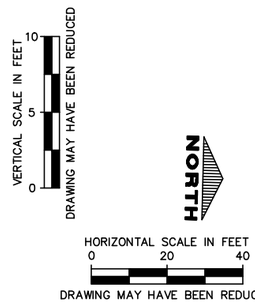


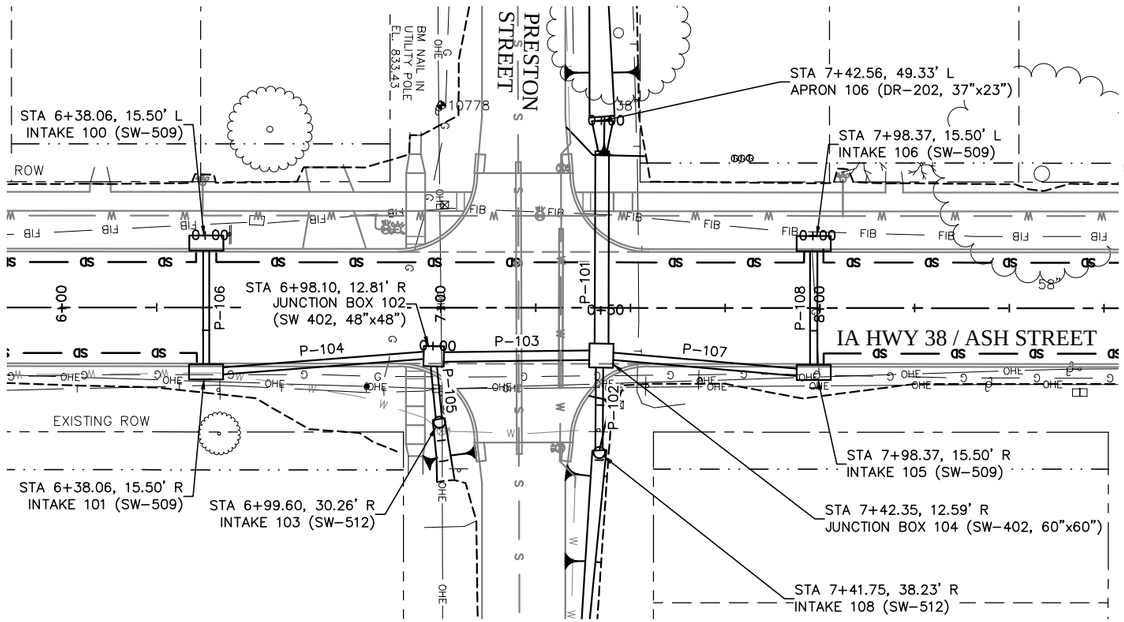


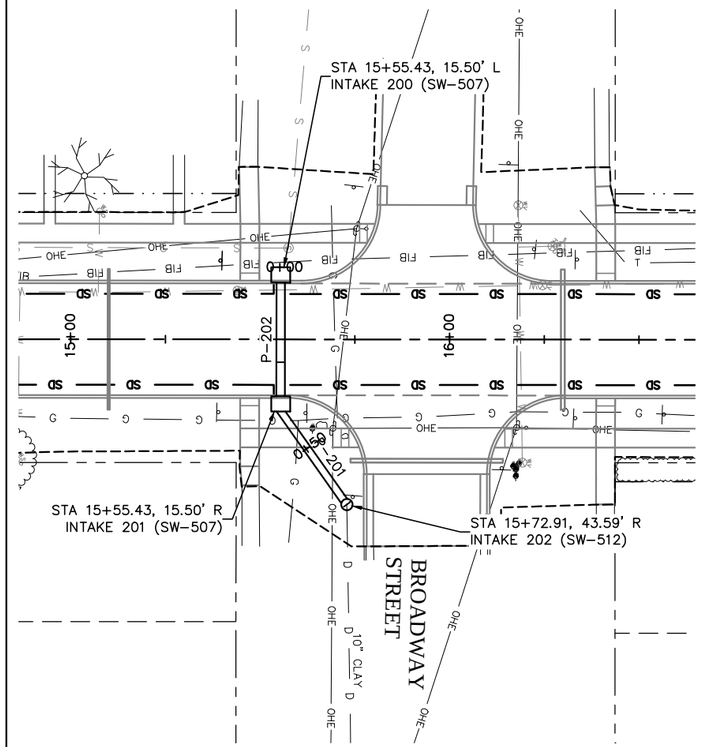


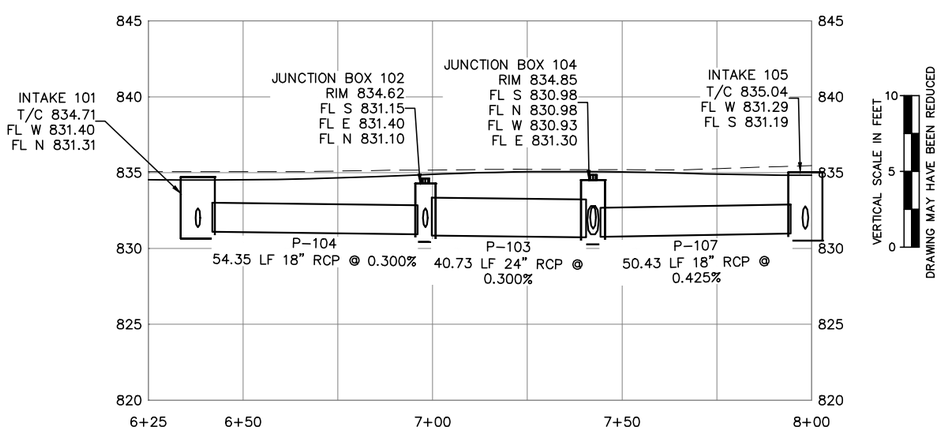












DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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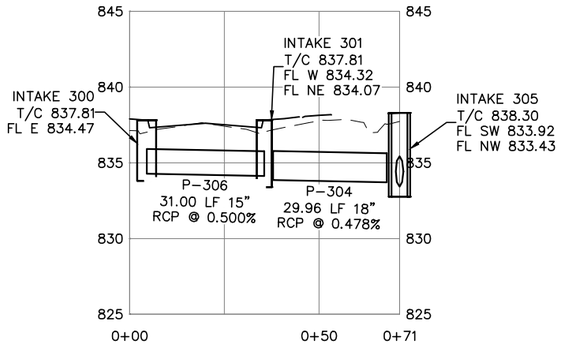
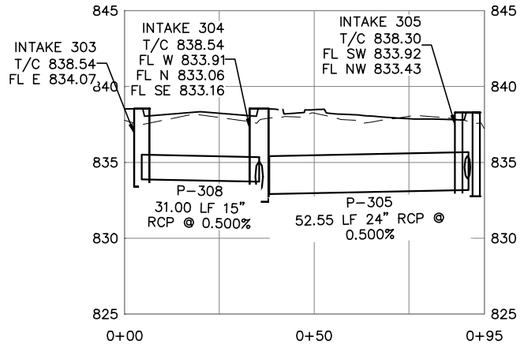
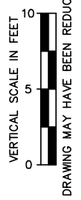
CITY OF STANWOOD, CEDAR COUNTY

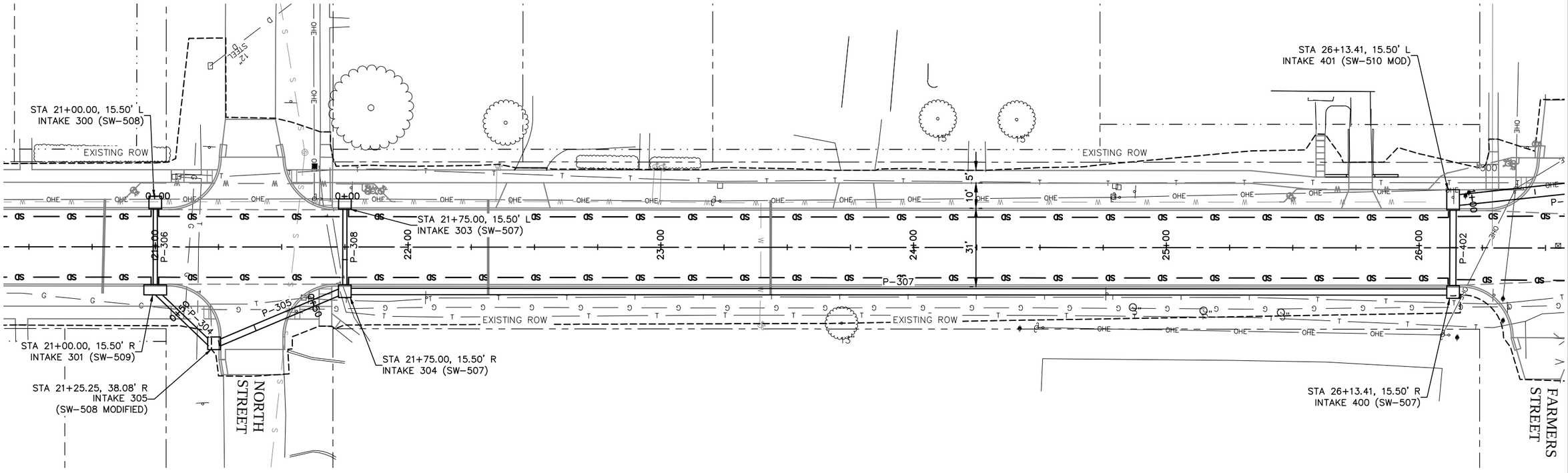
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	M.3	141

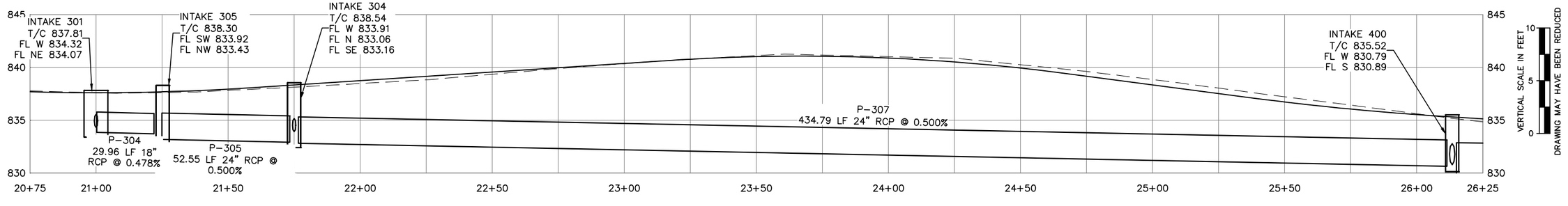
HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED
NORTH







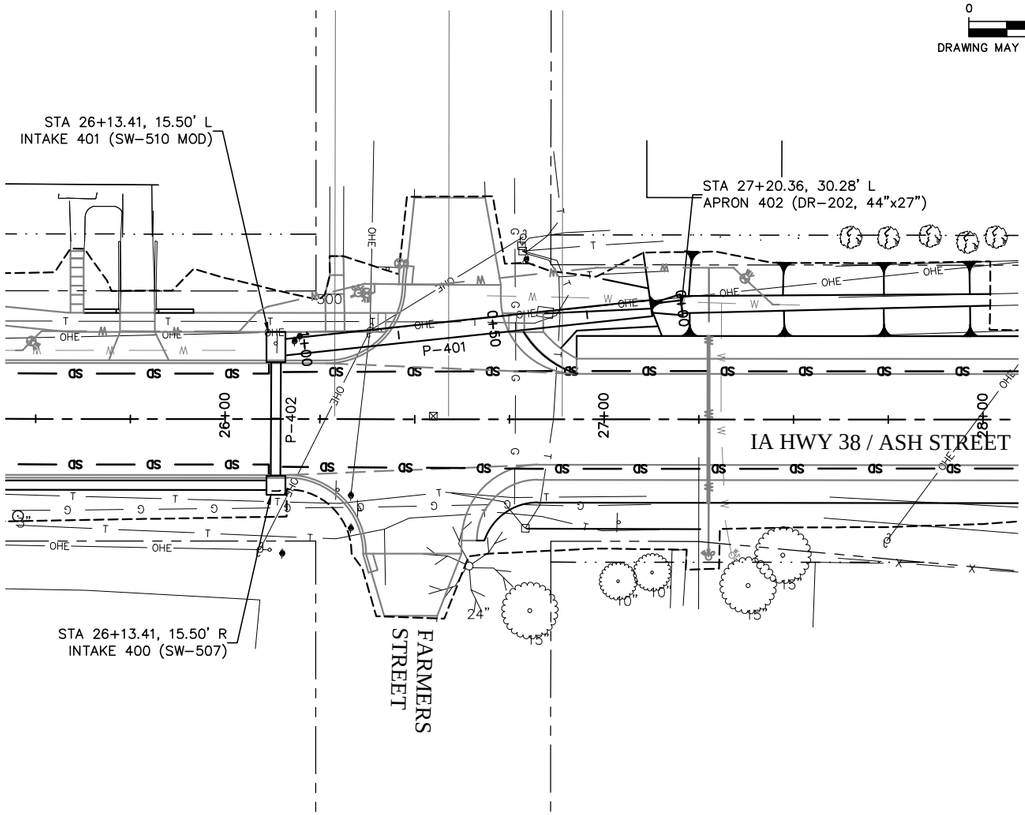


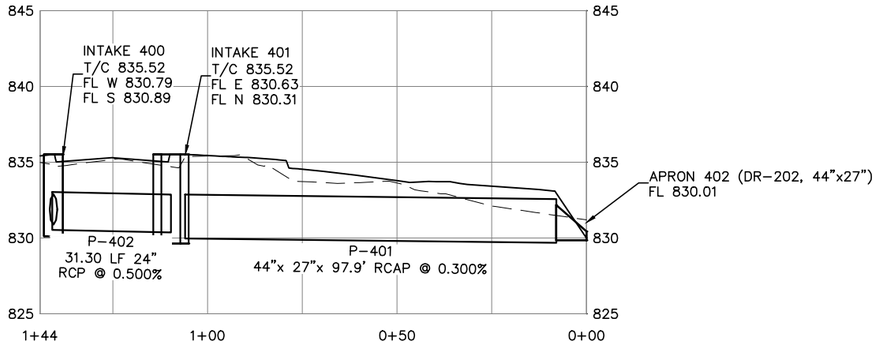


P:\14\183\DRAWINGS\CIVIL\14183_ZZ_M.DWG 4/26/2016 3:05:41 PM JERI M. VONDERA

DESIGNED BY:	TRACED BY:	iiw 563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:					IOWA		2016	M.4	141

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED
NORTH





VERTICAL SCALE IN FEET
10
5
0
DRAWING MAY HAVE BEEN REDUCED

DESIGNED BY:	TRACED BY:	iiw	563.556.2464 ◆ 800.556.4491	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:		IIW, P.C. ◆ www.iiwengr.com				IOWA		2016	M.5	141

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED
NORTH

STP-038-2(37)--2C-16

LINCOLN HIGHWAY / US HWY 30

IA HWY 38 / ASH STREET

6" MJ TEE
W/ PLUG TO SW
6" PVC WM
6" MJ 45° BEND
6" PVC WM
6" MJ 45° BEND
6" PVC WM
6" DIP WM
12" STEEL CASING
RESTRAIN ALL JOINTS WITHIN 10' NE OF TEE. RESTRAIN ALL JOINTS BETWEEN TEE AND STEEL CASING.

6" PVC WM
3'
6" MJ TEE
6" PVC WM
6" MJ RS GATE VALVE
4'
6" DIP WM
6" DIP WM
6" HYDRANT
RESTRAIN ALL JOINTS FROM TEE TO HYDRANT.

6" PVC WM
3'
6" MJ TEE
6" PVC WM
6" MJ RS GATE VALVE
6" DIP WM
12" STEEL CASING
3'
5.7'
BACK OF CURB
RESTRAIN ALL JOINTS WITHIN 5 FEET FROM TEE.

NOTES:
1. RESTRAIN THE WATER MAIN TO CASTING BY UTILIZING A PUSH-ON JOINT SPLIT RING ASSEMBLY (SPIGOT END PORTION) TO RESTRAIN TO THE CASING, THE CONTRACTOR MAY OPT TO RESTRAIN THE CROSS TO THE CASING IN LIEU OF THE SPLIT RING ASSEMBLY.

2. CLOSE THE ENDS OF THE CASING WITH A DOUBLE WRAP OF WOVEN GEOTEXTILE SECURED TO CASING & WATER MAIN WITH #14 INSULATED COPPER WIRE OR AS APPROVED OR ELASTOMERIC BOOT.

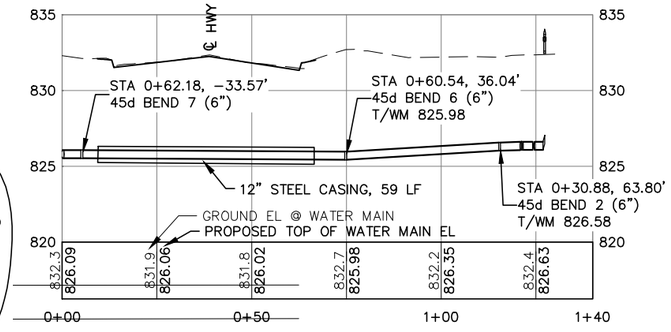
3. CASINGS TO EXTEND 3' BEYOND PROPOSED BACK OF CURB. (@ 31' B-B = 37 LF CASING), UNLESS NOTED OTHERWISE

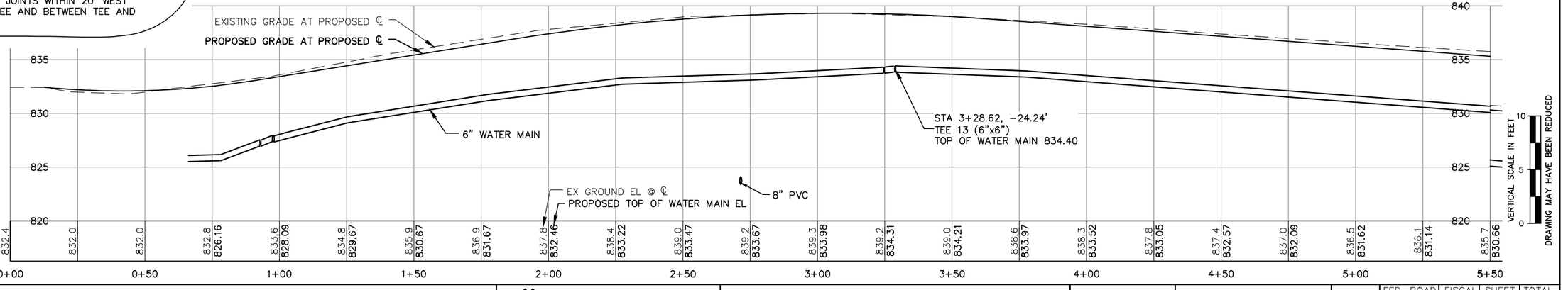
STA 0+65.95, -37.14'
TEE 8 (6"x6")
W/ PLUG TO SW
STA 0+62.18, -33.57'
45d BEND 7 (6")
RESTRAIN TO STEEL CASING
STA 0+62, 29.8' L
END OF STEEL CASING
STA 0+61
12" STEEL CASING
59 LF
STA 0+61, 28.9' R
END OF STEEL CASING
STA 0+78.01, -24.45'
45d BEND 9 (6")
RESTRAIN ALL JOINTS WITHIN 6 FEET OF THE 45° BEND
STA 0+97.73, -24.41'
TEE 11 (6"x6")
STA 0+97.73, -20.36'
HYDRANT 2 (6")
P GND 833.75
STA 0+60.54, 36.04'
45d BEND 6 (6")
RESTRAIN THE BEND TO THE CASING, RESTRAIN ALL JOINTS WITHIN 6' SE OF 45 DEG BEND
STA 0+30.88, 63.80'
45d BEND 2 (6")
STA 0+30.69, 69.64'
TEE 1 (6"x6")
STA 0+33.92, 75.79'
HYDRANT 1 (6")
P GND 832.44
PROPOSED 6" PVC WATER MAIN
ASPHALT
EXISTING ROW
STA 3+28.62, -24.24'
TEE 13 (6"x6")
CONNECT EX. CURB STOP AND WATER LINE TO PROPOSED CORPORATION
EX. WATER SERVICE
STA 3+29
12" STEEL CASING
STA 4+00
3" PVC CASING
STA 4+54
3" PVC CASING
PI: 11+96.55
PI: 12+24.54
STA 3+28.62, 27.37'
HYDRANT 3 (6")
P GND 840.0

RESTRAIN ALL JOINTS FROM HYDRANT TO CASING. RESTRAIN THE WATER MAIN TO THE CASING BY UTILIZING A PUSH-ON JOINT SPLIT RING ASSEMBLY (SPIGOT END PORTION) AND RESTRAIN TO THE CASING.

BACK OF CURB
12" STEEL CASING
6" DIP WM
1" WATER SERVICE
3'
3'
1" WATER SERVICE
18"
18"
3'
6" MJ RS GATE VALVE
6" DIP WM
6" HYDRANT

6" MJ 45° BEND
6" PVC WM
3'
6" MJ 90° BEND
6" MJ TEE
W/ PLUG TO EAST
2.5'
2.5'
6" MJ RS GATE VALVE
6" HYDRANT
RESTRAIN ALL JOINTS WITHIN 20' WEST AND NW OF TEE AND BETWEEN TEE AND HYDRANT



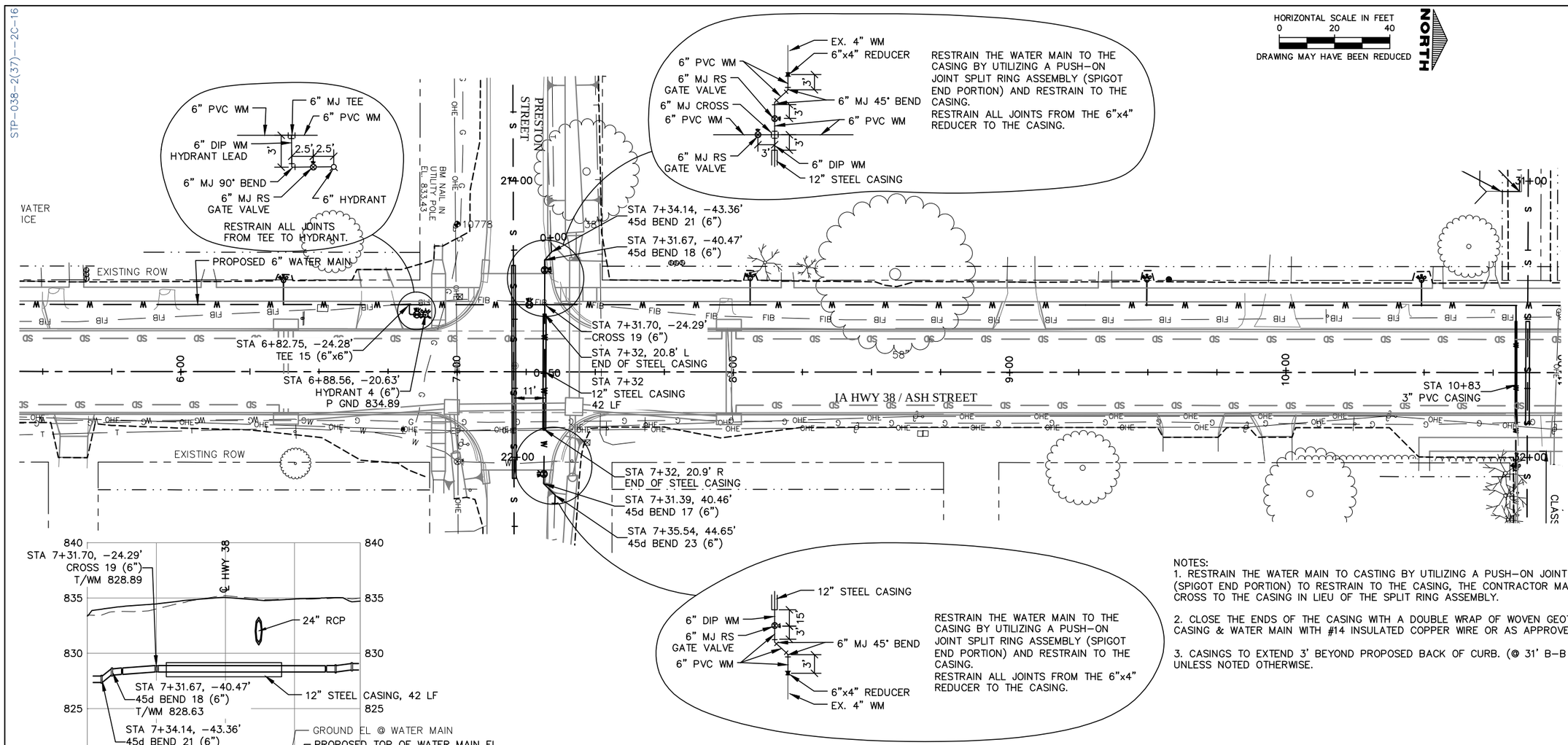


P:\14\183\DRAWINGS\CIVIL\14183_ZZ_MU.DWG 4/26/2016 3:09:00 PM JERI M. VONDERA

DESIGNED BY:	TRACED BY:	iiw 563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:					IOWA		2016	MU.1	144

STP-038-2(37)--2C-16

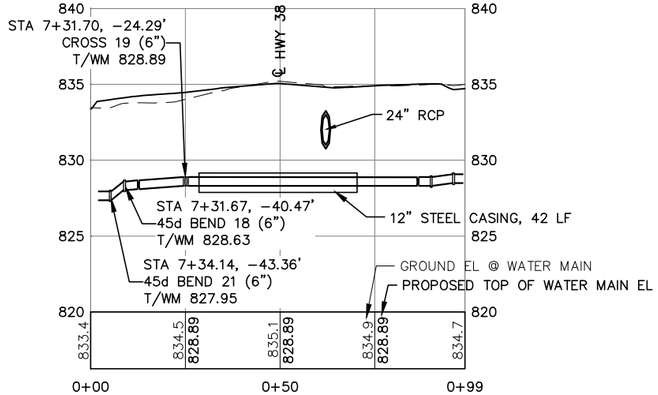
HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED
NORTH

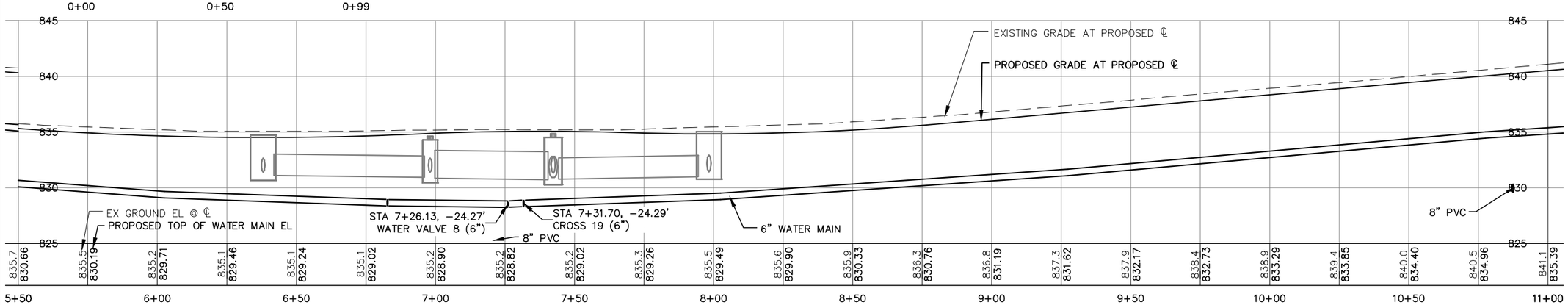


NOTES:
1. RESTRAIN THE WATER MAIN TO CASTING BY UTILIZING A PUSH-ON JOINT SPLIT RING ASSEMBLY (SPIGOT END PORTION) TO RESTRAIN TO THE CASING, THE CONTRACTOR MAY OPT TO RESTRAIN THE CROSS TO THE CASING IN LIEU OF THE SPLIT RING ASSEMBLY.

2. CLOSE THE ENDS OF THE CASING WITH A DOUBLE WRAP OF WOVEN GEOTEXTILE SECURED TO CASING & WATER MAIN WITH #14 INSULATED COPPER WIRE OR AS APPROVED OR ELASTOMERIC BOOT.

3. CASINGS TO EXTEND 3' BEYOND PROPOSED BACK OF CURB. (@ 31' B-B = 37 LF CASING), UNLESS NOTED OTHERWISE.





VERTICAL SCALE IN FEET
10 5 0
DRAWING MAY HAVE BEEN REDUCED

P:\14\183\DRAWINGS\CIVIL\14183_ZZ_MU.DWG 4/26/2016 3:09:17 PM JERI M. VONDERA

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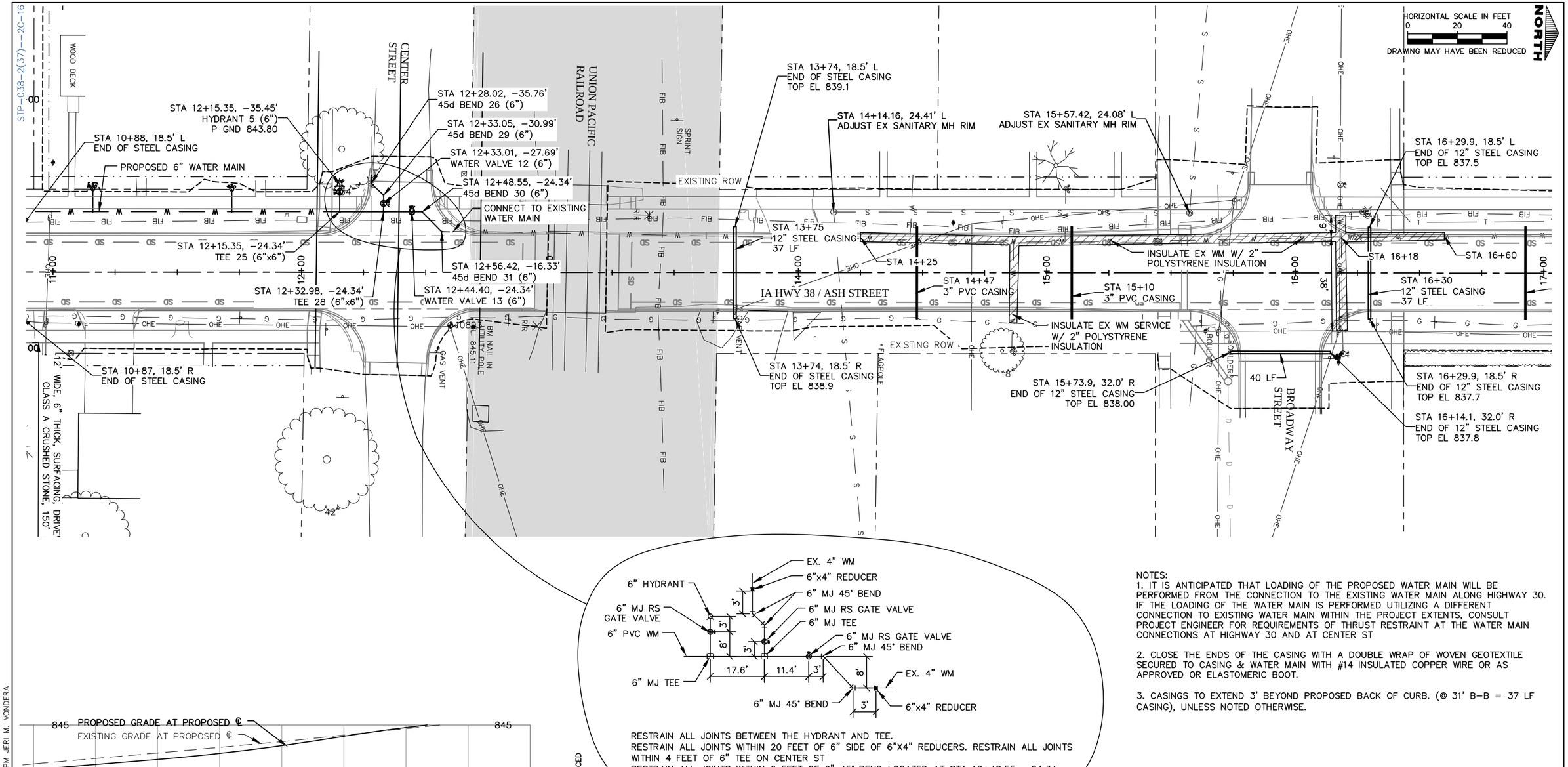
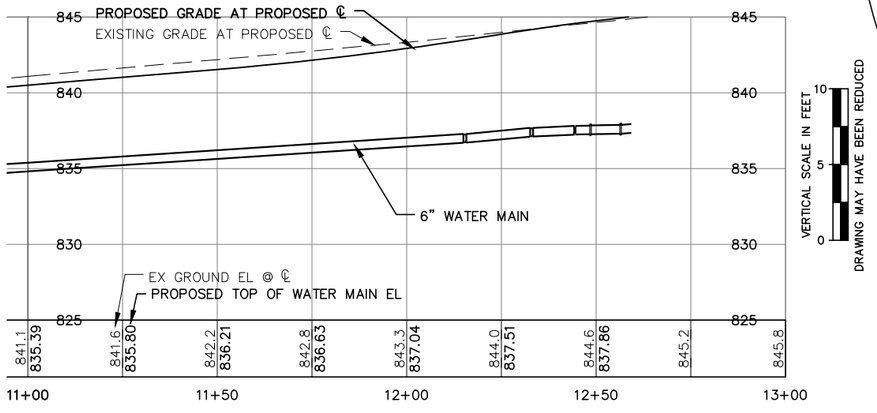
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	MU.2	144



RESTRAIN ALL JOINTS BETWEEN THE HYDRANT AND TEE.
RESTRAIN ALL JOINTS WITHIN 20 FEET OF 6" SIDE OF 6"X4" REDUCERS. RESTRAIN ALL JOINTS WITHIN 4 FEET OF 6" TEE ON CENTER ST
RESTRAIN ALL JOINTS WITHIN 6 FEET OF 6" 45° BEND LOCATED AT STA 12+48.55, -24.34



NOTES:
1. IT IS ANTICIPATED THAT LOADING OF THE PROPOSED WATER MAIN WILL BE PERFORMED FROM THE CONNECTION TO THE EXISTING WATER MAIN ALONG HIGHWAY 30. IF THE LOADING OF THE WATER MAIN IS PERFORMED UTILIZING A DIFFERENT CONNECTION TO EXISTING WATER MAIN WITHIN THE PROJECT EXTENTS, CONSULT PROJECT ENGINEER FOR REQUIREMENTS OF THRUST RESTRAINT AT THE WATER MAIN CONNECTIONS AT HIGHWAY 30 AND AT CENTER ST

2. CLOSE THE ENDS OF THE CASING WITH A DOUBLE WRAP OF WOVEN GEOTEXTILE SECURED TO CASING & WATER MAIN WITH #14 INSULATED COPPER WIRE OR AS APPROVED OR ELASTOMERIC BOOT.

3. CASINGS TO EXTEND 3' BEYOND PROPOSED BACK OF CURB. (@ 31' B-B = 37 LF CASING), UNLESS NOTED OTHERWISE.

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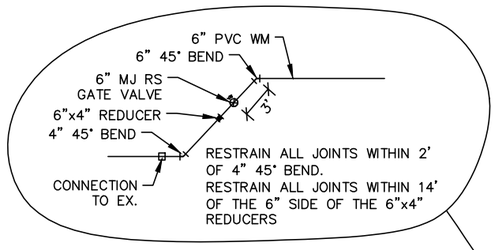
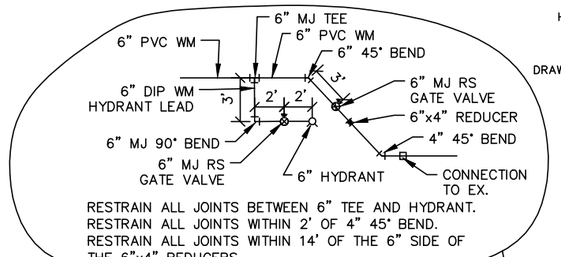
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	MU.3	144

NOTES:
1. CLOSE THE ENDS OF THE CASING WITH A DOUBLE WRAP OF WOVEN GEOTEXTILE SECURED TO CASING & WATER MAIN WITH #14 INSULATED COPPER WIRE OR AS APPROVED OR ELASTOMERIC BOOT.

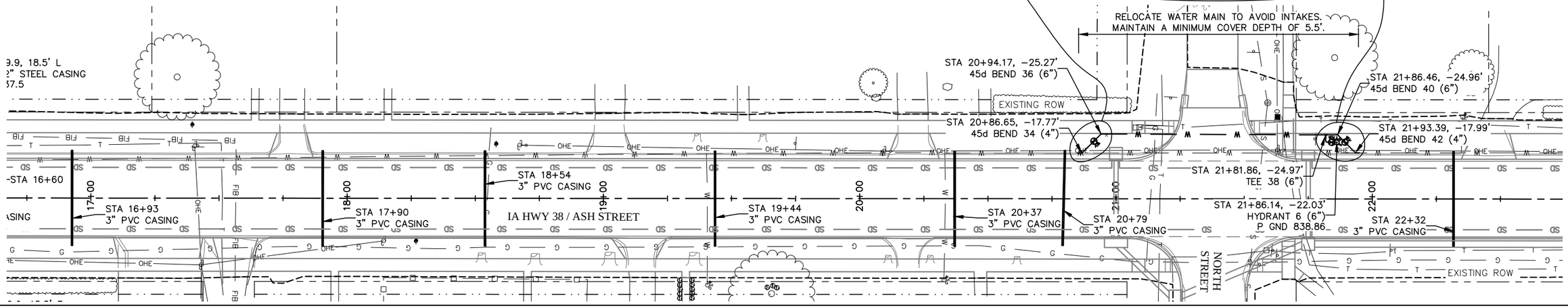
2. CASINGS TO EXTEND 3' BEYOND PROPOSED BACK OF CURB. (@ 31' B-B = 37 LF CASING), UNLESS NOTED OTHERWISE.

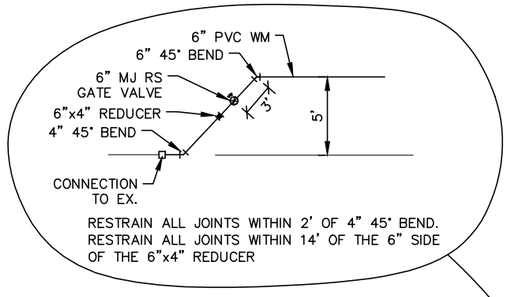


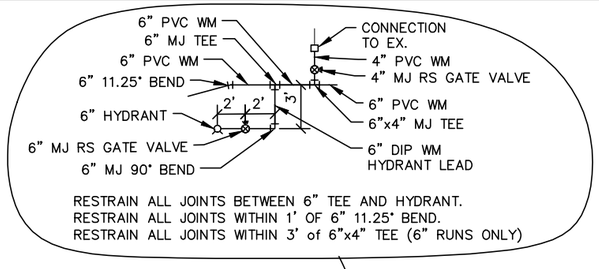


HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED

NORTH

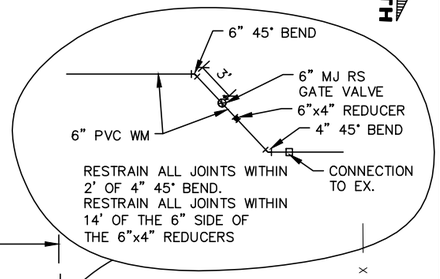


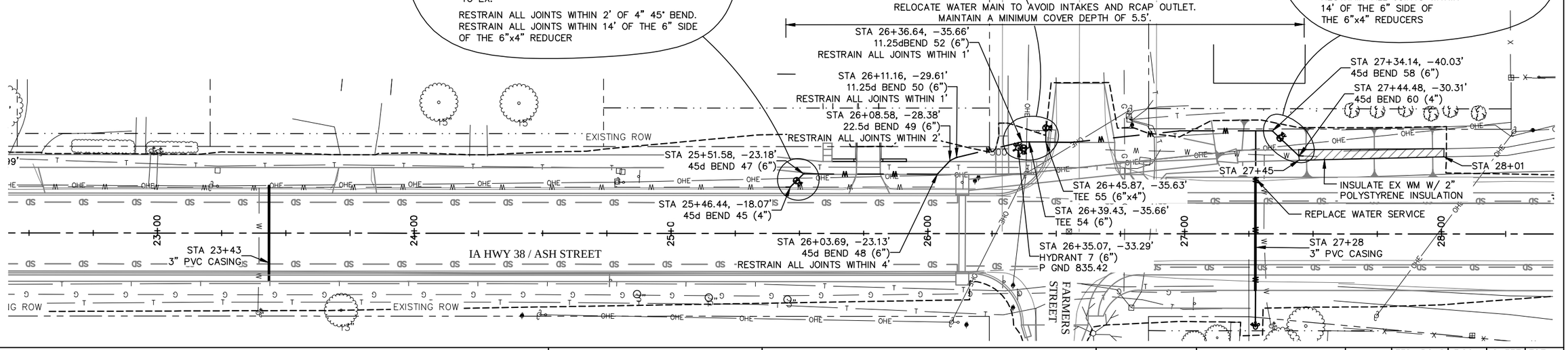




HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED

NORTH





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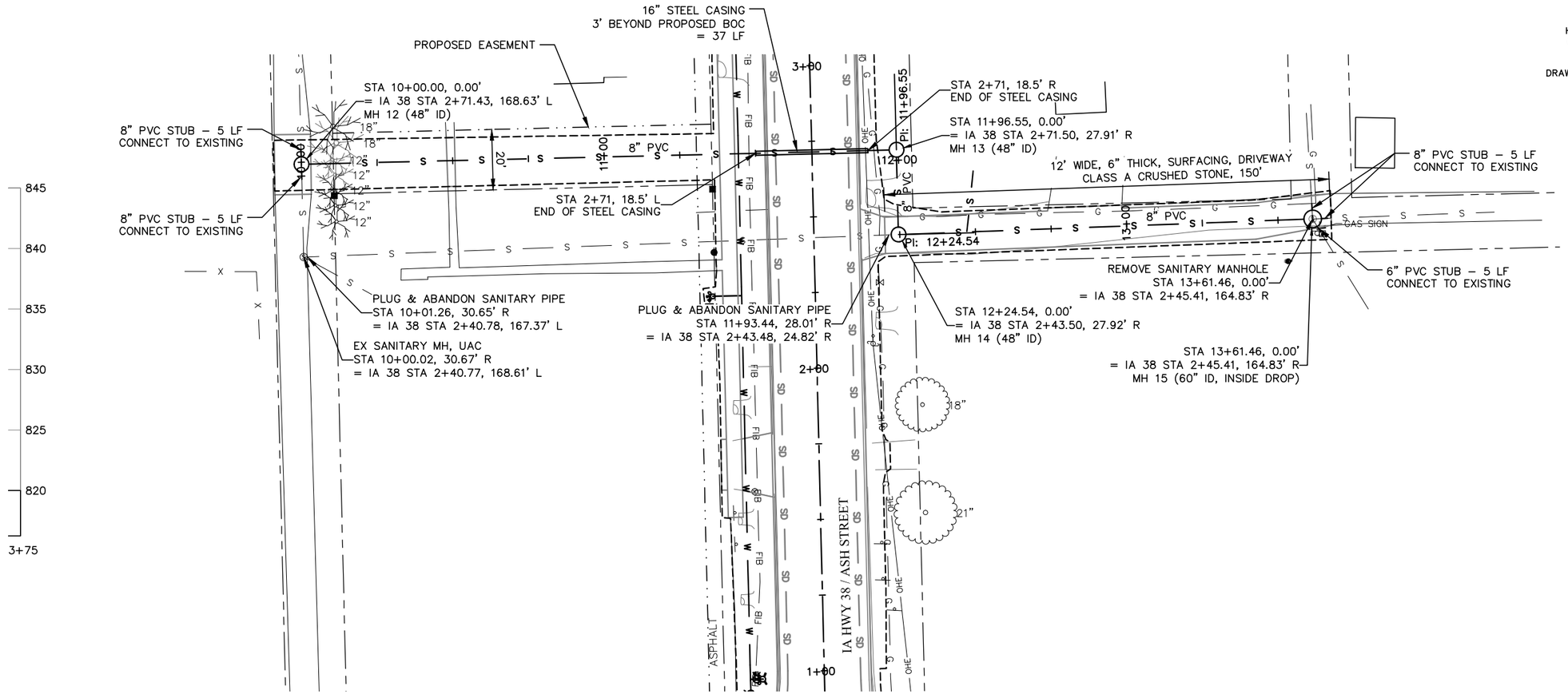
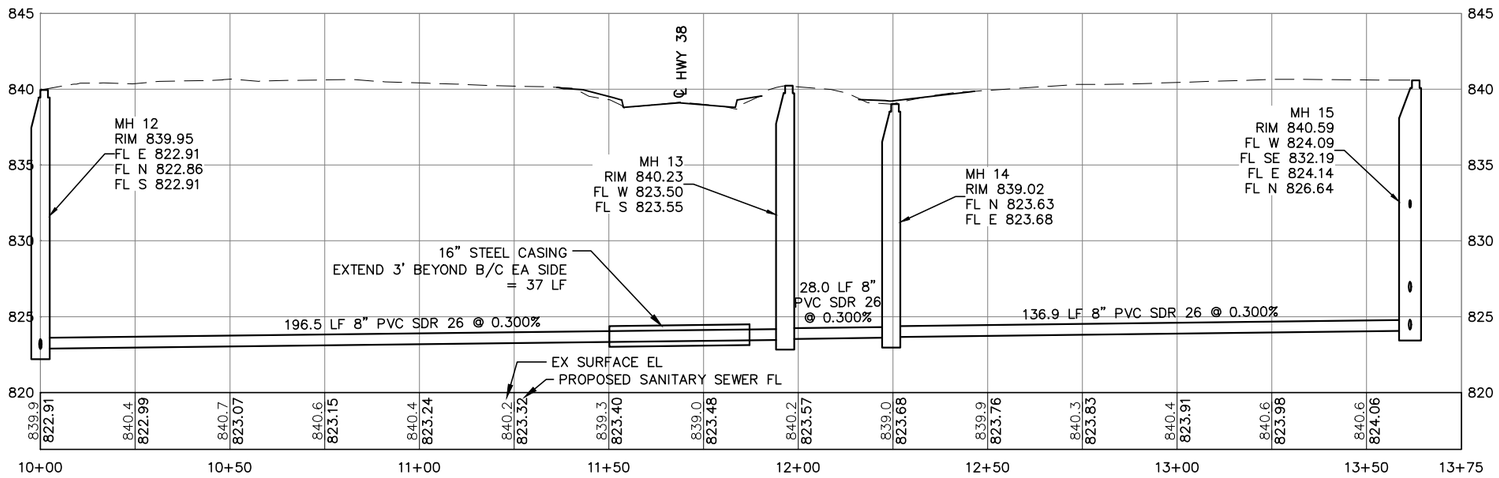
DETAILED BY:	CHECKED BY:				

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA		2016	MU.4	144

NORTH

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED





VERTICAL SCALE IN FEET
0 5 10
DRAWING MAY HAVE BEEN REDUCED

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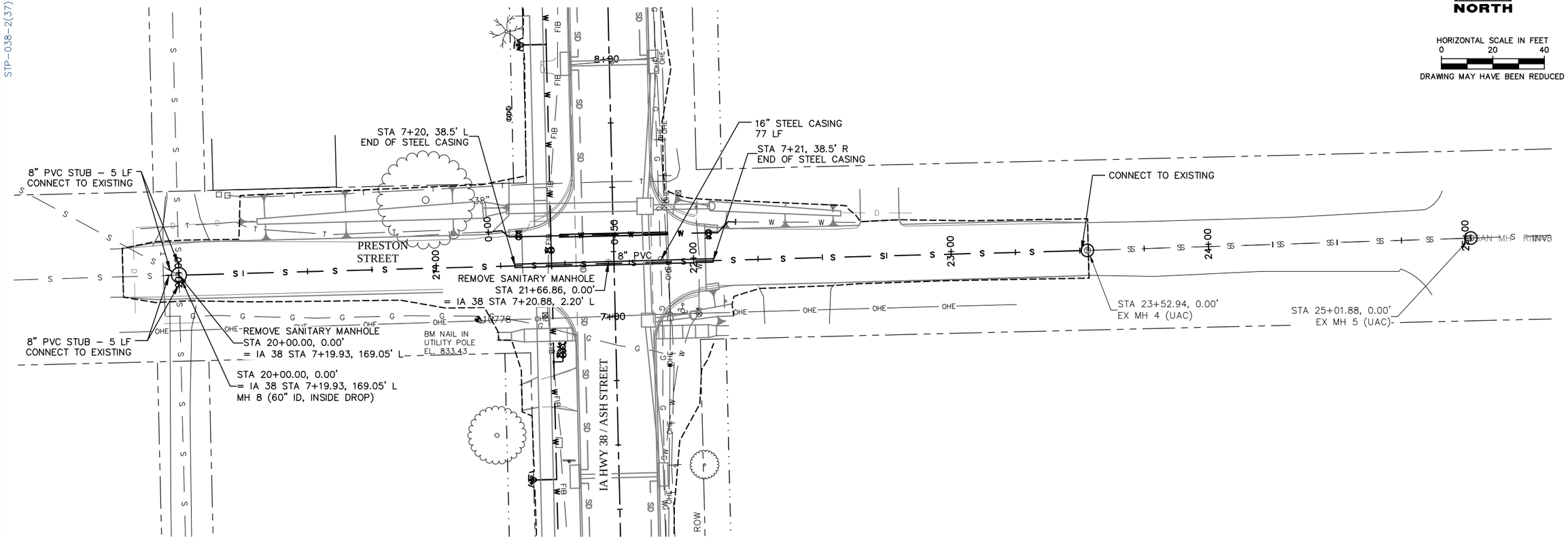
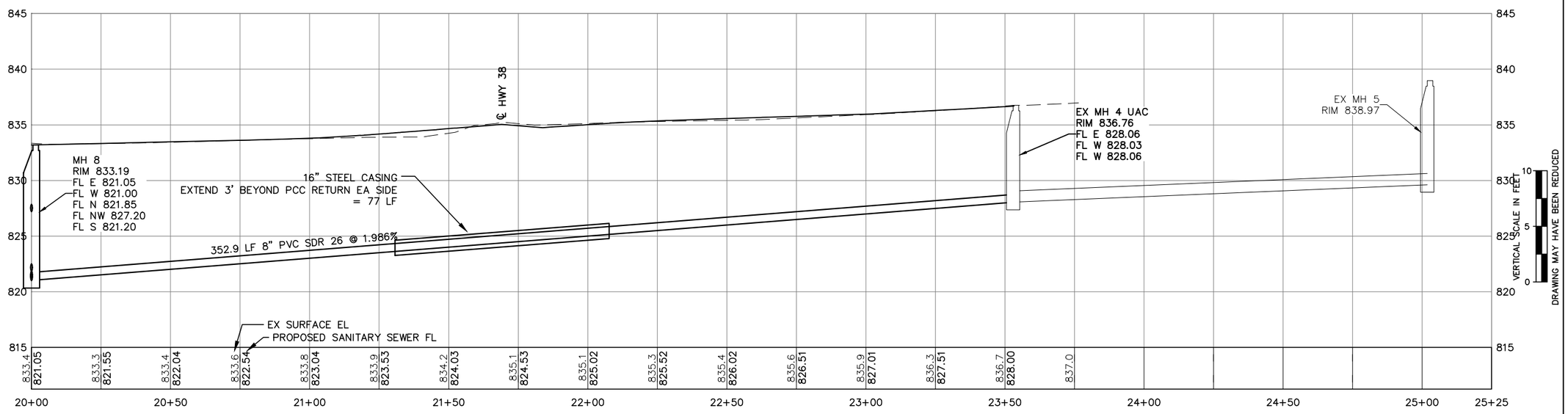
DETAILED BY:	CHECKED BY:					IOWA		2016	MU.5	144

NORTH

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED





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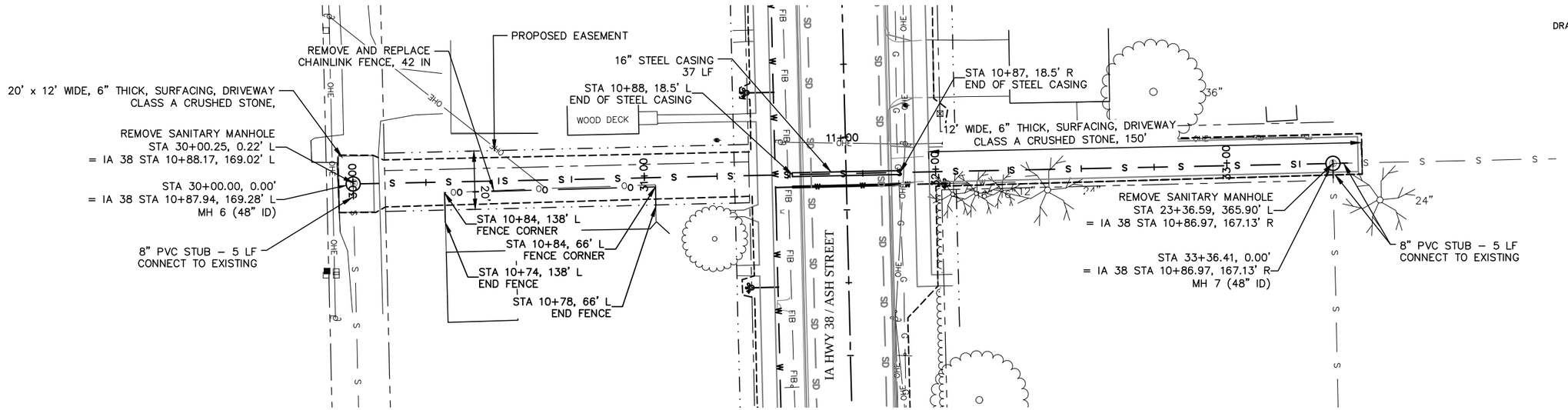
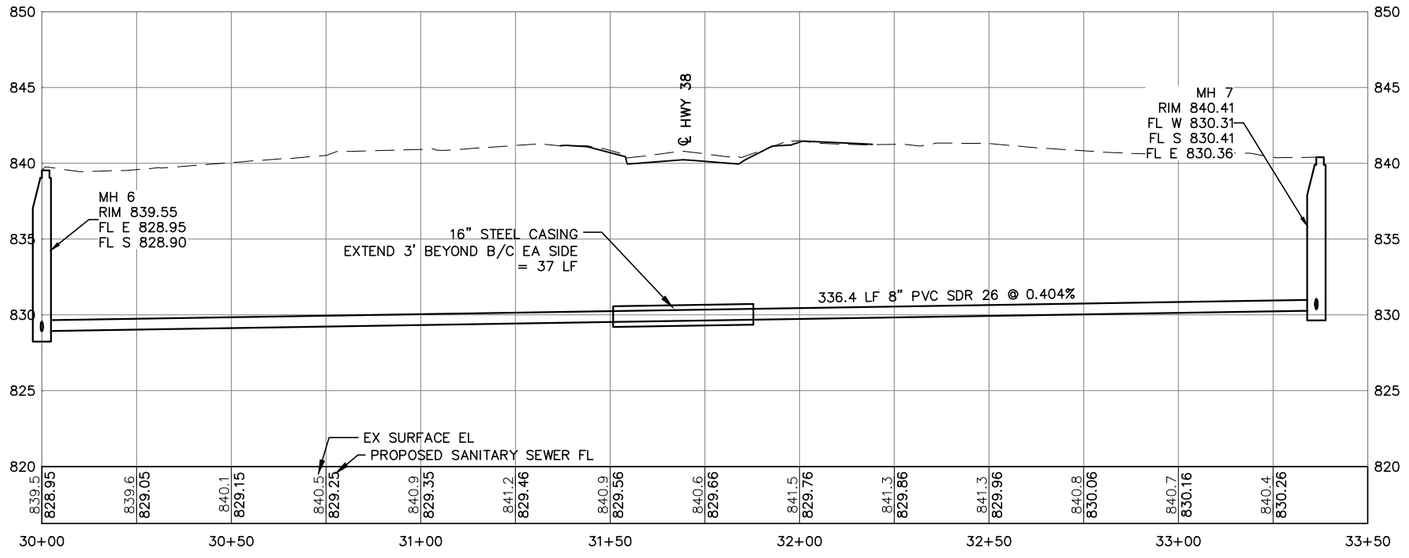
DETAILED BY:	CHECKED BY:					IOWA		2016	MU.6	144

NORTH

HORIZONTAL SCALE IN FEET
0 20 40
DRAWING MAY HAVE BEEN REDUCED

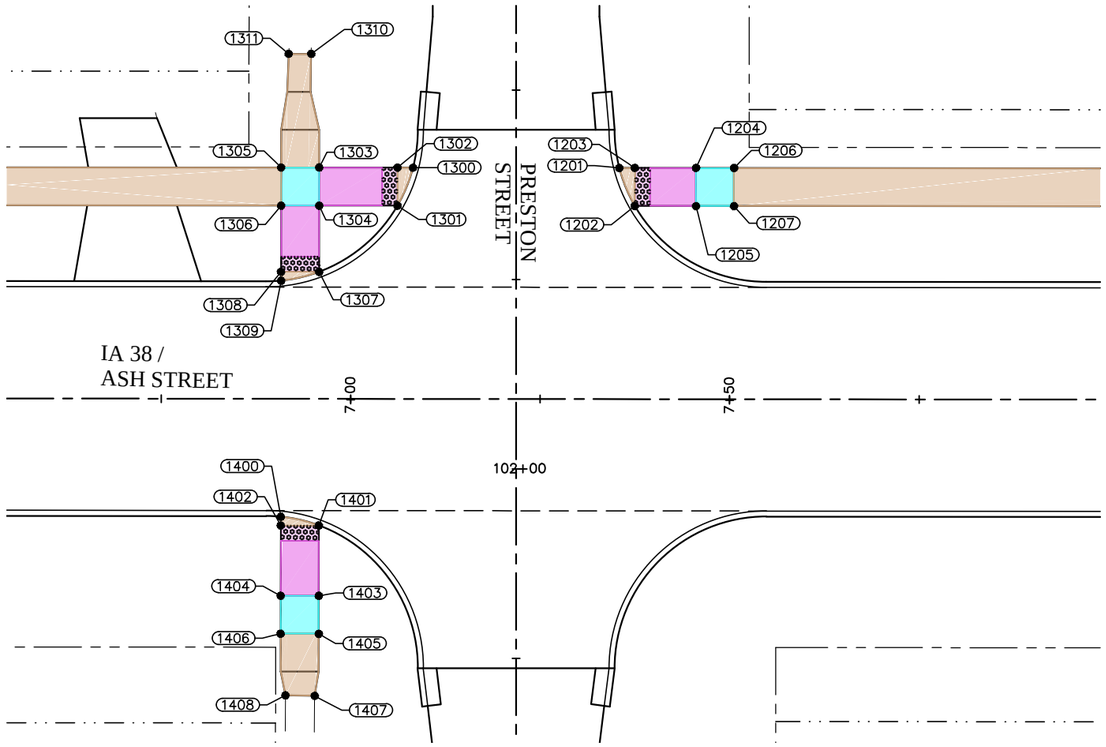




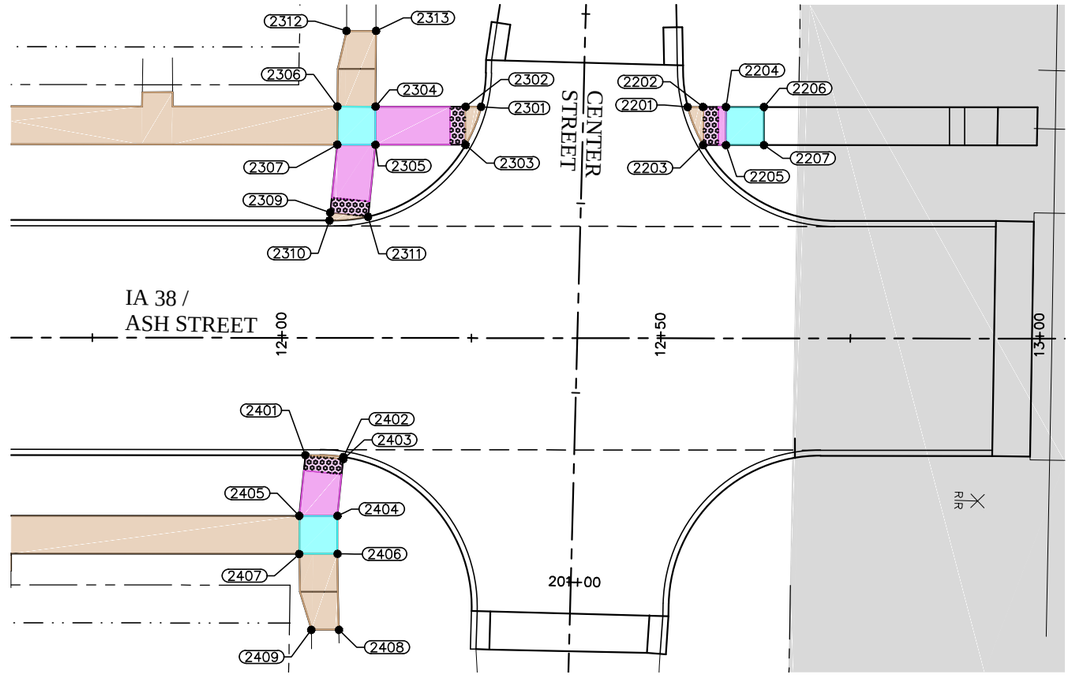
VERTICAL SCALE IN FEET
10
5
0
DRAWING MAY HAVE BEEN REDUCED

DESIGNED BY:	TRACED BY:	iiw	CITY OF STANWOOD, CEDAR COUNTY	PROJECT NUMBER	STP-038-2(37)--2C-16	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DETAILED BY:	CHECKED BY:	563.556.2464 ◆ 800.556.4491 IIW, P.C. ◆ www.iiwengr.com				IOWA		2016	MU.7	144

HORIZONTAL SCALE IN FEET
0 10 20
DRAWING MAY HAVE BEEN REDUCED
NORTH



IA 38/ASH ST & PRESTON ST
SIDEWALK LAYOUT



IA 38/ASH ST & CENTER ST
SIDEWALK LAYOUT

LEGEND

- PROPOSED LANDING/TURNING AREA
- PROPOSED SIDEWALK
- PROPOSED RAMP
- PROPOSED PCC PAVEMENT
- PROPOSED DETECTABLE WARNINGS

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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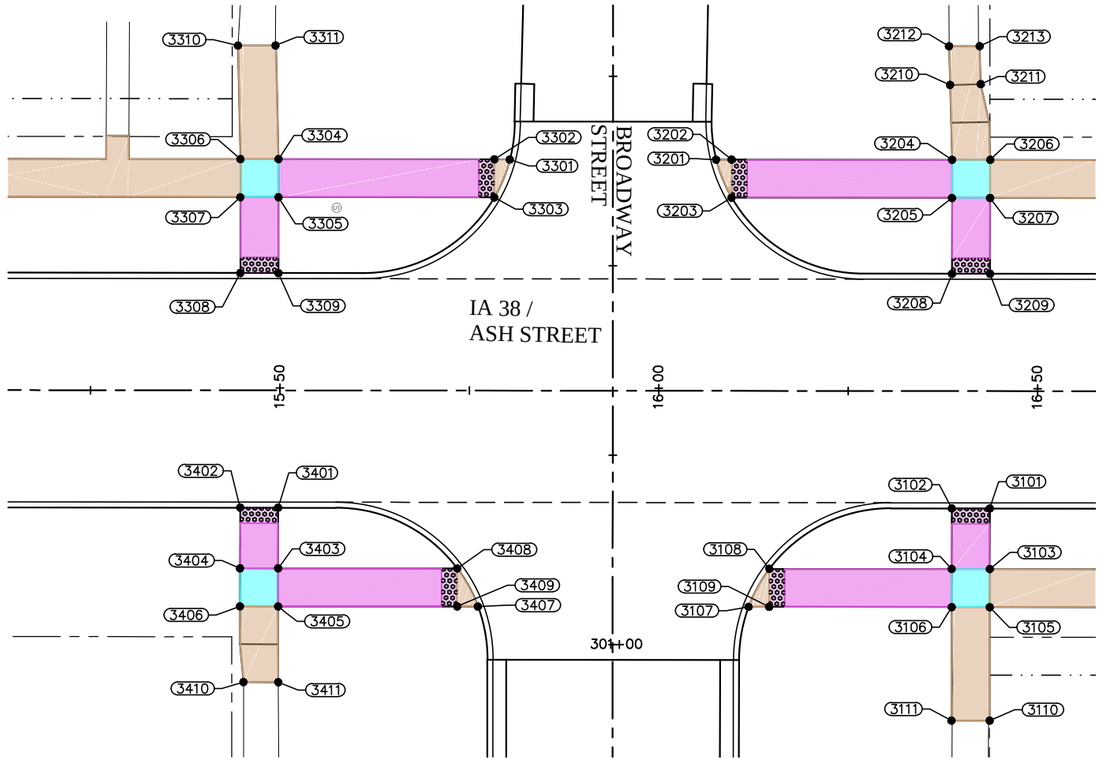
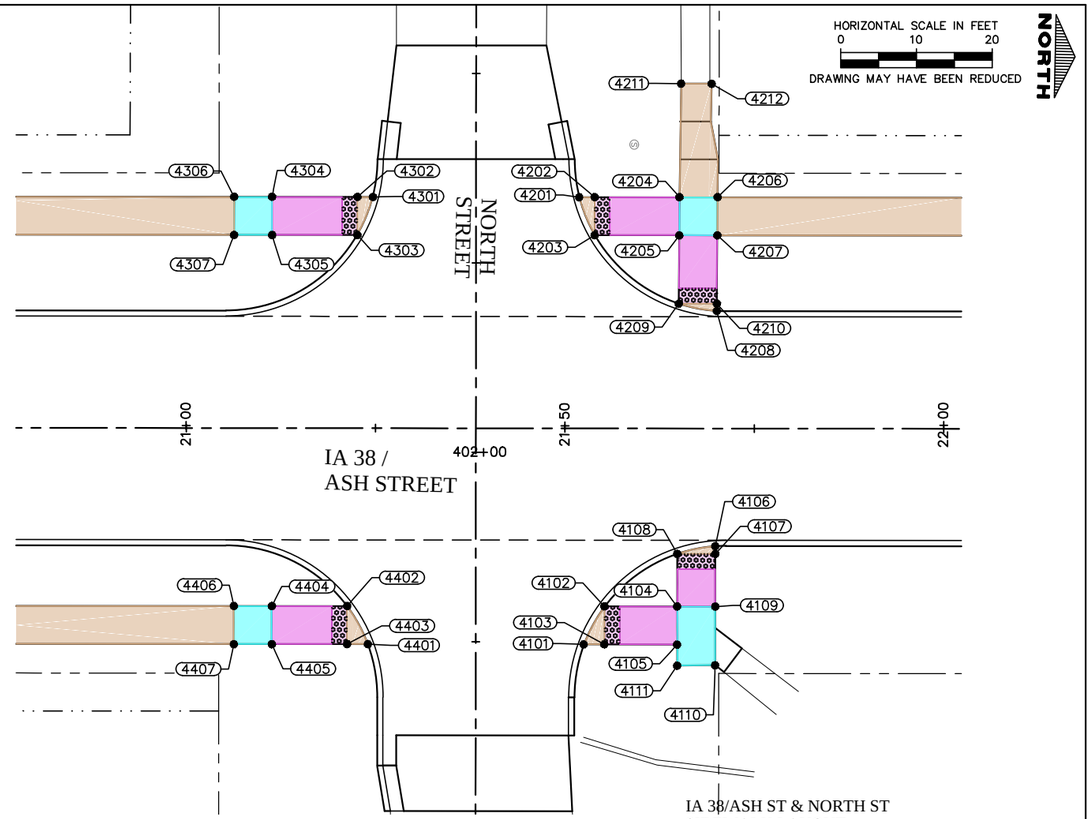
CITY OF STANWOOD, CEDAR COUNTY

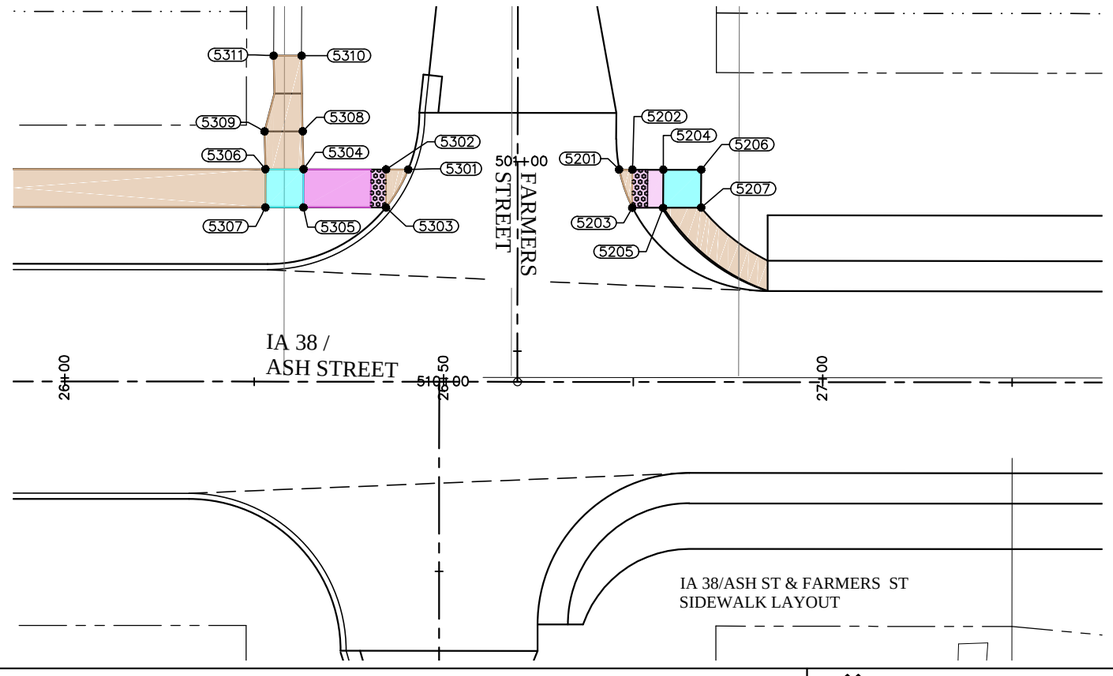
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	S.1	144



IA 38/ASH ST & BROADWAY ST
SIDEWALK LAYOUT



IA 38/ASH ST & NORTH ST
SIDEWALK LAYOUT



IA 38/ASH ST & FARMERS ST
SIDEWALK LAYOUT

LEGEND

- PROPOSED LANDING/TURNING AREA
- PROPOSED SIDEWALK
- PROPOSED RAMP
- PROPOSED PCC PAVEMENT
- PROPOSED DETECTABLE WARNINGS

DESIGNED BY: TRACED BY:
DETAILED BY: CHECKED BY:

iiw 563.556.2464 ◆ 800.556.4491
IIW, P.C. ◆ www.iiwengr.com

CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	S.2	144

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb

(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications

Point to Point		Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
											Point	Station	Offset	Elevation
			FT	FT	%	Pos. or Neg.		%						
1201	1202	Crosswalk Cross Slope - Yield Condition	5.40	0.08	1.5%	0.0% to 2.0%					1201	7+35.43	-30.50	834.35
1201	1203	Ramp Running Slope	2.04	0.02	1.0%	0.5% to 8.3%					1202	7+37.48	-25.50	834.43
1202	1203	Ramp Cross Slope	5.00	-0.06	-1.2%	0.1% to 2.0%					1203	7+37.48	-30.50	834.37
1202	1205	Ramp Running Slope	8.06	0.37	4.6%	0.5% to 8.3%					1204	7+45.54	-30.50	834.87
1203	1204	Ramp Running Slope	8.06	0.50	6.3%	0.5% to 8.3%					1205	7+45.54	-25.50	834.80
1204	1205	Landing/Turning Space	5.00	-0.08	-1.5%	0.1% to 2.0%					1206	7+50.54	-30.50	834.92
1204	1206	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%					1207	7+50.54	-25.50	834.85
1205	1207	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%					1300	7+08.16	-30.50	834.19
1206	1207	Landing/Turning Space	5.00	-0.07	-1.5%	0.1% to 2.0%					1301	7+06.12	-25.50	834.29
											1302	7+06.12	-30.50	834.21
1300	1301	Crosswalk Cross Slope - Yield Condition	5.40	0.10	1.9%	0.0% to 2.0%					1303	6+95.80	-30.50	834.84
1300	1302	Ramp Running Slope	2.04	0.02	1.0%	0.5% to 8.3%					1304	6+95.80	-25.50	834.79
1301	1302	Ramp Cross Slope	5.00	-0.08	-1.6%	0.1% to 2.0%	Yes				1305	6+90.80	-30.50	834.91
1301	1304	Ramp Running Slope	10.32	0.50	4.8%	0.5% to 8.3%					1306	6+90.80	-25.50	834.84
1302	1303	Ramp Running Slope	10.32	0.63	6.1%	0.5% to 8.3%					1307	6+95.80	-16.77	834.54
1303	1304	Landing/Turning Space	5.00	-0.05	-0.9%	0.1% to 2.0%					1308	6+90.80	-16.77	834.53
1303	1305	Landing/Turning Space	5.00	0.07	1.5%	0.1% to 2.0%					1309	6+90.80	-15.60	834.52
1304	1306	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%					1310	6+94.73	-45.50	833.51
1304	1307	Ramp Running Slope	8.73	-0.25	-2.9%	0.5% to 8.3%					1311	6+91.78	-45.50	833.57
1306	1308	Ramp Running Slope	8.73	-0.31	-3.5%	0.5% to 8.3%					1400	6+90.80	15.59	834.53
1308	1309	Ramp Running Slope	1.17	-0.01	-0.9%	0.5% to 8.3%					1401	6+95.80	16.74	834.60
1307	1308	Ramp Cross Slope	5.00	-0.01	-0.2%	0.1% to 2.0%					1402	6+90.80	16.74	834.54
1307	1309	Crosswalk Cross Slope - No Yield Condition	5.13	-0.02	-0.4%	0.0% to 5.0%					1403	6+95.80	26.00	834.70
1303	1310	Sidewalk Running Slope	15.04	-1.33	-8.8%	0.5% to 9.8%					1404	6+90.80	26.00	834.78
1305	1311	Sidewalk Running Slope	15.03	-1.34	-8.9%	0.5% to 9.9%					1405	6+95.80	31.00	834.70
1310	1311	Match Existing Cross Slope	2.95	0.06	2.0%	Match Existing					1406	6+90.80	31.00	834.78
											1407	6+95.27	39.19	834.98
1400	1401	Crosswalk Cross Slope - No Yield Condition	5.13	0.07	1.4%	0.0% to 5.0%					1408	6+91.45	39.13	834.94
1400	1402	Ramp Running Slope	1.15	0.01	1.0%	0.5% to 8.3%					2201	12+53.51	-30.50	844.57
1401	1402	Ramp Cross Slope	5.00	-0.06	-1.2%	0.1% to 2.0%					2202	12+55.55	-30.50	844.59
1401	1403	Ramp Running Slope	9.26	0.10	1.1%	0.5% to 8.3%					2203	12+55.55	-25.50	844.64
1402	1404	Ramp Running Slope	9.26	0.24	2.6%	0.5% to 8.3%					2204	12+58.55	-30.50	844.70
1403	1405	Landing/Turning Space	5.00	0.00	0.0%	0.1% to 2.0%					2205	12+58.55	-25.50	844.75
1403	1404	Landing/Turning Space	5.00	0.08	1.6%	0.1% to 2.0%	Yes				2206	12+63.55	-30.50	844.75
1404	1406	Landing/Turning Space	5.00	0.00	0.0%	0.1% to 2.0%					2207	12+63.55	-25.50	844.80
1405	1406	Landing/Turning Space	5.00	0.08	1.6%	0.1% to 2.0%	Yes				2301	12+26.22	-30.50	843.44
1405	1407	Ramp Running Slope	8.21	0.28	3.4%	0.5% to 8.3%					2302	12+24.17	-30.50	843.46
1406	1408	Ramp Running Slope	8.15	0.16	2.0%	0.5% to 8.3%					2303	12+24.17	-25.50	843.36
1407	1408	Match Existing Cross Slope	3.82	-0.04	-1.0%	Match Existing					2304	12+12.30	-30.50	843.55
											2305	12+12.31	-25.50	843.48
2201	2202	Ramp Running Slope	2.04	0.02	1.0%	0.5% to 8.3%					2306	12+07.30	-30.50	843.51
2201	2203	Crosswalk Cross Slope - Yield Condition	5.40	0.07	1.3%	0.0% to 2.0%					2307	12+07.31	-25.50	843.44
2202	2203	Ramp Cross Slope	5.00	0.05	1.0%	0.1% to 2.0%					2309	12+06.37	-16.52	842.88
2202	2204	Ramp Running Slope	3.00	0.11	3.7%	0.5% to 8.3%					2310	12+06.26	-15.50	842.87
2203	2205	Ramp Running Slope	3.00	0.11	3.7%	0.5% to 8.3%					2311	12+11.34	-16.01	843.07
2204	2205	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%					2312	12+08.50	-40.50	843.90
2204	2206	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%					2313	12+12.36	-40.50	843.92
2205	2207	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%					2401	12+03.12	15.50	842.76
2206	2207	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%					2402	12+08.12	15.74	842.86
											2403	12+08.10	16.01	842.87
2301	2302	Ramp Running Slope	2.04	0.02	1.0%	0.5% to 8.3%					2404	12+07.33	23.50	843.08
2301	2303	Crosswalk Cross Slope - Yield Condition	5.40	-0.08	-1.5%	0.0% to 2.0%					2405	12+02.33	23.50	843.15
2302	2303	Ramp Cross Slope	5.00	-0.10	-2.0%	0.1% to 2.0%	Yes				2406	12+07.33	28.50	843.15
2302	2304	Ramp Running Slope	11.87	0.09	0.8%	0.5% to 8.3%					2407	12+02.33	28.50	843.22
2303	2305	Ramp Running Slope	11.87	0.12	1.0%	0.5% to 8.3%					2408	12+07.54	38.50	843.02
2304	2305	Landing/Turning Space	5.00	-0.07	-1.4%	0.1% to 2.0%					2409	12+03.93	38.50	842.94
2305	2307	Landing/Turning Space	5.00	-0.04	-0.8%	0.1% to 2.0%					3101	16+43.70	15.50	842.43
2305	2311	Ramp Running Slope	9.54	-0.41	-4.3%	0.5% to 8.3%					3102	16+38.70	15.50	842.46
2307	2309	Ramp Running Slope	9.03	-0.56	-6.2%	0.5% to 8.3%					3103	16+43.70	23.50	842.93
2309	2311	Crosswalk Cross Slope - No Yield Condition	5.00	0.19	3.8%	0.0% to 5.0%					3104	16+38.70	23.50	842.93
2310	2311	Crosswalk Cross Slope - No Yield Condition	5.10	0.20	4.0%	0.0% to 5.0%					3105	16+43.70	28.50	842.98
2304	2313	Sidewalk Running Slope	10.00	0.37	3.7%	0.5% to 5.0%					3106	16+38.70	28.50	842.98
2306	2312	Sidewalk Running Slope	10.07	0.39	3.9%	0.5% to 5.0%					3107	16+11.89	28.50	842.77
2312	2313	Match Existing Cross Slope	3.86	0.02	0.5%	Match Existing					3108	16+14.62	23.50	842.71
											3109	16+14.62	28.50	842.80
2401	2402	Crosswalk Cross Slope - No Yield Condition	5.01	0.10	2.0%	0.0% to 5.0%					3110	16+43.70	43.50	842.83
2401	2403	Crosswalk Cross Slope - No Yield Condition	5.00	0.11	2.2%	0.0% to 5.0%					3111	16+38.70	43.50	842.69
2401	2405	Ramp Running Slope	8.04	0.39	4.8%	0.5% to 8.3%					3201	16+07.55	-30.50	842.85
2403	2404	Ramp Running Slope	7.53	0.21	2.8%	0.5% to 8.3%					3202	16+09.60	-30.50	842.87
2404	2405	Landing/Turning Space	5.00	0.07	1.4%	0.1% to 2.0%					3203	16+09.60	-25.50	842.77
2404	2406	Landing/Turning Space	5.00	0.07	1.4%	0.1% to 2.0%					3204	16+38.70	-30.50	843.13
2405	2407	Landing/Turning Space	5.00	0.07	1.4%	0.1% to 2.0%					3205	16+38.70	-25.50	843.08
2406	2407	Landing/Turning Space	5.00	0.07	1.4%	0.1% to 2.0%					3206	16+43.70	-30.50	843.13
2406	2408	Sidewalk Running Slope	10.00	-0.13	-1.3%	0.5% to 5.0%					3207	16+43.70	-25.50	843.06
2407	2409	Sidewalk Running Slope	10.13	-0.28	-2.8%	0.5% to 5.0%					3208	16+38.70	-15.50	842.46
2408	2409	Match Existing Cross Slope	3.60	-0.08	-2.2%	Match Existing					3209	16+43.70	-15.50	842.43

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb

(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications

Point to Point		Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
											Point	Station	Offset	Elevation
			FT	FT	%	Pos. or Neg.		%						
3101	3102	Crosswalk Cross Slope - No Yield Condition	5.00	0.03	0.6%	0.0% to 5.0%					3211	16+42.42	-40.50	843.64
3101	3103	Ramp Running Slope	8.00	0.50	6.2%	0.5% to 8.3%					3212	16+38.29	-45.50	843.81
3102	3104	Ramp Running Slope	8.00	0.47	5.9%	0.5% to 8.3%					3213	16+42.29	-45.50	843.79
3103	3104	Landing/Turning Space	5.00	0.00	0.0%	0.1% to 2.0%					3301	15+80.28	-30.50	843.14
3103	3105	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%					3302	15+78.24	-30.50	843.16
3104	3106	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%					3303	15+78.24	-25.50	843.08
3104	3108	Ramp Running Slope	24.08	-0.22	-0.9%	0.5% to 8.3%					3304	15+49.76	-30.50	843.60
3106	3109	Ramp Running Slope	24.08	-0.18	-0.7%	0.5% to 8.3%					3305	15+49.77	-25.50	843.52
3107	3109	Ramp Running Slope	2.73	0.03	1.1%	0.5% to 8.3%					3306	15+44.76	-30.50	843.60
3107	3108	Crosswalk Cross Slope - Yield Condition	5.70	-0.06	-1.1%	0.0% to 2.0%					3307	15+44.77	-25.50	843.54
3108	3109	Ramp Cross Slope	5.00	0.09	1.8%	0.1% to 2.0%	Yes				3308	15+44.77	-15.50	842.92
3105	3110	Sidewalk Running Slope	15.00	0.85	5.7%	0.5% to 6.7%					3309	15+49.77	-15.50	842.90
3106	3111	Sidewalk Running Slope	15.00	0.71	4.7%	0.5% to 5.0%	Yes				3310	15+44.43	-45.50	844.68
3110	3111	Match Existing Cross Slope	5.00	-0.14	-2.8%	Match Existing					3311	15+49.34	-45.50	844.70
											3401	15+49.77	15.50	842.90
3201	3202	Ramp Running Slope	2.04	0.02	1.0%						3402	15+44.77	15.50	842.92
3201	3203	Crosswalk Cross Slope - Yield Condition	5.40	-0.08	-1.5%	0.0% to 2.0%					3403	15+49.77	23.50	843.40
3202	3203	Ramp Cross Slope	5.00	-0.10	-2.0%	0.1% to 2.0%	Yes				3404	15+44.77	23.50	843.42
3202	3204	Ramp Running Slope	29.10	0.26	0.9%	0.5% to 8.3%					3405	15+49.77	28.50	843.48
3203	3205	Ramp Running Slope	29.10	0.31	1.1%	0.5% to 8.3%					3406	15+44.77	28.50	843.48
3204	3205	Landing/Turning Space	5.00	-0.05	-1.0%	0.1% to 2.0%					3407	15+76.13	28.50	843.02
3204	3206	Landing/Turning Space	5.00	0.00	0.0%	0.1% to 2.0%					3408	15+73.40	23.50	842.98
3205	3207	Landing/Turning Space	5.00	-0.03	-0.5%	0.1% to 2.0%					3409	15+73.40	28.50	843.05
3205	3208	Ramp Running Slope	10.00	-0.62	-6.2%	0.5% to 8.3%					3410	15+45.24	38.50	844.22
3207	3209	Ramp Running Slope	10.00	-0.63	-6.2%	0.5% to 8.3%					3411	15+49.80	38.50	844.08
3208	3209	Crosswalk Cross Slope - No Yield Condition	5.00	-0.03	-0.6%	0.0% to 5.0%					4101	21+52.51	28.50	838.17
3204	3210	Sidewalk Running Slope	9.89	0.45	4.5%	0.5% to 5.0%	Yes				4102	21+55.25	23.50	838.14
3206	3211	Sidewalk Running Slope	10.08	0.51	5.1%	0.5% to 6.1%					4103	21+55.25	28.50	838.22
3210	3211	Match Existing Cross Slope	4.00	0.07	1.6%	Match Existing					4104	21+64.84	23.50	838.40
											4105	21+64.84	28.50	838.40
3301	3302	Ramp Running Slope	2.04	0.02	1.0%	0.5% to 8.3%					4106	21+69.84	15.55	838.04
3301	3303	Crosswalk Cross Slope - Yield Condition	5.40	-0.06	-1.1%	0.0% to 2.0%					4107	21+69.84	16.55	838.05
3302	3304	Ramp Running Slope	28.47	0.44	1.5%	0.5% to 8.3%					4108	21+64.84	16.55	838.07
3303	3305	Ramp Running Slope	28.47	0.44	1.5%	0.5% to 8.3%					4109	21+69.84	23.50	838.45
3304	3305	Landing/Turning Space	5.00	-0.08	-1.6%	0.1% to 2.0%	Yes				4110	21+69.84	31.21	838.42
3304	3306	Landing/Turning Space	5.00	0.00	0.0%	0.1% to 2.0%					4111	21+64.84	31.29	838.40
3305	3307	Landing/Turning Space	5.00	0.02	0.4%	0.1% to 2.0%					4201	21+51.86	-30.50	837.65
3305	3309	Ramp Running Slope	10.00	-0.62	-6.2%	0.5% to 8.3%					4202	21+53.91	-30.50	837.67
3307	3308	Ramp Running Slope	10.00	-0.62	-6.2%	0.5% to 8.3%					4203	21+53.91	-25.50	837.73
3308	3309	Crosswalk Cross Slope - No Yield Condition	5.00	-0.02	-0.4%	0.0% to 5.0%					4204	21+65.10	-30.50	838.35
3306	3307	Landing/Turning Space	5.00	-0.06	-1.2%	0.1% to 2.0%					4205	21+65.07	-25.50	838.35
3306	3310	Sidewalk Running Slope	15.00	1.08	7.2%	0.5% to 8.2%					4206	21+70.10	-30.50	838.40
3304	3311	Sidewalk Running Slope	15.01	1.10	7.3%	0.5% to 8.3%					4207	21+70.07	-25.50	838.33
3310	3311	Match Existing Cross Slope	4.91	0.02	0.4%	Match Existing					4208	21+70.01	-15.54	838.02
											4209	21+65.02	-16.49	837.94
3401	3402	Crosswalk Cross Slope - No Yield Condition	5.00	0.02	0.4%	0.0% to 5.0%					4210	21+70.02	-16.49	838.03
3401	3403	Ramp Running Slope	8.00	0.50	6.2%	0.5% to 8.3%					4211	21+65.30	-45.50	837.57
3402	3404	Ramp Running Slope	8.00	0.50	6.2%	0.5% to 8.3%					4212	21+69.30	-45.50	837.74
3403	3404	Landing/Turning Space	5.00	0.02	0.4%	0.1% to 2.0%					4301	21+24.59	-30.50	837.19
3403	3405	Landing/Turning Space	5.00	0.08	1.6%	0.1% to 2.0%	Yes				4302	21+22.55	-30.50	837.21
3404	3406	Landing/Turning Space	5.00	0.06	1.2%	0.1% to 2.0%					4303	21+22.55	-25.50	837.22
3405	3406	Landing/Turning Space	5.00	0.00	0.0%	0.1% to 2.0%					4304	21+11.30	-30.50	837.91
3403	3408	Ramp Running Slope	23.63	-0.42	-1.8%	0.5% to 8.3%					4305	21+11.30	-25.50	837.84
3405	3409	Ramp Running Slope	23.63	-0.43	-1.8%	0.5% to 8.3%					4306	21+06.30	-30.50	837.96
3408	3409	Ramp Cross Slope	5.00	0.07	1.4%	0.1% to 2.0%					4307	21+06.30	-25.50	837.89
3407	3409	Ramp Running Slope	2.73	0.03	1.1%	0.5% to 8.3%					4401	21+23.98	28.50	837.70
3407	3408	Crosswalk Cross Slope - Yield Condition	5.70	-0.04	-0.7%	0.0% to 2.0%					4402	21+21.25	23.50	837.61
3405	3411	Sidewalk Running Slope	10.00	0.60	6.0%	0.5% to 7%					4403	21+21.25	28.50	837.72
3406	3410	Sidewalk Running Slope	10.01	0.74	7.4%	0.5% to 8.4%					4404	21+11.32	23.50	838.12
3410	3411	Match Existing Cross Slope	4.55	-0.14	-3.1%	Match Existing					4405	21+11.32	28.50	838.17
											4406	21+06.32	23.50	838.05
4101	4102	Crosswalk Cross Slope - Yield Condition	5.70	-0.03	-0.5%	0.0% to 2.0%					4407	21+06.32	28.50	838.12
4101	4103	Ramp Running Slope	2.73	0.05	1.9%	0.5% to 8.3%					5201	26+73.14	-28.00	833.69
4102	4103	Ramp Cross Slope	5.00	0.08	1.6%	0.1% to 2.0%	Yes				5202	26+74.87	-28.00	833.67
4102	4104	Ramp Running Slope	9.59	0.26	2.7%	0.5% to 8.3%					5203	26+74.87	-23.00	833.65
4103	4105	Ramp Running Slope	9.59	0.18	1.9%	0.5% to 8.3%					5204	26+78.94	-28.00	833.76
4104	4111	Landing/Turning Space	7.78	0.00	0.0%	0.1% to 2.0%					5205	26+78.93	-23.00	833.71
4104	4109	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%					5206	26+83.94	-28.00	833.76
4110	4111	Landing/Turning Space	5.00	-0.02	-0.4%	0.1% to 2.0%					5207	26+83.93	-23.00	833.68
4109	4110	Landing/Turning Space	7.71	-0.03	-0.4%	0.1% to 2.0%					5301	26+45.27	-28.00	834.55
4104	4108	Ramp Running Slope	6.95	-0.33	-4.8%	0.5% to 8.3%					5302	26+42.35	-28.00	834.58
4109	4107	Ramp Running Slope	6.95	-0.40	-5.8%	0.5% to 8.3%					5303	26+42.35	-23.00	834.62
4106	4107	Ramp Running Slope	1.00	0.01	1.0%	0.5% to 8.3%					5304	26+31.46	-28.00	835.40
4107	4108	Ramp Cross Slope	5.00	0.02	0.4%	0.1% to 2.0%					5305	26+31.46	-23.00	835.35

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb

(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications

Point to Point		Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
											Point	Station	Offset	Elevation
			FT	FT	%	Pos. or Neg.		%						
4201	4202	Ramp Running Slope	2.04	0.02	1.0%	0.5% to 8.3%					5307	26+26.46	-23.00	835.40
4201	4203	Crosswalk Cross Slope - Yield Condition	5.40	0.08	1.5%	0.0% to 2.0%					5308	26+31.34	-33.00	835.68
4202	4203	Ramp Cross Slope	5.00	0.06	1.2%	0.1% to 2.0%					5309	26+26.34	-33.00	835.51
4202	4204	Ramp Running Slope	11.19	0.68	6.1%	0.5% to 8.3%					5310	26+31.19	-43.00	836.24
4203	4205	Ramp Running Slope	11.16	0.62	5.6%	0.5% to 8.3%					5311	26+27.53	-43.00	836.32
4204	4205	Landing/Turning Space	5.00	0.00	0.0%	0.1% to 2.0%								
4204	4206	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%								
4205	4207	Landing/Turning Space	5.00	-0.02	-0.4%	0.1% to 2.0%								
4205	4209	Ramp Running Slope	9.01	-0.41	-4.5%	0.5% to 8.3%								
4207	4210	Ramp Running Slope	9.01	-0.30	-3.3%	0.5% to 8.3%								
4210	4208	Ramp Running Slope	0.95	-0.01	-1.1%	0.5% to 8.3%								
4209	4210	Ramp Cross Slope	5.00	0.09	1.8%	0.1% to 2.0%	Yes							
4208	4209	Crosswalk Cross Slope - No Yield Conditio	5.08	-0.08	-1.6%	0.0% to 5.0%								
4206	4207	Landing/Turning Space	5.00	-0.07	-1.4%	0.1% to 2.0%								
4204	4211	Sidewalk Running Slope	15.00	-0.78	-5.2%	0.5% to 6.2%								
4206	4212	Sidewalk Running Slope	15.02	-0.66	-4.4%	0.5% to 5.0%	Yes							
4211	4212	Match Existing Cross Slope	4.00	0.17	4.2%	Match Existing								
4301	4302	Ramp Running Slope	2.04	0.02	1.0%	0.5% to 8.3%								
4301	4303	Crosswalk Cross Slope - Yield Condition	5.40	0.03	0.6%	0.0% to 2.0%								
4302	4304	Ramp Running Slope	11.25	0.70	6.3%	0.5% to 8.3%								
4303	4305	Ramp Running Slope	11.25	0.62	5.5%	0.5% to 8.3%								
4304	4305	Landing/Turning Space	5.00	-0.07	-1.5%	0.1% to 2.0%								
4304	4306	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%								
4305	4307	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%								
4306	4307	Landing/Turning Space	5.00	-0.07	-1.5%	0.1% to 2.0%								
4401	4402	Crosswalk Cross Slope - Yield Condition	5.70	-0.09	-1.6%	0.0% to 2.0%								
4401	4403	Ramp Running Slope	2.73	0.02	0.7%	0.5% to 8.3%								
4402	4404	Ramp Running Slope	9.93	0.51	5.1%	0.5% to 8.3%								
4403	4405	Ramp Running Slope	9.93	0.45	4.5%	0.5% to 8.3%								
4404	4405	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%								
4404	4406	Landing/Turning Space	5.00	-0.07	-1.4%	0.1% to 2.0%								
4405	4407	Landing/Turning Space	5.00	-0.05	-1.0%	0.1% to 2.0%								
4406	4407	Landing/Turning Space	5.00	0.07	1.4%	0.1% to 2.0%								
5201	5202	Ramp Running Slope	1.74	-0.02	-1.2%	0.5% to 8.3%								
5202	5203	Ramp Cross Slope	5.00	-0.02	-0.5%	0.1% to 2.0%								
5202	5204	Ramp Running Slope	4.07	0.08	2.0%	0.5% to 8.3%								
5203	5205	Ramp Running Slope	4.06	0.06	1.5%	0.5% to 8.3%								
5204	5205	Landing/Turning Space	5.00	-0.04	-0.9%	0.1% to 2.0%								
5204	5206	Landing/Turning Space	5.00	0.00	0.0%	0.1% to 2.0%								
5205	5207	Landing/Turning Space	5.00	-0.03	-0.6%	0.1% to 2.0%								
5206	5207	Landing/Turning Space	5.00	-0.08	-1.5%	0.1% to 2.0%								
5301	5302	Ramp Running Slope	2.93	0.03	1.0%	0.5% to 8.3%								
5301	5303	Crosswalk Cross Slope - Yield Condition	5.79	0.07	1.2%	0.0% to 2.0%								
5302	5304	Ramp Running Slope	10.89	0.82	7.5%	0.5% to 8.3%	Yes							
5303	5305	Ramp Running Slope	10.89	0.73	6.7%	0.5% to 8.3%								
5304	5305	Landing/Turning Space	5.00	-0.05	-1.0%	0.1% to 2.0%								
5304	5306	Landing/Turning Space	5.00	0.07	1.4%	0.1% to 2.0%								
5305	5307	Landing/Turning Space	5.00	0.05	1.0%	0.1% to 2.0%								
5306	5307	Landing/Turning Space	5.00	-0.07	-1.4%	0.1% to 2.0%								
5304	5308	Ramp Running Slope	5.00	0.28	5.6%	0.5% to 8.3%								
5308	5310	Ramp Running Slope	10.00	0.56	5.6%	0.5% to 8.3%								
5306	5309	Ramp Running Slope	5.00	0.03	0.7%	0.5% to 8.3%								
5309	5311	Ramp Running Slope	10.07	0.82	8.1%	0.5% to 8.3%	Yes							
5310	5311	Match Existing Cross Slope	3.66	0.08	2.2%	Match Existing								

IA 38 / ASH ST – SOUTH OF UPRR (DIVISION 1)

Total Volume Table							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
0+13.00	83.04	0.00	0.00	0.00	0.00	0.00	0.00
0+20.00	157.68	0.00	31.20	0.00	31.20	0.00	31.20
0+25.00	166.60	0.00	30.03	0.00	61.23	0.00	61.23
0+30.00	141.54	0.00	28.53	0.00	89.76	0.00	89.76
0+35.00	120.19	0.00	24.23	0.00	114.00	0.00	114.00
0+40.00	106.46	0.00	20.99	0.00	134.98	0.00	134.98
0+50.00	75.20	0.00	33.64	0.00	168.62	0.00	168.62
0+75.00	51.66	0.00	58.73	0.00	227.35	0.00	227.35
0+95.00	38.12	0.00	33.25	0.00	260.61	0.00	260.61
1+00.25	38.89	1.30	7.49	0.16	268.09	0.16	267.93
1+25.00	44.39	0.31	38.17	0.96	306.26	1.12	305.14
1+50.00	48.09	0.93	42.81	0.75	349.08	1.87	347.21
1+75.00	52.59	0.27	46.61	0.72	395.68	2.59	393.09
2+00.00	48.84	3.46	46.96	2.24	442.64	4.83	437.81
2+25.00	42.22	5.04	42.16	5.12	484.80	9.95	474.85
2+50.00	48.87	1.70	42.17	4.06	526.97	14.01	512.96
2+75.00	34.73	7.48	38.70	5.52	565.68	19.53	546.14
3+00.00	36.71	3.09	33.07	6.36	598.75	25.89	572.86
3+25.00	35.40	4.57	33.38	4.61	632.13	30.50	601.63
3+50.00	43.66	0.00	36.60	2.75	668.73	33.25	635.48
3+75.00	41.78	1.86	39.56	1.12	708.29	34.37	673.91
4+00.00	43.30	4.78	39.39	3.99	747.67	38.37	709.31
4+25.00	40.81	5.10	38.94	5.94	786.62	44.31	742.31
4+50.00	45.64	4.70	40.02	5.90	826.64	50.21	776.43
4+75.00	45.12	3.97	42.02	5.22	868.66	55.43	813.23
5+00.00	51.43	1.94	44.70	3.56	913.36	58.99	854.37
5+25.00	51.12	0.39	47.48	1.40	960.84	60.39	900.45
5+50.00	60.16	0.00	51.52	0.23	1012.36	60.62	951.73
5+75.00	54.18	1.31	52.94	0.79	1065.29	61.41	1003.88
6+00.00	53.52	2.17	49.86	2.09	1115.15	63.50	1051.65
6+25.00	49.35	3.91	47.62	3.66	1162.78	67.16	1095.62
6+50.00	48.90	6.06	45.49	6.00	1208.26	73.16	1135.10
6+75.00	54.02	4.88	47.65	6.58	1255.91	79.74	1176.17
6+87.50	43.09	15.87	22.48	6.24	1278.39	85.99	1192.40
7+00.00	66.41	3.74	25.35	5.90	1303.74	91.89	1211.85
7+12.50	59.03	0.00	29.04	1.13	1332.78	93.02	1239.76
7+25.00	54.79	0.00	26.35	0.00	1359.12	93.02	1266.11
7+37.50	57.12	1.27	25.90	0.38	1385.03	93.40	1291.63
7+50.00	37.94	7.86	22.00	2.75	1407.03	96.15	1310.88
7+75.00	43.98	8.47	37.92	9.83	1444.96	105.98	1338.98

Total Volume Table							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
8+00.00	51.61	3.30	44.25	7.09	1489.21	113.07	1376.14
8+25.00	58.34	0.57	50.91	2.33	1540.12	115.39	1424.72
8+50.00	58.73	2.24	54.20	1.69	1594.32	117.08	1477.24
8+75.00	58.08	2.73	54.08	2.99	1648.40	120.07	1528.33
9+00.00	63.17	0.79	56.14	2.11	1704.54	122.18	1582.35
9+25.00	54.35	3.81	54.41	2.76	1758.95	124.95	1634.00
9+50.00	56.28	2.07	51.22	3.54	1810.17	128.49	1681.68
9+75.00	59.31	0.56	53.51	1.58	1863.68	130.07	1733.61
10+00.00	61.75	0.18	56.05	0.45	1919.73	130.51	1789.21
10+25.00	57.29	0.09	55.11	0.17	1974.84	130.68	1844.16
10+50.00	57.69	3.80	53.23	2.35	2028.07	133.03	1895.05
10+75.00	59.28	2.04	54.15	3.52	2082.23	136.54	1945.69
11+00.00	58.93	2639.15	54.73	1589.61	2136.96	1726.15	410.81
11+25.00	52.89	8958.86	51.77	6980.29	2188.73	8706.44	−6517.71
11+50.00	53.64	4036.25	49.32	7821.13	2238.05	16527.57	−14289.52
11+75.00	63.94	0.19	54.43	2429.34	2292.48	18956.91	−16664.42
12+00.00	48.80	4.61	52.19	2.89	2344.68	18959.79	−16615.11
12+12.50	54.82	0.13	23.99	1.42	2368.66	18961.21	−16592.55
12+25.00	66.45	0.00	28.07	0.04	2396.74	18961.25	−16564.52
12+37.50	53.68	0.00	27.81	0.00	2424.54	18961.25	−16536.71
12+50.00	42.75	0.00	22.32	0.00	2446.87	18961.25	−16514.38
12+62.50	28.98	0.04	16.60	0.01	2463.47	18961.26	−16497.79
12+70.78	31.97	0.02	9.35	0.01	2472.82	18961.27	−16488.46

PRESTON ST – WEST OF IA 38 / ASH ST (DIVISION 4)

NOTE: CUT AND FILL QUANTITIES SHOWN INCLUDE THE DITCH RESHAPING (NORTH SIDE OF PRESTON ST) TO BE COMPLETED AS PART OF DIVISION 3 STORM SEWER

Total Volume Table							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
100+00.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00
100+25.00	5.46	1.57	2.80	0.95	2.80	0.95	1.85
100+47.00	5.09	0.41	4.30	1.05	7.10	2.00	5.10
100+52.63	15.97	1.14	2.20	0.21	9.29	2.21	7.09
100+75.00	12.37	1.30	11.74	1.32	21.03	3.52	17.51
101+00.00	14.66	3.38	12.52	2.82	33.55	6.34	27.21
101+25.00	18.01	1.75	15.13	3.09	48.68	9.42	39.25
101+40.61	24.64	0.53	12.33	0.86	61.01	10.28	50.73
101+50.00	2.86	3.44	4.78	0.90	65.79	11.18	54.61
101+54.46	17.80	7.79	1.71	1.21	67.50	12.38	55.11

Parcel Name: Ditch Reshaping - Preston West
Description: Division 3
Volume Surface: Cut-Fill
Fill correction: 1.30
Cut correction: 1.00
Elevation Tolerance: 0.05

Fill Volume	Cut Volume
7.05Cu.Yd	39.15Cu.Yd

PRESTON ST – EAST OF IA 38 / ASH ST (DIVISION 4)

NOTE: CUT AND FILL QUANTITIES SHOWN INCLUDE THE DITCH RESHAPING (NORTH & SOUTH SIDES OF PRESTON ST) TO BE COMPLETED AS PART OF DIVISION 3 STORM SEWER

Total Volume Table							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
102+26.63	23.73	3.38	0.00	0.00	0.00	0.00	0.00
102+36.00	15.54	1.79	6.81	1.17	6.81	1.17	5.65
102+50.00	11.01	0.17	6.88	0.66	13.70	1.82	11.87
102+75.00	6.74	0.70	8.22	0.52	21.91	2.34	19.57
102+79.59	12.72	0.18	1.65	0.10	23.57	2.44	21.12
102+85.07	5.05	0.07	1.80	0.03	25.37	2.47	22.89
103+00.00	5.40	0.01	2.89	0.03	28.26	2.50	25.76
103+25.00	7.32	0.00	5.89	0.01	34.15	2.51	31.64
103+35.00	6.91	0.00	2.63	0.00	36.78	2.51	34.27

Parcel Name: Ditch Reshaping - Preston East
Description: Division 3
Volume Surface: Cut-Fill
Fill correction: 1.30
Cut correction: 1.00
Elevation Tolerance: 0.05

Fill Volume	Cut Volume
0.15Cu.Yd	9.57Cu.Yd

NOTE:
ALSO 388.9 CLASS 10 EXCAVATION DIVISION 1 AT HWY 30 SHOULDER SHOWN ON TABULATION 112-9

Class 10 Earthwork Summary		
	Cut (CY)	Fill (CY) w/ 30%
Division 1	6941.24	587.56
Division 3	91.54	9.86
Division 4	55.56	7.69

IA 38 / ASH ST – NORTH OF UPRR (DIVISION 1)

NOTE: CUT AND FILL QUANTITIES SHOWN INCLUDE THE DITCH RESHAPING (NORTH OF FARMERS STEET, WEST SIDE) TO BE COMPLETED AS PART OF DIVISION 3 STORM SEWER

Total Volume Table

Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
13+67.91	39.75	2.39	0.00	0.00	0.00	0.00	0.00
13+75.00	40.27	2.49	10.50	0.83	10.50	0.83	9.67
14+00.00	44.42	0.40	39.21	1.74	49.71	2.57	47.15
14+25.00	48.54	2.71	43.04	1.87	92.75	4.44	88.32
14+50.00	53.69	2.86	47.33	3.35	140.08	7.79	132.29
14+75.00	62.36	4.78	53.72	4.60	193.80	12.38	181.42
15+00.00	62.74	4.35	57.91	5.49	251.72	17.88	233.84
15+25.00	63.41	2.28	58.40	3.99	310.12	21.87	288.25
15+50.00	103.37	0.00	77.21	1.37	387.33	23.24	364.09
15+62.50	137.67	0.00	55.80	0.00	443.12	23.24	419.88
15+75.00	173.39	0.00	72.00	0.00	515.13	23.24	491.89
15+79.00	144.71	0.00	23.56	0.00	538.69	23.24	515.45
15+87.50	171.79	0.00	49.82	0.00	588.51	23.24	565.27
15+94.00	181.82	0.00	42.56	0.00	631.07	23.24	607.83
16+00.00	162.85	0.00	38.30	0.00	669.37	23.24	646.13
16+07.00	181.24	0.00	44.60	0.00	713.97	23.24	690.73
16+08.00	157.22	0.00	6.27	0.00	720.24	23.24	697.00
16+15.00	171.11	0.00	42.56	0.00	762.80	23.24	739.56
16+25.00	151.26	0.00	59.70	0.00	822.50	23.24	799.26
16+37.50	99.44	0.00	58.03	0.00	880.53	23.24	857.29
16+50.00	76.49	0.38	40.72	0.12	921.26	23.36	897.90
16+75.00	59.75	1.91	63.07	1.38	984.33	24.74	959.59
17+00.00	51.80	3.98	51.65	3.55	1035.98	28.28	1007.70
17+25.00	52.03	2.15	48.07	3.69	1084.05	31.97	1052.08
17+50.00	46.40	3.95	45.57	3.67	1129.62	35.64	1093.98
17+75.00	49.47	4.56	44.38	5.12	1174.00	40.76	1133.24
18+00.00	54.64	4.80	48.20	5.63	1222.20	46.39	1175.81
18+25.00	62.69	5.81	54.32	6.38	1276.52	52.77	1223.75
18+50.00	60.58	4.75	57.07	6.35	1333.59	59.13	1274.47
18+75.00	56.78	4.81	54.33	5.75	1387.93	64.88	1323.05
19+00.00	59.30	0.75	53.74	3.35	1441.67	68.22	1373.45
19+25.00	54.54	4.76	52.71	3.31	1494.37	71.54	1422.84
19+50.00	52.61	6.69	49.61	6.89	1543.98	78.42	1465.56
19+75.00	50.83	4.97	47.89	7.02	1591.87	85.44	1506.43
20+00.00	45.96	4.74	44.81	5.84	1636.68	91.28	1545.40
20+25.00	46.32	2.04	42.72	4.08	1679.40	95.37	1584.04
20+50.00	38.34	6.15	39.19	4.93	1718.60	100.30	1618.30
20+75.00	31.70	13.66	32.43	11.92	1751.02	112.22	1638.80
21+00.00	26.37	20.58	26.88	20.61	1777.91	132.83	1645.07
21+12.50	31.04	7.48	13.29	8.44	1791.20	141.28	1649.92
21+25.00	74.89	0.00	24.52	2.25	1815.72	143.53	1672.19
21+37.50	67.52	0.00	32.97	0.00	1848.68	143.53	1705.16
21+50.00	59.59	0.00	29.42	0.00	1878.11	143.53	1734.58
21+62.50	44.19	4.11	24.02	1.24	1902.13	144.76	1757.36
21+75.00	24.85	9.62	15.98	4.13	1918.11	148.90	1769.21
22+00.00	21.80	10.98	21.60	12.40	1939.70	161.29	1778.41
22+25.00	18.99	12.32	18.89	14.03	1958.59	175.32	1783.27
22+50.00	28.84	5.39	22.14	10.66	1980.74	185.98	1794.76
22+75.00	30.88	9.45	27.65	8.93	2008.38	194.90	1813.48
23+00.00	36.06	9.26	30.99	11.26	2039.37	206.17	1833.21

Total Volume Table

Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
23+25.00	39.22	8.24	34.85	10.54	2074.22	216.70	1857.52
23+50.00	42.11	5.81	37.65	8.46	2111.88	225.16	1886.72
23+67.00	44.26	4.14	27.19	4.07	2139.07	229.23	1909.84
23+75.00	52.98	1.87	14.41	1.16	2153.47	230.38	1923.09
24+00.00	44.75	1.98	45.25	2.32	2198.72	232.70	1966.02
24+25.00	46.11	4.75	42.06	4.05	2240.78	236.75	2004.03
24+50.00	48.46	4.23	43.78	5.40	2284.57	242.16	2042.41
24+75.00	59.14	1.48	49.82	3.44	2334.38	245.59	2088.79
25+00.00	66.15	1.90	58.01	2.03	2392.39	247.63	2144.76
25+25.00	73.34	1.59	64.58	2.10	2456.96	249.73	2207.24
25+32.00	75.62	1.19	19.31	0.47	2476.27	250.20	2226.08
25+37.50	76.69	1.11	15.51	0.30	2491.79	250.50	2241.29
25+50.00	76.83	2.37	35.54	1.05	2527.32	251.55	2275.78
25+58.00	82.43	2.43	23.59	0.92	2550.92	252.47	2298.45
25+70.00	76.20	2.02	35.25	1.29	2586.17	253.76	2332.41
25+75.00	51.11	2.02	11.79	0.49	2597.96	254.24	2343.71
25+85.00	51.92	3.23	19.08	1.26	2617.04	255.51	2361.53
25+92.00	62.71	5.14	14.86	1.41	2631.90	256.92	2374.98
26+00.00	52.81	6.46	17.11	2.24	2649.01	259.15	2389.86
26+25.00	30.10	1.09	38.38	4.55	2687.39	263.70	2423.69
26+37.50	62.29	0.00	21.39	0.33	2708.78	264.03	2444.75
26+50.00	22.33	0.00	19.59	0.00	2728.37	264.03	2464.34
26+62.50	33.37	0.46	12.90	0.14	2741.26	264.17	2477.09
26+75.00	18.25	4.82	11.95	1.59	2753.21	265.76	2487.45
26+85.00	4.89	29.40	4.28	8.24	2757.50	274.00	2483.50
26+90.00	3.51	25.92	0.78	6.66	2758.27	280.66	2477.62
26+92.73	3.61	26.55	0.36	3.45	2758.63	284.11	2474.53
27+00.00	3.93	27.93	1.01	9.53	2759.65	293.64	2466.01
27+11.00	4.86	29.11	1.79	15.11	2761.44	308.75	2452.70
27+21.00	22.19	20.09	5.01	11.84	2766.45	320.59	2445.86
27+25.00	20.60	21.08	3.17	3.96	2769.62	324.55	2445.07
27+50.00	17.98	14.65	17.86	21.50	2787.48	346.06	2441.43
27+75.00	13.92	16.75	14.77	18.90	2802.25	364.95	2437.30
28+00.00	19.73	9.36	15.58	15.72	2817.83	380.67	2437.17
28+25.00	16.28	2.74	16.67	7.28	2834.51	387.95	2446.56
28+50.00	20.55	5.87	17.05	5.18	2851.56	393.13	2458.43
28+75.00	25.69	2.20	21.41	4.85	2872.97	397.98	2474.98
29+00.00	31.01	1.27	26.25	2.09	2899.22	400.07	2499.15
29+25.00	42.35	0.00	33.96	0.76	2933.18	400.84	2532.35
29+50.00	39.08	0.01	37.70	0.01	2970.88	400.84	2570.04
29+75.00	47.01	0.00	39.86	0.01	3010.74	400.85	2609.89
30+00.00	40.70	0.00	40.61	0.00	3051.35	400.85	2650.50
30+25.00	30.61	0.01	33.02	0.01	3084.37	400.86	2683.51
30+50.00	29.07	0.20	27.63	0.13	3112.00	400.99	2711.01
30+75.00	27.31	0.11	26.10	0.19	3138.10	401.18	2736.92
31+00.00	29.35	0.78	26.23	0.54	3164.33	401.72	2762.61
31+25.00	31.97	0.59	28.39	0.83	3192.72	402.54	2790.17
31+50.00	29.29	0.44	28.36	0.62	3221.08	403.17	2817.91
31+75.00	28.66	0.47	26.82	0.55	3247.90	403.72	2844.18
32+00.00	29.43	0.61	26.89	0.65	3274.79	404.37	2870.42

Total Volume Table

Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
32+25.00	24.82	1.18	25.12	1.08	3299.91	405.45	2894.46
32+50.00	24.49	1.57	22.83	1.65	3322.74	407.10	2915.63
32+75.00	26.94	1.28	23.81	1.72	3346.54	408.82	2937.72
33+00.00	25.98	1.82	24.50	1.87	3371.04	410.69	2960.36
33+25.00	22.69	1.54	22.53	2.02	3393.58	412.71	2980.87
33+50.00	22.92	1.12	21.12	1.60	3414.69	414.31	3000.39
33+75.00	25.04	0.49	22.20	0.97	3436.89	415.27	3021.62
34+00.00	23.24	4.81	22.35	3.19	3459.25	418.46	3040.78
34+25.00	28.12	0.09	23.78	2.95	3483.03	421.42	3061.61
34+50.00	27.23	1.17	25.63	0.76	3508.65	422.18	3086.48
34+75.00	28.37	0.54	25.74	1.03	3534.40	423.21	3111.19
35+00.00	28.89	0.18	26.51	0.43	3560.91	423.64	3137.27
35+25.00	28.18	0.37	26.42	0.33	3587.33	423.97	3163.36
35+50.00	28.06	0.53	26.04	0.54	3613.37	424.51	3188.85
35+75.00	28.62	0.52	26.24	0.63	3639.60	425.14	3214.46
36+00.00	28.66	0.63	26.52	0.70	3666.12	425.84	3240.28
36+25.00	28.35	1.02	26.39	1.00	3692.51	426.83	3265.68
36+50.00	27.30	4.32	25.76	3.21	3718.28	430.04	3288.23
36+75.00	28.69	3.63	25.92	4.78	3744.20	434.83	3309.37
37+00.00	32.01	0.22	28.10	2.31	3772.30	437.14	3335.16
37+25.00	32.93	0.07	30.06	0.17	3802.36	437.31	3365.05
37+50.00	34.17	0.02	31.07	0.06	3833.43	437.37	3396.06
37+75.00	33.85	0.00	31.49	0.01	3864.92	437.38	3427.54
38+00.00	34.88	0.68	31.82	0.41	3896.74	437.79	3458.95
38+25.00	31.32	2.12	30.65	1.69	3927.39	439.48	3487.91
38+50.00	30.88	1.48	28.79	2.17	3956.18	441.65	3514.53
38+75.00	31.87	0.28	29.05	1.06	3985.23	442.71	3542.53
39+00.00	32.08	0.04	29.60	0.19	4014.84	442.90	3571.94
39+25.00	30.28	0.83	28.87	0.53	4043.71	443.42	3600.29
39+50.00	30.34	0.36	28.07	0.71	4071.77	444.14	3627.64
39+75.00	29.03	0.18	27.48	0.32	4099.26	444.46	3654.80
39+78.00	29.07	0.03	3.23	0.02	4102.49	444.48	3658.01

Parcel Name: Ditch Reshaping - Farmers North
Description: Division 3
Volume Surface: Cut-Fill
Fill correction: 1.30
Cut correction: 1.00
Elevation Tolerance: 0.05

Fill Volume	Cut Volume
2.66Cu.Yd	42.82Cu.Yd

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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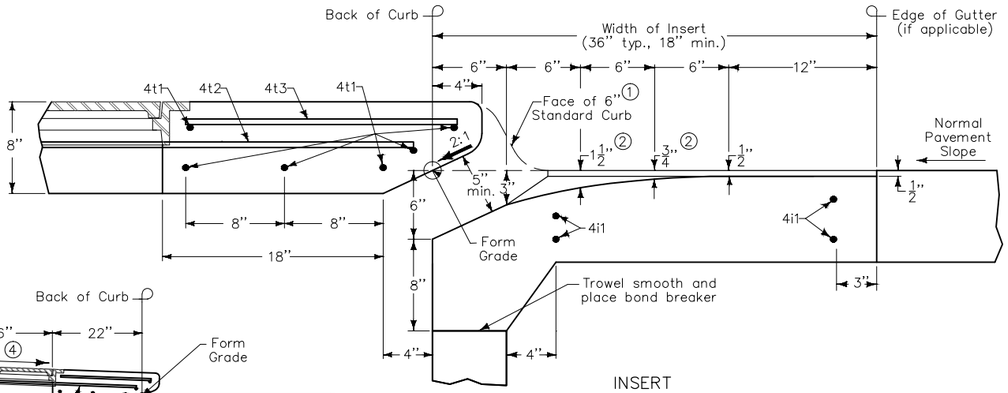
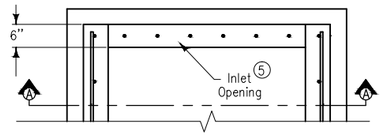
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA		2016	T.2	144

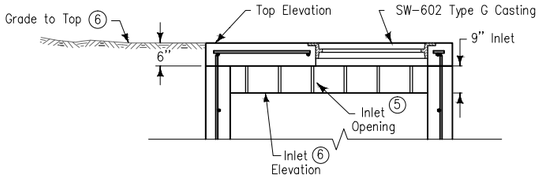


INSERT

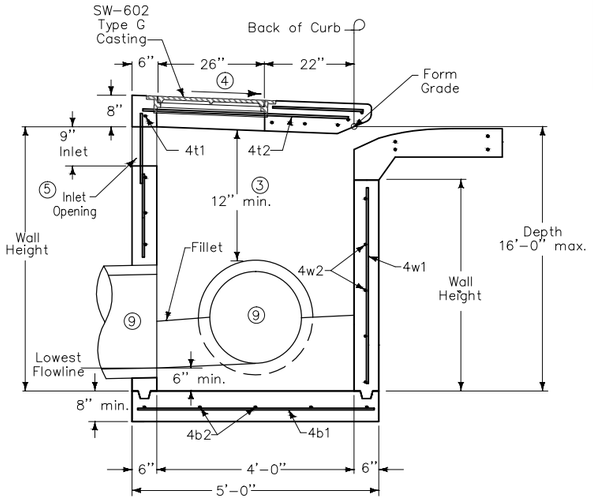
MAXIMUM PIPE DIAMETERS	
	Cast-in-place Structure
	36"



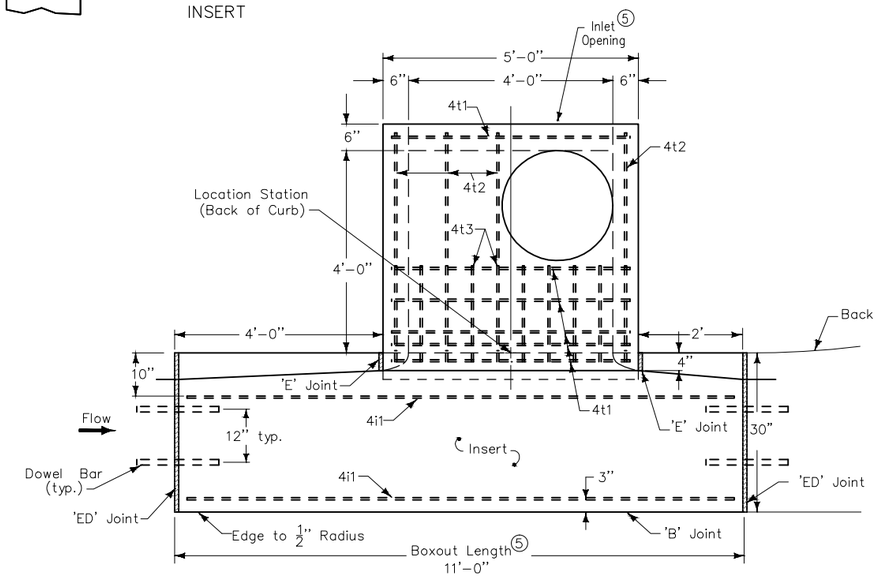
INLET OPENING
PLAN



SECTION A–A



TYPICAL SECTION



PLAN

REINFORCING BAR LIST						
Mark	Size	Location	Shape	Count	Length	Spacing
4t1	4	Top	——	7	4'–8"	See Insert
4t2	4	Top	——	4	4'–6"	12"
4t3	4	Top	——	10	1'–10"	6"
4b1	4	Base	——	6	4'–6"	1 1"
4b2	4	Base	——	6	4'–6"	1 1"
4i1	4	Insert	——	4	Boxout Length minus 8"	See Plan
4w1	4	Walls	——	16	Wall Height minus 4"	14"
4w2	4	Walls	——	Varies	4'–8"	12"
4w3	4	Walls	——	Varies	4'–8"	12"

① MODIFY DIMENSIONS AS REQUIRED TO ACCOMMODATE OTHER CURB HEIGHTS WHEN SPECIFIED.

② INSERT SHAPING MAY BE MODIFIED FOR INSERT WIDTHS LESS THAN 36 INCHES. FOR AN 18 INCH INSERT, REDUCE DIMENSIONS INDICATED BY $\frac{1}{2}$ INCH.

③ 12 INCH MINIMUM WALL HEIGHT ABOVE ALL PIPES.

④ SLOPE OF 1.5% OR AS SPECIFIED IN THE CONTRACT DOCUMENTS.

⑤ CONSTRUCT INLET OPENINGS WITH 15–INCH #4 EPOXY–COATED BARS AT 8 INCHES ON CENTER. EMBED BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS.

⑥ GRADE TO INLET ELEVATION ON OPEN SIDES. GRADE TO TOP ELEVATION ON CLOSED SIDES.

⑦ CAST–IN–PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

⑧ TRANSVERSE JOINT SPACING ON NEW CONCRETE PAVEMENT IS CONTROLLED BY THE INTAKE BOXOUT. ADJUST ADJACENT JOINT SPACING AS REQUIRED TO ACCOMMODATE BOXOUTS.

⑨ PIPES SHOWN FOR TYPICAL STRUCTURAL DIMENSIONS. SEE PLANS FOR EXACT PIPE SIZES AND LOCATIONS.

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

SW–508 MODIFIED DETAILS
STA 21+25.25, 38.08' R

Station:. Date:.

CITY OF STANWOOD, CEDAR COUNTY

P:\14\183\DRAWINGS\CIVIL\14183_ZZ_U_SW 508 MODIFIED.DWG 4/26/2016 3:18:15 PM JERI M. VONDERA

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

iiw
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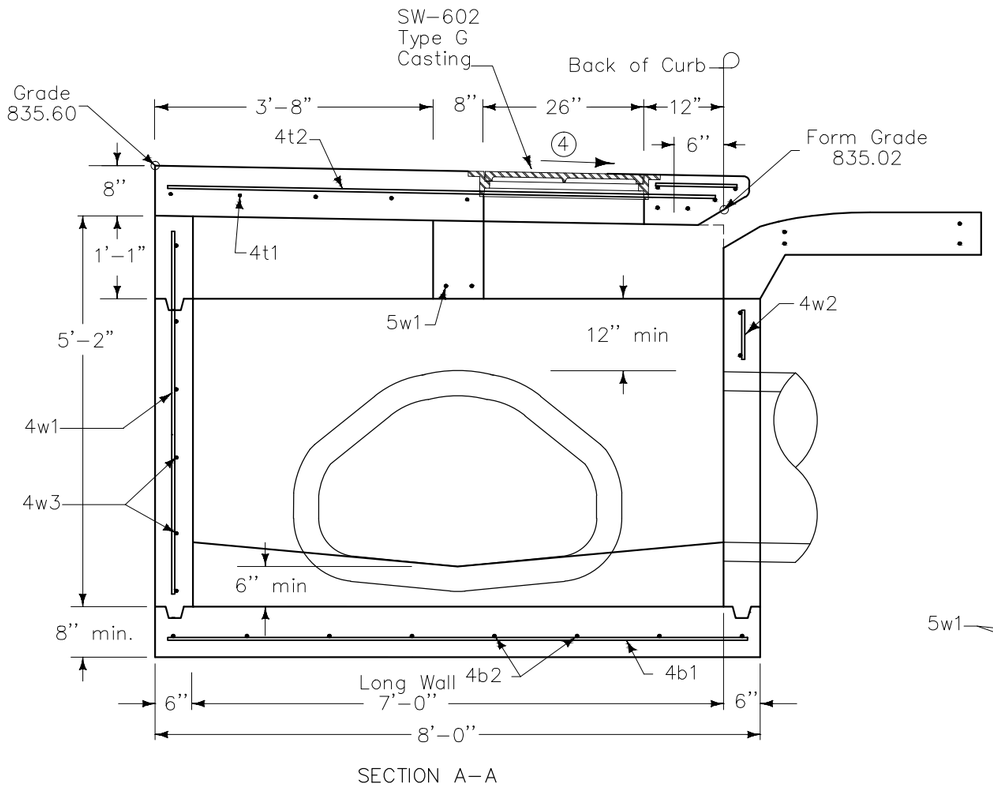
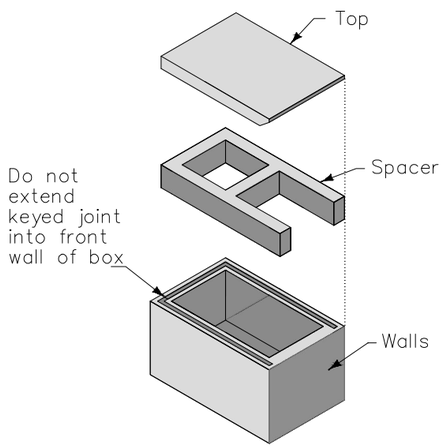
CITY OF STANWOOD, CEDAR COUNTY

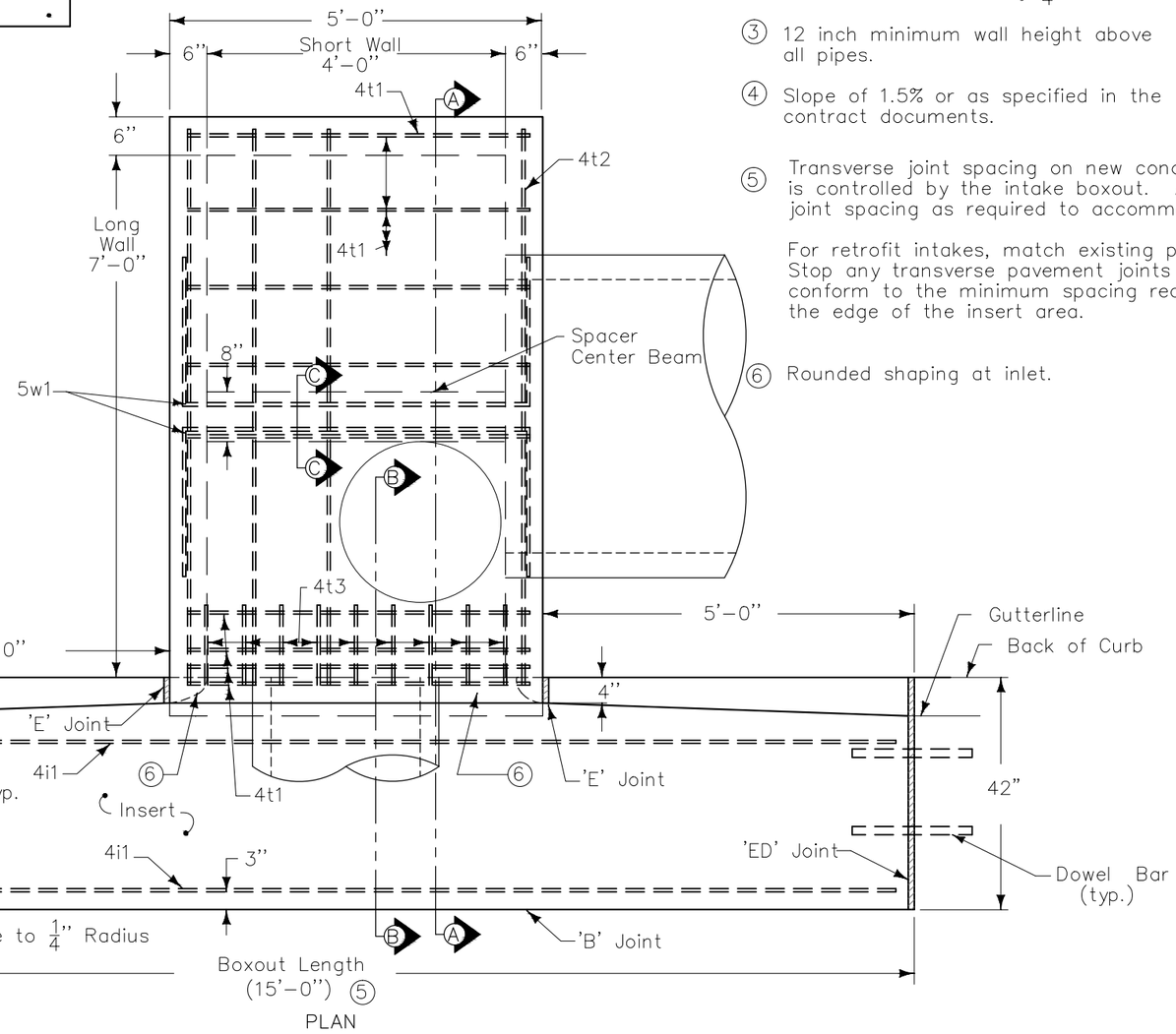
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP–038–2(37)––2C–16	IOWA	.	2016	U.1	141



SECTION A-A



ISOMETRIC
(Refer to Section B-B
for alignment of Top
with Spacer)



PLAN

1. Modify dimensions as required to accommodate other curb heights when specified.
2. Insert shaping may be modified for insert widths less than 36 inches. For an 18 inch insert, reduce dimensions indicated by $\frac{1}{4}$ inch.
3. 12 inch minimum wall height above all pipes.
4. Slope of 1.5% or as specified in the contract documents.
5. Transverse joint spacing on new concrete pavement is controlled by the intake boxout. Adjust adjacent joint spacing as required to accommodate boxouts.

   For retrofit intakes, match existing pavement joints. Stop any transverse pavement joints that do not conform to the minimum spacing requirements at the edge of the insert area.
6. Rounded shaping at inlet.

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

SW-510 MODIFIED DETAILS
STA 26+13.41, 15.50' L
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: DETAILED BY: TRACED BY: CHECKED BY:

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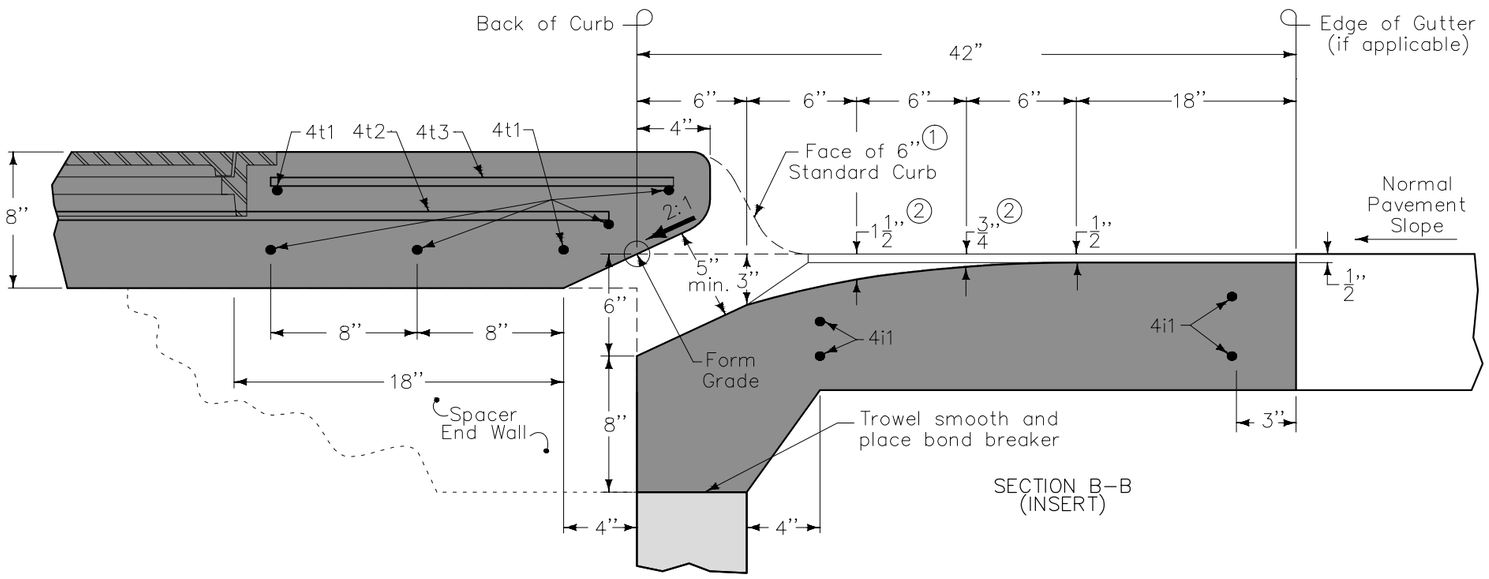
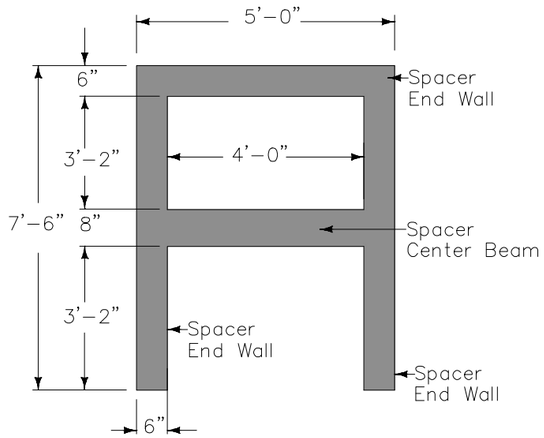
CITY OF STANWOOD, CEDAR COUNTY

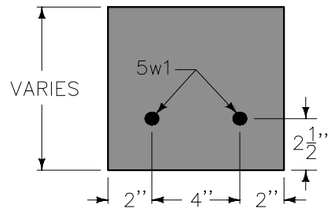
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	U.2	141



SECTION B–B
(INSERT)



PLAN
(SPACER)

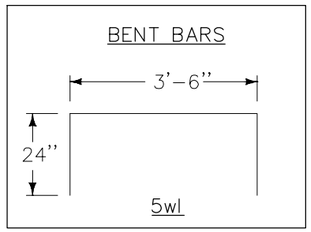


SECTION C–C

REINFORCING BAR LIST - SW-510 MODIFIED

BAR	LOCATION	SHAPE	SPACE (IN)	NO.	LENGTH ft - in.	WEIGHT (LB)
4 b1	BASE, LONG.	_____	12	5	7 - 6	25
4 b2	BASE, TRANS.	_____	12	8	4 - 6	24
4 i1	INSERT, LONG.	_____	SEE PLAN	4	14 - 4	38
4 t1	SLAB, TRANS.	_____	SEE PLAN	10	4 - 6	30
4 t2	SLAB, LONG.	_____	12	4	7 - 4	20
4 t3	SLAB, TRANS. AT GUTTER LINE	_____	6	9	1 - 1	7
4 w1	WALL, (1) SHORT & (2) LONG WALLS, VERT.	_____	12	21	4 - 8	65
4 w2	WALL, (1) SHORT WALL AT GUTTER LINE, VERT.	_____	12	5	3 - 9	13
4 w3	WALL, (2) SHORT WALLS, HORIZ.	_____	12	11	4 - 8	34
4 w4	WALL, (2) LONG WALLS, HORIZ.	_____	12	10	7 - 8	51
5 w1	HOOK @ BEAM	⌐	12	4	11 - 0	46
			TOTAL EPOXY-COATED REINFORCING STEEL (LB)			353

NOTE: FIELD CUT REINFORCING AS REQUIRED FOR PIPE PENETRATIONS.



Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

SW–510 MODIFIED DETAILS
STA 26+13.41, 15.50' L
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

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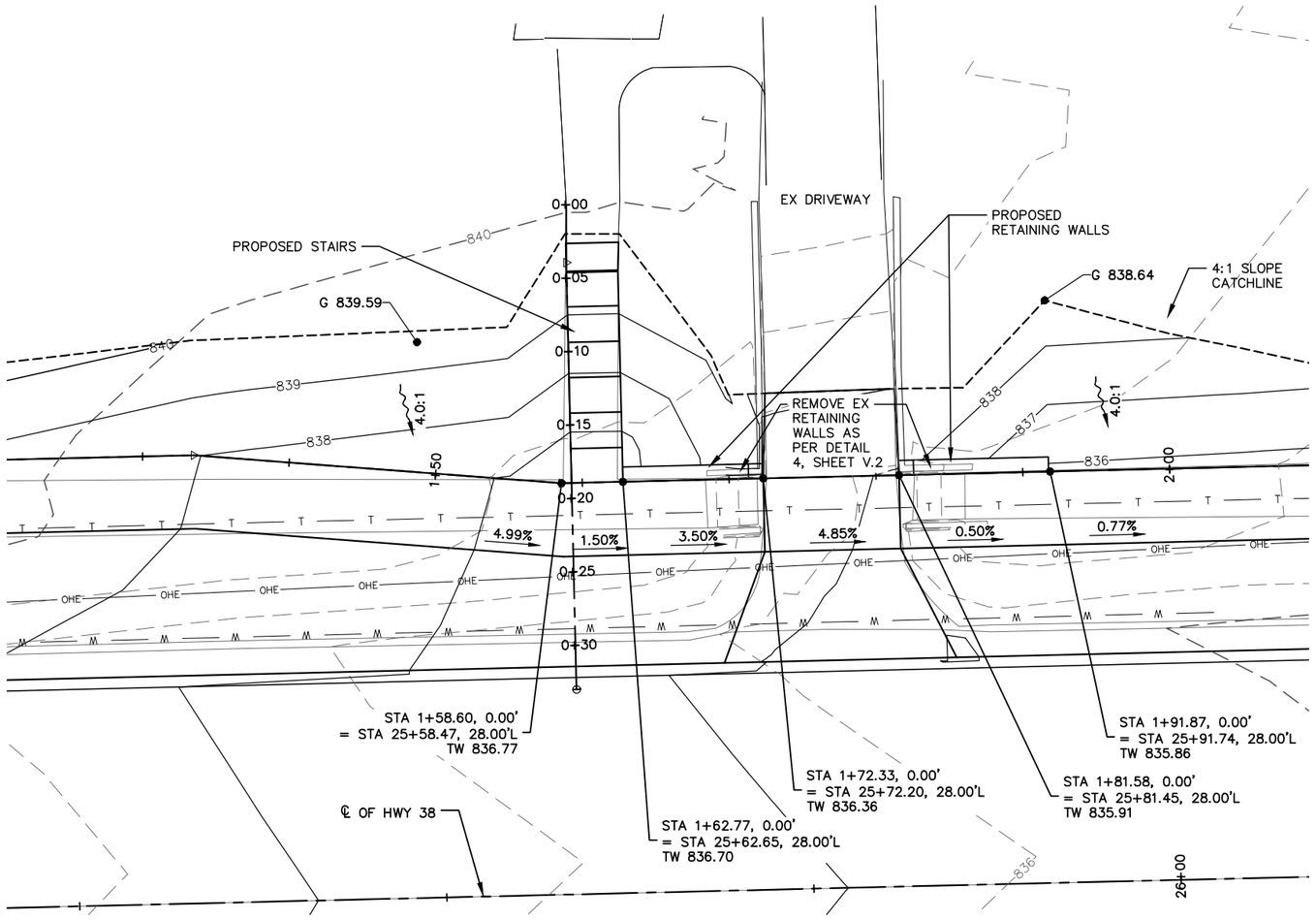
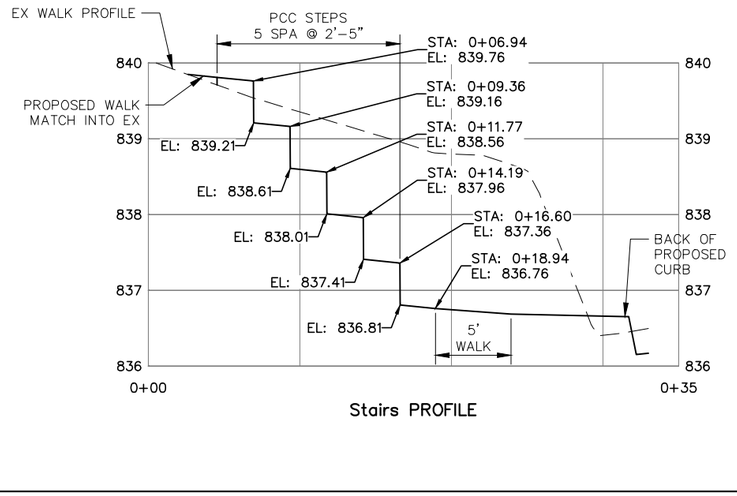
IIW, P.C. ◆ www.iiwengr.com

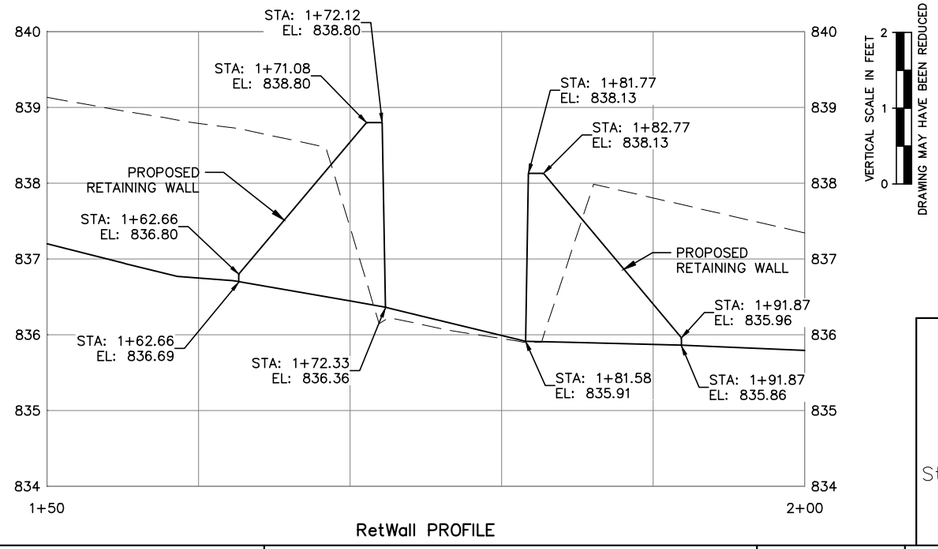
CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	U.3	141





Stairs PROFILE



RetWall PROFILE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

SITUATION PLAN
RETAINING WALL AND STAIRS
Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
DETAILED BY: _____ CHECKED BY: _____

iiw
563.556.2464 ◆ 800.556.4491
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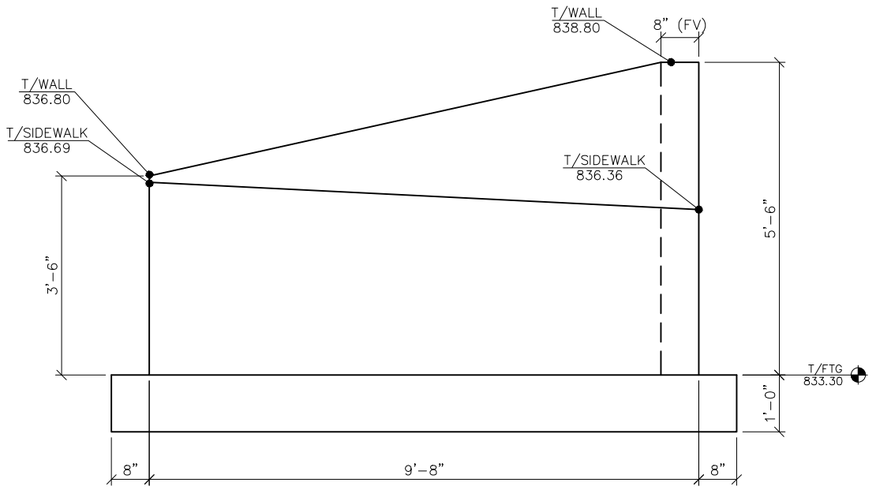
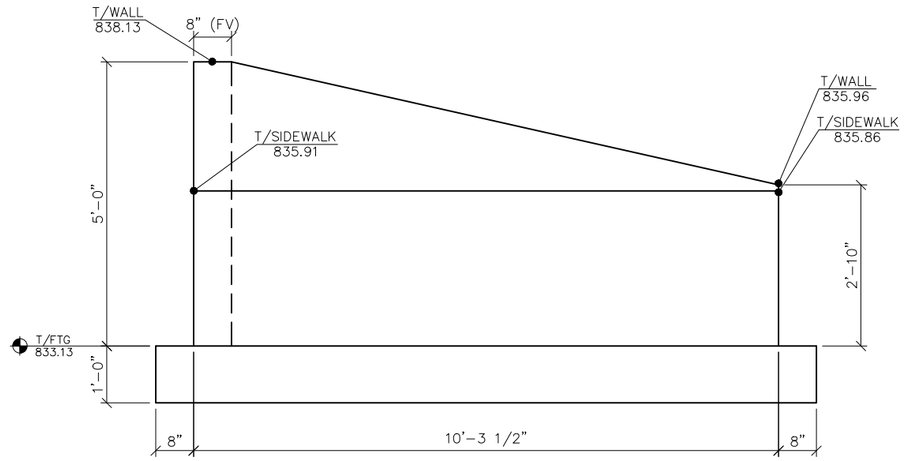
CITY OF STANWOOD, CEDAR COUNTY

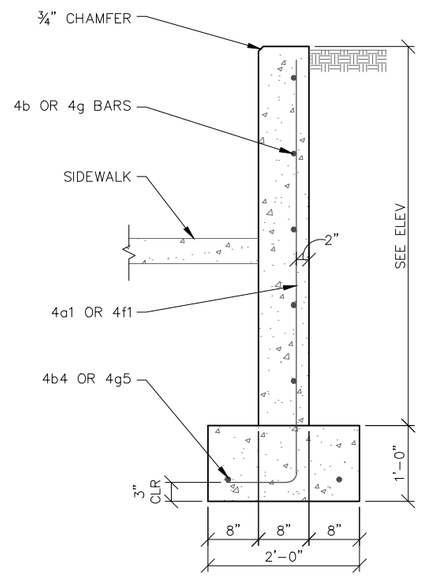
PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	V.1	135



1 V.2 SOUTH RETAINING WALL ELEVATION
NOT TO SCALE



2 V.2 NORTH RETAINING WALL ELEVATION
NOT TO SCALE



3 V.2 RETAINING WALL SECTION
NOT TO SCALE

NOTES:

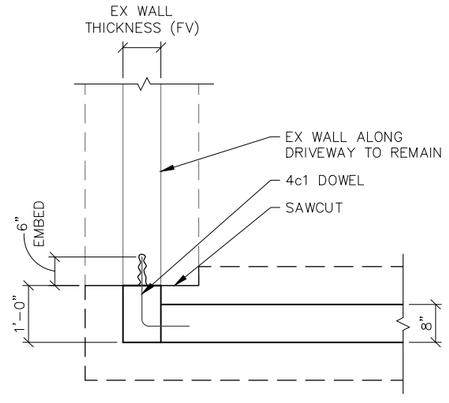
THE MINIMUM CLEAR DISTANCE FROM THE FACE OF CONCRETE TO NEAR REINFORCEMENT BAR IS TO BE 2 INCHES, UNLESS OTHERWISE NOTED OR SHOWN.

ALL REINFORCING STEEL IS TO BE GRADE 60.

ALL REINFORCING STEEL IS TO BE EPOXY COATED.

FIELD VERIFY THE EXISTING WALL THICKNESS AND MATCH AT THE CONNECTION BETWEEN EXISTING AND NEW WALLS.

(FV) = FIELD VERIFY



4 V.2 CONNECTION DETAIL, TYP BOTH WALL
NOT TO SCALE

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

RETAINING WALL SECTIONS & DETAILS

Station:. Date:.

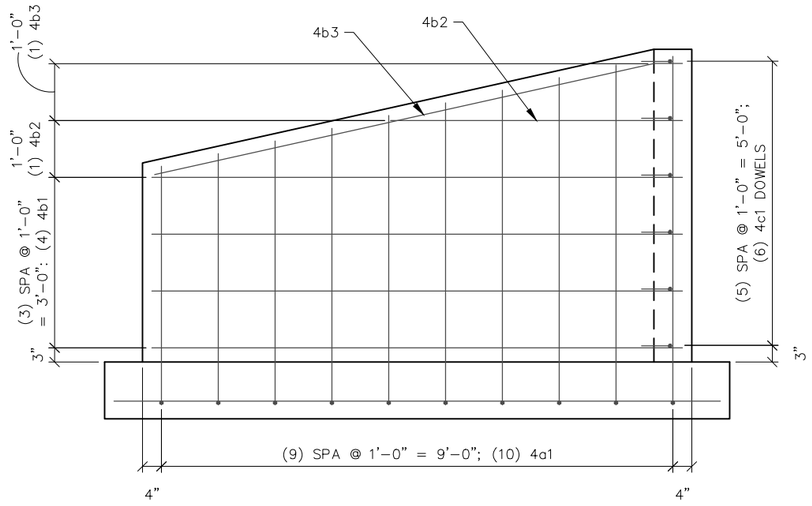
CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: TRACED BY:
DETAILED BY: CHECKED BY:

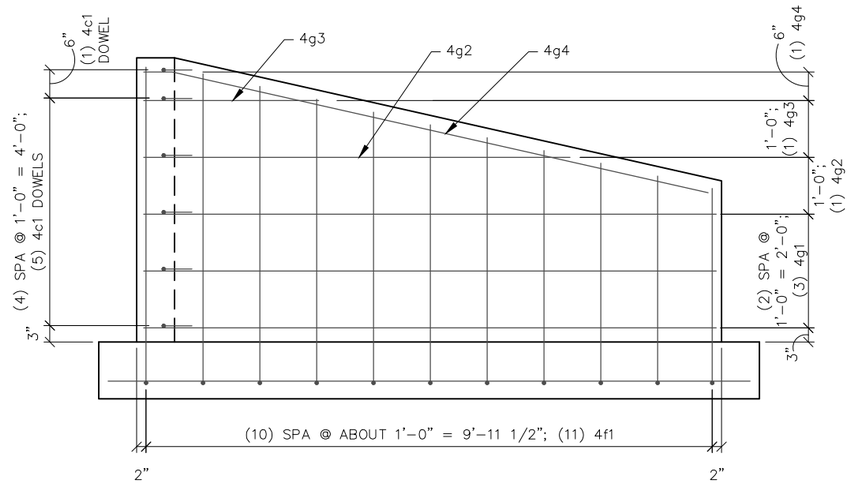
iiw 563.556.2464 ◆ 800.556.4491
IIW, P.C. ◆ www.iiwengr.com

CITY OF STANWOOD, CEDAR COUNTY

PROJECT NUMBER	STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
STP-038-2(37)--2C-16	IOWA	.	2016	V.2	144

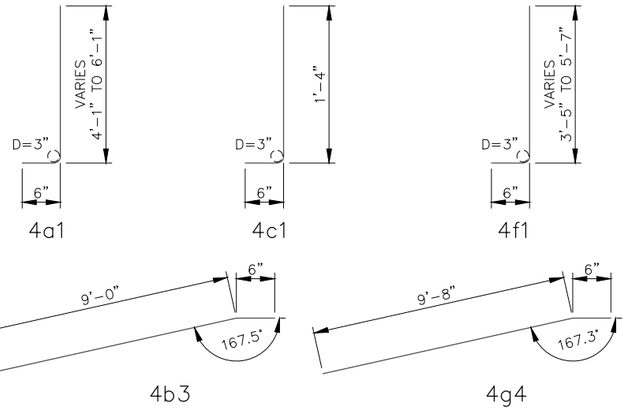


1 V.3 SOUTH RETAINING WALL REINFORCING
NOT TO SCALE



2 V.3 NORTH RETAINING WALL REINFORCING
NOT TO SCALE

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT.
D = PIN DIAMETER

EPOXY REINFORCING STEEL - TWO RETAINING WALLS

BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
				FT '- IN	LB
4 a1	VERTICAL , SOUTH WALL, VARIES 4'-7 TO 6'-7	⌊	10	5 '- 7	37
4 b1	HORIZONTAL, SOUTH WALL	—	4	9 '- 4	25
4 b2	HORIZONTAL, SOUTH WALL	—	1	5 '- 1	3
4 b3	HORIZONTAL, SOUTH WALL, TOP	⌒	1	9 '- 6	6
4 b4	HORIZONTAL, SOUTH FOOTING	—	2	10 '- 8	14
4 c1	DOWELS TO EXISTING WALL, BOTH WALLS	⌊	12	1 '- 10	15
4 f1	VERTICAL , NORTH WALL, VARIES 3'-11 TO 6'-1	⌊	11	5 '- 0	37
4 g1	HORIZONTAL, NORTH WALL	—	3	9 '- 11	20
4 g2	HORIZONTAL, NORTH WALL	—	1	7 '- 6	5
4 g3	HORIZONTAL, NORTH WALL	—	1	3 '- 1	2
4 g4	HORIZONTAL, NORTH WALL, TOP	⌒	1	10 '- 2	7
4 g5	HORIZONTAL, NORTH FOOTING	—	2	11 '- 3	15
				TOTAL EPOXY COATED REINFORCING (LB)	186

CONCRETE QUANTITIES	
LOCATION	CONC. (CY)
SOUTH WALL FOOTING	0.8
SOUTH WALL	1.1
NORTH WALL FOOTING	0.8
NORTH WALL	1.0
TOTAL (CY)	3.7

Design For
IA 38
FROM W JCT US 30 TO NCL STANWOOD

RETAINING WALL REINFORCING DETAILS

Station:. Date:.
CITY OF STANWOOD, CEDAR COUNTY

DESIGNED BY: _____ TRACED BY: _____
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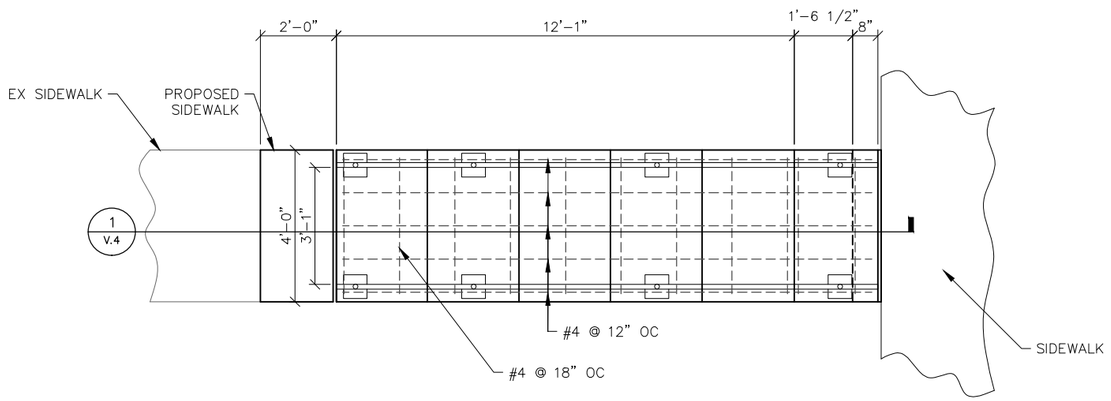


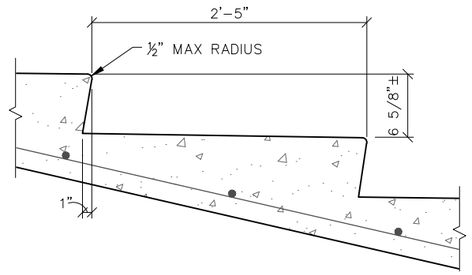
NORTH

STAIR PLAN

NOTES:

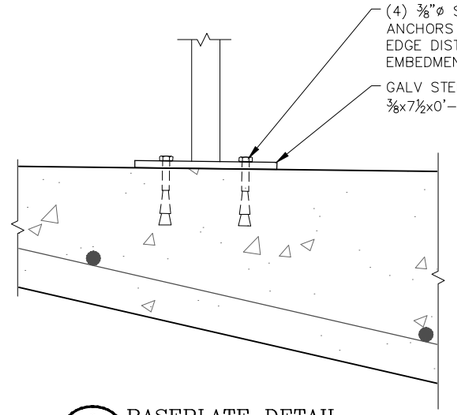
PROVIDE A MINIMUM OF 2 INCHES OF COVER FOR ALL REINFORCING.

ENSURE ALL RISERS ARE AN EQUAL HEIGHT AND ALL TREADS ARE AN EQUAL DEPTH WITHIN A FLIGHT OF STAIRS.



2 V.4 TREAD AND RISER DETAIL

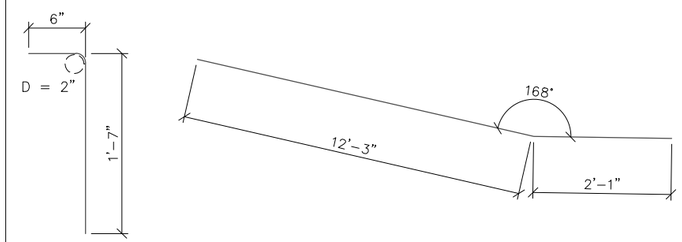
NOT TO SCALE

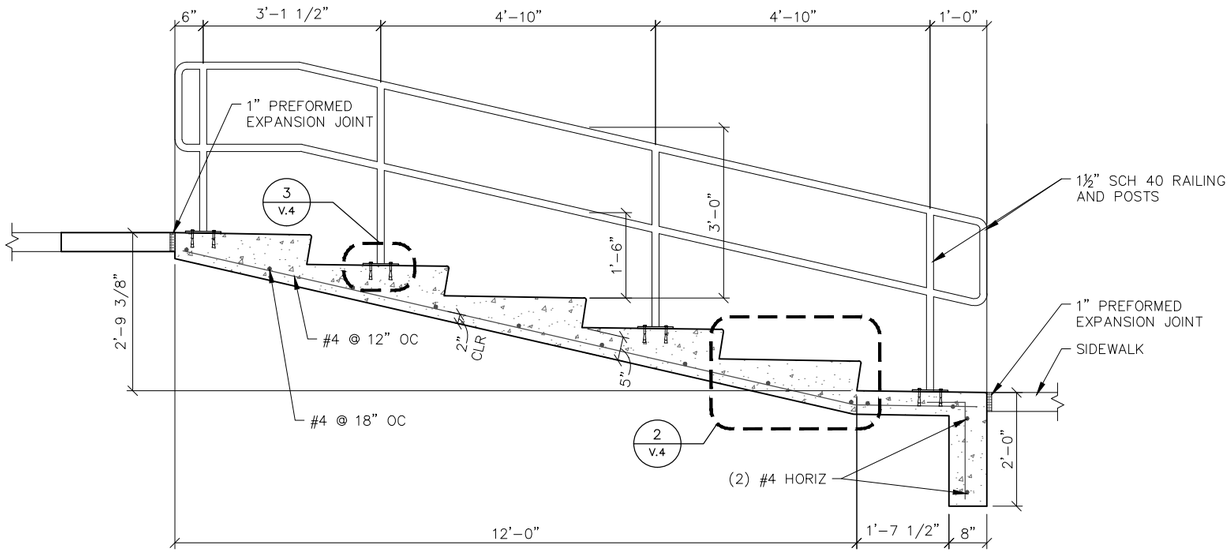


3 V.4 BASEPLATE DETAIL

NOT TO SCALE

BENT BARS





1 V.4 STAIR SECTION

NOT TO SCALE

RAILING NOTES:

THE STEEL PIPE RAILING IS TO BE BID ON LINEAL FOOT BASIS MEASURED END TO END OF RAIL. THE PRICE BID FOR "ORNAMENTAL METAL RAILING" SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, INCLUDING ANCHOR BOLTS AND SHIMS, AND ALL OF THE EQUIPMENT AND LABOR REQUIRED TO ERECT THE RAIL IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.

THE MATERIAL FOR TUBE RAILS, POSTS AND SPLICE TUBES SHALL BE STANDARD STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, TYPE E OR S, GRADE B. BASE PLATES AND SHIMS SHALL MEET THE REQUIREMENTS OF ASTM A-36. THE ASSEMBLY SHALL BE GALVANIZED, AFTER FABRICATION, IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A-123.

END OF RAIL SECTIONS ARE TO BE SAWED OR MILLED. ALL CUT ENDS ARE TO BE TRUE, SMOOTH, AND FREE OF BURRS OR RAGGED EDGES. ALL CORNERS TO BE MITERED JOINTS. NO PAINTING WILL BE REQUIRED.

THE STUD CONCRETE ANCHORS SHALL BE STAINLESS STEEL AND HAVE A MINIMUM PULL OUT STRENGTH OF 3,000 POUNDS BASED ON 4,000 PSI CONCRETE.

REINFORCING SHALL BE EPOXY COATED.

QUANTITIES	
EPOXY COATED REINFORCING	87 LB
STRUCTURAL CONC MISC.	1.5 LB
ORNAMENTAL METAL RAILING	28.6 LF

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STAIR DETAILS

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