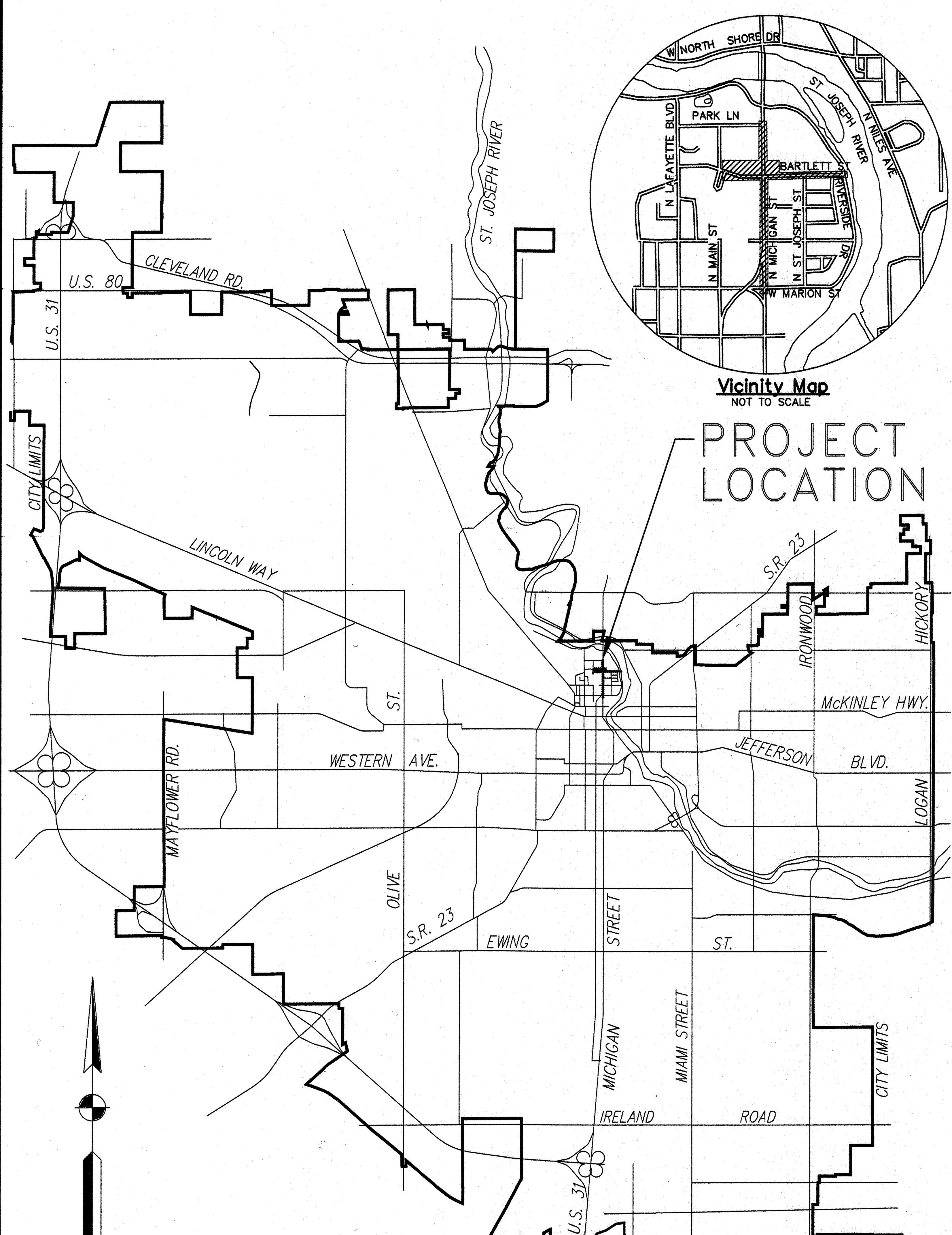
CITY OF SOUTH BEND, INDIANA
DEPARTMENT OF PUBLIC WORKS

PROJECT ☒ SEWER ☒ WATER ☒ TRAFFIC ☒ STREET ☒ OTHER



BARTLETT STREET IMPROVEMENTS PHASE II

PROJECT NO. 114-032B
DIVISION B, PART 3 OF 3

APPROVED BY BOARD OF PUBLIC WORKS

DATE 12/22/15

Name	Title
GARY A. GILOT	PRESIDENT
DAVID P. RELOS	MEMBER
ELIZABETH A. MARADIK	MEMBER
JAMES A. MUELLER	MEMBER
THERESE J. DORAU	MEMBER

RECOMMENDATION OF CITY STAFF

Name	Title	DATE
ROGER NAWROT, P.E.	ADMINISTRATION AND DESIGN	12/21/15
P. CORBITT KERR, Ph.D, P.E.	CITY ENGINEER	12-21-15
TOY VILLA	CONSTRUCTION	1-4-16
JITIN KAIN	COMMUNITY INVESTMENT	1-4-16
ED HERMAN	SOUTH BEND WATER WORKS	1/4/16
PETE KAMINSKI	STREET COMMISIONER	1-4-16

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SEE SHEET 1

CERTIFIED BY: 1/6/16
REGISTERED PROFESSIONAL ENGINEER STATE OF INDIANA NO. 80328
(COVERING GENERAL CIVIL DESIGN)

MARK E. WILSON REGISTERED No. PE60328 STATE OF INDIANA PROFESSIONAL ENGINEER

CERTIFIED BY: 01/6/2016
REGISTERED PROFESSIONAL ENGINEER STATE OF INDIANA NO. 11011333
(COVERING CIVIL DESIGN)

BRIAN B. KONARSKI REGISTERED No. 11011333 STATE OF INDIANA PROFESSIONAL ENGINEER

CERTIFIED BY: 1-6-2016
REGISTERED LANDSCAPE ARCHITECT STATE OF INDIANA NO. 20500170
(COVERING LANDSCAPE ARCHITECTURE DESIGN)

CHRIS CHOCKLEY REGISTERED No. 20500170 STATE OF INDIANA LANDSCAPE ARCHITECT

CERTIFIED BY: 1-6-16
REGISTERED PROFESSIONAL ARCHITECT STATE OF INDIANA NO. 10200111
(COVERING LIGHTING DESIGN)

STEVEN J. VANDENBURG REGISTERED No. 10200111 STATE OF INDIANA ARCHITECT

STANDARD DRAWINGS

SHEET D-3
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SHEET W-1, 2, 3, 4, 5, 6, 7, 8, 9, 10

SEE CURRENT CITY OF SOUTH BEND, INDIANA DEPARTMENT OF PUBLIC WORKS PREVAILING SPECIFICATIONS FOR PUBLIC WORKS STANDARD DRAWINGS (REVISED APRIL, 2011)

PLANS PREPARED FOR:

CITY OF SOUTH BEND, INDIANA
DEPARTMENT OF PUBLIC WORKS
227 W. JEFFERSON BLVD., SUITE 1300 N.
SOUTH BEND, IN 46601

BARTLETT STREET IMPROVEMENTS PHASE II PLANS PREPARED BY:

JPR JONES PETRIE RAFINSKI
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GIS · Environmental · Renewable Energy · Landscape Architecture
Elkhart, Indiana p: 574.293.7762
South Bend, Indiana p: 574.232.4388
Fort Wayne, Indiana p: 260.422.2522

UTILTIES

SEWERS
CITY OF SOUTH BEND
DEPT. OF PUBLIC WORKS
1316 COUNTY-CITY BUILDING
227 W. JEFFERSON BLVD.
SOUTH BEND, IN 46601
(574) 235-9251

WATER
SOUTH BEND WATER WORKS
830 N. MICHIGAN STREET
SOUTH BEND, IN 46601
(574) 245-6108

GAS
NIPSCO
1039 E. PENNSYLVANIA AVE.
SOUTH BEND, IN 46601
(574) 284-2214

ELECTRIC
AMERICAN ELECTRIC POWER (I&M)
2929 LATHROP STREET
SOUTH BEND, IN 46628
(574) 283-1871

TELEPHONE
AT&T
307 S. MAIN STREET
SOUTH BEND, IN 46601
(574) 237-8380

CABLE
COMCAST
1920 E. McKINLEY
MISHAWAKA, IN 46545
(574) 252-2562

FIBER OPTIC
METRONET
121 S. MICHIGAN STREET
SOUTH BEND, IN 46601
(574) 360-7812

INDEX

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GIS • Environmental • Renewable Energy • Landscape Architecture
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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL Mark E. Wilson 1/6/2016
DESIGN ENGINEER DATE

DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

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- EXISTING MONUMENT
- PK NAIL FOUND
- MAG NAIL SET
- MISC. MANHOLE
- CLEAN OUT
- LIFT STATION
- COMBINED SEWER MANHOLE
- SANITARY MANHOLE
- CATCH BASIN
- SQUARE INLET GRATE
- DRY WELL
- IRON GRATE
- ROOF DRAIN
- STORM MANHOLE
- CABLE PEDESTAL
- GAS METER
- GAS VALVE
- GAS MARKER
- CONTROL CABINET
- ELECTRIC METER
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC MARKER
- ELECTRICAL OUTLET
- GUY ANCHORS
- POWER POLE
- YARD LIGHT
- STRAIN POLE
- TRAFFIC LIGHT POLE
- TRAFFIC MANHOLE
- TRAFFIC HANDHOLE
- TRAFFIC LOOP DETECTOR
- TELEPHONE VAULT
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- TELEPHONE MARKER
- FIBER OPTIC MANHOLE
- FIBER OPTIC MARKER
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- WATER MANHOLE
- WATER VAULT
- MONITORING WELL
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- POST
- BOLLARD
- AIR CONDITIONER
- FLAG POLE
- MAILBOX
- ROCKS/BOULDERS
- SOIL BORING
- SIGN
- DOUBLE POST SIGN
- STOP SIGN
- SHRUB
- ORNAMENTAL TREE
- TREES OF VARIOUS SIZES
- PINE TREE OF VARIOUS SIZES
- SANITARY LINE
- STORM LINE
- COMBINATION SEWER LINE
- GAS LINE
- OVERHEAD LINE
- OVERHEAD ELECTRIC LINE
- BURIED ELECTRIC LINE
- BURIED CABLE TV LINE
- FIBER OPTIC LINE
- BURIED TELEPHONE LINE
- WATER LINE
- WOOD FENCE
- CHAIN LINK TYPE FENCE
- BRUSHLINE

TOPOGRAPHIC SURVEY NOTES:

This topographic survey was performed for The City of South Bend in June and July 2014, and is for their use only.

This is not a boundary survey. Right–of–way lines and property lines are based on limited field evidence and limited research. All right–of–way and property lines shown are apparent.

Basis of Elevation was derived by utilizing Benchmark "SJ15" located on the Michigan Street Bridge over the St. Joseph River. Elevation is 689.377 (NGVD 1929 Datum). For Phase II of this project the vertical datum was converted to NAVD88 Datum by lowering all elevations 0.37'. All vertical information for this phase of the project is based upon NAVD88 Datum.

Topographic data between Main Street, Park lane, Michigan Street, and Bartlett Street was prepared by DLZ Corporation and merged with JPR's topographic survey.

UTILITY NOTES

Existing underground utilities shown in these plans are based on evidence of above ground features, on locations marked in the field by others, or on record information provided by utility companies. No excavation should occur without notification of appropriate agencies and utility companies.

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JEFFREY S. BARNES
REGISTERED
No. LS20200064
STATE OF INDIANA
LAND SURVEYOR

RECOMMENDED FOR APPROVAL: 01/06/2016
DESIGN ENGINEER DATE

DESIGNED: C.R.C.	DRAWN: R.J.H
CHECKED: B.B.K.	CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

TOPOGRAPHIC SURVEY SHEET
BARTLETT STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 40'	
VERTICAL SCALE	DESIGNATION
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JEFFREY S. BARNES REGISTERED No. LS20200084 STATE OF INDIANA LAND SURVEYOR

RECOMMENDED FOR APPROVAL [signature] 01/06/2016
DESIGN ENGINEER DATE

DESIGNED: C.R.C.	DRAWN: R.J.H
CHECKED: B.B.K.	CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

TOPOGRAPHIC SURVEY SHEET
MICHIGAN STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 40'	
VERTICAL SCALE	DESIGNATION
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X-2017

Bartlett Street Corridor
Storm Inlet #22521 (DLZ STR. 2521)
Rim 681.16 (DLZ)
Inv 677.06 – 12" PVC W (DLZ)
Inv 676.95 – 12" PVC NE (DLZ)

Storm Inlet #22224 (DLZ STR. 2224)
Rim 681.15 (DLZ)
Inv 677.04 – 12" PVC SW (DLZ)

Storm Manhole #22174 (DLZ STR. 2174)
Rim 681.89 (DLZ)
Inv 677.47 – 8" PVC N (DLZ)
Inv 677.44 – 15" PVC S (DLZ)
Inv 677.44 – 15" PVC SE (DLZ)

Storm Inlet #22111 (DLZ STR. 2111)
Rim 681.95 (DLZ)
Inv 677.53 – 15" PVC NW (DLZ)
Inv 677.55 – 15" PVC SE (DLZ)

Storm Manhole #22422 (DLZ STR. 2422)
Rim 682.00 (DLZ)
Inv 677.54 – 18" PVC SE (DLZ)
Inv 677.46 – 15" PVC N (DLZ)

Catch Basin #22058 (DLZ STR. 2058)
Rim 682.02 (DLZ)
Inv 678.27 – 18" PVC NW (DLZ)

Catch Basin #2144 (DLZ STR. 2033)
Rim 682.78
Inv 676.60 – 24" RCP W (DLZ)
Inv 676.60 – 24" RCP E (DLZ)

Storm Manhole #24785 (DLZ STR. 4785)
Rim 682.39 (DLZ)
Inv 677.61 – 15" PVC W (DLZ)
Inv 677.65 – 15" PVC E (DLZ)

Storm Manhole #24776 (DLZ STR. 4776)
Rim 681.69 (DLZ)
Inv 678.32 – 12" PVC NE
Inv 677.83 – 18" PVC NW
Inv 677.62 – 18" PVC SW

Storm Inlet #24777 (DLZ STR. 4777)
Rim 681.56 (DLZ)
Inv 678.46 – 12" PVC S (DLZ)

Storm Inlet #21845 (DLZ STR. 1845)
Rim 682.01 (DLZ)
Inv 678.91 – 18" PVC NE (DLZ)

Storm Manhole #21851 (DLZ STR. 1851)
Rim 682.05 (DLZ)
Inv 677.35 – 24" RCP W (DLZ)
Inv 677.75 – 12" PVC E (DLZ)
Inv 677.85 – 6" PVC ESE (DLZ)
Inv 676.95 – 24" RCP SSE (DLZ)
Inv 677.45 – 8" PRC S (DLZ)

Storm Inlet #21527 (DLZ STR. 1527)
Rim 682.64 (DLZ)
Inv 678.24 – 8" PVC N (DLZ)

Storm Inlet #21380 (DLZ STR. 1380)
Rim 681.40 (DLZ)
Inv 677.96 – 12" PVC W (DLZ)
Inv 678.15 – 8" PVC SE (DLZ)

Catch Basin #21439 (DLZ STR. 1439)
Rim 682.18 (DLZ)
Inv 678.60 – 8" PVC NW (DLZ)
Inv 678.60 – 6" PVC SE (DLZ)
SE Pipe Possible Roof
Drain Connection (DLZ)

Storm Manhole #21376 (DLZ STR. 1376)
Rim 681.82 (DLZ)
Inv 674.06 – 12" VCP W

Catch Basin #3723
(DLZ STR. 1381)
Rim 680.70
Inv 677.81 – 8" PVC N (DLZ)

Sanitary Manhole #10559
Rim 678.29
Inv 665.67 – 12" VCP E
Inv 665.79 – 12" VCP W

Storm Manhole #10554
Rim 678.45
Inv 671.90 – 8" PVC SW
Inv 671.81 – 8" PVC SE
Inv 669.13 – 8" PVC WSW
Inv 669.18 – 6" PVC W
Inv 667.30 – 15" PVC S
Inv 667.24 – 15" PVC E

Iron Grate #10343
Rim 677.81
Inv 673.51 – 8" PVC NE (ELBOW)

Iron Grate #10097
Rim 678.15
Inv 674.57 – 8" PVC NW (ELBOW)

Memorial South of Bartlett
Catch Basin #22423 (DLZ STR. 2423)
Rim 682.22 (DLZ)
Unable to Open Str. (DLZ)
Depth of Str. 6.4' (DLZ)
No Pipes Visible (DLZ)

Sanitary Manhole #10625
Rim 683.02
Inv 671.70 – 24" VCP S
Top 678.01 – 8" VCP SW
Inv 672.77 – 12" PVC SW
Top 677.27 – 8" VCP NW
Top 677.82 – 8" VCP SE
Inv 672.42 – 12" VCP E
Inv 671.69 – 24" VCP N

Main Street Corridor
Sanitary Manhole #22194
(DLZ STR. 2194)
Rim 681.35 (DLZ)
Inv 670.51 – 18–24" VCP N (DLZ)
Inv 670.62 – 18–24" VCP S (DLZ)

Storm Manhole #24891 (DLZ STR. 4891)
Rim 681.18 (DLZ)
Inv 674.58 – 36" RCP N (DLZ)
Inv 674.98 – 15" PVC E (DLZ)
Inv 674.58 – 36" RCP S (DLZ)

Storm Inlet #24890 (DLZ STR. 4890)
4'ø Structure
Rim 680.54 (DLZ)
Inv 674.94 – 15" PVC W (DLZ)
Inv 675.14 – 15" PVC E (DLZ)
Sump 675.1 – bottom full of debris

Storm Inlet #24887 (DLZ STR. 4887)
4'ø Structure
Rim 680.58 (DLZ)
Inv 677.28 – 15" PVC W (DLZ)
Inv 677.28 – 15" PVC S (DLZ)
Sump – 677.4

Sanitary Manhole #24922
(DLZ STR. 4922)
Rim 679.92 (DLZ)
Inv 669.32 – 24" VCP N (DLZ)
Inv 670.72 – 12" PVC E (DLZ)
Inv 669.42 – 24" VCP S (DLZ)

Storm Manhole #24991 (DLZ STR. 4991)
Rim 681.64 (DLZ)
Inv 676.94 – 12" VCP N (DLZ)
Inv 676.99 – 6" PVC W (DLZ)

Storm Inlet #24965 (DLZ STR. 4965)
Rim 679.35 (DLZ)
Inv 674.15 – 24" RCP N (DLZ)
Inv 675.85 – 12" PVC E (DLZ)
Inv 674.15 – 36" RCP S (DLZ)

Storm Inlet #24952 (DLZ STR. 4952)
Rim 679.41 (DLZ)
Inv 676.91 – 12" PVC W (DLZ)

Sanitary Manhole #25015
(DLZ STR. 149)
Rim 678.60
Inv 668.55 – 24" PVC N (DLZ)
Inv 668.55 – 24" PVC S (DLZ)
8" PIPES E AND W ARE PLUGGED
WITH CONCRETE

Catch Basin #25107
(DLZ STR. 148)
Rim 678.28
Inv 673.53 – 24" RCP N (DLZ)
Inv 673.73 – 12" RCP NE (DLZ)
Inv 673.54 – 24" RCP S (DLZ)

Storm Inlet #25010 (DLZ STR. 150)
Rim 678.07
Inv 673.97 – 12" RCP W (DLZ)

Sanitary Manhole #25024
(DLZ STR. 146)
Rim 675.98
Inv 667.18 – 24" PVC N (DLZ)
Inv 667.17 – 24" PVC S (DLZ)

Catch Basin #25099 (DLZ STR. 147)
Rim 675.35
Inv 671.95 – 24" STEEL N (DLZ)
Inv 672.25 – 24" STEEL S (DLZ)

Catch Basin #25630 (DLZ STR. 138)
Rim 674.82
Inv 672.12 – 12" RCP NW (DLZ)
Inv 672.05 – 24" STEEL N (DLZ)
Inv 672.10 – 12" RCP E (DLZ)
Inv 672.09 – 24" STEEL S (DLZ)

Iron Grate #25343 (DLZ STR. 211)
Rim 674.69
Inv 672.24 – 12" RCP NE (DLZ)
Inv 672.94 – 8" PVC SE (DLZ)
Inv 672.24 – 12" RCP W (DLZ)

Park Lane
Sanitary Manhole #10621
Rim 675.95
Inv 665.98 – 12" VCP E
Inv 665.98 – 12" VCP W

Sanitary Manhole #20919
(DLZ STR. 183)
Rim 676.31
Elev top of Silt 42" W = 667.71 (DLZ)
Inv 670.81 – 12" PVC N (DLZ)
ELEV TOP OF SILT 42" E = 669.11 (DLZ)
12" PIPE IS PLASTIC INSIDE OLD METAL
LARGE UNDERGROUND STR. IS FULL OF SILT,
CANNOT REACH TRUE INVERT ELEVATIONS.
(DLZ)

Sanitary Manhole #3182
(DLZ STR. 182)
Rim 676..23
Inv 665.43 – 12" RCP W (DLZ)
Inv 665.43 – 12" RCP E (DLZ)

Sanitary Manhole #3183
(DLZ STR. 181)
Rim 676.37
Inv 670.07 – 8" STEEL N (DLZ)
TOP OF PIPE 24" SE = 670.97 (DLZ)
TOP OF PIPE 42" NW = 671.37 (DLZ)
STR. IS FULL OF SILT, CANNOT REACH
TRUE INVERT ELEVATION. (DLZ)

Michigan Street
Iron Grate #4608
Rim 695.39
Inv 692.56 – 8" VCP NE

Iron Grate #4609
Rim 695.24
Inv 692.94 – 8" VCP NE

Catch Basin #4560
Rim 694.44
Inv 690.48 – 12" RCP S
ENCLOSED ELBOW TO NORTH
SEDIMENT TRAP

Combined Sewer Manhole #4238
Rim 694.57
Inv 689.75 – 8" VCP SW
Inv 689.39 – 8" VCP SE
Inv 682.60 – 12" VCP N
Inv 686.71 – 8" VCP NE
Inv 686.67 – 8" VCP NW
Inv 686.11 – 8" VCP W
Inv 689.57 – 8" VCP W

Catch Basin #4679
Rim 693.64
Inv 690.74 – 8" PVC S

Sanitary Manhole #4227
Rim 692.24
Inv 677.88 – 36" Type Uncertain S
Inv 677.98 – 36" Type Uncertain N

Sanitary Manhole #3951
Rim 692.04
Inv 683.61 – 10" VCP W
Inv 677.88 – 12" VCP SW
Inv 677.91 – 12" VCP NE

Sanitary Manhole #3947
Rim 691.63
Inv 679.35 – 12" VCP SW
Inv 679.31 – 12" VCP N

Sanitary Manhole #4205
Rim 688.96
Inv 679.16 – 12" VCP N
Inv 679.12 – 12" VCP S
Inv 679.16 – 12" VCP W

Catch Basin #4348
Rim 687.19
Inv 683.79 – 6" PVC E
Inv 683.37 – 15" RCP S
TOP 684.80 – 15" RCP N
(Measured to top/elbow for N pipe)

Sanitary Manhole #3921
Rim 689.14
Inv 677.98 – 15" VCP N
Inv 677.95 – 15" VCP S
Inv 680.06 – 10" VCP W

Sanitary Manhole #3924
Rim 688.90
Inv 679.26 – 12" VCP S
Inv 679.27 – 15" VCP E (DEBRIS IN PIPE)
Inv 680.10 – 10" VCP NW
Inv 679.67 – 12" VCP SW

Sanitary Manhole #3900
Rim 687.88
Inv 680.55 – 10" VCP NW
Inv 680.45 – 10" VCP SE
Inv 680.64 – 4" VCP NW

Michigan Street (Continued)
Sanitary Manhole #3869
Rim 685.24
Inv 678.74 – 15" PVC S
Inv 678.35 – 15" VCP E-W

Sanitary Manhole #3858
Rim 684.91
Inv 677.51 – 15" VCP N-S

Sanitary Manhole #3844
Rim 684.16
Inv 676.76 – 15" VCP N-S
Inv 677.70 – 10" DIP W
HOLE CUT IN SIDE OF PIPE W/
6" PVC COMING IN FROM SW

Catch Basin #4298
Rim 683.17
Inv 679.13 – 12" RCP S
ENCLOSED ELBOW TO NORTH
SEDIMENT TRAP

Iron Grate #3760
Rim 681.27
Inv 678.47 – 8" VCP ELBOW NE

Iron Grate #4245
Rim 681.01
Inv 677.16 – 12" RCP S
ELBOW ON PIPE, SEDIMENT TRAP

Manhole #4120
Rim 681.50
Inv 674.86 – 12" DIP NE
Inv 675.23 – 15" DIP W

Manhole #4119
Rim 681.14
Inv 677.48 – 12" RCP S
Inv 677.50 – 12" RCP N

Combined Sewer Manhole #4107
(DLZ STR. 191)
Rim 681.88
Inv 670.76 – 12" VCP N (DLZ)
Inv 673.16 – 8" VCP NE (DLZ)
Inv 673.16 – 8" VCP SE (DLZ)
Inv 670.76 – 12" VCP S (DLZ)
Inv 673.06 – 8" VCP SW (DLZ)
Inv 672.86 – 8" VCP NW (DLZ)
PIPE SIZES QUESTIONABLE–HARD
TO OBTAIN. PIPE SIZES ARE
INCONSISTENT WITH PLANS (DLZ)

Combined Sewer Manhole #4106
(DLZ STR. 190)
Rim 681.60
Inv 664.59 – 12" VCP N (DLZ)
Inv 664.79 – 12" VCP E (DLZ)
TOP OF I–BEAM ELEV. = 672.24 (DLZ)
BOTTOM OF CONC. WALL ELEV. =672.09
(DLZ)
BOTTOM OF RECTANGULAR OPENING ELEV. =
676.09 (DLZ)
PIPE SIZES QUESTIONABLE–HARD TO OBTAIN.
PIPE SIZES INCONSISTENT WITH PLANS
(DLZ)

Storm Manhole #10183
Rim 681.48
Inv 674.89 – 15" RCP N
Inv 674.96 – 15" RCP SW

Catch Basin #3549
Rim 679.31
Top of North Syphon Elev. 676.5 (DLZ)
Bottom of Str. – 675.6 (DLZ)

Combined Sewer Manhole #4066
(DLZ STR. 188)
Rim 678.39
Inv 663.99 – 12" VCP N (DLZ)
Inv 663.99 – 12" VCP S (DLZ)
TOP OF I–BEAM ELEV = 670.19 (DLZ)
BTM RECTANGULAR OPENING = 673.09 (DLZ)
PIPE SIZES QUESTIONALBE–HARD TO OBTAIN.
(DLZ)

Storm Manhole #3516
Rim 678.04
Inv 673.79 – 15" RCP S
Inv 673.85 – 15" RCP NW

Catch Basin #3510 (DLZ STR. 187)
Rim 677.16
Inv 673.70 – 12" VCP S (DLZ)
Inv 673.70 – 15" RCP SE (DLZ)
Top of North Syphon – 674.4 (DLZ)
Bottom of Str. – 672.2 (DLZ)

Combined Sewer Manhole #4036
(DLZ STR. 178)
Rim 677.02
Inv 667.79 – 18" VCP S (DLZ)
Inv 667.69 – 18" VCP E (DLZ)
PIPE SIZES QUESTIONALBE–HARD TO OBTAIN.
PIPE SIZES ARE INCONSISTENT WITH PLANS
(DLZ)

Combined Sewer Manhole #4033
(DLZ STR. 177)
Rim 676.63
Inv 663.32 – 18" RCP E (DLZ)
Inv 663.42 – 12" RCP S (DLZ)
Inv 667.02 – 12" RCP SW (DLZ)
Inv 665.02 – 12" RCP NW (DLZ)
PIPE SIZES QUESTIONABLE–HARD TO OBTAIN
(DLZ)
PIPE SIZES ARE INCONSISTENT WITH PLANS
(DLZ)

Michigan Street (Continued)
Sanitary Manhole #3398
Rim 677.13
Inv 662.32 – 18" VCP N
Inv 662.91 – 15" VCP W
Inv 663.98 – 8" VCP SE
Inv 670.13 – 8" VCP SE

Sanitary Manhole #3376
Rim 676.64
Inv 672.75 – 15" VCP N
Inv 672.74 – 15" VCP S

Combined Sewer Manhole #4034
(DLZ STR. 176)
Rim 676.97
Inv 669.36 – 36" RCP WNW (DLZ)
Inv 669.46 – 36" RCP S (DLZ)
Inv 673.26 – 10" STEEL E (DLZ)
PIPE SIZES QUESTIONABLE–HARD TO
OBTAIN. (DLZ)
PIPE SIZES ARE INCONSISTENT WITH
PLANS. (DLZ)

Iron Grate #4037
(DLZ STR. 175)
Rim 676.78
Unable to Open (DLZ)
Rim is bolted shut and full of tar
(DLZ)

Manhole #4035
Rim 676.97
Inv 669.36 – 36" RCP WNW (DLZ)
Inv 669.46 – 36" RCP S (DLZ)
Inv 673.26 – 10" STEEL (DLZ)
PIPE SIZES QUESTIONABLE–GARD TO
OBTAIN. PIPE SIZES ARE INCONSISTANT
WITH PLANS. (DLZ)

Iron Grate #20770
(DLZ STR. 179)
Rim 676.09
ELEV. OF BEND OF 8" PVC NE = 673.39
(DLZ)

Storm Manhole #4019
(DLZ STR. 169)
Rim 676.86
Inv 668.03 – 12" RCP N (DLZ)
Inv 671.23 – 12" PVC NE (DLZ)
Inv 668.23 – 12" RCP SW (DLZ)
FULL OF GRAVEL AND DEBRIS (DLZ)

Iron Grate #20735
(DLZ STR. 168)
Rim 676.19
Inv. 671.05 – 8" PVC SE

Storm Manhole #4014
(DLZ STR. 166)
Rim 676.66
Inv 669.13 – 30" RCP N (DLZ)
Inv 671.03 – 12" PVC SW (DLZ)
Inv 669.83 – 18" STEEL E (DLZ)

Catch Basin #3319
(DLZ STR. 165)
Rim 675.92
Top Elev of downward facing 18" W =
671.64 (DLZ)
Inv 671.04 – 15" SE (DLZ)

Iron Grate #3135
(DLZ STR. 167)
Rim 675.78
Inv 671.70 – 8" VCP SE (DLZ)

Manhole #3124
Rim 675.90
STR. FULL OF WIRES

Iron Grate #3289
(DLZ STR. 161)
Rim 675.85
Inv 673.51 – 8" PVC VERTICAL (DLZ)

Iron Grate #3104
(DLZ STR. 162)
Rim 676.21
Inv 671.74 – 8" PVC VERTICAL (DLZ)

Storm Manhole #3991
(DLZ STR. 159)
Rim 680.72
Inv 668.57 – 30" RCP S (DLZ)
Inv 668.52 – 30" RCP NE (DLZ)

Storm Manhole #3988
(DLZ STR. 158)
Rim 682.27
STR. FULL OF DIRT (DLZ)

Drywell #22083 (DLZ STR. 2083)
Rim 682.13 (DLZ)
Depth of Str. 6.9 (DLZ)
No Pipes Visible (DLZ)

Drywell #21653 (DLZ STR. 1653)
Rim 681.80 (DLZ)
Bottom 8.9 (DLZ)

Drywell #25615 (DLZ STR. 5615)
Rim 677.21 (DLZ)
NO VISIBLE PIPES (DLZ)

Bartlett Street to Riverside
Inlet Grate #10893
Rim 673.24
Inv 669.59 – 8" VCP S
8" Down Pipe with Elbow

Inlet Grate #10894
Rim 673.26
Inv 670.31 – 8" VCP S
8" Down Pipe with Elbow

Inlet Grate #10886
Rim 672.91
Inv 669.08 – 8" VCP SW
8" Down Pipe with Elbow

Inlet Grate #10991
Rim 672.70
Inv 671.29 – 10" VCP E

Inlet Grate #10879
Rim 672.88
Inv 668.83 8" VCP N
8" Down Pipe with Elbow

Inlet Grate #10865
Rim 674.61
Inv 670.14 – 8" VCP NE
8" Down Pipe with Elbow

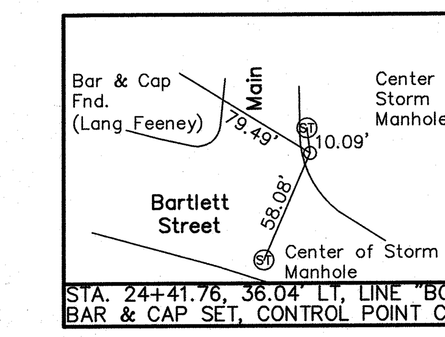
Combined Manhole #10929
Rim 676.72
Inv 666.48 – 15" VCP E
Inv 666.46 – 15" VCP W

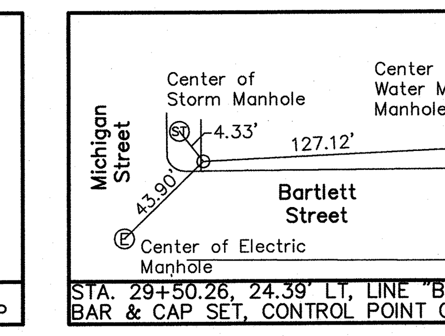
Combined Sewer Manhole #10935
Rim 673.92
Inv 666.93 – 24" Type Uncertain W
Inv 666.86 – 15" Type Uncertain S
Inv 666.64 – 24" Type Uncertain N
Inv 667.34 – 24" Type Uncertain NE
Top/Wall 668.18

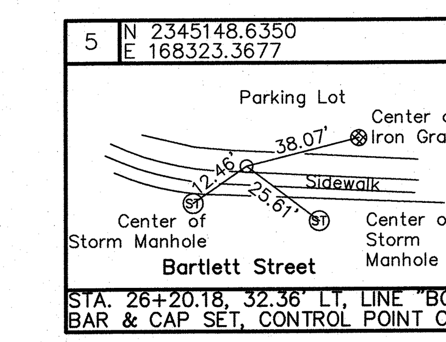
Combined Sewer Manhole #10936
Rim 673.95
Inv 667.75 – 8" Type Uncertain E/NE
Inv 666.52 – 24" Type Uncertain NE
Inv 666.06 – 18" Type Uncertain E

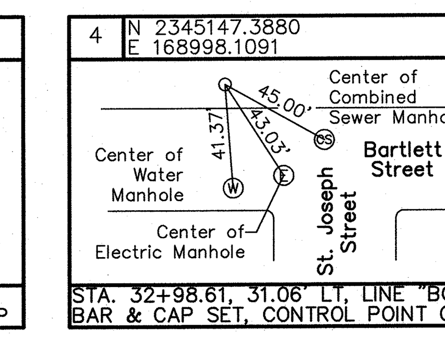
Storm Manhole #10799
Rim 678.00
Inv 667.16 – 24" RCP E
Inv 666.98 – 15" VCP W
Inv 668.02 – 12" VCP NW

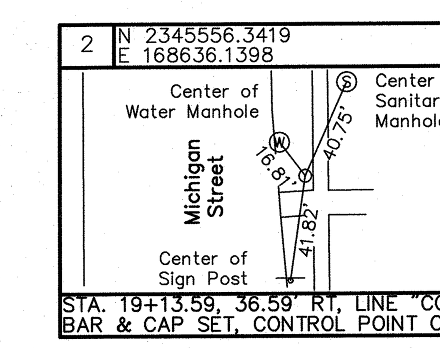
Combined Sewer Manhole #10967
Rim 670.94
Str. full of water, could not
access invert information

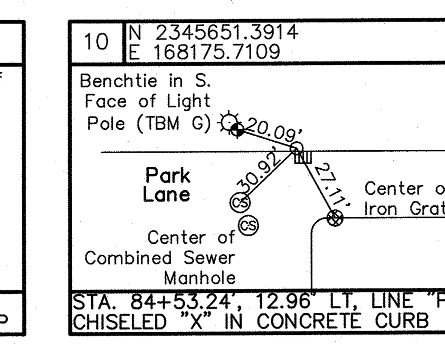


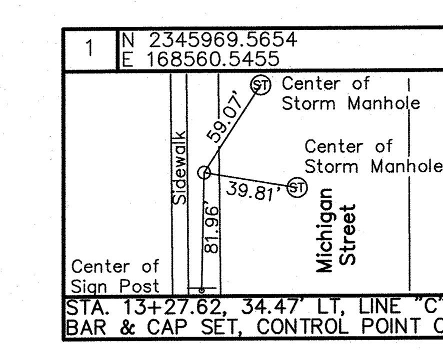


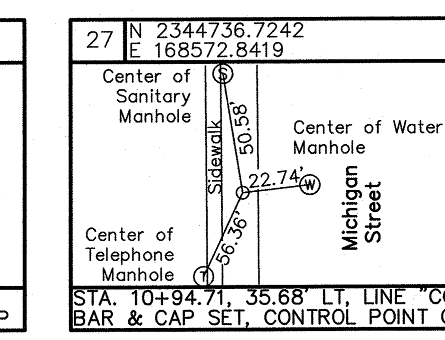


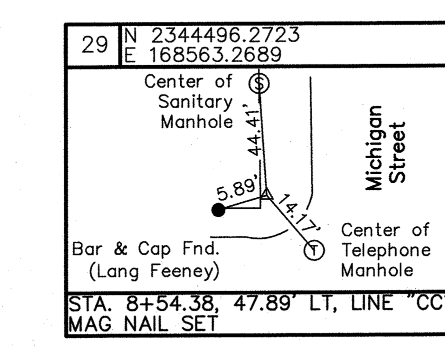












TOPOGRAPHIC SURVEY NOTES:

This topographic survey was performed for The City of South Bend in June and July 2014, and is for their use only.

This is not a boundary survey. Right–of–way lines and property lines are based on limited field evidence and limited research. All right–of–way and property lines shown are apparent.

Basis of Elevation was derived by utilizing Benchmark "SJ15" located on the Michigan Street Bridge over the St. Joseph River. Elevation is 689.377 (NGVD 1929 Datum). For Phase II of this project the vertical datum was converted to NAVD88 Datum by lowering all elevations 0.37'. All vertical information for this phase of the project is based upon NAVD88 Datum.

Topographic data between Main Street, Park lane, Michigan Street, and Bartlett Street was prepared by DLZ Corporation and merged with JPR's topographic survey.

UTILITY NOTES

Existing underground utilities shown in these plans are based on evidence of above ground features, on locations marked in the field by others, or on record information provided by utility companies. No excavation should occur without notification of appropriate agencies and utility companies.

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JEFFREY S. BARNES REGISTERED No. LS20200084 STATE OF INDIANA LAND SURVEYOR

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER 01/09/2016 DATE

DESIGNED: C.R.C.	DRAWN: R.J.H
CHECKED: B.B.K.	CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

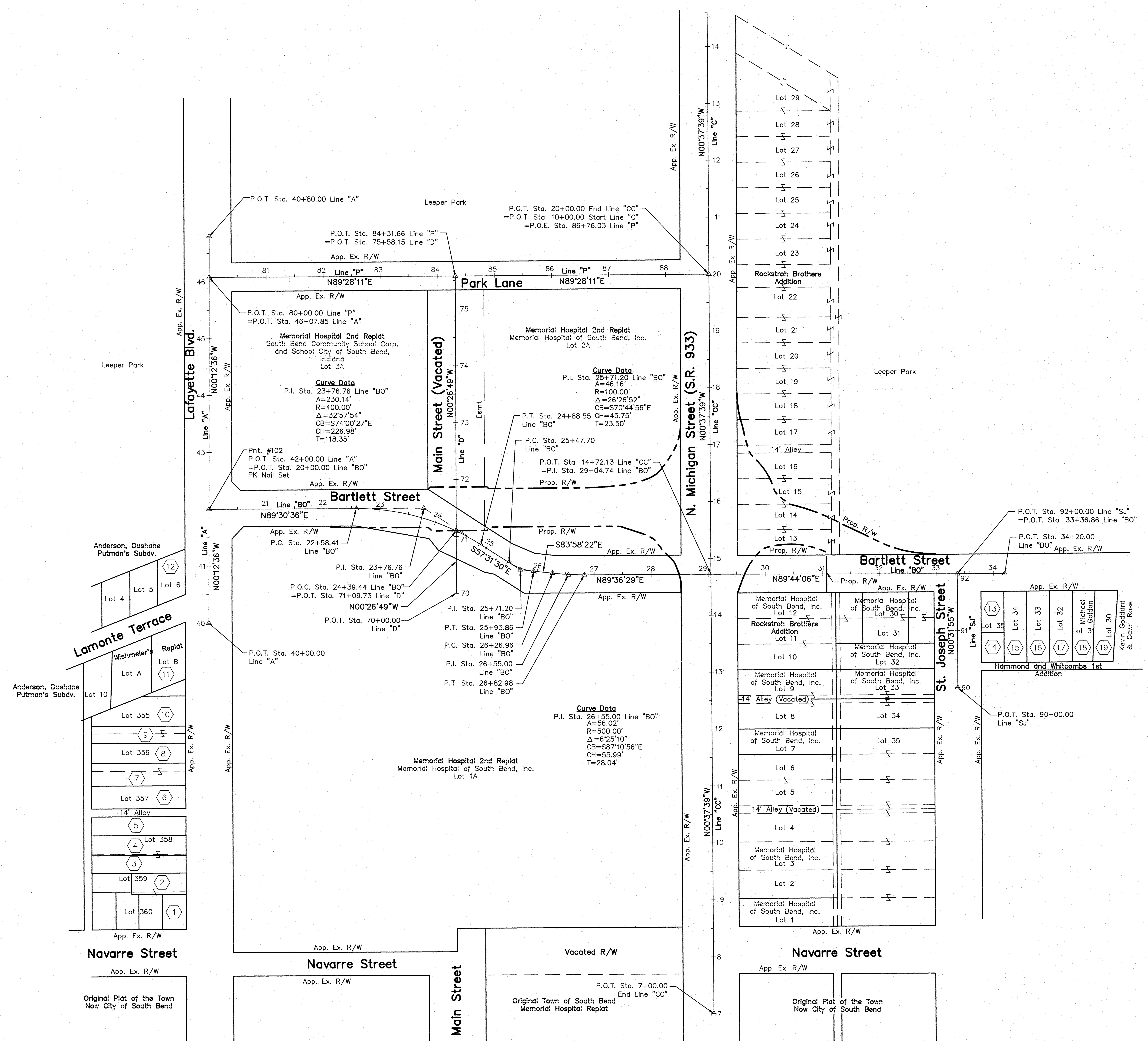
TOPOGRAPHIC SURVEY DATA

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	–
SURVEY BOOK	SHEETS
	4 of 55
CONTRACT	PROJECT
–	114–032B

X–2017

Property Owners

1. Yotam Schawer
2. Gregory Moody
3. Timothy J. Labuda
4. White Hill Properties, LLC
5. Rechelle Anastasio
6. John J. Kiszka
7. Sharon K. Schierling
8. Linda Kantorowski
9. John D. Califano
10. Kristin E. and Joshua Kuter
11. Sarah E. Mckibben
12. Board of Park Commissioners of the City of South Bend Indiana
13. Deutsche Bank Trust Company Americas co PNC Bank
14. William G. and Catherine D. Hostetler
15. Northern Indiana Rehab Medicine Inc. an Indiana Professional Corp.
16. Kenyon S. Tweedell
17. Kevin J. and Dawn Mgoddard
18. Michael J. Golden
19. Kevin J. and Dawn Rose Goddard



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JEFFREY S. BARNES REGISTERED No. LS20200064 STATE OF INDIANA LAND SURVEYOR

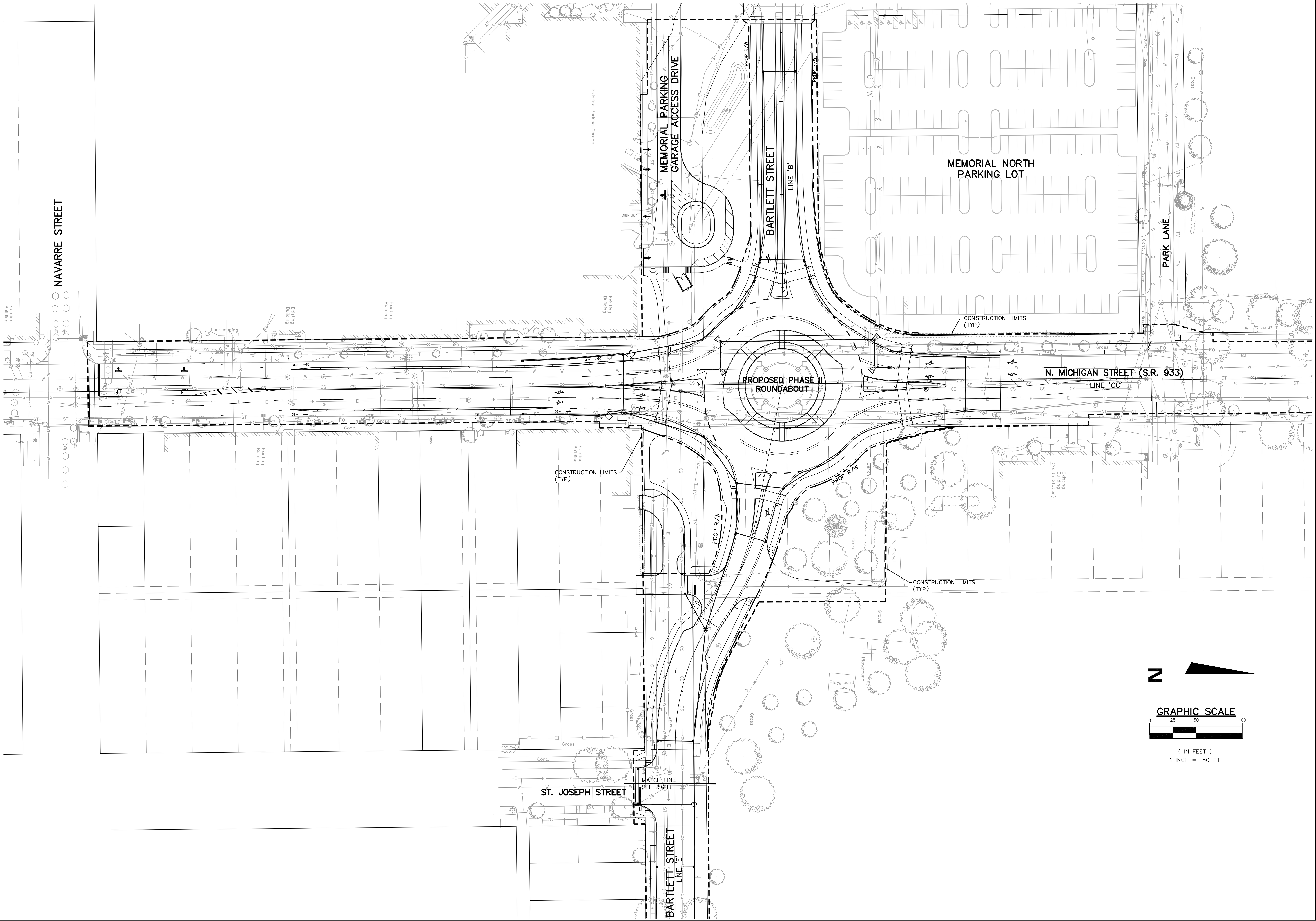
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/05/2016	DATE
DESIGNED: C.R.C.	DRAWN: R.J.H		
CHECKED: B.B.K.	CHECKED: M.E.W.		

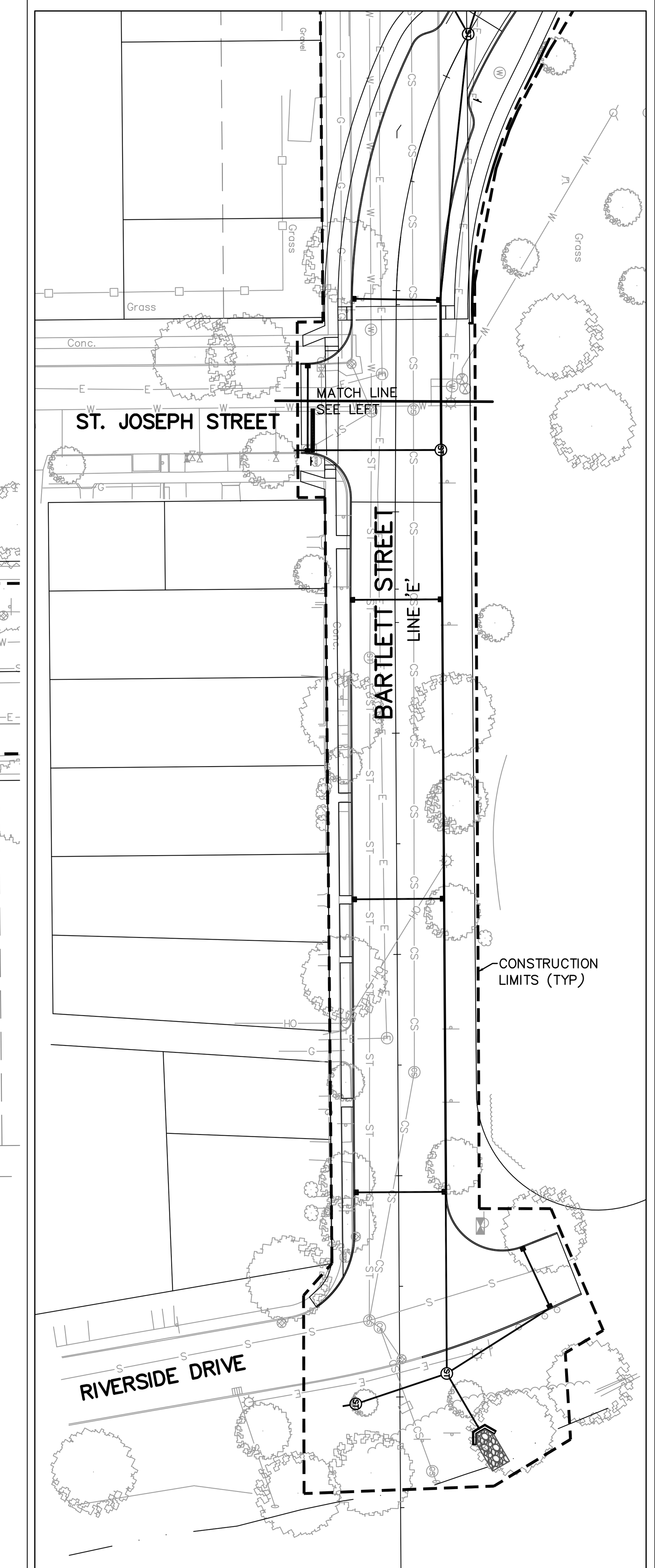
CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	
VERTICAL SCALE	DESIGNATION
	–
SURVEY BOOK	SHEETS
	5 of 55
CONTRACT	PROJECT
–	114-032B

X-2017





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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Mark E. Wilson — DESIGN ENGINEER — 1/6/2016 DATE

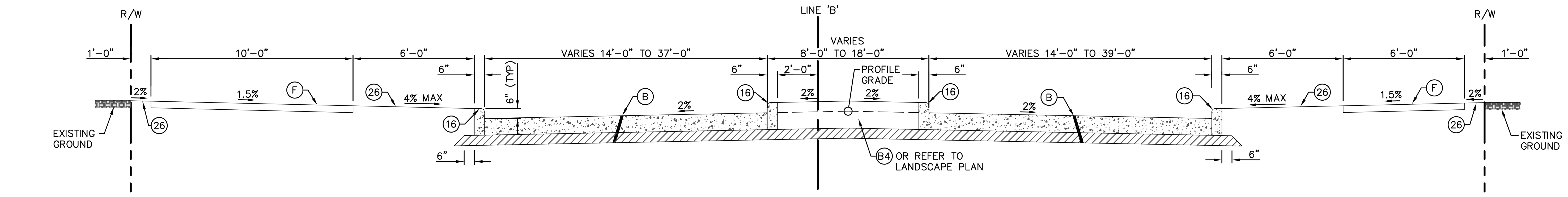
DESIGNED: C.R.C.	DRAWN: R.J.H
CHECKED: B.B.K.	CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

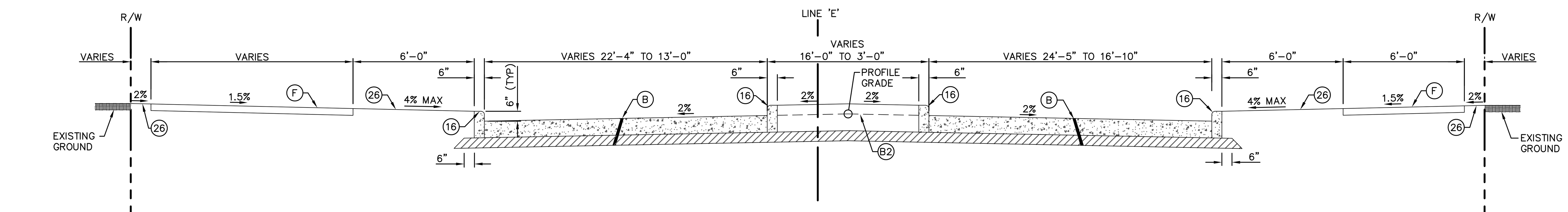
BARTLETT ROUNDABOUT PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
–	–
SURVEY BOOK	SHEETS
	6 of 55
CONTRACT	PROJECT
–	114–032B

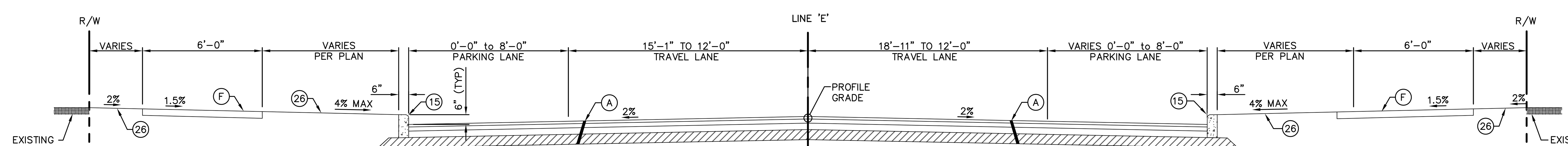
X–2017



BARTLETT STREET – LINE 'B' TYPICAL CONCRETE PAVEMENT SECTION
SCALE: ¼" = 1'-0"
STA. 55+16.0 LINE 'B' TO STA. 58+10.0 LINE 'B'

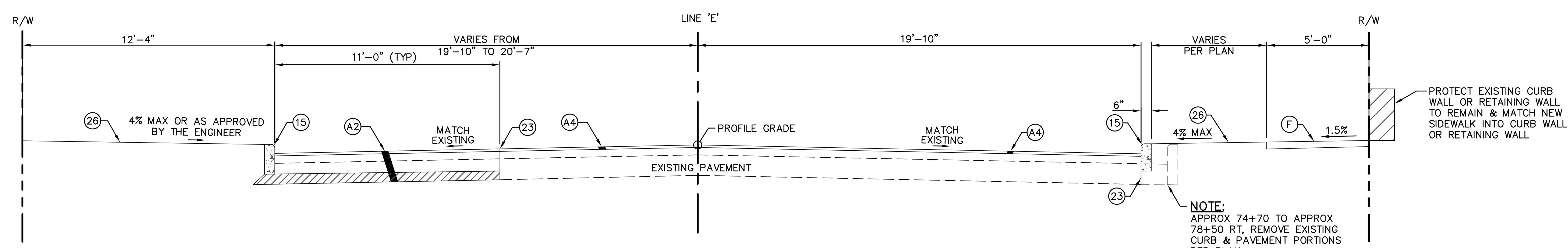


BARTLETT STREET – LINE 'E' TYPICAL CONCRETE PAVEMENT SECTION
SCALE: ¼" = 1'-0"
STA. 70+95.0 LINE 'E' TO STA. 71+63.0 LINE 'E'



NOTE:
APPROX 72+00 TO APPROX 75+00 LT, PROPOSED GRADES TO FALL NORTH FROM BACK OF CURB. SEE CROSS SECTION VIEWS. 1.5% SIDEWALK CROSS SLOPE REQ'D.

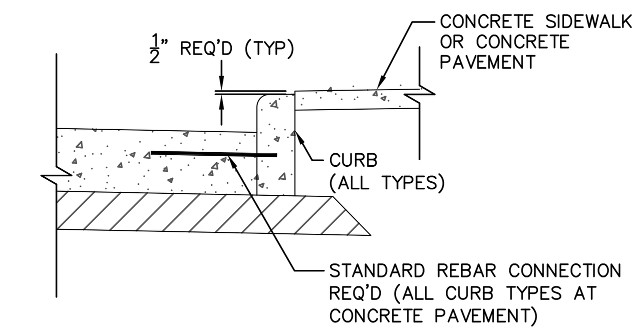
BARTLETT STREET – LINE 'E' TYPICAL HMA PAVEMENT SECTION
SCALE: ¼" = 1'-0"
STA. 71+63.0 LINE 'E' TO STA. 72+69.3 LINE 'E'



NOTE:
APPROX 74+70 TO APPROX 78+50 RT, REMOVE EXISTING CURB & PAVEMENT PORTIONS PER PLAN

BARTLETT STREET – LINE 'E' TYPICAL MILL & RESURFACE PAVEMENT SECTION
SCALE: ¼" = 1'-0"
STA. 74+96.0 LINE 'E' TO STA. 78+85.0 LINE 'E'

NOTE:
SEE JOINT LAYOUT SHEET 32 FOR CONCRETE PAVEMENT JOINT DETAILS, INCLUDING ROUNDABOUT CIRCLE AND ROUNDABOUT APPROACHMENTS



DETAIL FOR ALL CONCRETE SIDEWALK AND ALL CONCRETE PAVEMENT ADJACENT TO CURB
N.T.S.

LEGEND

- (A) 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER 275#/SYD HMA INTERMEDIATE, TYPE B, 19.0mm, OVER 660#/SYD HMA BASE, TYPE B, 25.0mm, (2–3 INCH LIFTS) OVER 6" COMPACTED AGGREGATE, NO. 53 BASE, OVER COMPACTED SUBGRADE
- (A2) HMA FOR PATCHING 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER 275#/SYD HMA INTERMEDIATE, TYPE B, 19.0mm, OVER 660#/SYD HMA BASE, TYPE B, 25.0mm, (2–3 INCH LIFTS) OVER 6" COMPACTED AGGREGATE, NO. 53 BASE, OVER COMPACTED SUBGRADE
- (A4) 1 1/2" SURFACE MILLING AND RESURFACE WITH 165#/SYD HMA SURFACE TYPE B, 9.5mm, ON TACK COAT OVER MILLED ASPHALT SURFACE
- (B) 9" PLAIN PCCP OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B2) 10" PLAIN PCCP, FULL DEPTH COLORIZED OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B4) BRICK PAVERS OVER 1" CRUSHED LIMESTONE CHIPS OVER 8" PERVIOUS CONCRETE OVER 6" WASHED AGGREGATE NO. 8 BASE OVER COMPACTED SUBGRADE
- (F) SIDEWALK, CONCRETE, 5 IN ON COMPACTED SUBGRADE
- (15) CURB, CONCRETE, 6 IN
- (16) CURB, INTEGRAL, CONCRETE
- (26) SODDING
- (23) NEAT LINE SAW CUT FOR FULL DEPTH PAVEMENT REMOVAL

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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Mark E. Wilson — DESIGN ENGINEER — 1/6/2016 DATE

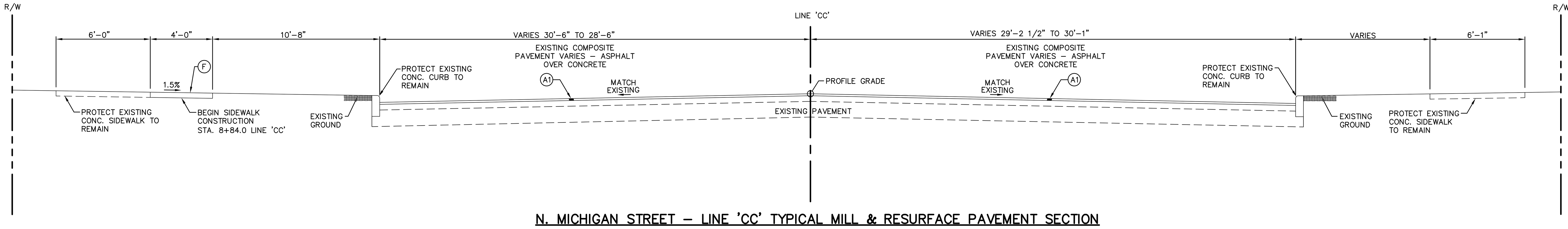
DESIGNED: C.R.C. | DRAWN: R.J.H
CHECKED: B.B.K. | CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

TYPICAL PAVEMENT SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	
VERTICAL SCALE	DESIGNATION
AS SHOWN	–
SURVEY BOOK	SHEETS
	7 of 55
CONTRACT	PROJECT
–	114-032B

X-2017

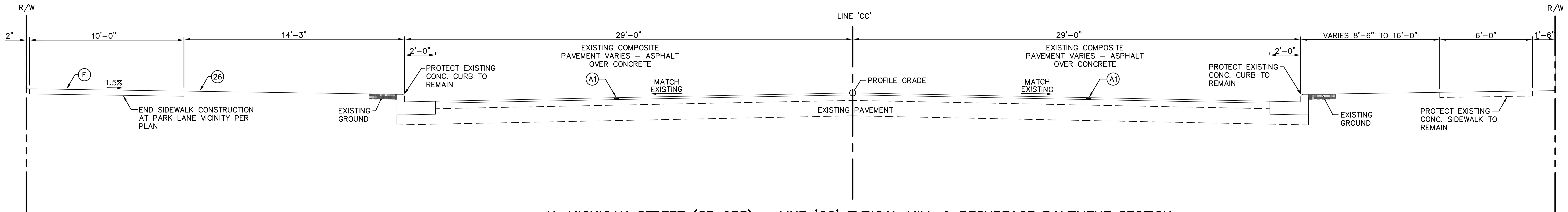


N. MICHIGAN STREET – LINE 'CC' TYPICAL MILL & RESURFACE PAVEMENT SECTION

SCALE: ¼" = 1'-0"
STA. 8+50.0 LINE 'CC' TO STA. 12+97.4 LINE 'CC'

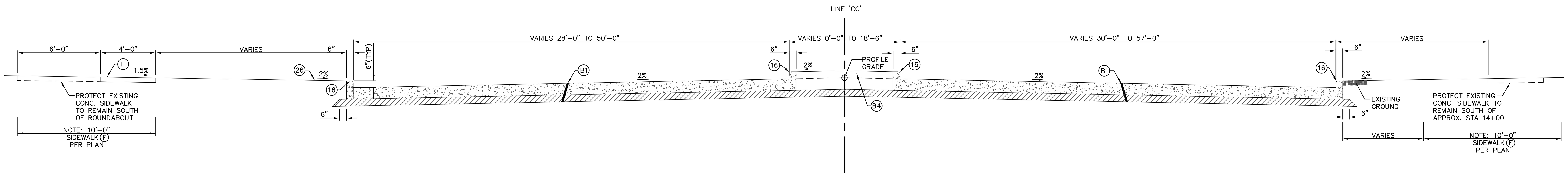
LEGEND

- (A1) 1 1/2" SURFACE MILLING AND RESURFACE WITH 165#/SYD QC/QA-HMA, 4, 76, SURFACE, 9.5mm, ON TACK COAT OVER MILLED ASPHALT SURFACE
- (B1) 10" PLAIN PCCP OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B2) 10" PLAIN PCCP, FULL DEPTH COLORIZED OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B3) 6" PLAIN PCCP, FULL DEPTH COLORIZED OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B4) BRICK PAVERS OVER 1" CRUSHED LIMESTONE CHIPS OVER 8" PERVIOUS CONCRETE OVER 6" WASHED AGGREGATE NO. 8 BASE OVER COMPACTED SUBGRADE
- (F) SIDEWALK, CONCRETE, 5 IN ON COMPACTED SUBGRADE
- (15) CURB, CONCRETE, 6 IN
- (16) CURB, INTEGRAL, CONCRETE
- (17) CURB, INTEGRAL, B, CONCRETE, MODIFIED
- (26) SODDING



N. MICHIGAN STREET (SR 933) – LINE 'CC' TYPICAL MILL & RESURFACE PAVEMENT SECTION

SCALE: ¼" = 1'-0"
STA. 18+25.0 LINE 'CC' TO STA. 19+87.6 LINE 'CC'



N. MICHIGAN STREET (SR 933) – LINE 'CC' TYPICAL CONCRETE PAVEMENT SECTION

SCALE: ¼" = 1'-0"
STA. 12+97.4 LINE 'CC' TO 15+05.0 LINE 'CC'
STA. 16+77.0 LINE 'CC' TO 18+25.0 LINE 'CC'

ROUNDABOUT TYPICAL PAVEMENT SECTION

SCALE: ¼" = 1'-0"

NOTE:
SEE JOINT LAYOUT SHEET 32 FOR CONCRETE PAVEMENT JOINT DETAILS, INCLUDING ROUNDABOUT CIRCLE AND ROUNDABOUT APPROACHMENTS

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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL Mark E. Wilson 1/6/2016
DESIGN ENGINEER DATE

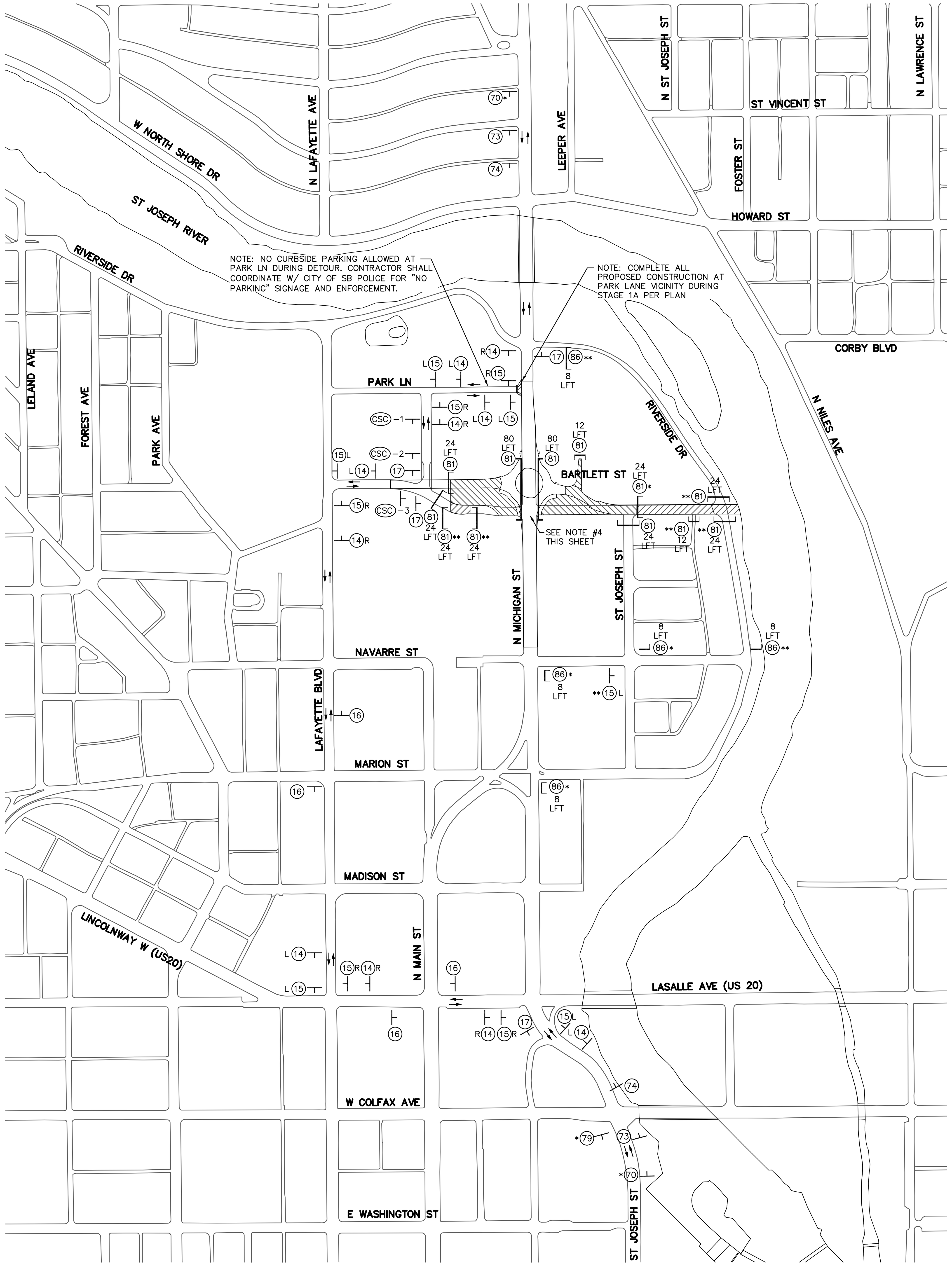
DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

TYPICAL PAVEMENT SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	
VERTICAL SCALE	DESIGNATION
AS SHOWN	–
SURVEY BOOK	SHEETS
	8 of 55
CONTRACT	PROJECT
–	114-032B

X-2017



LEGEND

BARTLETT STREET STAGE IA CONSTRUCTION ZONE

BARTLETT STREET STAGE IB CONSTRUCTION ZONE

SIGN LEGEND

- (14) ADVANCE DETOUR ROUTE MARKER ASSEMBLY WITH (76)
- (15) DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY WITH (76)
- (16) CONFIRMING DETOUR ROUTE MARKER ASSEMBLY WITH (76)
- (17) END DETOUR ROUTE MARKER ASSEMBLY WITH (76)
- (70) ROAD CONSTRUCTION AHEAD (XW20–1)
- (73) ROAD CLOSED AHEAD (XW20–3)
- (74) DETOUR AHEAD (XW20–2)
- (76) SUPPLEMENTAL SIGN "HOSPITAL" (D9–13a), AND SUPPLEMENTAL SIGN "BARTLETT STREET"
- (79) END CONSTRUCTION (XG20–2)
- (80) BARRICADE, III–B
- (81) ROAD CLOSURE SIGN ASSEMBLY "ROAD CLOSED" (R11–2)
- (86) ROAD CLOSURE SIGN ASSEMBLY "ROAD CLOSED TO THRU TRAFFIC" (R11–4)
- CONSTRUCTION SIGN
- BARRICADE, TYPE III
- DIRECTION OF STAGE 1B HOSPITAL & BARTLETT ST DETOUR TRAFFIC

* FOR BOTH STAGES 1A AND 1B

** FOR STAGE 1A ONLY

(NO "*" IS FOR STAGE 1B ONLY)

NOTE:
(A) AHEAD ARROW
(L) LEFT ARROW
(R) RIGHT ARROW

NOTES:

1. STAGE 1A INCLUDES CLOSING BARTLETT ST. BETWEEN ST. JOSEPH ST. AND RIVERSIDE DRIVE FOR STORM SEWER AND ROADWAY CONSTRUCTION, AND CLOSING A PORTION OF THE HOSPITAL PARKING GARAGE ACCESS ROAD FOR ROADWAY CONSTRUCTION. MICHIGAN ST. WILL REMAIN OPEN TO TRAFFIC, INCLUDING ACCESS TO BARTLETT ST. BOTH EAST AND WEST OF MICHIGAN ST., AND TO THE HOSPITAL.

2. STAGE 1B INCLUDES CLOSING BARTLETT ST. BETWEEN MICHIGAN ST. AND ST. JOSEPH ST. FOR STORM SEWER AND ROADWAY CONSTRUCTION, AND CLOSING BARTLETT ST. BETWEEN MICHIGAN ST. AND N. MAIN ST. FOR STORM SEWER AND ROADWAY CONSTRUCTION.

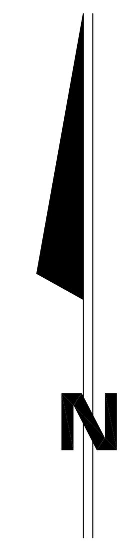
3. STAGE 1B INCLUDES THE DETOUR FOR HOSPITAL AND BARTLETT ST. TRAFFIC ACCESS, AS BARTLETT ST. WILL BE CLOSED TO ACCESS AT THE EXISTING MICHIGAN ST. INTERSECTION, BOTH EAST AND WEST OF MICHIGAN ST. THE HOSPITAL PARKING GARAGE WILL BE OPEN TO HOSPITAL GARAGE TRAFFIC FROM WEST OF THE GARAGE.

4. DURING STAGE 1B, MICHIGAN ST. WILL BE OPEN TO TRAFFIC AT ALL TIMES, INCLUDING DURING TRAFFIC CONTROL FOR TEMPORARY LANE CLOSURES FOR THE CONSTRUCTION OF STORM SEWER OPEN–CUT CROSSING CONSTRUCTION, AND FOR THE 20" WATER MAIN RE–ROUTING OPEN–CUT CONSTRUCTION BY THE CITY OF SOUTH BEND. SEE TYPICAL DETAILS THIS SHEET FOR TEMPORARY LANE CLOSURE TRAFFIC CONTROL.

GRAPHIC SCALE

0 150 300 600

(IN FEET)
1 inch = 300ft.



HOSPITAL MAIN ENTRANCE
CHILDREN'S HOSPITAL
VALET & VISITOR PARKING
PARKING GARAGE
ONCOLOGY PARKING

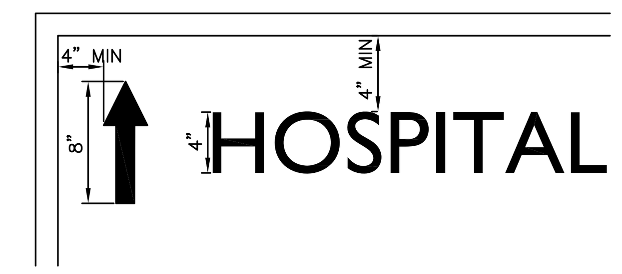
(CSC)–1

HOSPITAL MAIN ENTRANCE
CHILDREN'S HOSPITAL
VISITOR PARKING
PARKING GARAGE
ONCOLOGY PARKING

(CSC)–2

HOSPITAL MAIN ENTRANCE
CHILDREN'S HOSPITAL
VALET & VISITOR PARKING
VISITOR PARKING
ONCOLOGY PARKING
PARKING GARAGE

(CSC)–3

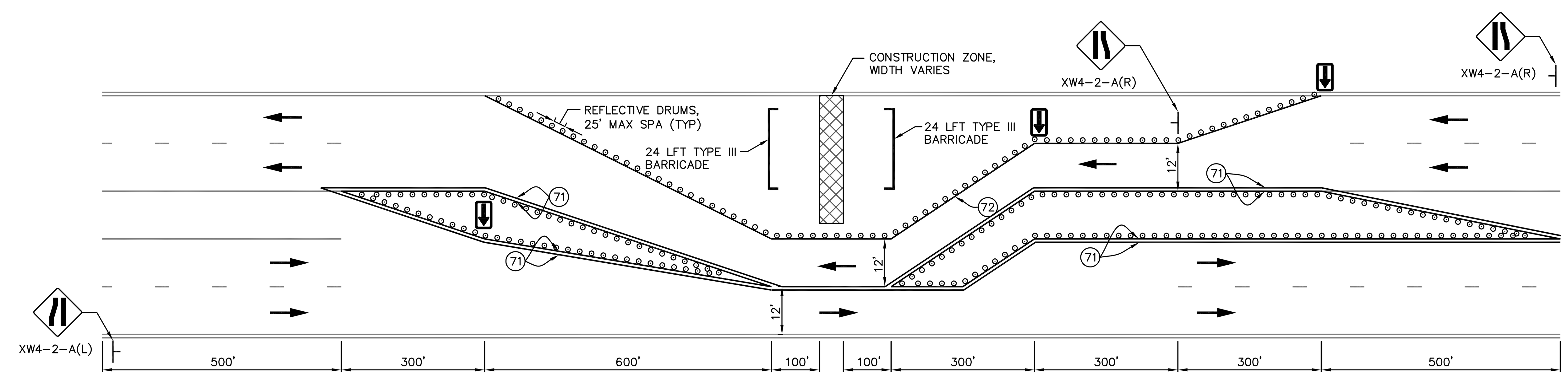


(CSC) CONSTRUCTION WAYFINDING SIGN DETAIL

NOTES:
1. BLACK LETTERING, ARROWS, AND BORDER ON CONSTRUCTION ORANGE BACKGROUND.
2. CONTRACTOR TO SIZE SIGN ACCORDING TO MINIMUM DIMENSIONING SHOWN ON THE DETAIL.

CONSTRUCTION SIGN & BARRICADE SUMMARY STAGE 1

DESCRIPTION	UNITS
CONSTRUCTION SIGN 'A'	28 EA
ROUTE MARKER ASSEMBLY	29 EA
BARRICADE, TYPE III	480 LFT
FLASHING ARROW SIGN	3 EA



TYPICAL TEMPORARY LANE CLOSURE DETAILS FOR STAGE IB MICHIGAN ST.

NOT TO SCALE

SIGN LEGEND

- (71) TEMPORARY PAVEMENT MARKING REMOVABLE 4" YELLOW
- (72) TEMPORARY PAVEMENT MARKING REMOVABLE 4" WHITE
- FLASHING ARROW SIGN

NOTES:
1. REMOVE EXISTING CONFLICTING PAVEMENT MARKINGS
2. WEST SIDE CONSTRUCTION SHOWN. EAST SIDE CONSTRUCTION ALSO REQ'D W/ OPPOSITE HAND CONFIGURATION

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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Mark E. Wilson (DESIGN ENGINEER) 1/6/2016 (DATE)

DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

MAINTENANCE OF TRAFFIC
STAGE 1 GENERAL CONSTRUCTION SIGN PLAN

HORIZONTAL SCALE: 1" = 300'
VERTICAL SCALE:
BRIDGE FILE:
DESIGNATION: –
SURVEY BOOK:
SHEETS: 9 of 55
CONTRACT: –
PROJECT: 114–032B

X–2017

SIGN LEGEND

81	ROAD CLOSURE SIGN ASSEMBLY (R11–2)
86	ROAD CLOSURE SIGN ASSEMBLY "ROAD CLOSED TO THRU TRAFFIC" (R11–4)
15	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY WITH 76
76	SUPPLEMENTAL SIGN "HOSPITAL" (D9–13a), AND SUPPLEMENTAL SIGN "BARTLETT ST"

LEGEND

- CONSTRUCTION ZONE
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- CONSTRUCTION SIGN
- BARRICADE, III–B

NOTES:

1. ALL EXISTING PEDESTRIAN SIDEWALK ACCESS ROUTES WITHIN THE PROJECT LIMITS SHALL REMAIN OPEN DURING BARTLETT ST. STAGE 1A, INCLUDING ALL ACCESS ROUTES TO THE HOSPITAL, EXCEPT AT SIDEWALK CONSTRUCTION AREAS. SEE NOTE THIS SHEET.

ROAD CLOSURE NOTE:

FOR ALL ROAD CLOSURE SIGN INFORMATION AND LOCATIONS ALONG RIVERSIDE DRIVE, SEE STAGE 1 GENERAL CONSTRUCTION SIGN PLAN, SHEET 09.

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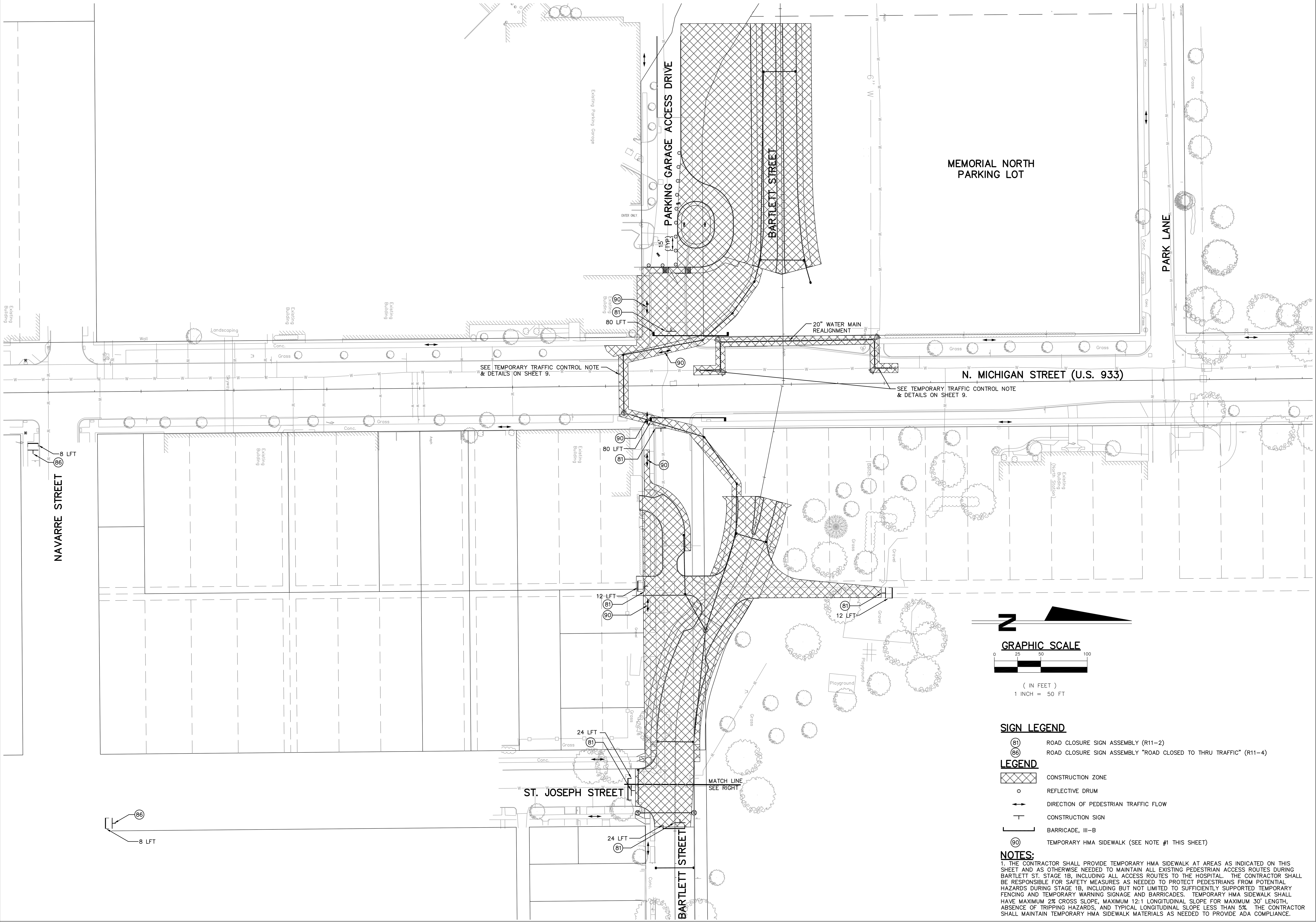
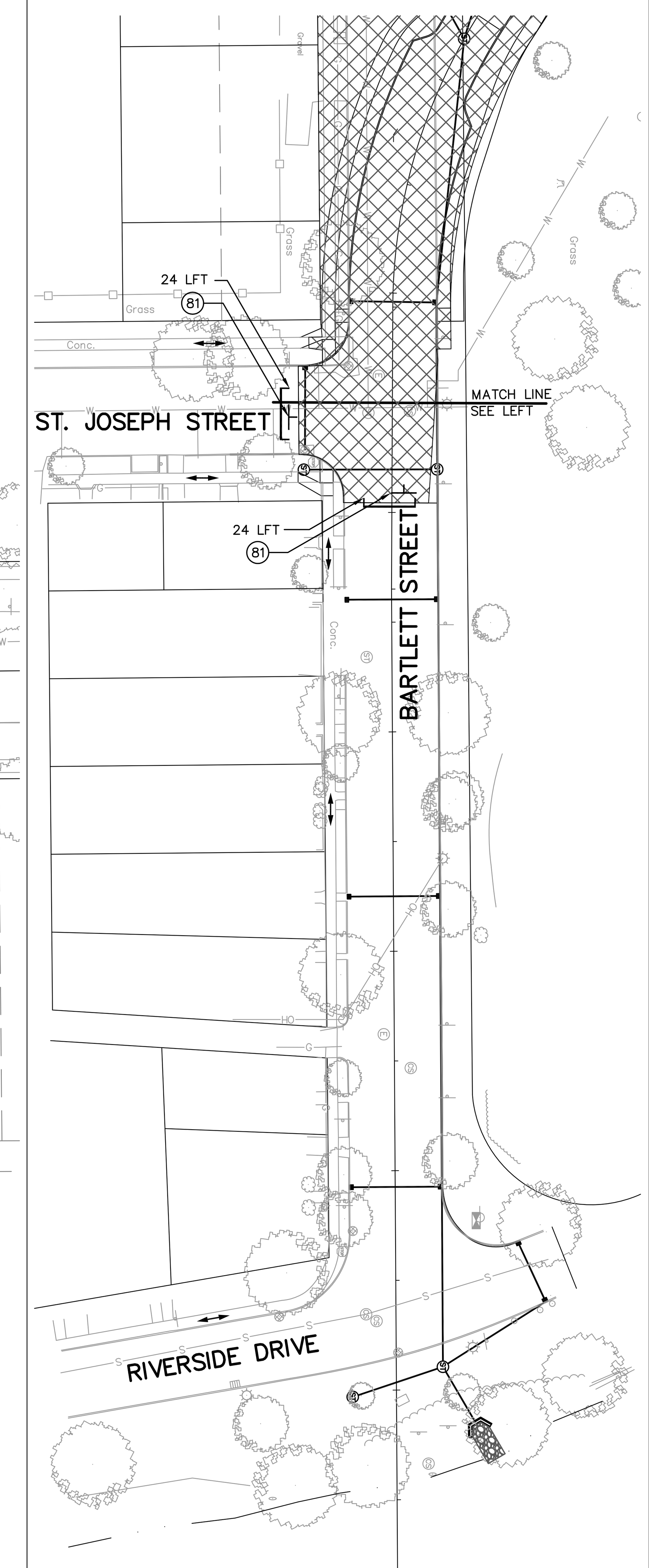
CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II
MAINTENANCE OF TRAFFIC STAGE 1A

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
–	–
SURVEY BOOK	SHEETS
	10 of 55
CONTRACT	PROJECT
–	114–032B

X–2017





SIGN LEGEND

(81)	ROAD CLOSURE SIGN ASSEMBLY (R11–2)
(86)	ROAD CLOSURE SIGN ASSEMBLY "ROAD CLOSED TO THRU TRAFFIC" (R11–4)

LEGEND

	CONSTRUCTION ZONE
	REFLECTIVE DRUM
	DIRECTION OF PEDESTRIAN TRAFFIC FLOW
	CONSTRUCTION SIGN
	BARRICADE, III–B
(90)	TEMPORARY HMA SIDEWALK (SEE NOTE #1 THIS SHEET)

NOTES:

1. THE CONTRACTOR SHALL PROVIDE TEMPORARY HMA SIDEWALK AT AREAS AS INDICATED ON THIS SHEET AND AS OTHERWISE NEEDED TO MAINTAIN ALL EXISTING PEDESTRIAN ACCESS ROUTES DURING BARTLETT ST. STAGE 1B, INCLUDING ALL ACCESS ROUTES TO THE HOSPITAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY MEASURES AS NEEDED TO PROTECT PEDESTRIANS FROM POTENTIAL HAZARDS DURING STAGE 1B, INCLUDING BUT NOT LIMITED TO SUFFICIENTLY SUPPORTED TEMPORARY FENCING AND TEMPORARY WARNING SIGNAGE AND BARRICADES. TEMPORARY HMA SIDEWALK SHALL HAVE MAXIMUM 2% CROSS SLOPE, MAXIMUM 12:1 LONGITUDINAL SLOPE FOR MAXIMUM 30' LENGTH, ABSENCE OF TRIPPING HAZARDS, AND TYPICAL LONGITUDINAL SLOPE LESS THAN 5%. THE CONTRACTOR SHALL MAINTAIN TEMPORARY HMA SIDEWALK MATERIALS AS NEEDED TO PROVIDE ADA COMPLIANCE.

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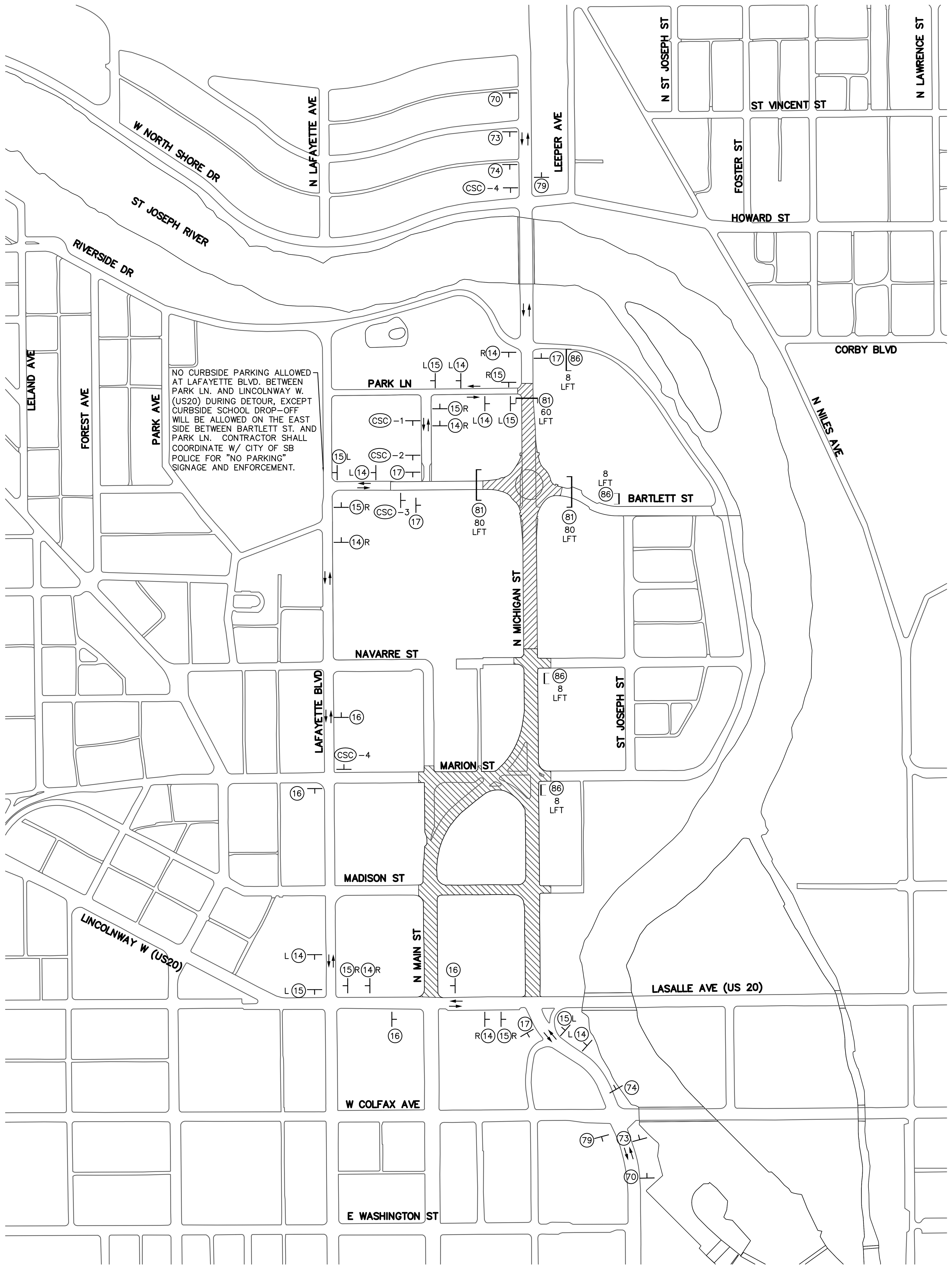
CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

MAINTENANCE OF TRAFFIC
STAGE 1B

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
–	–
SURVEY BOOK	SHEETS
	11 of 55
CONTRACT	PROJECT
–	114-032B

X-2017



LEGEND

BARTLETT STREET STAGE 2 CONSTRUCTION ZONE

MARION STREET INTERSECTION CONSTRUCTION ZONE

SIGN LEGEND

(14) ADVANCE DETOUR ROUTE MARKER ASSEMBLY WITH (77)
(15) DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY WITH (77)
(16) CONFIRMING DETOUR ROUTE MARKER ASSEMBLY WITH (77)
(17) END DETOUR ROUTE MARKER ASSEMBLY WITH (77)
(70) ROAD CONSTRUCTION AHEAD (XW20-1)
(73) ROAD CLOSED AHEAD (XW20-3)
(74) DETOUR AHEAD (XW20-2)
(77) SUPPLEMENTAL SIGN "HOSPITAL" (D9-13a), AND SUPPLEMENTAL SIGN "MICHIGAN STREET"
(79) END CONSTRUCTION (XG20-2)
(80) BARRICADE, III-B
(81) ROAD CLOSURE SIGN ASSEMBLY "ROAD CLOSED" (R11-2)
(86) ROAD CLOSURE SIGN ASSEMBLY "ROAD CLOSED TO THRU TRAFFIC" (R11-4) **FOR STAGE 1B ONLY
CONSTRUCTION SIGN
BARRICADE

NOTE:
(A) AHEAD ARROW
(L) LEFT ARROW
(R) RIGHT ARROW

NOTES:

1. STAGE 2 INCLUDES CLOSING MICHIGAN ST. BETWEEN PARK LANE AND NAVARRE ST. FOR THE BARTLETT ST. IMPROVEMENTS, ALONG WITH THE CONCURRENT CLOSING OF MICHIGAN ST. BETWEEN NAVARRE ST. AND LASALLE AVE. (US20) FOR THE MARION ST. INTERSECTION IMPROVEMENTS.

2. STAGE 2 BARTLETT ST. IMPROVEMENTS, ALONG WITH THE CONCURRENT MARION ST. INTERSECTION IMPROVEMENTS, INCLUDE THE DETOUR OF MICHIGAN ST. AND HOSPITAL ACCESS TRAFFIC. THE MICHIGAN ST. DETOUR BETWEEN PARK LANE AND LASALLE ST. IS INTENDED FOR LOCAL MICHIGAN ST. TRAFFIC WHILE A SEPARATE AND LARGER SCALE DETOUR FOR MICHIGAN ST. (SR 933) REGIONAL THRU TRAFFIC IS ALSO TO BE IN OPERATION TO REDUCE TRAFFIC CONGESTION IN THE DOWNTOWN SOUTH BEND AREA.

3. THE CONTRACTOR SHALL COORDINATE WITH LOCAL EMERGENCY DISPATCH ORGANIZATIONS REGARDING EMERGENCY ACCESS CONTINGENCIES.

GRAPHIC SCALE
0 150 300 600
(IN FEET)
1 inch = 300ft.

N

↑ HOSPITAL MAIN ENTRANCE
↑ CHILDREN'S HOSPITAL
← VALET & VISITOR PARKING
↑ PARKING GARAGE
↑ ONCOLOGY PARKING

CSC-1

↑ HOSPITAL MAIN ENTRANCE
↑ CHILDREN'S HOSPITAL
↑ VISITOR PARKING
← PARKING GARAGE
↑ ONCOLOGY PARKING

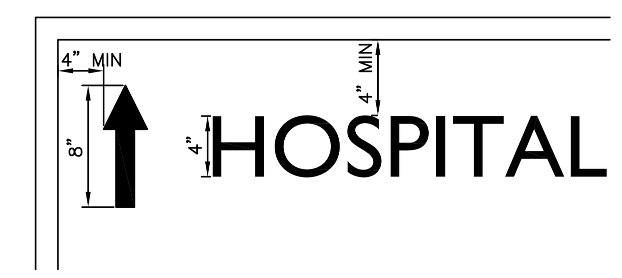
CSC-2

→ HOSPITAL MAIN ENTRANCE
→ CHILDREN'S HOSPITAL
← VALET & VISITOR PARKING
→ VISITOR PARKING
→ ONCOLOGY PARKING
↑ PARKING GARAGE

CSC-3

↑ HOSPITAL
↑ LOCAL TRAFFIC ONLY POLICE ENFORCED
↑ CONSTRUCTION ACCESS

CSC-4



CSC CONSTRUCTION WAYFINDING SIGN DETAIL

NOTES:
1. BLACK LETTERING, ARROWS, AND BORDER ON CONSTRUCTION ORANGE BACKGROUND.
2. CONTRACTOR TO SIZE SIGN ACCORDING TO MINIMUM DIMENSIONING SHOWN ON THE DETAIL.

CONSTRUCTION SIGN & BARRICADE SUMMARY STAGE 2	
DESCRIPTION	UNITS
CONSTRUCTION SIGN 'A'	28 EA
ROUTE MARKER ASSEMBLY	28 EA
BARRICADE, TYPE III	300 LFT

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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

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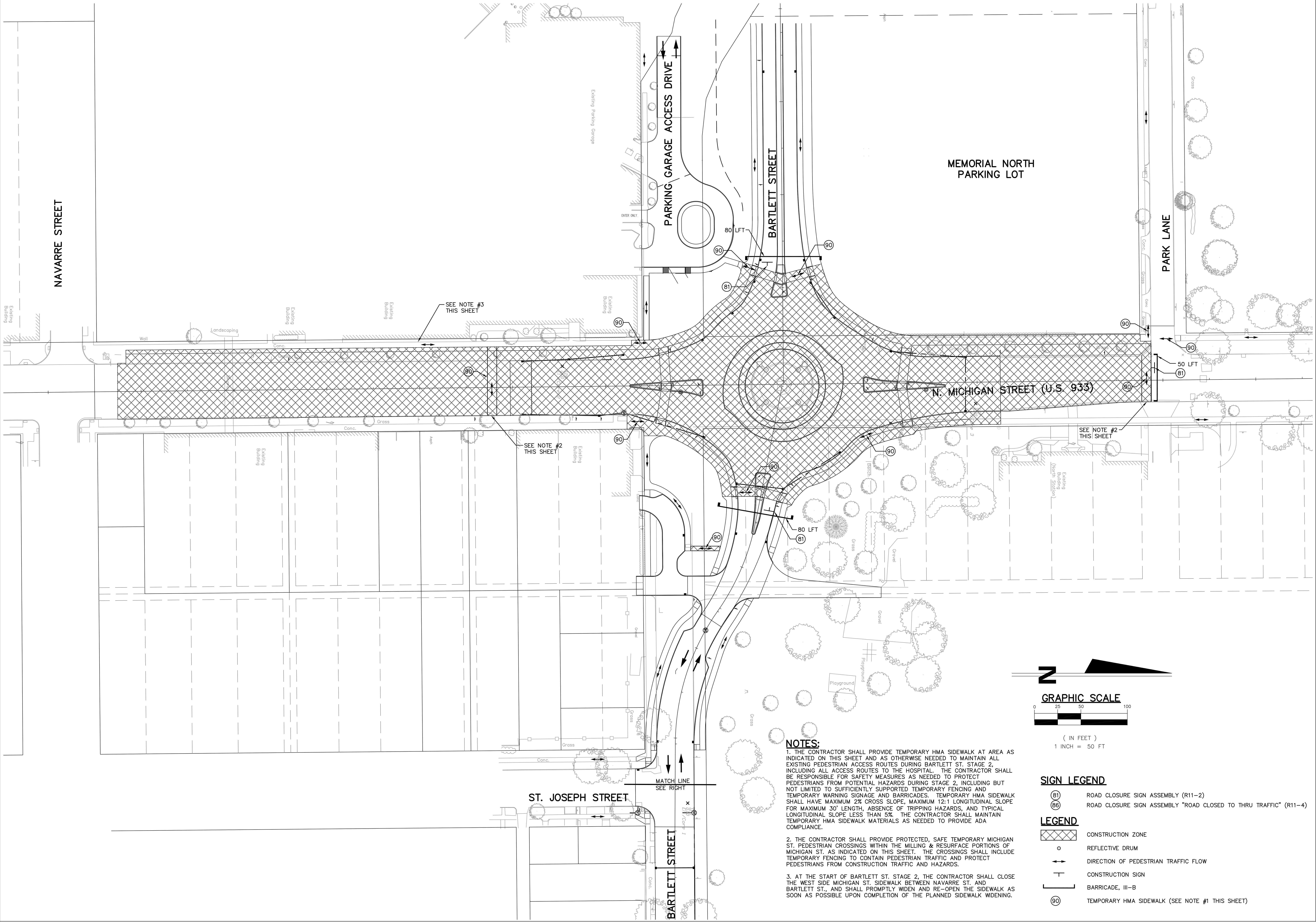
CHECKED: B.B.K. CHECKED: M.E.W.

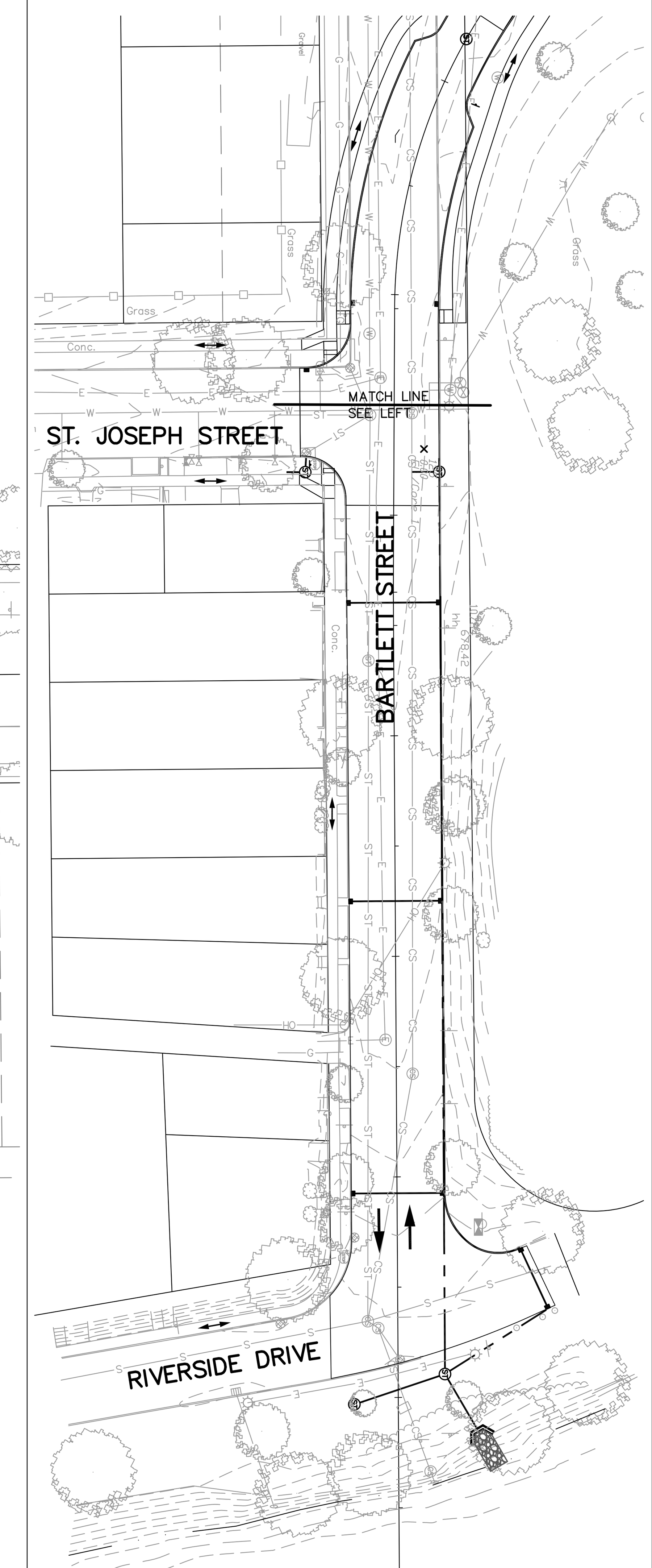
CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

MAINTENANCE OF TRAFFIC
STAGE 2 GENERAL CONSTRUCTION SIGN PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 200'	
VERTICAL SCALE	DESIGNATION
	-
SURVEY BOOK	SHEETS
	12 of 55
CONTRACT	PROJECT
-	114-032B

X-2017





GRAPHIC SCALE

0 25 50 100

(IN FEET)
1 INCH = 50 FT

NOTES:

1. THE CONTRACTOR SHALL PROVIDE TEMPORARY HMA SIDEWALK AT AREA AS INDICATED ON THIS SHEET AND AS OTHERWISE NEEDED TO MAINTAIN ALL EXISTING PEDESTRIAN ACCESS ROUTES DURING BARTLETT ST. STAGE 2, INCLUDING ALL ACCESS ROUTES TO THE HOSPITAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY MEASURES AS NEEDED TO PROTECT PEDESTRIANS FROM POTENTIAL HAZARDS DURING STAGE 2, INCLUDING BUT NOT LIMITED TO SUFFICIENTLY SUPPORTED TEMPORARY FENCING AND TEMPORARY WARNING SIGNAGE AND BARRICADES. TEMPORARY HMA SIDEWALK SHALL HAVE MAXIMUM 2% CROSS SLOPE, MAXIMUM 12:1 LONGITUDINAL SLOPE FOR MAXIMUM 30' LENGTH, ABSENCE OF TRIPPING HAZARDS, AND TYPICAL LONGITUDINAL SLOPE LESS THAN 5%. THE CONTRACTOR SHALL MAINTAIN TEMPORARY HMA SIDEWALK MATERIALS AS NEEDED TO PROVIDE ADA COMPLIANCE.

2. THE CONTRACTOR SHALL PROVIDE PROTECTED, SAFE TEMPORARY MICHIGAN ST. PEDESTRIAN CROSSINGS WITHIN THE MILLING & RESURFACE PORTIONS OF MICHIGAN ST. AS INDICATED ON THIS SHEET. THE CROSSINGS SHALL INCLUDE TEMPORARY FENCING TO CONTAIN PEDESTRIAN TRAFFIC AND PROTECT PEDESTRIANS FROM CONSTRUCTION TRAFFIC AND HAZARDS.

3. AT THE START OF BARTLETT ST. STAGE 2, THE CONTRACTOR SHALL CLOSE THE WEST SIDE MICHIGAN ST. SIDEWALK BETWEEN NAVARRE ST. AND BARTLETT ST., AND SHALL PROMPTLY WIDEN AND RE-OPEN THE SIDEWALK AS SOON AS POSSIBLE UPON COMPLETION OF THE PLANNED SIDEWALK WIDENING.

SIGN LEGEND

81	ROAD CLOSURE SIGN ASSEMBLY (R11-2)
86	ROAD CLOSURE SIGN ASSEMBLY "ROAD CLOSED TO THRU TRAFFIC" (R11-4)

LEGEND

	CONSTRUCTION ZONE
	REFLECTIVE DRUM
	DIRECTION OF PEDESTRIAN TRAFFIC FLOW
	CONSTRUCTION SIGN
	BARRICADE, III-B
90	TEMPORARY HMA SIDEWALK (SEE NOTE #1 THIS SHEET)

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CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

MAINTENANCE OF TRAFFIC
STAGE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
	-
SURVEY BOOK	SHEETS
	13 of 55
CONTRACT	PROJECT
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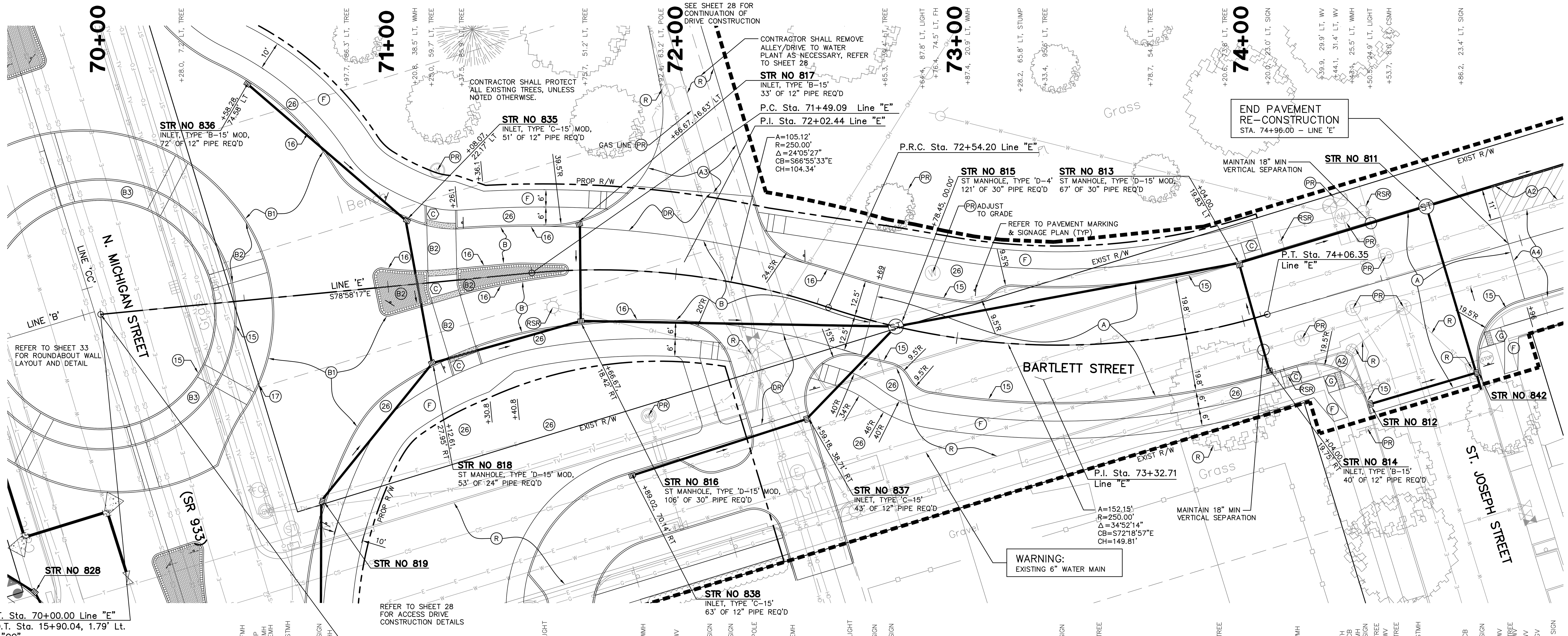
CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PLAN & PROFILE
LINE 'B' – BARTLETT STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	–
SURVEY BOOK	SHEETS
	14 of 55
CONTRACT	PROJECT
–	114-032B

X-2017



LEGEND

- (A) 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER 275#/SYD HMA INTERMEDIATE, TYPE B, 19.0mm, OVER 660#/SYD HMA BASE, TYPE B, 25.0mm, (2–3 IN LIFTS) OVER 6" COMPACTED AGGREGATE, NO. 53 BASE, OVER COMPACTED SUBGRADE
- (hatched) HMA FOR PATCHING
- (A2) HMA FOR PATCHING 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER 275#/SYD HMA INTERMEDIATE, TYPE B, 19.0mm, OVER 660#/SYD HMA BASE, TYPE B, 25.0mm, (2–3 IN LIFTS) OVER 6" COMPACTED AGGREGATE, NO. 53 BASE, OVER COMPACTED SUBGRADE
- (A3) 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER 275#/SYD HMA INTERMEDIATE, TYPE B, 19.0mm, OVER 660#/SYD HMA BASE, TYPE B, 25.0mm, OVER 6" COMPACTED AGGREGATE, NO. 53 BASE, OVER COMPACTED SUBGRADE
- (A4) 1 1/2" SURFACE MILLING AND RESURFACE WITH 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER MILLED ASPHALT SURFACE
- (B) 9" PLAIN PCCP OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B1) 10" PLAIN PCCP OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B2) 10" PLAIN PCCP, FULL DEPTH COLORIZED OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B3) 6" PCCP, FULL DEPTH COLORIZED OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B4) BRICK PAVERS OVER 6" CRUSHED LIMESTONE OVER 8" PERVIOUS CONCRETE OVER 6" WASHED AGGREGATE NO. 8 BASE OVER COMPACTED SUBGRADE
- (DR) 9" PCCP FOR DRIVE OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (F) SIDEWALK, CONCRETE, 5 IN ON COMPACTED SUBGRADE
- (C) CURB RAMP, CONCRETE, C
- (G) CURB RAMP, CONCRETE, G
- (PR) PROTECT
- (R) REMOVE
- (RSR) REMOVE, SALVAGE, RELOCATE
- (15) CURB, CONCRETE, 6 IN
- (16) CURB, INTEGRAL, CONCRETE
- (17) CURB, INTEGRAL, B, CONCRETE, MODIFIED
- (26) SODDING

N

GRAPHIC SCALE

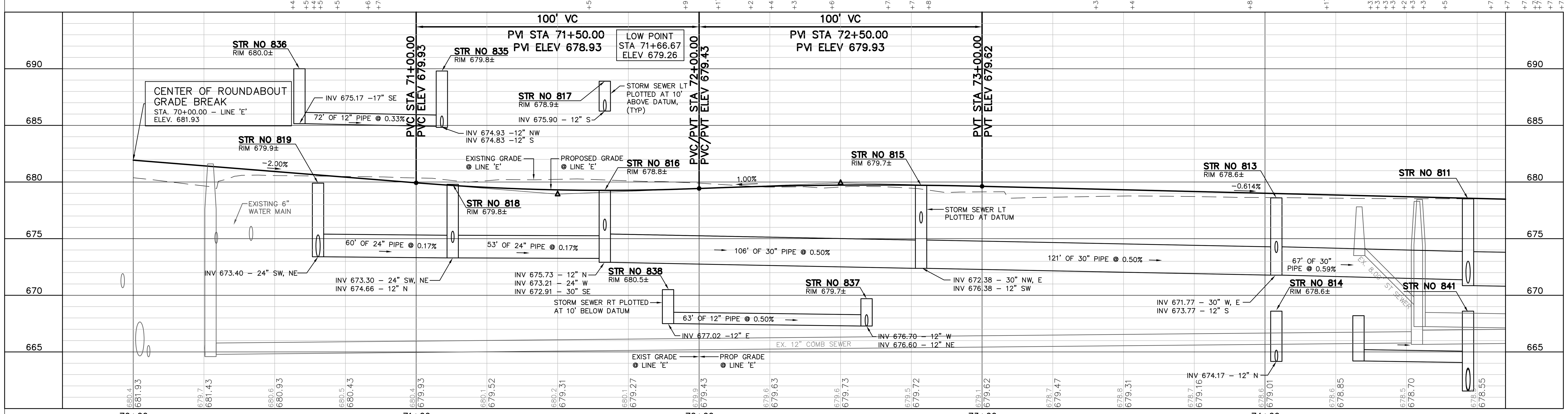
0 10 20 40

(IN FEET)
1 inch = 20 ft.

NOTE:

1. REFER TO THE LANDSCAPE PLAN FOR PROPOSED GROUND TREATMENTS WITHIN THE CENTER OF THE ROUNDABOUT.

2. REFER TO SHEET NO. 25 FOR ROUNDABOUT LAYOUT AND GEOMETRY.



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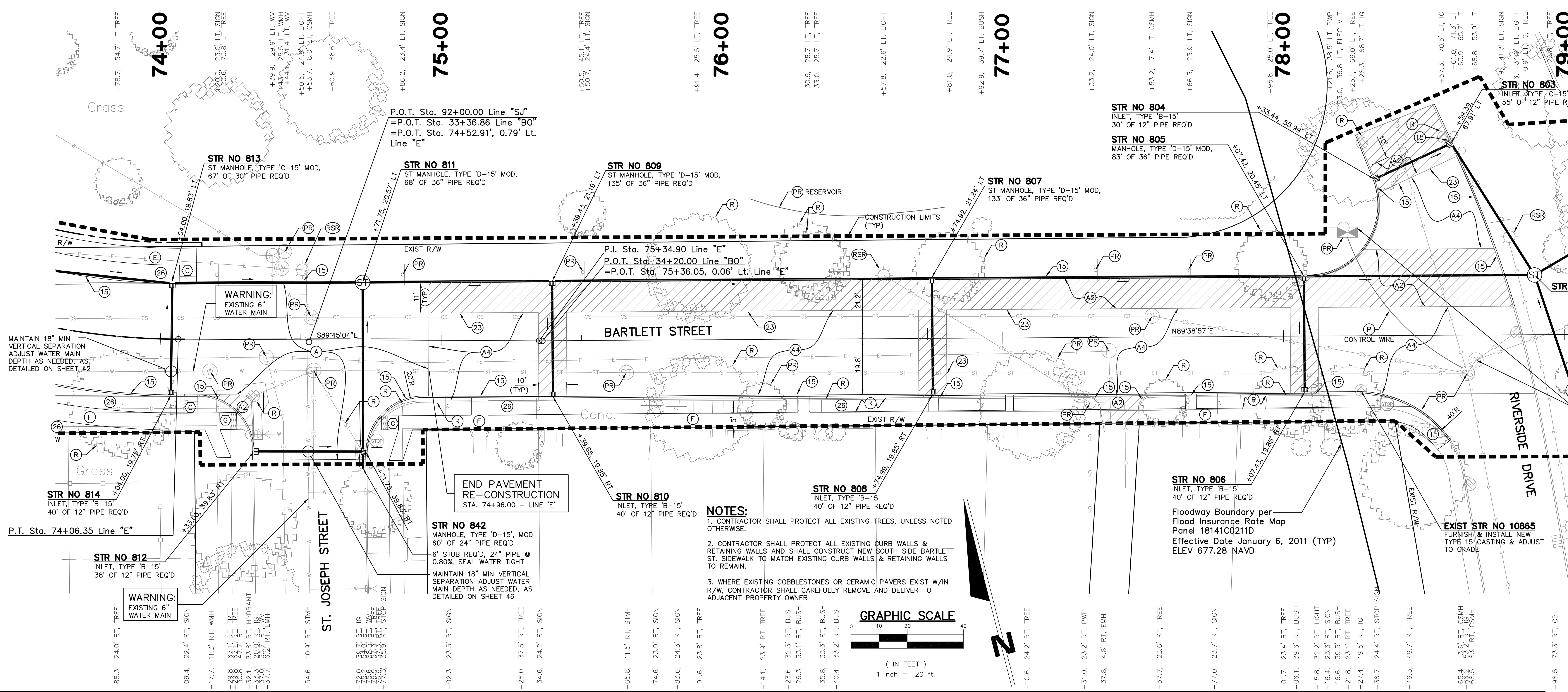
RECOMMENDED FOR APPROVAL	Mark E. Wilson DESIGN ENGINEER	1/6/2016 DATE	
DESIGNED: C.R.C.	DRAWN: R.J.H		
CHECKED: B.B.K.	CHECKED: M.E.W.		

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PLAN & PROFILE
LINE 'E' – BARTLETT STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	–
SURVEY BOOK	SHEETS
	15 of 55
CONTRACT	PROJECT
–	114-032B

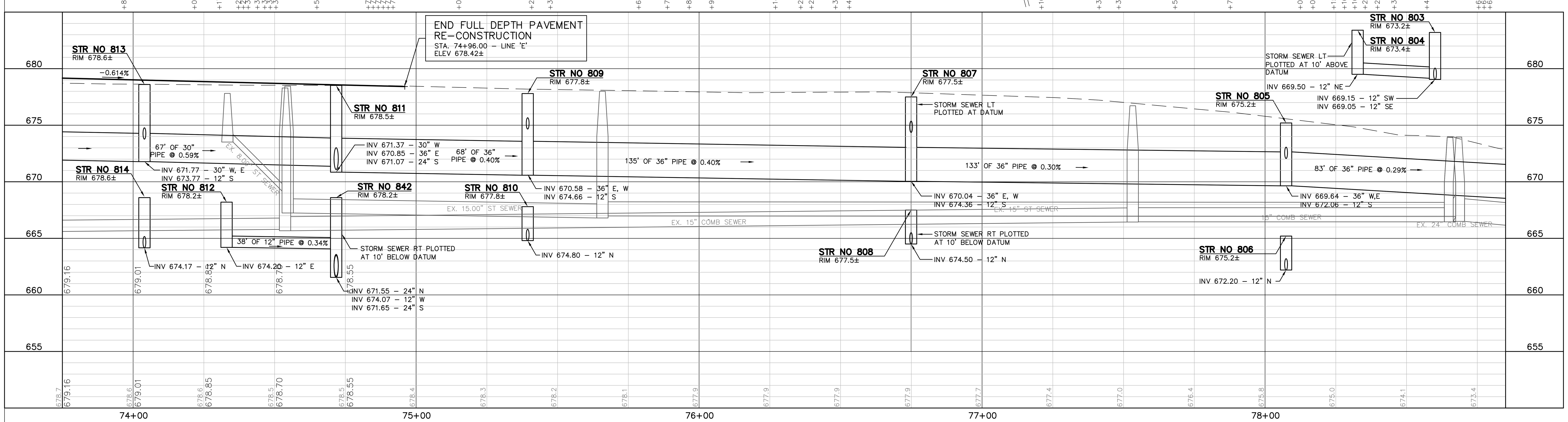


NOTES:

1. CONTRACTOR SHALL PROTECT ALL EXISTING TREES, UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL PROTECT ALL EXISTING CURB WALLS & RETAINING WALLS AND SHALL CONSTRUCT NEW SOUTH SIDE BARTLETT ST. SIDEWALK TO MATCH EXISTING CURB WALLS & RETAINING WALLS TO REMAIN.
3. WHERE EXISTING COBBLESTONES OR CERAMIC PAVERS EXIST W/IN R/W, CONTRACTOR SHALL CAREFULLY REMOVE AND DELIVER TO ADJACENT PROPERTY OWNER

LEGEND

A	165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER 275#/SYD HMA INTERMEDIATE, TYPE B, 19.0mm, OVER 660#/SYD HMA BASE, TYPE B, 25.0mm, (2–3 IN LIFTS) OVER 6" COMPACTED AGGREGATE, NO. 53 BASE, OVER COMPACTED SUBGRADE
A2	HMA FOR PATCHING 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER 275#/SYD HMA INTERMEDIATE, TYPE B, 19.0mm, OVER 660#/SYD HMA BASE, TYPE B, 25.0mm, (2–3 IN LIFTS) OVER 6" COMPACTED AGGREGATE, NO. 53 BASE, OVER COMPACTED SUBGRADE
A4	1 1/2" SURFACE MILLING AND RESURFACE WITH 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER MILLED ASPHALT SURFACE
F	SIDEWALK, CONCRETE, 5 IN ON COMPACTED SUBGRADE
G	CURB RAMP, CONCRETE, G
PR	PROTECT
R	REMOVE
RSR	REMOVE, SALVAGE AND RELOCATE
15	CURB, CONCRETE, 8 IN
23	NEAT LINE SAW CUT
26	SODDING



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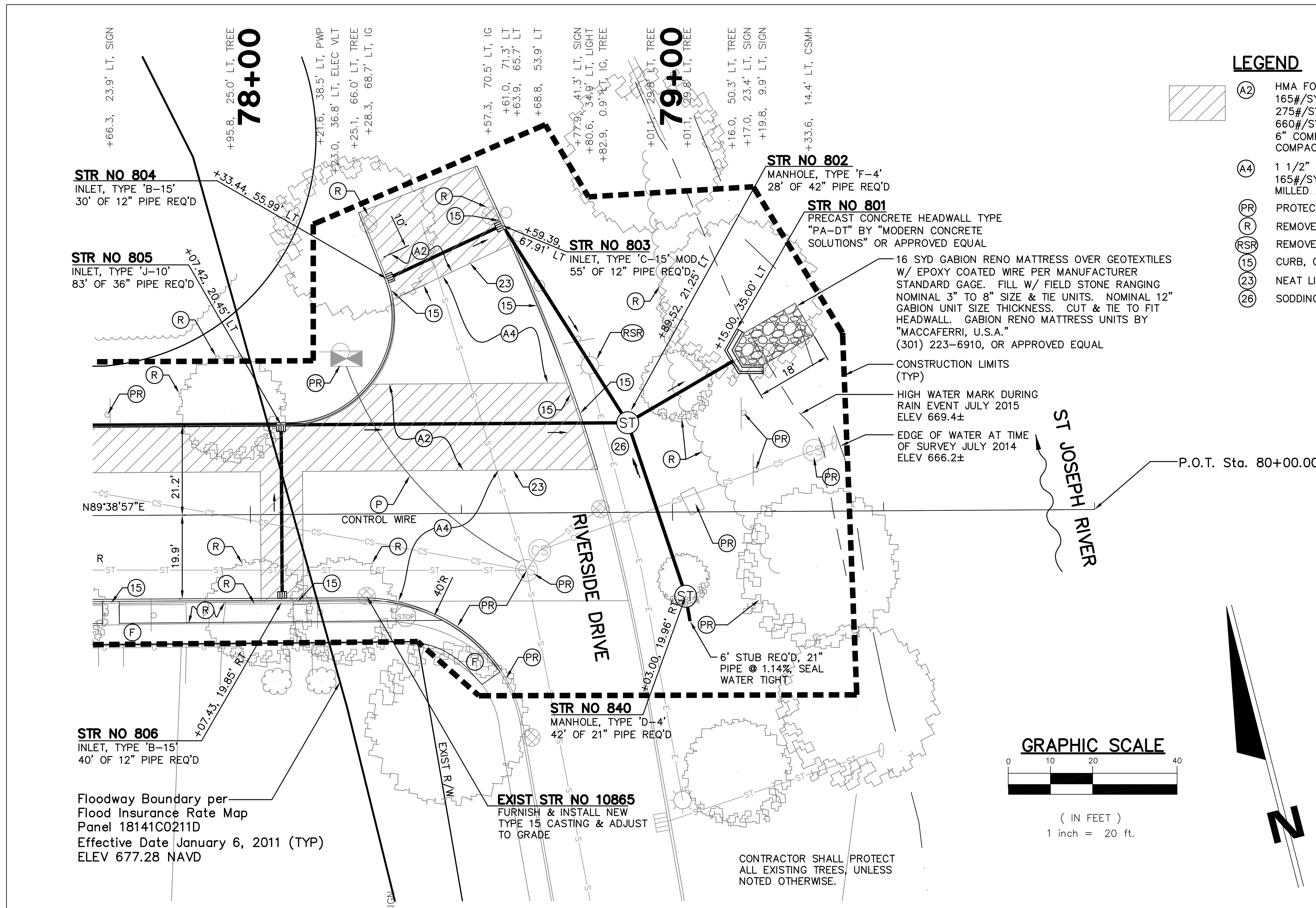
CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PLAN & PROFILE
LINE 'E' – BARTLETT STREET

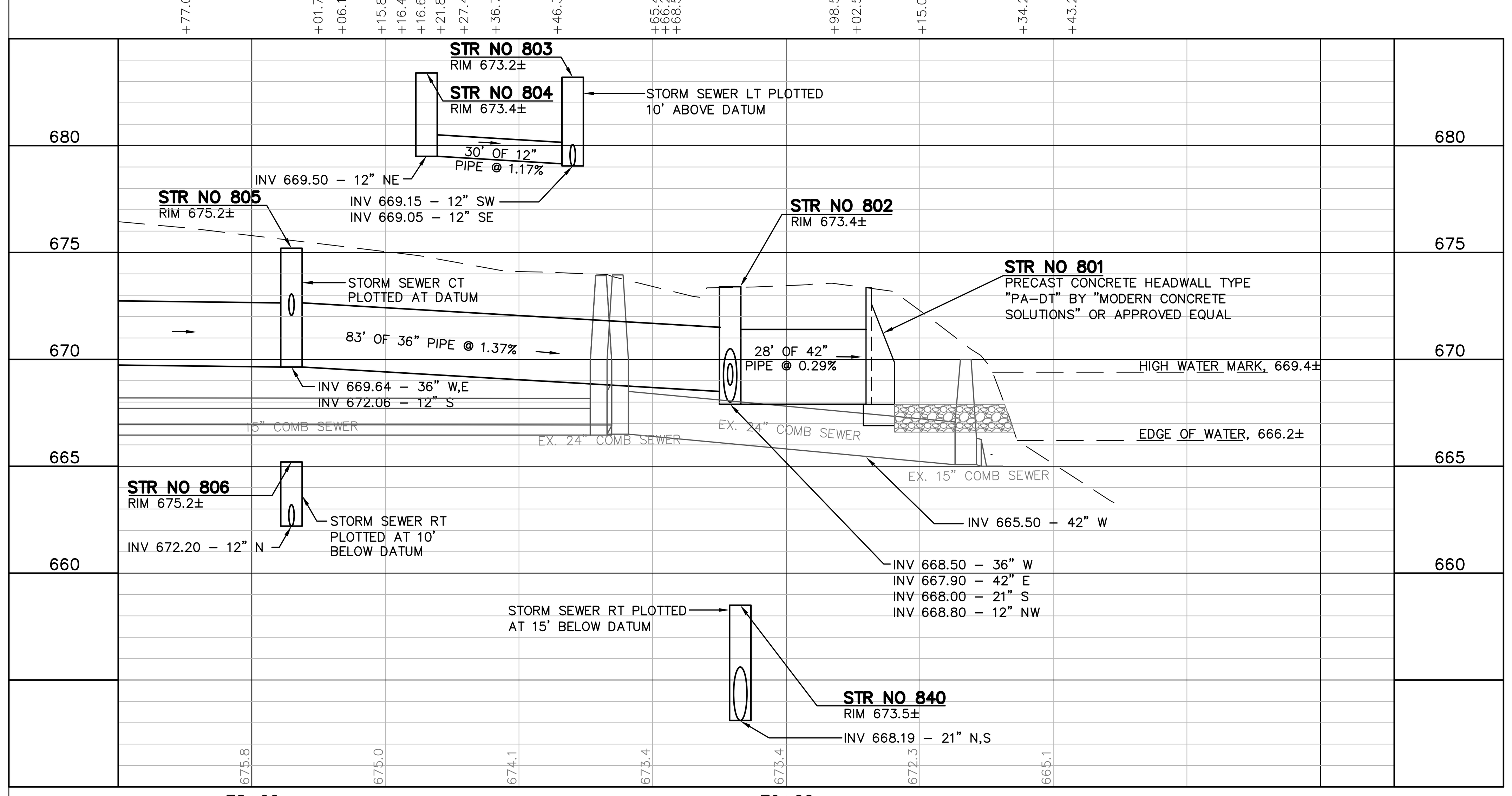
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	–
SURVEY BOOK	SHEETS
	16 of 55
CONTRACT	PROJECT
–	114-032B

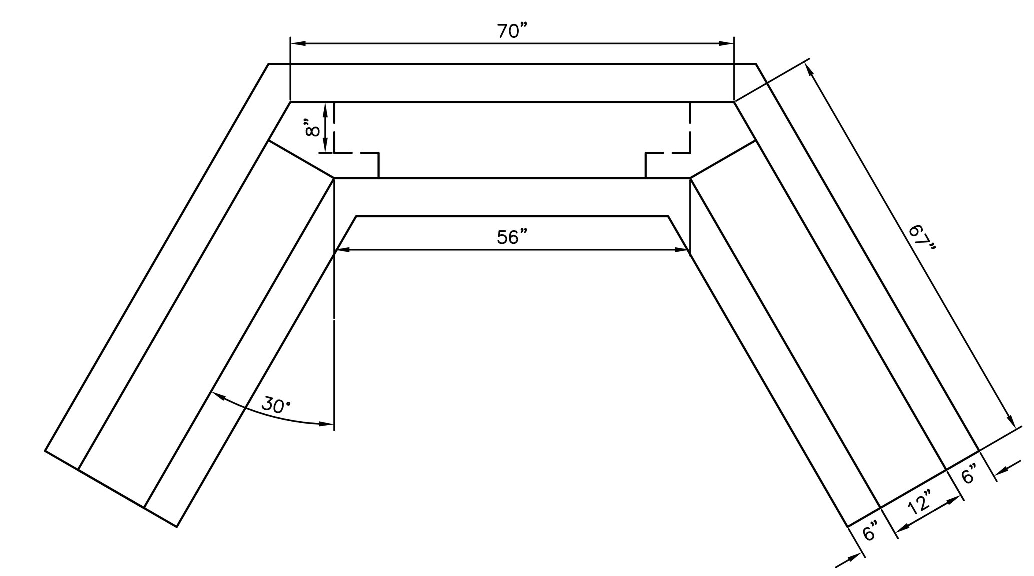
X-2017



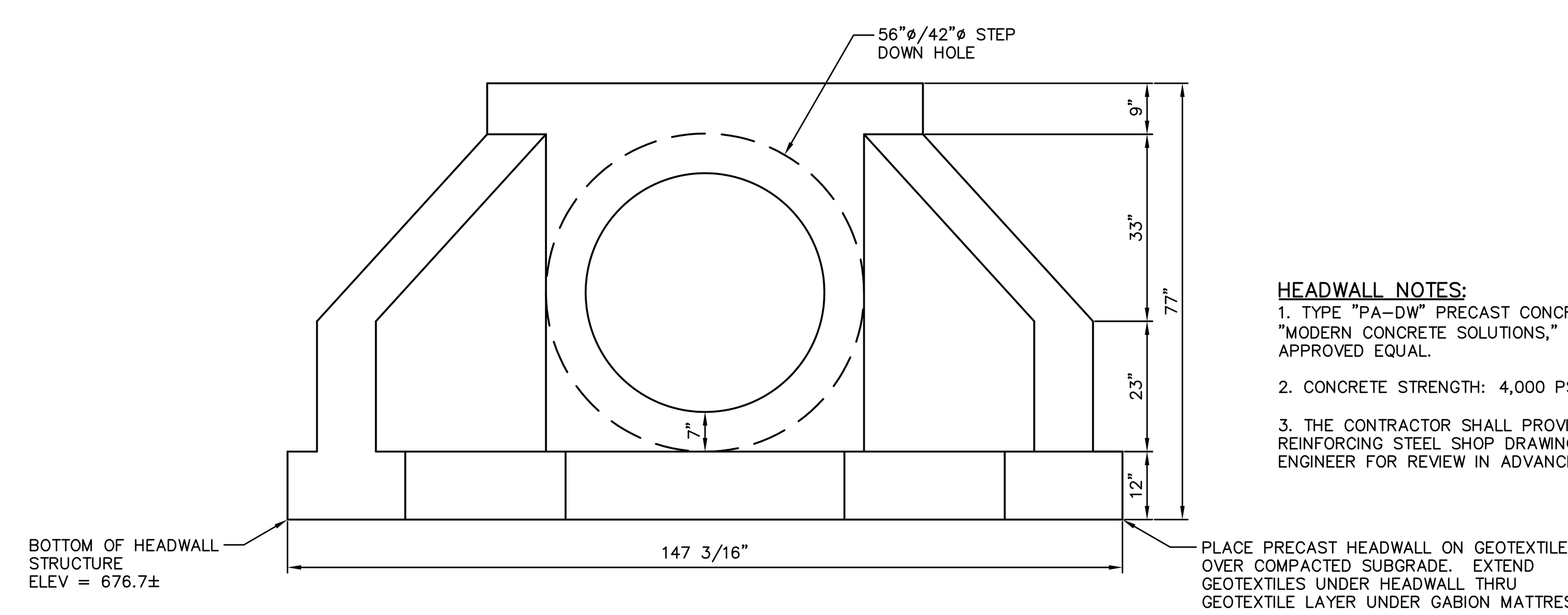
LEGEND

- A2 — HMA FOR PATCHING: 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER 275#/SYD HMA INTERMEDIATE, TYPE B, 19.0mm, OVER 660#/SYD HMA BASE, TYPE B, 25.0mm, (2-3 IN LIFTS) OVER 6" COMPACTED AGGREGATE, NO. 53 BASE, OVER COMPACTED SUBGRADE
- A4 — 1 1/2" SURFACE MILLING AND RESURFACE WITH 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER MILLED ASPHALT SURFACE
- PR — PROTECT
- R — REMOVE
- RSR — REMOVE, SALVAGE AND RELOCATE
- 15 — CURB, CONCRETE, 8 IN
- 23 — NEAT LINE SAW CUT
- 26 — SODDING





PLAN VIEW - TYPE "PA-DW" PRECAST CONCRETE HEADWALL
NOT TO SCALE



ELEVATION VIEW - TYPE "PA-DW" PRECAST CONCRETE HEADWALL
NOT TO SCALE

HEADWALL NOTES:
1. TYPE "PA-DW" PRECAST CONCRETE HEADWALL BY "MODERN CONCRETE SOLUTIONS," (888) 965-3227, OR APPROVED EQUAL.
2. CONCRETE STRENGTH: 4,000 PSI MIN @ 28 DAYS.
3. THE CONTRACTOR SHALL PROVIDE MANUFACTURER'S REINFORCING STEEL SHOP DRAWING DETAILS TO THE ENGINEER FOR REVIEW IN ADVANCE OF THE WORK.

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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Mark E. Wilson 1/6/2016 — DESIGN ENGINEER / DATE

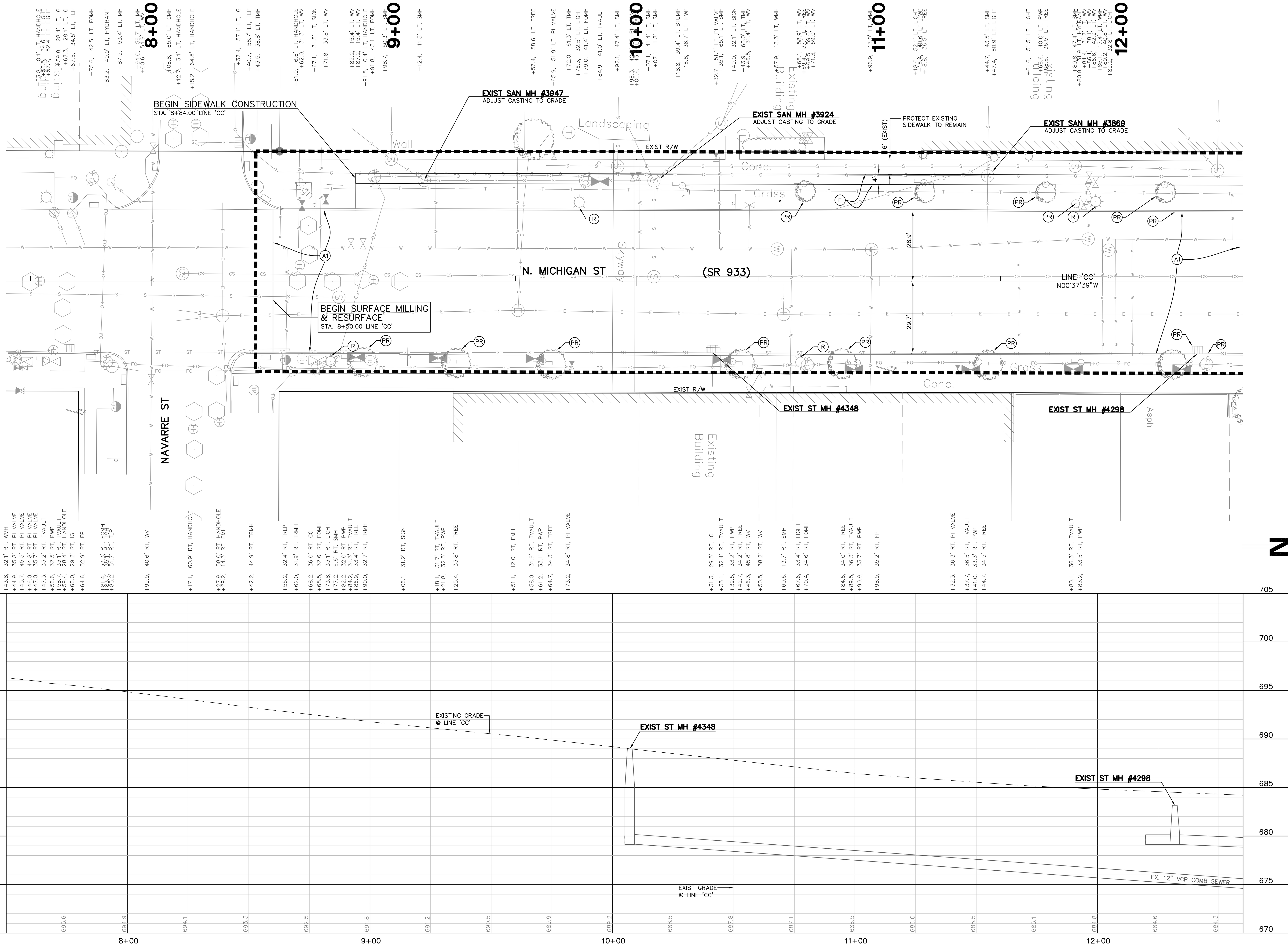
DESIGNED: C.R.C. | DRAWN: R.J.H
CHECKED: B.B.K. | CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PLAN & PROFILE
LINE 'E' - BARTLETT STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	-
SURVEY BOOK	SHEETS 17 of 55
CONTRACT	PROJECT
-	114-032B

X-2017



LEGEND

(A1) 1.5" SURFACE MILLING AND RESURFACE WITH 165#/SYD QC/QA–HMA, 4, 76, SURFACE, 9.5mm, ON TACK COAT OVER MILLED ASPHALT SURFACE

(F) SIDEWALK, CONCRETE, 5 IN ON COMPACTED SUBGRADE

(PR) PROTECT

(R) REMOVE

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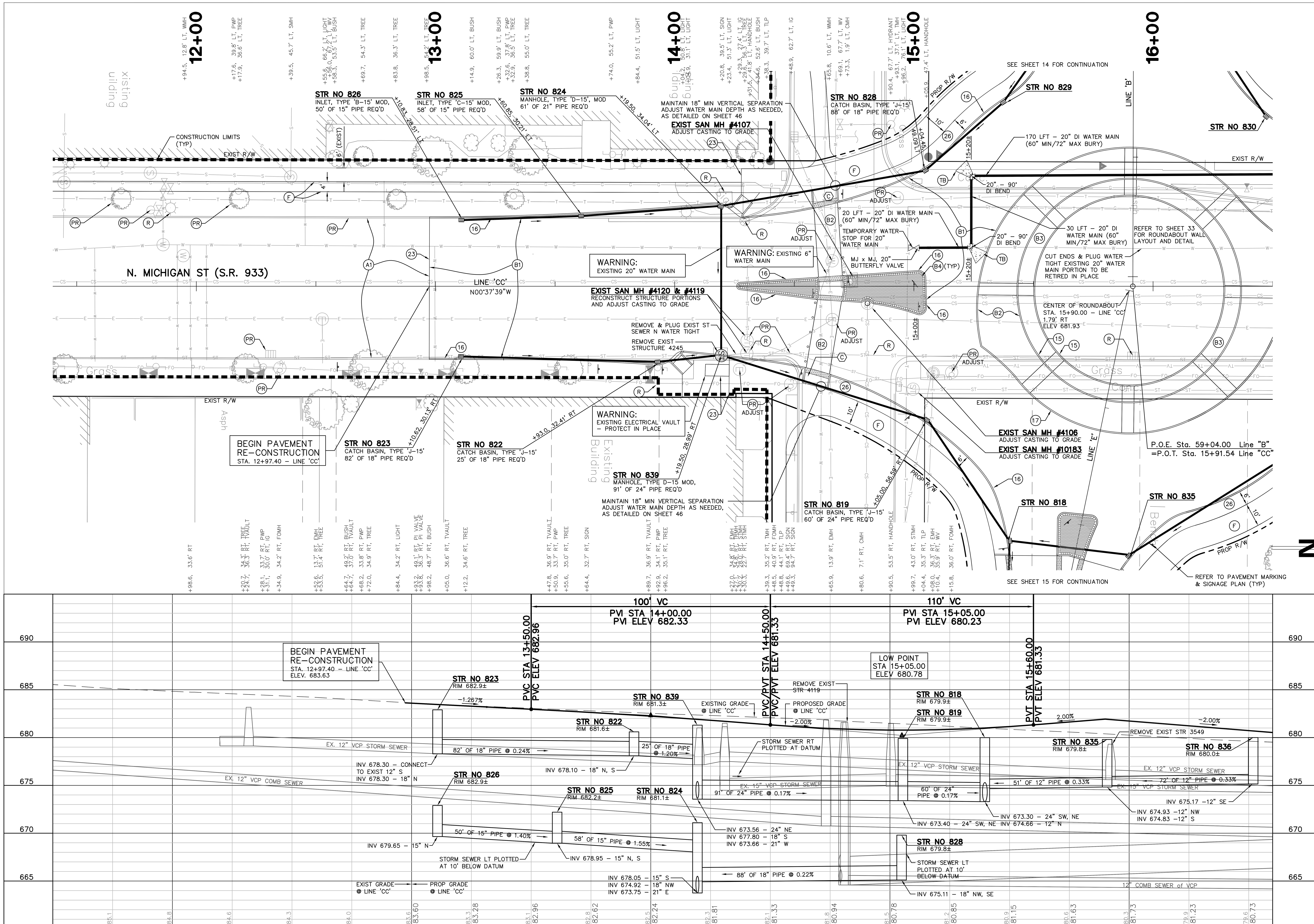
DESIGNED: C.R.C.	DRAWN: R.J.H	
CHECKED: B.B.K.	CHECKED: M.E.W.	

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PLAN & PROFILE
LINE 'CC' – MICHIGAN ST (SR 933)

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	–
SURVEY BOOK	SHEETS
	18 of 55
CONTRACT	PROJECT
–	114–032B



LEGEND

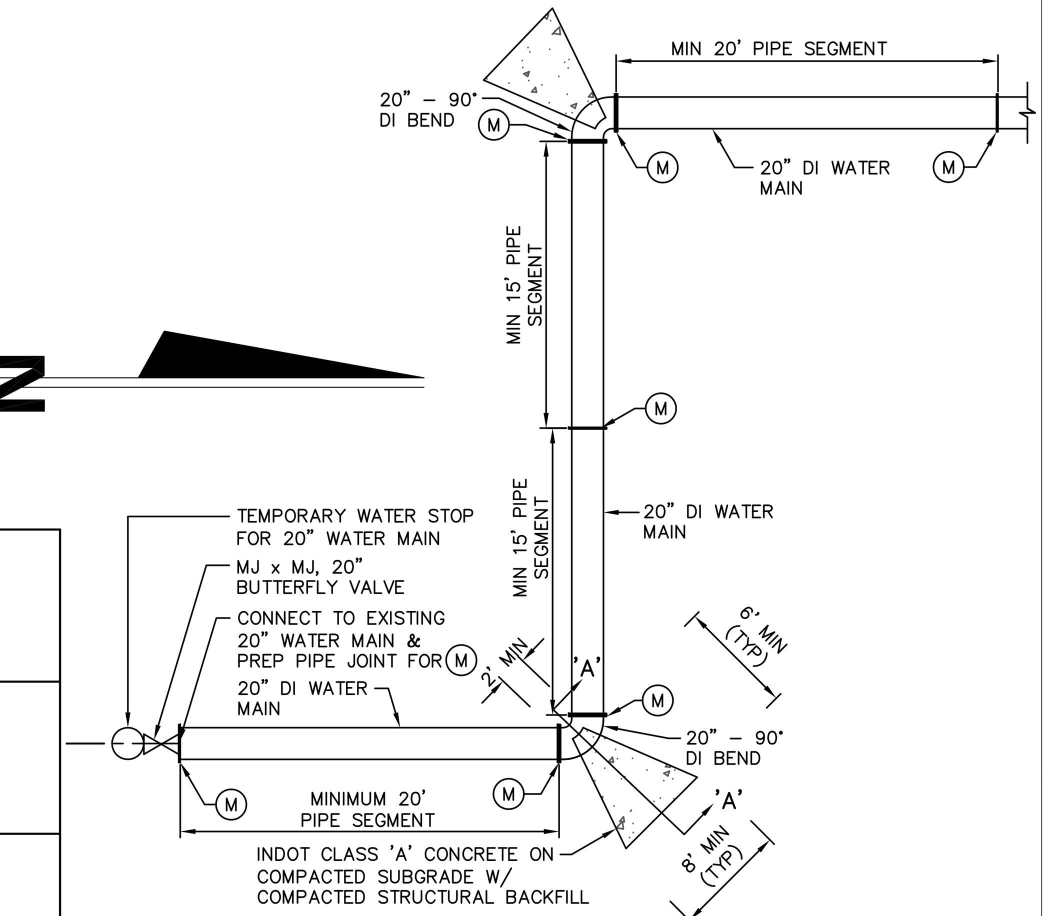
- (A1) 1.5" SURFACE MILLING AND RESURFACE WITH 165#/SYD QC/QA-HMA, 4, 76, SURFACE, 9.5mm, ON TACK COAT OVER MILLED ASPHALT SURFACE
- (B1) 10" PLAIN PCCP OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B2) 10" PCCP, FULL DEPTH COLORIZED 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B3) 6" PCCP, FULL DEPTH COLORIZED OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (B4) BRICK PAVERS OVER 6" CRUSHED LIMESTONE OVER 8" PERVIOUS CONCRETE OVER 6" WASHED AGGREGATE NO. 8 BASE OVER COMPACTED SUBGRADE
- (F) SIDEWALK, CONCRETE, 5 IN ON COMPACTED SUBGRADE
- (C) CURB RAMP, CONCRETE, C
- (15) CURB, CONCRETE, 6 IN
- (16) CURB, INTEGRAL, CONCRETE
- (17) CURB, INTEGRAL, B, CONCRETE, MODIFIED
- (23) NEAT LINE SAW CUT
- (26) SODDING
- (PR) PROTECT
- (R) REMOVE
- (TB) THRUST BLOCK, CONCRETE

NOTE:

1. REFER TO THE LANDSCAPE PLAN FOR PROPOSED GROUND TREATMENTS WITHIN THE CENTER OF THE ROUNDABOUT.

2. REFER TO SHEET NO. 25 FOR ROUNDABOUT LAYOUT AND GEOMETRY.

3. CONTRACTOR SHALL COORDINATE WITH NECESSARY UTILITY COMPANY ALL EXISTING ELECTRIC, FIBER OPTIC, AND TELEPHONE MANHOLES WITHIN EXISTING BARTLETT STREET INTERSECTION TO BE ADJUSTED TO PROPOSED GRADE.



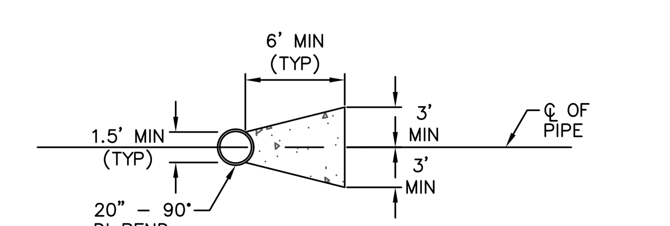
THRUST BLOCK, CONCRETE & WATER MAIN BEND LAYOUT

NOT TO SCALE

(M) "MEGALUG" SERIES 1100 MECHANICAL JOINT RESTRAINT FOR 20" DI PIPE

NOTES:
1. SOUTH END OF WATER MAIN REALIGNMENT SHOWN. NORTH END IS OPPOSITE HAND.

2. BACKFILL THRUST BLOCK WITH COMPACTED INDOT STRUCTURAL BACKFILL



THRUST BLOCK, CONCRETE – SECTION A-A

NOT TO SCALE

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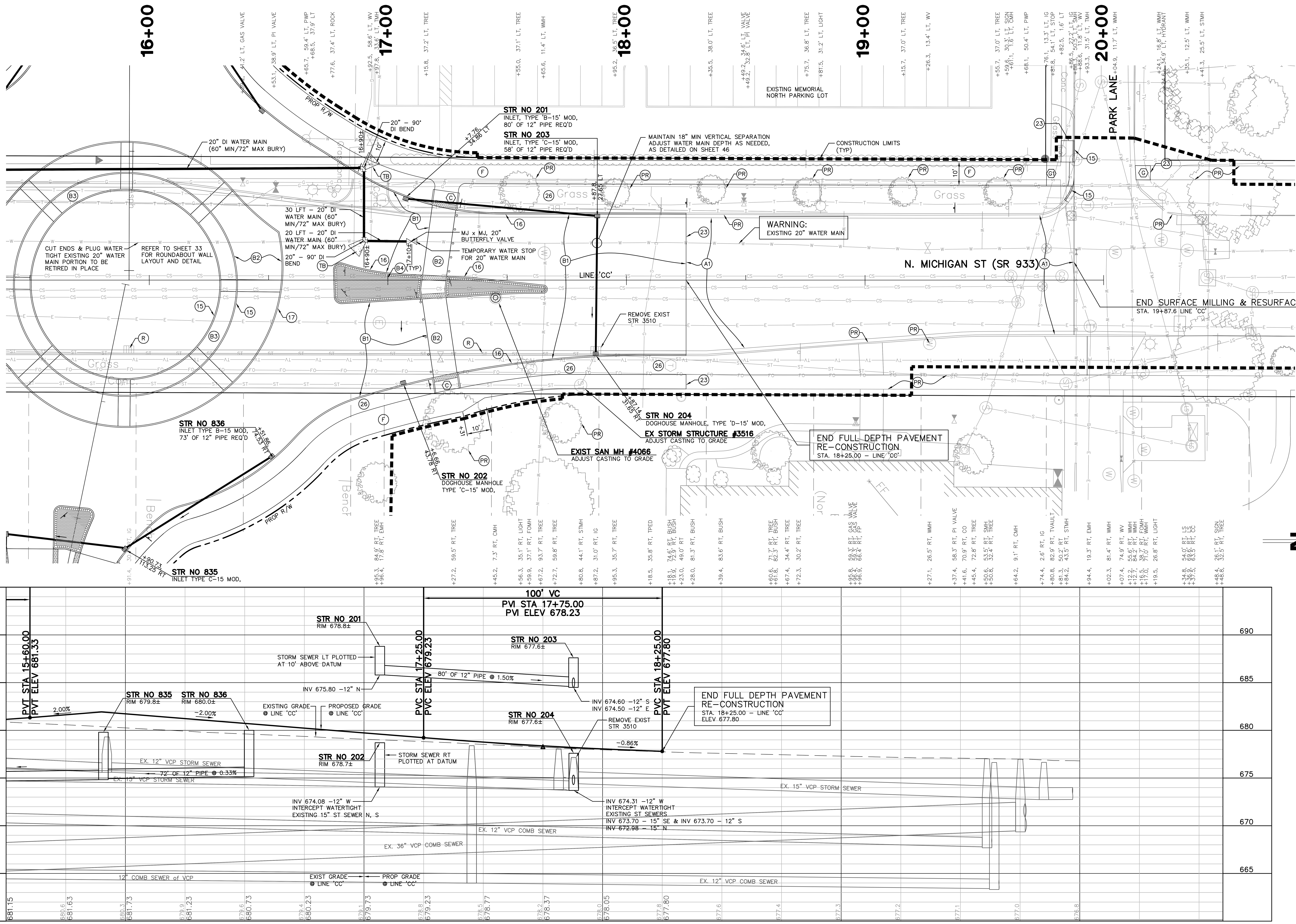
RECOMMENDED FOR APPROVAL: Mark E. Wilson — DESIGN ENGINEER — DATE 1/6/2016

DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PLAN & PROFILE
LINE 'CC' – MICHIGAN ST (SR 933)

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	–
SURVEY BOOK	SHEETS
	19 of 55
CONTRACT	PROJECT
–	114-032B



LEGEND

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- (C) CURB RAMP, CONCRETE, C
- (G) CURB RAMP, CONCRETE, G
- (G1) CURB RAMP, CONCRETE, G, MODIFIED
- (PR) PROTECT
- (15) CURB, CONCRETE, 6 IN
- (16) CURB, INTEGRAL, CONCRETE
- (17) CURB, INTEGRAL, B, CONCRETE, MODIFIED
- (23) NEAT LINE SAW CUT
- (26) SODDING
- (PR) PROTECT
- (R) REMOVE
- (TB) THRUST BLOCK, CONCRETE

NOTE:

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2. REFER TO SHEET NO. 25 FOR ROUNDABOUT LAYOUT AND GEOMETRY.

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RECOMMENDED FOR APPROVAL Mark E. Wilson 1/6/2016
DESIGN ENGINEER DATE

DESIGNED: C.R.C.	DRAWN: R.J.H
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CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PLAN & PROFILE
LINE 'CC' - MICHIGAN ST (SR 933)

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	-
SURVEY BOOK	SHEETS
	20 of 55
CONTRACT	PROJECT
-	114-032B

STRUCTURE DATA TABLE

STRUCTURE TO	LOCATION STATION	LOCATION LEFT/ RIGHT/ CENTER	OFFSET (FT)	RIM ELEV	DESCRIPTION: MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	PIPE SIZE (IN)	PIPE TYPE	LENGTH (LFT)	SKEW	COVER (FT)	FLOW LINE UP-STREAM (ELEV)	FLOW LINE DOWN-STREAM (ELEV)	SERVICE LIFE (YRS)	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURAL BACKFILL (CYS)	TYPE	GEOTEXTILES FOR RIPRAP (SYS)	RIPRAP (SYS)	RIPRAP TYPE	CONCRETE CLASS A, FOR STRUCTURES (CYS)	VIDEO INSPECTION (LFT)	PIPE END SECTION (SIZE) (EACH)	GRATED BOX END SECTION TYPE	GRATED BOX END SECTION SLOPE	GRATED BOX END SECTION EACH	SAFETY METAL END SECTION TYPE	SAFETY METAL END SECTION SLOPE	SAFETY METAL END SECTION EACH	CONNECT TO STR. NO.	REMARKS
	LINE 'B'																															
121	55+67.6	LT	16.5	680.5±	INLET TYPE 'B-15'	12	RCP	34			677.50	677.39		N/A	7.0	1	8.7	1					34								120	
120	55+67.6	RT	19.5	680.5±	INLET TYPE 'C-15', MOD	12	RCP	201			677.29	675.86		N/A	7.0	1	59.1	1					201								832	
830	58+32.31	LT	56.0	680.0±	INLET TYPE 'B-15' MOD	12	RCP	46			676.35	676.20		N/A	7.0	1	12.4	1					46								834	
834	57+94.55	LT	30.8	679.2±	INLET TYPE 'C-15' MOD	12	RCP	25			676.20	676.12		N/A	7.0	1	5.8	1					25								833	
833	57+70.20	LT	24.1	679.1±	INLET TYPE 'C-15' MOD	12	RCP	47			676.02	675.86		N/A	7.0	1	17.4	1					47								832	
832	57+70.20	RT	24.4	679.1±	CATCH BASIN TYPE 'J-15'	15	RCP	24			675.61	675.55		N/A	7.0	1	7.5	1					24								831	
831	57+92.95	RT	31.0	679.2±	CATCH BASIN TYPE 'J-15'	15	RCP	42			675.55	675.45		N/A	7.0	1	15.9	1					42								829	
829	58+26.55	RT	54.8	680.0±	CATCH BASIN TYPE 'J-15'	18		42			675.20	675.11		N/A	7.0	1	20.5	1					42								828	
828	58+55.13	RT	87.2	679.8±	CATCH BASIN TYPE 'J-15'	18		88			675.11	674.92		N/A	7.0	1	49.8	1					88								824	
	LINE 'CC'																															
201	17+07.76	LT	34.9	678.8±	INLET TYPE 'B-15', MOD	12	RCP	80			675.80	674.60		N/A	7.0	1	18.7						80								203	
202	17+06.66	RT	43.8	678.7±	DOGHOUSE MANHOLE TYPE 'C-15' MOD									N/A	7.0	1																INTERCEPT WATER TIGHT EX. 15" ST SEWER PIPE N, S INV 674.08
203	17+87.80	LT	27.7	677.6±	INLET TYPE 'C-15', MOD	12	RCP	58			674.50	674.31		N/A	7.0	1	14.9						58								204	
204	17+87.14	RT	31.6	677.6±	DOGHOUSE MANHOLE TYPE 'D-15' MOD																											INTERCEPT WATER TIGHT EX. ST SEWER PIPES INV 673.70 15" SE, 673.70 12" S & 672.98 15" N
826	13+10.83	LT	28.5	682.9±	INLET TYPE 'B-15' MOD	15	RCP	50			679.65	678.95		N/A	7.0	1	13.6	1					50								825	
825	13+60.85	LT	30.2	682.2±	INLET TYPE 'C-15' MOD	15	RCP	58			678.95	678.05		N/A	7.0	1	14.9	1					58								824	
824	14+19.50	LT	34.0	681.1±	MANHOLE TYPE 'D-15' MOD	21		61			673.75	673.66		N/A	7.0	1	61.8	1					61								839	
823	13+10.62	RT	30.1	682.9±	CATCH BASIN TYPE 'J-15'	18	RCP	82			678.30	678.10		N/A	7.0	1	31.5	1					82								822	CONNECT TO EXIST 12" PIPE S INV 678.30
822	13+93.00	RT	32.4	681.6±	CATCH BASIN TYPE 'J-15'	18	RCP	25			678.10	677.80		N/A	7.0	1	7.8	1					25								839	
839	14+19.50	RT	29.0	681.3±	MANHOLE TYPE 'D-15' MOD	24		91			673.56	673.40		N/A	7.0	1	86.5	1					91								819	
819	15+05.00	RT	56.6	679.9±	CATCH BASIN TYPE 'J-15'	24		60			673.40	673.30		N/A	7.0	1	50.2	1					60								818	
	LINE 'E'																															
836	70+58.28	LT	74.6	680.0±	INLET TYPE 'B-15' MOD	12		72			675.17	674.93		N/A	7.0	1	33.1	1					72								835	
835	71+08.70	LT	22.2	679.8±	INLET TYPE 'C-15' MOD	12		51			674.83	674.66		N/A	7.0	1	26.2	1					51								818	
818	71+12.61	RT	28.0	679.8±	MANHOLE TYPE 'D-15' MOD	24		53			673.30	673.21		N/A	7.0	1	40.5	1					53								816	
817	71+66.67	LT	16.6	678.9±	INLET TYPE 'B-15'	12	RCP	33			675.90	675.73		N/A	7.0	1	8.5	1					33								816	
816	71+66.67	RT	18.4	678.8±	MANHOLE TYPE 'D-15', MOD	30		106			672.91	672.38		N/A	7.0	1	104.4	1					106								815	
838	71+89.02	RT	70.1	680.5±	INLET TYPE 'C-15', MOD	12	RCP	63			677.02	676.70		N/A	7.0	1	23.3	1					63								837	
837	72+59.18	RT	38.7	679.7±	INLET TYPE 'C-15'	12	RCP	43			676.60	676.38		N/A	7.0	1	12.1	1					43								815	
815	72+78.45	CL	0.0	679.7±	MANHOLE TYPE 'D-4'	30		121			672.38	671.77		N/A	7.0	1	132.5	1					121								813	
814	74+04.00	RT	19.8	678.6±	INLET TYPE 'B-15'	12	RCP	40			674.17	673.77		N/A	7.0	1	12.2	1					40								813	
813	74+04.00	LT	19.8	678.6±	MANHOLE TYPE 'C-15' MOD	30		67			671.77	671.37		N/A	7.0	1	71.9	1					67								811	
812	74+33.03	RT	39.8	678.2±	INLET TYPE 'B-15'	12		38			674.20	674.07		N/A	7.0	1	14.5	1					38								842	
842	74+71.75	RT	39.8	678.2±	MANHOLE TYPE 'D-15, MOD	24		60			671.55	671.07		N/A	7.0	1	59.3	1					60								811	
811	74+71.75	LT	20.6	678.5±	MANHOLE TYPE 'D-15' MOD	36		68			670.85	670.58		N/A	7.0	1	88.5	1					68								809	
810	75+39.65	RT	19.7	677.8±	INLET TYPE 'B-15'	12	RCP	40			674.80	674.66		N/A	7.0	1	10.3	1					40								809	
809	75+39.43	LT	21.2	677.8±	MANHOLE TYPE 'D-15' MOD	36		135			670.58	670.04		N/A	7.0	1	172.3	1					135								807	
808	76+74.99	RT	19.9	677.5±	INLET TYPE 'B-15'	12	RCP	40			674.50	674.36		N/A	7.0	1	11.8	1					40								807	
807	76+74.92	LT	21.2	677.5±	MANHOLE TYPE 'D-15' MOD	36	RCP	133			670.04	669.64		N/A	7.0	1	142.3	1					133								805	
806	78+07.43	RT	19.9	675.2±	INLET TYPE 'B-15'	12	RCP	40			672.20	672.06		N/A	7.0	1	10.3	1					40								805	
805	78+07.42	LT	20.5	675.2±	MANHOLE TYPE 'D-15' MOD	36	RCP	80			669.64	668.50		N/A	7.0	1	64.4	1					80								802	
840	79+03.00	RT	20.0	673.5±	MANHOLE TYPE 'D-4'	21		42			668.19	668.00		N/A	7.0	1	26.4	1					42								802	
804	78+33.44	LT	56.0	673.4±	INLET TYPE 'B-15'	12		30			669.50	669.15		N/A	7.0	1	11.1	1					30								803	
803	78+59.34	LT	67.9	673.2±	INLET TYPE 'C-15' MOD	12		55			669.05	668.80		N/A	7.0	1	22.4	1					55								802	
802	78+89.52	LT	21.3	673.4±	MANHOLE TYPE 'F-4'	42		28			667.90	667.82		N/A	7.0	1	30.1	1					28								801	
801	79+15.00	LT	21.2	673.4±	PRECAST CONCRETE HEADWALL	42					667.82	667.81		N/A	7.0	1		1														TYPE "PA-DW" BY "MODERN CONCRETE SOLUTIONS" OR APPROVED EQUAL

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RECOMMENDED FOR APPROVAL Mark E. Wilson 1/6/2016
DESIGN ENGINEER DATE

DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

STRUCTURE DATA TABLE

HORIZONTAL SCALE	BRIDGE FILE
VERTICAL SCALE	DESIGNATION
	–
SURVEY BOOK	SHEETS
	21 of 55
CONTRACT	PROJECT
–	114–032B

X–2017

LINE	SIGN LOCATION (STA.)	SIGN CODE	SIGN SIZE (IN x IN)	SIGN, SHEET, WITH LEGEND 0.080" FT.	SIGN, SHEET, WITH LEGEND 0.100" FT.	SIGN, SHEET, WITH LEGEND 0.125" FT.	U CHANNEL POST LENGTH 1 FT.	U CHANNEL POST LENGTH 2	U CHANNEL POST LENGTH TYPE "A" FT.	U CHANNEL POST LENGTH TYPE "B" FT.	SQUARE 2" X 2" - 12 GA. (TYPE 2) REINFORCED ANCHOR POST LENGTH (FT.) 1	SQUARE 2" X 2" - 12 GA. (TYPE 2) REINFORCED ANCHOR POST LENGTH (FT.) 2	SQUARE 2" X 2" - 12 GA. (TYPE 2) REINFORCED ANCHOR POST LENGTH (FT.) TOTAL	SQUARE 2 1/4" X 2 1/4" - 12 GA. (TYPE 1) REINFORCED ANCHOR POST LENGTH (FT.) 1	SQUARE 2 1/4" X 2 1/4" - 12 GA. (TYPE 1) REINFORCED ANCHOR POST LENGTH (FT.) 2	SQUARE 2 1/4" X 2 1/4" - 12 GA. (TYPE 1) REINFORCED ANCHOR POST LENGTH (FT.) TOTAL	COMMENT
Line "B"	55+55.2, 23.2' RT.	W2-6	36 x 36		9.00									13.16		13.16	
		D3-1(1)	47 x 9		2.94												
		W13-1	18 x 18	2.25													
	56+89.4, 23.2' RT.	W3-2	36 x 36		9.00									10.66		10.66	
	57+75.1, 27.8' RT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
	57+91.1, 31.3' LT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
	58+04.4, 0.6' LT.	D3-1(2)	47 x 9		2.94									8.41	8.41	16.82	
	58+04.5, 39.2' RT.	R1-2	36 x 36 x 36		3.90									10.26		10.26	
	58+79.9, 25.6' RT.	R6-4a	48 x 24		8.00												Mounted on Center Wall
																0.00	
																0.00	
Line "CC"	10+59.2, 33.0' LT.	R10-15	30 x 30	6.25												0.00	
																0.00	
	12+59.8, 33.7' RT.	W2-6	36 x 36		9.00									13.16		13.16	
		D3-1(2)	47 x 9		2.94												
		W13-1	18 x 18	2.25													
																0.00	
	13+68.4, 34.6' RT.	W3-2	36 x 36		9.00									10.66		10.66	
	13+95.5, 34.8' RT.	R4-11	30 x 30	6.25													
																0.00	
	14+53.0, 36.5 RT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
		R10-25	9 x 12	0.75													
																0.00	
	14+58.0, 2.8' RT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
																0.00	
	14+69.9, 38.7' LT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
		R10-25	9 x 12	0.75													
																0.00	
	14+72.5, 1.9' LT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
																0.00	
	14+98.2, 55.0' RT.	R1-2	36 x 36 x 36		3.90									10.26		10.26	
																0.00	
	15+00.0, 1.0' LT.	D3-1(1)	47 x 9		2.94									8.41	8.41	16.82	
																0.00	
	15+02.1, 8.4' RT.	R1-2	36 x 36 x 36		3.90									10.26		10.26	
	15+63.0, 25.0' RT.	R6-4a	48 x 24		8.00												Mounted on Center Wall
	16+17.1, 22.4' LT.	R6-4a	48 x 24		8.00												Mounted on Center Wall
																0.00	
	16+81.7, 5.0' RT.	D3-1(1)	47 x 9		2.94									8.41	8.41	16.82	
	16+81.7, 3.9' LT.	R1-2	36 x 36 x 36		3.90									10.26		10.26	
																0.00	
	16+88.2, 47.4' LT.	R1-2	36 x 36 x 36		3.90									10.26		10.26	
	17+12.0, 5.5' RT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
																0.00	
	17+17.8, 43.8' RT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
		R10-25	9 x 12	0.75												0.00	
	17+26.0, 5.4' RT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
																0.00	
	17+30.4, 32.3' LT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
		R10-25	9 x 12	0.75													
																0.00	
	18+24.6, 32.4' LT.	W3-2	36 x 36		9.00									10.66		10.66	
																0.00	
	19+37.3, 30.2' LT.	W2-6	36 x 36		9.00									13.16		13.16	
		D3-1(2)	47 x 9		2.94												
		W13-1	18 x 18	2.25													
Line "E"	70+20.8, 28.8' LT.	R6-4a	48 x 24		8.00												Mounted on Center Wall
	71+00.2, 5.4' RT.	D3-1(2)	47 x 9		2.94									8.41	8.41	16.82	
	71+02.1, 30.9' LT.	R1-2	36 x 36 x 36		3.90									10.26		10.26	
	71+27.2, 29.7' RT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
	71+42.0, 19.6' LT.	W11-2	30 x 30	6.25										11.16		11.16	
		W16-7P	24 x 12	2.00													
	72+42.3, 14.7' LT.	W3-2	36 x 36		9.00									10.66		10.66	
	72+56.6, 27.9' RT.	R1-1	36 x 36		9.00									10.66		10.66	
	73+03.4, 15.7' LT.	W2-6	36 x 36		9.00									13.16		13.16	
		D3-1(1)	47 x 9		2.94												
		W13-1	18 x 18	2.25													
				123.50	159.92											368.70	

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MARK E. WILSON
REGISTERED
NO. 80328
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL Mark E. Wilson 1/6/2016
DESIGN ENGINEER DATE

DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

SHEET SIGN & POST TABLE

HORIZONTAL SCALE	BRIDGE FILE
VERTICAL SCALE	DESIGNATION
	–
SURVEY BOOK	SHEETS 22 of 55
CONTRACT	PROJECT
–	114-032B

X-2017

SUMMARY OF QUANTITIES AND APPROACH TABLE

LOCATION (STATION)	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH	LENGTH	DISTANCE BEYOND R/W LINE	RADII	GRADE (LESS THAN 10% NOT SHOWN)		EXCAVATION		PCCP						HMA TYPE 'B'			HMA FOR PATCHING	ASPHALT FOR TACK COAT	COMPACTED AGGREGATE FOR BASE NO. 53	ASPHALT MILLING	INTEGRAL CONCRETE CURB	STANDARD CURB, CONCRETE	PCCP FOR APPROACHES	HMA FOR APPROACHES TYPE B	4" MOUNTABLE CURB	REMARKS
		"W"	"L"		"R"	1	2	CYS.		10"	10" COLOR	9"	5" INLAY	6"	6" COLOR	SURFACE	INTERMD.	BASE			6 In.	1.5 In.			9 In.			
		ft.	ft.	ft.	ft.	%	%	CUT	FILL	SYS	SYS	SYS	SYS	SYS	SYS	TONS	TONS	TONS	TONS	TONS	TONS	SYS	LFT	SYS	SYS	TONS	LFT	
LINE 'B'	BARTLETT STREET									160	64	885									650		1,175	960				
LINE 'CC'	MICHIGAN STREET									2,416	156					430					934	3,920	2,120	10				
LINE 'E'	BARTLETT STREET									105	50	480				220	175	410	390		643	2,030	320					
	ROUNDABOUT									1,894	555		65	30	215						970						410	
LINE 'E'																												
72+04.81 LT		40.0	15.0		24.5/39.5																259				110	164.0		
72+08.78 RT		20.0	33.0		20/15																259				110			
SW LOOP																						585		600		296.0		
SE LOT																								320		225.0		
	TOTALS							6,813.0		4,575	825	1,365	65	30	215	650	175	410	390	3	3,715	6,535	3,615	1,890	220	685	410	

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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL Mark E. Wilson 1/6/2016
DESIGN ENGINEER DATE

DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PAVEMENT QUANTITIES AND APPROACH TABLE

HORIZONTAL SCALE	BRIDGE FILE
VERTICAL SCALE	DESIGNATION
	–
SURVEY BOOK	SHEETS
	23 of 55
CONTRACT	PROJECT
–	114–032B

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HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
.	–
SURVEY BOOK	SHEETS 24 of 55
CONTRACT	PROJECT
–	114-032B

X-2017

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER 1/6/2016 DATE
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CHECKED: B.B.K.	CHECKED: M.E.W.

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CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

GEOMETRIC PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
	-
SURVEY BOOK	SHEETS 25 of 55
CONTRACT	PROJECT
-	114-032B

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PointNo.	Northing(Y)	Easting(X)	Description
1	2345212.363	168422.147	BEGIN CURB RADIUS
2	2345206.33	168475.9555	END CURB RADIUS
3	2345006.981	168426.362	CENTER CURB RADIUS
4	2345203.083	168487.5443	BEGIN CURB RADIUS
5	2345192.483	168511.5057	END, BEGIN CURB RADIUS
6	2345090.537	168452.0845	CENTER CURB RADIUS
7	2345180.29	168524.2777	END, BEGIN CURB RADIUS
8	2345159.653	168492.37	CENTER CURB RADIUS
9	2345158.918	168543.1412	END, BEGIN CURB RADIUS
10	2345232.427	168604.8866	ROUNDABOUT CENTER
11	2345138.366	168558.7019	END, BEGIN CURB RADIUS
12	2345114.507	168505.8368	CENTER CURB RADIUS
13	2345111.117	168568.6623	END CURB RADIUS
14	2345099.282	168571.6344	BEGIN CURB RADIUS
15	2345071.125	168575.8643	END CURB RADIUS
16	2345057.121	168378.6869	CENTER CURB RADIUS
17	2345064.23	168571.4971	BEGIN CURB RADIUS
18	2345057.948	168570.2101	END, BEGIN CURB RADIUS
19	2345059.082	168580.6487	CENTER CURB RADIUS
20	2345069.722	168555.7091	END WALK
21	2345089.057	168555.5405	BEGIN WALK RADIUS
22	2345099.066	168554.4393	END, BEGIN WALK RADIUS
23	2345187.793	168482.8299	END, BEGIN WALK RADIUS
24	2345184.506	168476.547	END WALK RADIUS
25	2345183.025	168481.3227	CENTER WALK RADIUS
26	2345189.484	168471.8087	BEGIN WALK RADIUS
27	2345195.847	168468.1123	END, BEGIN WALK RADIUS
28	2345190.965	168467.033	CENTER WALK RADIUS
29	2345227.67	168458.0108	BEGIN CURB RADIUS
30	2345226.049	168482.1817	END, BEGIN CURB RADIUS
31	2345223.891	168494.0371	BEGIN CURB RADIUS
32	2345220.712	168506.1506	END, BEGIN CURB RADIUS
33	2345067.176	168459.3835	CENTER CURB RADIUS
34	2345223.269	168509.3736	END CURB RADIUS
35	2345223.103	168506.8791	CENTER CURB RADIUS
36	2345235.563	168508.5585	BEGIN CURB RADIUS
37	2345237.886	168505.8241	END, BEGIN CURB RADIUS
38	2345235.398	168506.064	CENTER CURB RADIUS
39	2345234.751	168467.6382	BEGIN CURB RADIUS
40	2345235.706	168482.9064	END, BEGIN CURB RADIUS
41	2345376.746	168466.424	CENTER CURB RADIUS
42	2345248.959	168374.6843	BEGIN CURB RADIUS
43	2345254.49	168453.8101	END, BEGIN CURB RADIUS
44	2345258.98	168476.7555	END, BEGIN CURB RADIUS
45	2345896.935	168369.1434	CENTER CURB RADIUS
46	2345440.88	168429.2461	CENTER CURB RADIUS
47	2345262.394	168488.2996	END, BEGIN CURB RADIUS
48	2345267.648	168502.2899	END, BEGIN CURB RADIUS
49	2345286.045	168527.4939	END, BEGIN CURB RADIUS
50	2345330.306	168475.8701	CENTER CURB RADIUS
51	2345311.42	168545.9719	END, BEGIN CURB RADIUS
52	2345327.417	168555.7808	BEGIN CURB RADIUS
53	2345359.712	168569.4683	END, BEGIN CURB RADIUS
54	2345389.1	168455.1863	CENTER CURB RADIUS
55	2345371.554	168571.8745	END, BEGIN CURB RADIUS
56	2345390.251	168573.1807	END CURB RADIUS
57	2345379.383	168561.0819	BEGIN WALK RADIUS
58	2345374.693	168561.016	END, BEGIN WALK RADIUS
59	2345371.611	168563.6335	END WALK RADIUS
60	2345374.587	168564.0141	CENTER WALK RADIUS
61	2345361.649	168562.6973	BEGIN WALK RADIUS
62	2345359.202	168559.3637	END, BEGIN WALK RADIUS
63	2345358.673	168562.3167	CENTER WALK RADIUS
64	2345321.084	168544.8594	END WALK RADIUS
65	2345378.585	168451.0848	CENTER WALK RADIUS
66	2345320.005	168597.959	BEGIN CURB RADIUS
67	2345323.236	168595.4622	END, BEGIN CURB RADIUS
68	2345322.503	168597.8523	CENTER CURB RADIUS
69	2345349.066	168599.8162	END CURB RADIUS
70	2345376.875	168600.8263	CURB TAPER
71	2345407.669	168603.7417	BEGIN CURB RADIUS
72	2345407.563	168606.236	END CURB RADIUS
73	2345404.895	168606.2603	BEGIN CURB RADIUS
74	2345389.767	168606.8556	END CURB RADIUS
75	2345407.175	168856.7499	CENTER CURB RADIUS
76	2345323.153	168611.4962	BEGIN CURB RADIUS
77	2345320.481	168609.1089	END CURB RADIUS
78	2345322.979	168609.0022	CENTER CURB RADIUS
79	2345452.346	168632.2794	BEGIN CURB RADIUS
80	2345372.799	168640.6568	END, BEGIN CURB RADIUS
81	2345456.151	169050.2621	CENTER CURB RADIUS
82	2345361.042	168643.2262	END, BEGIN CURB RADIUS
83	2345330.254	168651.6721	END, BEGIN CURB RADIUS
84	2345456.151	169050.2621	CENTER CURB RADIUS
85	2345304.3	168668.5285	END, BEGIN CURB RADIUS
86	2345347.723	168706.9789	CENTER CURB RADIUS
87	2345257.29	168697.611	END, BEGIN CURB RADIUS
88	2345248.7	168702.0112	END, BEGIN CURB RADIUS
89	2345263.247	168719.8262	CENTER CURB RADIUS
90	2345230.949	168721.048	END, BEGIN CURB RADIUS
91	2345310.684	168777.9186	CENTER CURB RADIUS
92	2345226.019	168732.3093	END, BEGIN CURB RADIUS
93	2345225.743	168733.4651	END, BEGIN CURB RADIUS
94	2345218.264	168761.5853	END, BEGIN CURB RADIUS
95	2344879.702	168656.484	CENTER CURB RADIUS
96	2345222.792	168794.7033	END CURB RADIUS
97	2345255.988	168773.2962	CENTER CURB RADIUS
98	2345217.692	168782.9748	BEGIN WALK RADIUS
99	2345235.614	168744.1686	END WALK RADIUS, CORNER
100	2345241.723	168735.5328	END WALK RADIUS, CORNER
101	2345405.009	168641.4486	END, BEGIN WALK RADIUS
102	2345417.108	168640.6341	BEGIN WALK RADIUS
103	2345418.167	168746.6288	CENTER WALK RADIUS
104	2345154.328	168809.0418	BEGIN CURB RADIUS
105	2345173.119	168795.6022	END, BEGIN CURB RADIUS
106	2345154.225	168789.042	CENTER CURB RADIUS
107	2345183.723	168750.2077	END, BEGIN CURB RADIUS
108	2344962.456	168722.456	CENTER CURB RADIUS
109	2345184.521	168727.1793	END, BEGIN CURB RADIUS
110	2345056.718	168734.2785	CENTER CURB RADIUS
111	2345183.278	168715.1368	END, BEGIN CURB RADIUS
112	2345178.163	168693.8424	END, BEGIN CURB RADIUS
113	2345056.718	168734.2785	CENTER CURB RADIUS
114	2345171.987	168682.3675	END, BEGIN CURB RADIUS
115	2345142.109	168705.8469	CENTER CURB RADIUS
116	2345165.562	168675.3532	END, BEGIN CURB RADIUS
117	2345122.452	168721.2938	CENTER CURB RADIUS
118	2345108.411	168642.0074	END, BEGIN CURB RADIUS
119	2345064.288	168783.2772	CENTER CURB RADIUS
120	2345096.713	168638.8728	END, BEGIN CURB RADIUS
121	2345082.665	168636.4227	END, BEGIN CURB RADIUS
122	2345046.298	168632.7154	END, BEGIN CURB RADIUS
123	2344983.576	169428.2466	CENTER CURB RADIUS
124	2345039.509	168637.1064	END, BEGIN CURB RADIUS
125	2345033.67	168638.1431	END, BEGIN CURB RADIUS
126	2345034.849	168627.6969	CENTER CURB RADIUS
127	2344976.543	168636.5879	END, BEGIN CURB RADIUS
128	2344983.576	169428.2466	CENTER CURB RADIUS
129	2345168.431	168726.2658	CORNER WALK
130	2345172.693	168736.6937	CORNER WALK
131	2345162.135	168807.4114	BEGIN WALK RADIUS
132	2345147.287	168612.8987	BEGIN CURB RADIUS
133	2345144.004	168615.3617	END, BEGIN CURB RADIUS
134	2345144.788	168612.9878	CENTER CURB RADIUS
135	2345117.786	168610.4341	END CURB RADIUS
136	2345112.496	168710.7947	CENTER CURB RADIUS
137	2345113.326	168610.199	END CURB RADIUS
138	2345101.253	168609.5333	END CURB RADIUS
139	2345069.642	168605.7898	BEGIN CURB RADIUS
140	2345069.682	168603.7998	END CURB RADIUS
141	2345101.519	168601.3011	END CURB RADIUS
142	2345113.483	168600.3622	END CURB RADIUS
143	2345144.124	168597.9574	BEGIN CURB RADIUS
144	2345146.84	168600.359	END CURB RADIUS
145	2345144.341	168600.4481	CENTER CURB RADIUS
146	2345171.05	168628.6911	END, BEGIN CURB RADIUS
147	2345185.022	168640.8448	END, BEGIN CURB RADIUS
148	2345117.673	168704.1607	CENTER CURB RADIUS
149	2345257.515	168658.839	END, BEGIN CURB RADIUS
150	2345296.146	168582.451	END, BEGIN CURB RADIUS
151	2345231.412	168597.676	CENTER CURB RADIUS
152	2345277.158	168565.6522	END, BEGIN CURB RADIUS
153	2345352.713	168499.3824	CENTER CURB RADIUS
154	2345199.833	168555.1081	END, BEGIN CURB RADIUS
155	2345238.121	168612.5061	CENTER CURB RADIUS
156	2345203.913	168700.8974	BEGIN CURB RADIUS
157	2345206.632	168698.4142	END CURB RADIUS
158	2345206.413	168700.9047	CENTER CURB RADIUS
159	2345217.551	168699.3707	BEGIN CURB RADIUS
160	2345219.614	168702.8838	END, BEGIN CURB RADIUS
161	2345217.332	168701.8612	CENTER CURB RADIUS
162	2345214.581	168716.7627	END, BEGIN CURB RADIUS
163	2345311.322	168743.9913	CENTER CURB RADIUS
164	2345211.947	168728.4417	END CURB RADIUS
165	2345208.639	168745.1003	BEGIN CURB RADIUS
166	2345207.149	168750.804	END CURB RADIUS
167	2345160.087	168735.4588	CENTER CURB RADIUS
168	2345203.122	168763.1522	BEGIN CURB RADIUS
169	2345200.216	168762.4424	END, BEGIN CURB RADIUS
170	2345201.696	168762.6872	CENTER CURB RADIUS
171	2345203.315	168737.8272	END, BEGIN CURB RADIUS
172	2344884.013	168710.1367	CENTER CURB RADIUS
173	2345203.833	168727.1252	END, BEGIN CURB RADIUS
174	2345063.34	168725.6883	CENTER CURB RADIUS
175	2345203.872	168715.1287	END CURB RADIUS
176	2345236.845	168495.0219	END CURB RADIUS
177	2345355.816	168600.0614	BEGIN CURB RADIUS
178	2345367.858	168600.4988	BEGIN CURB RADIUS
179	2345367.691	168608.3935	BEGIN CURB RADIUS
180	2345355.674	168609.2306	BEGIN CURB RADIUS
181	2345383.434	168650.8272	END WALK RADIUS, CORNER
182	2345374.335	168656.6758	CORNER WALK
183	2345109.9	168659.4083	END, BEGIN WALK RADIUS
184	2345046.064	168651.4929	END WALK
185	2344940.092	168636.8763	END CURB
186	2344939.571	168577.2691	END CURB RADIUS, END CURB
187	2344924.656	167331.0637	CENTER CURB RADIUS
188	2345467.705	168632.152	END CURB
189	2345467.051	168572.4573	END CURB

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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Mark E. Wilson — DESIGN ENGINEER — 1/6/2016 DATE

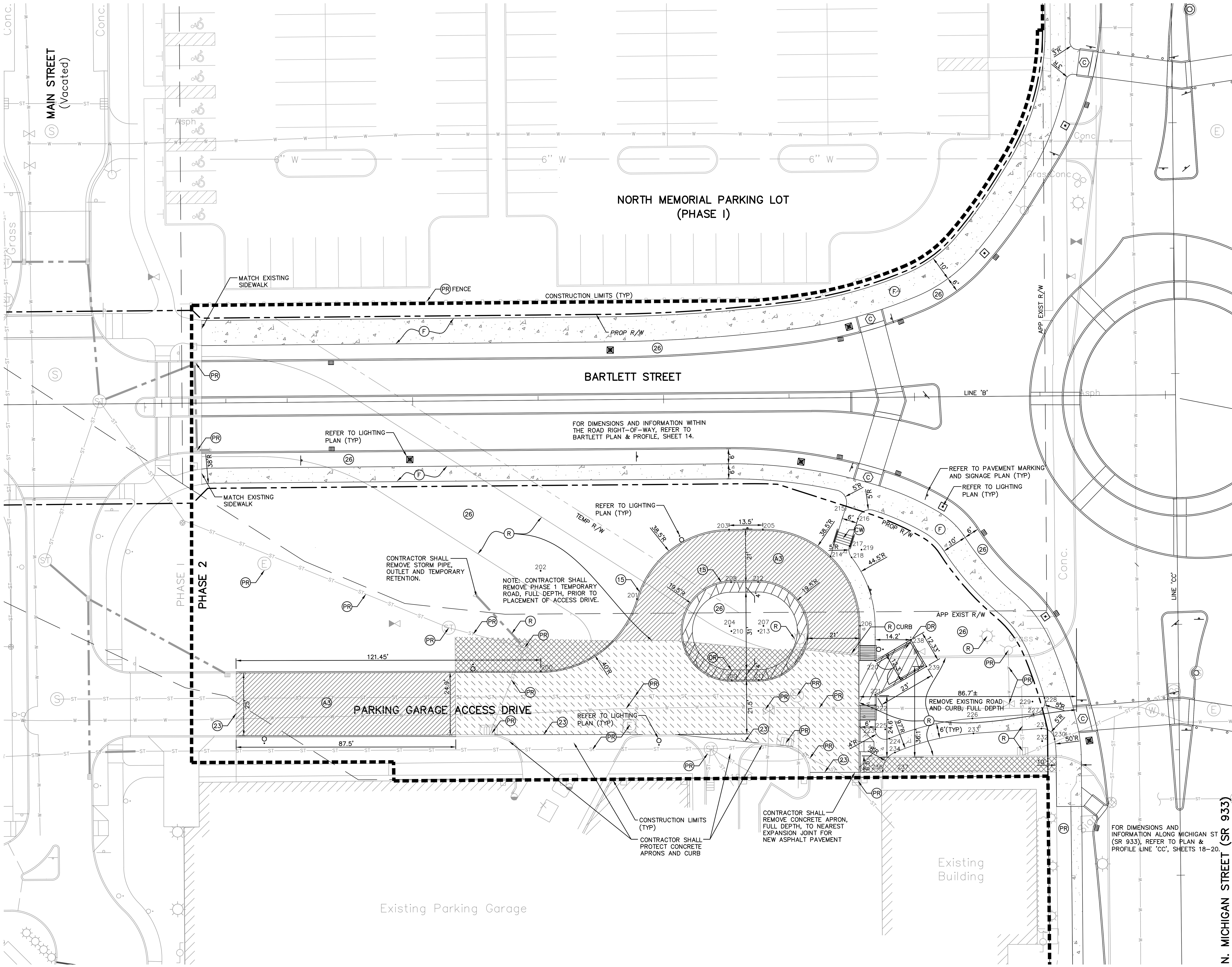
DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

GEOMETRIC PLAN COORDINATES

HORIZONTAL SCALE	BRIDGE FILE
NO SCALE	
VERTICAL SCALE	DESIGNATION
	–
SURVEY BOOK	SHEETS
	26 of 55
CONTRACT	PROJECT
–	114-032B

X-2017



LEGEND

- (A1) 1.5" SURFACE MILLING AND RESURFACE WITH 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER EXISTING MILLED PAVEMENT
- (A3) 165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER 275#/SYD HMA INTERMEDIATE, TYPE B, 19.0mm, OVER 660#/SYD HMA BASE, TYPE B, 25.0mm, OVER 6" COMPACTED AGGREGATE, NO. 53 BASE, OVER COMPACTED SUBGRADE
- (DR) 9" PCCP FOR DRIVE OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
- (F) SIDEWALK, CONCRETE, 5 IN ON COMPACTED SUBGRADE
- (O) FULL DEPTH PAVEMENT REMOVAL, ASPHALT/CONCRETE
- (C) CURB RAMP, CONCRETE, C
- (PR) PROTECT
- (R) REMOVE
- (RSR) REMOVE, SALVAGE, RELOCATE
- (15) CURB, CONCRETE, 6 IN
- (23) NEAT LINE SAW CUT, FOR FULL DEPTH PAVEMENT REMOVAL
- (26) SODDING – REFER TO LANDSCAPE PLANS
- (CW) CONCRETE STAIRS WITH CHEEKWALL

NOTES:

1. SEE SHEET 35 FOR ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE.
2. TYPE A-ALTERNATE EXPANSION JOINTS AND CONSTRUCTION JOINTS ARE INCIDENTAL TO THE CONTRACT.
3. CONTRACTOR SHALL WEDGE AND LEVEL EXISTING MILLED PAVEMENT AS NECESSARY FOR RESURFACE TOPCOAT TO MATCH PROPOSED GRADES.
4. CONTRACTOR SHALL PROTECT ALL UTILITIES IN PLACE UNLESS NOTED OTHERWISE.

Point No.	Northing(Y)	Easting(X)	Description
200	2345123.734	168350.1558	BEGIN CURB RADIUS
201	2345152.496	168388.4684	END, BEGIN CURB RADIUS
202	2345163.733	168350.0793	CENTER CURB RADIUS
203	2345180.18	168425.1731	END CURB RADIUS
204	2345141.68	168425.4179	CENTER CURB RADIUS
205	2345180.265	168438.6315	BEGIN CURB RADIUS
206	2345141.818	168477.3763	END CURB RADIUS
207	2345141.766	168438.8764	CENTER CURB RADIUS
208	2345159.184	168425.9803	BEGIN CURB RADIUS
209	2345120.185	168426.2285	END CURB RADIUS
210	2345139.684	168426.1041	CENTER CURB RADIUS
211	2345120.254	168437.003	BEGIN CURB RADIUS
212	2345159.253	168436.755	END CURB RADIUS
213	2345139.753	168436.8792	CENTER CURB RADIUS
214	2345169.476	168465.6049	CORNER OF WALK, CURB
215	2345189.484	168471.8087	BEGIN WALK RADIUS (26)
216	2345184.506	168476.547	BEGIN WALK RADIUS (24)
217	2345173.634	168473.176	TOP STEP, BEGIN WALK RADIUS
218	2345169.084	168474.0047	END, BEGIN WALK RADIUS
219	2345172.153	168477.9517	CENTER WALK RADIUS
220	2345127.952	168483.3952	END WALK RAMP
221	2345114.262	168483.4139	CORNER CURB
222	2345110.194	168483.4194	END WALK RAMP
223	2345100.523	168483.4326	BEGIN WALK RADIUS
224	2345096.85	168489.0046	END, BEGIN WALK RADIUS
225	2345100.528	168487.4326	CENTER WALK RADIUS
226	2345104.875	168522.1336	END WALK RADIUS
227	2345106.614	168546.4366	BEGIN WALK RADIUS
228	2345113.03	168550.8712	END WALK RADIUS
229	2345111.601	168546.0798	CENTER WALK RADIUS
230	2345096.64	168554.8952	BEGIN WALK RADIUS
231	2345100.825	168549.6031	END WALK RADIUS
232	2345095.838	168549.96	CENTER WALK RADIUS
233	2345098.891	168522.5617	BEGIN WALK RADIUS
234	2345091.3	168491.2854	END WALK RADIUS
235	2345002.138	168529.4841	CENTER WALK RADIUS
236	2345083.965	168486.4358	END WALK RADIUS
237	2345083.946	168494.4358	CENTER WALK RADIUS
238	2345136.242	168497.6053	CORNER DUMPSTER ENCLOSURE
239	2345125.589	168503.8204	CORNER DUMPSTER ENCLOSURE

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FT

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DESIGN ENGINEER DATE

DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

SITE DIMENSIONAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
–	–
SURVEY BOOK	SHEETS
	27 of 55
CONTRACT	PROJECT
–	114-032B

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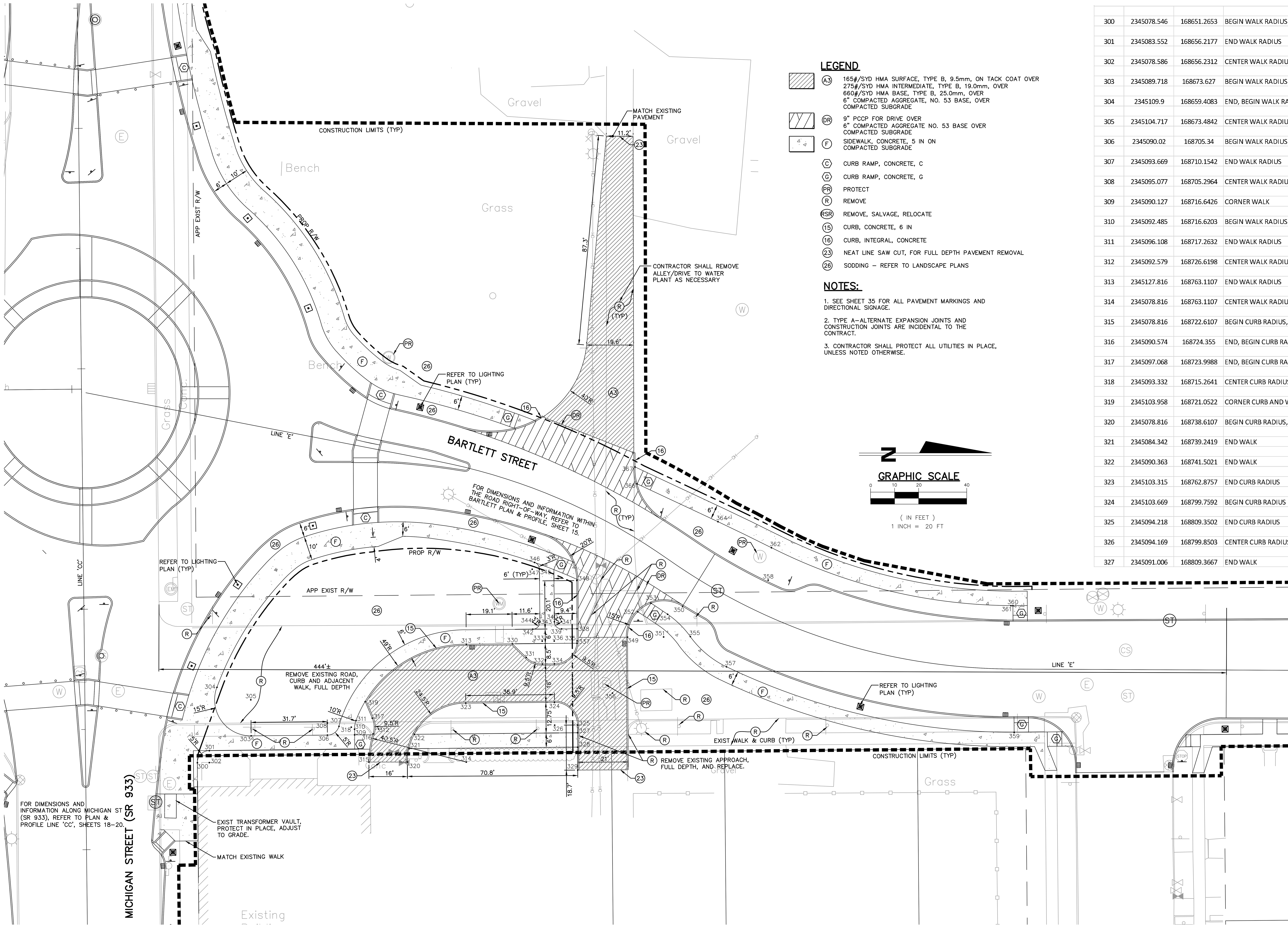

LEGEND

	A3	165#/SYD HMA SURFACE, TYPE B, 9.5mm, ON TACK COAT OVER 275#/SYD HMA INTERMEDIATE, TYPE B, 19.0mm, OVER 660#/SYD HMA BASE, TYPE B, 25.0mm, OVER 6" COMPACTED AGGREGATE, NO. 53 BASE, OVER COMPACTED SUBGRADE
	DR	9" PCCP FOR DRIVE OVER 6" COMPACTED AGGREGATE NO. 53 BASE OVER COMPACTED SUBGRADE
	F	SIDEWALK, CONCRETE, 5 IN ON COMPACTED SUBGRADE
	C	CURB RAMP, CONCRETE, C
	G	CURB RAMP, CONCRETE, G
	PR	PROTECT
	R	REMOVE
	RSR	REMOVE, SALVAGE, RELOCATE
	15	CURB, CONCRETE, 6 IN
	16	CURB, INTEGRAL, CONCRETE
	23	NEAT LINE SAW CUT, FOR FULL DEPTH PAVEMENT REMOVAL
	26	SODDING – REFER TO LANDSCAPE PLANS

NOTES:

1. SEE SHEET 35 FOR ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE.
2. TYPE A–ALTERNATE EXPANSION JOINTS AND CONSTRUCTION JOINTS ARE INCIDENTAL TO THE CONTRACT.
3. CONTRACTOR SHALL PROTECT ALL UTILITIES IN PLACE, UNLESS NOTED OTHERWISE.

300	2345078.546	168651.2653	BEGIN WALK RADIUS
301	2345083.552	168656.2177	END WALK RADIUS
302	2345078.586	168656.2312	CENTER WALK RADIUS
303	2345089.718	168673.627	BEGIN WALK RADIUS
304	2345109.9	168659.4083	END, BEGIN WALK RADIUS (183)
305	2345104.717	168673.4842	CENTER WALK RADIUS
306	2345090.02	168705.34	BEGIN WALK RADIUS
307	2345093.669	168710.1542	END WALK RADIUS
308	2345095.077	168705.2964	CENTER WALK RADIUS
309	2345090.127	168716.6426	CORNER WALK
310	2345092.485	168716.6203	BEGIN WALK RADIUS
311	2345096.108	168717.2632	END WALK RADIUS
312	2345092.579	168726.6198	CENTER WALK RADIUS
313	2345127.816	168763.1107	END WALK RADIUS
314	2345078.816	168763.1107	CENTER WALK RADIUS
315	2345078.816	168722.6107	BEGIN CURB RADIUS, TIE IN POIN
316	2345090.574	168724.355	END, BEGIN CURB RADIUS
317	2345097.068	168723.9988	END, BEGIN CURB RADIUS
318	2345093.332	168715.2641	CENTER CURB RADIUS
319	2345103.958	168721.0522	CORNER CURB AND WALK
320	2345078.816	168738.6107	BEGIN CURB RADIUS, TIE IN POIN
321	2345084.342	168739.2419	END WALK
322	2345090.363	168741.5021	END WALK
323	2345103.315	168762.8757	END CURB RADIUS
324	2345103.669	168799.7592	BEGIN CURB RADIUS
325	2345094.218	168809.3502	END CURB RADIUS
326	2345094.169	168799.8503	CENTER CURB RADIUS
327	2345091.006	168809.3667	END WALK

328	2345085.01	168809.3974	END WALK
329	2345075.491	168809.4463	END CURB, TIE IN POINT
330	2345128.001	168782.2472	CORNER WALK AND CURB
331	2345122.34	168788.0182	BEGIN CURB RADIUS
332	2345119.622	168794.7621	END CURB RADIUS
333	2345129.121	168794.6709	CENTER CURB RADIUS
334	2345119.67	168799.7618	BEGIN CURB RADIUS
335	2345129.218	168809.1706	END CURB RADIUS
336	2345129.169	168799.6707	CENTER CURB RADIUS
337	2345128.261	168809.1272	END WALK
338	2345134.261	168809.1447	END WALK
339	2345134.199	168802.7469	BEGIN WALK RADIUS
340	2345137.17	168799.7181	END WALK RADIUS
341	2345137.199	168802.718	CENTER WALK RADIUS
342	2345134.083	168790.7475	BEGIN WALK RADIUS
343	2345137.112	168793.7184	END WALK RADIUS
344	2345137.083	168790.7185	CENTER WALK RADIUS
345	2345159.038	168793.5067	BEGIN WALK RADIUS
346	2345161.844	168791.4884	END WALK RADIUS
347	2345159.009	168790.5069	CENTER WALK RADIUS
348	2345154.328	168809.0418	END CURB RADIUS (104)
349	2345130.77	168830.1629	BEGIN CURB RADIUS
350	2345143.616	168853.0336	END CURB RADIUS
351	2345130.847	168845.1627	CENTER CURB RADIUS
352	2345141.306	168834.4106	END WALK
353	2345144.906	168839.9341	END WALK
354	2345140.291	168846.809	BEGIN WALK RADIUS
355	2345130.999	168856.264	END WALK RADIUS
356	2345107.511	168823.8868	CENTER WALK RADIUS
357	2345118.437	168871.3114	END WALK RADIUS
358	2345154.488	168888.6411	CENTER WALK RADIUS
359	2345091.155	168990.9452	END WALK RADIUS, CORNER
360	2345143.853	168990.423	CORNER WALK
361	2345143.845	168989.6056	BEGIN WALK RADIUS
362	2345167.96	168890.0047	END, BEGIN WALK RADIUS
363	2345367.5	168991.0359	CENTER WALK RADIUS
364	2345178.789	168867.7697	END WALK RADIUS
365	2344454.231	168528.6302	CENTER WALK RADIUS
366	2345194.491	168834.1213	END WALK
367	2345201.554	168833.2879	END WALK

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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL Mark E. Wilson 1/6/2016
DESIGN ENGINEER DATE

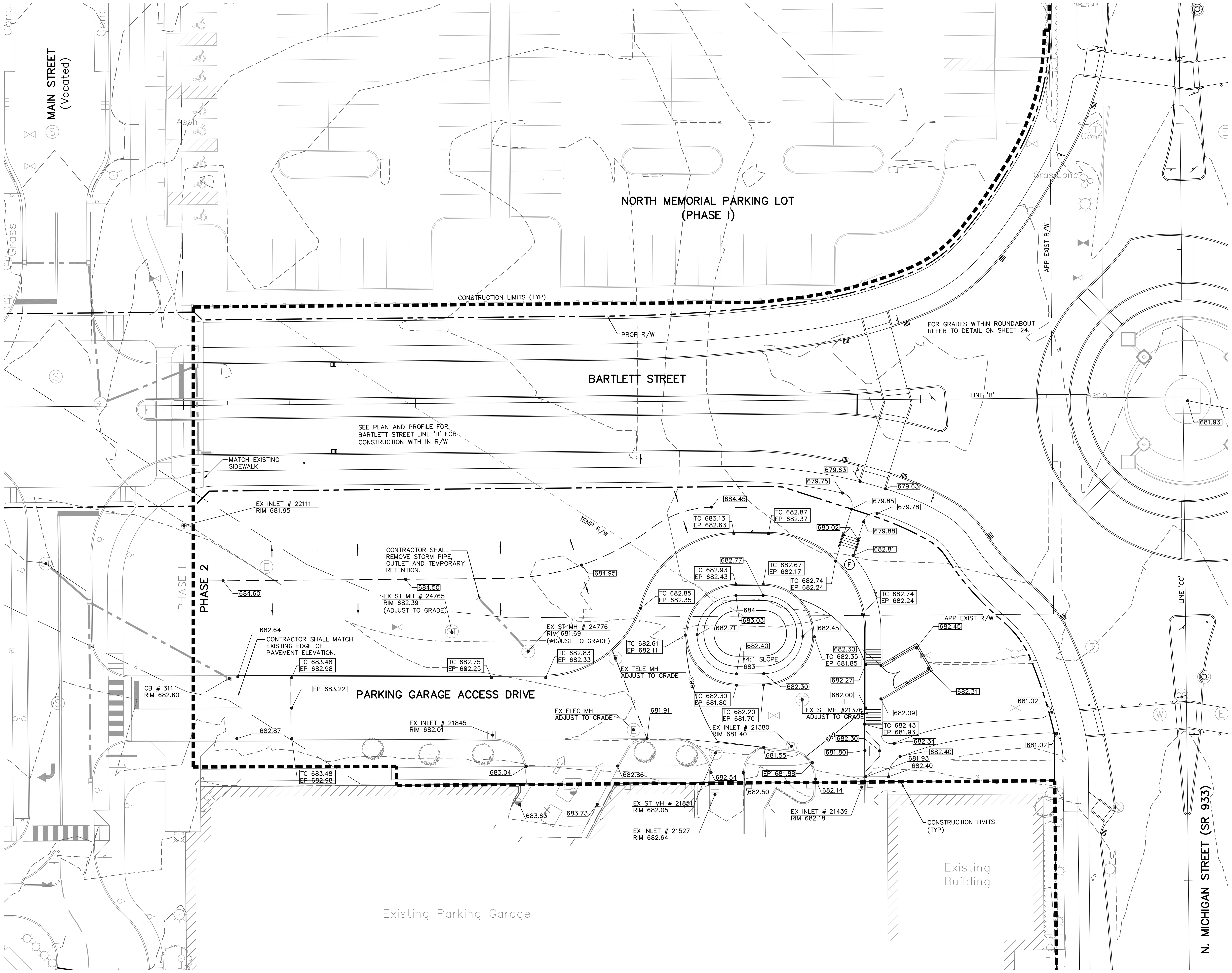
DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

SITE DIMENSIONAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
–	–
SURVEY BOOK	SHEETS
	28 of 55
CONTRACT	PROJECT
–	114-032B

X-2017



N

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 INCH = 20 FT

LEGEND

- XXX.XX — EXISTING GRADE
- XXX.XX (boxed) — PROPOSED GRADE
- PROPOSED CATCH BASIN/STORM INLET
- PROPOSED CATCH BASIN/STORM INLET
- PROPOSED STORM MANHOLE
- PROPOSED GRADE BREAK
- TC — PROPOSED TOP OF CURB
- EP — PROPOSED EDGE OF PAVEMENT

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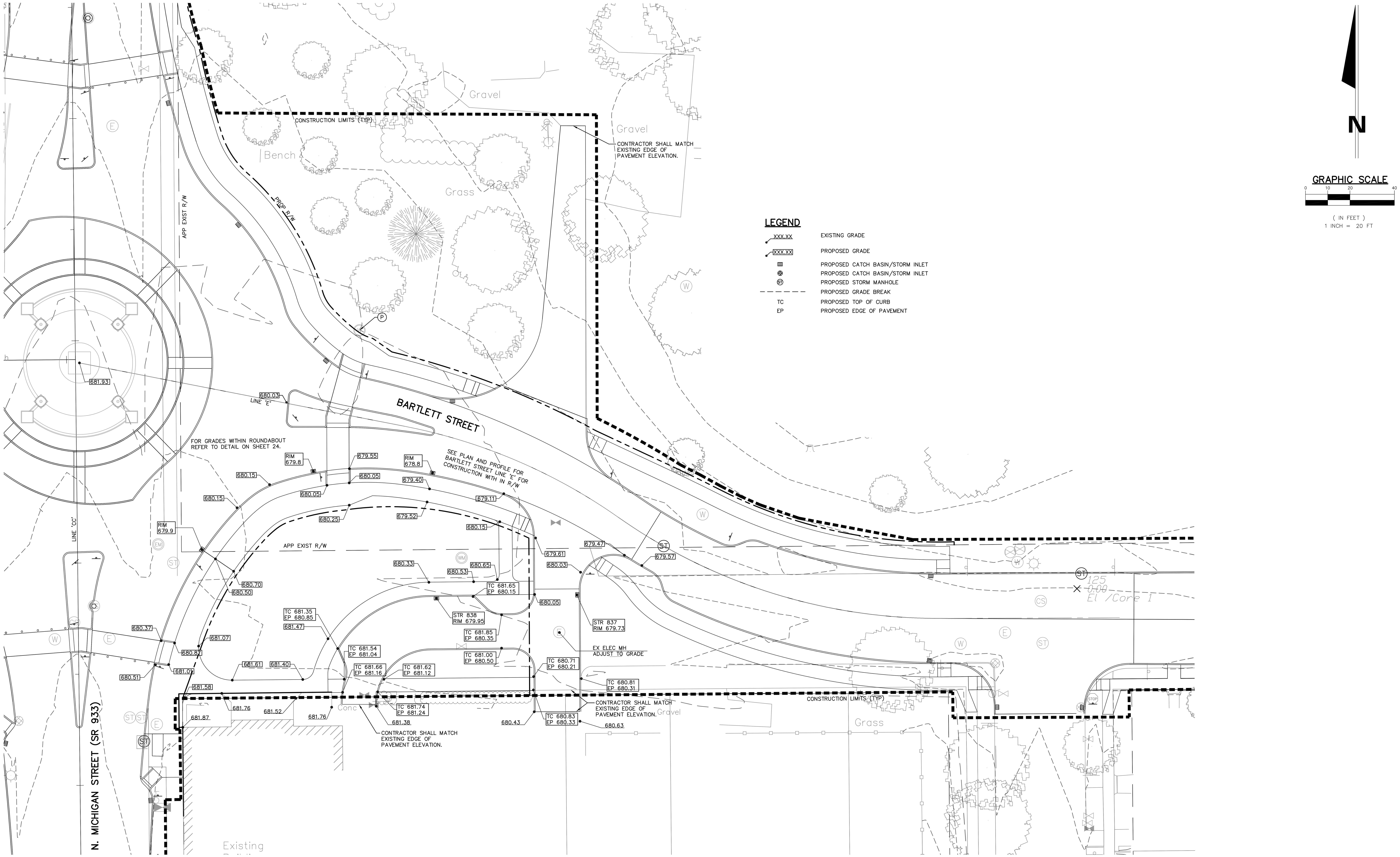
CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

SITE GRADING PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
-	-
SURVEY BOOK	SHEETS 29 of 55
CONTRACT	PROJECT
-	114-032B

X-2017



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CHECKED: B.B.K. | CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

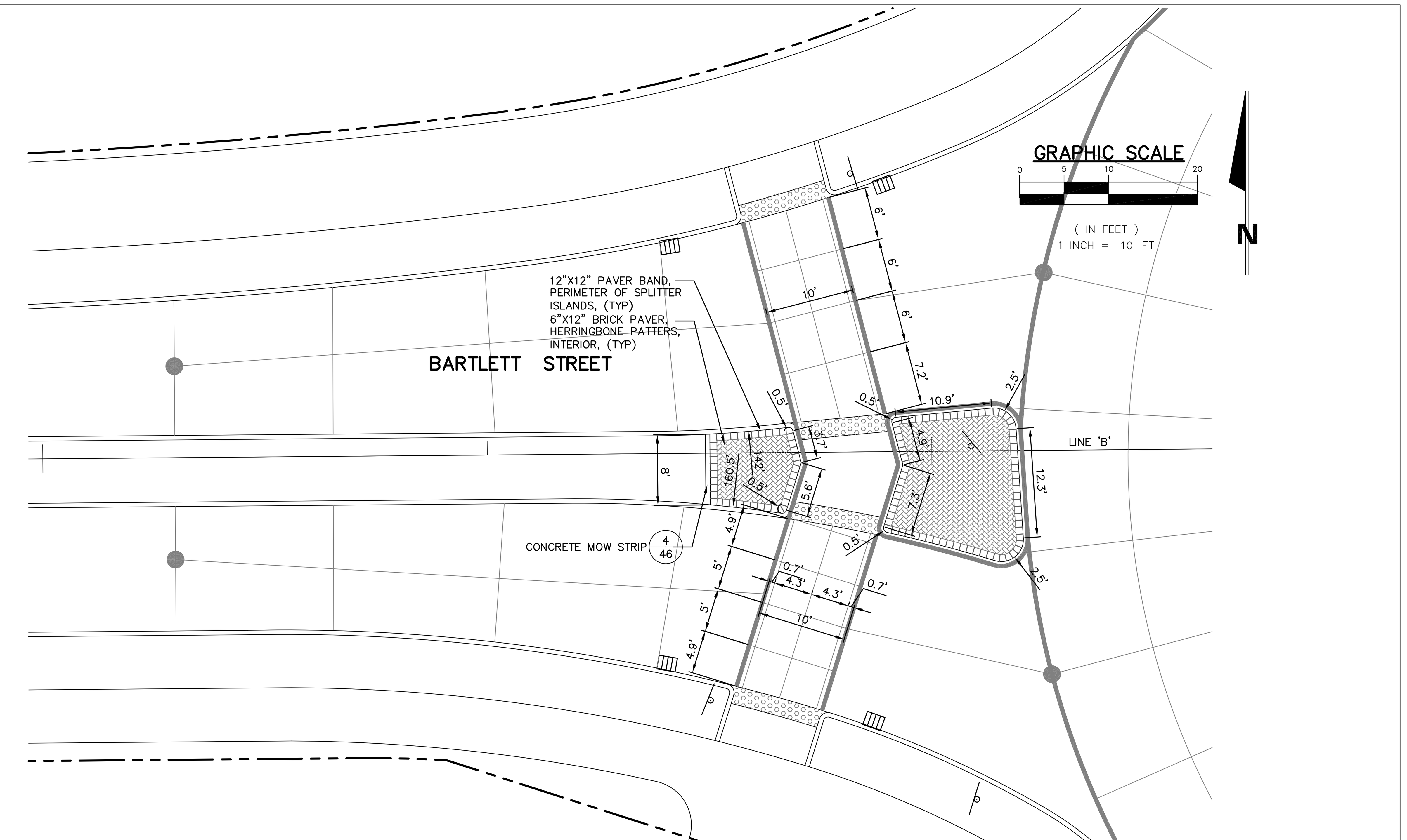
SITE GRADING PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
.	–
SURVEY BOOK	SHEETS
	30 of 55
CONTRACT	PROJECT
–	114–032B

X–2017

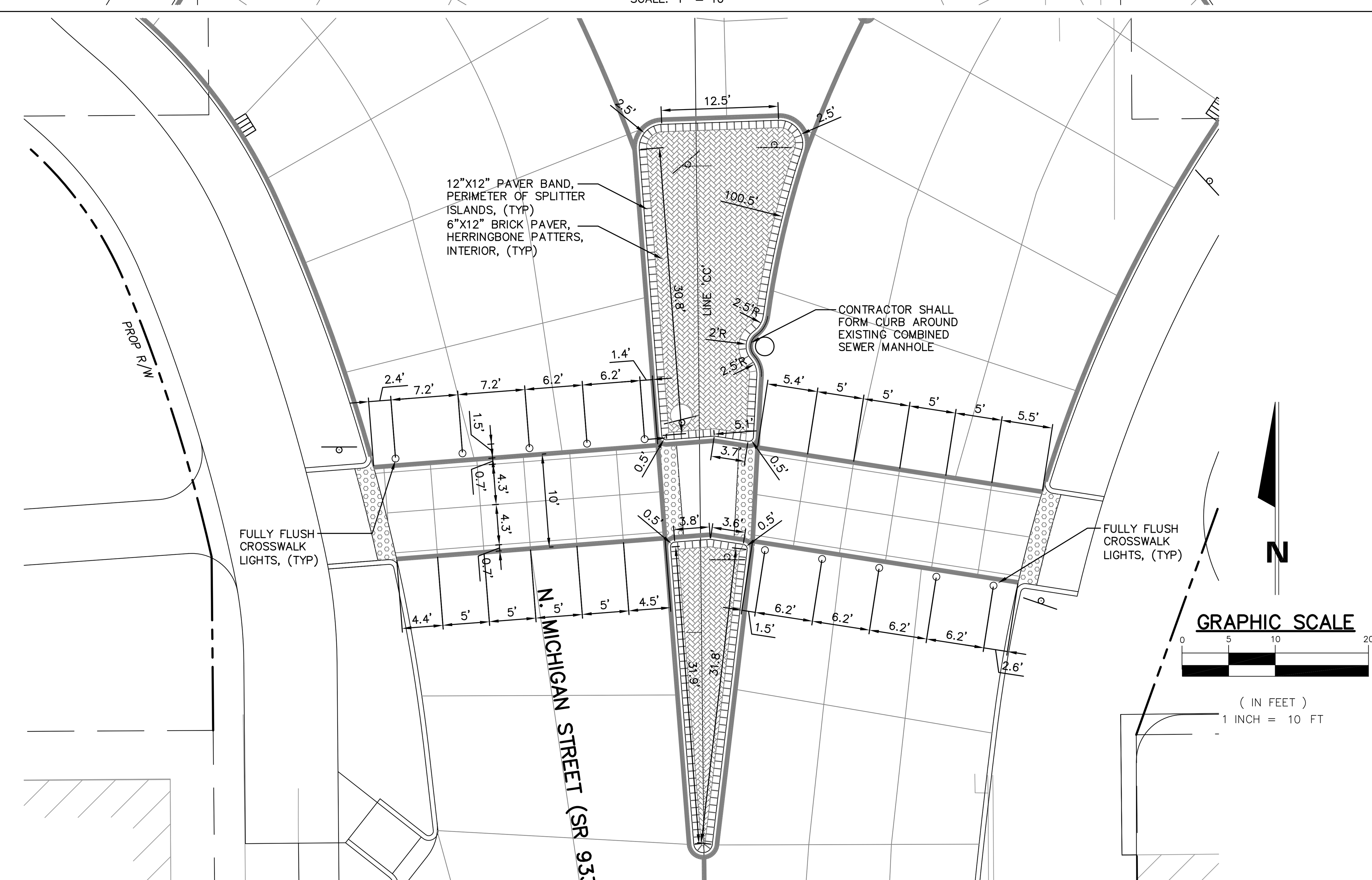
NORTH APPROACH SPLITTER ISLAND

SCALE: 1" = 10'



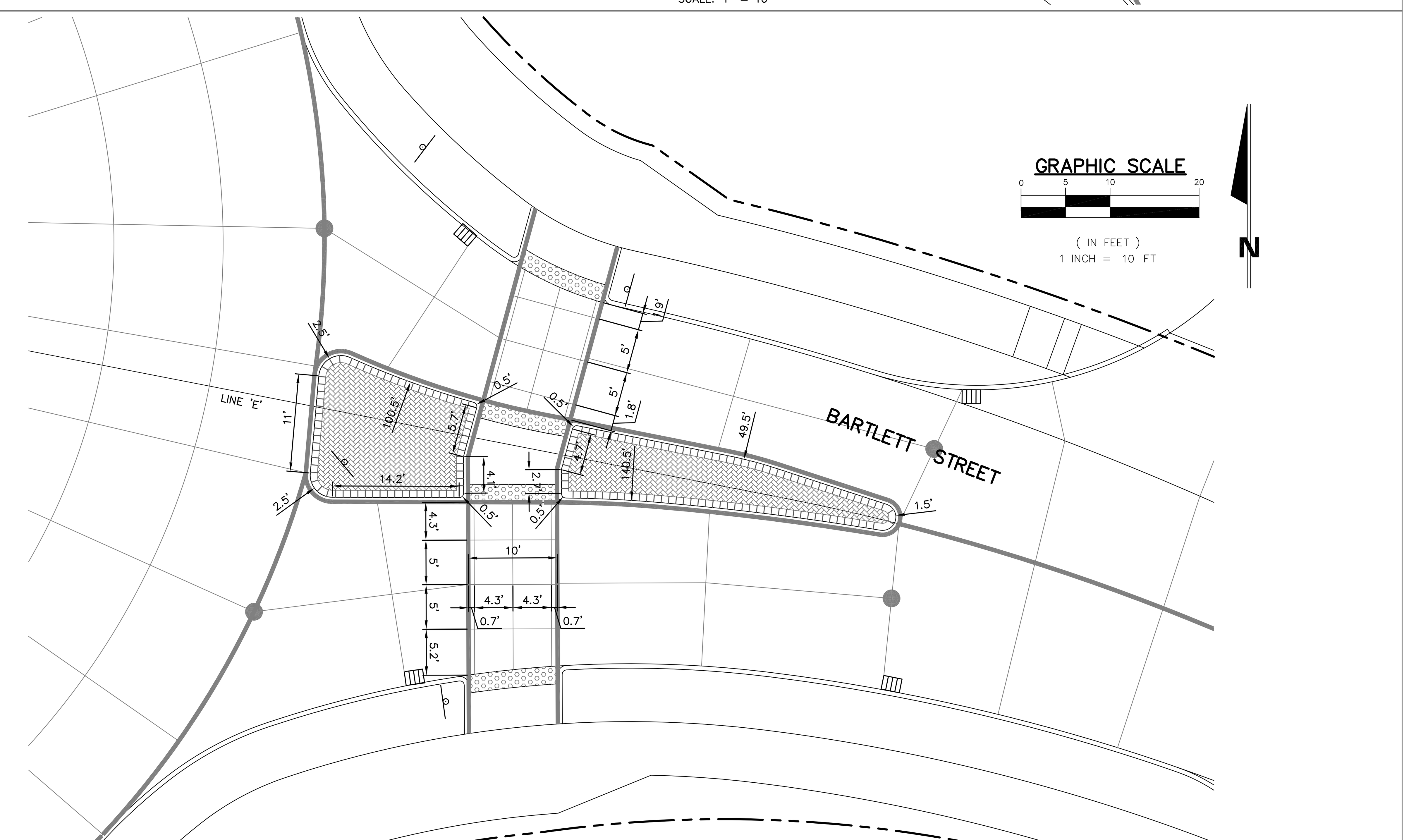
WEST APPROACH SPLITTER ISLAND

SCALE: 1" = 10'



SOUTH APPROACH SPLITTER ISLAND

SCALE: 1" = 10'



EAST APPROACH SPLITTER ISLAND

SCALE: 1" = 10'

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MARK E. WILSON
REGISTERED
NO. 80328
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] 1/6/2016
DESIGN ENGINEER DATE

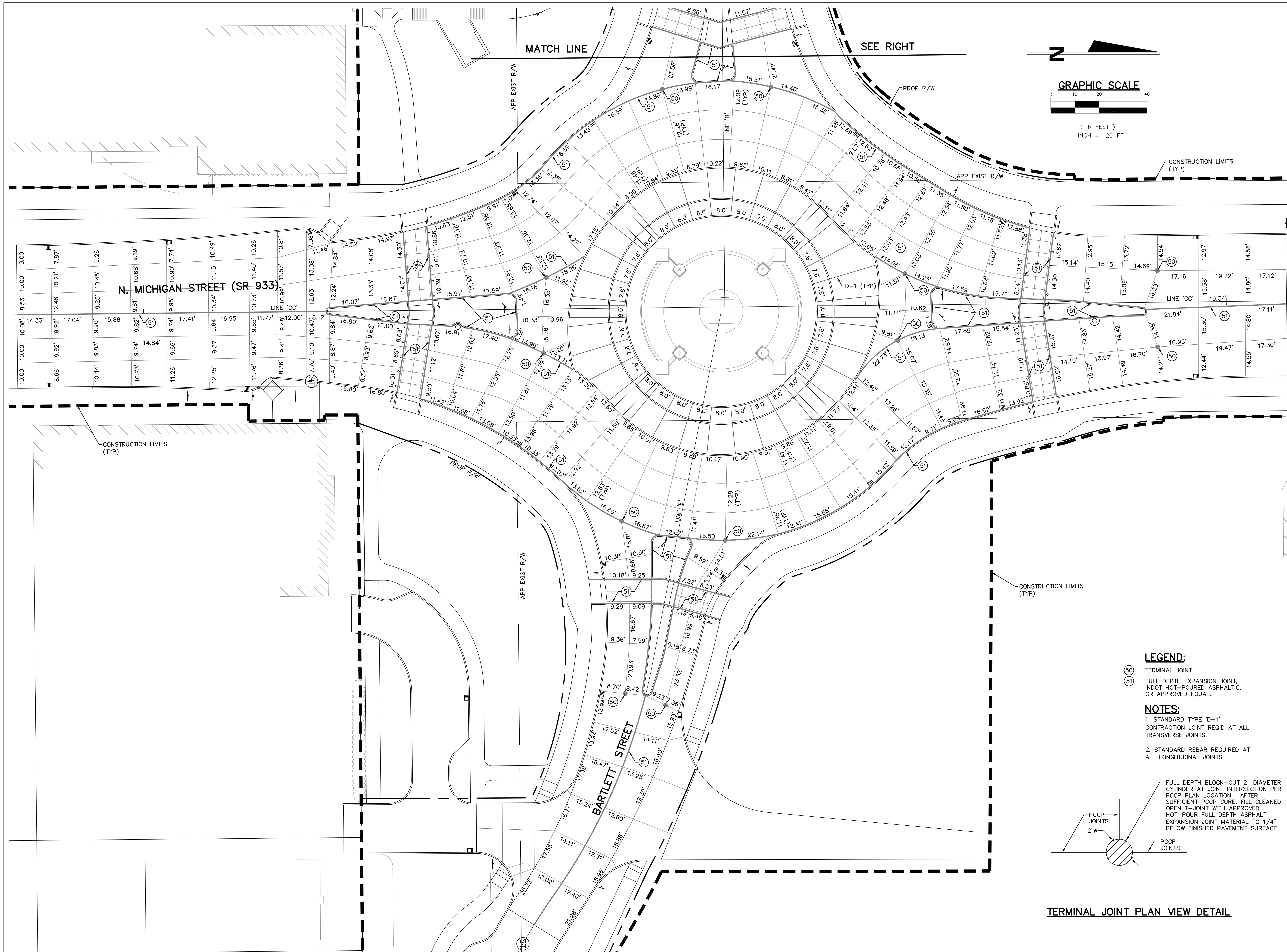
DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

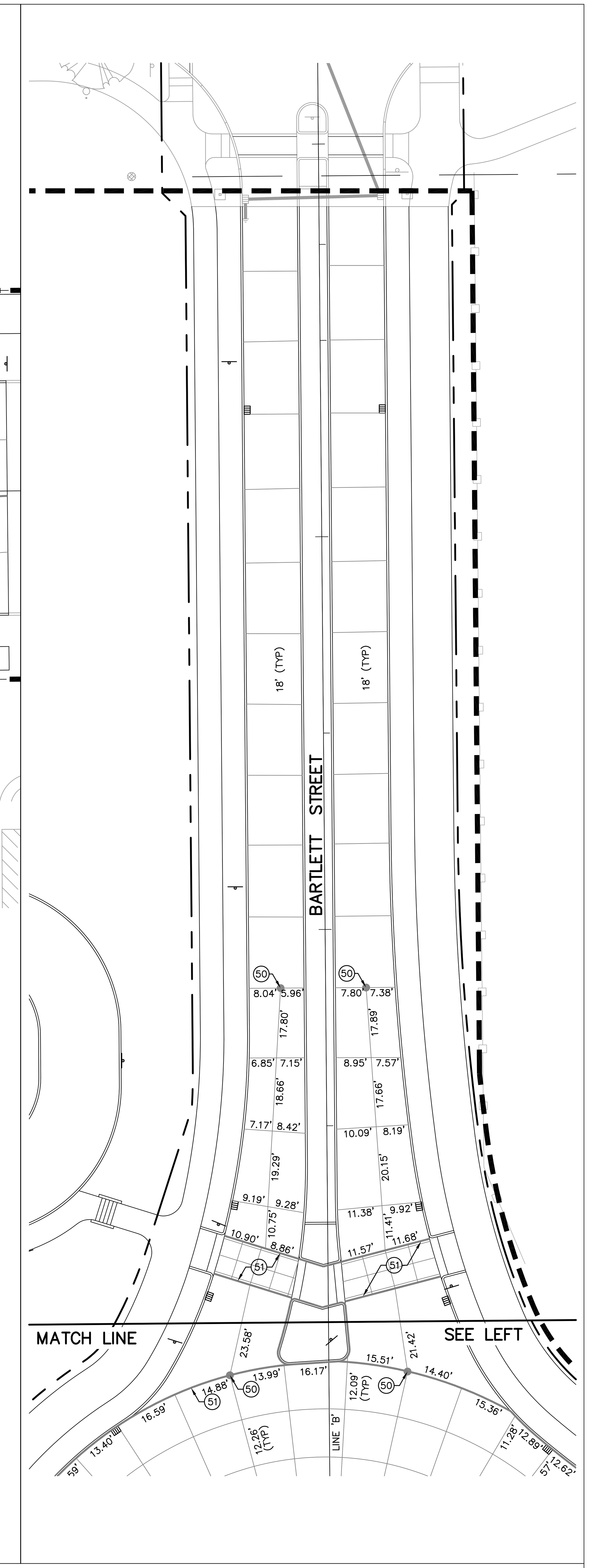
CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

SPLITTER ISLANDS DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
	-
SURVEY BOOK	SHEETS
	31 of 55
CONTRACT	PROJECT
-	114-032B

X-2017





LEGEND:

(50) TERMINAL JOINT

(51) FULL DEPTH EXPANSION JOINT, INDOT HOT-POURED ASPHALTIC, OR APPROVED EQUAL.

NOTES:

1. STANDARD TYPE 'D-1' CONTRACTION JOINT REQ'D AT ALL TRANSVERSE JOINTS.

2. STANDARD REBAR REQUIRED AT ALL LONGITUDINAL JOINTS

FULL DEPTH BLOCK-OUT 2" DIAMETER CYLINDER AT JOINT INTERSECTION PER PCCP PLAN LOCATION. AFTER SUFFICIENT PCCP CURE, FILL CLEANED OPEN T-JOINT WITH APPROVED HOT-POUR FULL DEPTH ASPHALT EXPANSION JOINT MATERIAL TO 1/4" BELOW FINISHED PAVEMENT SURFACE.

PCCP JOINTS

2"⌀

PCCP JOINTS

TERMINAL JOINT PLAN VIEW DETAIL

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CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

JOINT LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
	-
SURVEY BOOK	SHEETS
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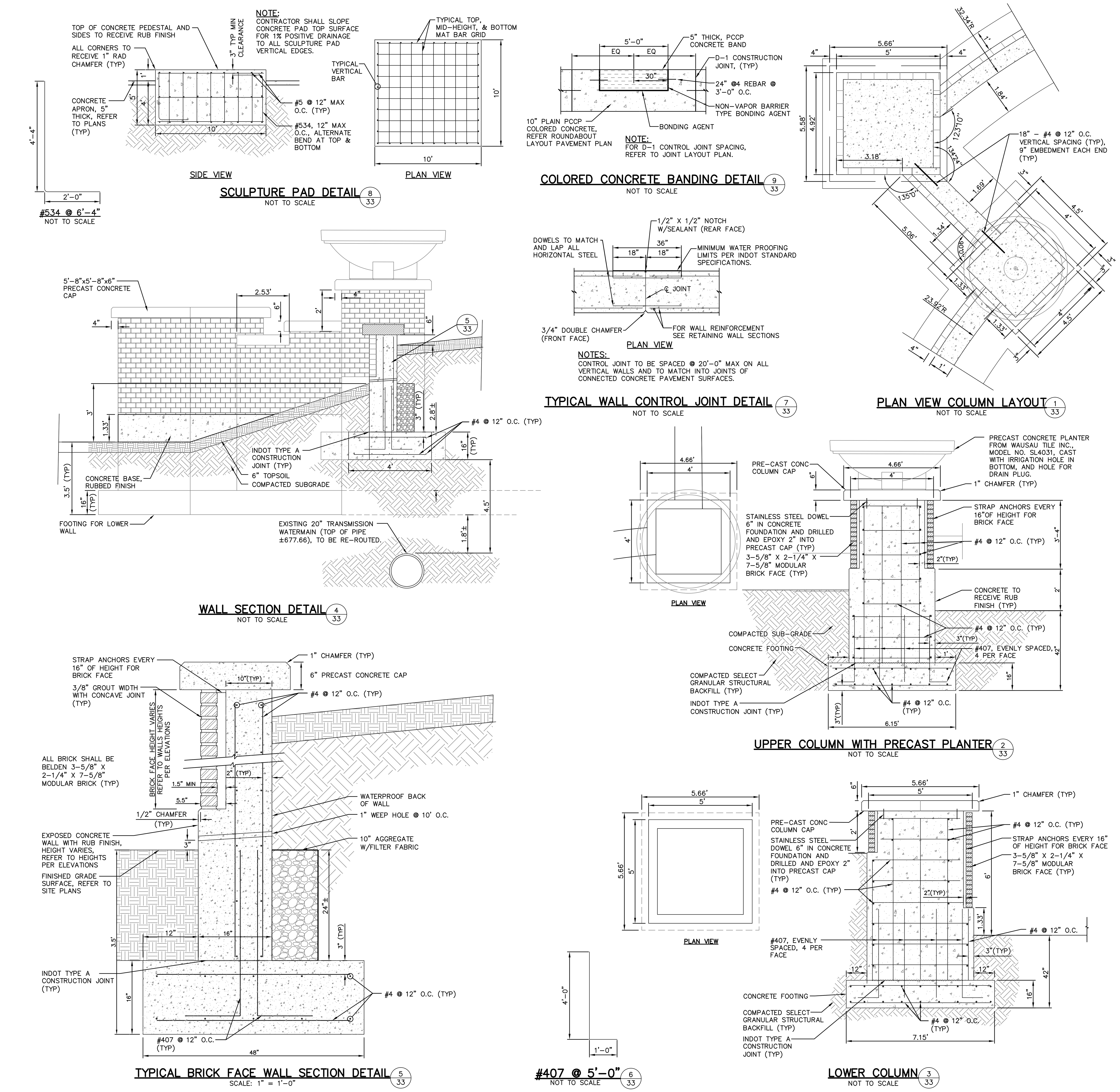
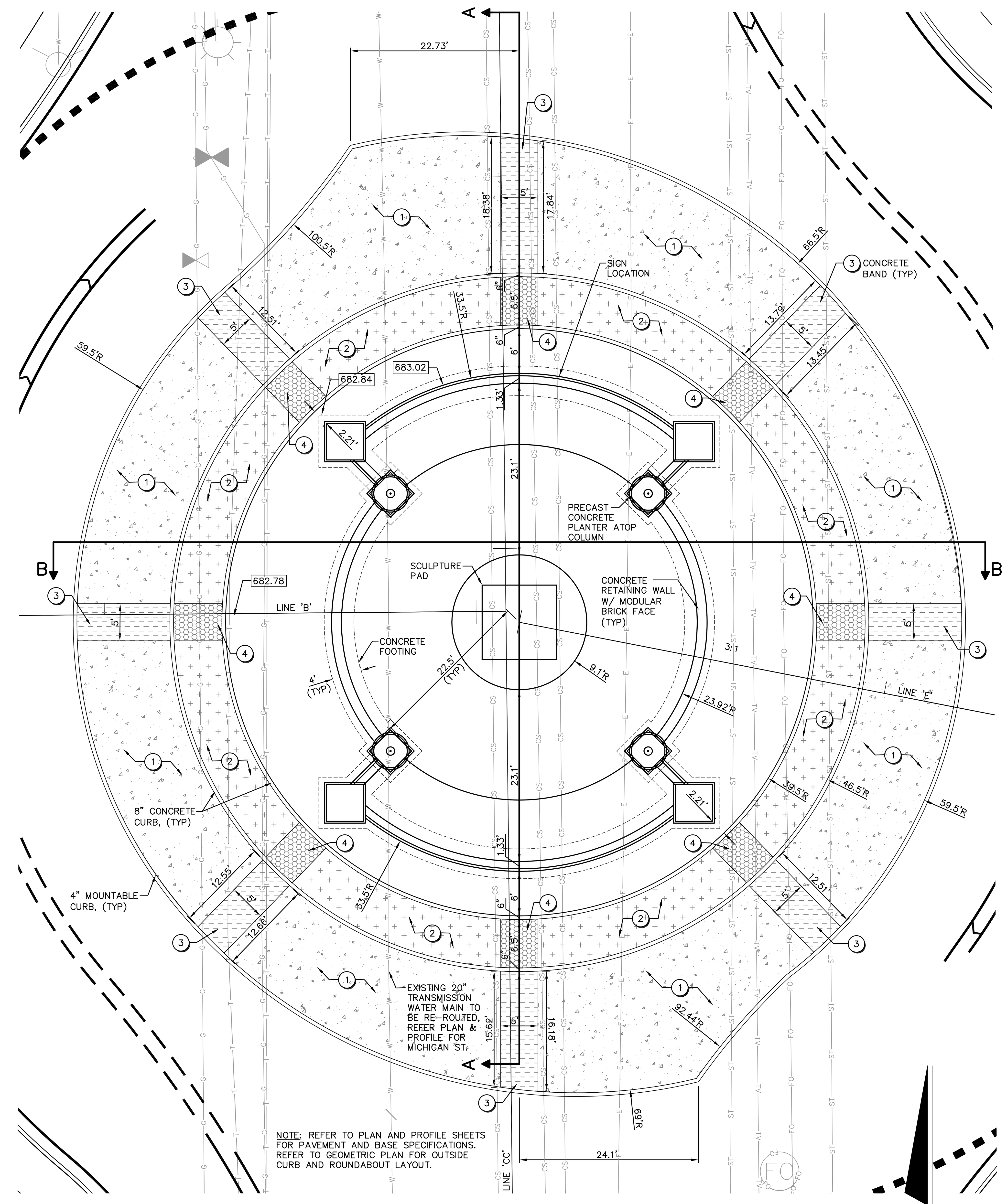
CONTRACT	PROJECT
-	114-032B

X-2017





TYPICAL CONCRETE WALL AND COLUMN NOTES:

1. ALL REINFORCING STEEL SHALL BE GRADE 60 EPOXY COATED.
2. MINIMUM REBAR LAP: #4 = 18"
3. CONTRACTOR SHALL INSTALL STRAP ANCHORS EVERY 16" OF HEIGHT FOR BRICK FACE.
4. CONTRACTOR SHALL INSTALL 6" BRICK LEDGE AT ALL LOCATIONS TO RECEIVE BRICK FACE. 6" SHALL BE A 5-1/2" LEDGE WITH 1/2" FRONT EDGE CHAMFER. CONTRACTOR SHALL ALLOW MIN 1-1/2" AIR SPACE BEHIND BRICK.
5. CONTRACTOR SHALL INSTALL INSTALL 2-1/2" HIGH QUADRO-VENT (OR APPROVED EQUAL) IN PLACE OF VERTICAL MORTAR JOINT, COLOR TO MATCH MORTAR, FOR WEEP HOLES. CONTRACTOR SHALL INSTALL WEEP HOLES AT 2' O.C. AT TOP AND BOTTOM ROWS OF BRICK FACE, TOP AND BOTTOM WEEP HOLES SHALL BE HORIZONTAL OFFSET OF 1' O.C.
6. ALL EXPOSED CONCRETE WALL SURFACES SHALL RECEIVE RUB FINISH.
7. CONTRACTOR SHALL WEATHER SEAL BRICK WITH SILOXANE WB CONCENTRATE, OR APPROVED EQUAL. APPLY PER MANUFACTURERS INSTRUCTIONS.
8. CONTRACTOR SHALL WATERPROOF BACKSIDE OF WALLS AND COLUMNS TO RECEIVE BACKFILL.

ROUNDABOUT CONCRETE PAVEMENT LEGEND:

1. 10" PLAIN PCCP, FULL DEPTH COLORIZED CONCRETE. COLOR: SCOFIELD 1010 BROWNSTONE. MEDIUM BROOM FINISH.
2. 6" PLAIN PCCP, FULL DEPTH COLORIZED CONCRETE. COLOR: SCOFIELD 1078 CHICORY SPICE MEDIUM BROOM FINISH.
3. 5' WIDE PCCP BAND, 5" THICK OVER 5" CONCRETE, MEDIUM BROOM FINISH
4. 5' WIDE PCCP BAND, 6" THICK (FULL DEPTH), W/ 24" DOWELS @ 3' O.C., MEDIUM BROOM FINISH

NOTE:
ALL CONCRETE CURBS AND BANDING SHALL BE DOWELED TOGETHER

GRAPHIC SCALE
0 5 10 20
(IN FEET)
1 INCH = 10 FT

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DESIGNED: C.R.C.	DRAWN: R.J.H		
CHECKED: B.B.K.	CHECKED: M.E.W.		

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

ROUNDABOUT LAYOUT PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	
VERTICAL SCALE	DESIGNATION
AS NOTED	-
SURVEY BOOK	SHEETS
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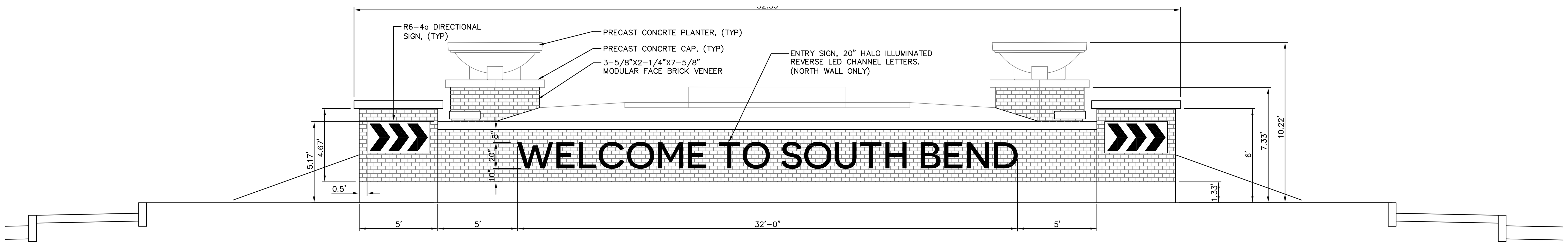
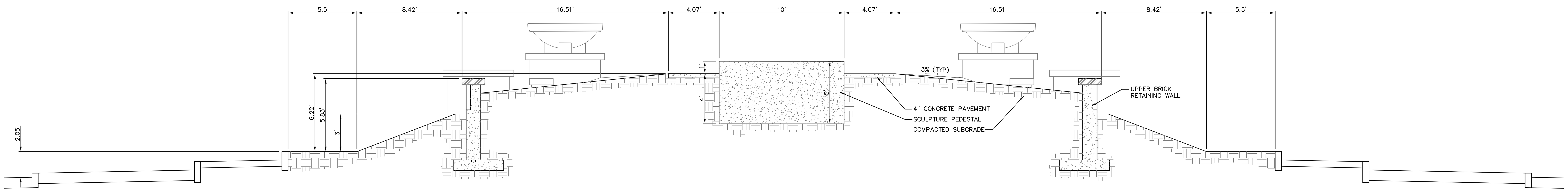
CONTRACT	PROJECT
-	114-032B

X-2017

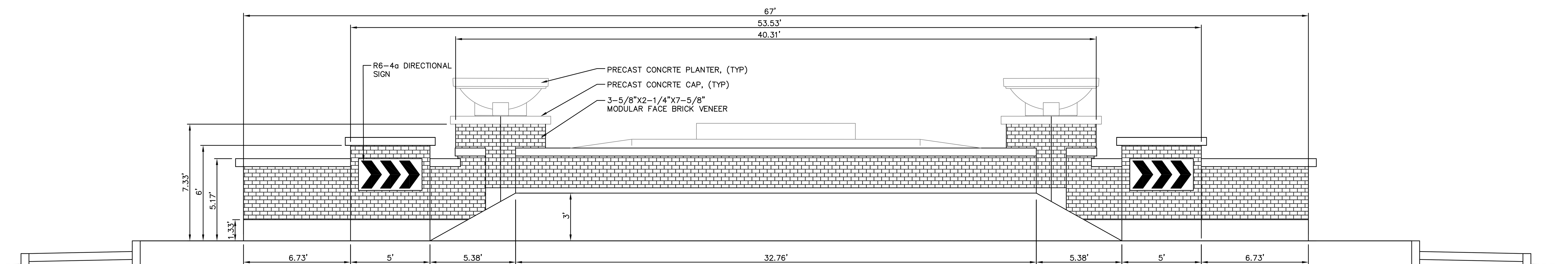
NOTE:
1. BRICK VENEER SHALL BE 3–5/8"X2–1/4"X7–5/8" MODULAR FACE BRICK. MODEL: ADMIRAL FULL RANGE. VEL. A, BY BELDEN BRICK COMPANY, OR APPROVED EQUAL.
2. WALL AND COLUMN CAPS SHALL BE PRECAST CONCRETE, COLOR: NATURAL WHITE
3. PRECAST CONCRETE PLANTER, MODEL: SL4031 THROUGH WAUSAU MADE, OR APPROVED EQUAL. PLANTER SHALL BE CAST WITH VERTICAL HOLE THROUGH CENTER OF BASE FOR IRRIGATION FEED, AND ADDITIONAL HOLE THROUGH BOTTOM OF BOWL FOR DRAIN PLUG.



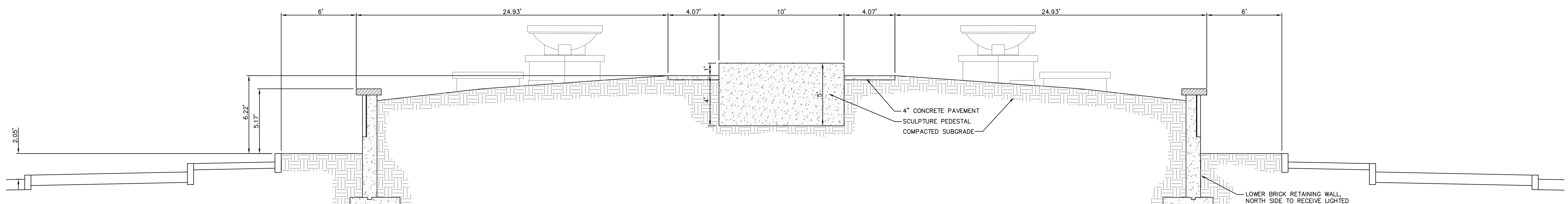
ELEVATION B–B: NORTH AND SOUTH VIEWS



SECTION B–B: EAST–WEST CROSS SECTION



ELEVATION A–A: WEST AND EAST VIEWS



SECTION A–A: SOUTH–NORTH CROSS SECTION

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 INCH = 20 FT

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Elkhart, Indiana p: 574.293.7762
South Bend, Indiana p: 574.232.4388
Fort Wayne, Indiana p: 260.422.2522

MARK E. WILSON
REGISTERED
NO. 80328
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL Mark E. Wilson 1/6/2016
DESIGN ENGINEER DATE

DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

ROUNDABOUT CROSS SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1" = 4'	
VERTICAL SCALE	DESIGNATION
1" = 4'	–
SURVEY BOOK	SHEETS
	34 of 55
CONTRACT	PROJECT
–	114–032B

X–2017

PAVEMENT MARKING LEGEND

- (R7) NO PARKING SIGN (R7-6), 12"x18" ON 2 1/4" SQ. 12 GA. TYPE 1 POST, 11.5' HT.
- (36) PAVEMENT MESSAGE MARKING, THERMOPLASTIC, LANE INDICATION ARROW
- (37) PAVEMENT MESSAGE MARKING, MULTI-COMPONENT PAINT, LANE INDICATION ARROW
- (42) LINE, THERMOPLASTIC, SOLID, YELLOW, 4 IN.
- (43) LINE, MULTI-COMPONENT PAINT, SOLID, YELLOW, 4 IN.
- (44) LINE, THERMOPLASTIC, SOLID, YELLOW, 8 IN.
- (45) LINE, MULTI-COMPONENT PAINT, SOLID, YELLOW, 8 IN.
- (46) LINE, THERMOPLASTIC, SOLID, WHITE, 4 IN.
- (47) LINE, MULTI-COMPONENT PAINT, SOLID, WHITE, 4 IN.
- (48) LINE, THERMOPLASTIC, BROKEN, WHITE, 4 IN.
- (49) LINE, MULTI-COMPONENT PAINT, BROKEN, WHITE, 4 IN.
- (50) LINE, MULTI-COMPONENT PAINT, DOTTED, WHITE, 8 IN.
- (51) TRAVERSE MARKING, THERMOPLASTIC, WHITE, STOP LINE, 24 IN.
- (52) TRAVERSE MARKING, MULTI-COMPONENT PAINT, WHITE, STOP LINE, 24 IN.
- (53) TRAVERSE MARKING, THERMOPLASTIC, WHITE, CROSSWALK, 6 IN.
- (54) TRAVERSE MARKING, MULTI-COMPONENT PAINT, WHITE, CROSSWALK, 6 IN.
- (55) TRAVERSE MARKING, THERMOPLASTIC, YELLOW, CROSSHATCH LINE, 12 IN.
- (56) TRAVERSE MARKING, MULTI-COMPONENT PAINT, YELLOW, CROSSHATCH LINE, 12 IN.
- (57) TRAVERSE MARKING, THERMOPLASTIC, WHITE, CROSSHATCH LINE, 12 IN.
- (58) TRAVERSE MARKING, MULTI-COMPONENT PAINT, WHITE, CHEVRON, 12 IN.
- (59) LINE, MULTI-COMPONENT PAINT, BROKEN, YELLOW, 4 IN.
- (60) LINE, THERMOPLASTIC, SOLID, WHITE, 8 IN.
- (61) LINE, MULTI-COMPONENT PAINT, SOLID, WHITE, 8 IN.
- (62) TRAVERSE MARKING, MULTI-COMPONENT PAINT, WHITE, CROSSHATCH LINE, 12 IN.

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MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: Mark E. Wilson — DESIGN ENGINEER	1/6/2016 — DATE
DESIGNED: C.R.C.	DRAWN: R.J.H
CHECKED: B.B.K.	CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PAVEMENT MARKING & SIGNAGE BARTLETT ST & ROUNDABOUT

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
-	-
SURVEY BOOK	SHEETS
	35 of 55
CONTRACT	PROJECT
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X-2017

LEGEND

POST MOUNTED SHEET SIGN, REFER TO TABLE ON SHEET 22 FOR TYPE & SIZE.

PAVEMENT MARKING LEGEND

- (36) PAVEMENT MESSAGE MARKING, THERMOPLASTIC, LANE INDICATION ARROW
- (37) PAVEMENT MESSAGE MARKING, MULTI–COMPONENT PAINT, LANE INDICATION ARROW
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- (61) LINE, MULTI–COMPONENT PAINT, SOLID, WHITE, 8 IN.
- (62) TRAVERSE MARKING, MULTI–COMPONENT PAINT, WHITE, CROSSHATCH LINE, 12 IN.

N

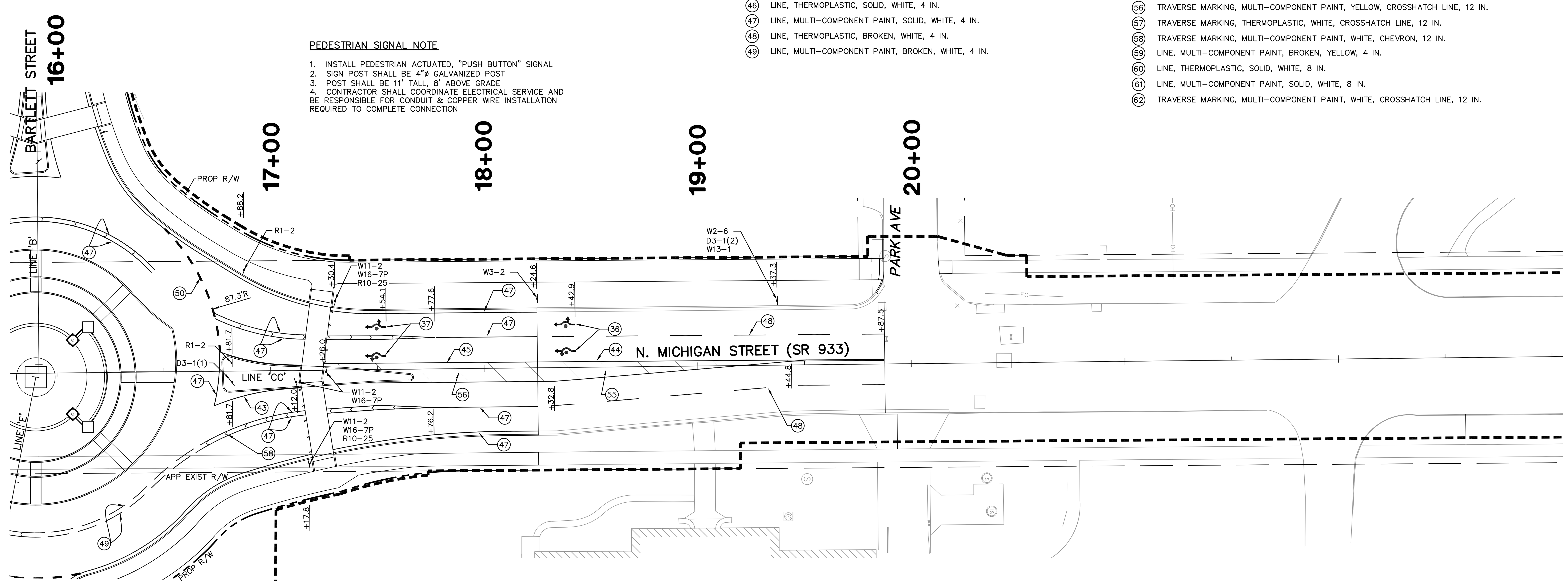
GRAPHIC SCALE

0 15 30 60

(IN FEET)
1 INCH = 30 FT

PEDESTRIAN SIGNAL NOTE

1. INSTALL PEDESTRIAN ACTUATED, "PUSH BUTTON" SIGNAL
2. SIGN POST SHALL BE 4"ø GALVANIZED POST
3. POST SHALL BE 11' TALL, 8' ABOVE GRADE
4. CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE AND BE RESPONSIBLE FOR CONDUIT & COPPER WIRE INSTALLATION REQUIRED TO COMPLETE CONNECTION



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CHECKED: B.B.K.	CHECKED: M.E.W.	

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PAVEMENT MARKING & SIGNAGE
MICHIGAN STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	–
VERTICAL SCALE	DESIGNATION
–	–
SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
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X–2017

HAZ-MAT/CHEMICAL SPILL NOTIFICATION

State Fire Marshals Office:
1-800-669-7362

IDEM Environmental Emergencies:
1-888-233-7745

PETROLEUM PRODUCT SPILLS IN THE AMOUNT OF 55 GALLONS OR MORE MUST BE REPORTED TO IDEM REGARDLESS OF CLEANUP METHODS.

HYDROLOGIC UNIT CODE:
04050001240040
LATITUDE / LONGITUDE:
41°41'07"N / 86°15'01"W

EROSION CONTROL LEGEND

SF	SILT FENCE, PROPERLY ANCHORED
▢	TEMPORARY EROSION CONTROL INLET PROTECTION

SOILS LEGEND

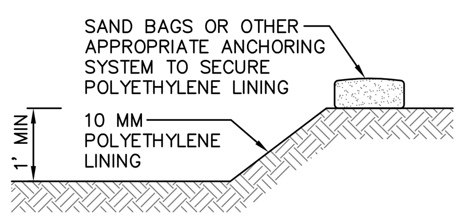
UgvA	URBAN LAND-TYNER COMPLEX, 0 TO 1% SLOPES

NOTE:
1. CONCRETE WASHOUT LOCATION TO BE DETERMINED BY CONTRACTOR. CONTRACTOR TO SELECT EITHER AN ABOVE OR BELOW GRADE SYSTEM AS DETAILED OR A PREFABRICATED WASHOUT SYSTEM/CONTAINER. ALL OTHER METHODS SHALL BE APPROVED BY THE LOCAL COUNTY ENFORCING AGENT PRIOR TO USE.

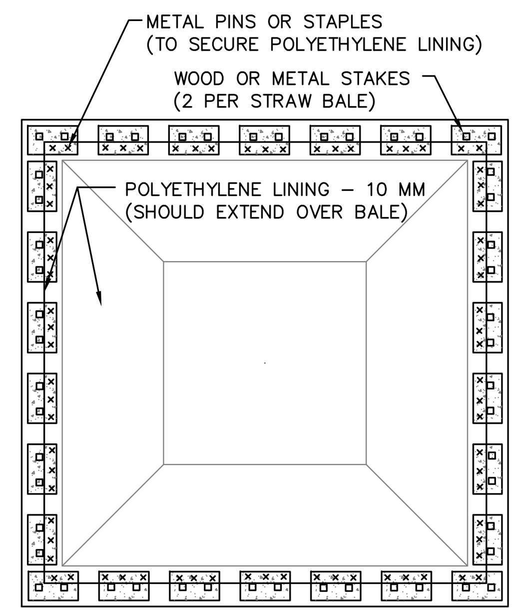
2. ABOVE AND BELOW GRADE SYSTEMS SHALL BE A MINIMUM OF 10 FEET X 10 FEET AND INCLUDE A MINIMUM OF 12" OF FREE BOARD IS REQUIRED FOR BELOW GRADE AND 4" MINIMUM FOR ABOVE GRADE SYSTEMS TO ENSURE THE AREA WILL NOT OVERFLOW DURING A RAINFALL EVENT.

3. SYSTEM SHALL BE SIZED TO CONTAIN ALL LIQUID AND WASTE THAT IS EXPECTED TO BE GENERATED BETWEEN CLEANOUT PERIODS.

4. CONTRACTOR SHALL INSTALL THE SELECTED SYSTEM

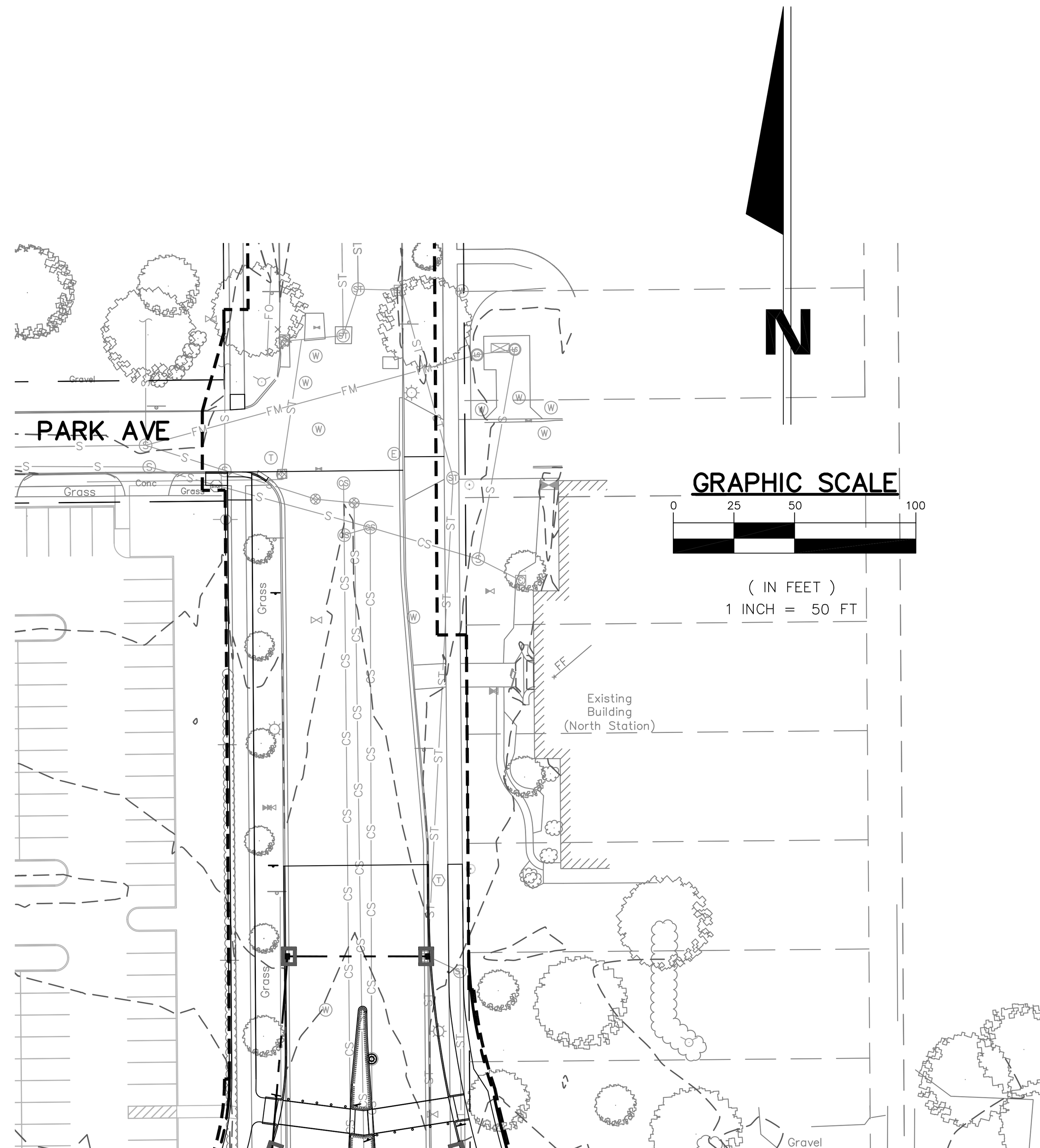


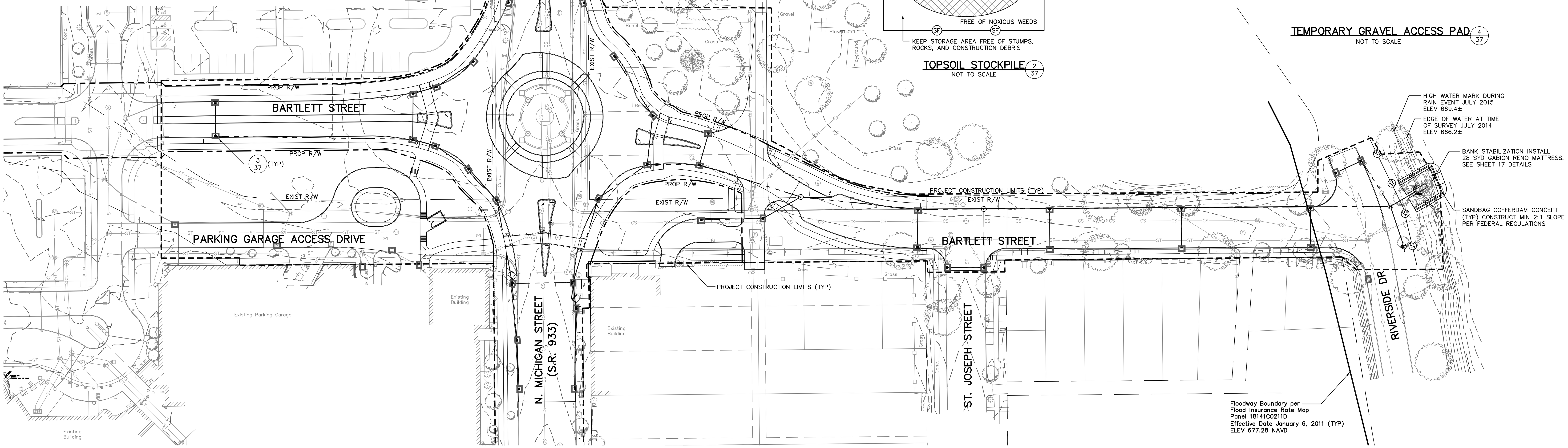
CONCRETE WASHOUT BELOW GRADE SYSTEM 5/37
NOT TO SCALE

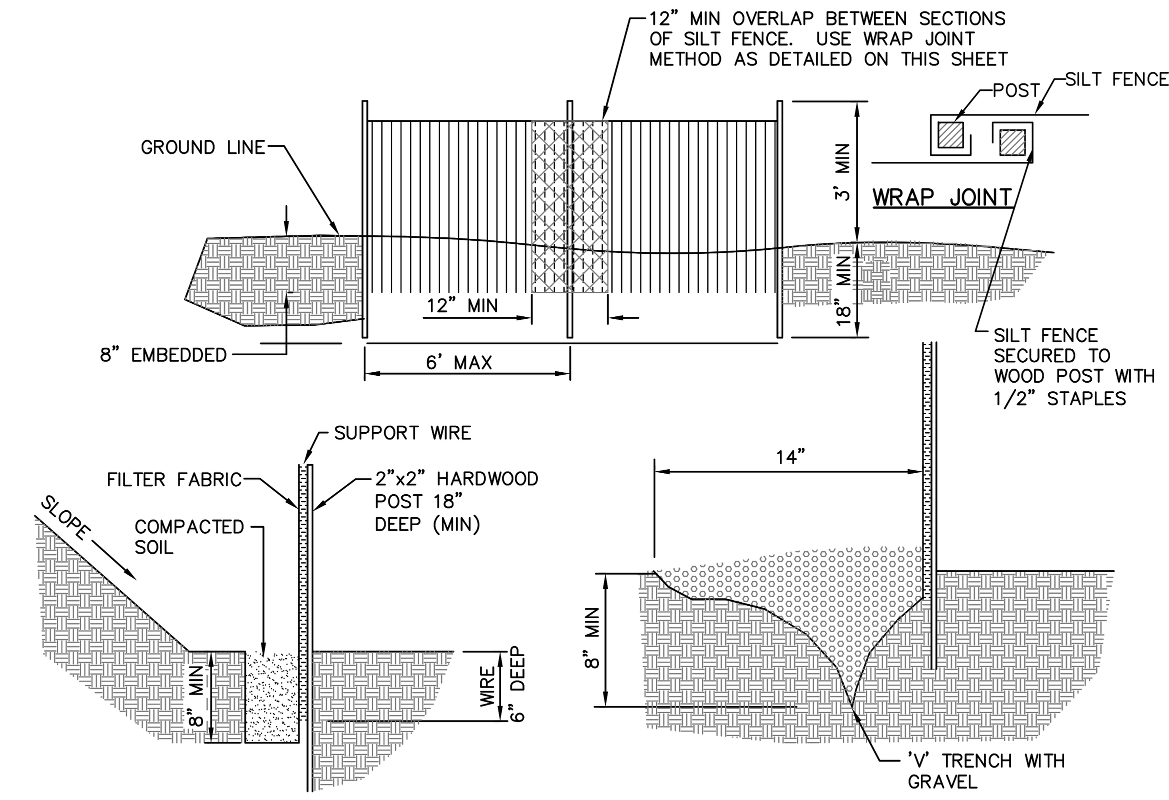


NOTE:
STRAW BALES ENTRENCHED 4" INTO THE SOIL

CONCRETE WASHOUT ABOVE GRADE SYSTEM 6/37
NOT TO SCALE

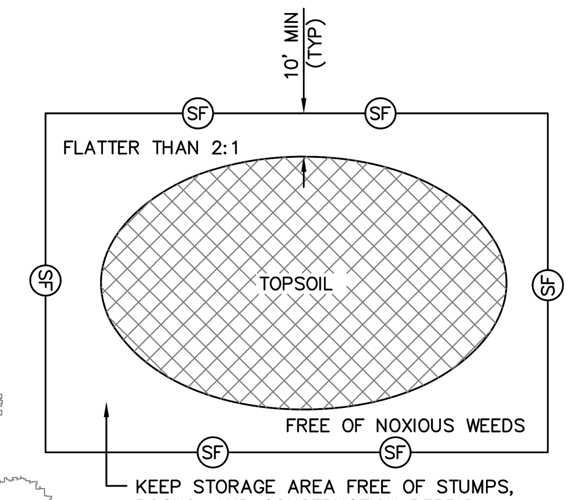






NOTE:
SILT FENCE SHALL BE INSTALLED ON AN AS NEEDED BASIS TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. IT IS NOT INTENDED TO BE NEEDED IN ALL AREAS HOWEVER IF DURING CONSTRUCTION SILT FENCE IS REQUIRED IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL IN ACCORDANCE WITH THE INDIANA STORM WATER QUALITY MANUAL.

SILT FENCE – PERIMETER PROTECTION 1/37
NOT TO SCALE

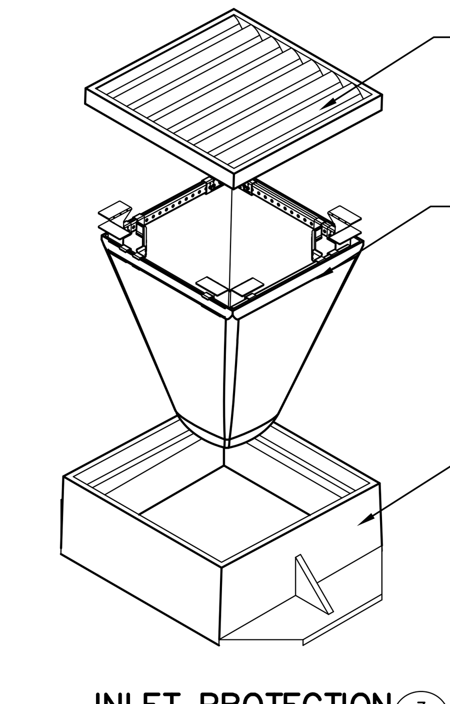


TOPSOIL STOCKPILE 2/37
NOT TO SCALE

NOTES:
1. TOPSOIL STOCKPILE LOCATION TO BE DETERMINED BY CONTRACTOR.

2. STOCKPILE SHALL BE SIZED TO CONTAIN ALL TOPSOIL THAT IS EXPECTED TO BE USED FOR SITE GRADING PURPOSES.

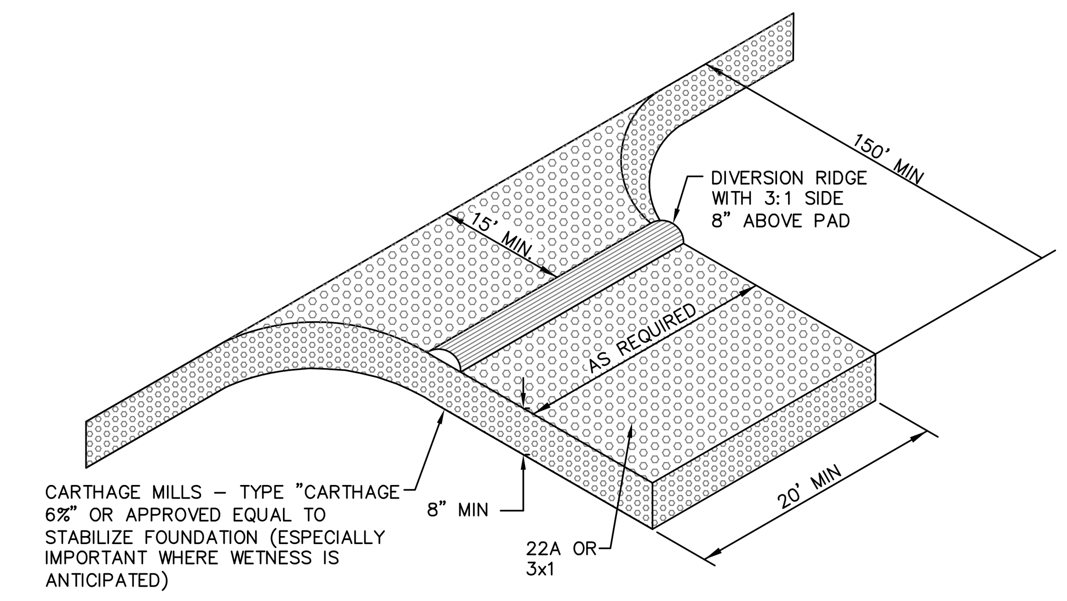
3. CONTRACTOR SHALL INSTALL SILT FENCE SURROUNDING THE STOCKPILE IN ACCORDANCE WITH THE INDIANA STORM WATER QUALITY MANUAL.



INLET PROTECTION 3/37
NOT TO SCALE

NOTES:
1. PROVIDE INLET PROTECTION OF SHAPE & SIZE REQUIRED. FLEXSTORM BY INLET & PIPE PROTECTION AVAILABLE FROM ADS (866) 287-8655 OR APPROVED EQUAL.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

MAINTENANCE GUIDELINES:
3. INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN DAYS.
4. REMOVE DEPOSITED SEDIMENT AS RECOMMENDED BY MANUFACTURER. REPAIR ANY DAMAGED COMPONENTS IMMEDIATELY.
5. REMOVE INLET FILTERS UPON PROJECT COMPLETION.



TEMPORARY GRAVEL ACCESS PAD 4/37
NOT TO SCALE

JONES PETRIE RAFINSKI your one single source. Surveying · Engineering · Planning · Architecture · Utility Management GIS · Environmental · Renewable Energy · Landscape Architecture. Elkhart, Indiana p: 574.293.7762 · South Bend, Indiana p: 574.232.4388 · Fort Wayne, Indiana p: 260.422.2522	MARK E. WILSON REGISTERED NO. 80328 STATE OF INDIANA PROFESSIONAL ENGINEER	RECOMMENDED FOR APPROVAL: Mark E. Wilson, DESIGN ENGINEER, 1/6/2016 DATE	CITY OF SOUTH BEND BARTLETT ST IMPROVEMENTS PHASE II
		DESIGNED: C.R.C. DRAWN: R.J.H	ERSOSION CONTROL PLAN
		CHECKED: B.B.K. CHECKED: M.E.W.	.

HORIZONTAL SCALE	BRIDGE FILE
VERTICAL SCALE	DESIGNATION
.	–
SURVEY BOOK	SHEETS 37 of 55
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–	114-032B

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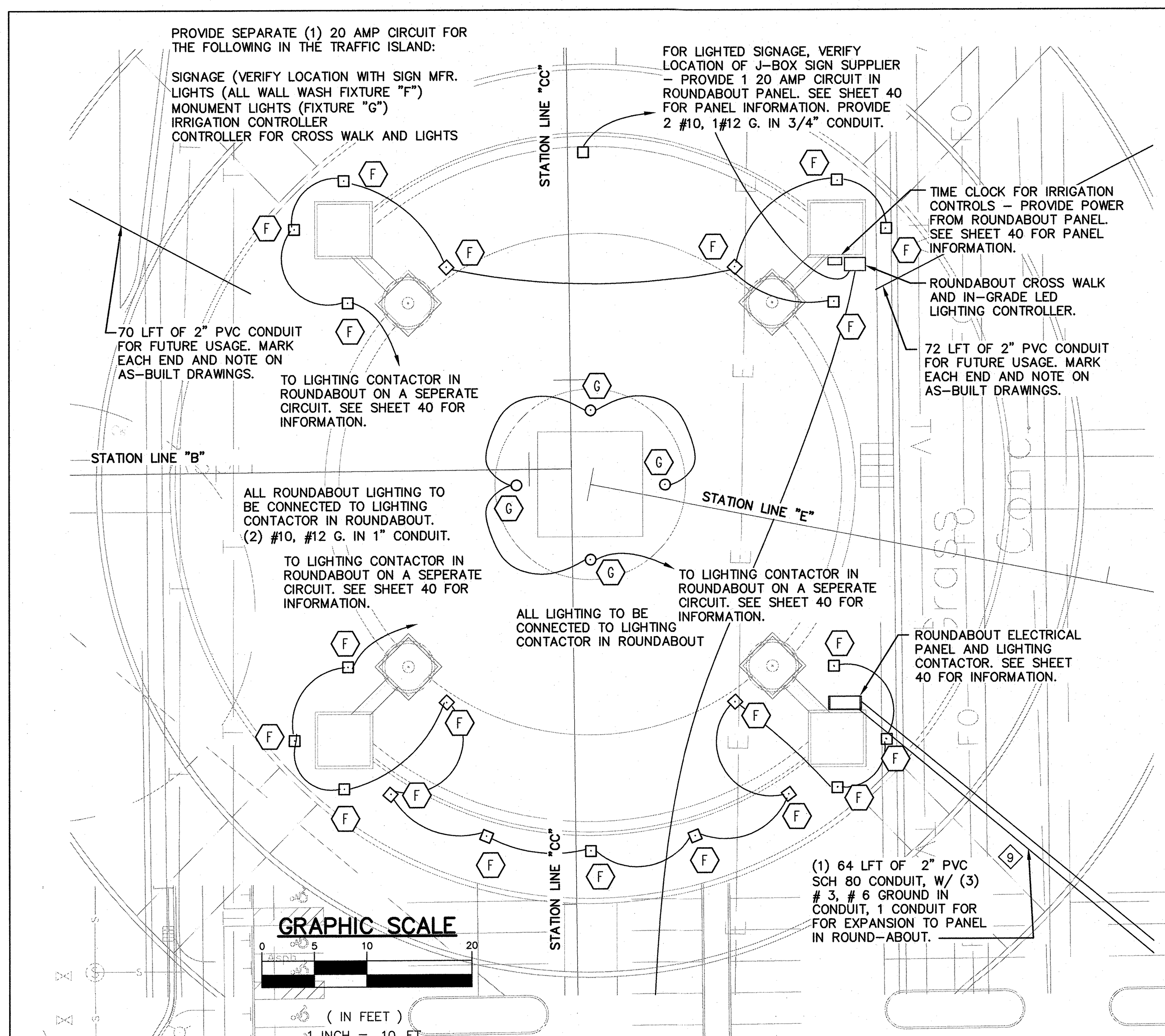

LIGHTING SCHEDULE - DENOTED BY

MARK	QTY	MANUFACTURER*	CATALOG NO.	LAMP	NOTES
A	5	KIM LIGHTING	1A-CCS21A3E35-120L5KXXX-WH-6" ARM WITH RTSP16-6.6-11-WHT-DM10-BC-PSAB	SINGLE HEAD LED 10258 LAMP LUMENS, 5,000K TYPE III DISTRIBUTION	SINGLE HEAD FIXTURE WITH 16 FT POLE MOUNTED, COLOR WHITE (MATCH EXISTING) (CONTRACTOR TO VERIFY VOLTAGE PRIOR TO ORDERING FIXTURE).
B	4	BEACON	WIN40/AF/36NB-80/3K/UNV/DIR4/PT/BBT (2) AA-0024/5MTC/BA/2X/BBT CENB/F/16/5M/TN/GFI-IU/BBT	LED 3,000K TYPE IV DISTRIBUTION	WINDSOR SERIES SINGLE LED FIXTURE WITH 16 FT POLE, ALUMINUM FLUTED, SEMI RECESSED DUPLEX GFI RECEPT. WITH IN-USE WEATHERPROOF COVER WITH DOUBLE BANNER ARMS. COLOR BLACK
C	6	BEACON	WIN40/AF/36NB-80/3K/UNV/DIR4/PT/BBT (2) AA-0024/5MTC/BA/BBT CENB/F/16/5M/TN/GFI-IU/BBT	LED 3,000K TYPE IV DISTRIBUTION	WINDSOR SERIES SINGLE LED FIXTURE WITH 16 FT POLE, ALUMINUM FLUTED, SEMI RECESSED DUPLEX GFI RECEPT. WITH IN-USE WEATHERPROOF COVER WITH SINGLE BANNER ARMS. COLOR BLACK
D	10	BEACON	(2) WIN40/AF/60NB-136/3K/DIR3/PT/BBT (2) AA-0024/5MTC/BA/BBT AA-65/F/5/C/T/BBT CENB/F/23/5M/TN/GFI-IU/BBT	LED 3,000K TYPE III DISTRIBUTION	WINDSOR SERIES TWIN HEAD LED FIXTURE, TWIN HEAD BRACKET WITH 23 FT POLE, ALUMINUM FLUTED, SEMI RECESSED DUPLEX GFI RECEPT. WITH IN-USE WEATHERPROOF COVER WITH SINGLE BANNER ARMS. COLOR BLACK
E	29	BEACON	WIN40/AF/36NB-80/3K/UNV/DIR3/PT/BBT (2) AA-0024/5MTC/BA/BBT CENB/F/16/5M/TN/GFI-IU/BBT	LED 3,000K TYPE III DISTRIBUTION	WINDSOR SERIES SINGLE LED FIXTURE WITH 16 FT POLE, ALUMINUM FLUTED, SEMI RECESSED DUPLEX GFI RECEPT. WITH IN-USE WEATHERPROOF COVER WITH SINGLE BANNER ARMS. COLOR BLACK
F	21	KIM LIGHTING	EL218F3-8L3KUV-BL SM18-BL-P	LED 3,000K MICRO FLOOD LIGHT	DIE-CAST ALUMINUM LED MICRO FLOOD 955 LUMENS. COLOR BLACK STANCHION MOUNT - CAST ALUMINUM WITH 1/2" NPSM FIXTURE MOUNT, COLOR BLACK. SEE DETAIL 5/40 FOR POST INSTALLATION.
G	4	BEACON (FIXTURE) KIM LIGHTING (BASE)	CDT/24NB/55/3K/5x3/UNV/BBT/HV SM18/BL/P	LED 3,000K CADET FLOOD LIGHT	BEACON DIE-CAST ALUMINUM LED NARROW SPOT 5,000 LUMENS. COLOR BLACK. KIM LIGHTING STANCHION MOUNT - CAST ALUMINUM WITH 1/2" NPSM FIXTURE MOUNT, COLOR BLACK. SEE DETAIL 5/40 FOR POST INSTALLATION.
H	4	TRAFFIC SAFETY CORPORATION		LED	IN-ROADWAY WARNING LIGHT SYSTEM. SEE DETAILS ON SHEET 31 AND 40

*NOTE: LIGHTING MANUFACTURER SHALL BE PER PLANS, OR APPROVED EQUAL.
CONTRACTOR TO NOTE LEAD TIMES FOR THESE FIXTURES MAY BE LONG. CONTRACTOR MAY HAVE TO START ORDERING PROCESS AS SOON AS CONTRACTS ARE SIGNED.

AT NO TIME CAN ALL OF THE STREET LIGHTS BE NOT WORKING. COORDINATE WITH AEP.

LEGEND

- EXISTING LIGHT FIXTURE - TO BE REMOVED
- NEW LIGHT FIXTURE SEE SCHEDULE ON SHEET 34
- NEW LIGHT FIXTURE SEE SCHEDULE ON SHEET 34
- C — LIGHT FIXTURE DESIGNATION - SEE FIXTURE SCHEDULE ON SHEET 34
- EXIST IN GROUND VALVES TO REMAIN U.O.N.
- # — SEE SHEET 34 FOR KEYED NOTES
- # — STREET LIGHTING CIRCUIT NUMBER IN NEW TESCO BOX.
- GFCI WP — POST MOUNTED RECEPTACLE IN GROUND

1 = # 8 CONDUCTORS, FOR VOLTAGE DROP
2 = # 10 CONDUCTORS, FOR VOLTAGE DROP
3 = # 12 CONDUCTORS
PANEL
CIRCUIT NUMBER
(1) XXXX-XXX

PROJECT COORDINATION NOTES:

1. CONTRACTOR SHALL COORDINATE REMOVAL AND DE-ENERGIZING OF ALL LIGHT FIXTURES WITH PHASING PLANS.
2. LIGHTS SHALL BE ACTIVE AT THE COMPLETION OF EACH PHASE OR PROVIDE TEMPORARY LIGHTING. AT NO TIME DURING THE PROJECT SHALL ALL OF THE STREET LIGHTS BE DE-ENERGIZED.
3. NEW STREET LIGHTS SHALL BE INSTALLED AND IN WORKING ORDER PRIOR TO REMOVAL OF EXISTING STREET LIGHTS IN EACH PHASE.
4. COORDINATE THE REMOVAL AND INSTALLATION OF PARKING LOT AND PEDESTRIAN LIGHTS PER PHASING PLANS TO ENSURE ADEQUATE LIGHTING IS PROVIDED AT ALL TIMES.
5. CONTRACTOR SHALL COORDINATE WITH HOSPITAL STAFF TO DE-ENERGIZE PANELS WORK INSIDE OF BUILDING.

ELECTRICAL KEYED NOTES DENOTED BY #:

1. DE-ENERGIZE, REMOVE LIGHT FIXTURE, CONCRETE BASE AND ANCHOR BOLTS TO BE REMOVED (18" BELOW GRADE) IF NOT IMPACTED BY NEW BASE, AND INFILL WITH GRANULAR FILL. TURN LIGHT FIXTURES OVER TO CITY. COORDINATE WITH CITY.
2. EXISTING STREET LIGHTS AND BASES TO BE REMOVED BY AEP.
3. DE-ENERGIZE, REMOVE EXISTING SIGNAGE, BASE AND ANCHOR BOLTS. VERIFY WITH HOSPITAL IF SIGNAGE IS TO BE TURNED OVER TO THEM OR DEMOLISHED AND HAULED AWAY. FOUNDATION TO BE REMOVED A MINIMUM OF 18" BELOW GRADE.
4. EXISTING HAND HOLD BOX AND POWER. EXTEND NEW CONDUIT AND CONDUCTORS FROM EXISTING PULL BOX TO NEW LIGHTS OR HAND HOLD BOXES. TIE INTO EXISTING CIRCUITS AS SHOWN.
5. PROVIDE NEW 24" x24" x 18" INDOT HAND HOLD WITH BOLTED LID, CONDUIT, AND CONDUCTORS.
6. DE-ENERGIZE, REMOVE EXISTING TRAFFIC CONTROL CABINET. COORDINATE WITH CITY AND DATA COMPANY WITH REMOVAL. FOUNDATION AND CONDUITS ARE TO BE REMOVED ALSO. IN-FILL WITH GRANULAR FILL.
7. DE-ENERGIZE, REMOVE EXISTING TRAFFIC LIGHTS, POLES, FOUNDATIONS, AND ANCHOR BOLTS. POLES, ARMS AND LIGHTS TO BE TURNED OVER TO THE CITY. VERIFY LOCATION OF STORAGE WITH THE CITY.
8. PROVIDE NEW CONCRETE BASE FOR NEW LIGHTS. SEE DETAIL 9 ON SHEET 40.
9. PROVIDE 2" CONDUIT FOR ELECTRICAL USAGE IN ISLAND.
10. DE-ENERGIZE EXISTING CONDUCTORS FOR EXISTING STREET LIGHTING TO BE REMOVED. REMOVE EXISTING CONDUCTORS WHEN NEW LIGHTS ARE INSTALLED AND READY FOR USE.
11. STREET LIGHTS ON NORTH SIDE OF BARTLETT STREET SHALL BE TIED INTO THE TWO EXISTING CIRCUITS, ALTERNATING LIGHT FIXTURES. STREET LIGHTS ON THE SOUTH SIDE OF BARTLETT STREET SHALL BE ALSO TIED INTO THE EXISTING CIRCUITS, ALTERNATING LIGHT FIXTURES. POWER FOR THE NEW LIGHTS SHALL BE FROM EXISTING PULL BOX AT EASTERN END OF CONSTRUCTION LIMITS ON BARTLETT STREET.
12. STREET LIGHTS ON WEST SIDE OF MICHIGAN STREET SHALL BE ON TWO SEPARATE CIRCUITS. ALTERNATING LIGHT FIXTURES. STREET LIGHTS ON THE EAST SIDE OF MICHIGAN STREET SHALL BE ON TWO SEPARATE CIRCUITS, ALTERNATING LIGHT FIXTURES. POWER TO COME FROM NEW TESCO BOX ON BARTLETT STREET.
13. CONTRACTOR TO PROTECT EXISTING RECEPTACLES OR LIGHTS.
14. FLASHING CROSSING WALK SIGN. PROVIDE POWER TO SIGNS. PROVIDE A MINIMUM 1" CONDUIT UNLESS OTHERWISE NOTED. SCHEDULE 80 UNDER ALL ROADWAYS, ALLEYS AND APPROACHES. SCHEDULE 40 UNDER SIDEWALKS AND LAWN AREAS.
15. NEW TESCO INDUSTRIAL CONTROL PANEL AS APPROVED BY CITY OF SOUTH BEND.
16. PROVIDE NEW 3 CONDUITS AND CONDUCTORS BETWEEN PULL BOXES.
17. PROVIDE A COMPLETE WORKING SYSTEM. CONDUCTORS (4) # 4, (1) # 4 GND. (4 COLOR) IN 2" CONDUIT. ALL CONDUIT SHALL BE PVC SCHEDULE 80.
18. REMOVE AND RELOCATE EXISTING TREE RECEPTACLES. RECEPTACLES ARE TO BE RELOCATED OUT OF THE NEW SIDEWALK LOCATION AND NEAR THE TREE. COORDINATE WITH HOSPITAL STAFF.

PLAN GENERAL NOTES:

1. PROVIDE POST MOUNTED RECEPTACLE IN GROUND. REFER TO DETAIL 10/40.
2. CONNECT TO CIRCUIT NOTED THROUGH LIGHTING CONTACTOR INDICATED.
3. EXISTING FIXTURE TO BE REMOVED, RELOCATED AND RE-LAMPED PER PLANS.
4. DISCONNECT AND REMOVE EXISTING POLE AND POLE BASE AS SHOWN. RELOCATE POLES BETWEEN WALK AND CURB TO AVOID NEW SIDEWALK. EXTEND EXISTING OR PROVIDE NEW CONDUIT/WIRING AS REQUIRED TO CIRCUITS SHOWN.
5. REFER TO SHEETS 39 AND 40 FOR ADDITIONAL POWER AND SYSTEM REQUIREMENTS AND DETAILS.
6. PROVIDE NEMA 3R JUNCTION BOX FOR EXTERIOR SIGNAGE. COORDINATE EXACT LOCATION OF BOX PRIOR TO INSTALLATION.
7. ALL SPLICES TO BE IN LIGHT BASES NOT IN HAND HOLDS. - NO SPLICES SHALL BE UNDERGROUND OR IN HAND HOLDS EXCEPT CROSS WALK CONDUCTORS.

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Fort Wayne, Indiana p: 260.422.2522

STEVEN J. VANDENBURG REGISTERED No. 10200111 STATE OF INDIANA ARCHITECT

RECOMMENDED FOR APPROVAL [signature] 1-6-16
DESIGN ENGINEER DATE

DESIGNED: C.R.C.	DRAWN: R.J.H
CHECKED: B.B.K.	CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

SITE LIGHTING PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
	-
SURVEY BOOK	SHEETS
	38 of
CONTRACT	PROJECT
-	114-032B

X-2017

PROJECT COORDINATION NOTES:

1. CONTRACTOR SHALL COORDINATE REMOVAL AND DE-ENERGIZING OF ALL LIGHT FIXTURES WITH PHASING PLANS.
2. LIGHTS SHALL BE ACTIVE AT THE COMPLETION OF EACH PHASE OR PROVIDE TEMPORARY LIGHTING. AT NO TIME DURING THE PROJECT SHALL ALL OF THE STREET LIGHTS BE DE-ENERGIZED.
3. NEW STREET LIGHTS SHALL BE INSTALLED AND IN WORKING ORDER PRIOR TO REMOVAL OF EXISTING STREET LIGHTS IN EACH PHASE.
4. COORDINATE THE REMOVAL AND INSTALLATION OF STREET LIGHTS PER PHASING PLANS TO ENSURE ADEQUATE LIGHTING IS PROVIDED AT ALL TIMES.
5. CONTRACTOR SHALL COORDINATE WITH HOSPITAL STAFF TO DE-ENERGIZE PANELS WORK INSIDE OF BUILDING.

LEGEND

- EXISTING LIGHT FIXTURE – TO BE REMOVED
- NEW LIGHT FIXTURE SEE SCHEDULE ON SHEET 38
- NEW LIGHT FIXTURE SEE SCHEDULE ON SHEET 38
- LIGHT FIXTURE DESIGNATION – SEE FIXTURE SCHEDULE ON SHEET 38
- EXIST IN GROUND VALVES TO REMAIN U.O.N.
- SEE SHEET 38 FOR KEYED NOTES
- STREET LIGHTING CIRCUIT NUMBER IN NEW TESCO BOX.
- INDOT HAND HOLD BOX. NOTE NO CONNECTIONS ARE TO BE IN HAND HOLDS EXCEPT CROSS WALK LIGHTING.

N

GRAPHIC SCALE

0 15 30 60

(IN FEET)
1 INCH = 30 FT

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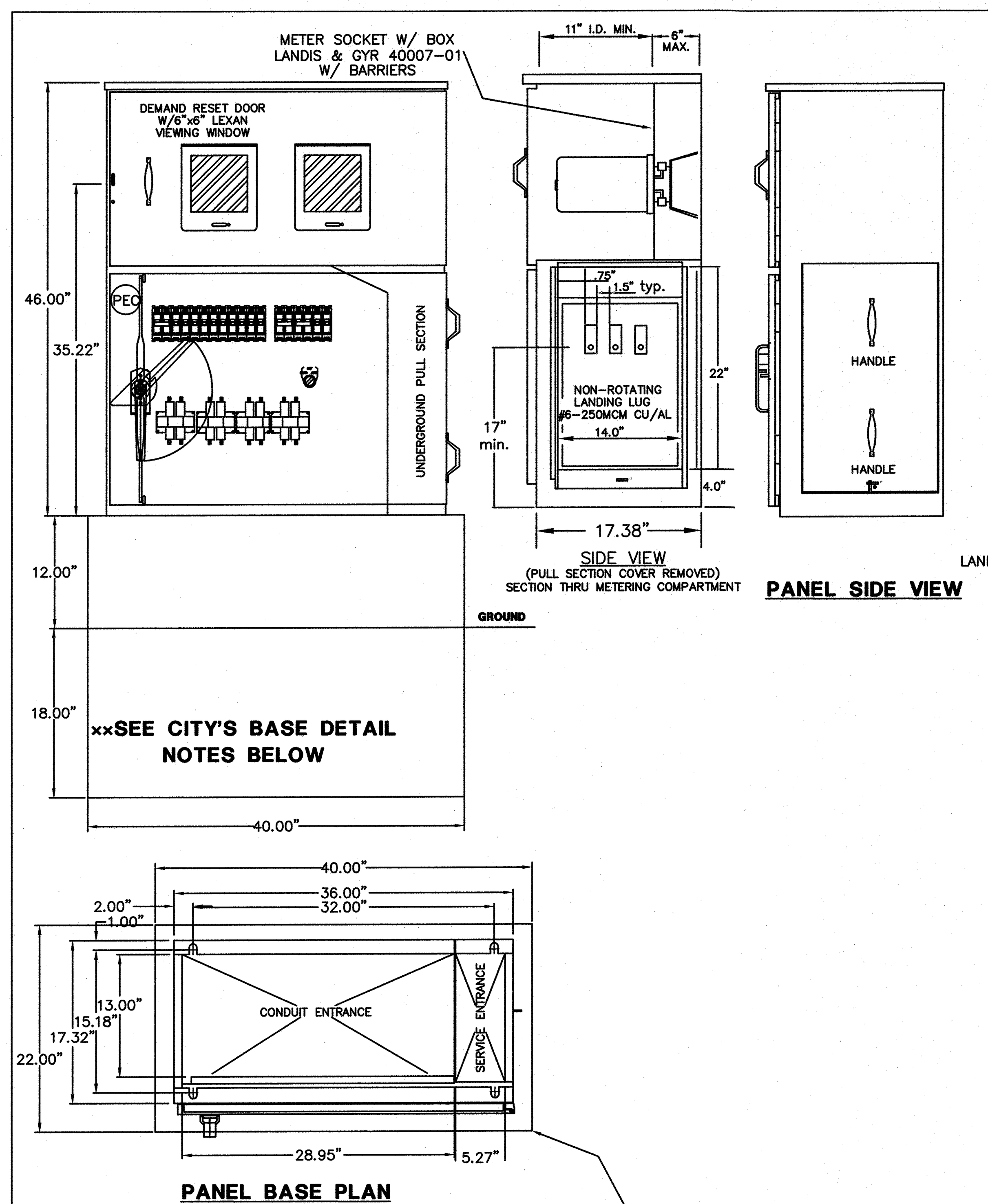
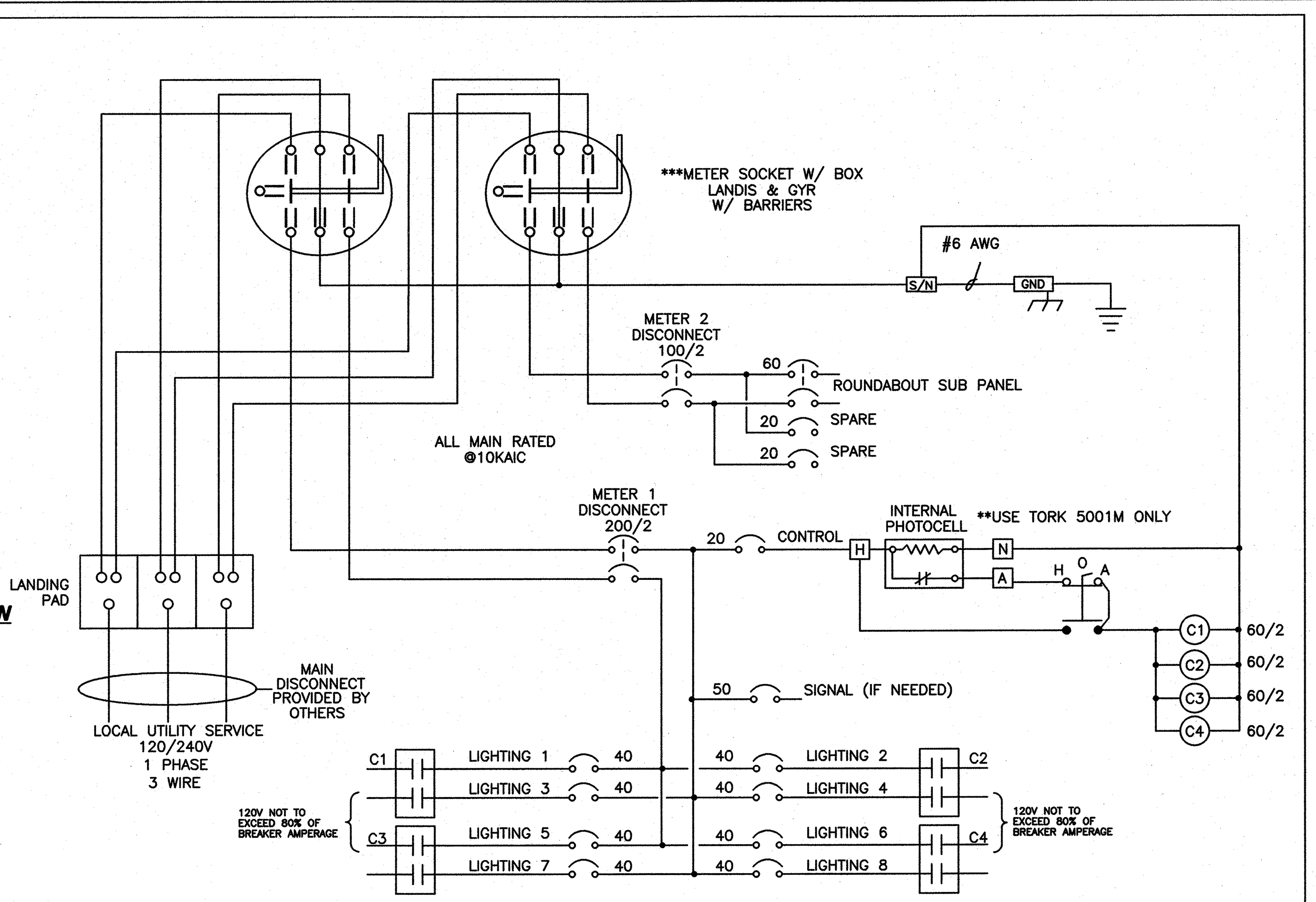
X–2017



CITY BASE DETAIL NOTES

BASE MUST BE 40"W X 30"H X 22"D
12" (OF 30") MUST BE EXPOSED ABOVE GROUND
18" (OF 30") MUST BE BELOW GROUND



NOTE: LOAD CURRENT FOR ALL BREAKER NOT TO EXCEED 80% OF BREAKER AMPERAGE

ENCLOSURE CONSTRUCTION NOTES

1. EXTERIOR 12 GA. H.D. GALV. STEEL AND INTERIOR 14 GA. COLD ROLLED STEEL ELECTRICALLY WELDED AND REINFORCED WHERE REQUIRED.
2. CONSTRUCTION WILL BE NEMA 3R, RAINTIGHT.
3. ALL NUTS, BOLTS AND SCREWS WILL BE STAINLESS STEEL.
4. NUTS, BOLTS & SCREWS WILL NOT BE VISIBLE FROM OUTSIDE OF ENCLOSURE.
5. NAMEPLATES WILL BE PROVIDED AS REQUIRED.
6. CONTROL WIRING WILL BE MARKED AT BOTH ENDS BY PERMANENT WIRE MARKERS.
7. A PLASTIC COVERED WIRING DIAGRAM WILL BE ATTACHED TO THE INSIDE OF THE FRONT DOOR.
8. ENCLOSURE WILL BE FACTORY WIRED AND CONFORM TO REQUIRED NEMA AND UL 508A STANDARDS.
9. COLOR TO BE: CHAR BROWN

TESCO
TESCO CONTROLS INC.
916 395-8800
SACRAMENTO, CA.
T-
24-200
INDUSTRIAL CONTROL PANEL

VOLTAGE	PHASE	WIRES	MAINS AMPERES	HZ
120/240	1	3	200	60

SUITABLE FOR USE ON A CIRCUIT CAPABLE OF DELIVERING NOT MORE THAN:

AMPERES		AT	VOLTAGE	
10,000	RMS SYM.		240	V

METER SOCKET RATING 200 A. CONT.
ENCLOSURE: TYPE 3R

SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT

REV	DATE	BY	DESCRIPTION

TESCO CONTROLS INC.
(916) 395-8800
8440 FLORIN RD.
SACRAMENTO, CA 95828

BARTLETT STREET PHASE 2
MODEL 24-200LBS-DUAL METER
ELECTRICAL SCHEMATIC

DATE	DESIGN BY	DRAWN BY	CHK'D BY	SHEET #	DRAWING #
1/6/16		TL		1 OF 1	BARTLETT-01

TESCO CONTROL PANEL 8/40
NOT TO SCALE

NEW ELECTRICAL PANEL GL-3

CONDUCTORS
(3) #3 CU, # 8 CU GROUND

MAINS: 225 AMP MAIN BUSS
MAIN BREAKER 100 AMP MAIN BREAKER
VOLTAGE: 120/208V, 1 PH, 3W, 60 HZ

LOAD	W	CB/PL	CCT NO	VOLTS-AMPS A	VOLTS-AMPS B	CCT NO	CB/PL	W	
RECEPTACLE	#8	20/1	1	200 / 200		2	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	3		200 / 200	4	20/1	#8	RECEPTACLE
RECEPTACLE	#10	20/1	5	200 / 200		6	20/1	#10	RECEPTACLE
RECEPTACLE	#10	20/1	7		200 / 200	8	20/1	#10	RECEPTACLE
RECEPTACLE	#10	20/1	9	200 / 200		10	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	11		200 / 200	12	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	13	200 / 200		14	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	15		200 / 200	16	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	17	200 / 200		18	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	19		200 / 200	20	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	21	200 / 200		22	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	23		200 / 200	24	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	25	200 / 200		26	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	27		200 / 200	28	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	29	200 / 200		30	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	31		200 / 200	32	20/1	#8	RECEPTACLE
RECEPTACLE	#8	20/1	33	200		34			SPACE
SPACE			35			36			SPACE
SPACE			37			38			SPACE
SPACE			39			40			SPACE
SPACE			41			42			SPACE
			SUB-TOTAL WATTAGE	3,400	3,200				
			AMPS	29	27				

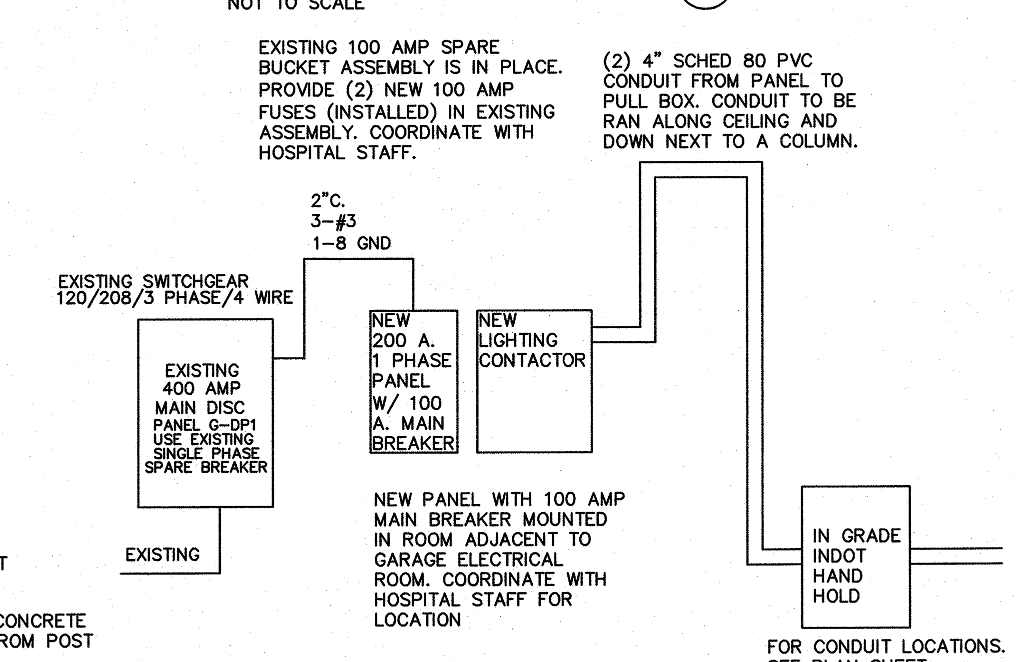
DESIGN TOTAL: 6,600 WATTS / 208 VOLTS = 32 AMPS

32 AMPS (ACTUAL) / 0.8 (SAFETY FACTOR) = 40 AMPS

USE 100 AMP MAIN BREAKER IN NEW PANEL GL-3

* ALL CIRCUITS SHALL HAVE GFIC RECEPTACLES. ONE RECEPTACLE PER CIRCUIT.

ELECTRICAL PANEL DIAGRAM 2/40
NOT TO SCALE



ELECTRICAL RISER DIAGRAM 3/40
NOT TO SCALE

ROUNDABOUT NEW ELECTRICAL PANEL

CONDUCTORS
(3) #3 CU, # 8 CU GROUND

MAINS: 100 AMP MAIN BUSS
MAIN BREAKER 100 AMP MAIN BREAKER
VOLTAGE: 120/208V, 1 PH, 3W, 60 HZ

LOAD	W	CB/PL	CCT NO	VOLTS-AMPS A	VOLTS-AMPS B	CCT NO	CB/PL	W	
SIGN LIGHTING	#10	20/1	1	200 / 500		2	20/1	#12	IRRIGATION SYSTEM
MONUMENT SIGN	#10	20/1	3		50 / 100	4	20/1	#12	ELECTRIC EYE
WALL WASH LIGHT	#10	20/1	5	250		6			SPACE
RECEPTACLE	#10	20/1	7		200 / 500	8	20/1	#10	CROSS WALK CONTROLER
SPACE			9			10			SPACE
SPACE			11			12			SPACE
			SUB-TOTAL WATTAGE	950	850				
			AMPS	8	7				

DESIGN TOTAL: 1,800 WATTS / 208 VOLTS = 9 AMPS

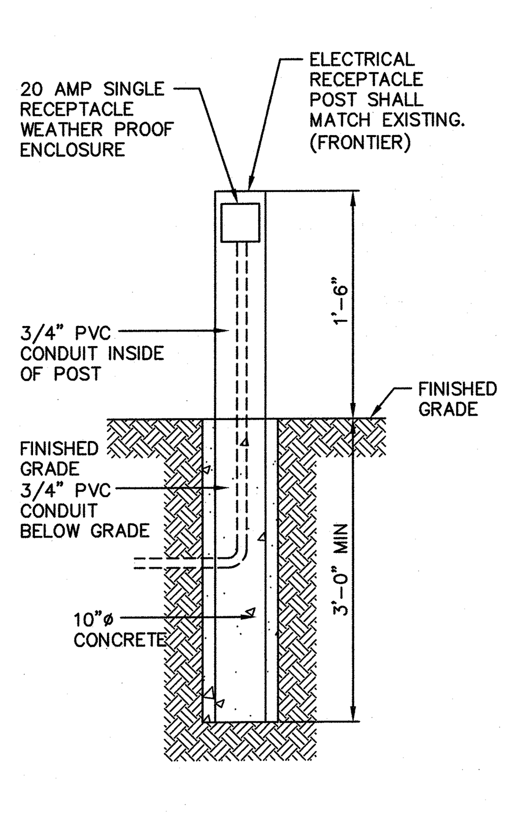
9 AMPS (ACTUAL) / 0.8 (SAFETY FACTOR) = 11 AMPS

USE 100 AMP MAIN BREAKER IN NEW PANEL GL-3

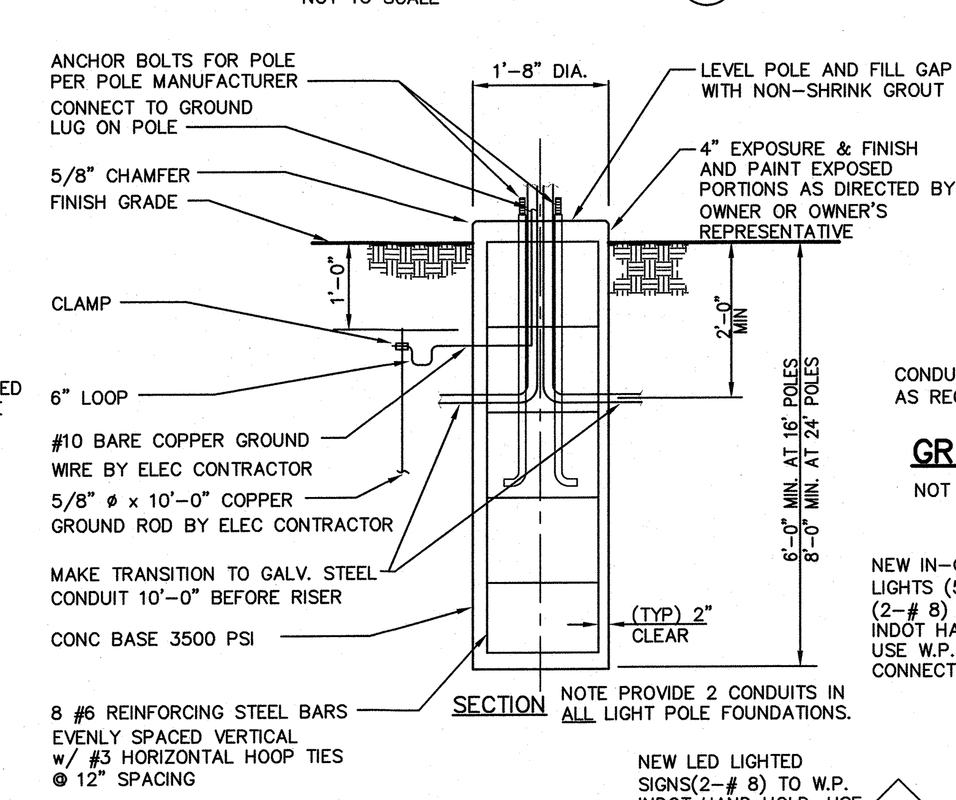
ROUNDABOUT ELECTRICAL PANEL 4/40
NOT TO SCALE

ELECTRICAL FOUNDATION LOCATION TABLE

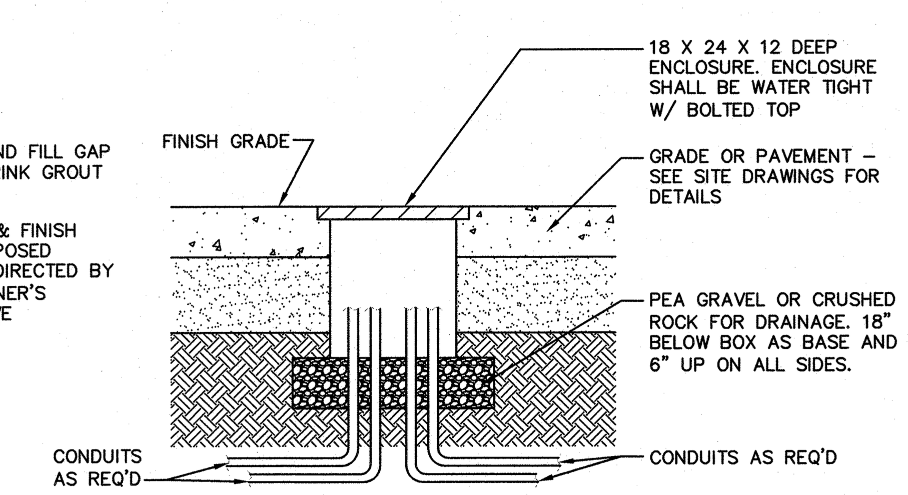
STATION LINE	STATION	OFF SET	TYPE	DIAMETER OR SIZE	DEPTH	REMARKS
BARTLETT STREET - WEST						
B	55+98.66	23.24 RT	LIGHT FIXTURE 'B'	1'-8" DIAMETER	6'-0" BELOW GRADE	
B	56+78.92	19.80 LT	LIGHT FIXTURE 'B'	1'-8" DIAMETER	6'-0" BELOW GRADE	
B	57+54.60	22.45 RT	LIGHT FIXTURE 'B'	1'-8" DIAMETER	6'-0" BELOW GRADE	
B	57+74.13	28.26 LT	LIGHT FIXTURE 'B'	1'-8" DIAMETER	6'-0" BELOW GRADE	
B	57+74.87	27.82 RT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
B	57+91.08	31.34 LT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
B	58+10.89	43.81 RT	LIGHT FIXTURE 'D'	1'-8" DIAMETER	8'-0" BELOW GRADE	
B	58+28.39	57.09 LT	LIGHT FIXTURE 'D'	1'-8" DIAMETER	8'-0" BELOW GRADE	
BARTLETT STREET - EAST						
E	70+84.11	52.19 LT	LIGHT FIXTURE 'D'	1'-8" DIAMETER	8'-0" BELOW GRADE	
E	71+16.85	29.70 RT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
E	71+27.71	19.64 LT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
E	71+34.11	36.22 RT	LIGHT FIXTURE 'D'	1'-8" DIAMETER	8'-0" BELOW GRADE	
E	71+37.62	21.02 LT	LIGHT FIXTURE 'C'	1'-8" DIAMETER	6'-0" BELOW GRADE	
E	71+59.85	23.92 RT	TESCO BOX	22" x 34"	1'-6" BELOW GRADE	SEE TESCO DRAWINGS ON THIS SHEET
E	71+97.78	20.13 RT	LIGHT FIXTURE 'C'	1'-8" DIAMETER	6'-0" BELOW GRADE	
E	72+75.93	17.64 LT	LIGHT FIXTURE 'C'	1'-8" DIAMETER	6'-0" BELOW GRADE	
E	73+48.30	23.25 RT	LIGHT FIXTURE 'C'	1'-8" DIAMETER	6'-0" BELOW GRADE	
E	74+17.26	24.39 RT	LIGHT FIXTURE 'C'	1'-8" DIAMETER	6'-0" BELOW GRADE	
E	74+95.18	24.56 LT	LIGHT FIXTURE 'C'	1'-8" DIAMETER	6'-0" BELOW GRADE	
MICHIGAN STREET - SOUTH OF BARTLETT						
CC	8+74.29	33.99 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	9+03.46	35.14 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	9+43.64	34.04 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	9+76.45	34.99 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	10+34.40	34.13 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	10+82.04	34.62 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	11+27.80	34.28 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	11+75.10	34.62 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	12+13.34	34.39 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	12+67.98	34.39 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	13+18.64	34.63 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	13+60.46	34.20 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	13+98.52	35.88 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	14+52.98	36.46 RT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	14+56.06	35.84 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	14+59.06	2.84 RT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	14+69.98	38.65 LT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	14+72.51	1.85 LT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	14+75.95	44.52 RT	LIGHT FIXTURE 'D'	1'-8" DIAMETER	8'-0" BELOW GRADE	
CC	15+03.70	52.79 LT	LIGHT FIXTURE 'D'	1'-8" DIAMETER	8'-0" BELOW GRADE	
CC	15+10.22	64.05 RT	LIGHT FIXTURE 'D'	1'-8" DIAMETER	8'-0" BELOW GRADE	
MICHIGAN STREET - SOUTH OF BARTLETT						
CC	16+62.59	69.92 RT	LIGHT FIXTURE 'D'	1'-8" DIAMETER	8'-0" BELOW GRADE	
CC	16+99.71	44.19 LT	LIGHT FIXTURE 'D'	1'-8" DIAMETER	8'-0" BELOW GRADE	
CC	17+01.19	49.04 RT	LIGHT FIXTURE 'D'	1'-8" DIAMETER	8'-0" BELOW GRADE	
CC	17+11.95	5.49 RT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	17+17.77	43.81 RT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	17+25.96	0.83 RT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	17+30.37	32.27 LT	CROSS WALK SIGN	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	17+33.85	41.55 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	17+80.00	34.30 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	18+28.92	36.26 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	18+81.88	33.92 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	19+23.55	29.32 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	19+70.16	33.60 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	20+18.81	31.80 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	20+65.43	34.22 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	21+12.63	32.07 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	21+38.84	33.10 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	22+39.15	33.63 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	22+61.86	35.25 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	23+16.45	33.94 RT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	23+61.69	34.60 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	
CC	24+11.80	34.33 LT	LIGHT FIXTURE 'E'	1'-8" DIAMETER	6'-0" BELOW GRADE	



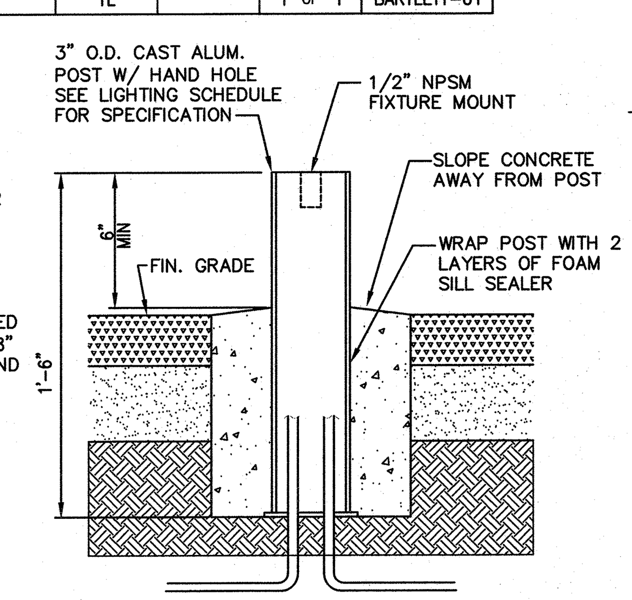
POST MOUNTED ELECTRIC RECEPTACLE DETAIL 10/40
NOT TO SCALE



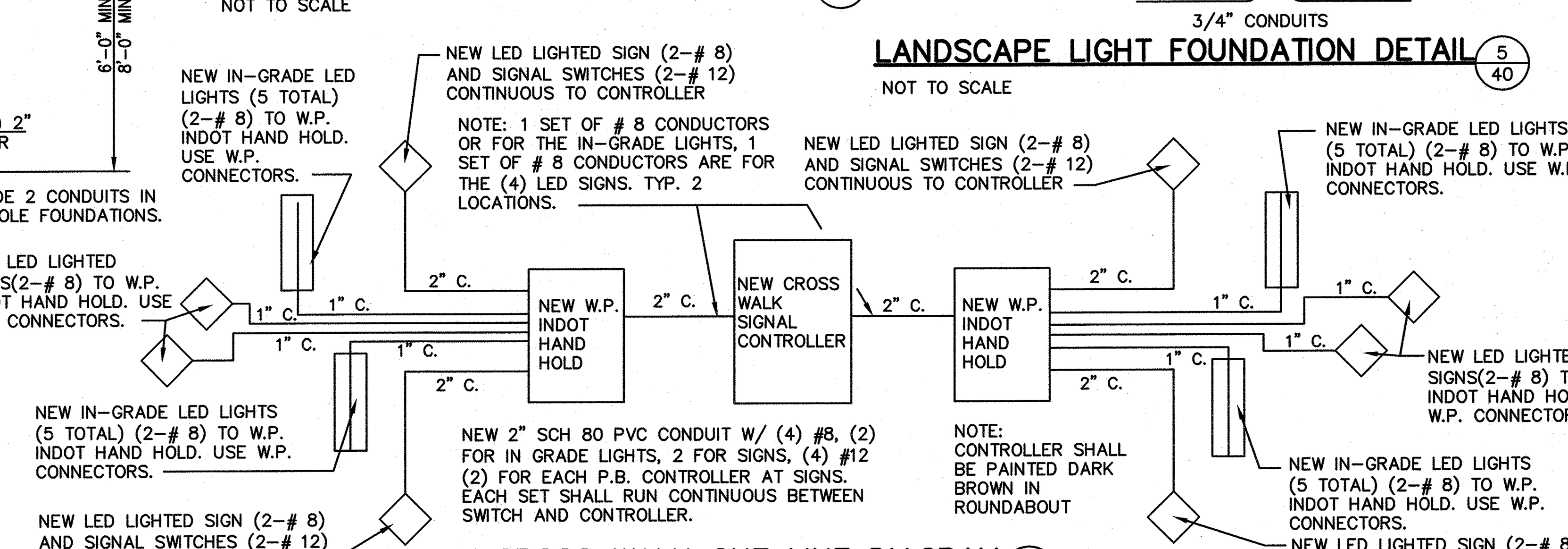
LIGHT POLE DETAIL 9/40
NOT TO SCALE



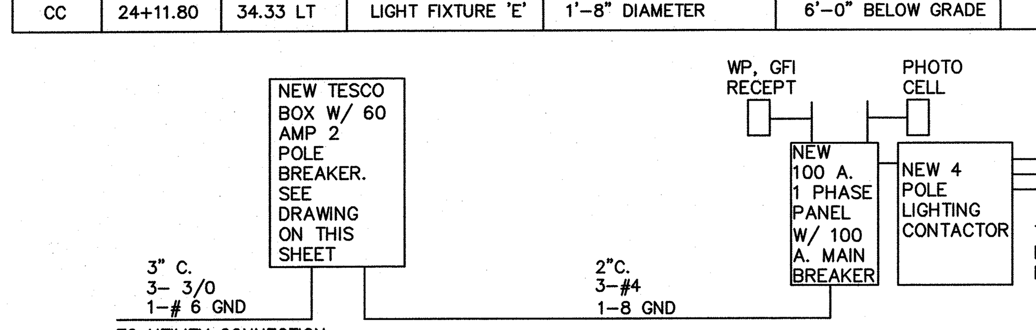
GRADE MOUNTED ENCLOUSURE DETAIL 7/40
NOT TO SCALE



LANDSCAPE LIGHT FOUNDATION DETAIL 5/40
NOT TO SCALE



CROSS WALK ONE LINE DIAGRAM 6/40
NOT TO SCALE



NOTE:
PANEL(S) SHALL BE PAINTED DARK BROWN IN ROUNDABOUT

ROUNDABOUT ELECTRICAL RISER DIAGRAM 1/40
NOT TO SCALE

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DESIGN ENGINEER DATE

DESIGNED: C.R.C. DRAWN: R.J.H
CHECKED: B.B.K. CHECKED: M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

SITE LIGHTING DETAILS

HORIZONTAL SCALE	BRIDGE FILE
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VERTICAL SCALE	DESIGNATION
	-
SURVEY BOOK	SHEETS
	40 of
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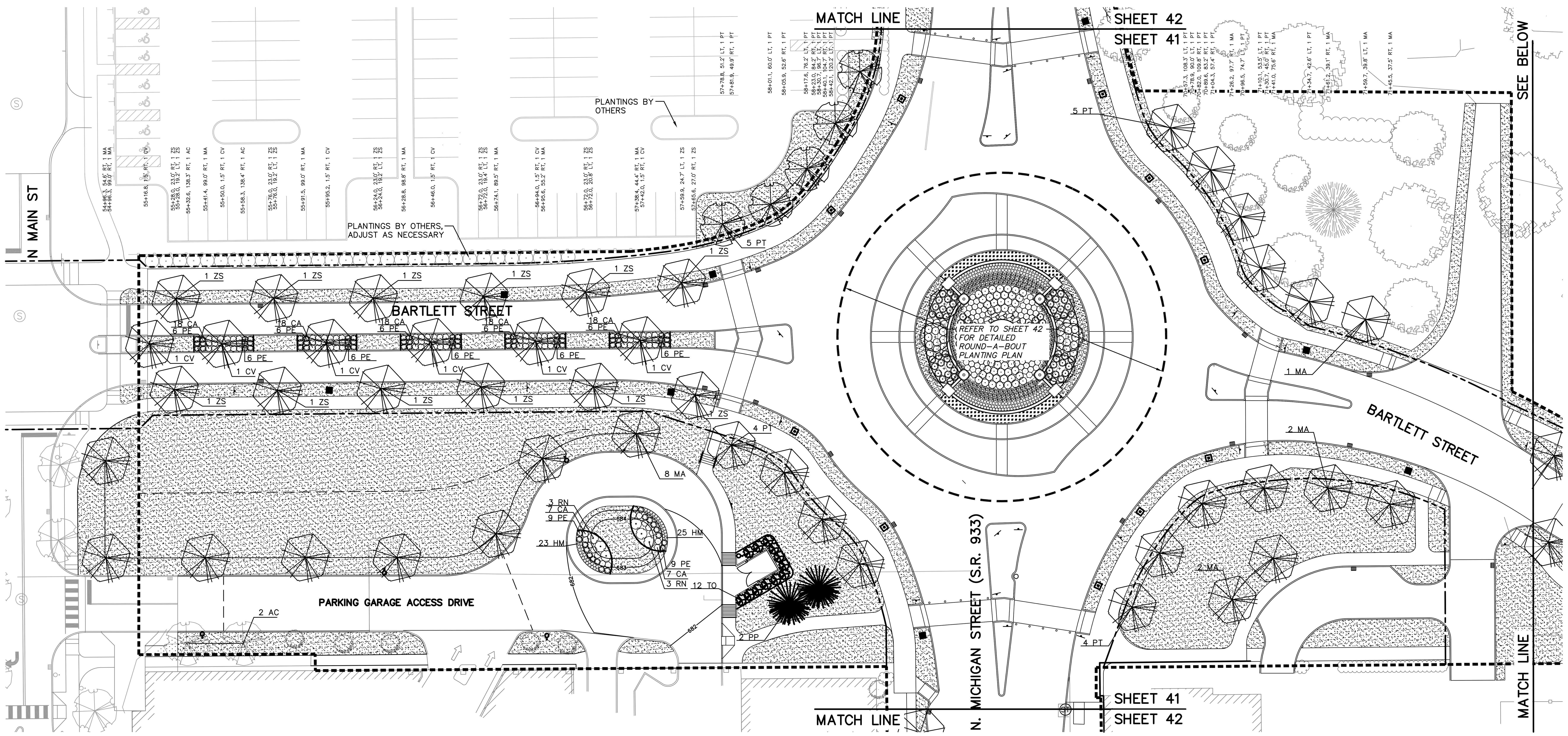
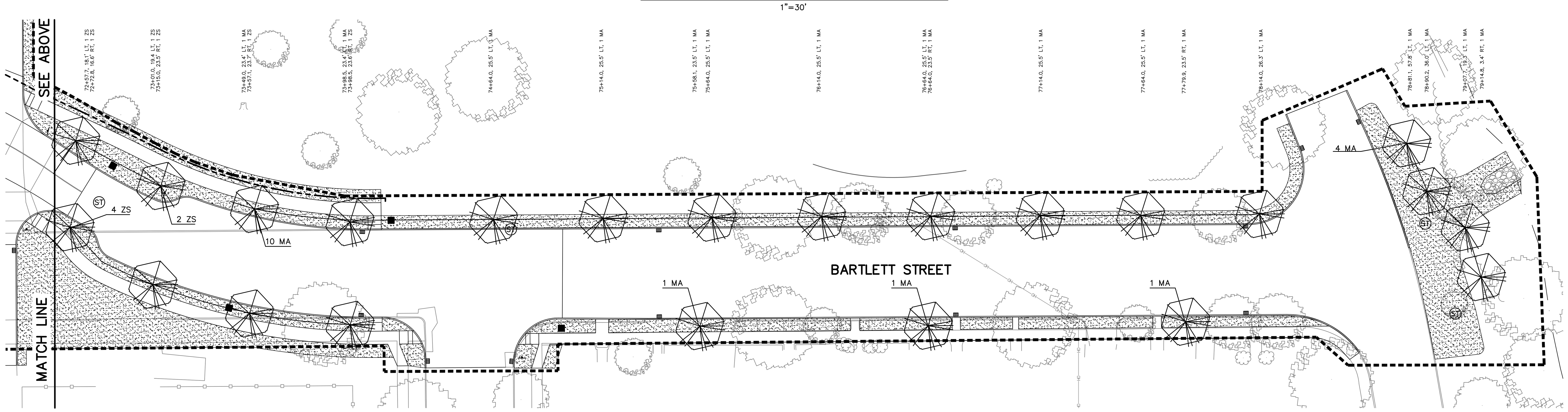


BARTLETT STREET–WEST LANDSCAPE PLAN

1"=30'



BARTLETT STREET–EAST LANDSCAPE PLAN

1"=30'

TURF SOD

LIRIOPE MUSCARI–LILY TURF–8" O.C. (TYP)

NOTE:
REFER TO SHEET 42 FOR LANDSCAPE LEGEND

GENERAL LANDSCAPE NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY LOCATION OF ALL PRIVATE AND PUBLIC UTILITY LINES WHICH AFFECT THIS SITE. CONTRACTOR SHALL ALSO NOTIFY ALL UTILITY COMPANIES PRIOR TO THE COMMENCEMENT OF ANY SITE WORK.

2. CONTRACTOR SHALL REVIEW PLANTING SPECIFICATIONS AND PLANTING DETAILS BEFORE BEGINNING WORK.

3. CONTRACTOR SHALL VISIT THE PROJECT SITE AND BECOME FAMILIAR WITH CONDITIONS UNDER WHICH WORK SHALL BE IMPLEMENTED PRIOR TO BIDDING.

4. CONTRACTOR SHALL NOTIFY CONTRACT OFFICER OF ANY DISCREPANCIES IN THE EXISTING CONDITIONS OR WITHIN THE PLANS PRIOR TO BEGINNING WORK.

5. PLANTING BEDS SHALL HAVE FINISHED GRADES SMOOTHED TO ELIMINATE PONDING OR STANDING WATER. CONTRACTOR SHALL MAINTAIN A MINIMUM 2% DRAINAGE AWAY FROM BUILDINGS AND PAVING INTO DRAINAGE STRUCTURE OR TO STREET. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY OF ANY CONFLICTS IN MAINTAINING DRAINAGE. IRRIGATION SYSTEM SHALL BE DESIGNED TO ELIMINATE OVERSPRAY ONTO BUILDINGS, STRUCTURES AND MONUMENT SIGNS.

6. CONTRACT OFFICER SHALL APPROVE ALL FINISH GRADING PRIOR TO PLACEMENT OF ANY PLANT MATERIAL.

7. CONTRACTOR SHALL IMMEDIATELY, UPON THE AWARD OF THE CONTRACT, LOCATE, ORDER AND PURCHASE (OR HAVE HELD) ALL PLANT MATERIAL REQUIRED BY THESE PLANS AND SPECIFICATIONS.

8. CONTRACTOR SHALL NOTIFY CONTRACT OFFICER FOR OBSERVATION AT THE FOLLOWING TIMES:
   - IRRIGATION MAINLINE AND LATERALS – PRIOR TO BACKFILL AND PRESSURE TEST
   - TREE LOCATIONS – PRIOR TO PLANTING
   - IRRIGATION COVERAGE – PRIOR TO PLANT PLACEMENT
   - PLANT APPROVAL AND SPOTTING – PRIOR TO PLANTING
   - PRE–MAINTENANCE APPROVAL
   - POST–MAINTENANCE / FINAL APPROVAL

9. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY REPAIRS MADE NECESSARY THROUGH THE ACTIONS OR NEGLIGENCE OF THEIR CREW.

10. SHRUB AND GROUNDCOVER MASS QUANTITIES ARE SHOWN ON PLANS. UNDERPLANT ALL TREES WITH THE ADJACENT SHRUB AND/OR GROUNDCOVER AS INDICATED BY THE PLANS. PLANTS SHALL BE INSTALLED WITH TRIANGULAR SPACING. PLANT GROUNDCOVERS TO WITHIN 36" OF TREE TRUNK OR 12" OF SHRUB STEMS.

11. PLANT SYMBOLS TAKE PRECEDENCE OVER PLANT QUANTITIES SPECIFIED. WHERE SHRUB SYMBOLS ARE MASSED, CONTRACTOR SHALL MAINTAIN A CONSISTENT ON CENTER, TRIANGULAR SPACING AS SPECIFIED IN LEGEND. CONTRACTOR SHALL VERIFY PLANT TOTALS FOR BID PURPOSES.

12. ALL ROCKS AND DEBRIS ONE INCH (1") AND LARGER SHALL BE REMOVED FROM PLANTING AREAS TO A DEPTH OF 1'–0" AND THEN FROM THE SITE TO A LEGAL SITE OF DISPOSAL. WHERE GRASS IS TO BE PLANTED, ALL ROCKS AND DEBRIS ONE HALF INCH (1/2") AND LARGER SHALL BE REMOVED.

13. PLANTING SOIL SHALL BE A THOROUGHLY GROUND AND BLENDED MIXTURE OF EQUAL PARTS OF THE FOLLOWING MATERIALS: ONE THIRD (1/3) TOPSOIL, ONE THIRD (1/3) PEAT MOSS AND ONE THIRD (1/3) SAND.

14. PRIOR TO PLANT INSTALLATION, CONTRACTOR SHALL IRRIGATE ALL PLANTING AREAS NORMALLY FOR TWO WEEKS TO GERMINATE WEEDS. CONTRACTOR SHALL THEN APPLY CONTACT HERBICIDE TO WEEDS ONLY PER MANUFACTURER, MONSANTO 'ROUND–UP' OR APPROVED EQUAL.

15. PLANT MATERIAL MAY BE REJECTED AT ANY TIME BY CONTRACT OFFICER DUE TO CONDITION, FORM OR DAMAGE BEFORE OR AFTER PLANTING.

16. ALL PLANT MATERIAL TO BE PLANTED WITH PLANTING TABLETS PLACED ACCORDING TO THE MANUFACTURER'S INSTRUCTION AND AS FOLLOWS:
   - BALLED & BURLAPPED PLANT MATERIAL USE TWO (2) 21 GRAM TABLETS PER EACH 1/2" CALIPER
   - 7 GALLON CONTAINER PLANT MATERIAL, USE THREE (3) 21 GRAM TABLETS PER PLANT
   - 5 GALLON CONTAINER PLANT MATERIAL, USE TWO (2) 21 GRAM TABLETS PER PLANT
   - 3,2, AND 1 GALLON CONTAINER PLANT MATERIAL, USE ONE (1) 21 GRAM TABLETS PER PLANT
   - PLANTING TABLETS SHALL BE AGRIFORM 20–10–5, PLANTING TABLETS PLUS MINORS STOCK NO. 90026 (21 GRAMS) OR APPROVED EQUAL.

17. ALL PLANT MATERIAL SHALL RECEIVE GRANULAR PLANT FOOD TO THE SURFACE OF THE PLANT BEDS INCLUDING GROUND COVER BEDS WHICH DO NOT CONTAIN MANURE OR PLANTING TABLETS. THE PLANT FOOD SHALL BE SPREAD OVER THE ROOT AREA STARTING 6" FROM THE TRUNK AND EXTENDING TO THE DRIP LINE OF EACH PLANT OR TO THE OUTER EDGE OF THE PLANT BED, WHICHEVER LARGER, AT THE RATE OF 2 POUNDS PER 100 SQ FT.

18. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL LANDSCAPE PLANT MATERIAL TO THE LATEST HORTICULTURAL PRACTICE STANDARDS.

19. ALL PLANTING BEDS SHALL HAVE A 3 INCH (3") DEPTH OF SHREDDED HARDWOOD MULCH APPLIED AFTER INSTALLATION OF PLANT MATERIAL. MULCH SHALL BE PEST & DISEASE FREE PLANT MATERIAL AND BE FREE OF TWIGS, LEAVES, STONES, CLAY OR OTHER FOREIGN MATERIAL. CONTRACTOR SHALL SUBMIT SAMPLE OF MULCH TO CONTRACT OFFICER FOR APPROVAL PRIOR TO INSTALLATION.

20. ALL DESIGNATED PERIMETER PLANTING AREAS SHALL HAVE 4 INCHES (4") PROFESSIONAL GRADE BLACK ANODIZED ALUMINUM EDGING INSTALLED PER MANUFACTURE'S SPECIFICATIONS.

21. CONTRACTOR SHALL BE RESPONSIBLE FOR A MINIMUM ONE (1) YEAR GUARANTEE TIME FOR THE REPLACEMENT OF ANY PLANT MATERIAL WHICH DIES AFTER THE DATE OF INSTALLATION ON SITE. THE REPLACEMENT PLANT MATERIAL SHALL BE EQUAL IN SIZE AND QUALITY TO THE PLANT MATERIAL SHOWN ON THE LANDSCAPE PLANS. ALL COSTS FOR THE REMOVAL OF DEAD PLANTS AND THEIR REPLACEMENTS SHALL BE BORNE BY THE CONTRACTOR.

22. SUBSTITUTIONS OF PLANT MATERIAL SHALL BE PERMITTED UPON WRITTEN SUBMISSION THAT SPECIFIED PLANT(S) ARE UNAVAILABLE OR UNACCEPTABLE DUE TO HARDINESS. SUBSTITUTE PLANT MATERIAL SHALL BE EQUAL IN SIZE, CHARACTERISTICS AND CONDITION OF MATERIAL BEING REPLACED. OWNER SHALL BE NOTIFIED AND APPROVE ALL SUBSTITUTIONS PRIOR TO THEIR INSTALLATION.

23. PRIOR TO PLANTING, IRRIGATION SYSTEM SHALL BE FULLY OPERATIONAL, AND ALL LANDSCAPE AREAS SHALL BE IRRIGATED. IRRIGATION CONTRACTOR SHALL INSTALL ALL REQUIRED IRRIGATION STRUCTURES, PIPES, VALVES, ETC. WHICH ARE TO BE PLACED UNDER ANY PAVED AREAS PRIOR TO PAVEMENT INSTALLATION. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED IF IRRIGATION EQUIPMENT IS REQUIRED TO BE INSTALLED AFTER PAVEMENT IS PLACED ON SITE. IRRIGATION CONTRACTOR SHALL HAVE ALL IRRIGATION PLANS APPROVED BY OWNER PRIOR TO ANY INSTALLATION. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE UTILITY CONTRACTOR FOR LOCATION OF IRRIGATION CONNECTION TO WATER SYSTEM.

PLANT MATERIAL NOTES

1. ALL PLANT MATERIAL TO MEET AMERICAN STANDARDS FOR NURSERY STOCK, 1990 EDITION/ HORTIS THIRD 1076 CORNELL UNIVERSITY.

2. ALL LANDSCAPE AREAS TO BE 100% IRRIGATED WITH AN UNDERGROUND AUTOMATIC IRRIGATION SYSTEM.

3. PLANT CONTAINER SIZES ARE SHOWN AS GUIDELINES ONLY (MINIMUM HEIGHT AND SPREAD REQUIREMENTS RULE). PLANT HEIGHT AND SPREAD SPECIFICATIONS ARE MINIMUMS, ON CENTER (O.C.) SPECIFICATIONS ARE MAXIMUMS.

SOD NOTES

1. ALL DISTURBED AREAS TO BE DRILL SEEDED WITH THE FOLLOWING GRASS SEED MIXTURE:

TYPE	% BY WEIGHT	% BY PURITY	% BY GERMINATION
KENTUCKY BLUE GRASS	36	85	80
RED FESCUE	30	98	85
MANHATTAN PERENNIAL RYE	17	98	90
NORLEA PERENNIAL RYE	17	98	90

IRRIGATION SLEEVE NOTES

1. USE SCHEDULE 40 OR HIGHER (NO THIN WALL PIPE).

2. IF 90° BENDS ARE NECESSARY, USE ONLY SWEEPING 90° OR 2–45° BENDS WITH 1' SECTION IN THE MIDDLE.

3. MARK EXACT LOCATION OF ALL SLEEVES. CONTRACTOR SHALL PROVIDE EXACT LOCATIONS OF IRRIGATION SLEEVING ON AS–BUILT DRAWINGS.

4. INSTALL PIPE 6" UNDER BOTTOM OF CURB EXTENDING INTO LANDSCAPE AREA.

5. IRRIGATION SLEEVE SHALL BE 2X (TIMES) THE SIZE OF THE IRRIGATION LATERAL AND MAINLINE PIPE. 2" MIN PIPE SIZE FOR WIRES.

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 INCH = 20 FT

N

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CHRIS CHOCKLEY REGISTERED NO. 20500170 STATE OF INDIANA LANDSCAPE ARCHITECT

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	1/6/2016	DATE
DESIGNED: C.R.C.		DRAWN: R.J.H	
CHECKED: B.B.K.		CHECKED: M.E.W.	

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

LANDSCAPE PLAN & DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
-	-
SURVEY BOOK	SHEETS
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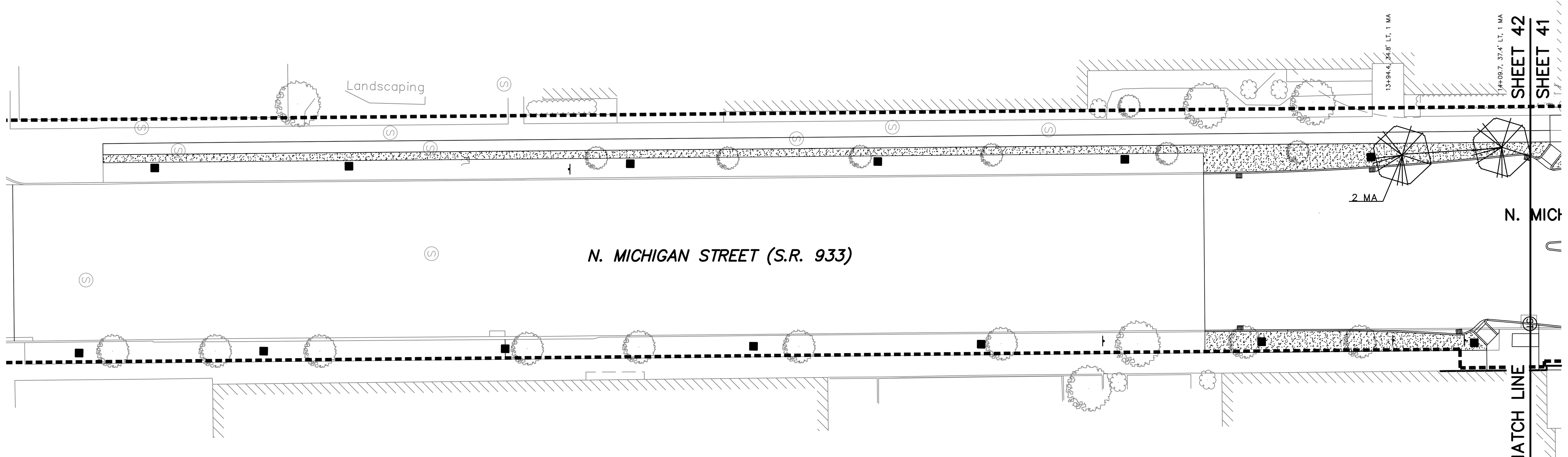
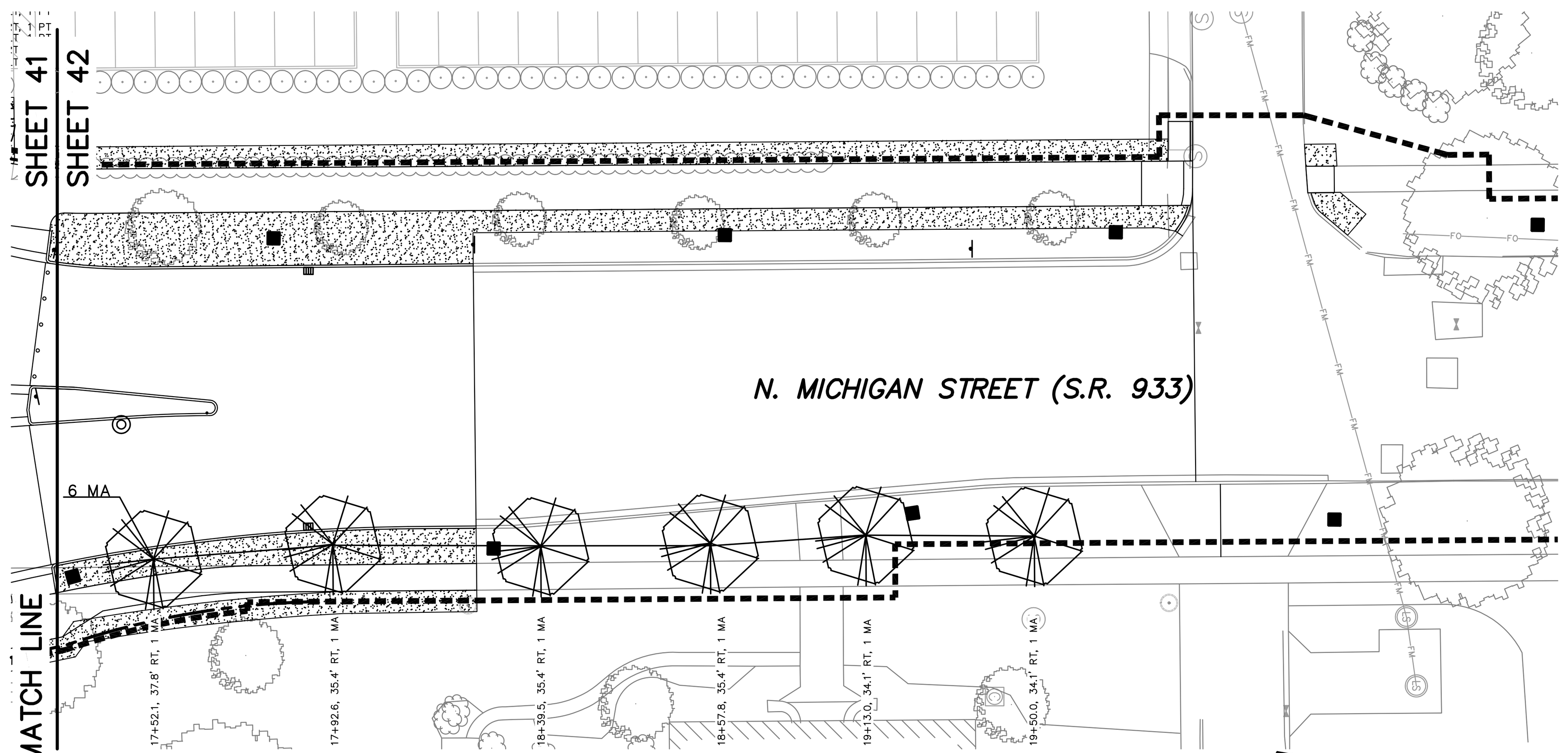
-	114-032B

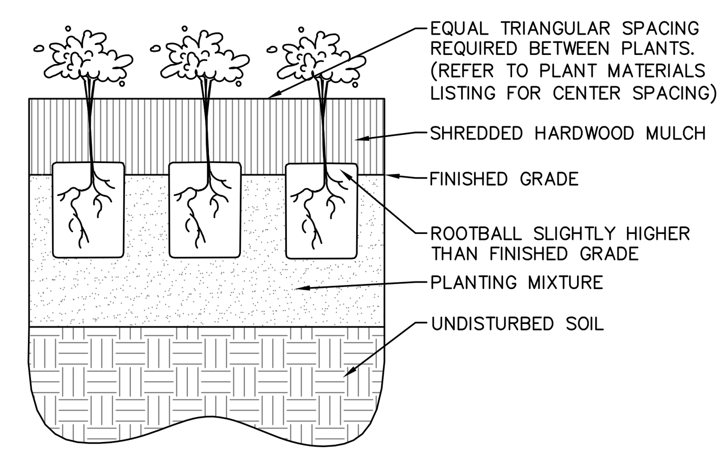
X–2017



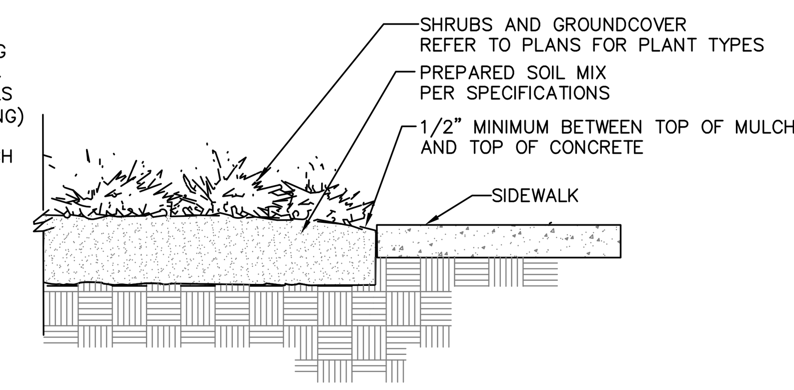
MICHIGAN STREET–SOUTH LANDSCAPE PLAN
1"=30'



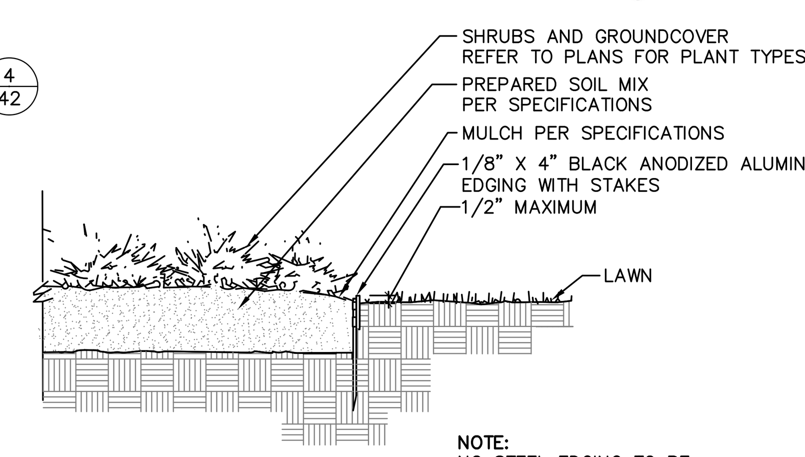
MICHIGAN STREET–NORTH LANDSCAPE PLAN
1"=30'



TYPICAL GROUNDCOVER SPACING 4/42
NOT TO SCALE

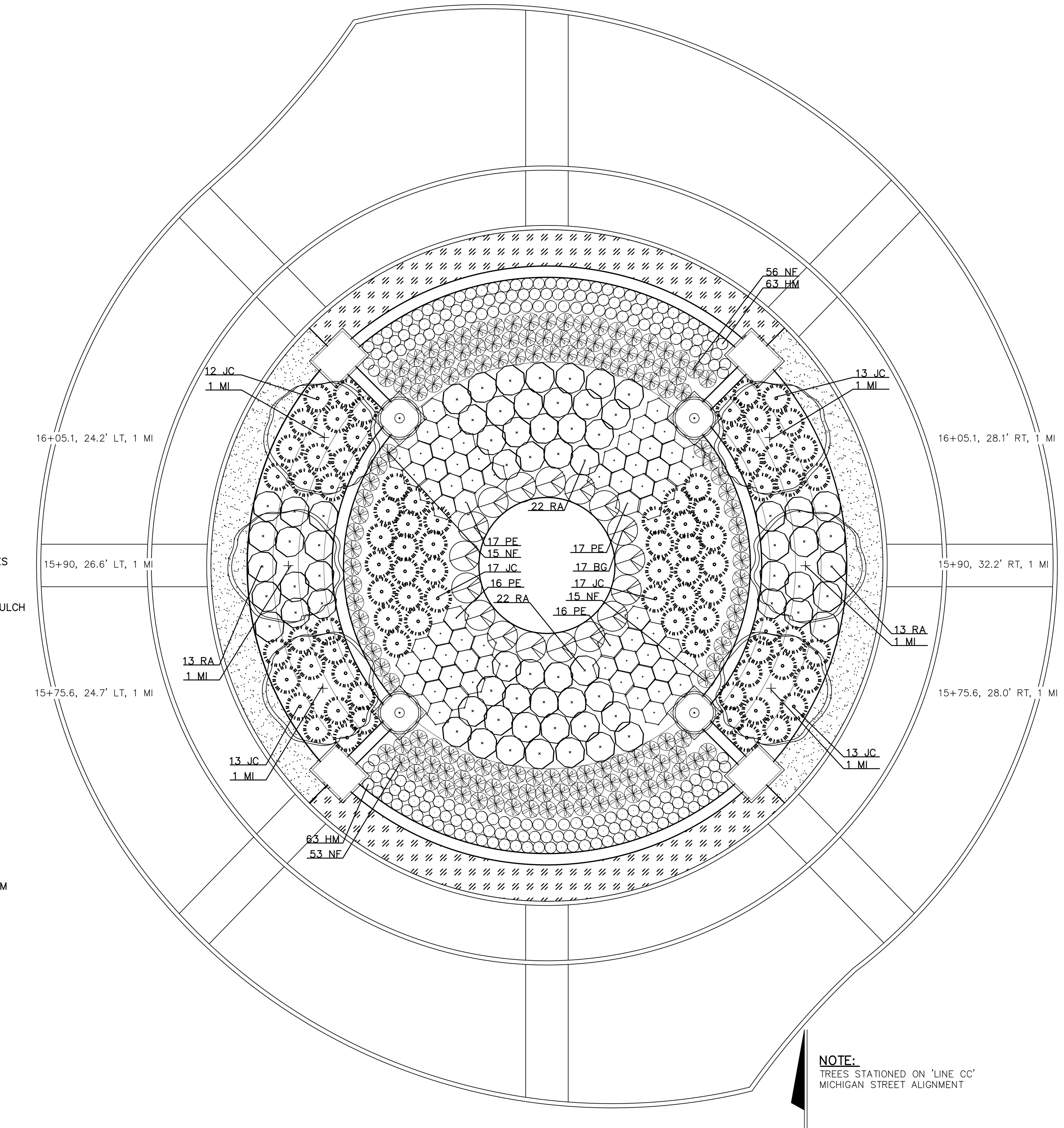


SIDEWALK/MULCH DETAIL 1/42
NOT TO SCALE



NOTE:
NO STEEL EDGING TO BE INSTALLED ALONG SIDEWALKS

STEEL EDGING DETAIL 2/42
NOT TO SCALE



NOTE:
TREES STATIONED ON 'LINE CC' MICHIGAN STREET ALIGNMENT

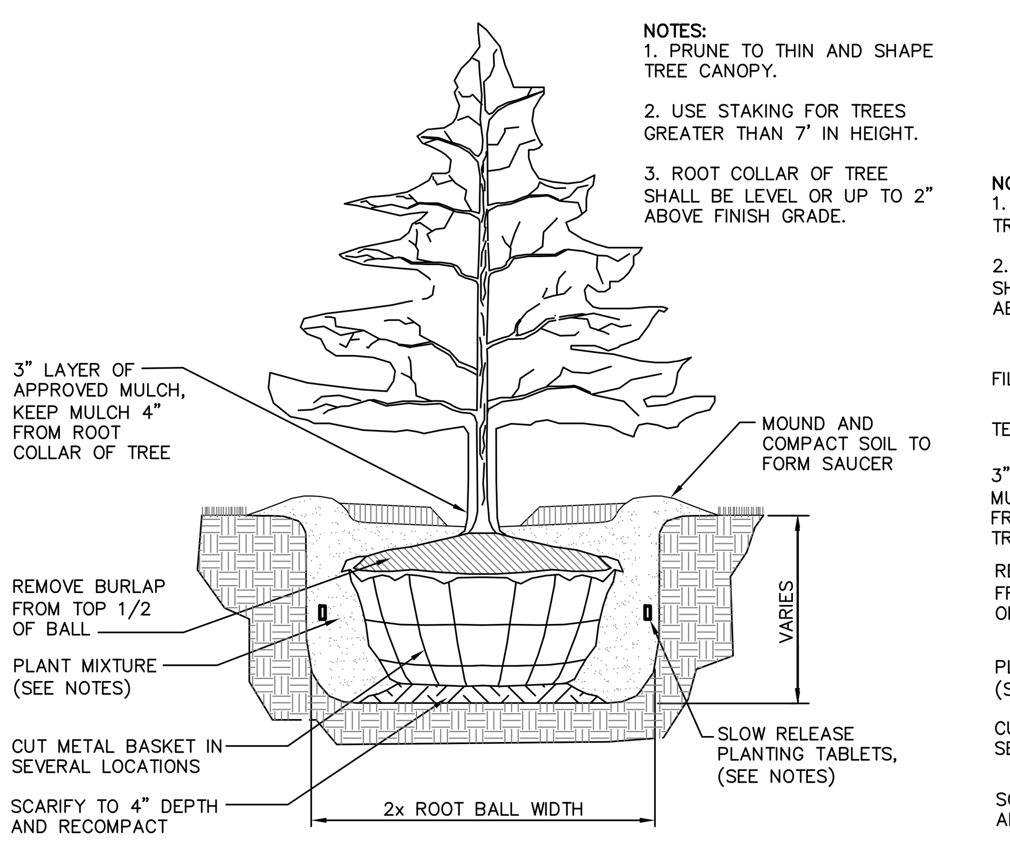
ROUNDABOUT LANDSCAPE PLAN
1"=10'

PLANT MATERIAL LIST

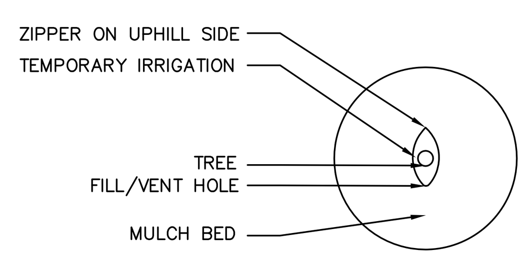
ID	BOTANICAL NAME	COMMON NAME	SIZE	QTY	ROOT
OVERSTORY TREES					
MA	'ULMUS' MORTON ACCOLADE	ACCOLADE ELM	2" CAL	38	B & B
ZS	ZELKOVA SERRATA 'MUSASHINO'	MUSASHINO COLUMNAR ZELKOVA	2" CAL	18	B & B
PT	PYRUS CALLERYANA 'CLEVELAND SELECT'	CLEVELAND SELECT FLOWERING PEAR	2" CAL	19	B & B
ORNAMENTAL TREES					
AC	AMELANCHIER CANADENSIS	SERVICEBERRY	2" CAL	2	B & B
CV	CRATEAGUS VIRIDIS 'WINTER KING'	WINTER KING HAWTHORN	2" CAL	6	B & B
MI	MALUS IOENSIS	PRAIRIE CRABAPPLE	2" CAL	6	B & B
EVERGREEN TREES					
TO	THUJA OCCIDENTALIS 'TECHNY'	MISSION ARBORVITAE	6'–8'	12	B & B
PP	PICEA PUNGENS 'COLORADO'	COLORADO BLUE SPRUCE	6'–8'	2	B & B
SHRUBS					
RN	ROSA 'NEARLY WILD'	NEARLY WILD ROSE	24" SPREAD	6	3 GAL.
RA	RHUS AROMATICA 'GROW LOW'	GROW LOW FRAGRANT SUMAC	24" SPREAD	44	3 GAL.
JC	JUNIPERUS CONFERTA 'BLUE PACIFIC'	SHORE JUNIPER	24" SPREAD	85	3 GAL.
BG	BUXUS X 'GLENCOE'	CHICAGOLAND BOXWOOD	24" SPREAD	17	3 GAL.
PERENNIAL/GRASSES					
HM	HEMEROCALLIS 'STELLA D' ORO'	STELLA DE ORO DAYLILY	#1 CONT.	174	1 GAL.
CA	CALAMAGROSTIS ACUTIFOLIA 'KARL FOERSTER'	KARL FOERSTER'S FEATHER REED GRASS	#1 CONT.	104	1 GAL.
PE	PENNISETUM ALOPECUROIDES 'HAMELN'	DWARF FOUNTAIN GRASS	#1 CONT.	144	1 GAL.
NF	NEPETA FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	#1 CONT.	139	1 GAL.

TURF SOD
LIRIOPE MUSCARI–LILY TURF–8" O.C. (TYP)

NOTES:
1. PRUNE TO THIN AND SHAPE TREE CANOPY.
2. USE STAKING FOR TREES GREATER THAN 7' IN HEIGHT.
3. ROOT COLLAR OF TREE SHALL BE LEVEL OR UP TO 2" ABOVE FINISH GRADE.

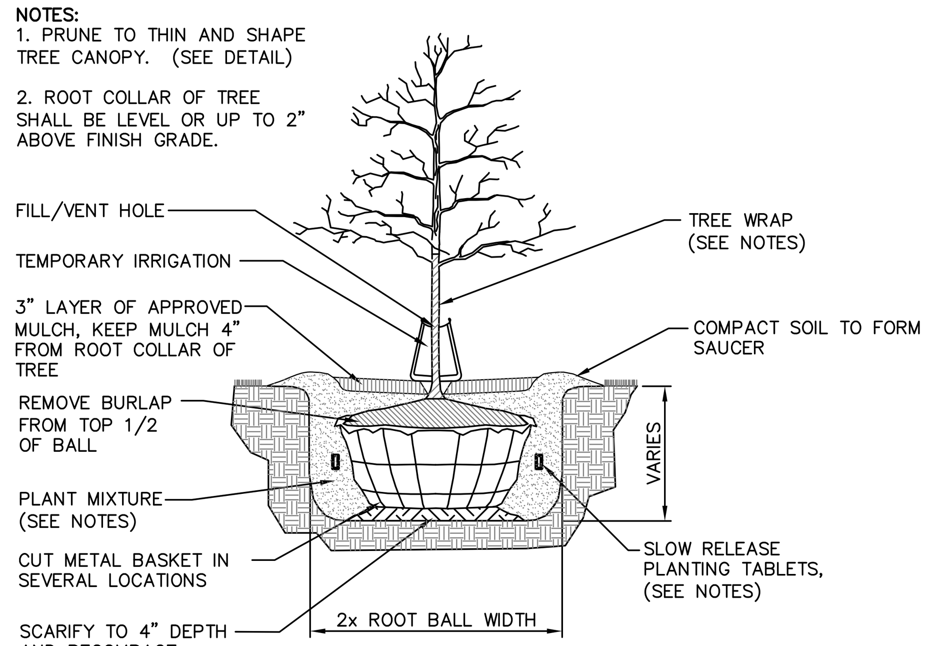


EVERGREEN TREE PLANTING 3/42
NOT TO SCALE



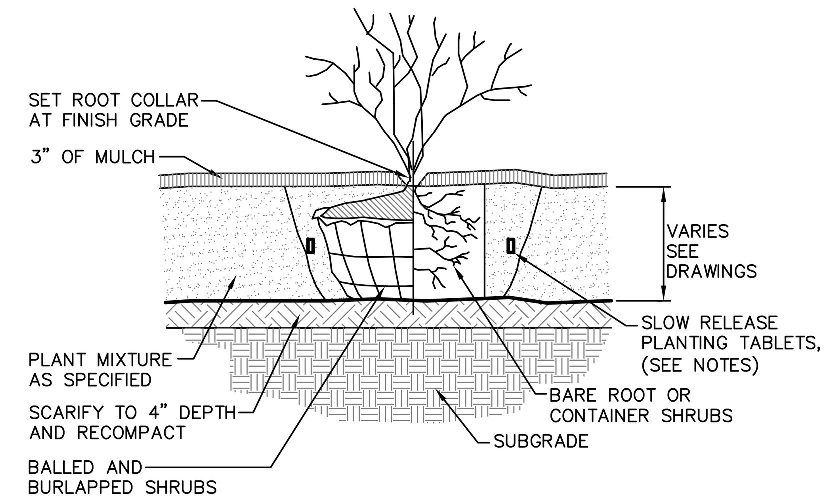
IRRIGATION BAG NOTES:
1. SIZE 20 GALLONS
2. PLACE ZIPPER ON UPHILL SIDE OF TREE
3. FILL BAG WITH WATER 1/4 FULL, LIFT UP ON STRAPS TO TO EXPAND BOTTOM, FILL BAG WITH WATER TO FULL LEVEL

NOTES:
1. PRUNE TO THIN AND SHAPE TREE CANOPY. (SEE DETAIL)
2. ROOT COLLAR OF TREE SHALL BE LEVEL OR UP TO 2" ABOVE FINISH GRADE.



TREE PLANTING DETAIL 5/42
NOT TO SCALE

NOTES:
1. DO NOT PRUNE EVERGREENS, EXCEPT TO REMOVE DEAD AND BROKEN BRANCHES.
2. THIN BRANCHES AND FOLIAGE (NOT ALL BRANCH TIPS) BY 1/3, RETAINING NORMAL PLANT SHAPE (EXCEPT EVERGREEN).
3. REMOVE BURLAP FROM TOP 1/3 OF BALL, OR WITH CONTAINER PLANTS, REMOVE POTS AND SPLIT BALLS AS SPECIFIED.



SHRUB PLANTING DETAIL 6/42
NOT TO SCALE

GRAPHIC SCALE
0 15 30 60
(IN FEET)
1 INCH = 30 FT

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CHRIS CHOCKLEY REGISTERED NO. 20500170 STATE OF INDIANA LANDSCAPE ARCHITECT

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DESIGNED: C.R.C.	DRAWN: R.J.H	
CHECKED: B.B.K.	CHECKED: M.E.W.	

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

LANDSCAPE PLAN & DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	
VERTICAL SCALE	DESIGNATION
	–
SURVEY BOOK	SHEETS
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X–2017

IRRIGATION LEGEND:

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
Q T H TT TQ F	TORO 570Z-6P-PRX 6' RADIUS
Q T H TT TQ F	TORO 570Z-6P-PRX 8' RADIUS
Q T H TT TQ F	TORO 570Z-6P-PRX 10' RADIUS
Q T H TT TQ F	TORO 570Z-6P-PRX 12' RADIUS
Q T H TT TQ F	TORO 570Z-6P-PRX 15' RADIUS
2SST 4EST 4CST 4SST 4S-SST 9SST	TORO 570Z-12P-PRX STRIP SPRAY
Q T H TT TQ F	RAINBIRD 5004 TURF ROTOR 25' RADIUS
	HUNTER IBV AUTOMATIC CONTROL VALVE
	EXSTING CONTROL VALVLE
	CONTRACTOR SHALL ADJUST, RELOCATE AS NECESSARY AND REPAIR EXISTING IRRIGATION FOR PROPER FUNCTION (TYP)
	NETAFIM, TLDL-06-12 SERIES, GRID DRIP, @ 12" SPACING (GRID PATTERN)

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	IRRIGATION LATERAL LINE: PVC CLASS 160 SDR 26
	IRRIGATION MAINLINE: 2" PVC CLASS 200 SDR 21
	PIPE SLEEVE: PVC SCHEDULE 40: INDICATES SLEEVE SIZE EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.
	EXISTING IRRIGATION MAINLINE 1" (CONTRACTOR TO VERIFY)
	EXISTING IRRIGATION LATERAL LINE
M	WATER METER VAULT PER CITY OF SOUTH BEND STANDARDS
	BACKFLOW PREVENTER WITH STAINLESS STEEL ENCLOSURE THROUGH STRONGBOX
	2" GATE VALVE
C	CONTROLLER: HUNTER ACC-1200 24 STATION STAINLESS STEEL MOUNT: AS NOTED ON PLANS PROVIDE ENOUGH MODULES FOR ONE STATION PER VALVE
	QUICK COUPLER

Valve Callout
- Valve Number
- Valve Flow
- Valve Size

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FT

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CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

IRRIGATION PLAN & DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
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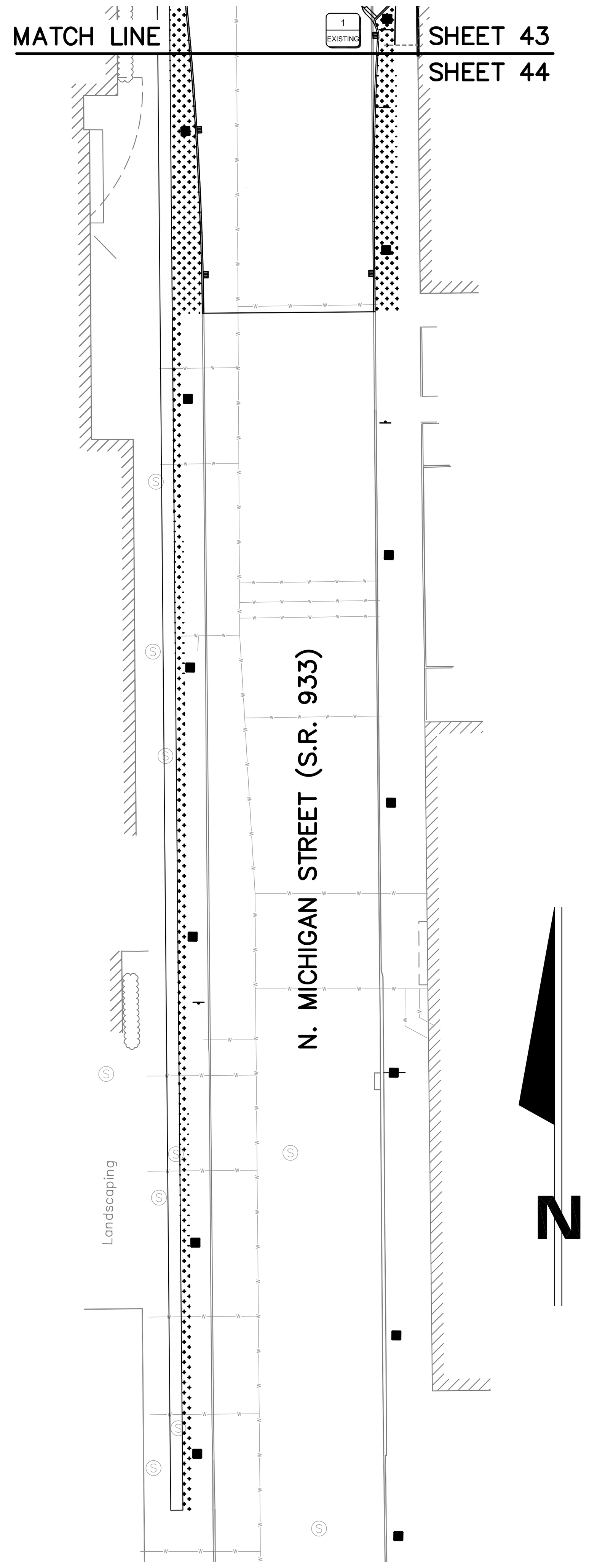
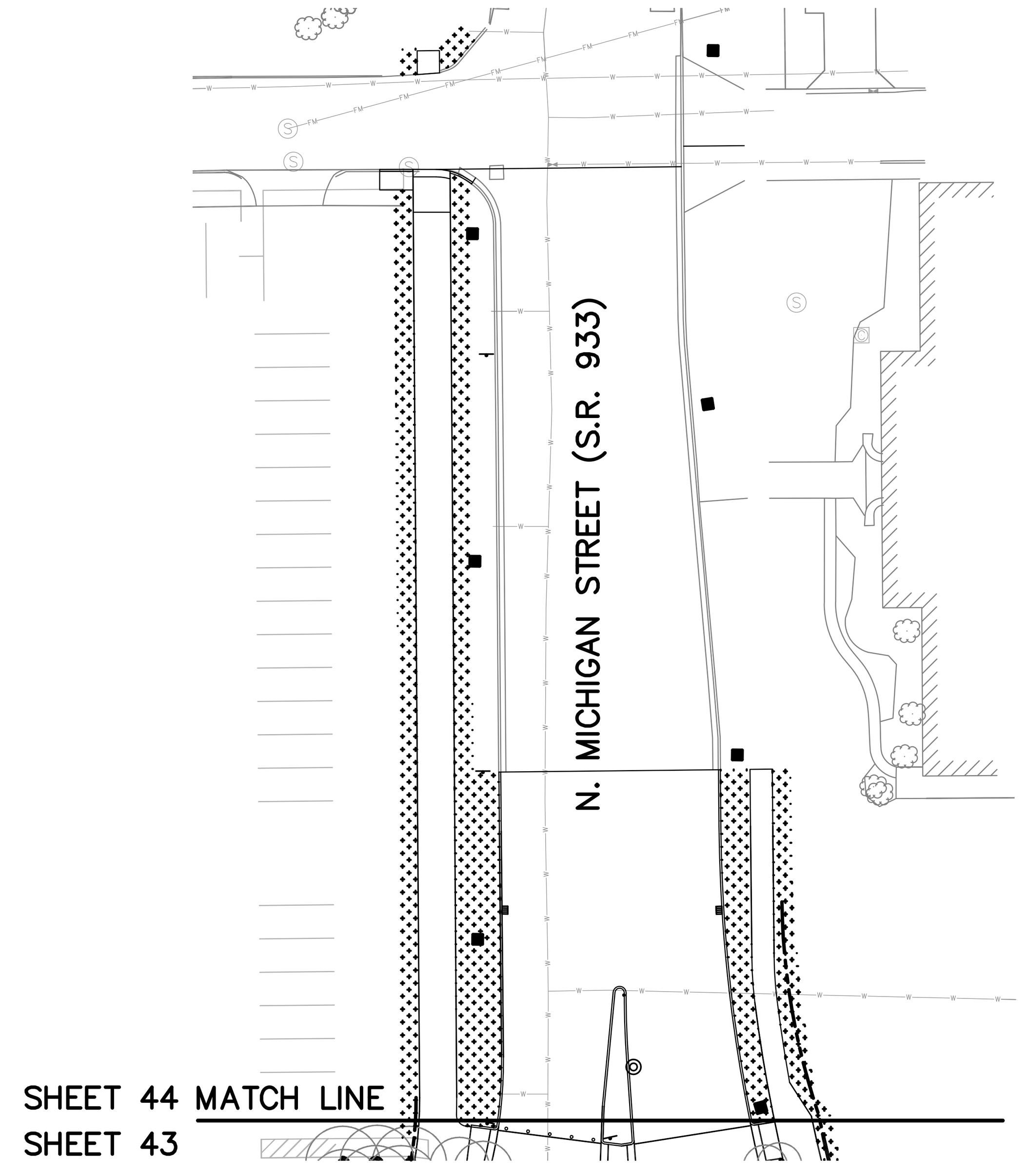
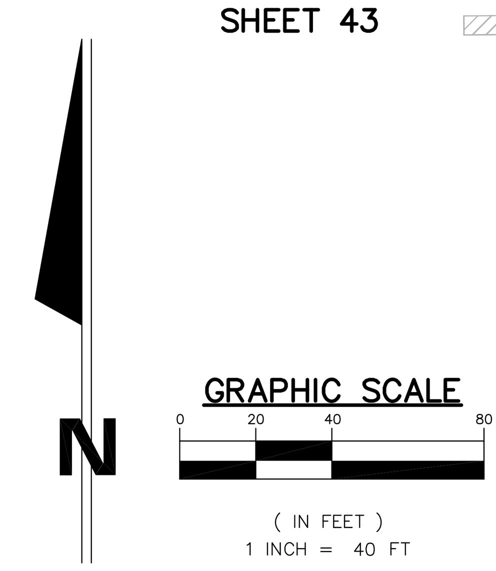
X-2017



MICHIGAN STREET–SOUTH IRRIGATION PLAN
1"=40'



MICHIGAN STREET–NORTH IRRIGATION PLAN
1"=40'



SOUTH BEND WATER WORKS TAPPING REQUIREMENTS

1. THE PLUMBER OR CONTRACTOR MUST OBTAIN ALL PERMITS REQUIRED BY THE CITY ENGINEERING DEPARTMENT. (I.E. EXCAVATION, STREET CUTS, AND SIDEWALK PERMITS)

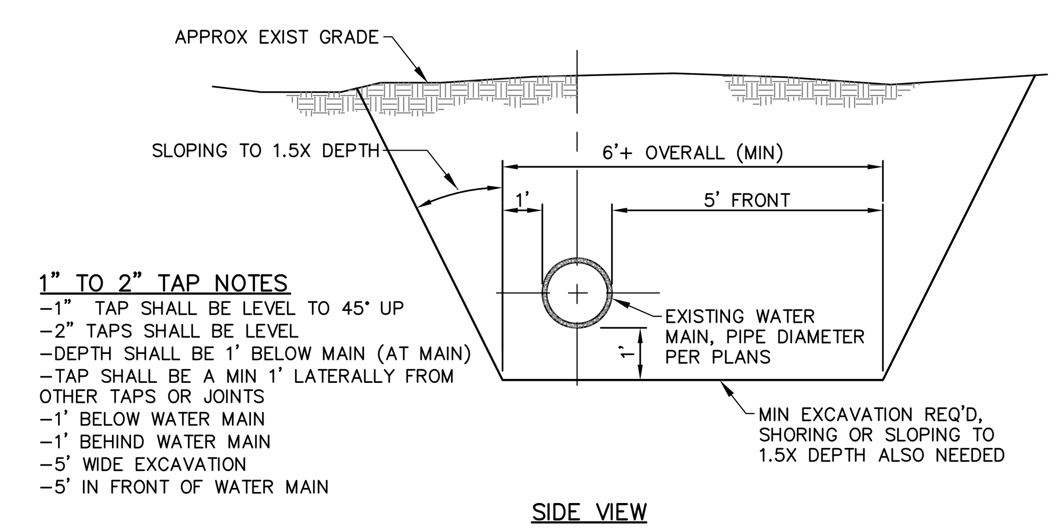
2. THE TAP FEE IS TO BE PAID TO:
   WATER WORKS ENGINEERING DEPARTMENT, 830 N MICHIGAN ST

3. SCHEDULE TAPS THROUGH FIELD OPERATIONS NUMBER AT 235–9464.

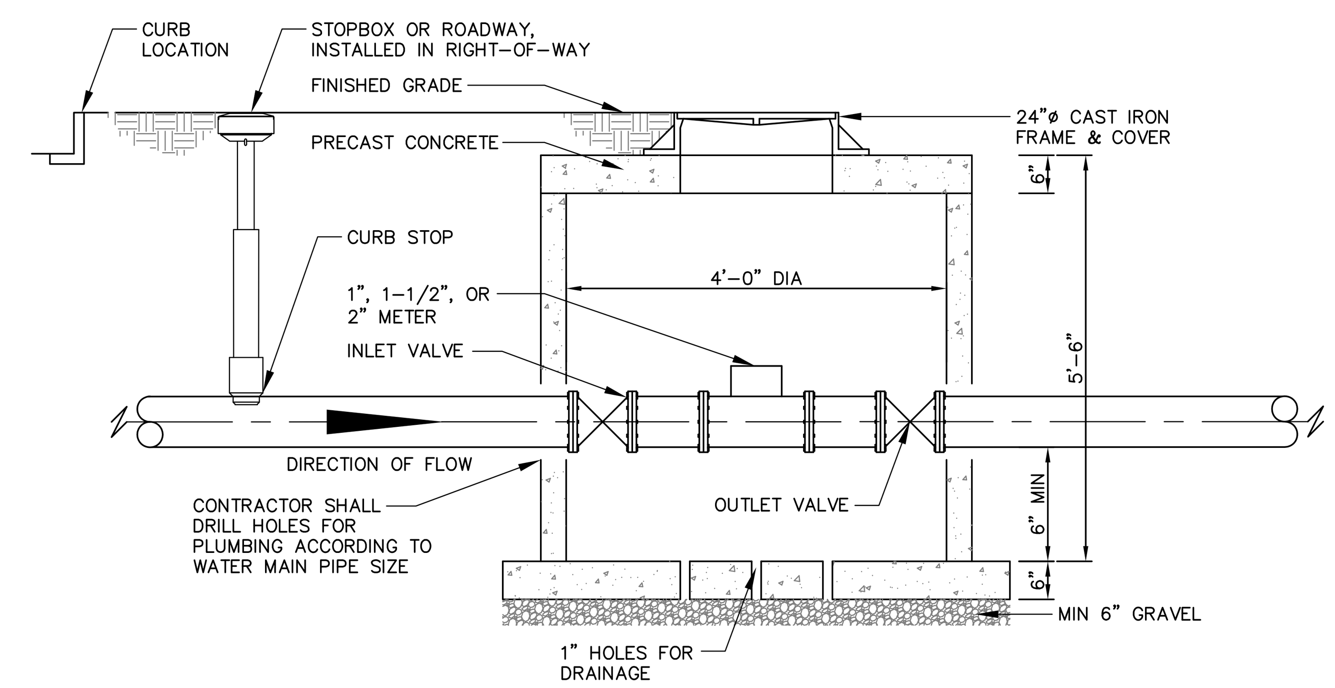
4. EXCAVATE, EXPOSE AND CLEAN WATER MAIN FOR TAP.

5. MATERIAL SUPPLIED BY SOUTH BEND WATER WORKS:
   2" & SMALLER – CORPORATION STOP, CURB STOP AND STOP BOX
   4" & LARGER – TAPPING SLEEVE & VALVE, ROADWAY/VALVE BOX

6. ALL EXCAVATIONS MUST MEET O.S.H.A. EXCAVATION STANDARDS.



1" & 2" TAP EXCAVATION (6/44)
NOT TO SCALE



METER PIT DETAIL (5/44)
NOT TO SCALE

IRRIGATION NOTES:

1. THIS DRAWING IS FOR DIAGRAMMATIC PURPOSES ONLY. SHOP DRAWINGS SHALL BE PROVIDED AND ACTUAL LAYOUT OF SPRINKLER HEADS, VALVES, CONTROLLER AND OTHER EQUIPMENT SHALL BE DETERMINED ON SITE. CONTRACTOR IS RESPONSIBLE FOR THE APPROPRIATE NOZZLE SELECTION AND ARC ADJUSTMENT TO PROVIDE 100% COVERAGE OF THE CONDITIONS AS THEY EXIST ON SITE. MINOR FIELD ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATION OF ALL SITE UTILITIES AND MAKING THE NECESSARY ADJUSTMENTS TO THE IRRIGATION SYSTEM TO ACCOMMODATE THE INFRASTRUCTURE.
3. MAINLINE SHALL BE CLASS 200 PVC PIPE, SIZED AS SHOWN ON PLAN. LATERAL LINES SHALL BE CLASS 160 PVC, SIZED AS SHOWN ON PLAN. MINIMUM LATERAL SIZE SHALL BE 1". (ALL SOLVENT–WELD PIPE)
4. LATERAL LINES SHALL BE SIZED AS FOLLOWS: 0–16 GPM USE 1"; 17–28 GPM USE 1.25"; 29–35 GPM USE 1.5"; 36–55 GPM USE 2". ALL PIPE ON THE UPSTREAM SIDE OF THE CONTROL VALVE SHALL BE CLASS 200 PVC. PIPE DOWNSTREAM OF THE VALVE SHALL BE CL. 160.
5. ALL FITTINGS ARE TO BE SOLVENT WELD SCHEDULE 40 PVC.
6. REMOTE CONTROL VALVES SHALL BE AS NOTED IN LEGEND. ALL VALVES SHALL BE INSTALLED IN VALVE BOXES WITH THE LID MOUNTED AT GROUND LEVEL. VALVE BOXES SHALL BE CARSON 12"X18" RECTANGULAR OR 10" ROUND TYPES. ALL VALVE BOXES SHALL CONTAIN 1/2" PEA GRAVEL FROM THE BOTTOM OF THE BOX UP TO THE BOTTOM OF THE PIPE.
7. QUICK COUPLING VALVES (1") SHALL BE MOUNTED ON 1" TRIPLE ELBOW SWING JOINTS. ONE QUICK COUPLING KEY SHALL BE PROVIDED WITH THE SYSTEM.
8. ALL POP–UP IRRIGATION HEADS SHALL BE INSTALLED ON FUNNY PIPE, OR FLEXIBLE CUT–OFF RISERS, WITH A CLEARANCE OF 6" (MINIMUM) FROM THE EDGE OF ANY NEARBY PAVED AREA.
9. CONTRACTOR IS RESPONSIBLE FOR INSTALLING A WIRELESS RAIN SENSOR IN VICINITY OF CONTROLLER. COORDINATE MOUNTING OF SENSOR WITH OWNER.
10. ALL PIPING SHALL BE INSTALLED: MAINLINE AT 18" BELOW GRADE, LATERALS AT 12"–16" BELOW GRADE.
11. ALL LATERAL PIPE SHALL BE PULLED WITH A VIBRATORY PLOW. THE 'SLIT–DOME' SHALL BE COMPACTED TO ITS ORIGINAL GRADE.
12. CONTRACTOR IS RESPONSIBLE FOR SETTLING OF ALL TRENCHES AND SPRINKLER HEADS FOR A PERIOD OF ONE YEAR.
13. THE IRRIGATION CONTROLLER IS EXISTING AND IS NOT SHOWN ON IRRIGATION PLANS. REFER TO EXISTING IRRIGATION SYSTEM AS–BUILTS.
14. ALL STATION WIRE SHALL BE #14. THE COMMON WIRE SHALL BE #14 GAUGE AND COLORED WHITE, WHILE THE STATION WIRE SHALL BE OF ONE OTHER COLOR.
15. ALL SLEEVES 4" AND SMALLER SHALL BE SCHEDULE 40 PVC. SLEEVES 6" AND LARGER SHALL BE CLASS 200 PVC. ALL SLEEVES SHALL BE TWICE THE NOMINAL SIZE OF THE PIPE TO BE CARRIED. SLEEVES TO CARRY WIRE ONLY SHALL BE 2". DEPTH OF THE TOP OF THE SLEEVE SHALL BE 18" BELOW SUBGRADE. IRRIGATION CONTRACTOR SHALL PLACE ALL SLEEVES AS SHOWN, UNLESS DIRECTED OTHERWISE.
16. CONTRACTOR SHALL WARRANTY THE SYSTEM FOR ONE FULL YEAR FROM THE DATE OF ACCEPTANCE.
17. CONTRACTOR SHALL PROVIDE 'AS–BUILT' DRAWINGS OF THE COMPLETED INSTALLATION TO THE OWNER ON REPRODUCIBLE VELLUM. AS–BUILT DRAWINGS SHALL BE THE SAME SCALE AS THE ORIGINAL DRAWINGS.
18. CONTRACTOR SHALL CONDUCT A TRAINING SESSION WITH THE OWNER (OR REPRESENTATIVES) DEMONSTRATING THE OPERATION OF THE SYSTEM AND THE CONTROLLER. AS PART OF THIS TRAINING, CONTRACTOR SHALL PROVIDE ONE SPRING START–UP AND ONE FALL SHUT–DOWN OF THE SYSTEM.
19. CONTRACTOR SHALL VERIFY LOCATION OF PROPERTY LINES, RIGHT–OF–WAYS, AND EASEMENTS ON THE SITE. THEY SHALL CONFIRM THESE LOCATIONS WITH THE OWNER, THEN OBTAIN THE NECESSARY PERMITS/APPROVALS BEFORE INSTALLATION COMMENCES.
20. ALL TREES NOT WITHIN IRRIGATED AREAS SHALL RECEIVE TEMPORARY IRRIGATION BAGS, SEE TREE PLANTING DETAIL ON LANDSCAPE PLAN. CONTRACTOR SHALL PROVIDE WATER TO TREES DURING REQUIRED MAINTENANCE PERIOD.

DRIP IRRIGATION NOTES

1. PROVIDE DRIP IRRIGATION IN PLANTING AND LAWN AREAS AS SHOWN

2. DRIP TUBING SHALL BE FED BY 1" PVC PIPE WITH LANDSCAPE STAPLES EVERY 36" IN PLANT BEDS. IN LAWN AREAS INSTALL DRIP TUBE 6" BELOW THE SURFACE AND STAPLE EVERY 36".

4. DRIP TUBING SHALL BE INSTALLED SO THAT THERE ARE NO "DEAD–ENDS" IN THE ZONE. LINES SHALL BE INSTALLED 18" APART THROUGHOUT THE BEDS, STARTING 2" FROM THE EDGE OF THE BED.

5. A DISC FILTER AND PRESSURE REGULATOR SHALL BE INSTALLED IMMEDIATELY DOWNSTREAM FROM THE CONTROL VALVE FOR EACH DRIP ZONE.

6. INSTALL MANUAL DRAIN VALVE (#TLSOV) AT THE END POINT(S) OF EACH DRIP ZONE, IN A VALVE BOX.

WATER SUPPLY LINE NOTES

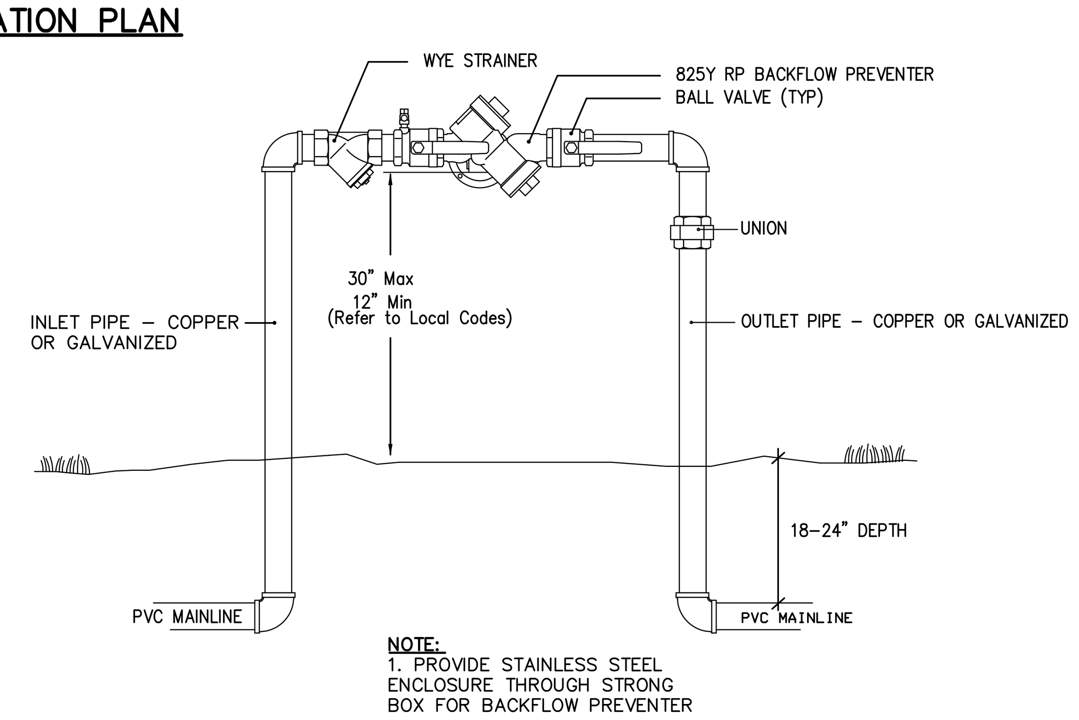
1. USE SCHEDULE 40 OR HIGHER (NO THIN WALL PIPE).

2. IF 90° BENDS ARE NECESSARY, USE ONLY SWEEPING 90° OR 2–45° BENDS WITH 1' SECTION IN THE MIDDLE.

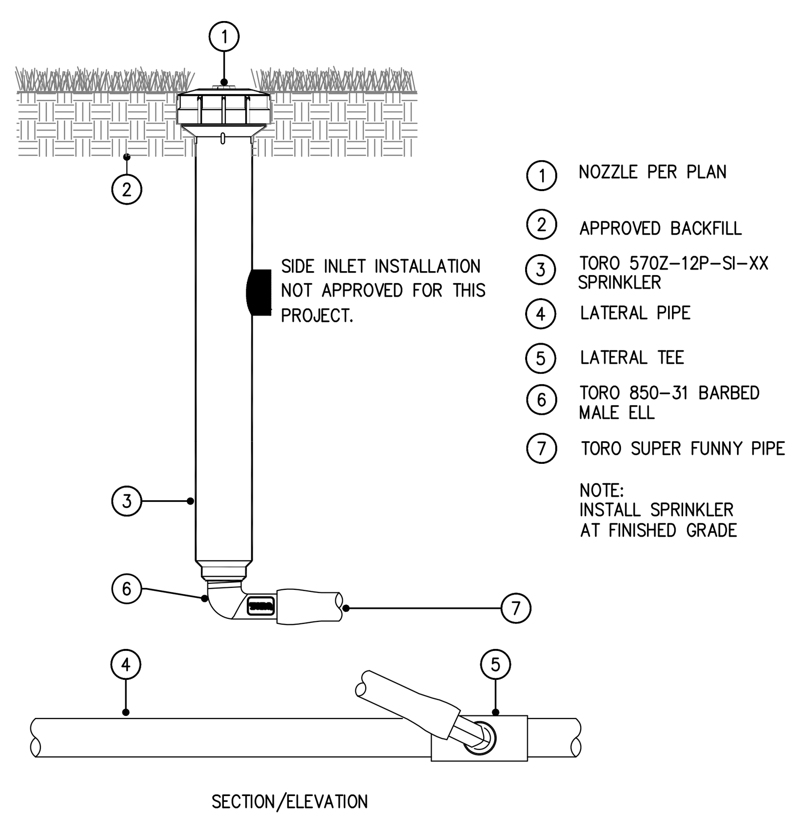
3. MARK EXACT LOCATION OF ALL SLEEVES. CONTRACTOR SHALL PROVIDE EXACT LOCATIONS OF SUPPLY LINE SLEEVING ON AS–BUILT DRAWINGS.

4. INSTALL PIPE 6" UNDER BOTTOM OF CURB EXTENDING INTO PLANTING AREAS.

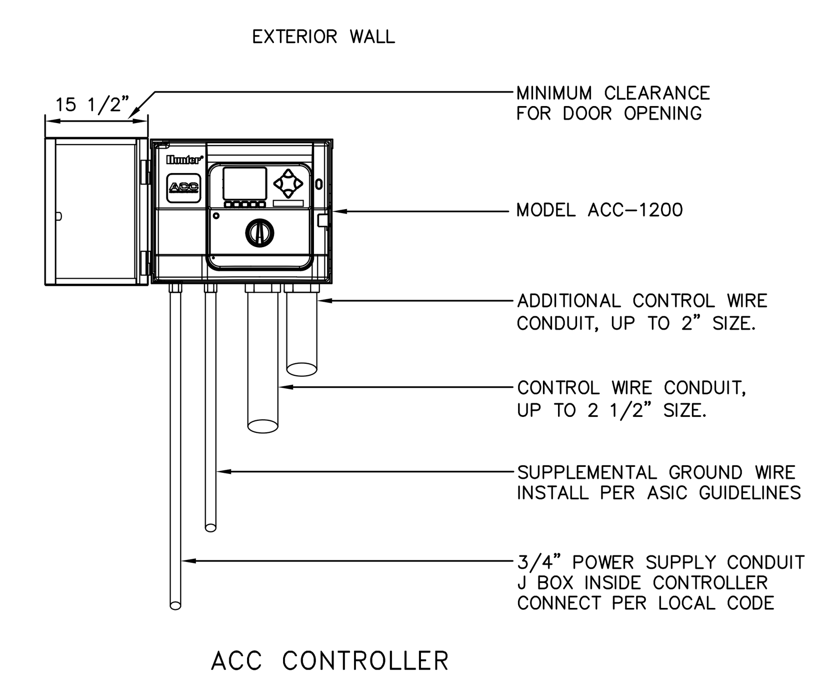
5. SLEEVING SHALL BE 2X (TIMES) THE SIZE OF THE WATER SUPPLY PIPE.



FEBCO #825Y RP BACKFLOW PREVENTER (4/44)
NOT TO SCALE



FIXED SPRAY SPRINKLER (3/44)
NOT TO SCALE



WALL MOUNT (2/44)
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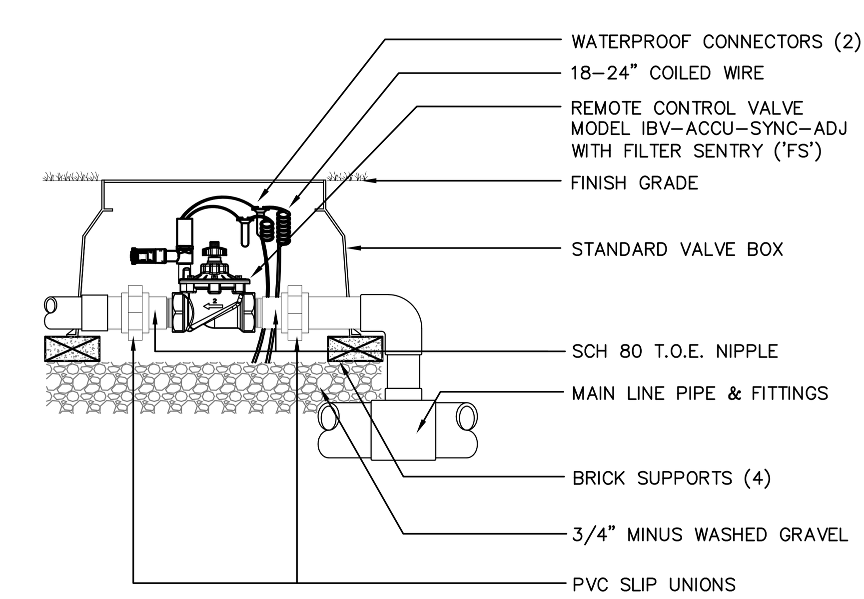

IBV GLOBE VALVE (1/44)
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REGISTERED
NO. 20500170
STATE OF INDIANA
LANDSCAPE ARCHITECT

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	1/6/2016 DATE	CITY OF SOUTH BEND BARTLETT ST IMPROVEMENTS PHASE II	HORIZONTAL SCALE: 1" = 20'	BRIDGE FILE
				VERTICAL SCALE: -	DESIGNATION: –
DESIGNED: C.R.C.	DRAWN: R.J.H		IRRIGATION PLAN & DETAILS	SURVEY BOOK	SHEETS 44 of 55
CHECKED: B.B.K.	CHECKED: M.E.W.			CONTRACT: –	PROJECT 114–032B

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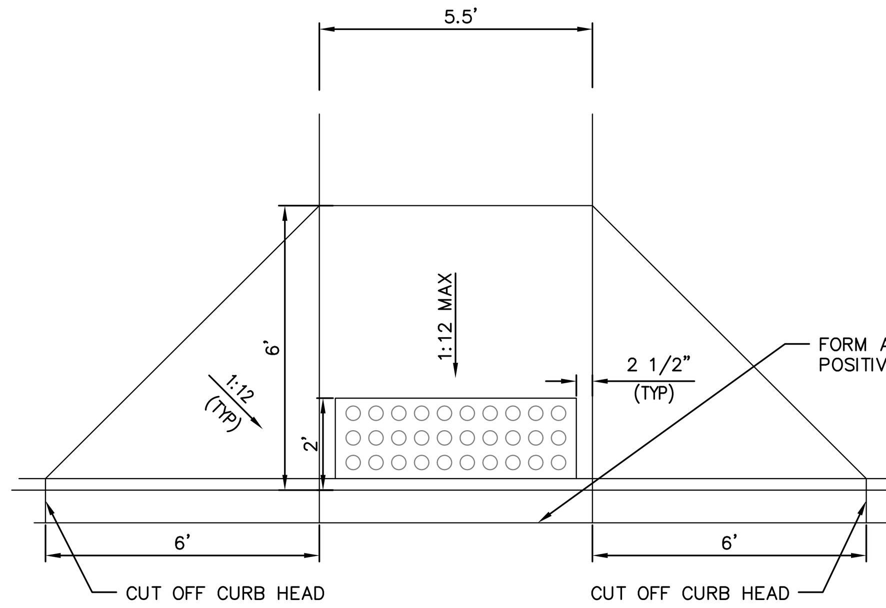
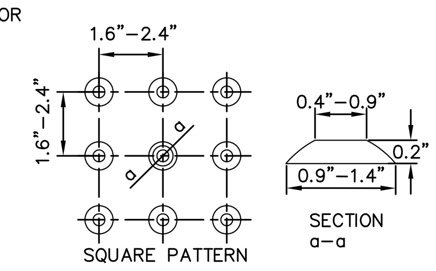
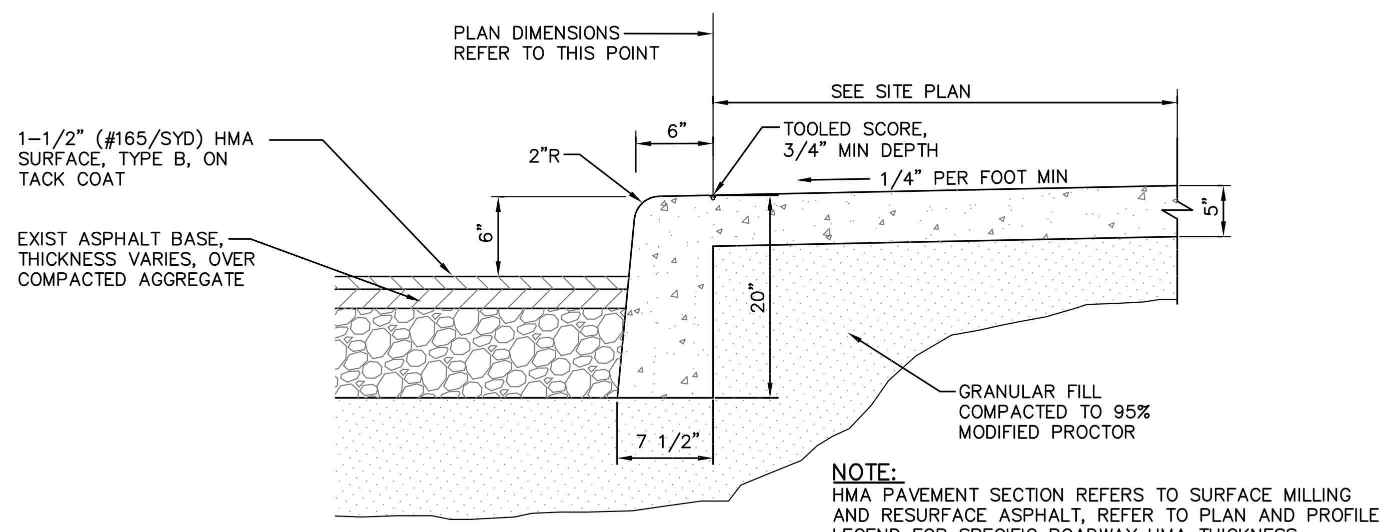




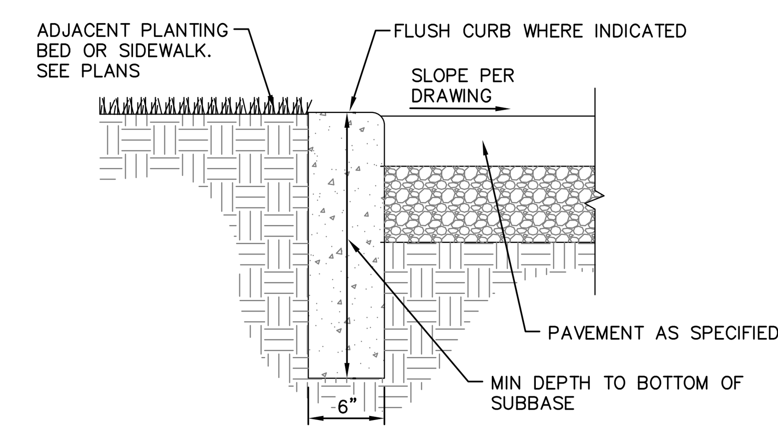
TRUNCATED DOMES USED IN DETECTABLE WARNINGS

BARRIER FREE RAMP (7/45)
NOT TO SCALE

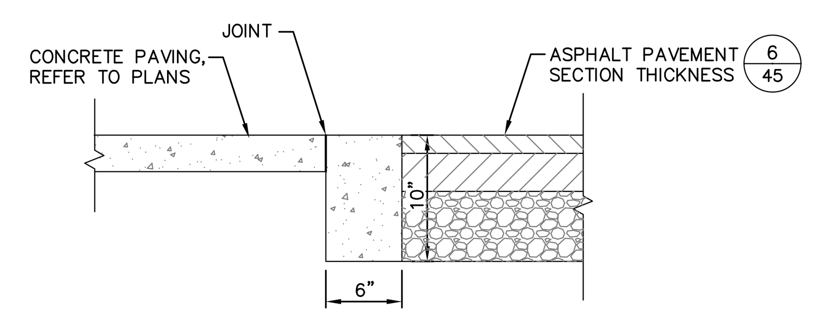


NOTE:
HMA PAVEMENT SECTION REFERS TO SURFACE MILLING AND RESURFACE ASPHALT, REFER TO PLAN AND PROFILE LEGEND FOR SPECIFIC ROADWAY HMA THICKNESS.

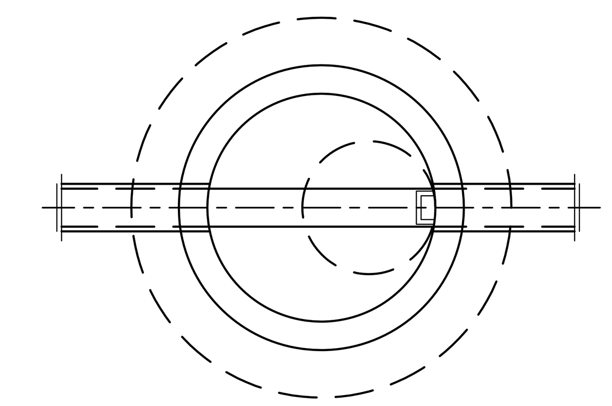
STRAIGHT CURB WALK & PAVEMENT SECTION (6/45)
NOT TO SCALE



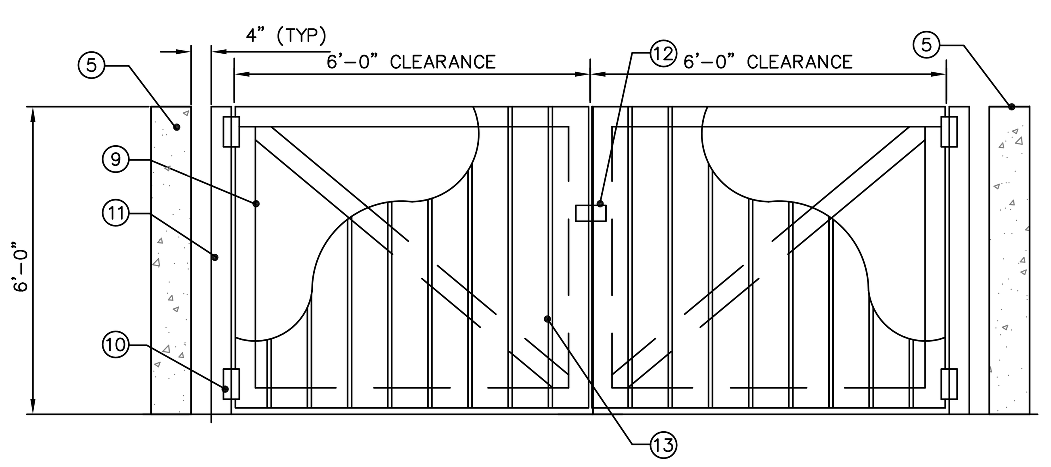
FLUSH CONCRETE CURB (4/45)
NOT TO SCALE



THICKENED SIDEWALK EDGE DETAIL (2/45)
NOT TO SCALE

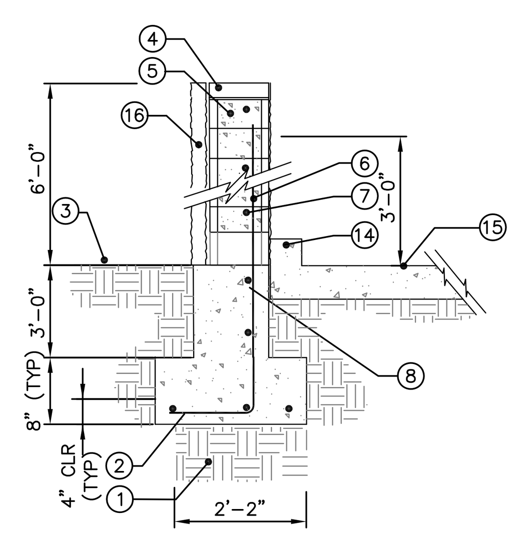


PLAN

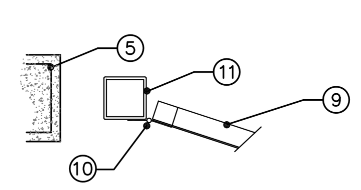


ELEVATION

NOTES:
-PAINT METAL GATE AND POSTS WITH 1 COAT EXTERIOR PRIMER AND 2 COATS EXTERIOR ENAMEL COLOR BLACK, OR APPROVED EQUAL.



SECTION THROUGH WALL

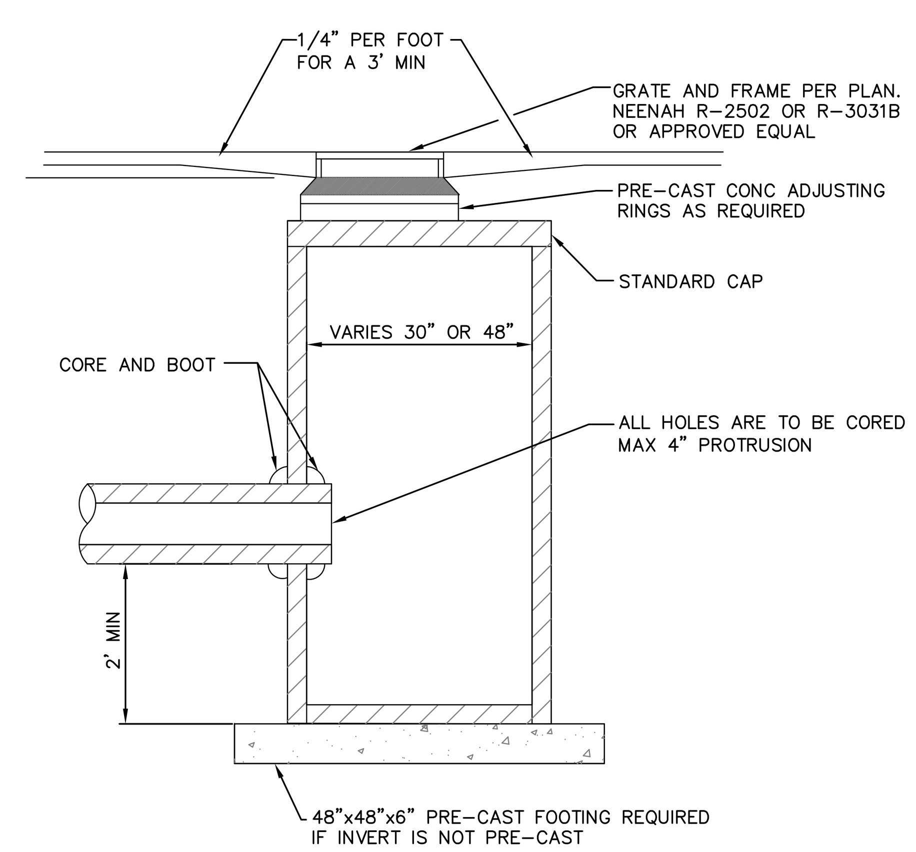


GATE DETAIL

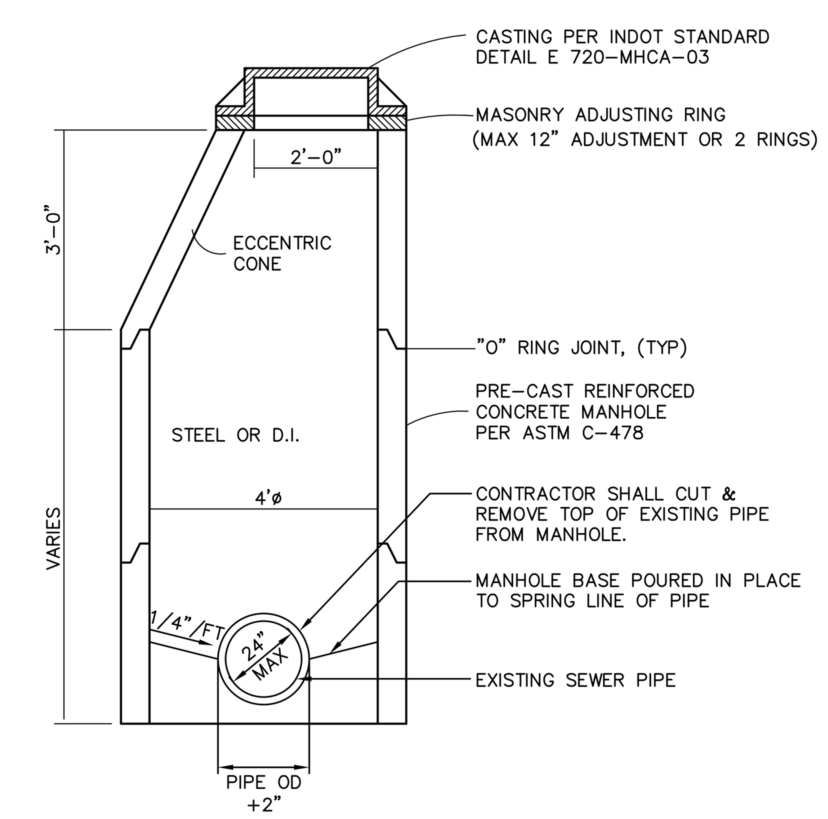
LEGEND:

1. COMPACTED SUBGRADE – PER SOILS REPORT
2. 8" CONC. FOOTING W. (3) #4 REBAR X CONT. AND #4 REBAR AT 24" O.C.
3. PLANTING AREA, SEE PLANS
4. PREFABRICATED CONCRETE CAP TO MATCH BUILDING
5. 8 X 8 X 6 CMU BLOCK, GROUND FACE
6. #4 REBAR VERTICAL (WALL) AT 24" O.C. (TYP)
7. #4 REBAR HORIZONTAL (WALL) EVERY OTHER CELL
8. #4 REBAR X CONT.
9. 2" X 2" X 3/16" TUBE STEEL FRAME GATE
10. HEAVY GATE HINGE (TYP) HINGE COLOR TO MATCH GATE, CONTINUOUS WELD TO STEEL FRAME AND POST AND GRIND SMOOTH
11. 6" X 6" X 1/4" TUBE STEEL POST W/ CAP
12. SET 1/2" DIA GALVANIZED STEEL ROD INTO DROP ROD ASSEMBLY. WELD ASSEMBLY TO GATE FRAME PER MANUFACTURER RECOMMENDATIONS.
13. 20 GA. GALVANIZED METAL ROOF DECK, FM–2 TYPE, COLOR BLACK
14. 6" CONCRETE CURB
15. CONCRETE SLAB, 6" THICK
16. BRICK VENEER, BRICK COLOR SHALL MATCH ADJACENT EXISTING BUILDING AND PARKING GARAGE, OR APPROVED EQUAL.

TRASH ENCLOSURE (5/45)
NOT TO SCALE



STANDARD CATCH BASIN (3/45)
NOT TO SCALE



SECTION

DOG HOUSE MANHOLE, MODIFIED (1/45)
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DESIGNED: C.R.C. | DRAWN: R.J.H
CHECKED: B.B.K. | CHECKED: M.E.W.

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BARTLETT ST IMPROVEMENTS PHASE II

STORM & MISC. DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	
VERTICAL SCALE	DESIGNATION
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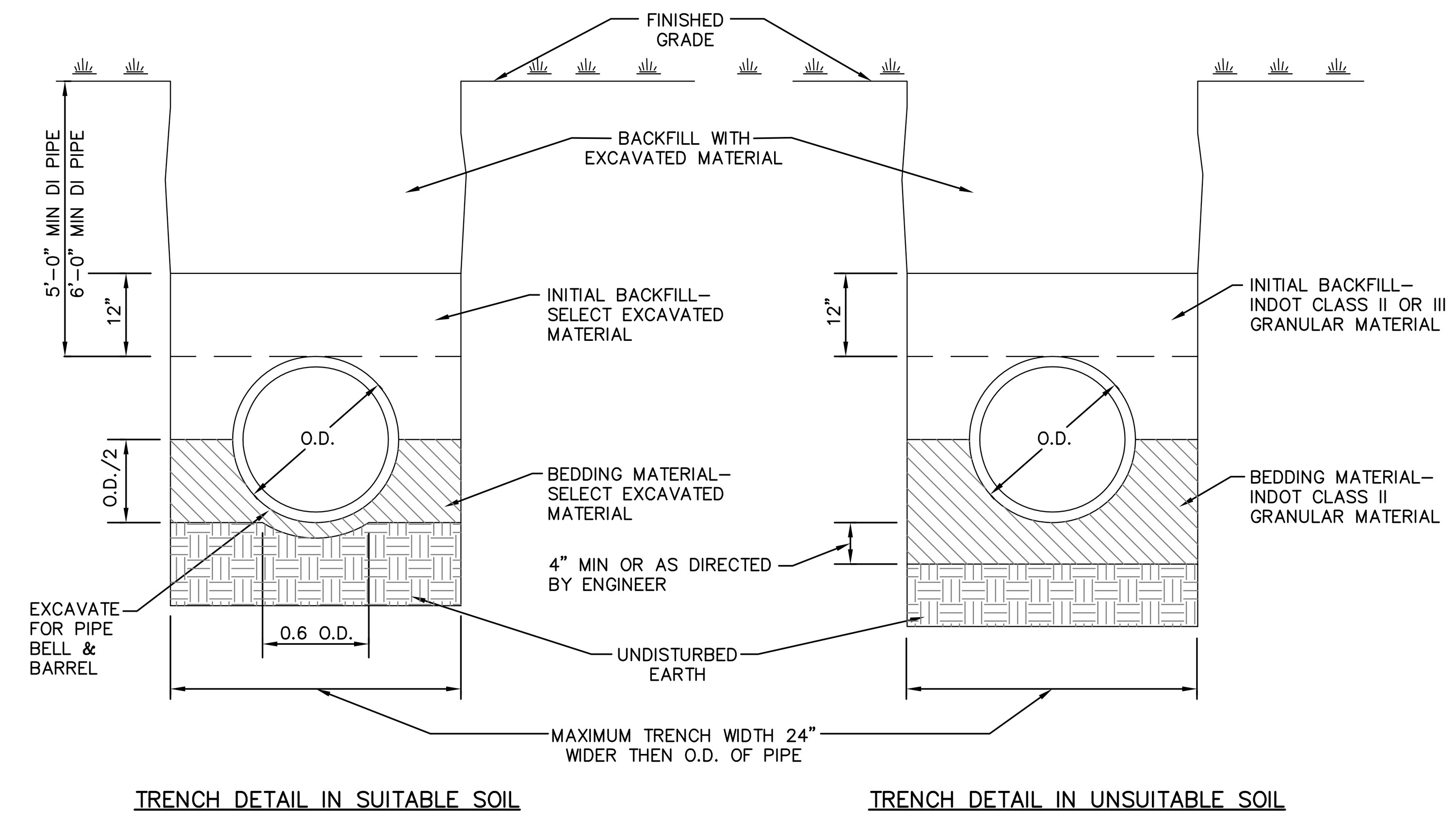
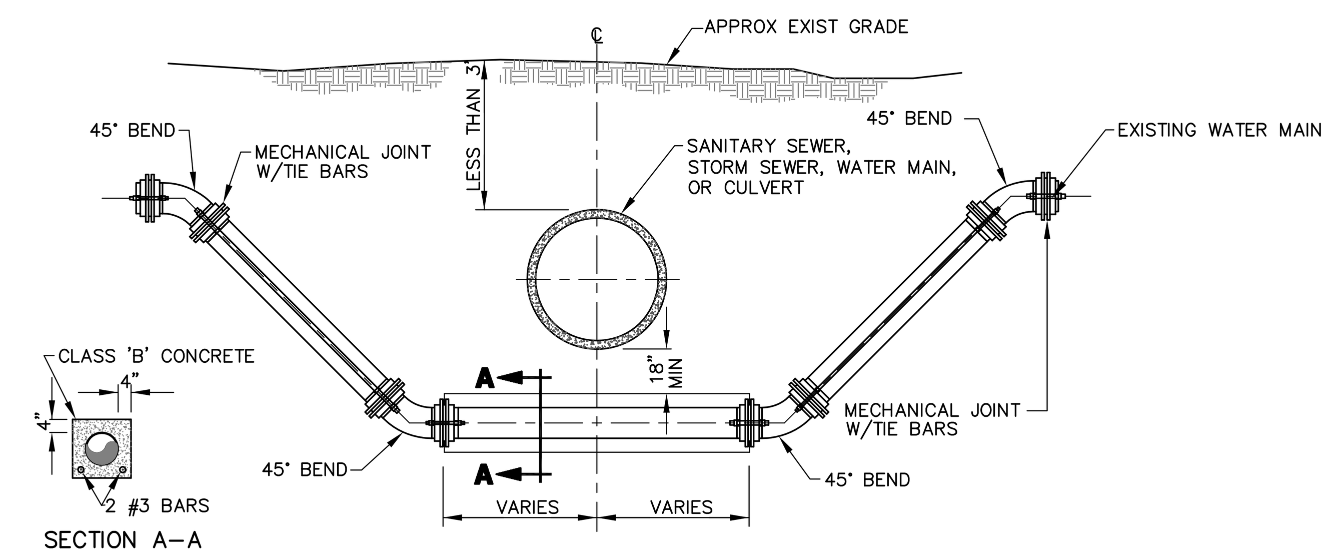
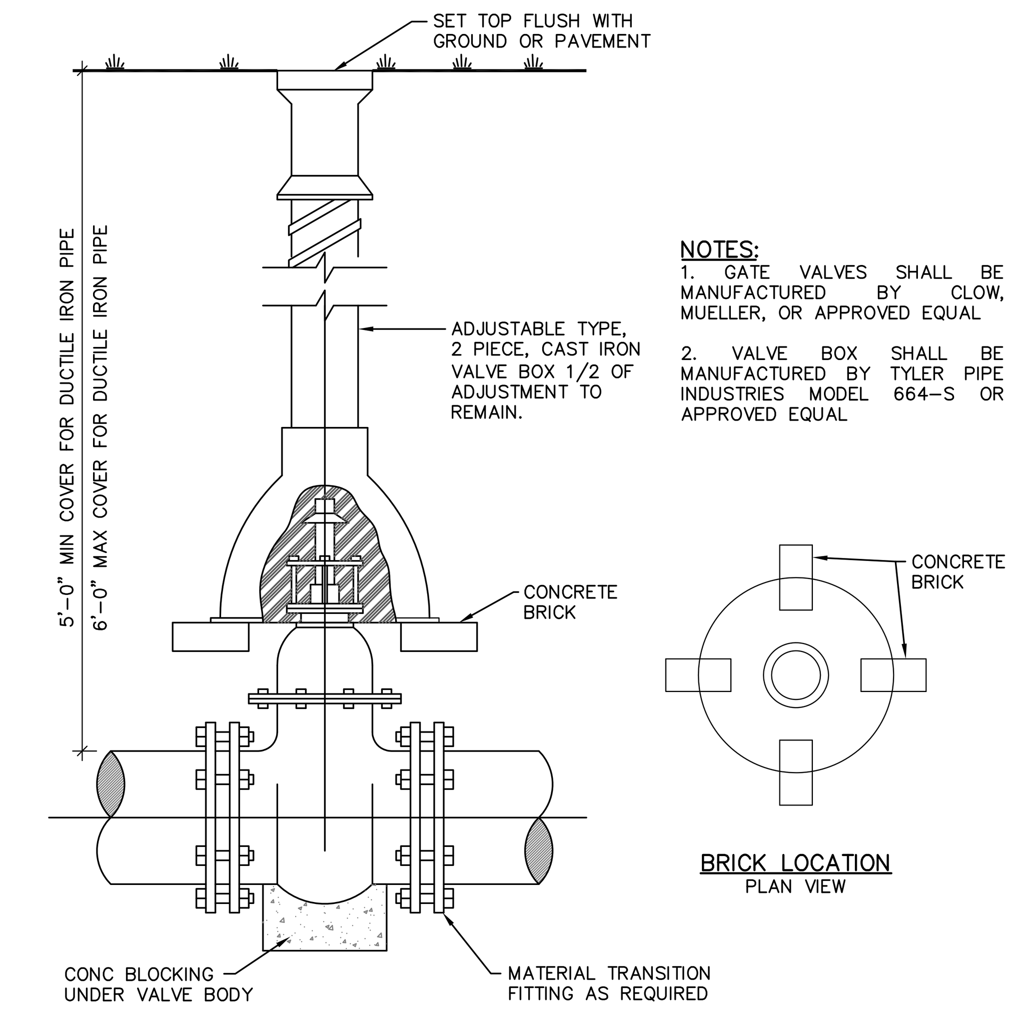


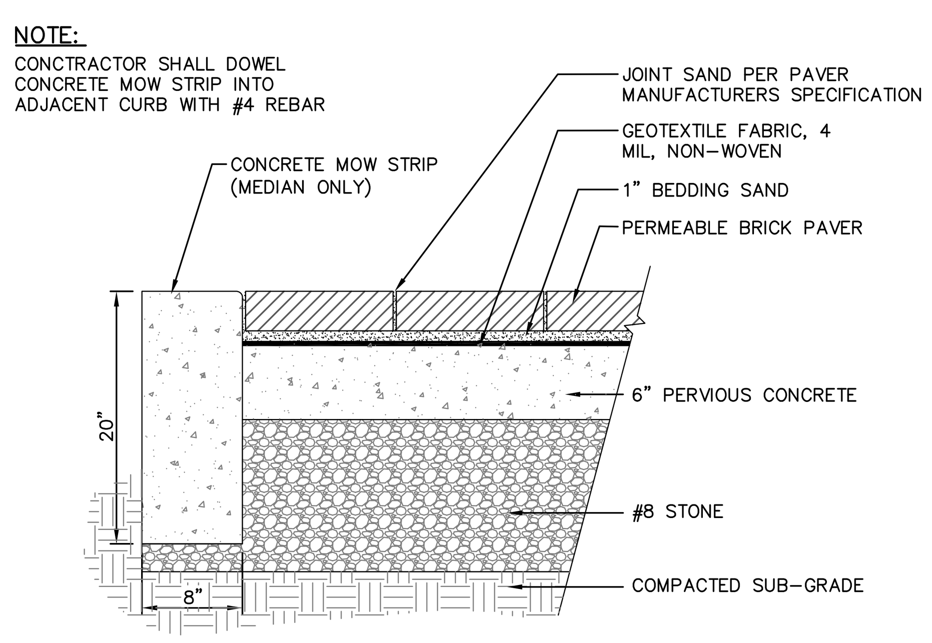
WATER MAIN BEDDING DETAIL 1/46
NOT TO SCALE



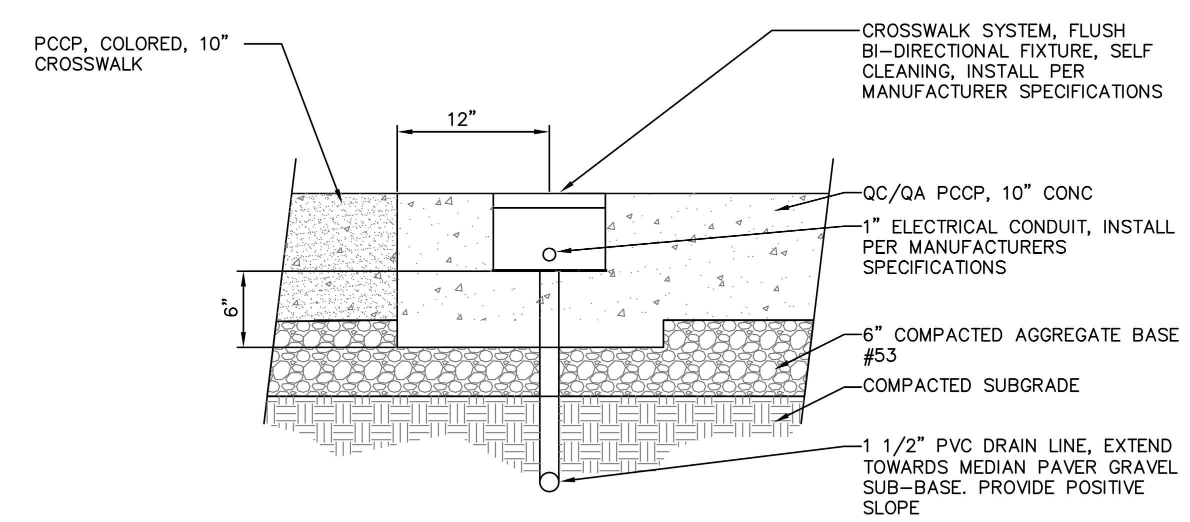
INSTALLING MAINS UNDER SEWERS OR CULVERTS 2/46
NOT TO SCALE



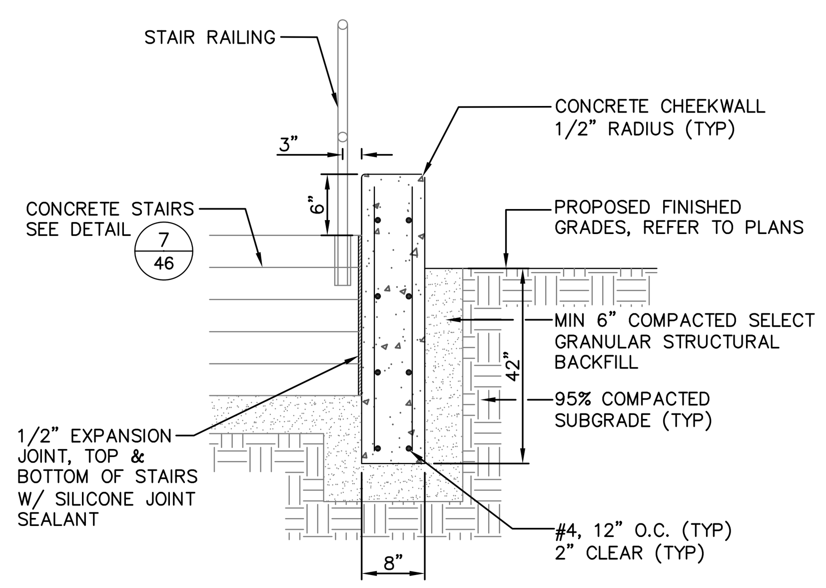
TYPICAL GATE VALVE & VALVE BOX 3/46
NOT TO SCALE



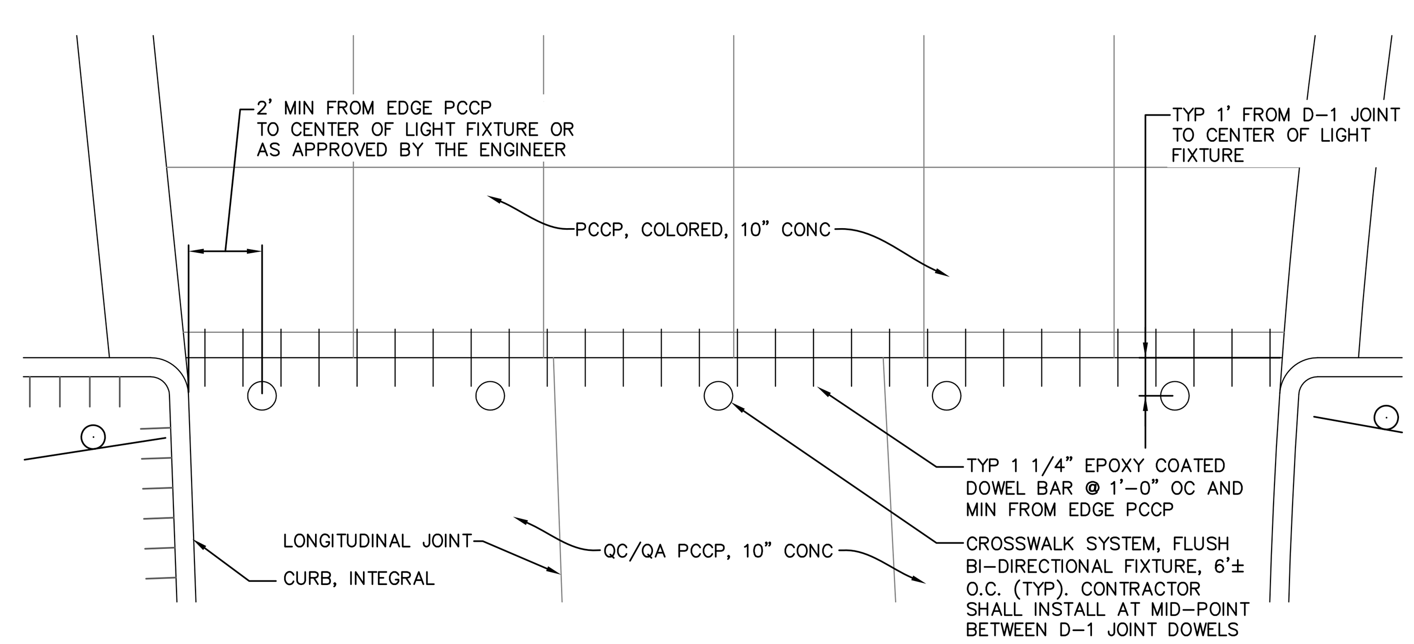
DECORATIVE BRICK 4/46
NOT TO SCALE



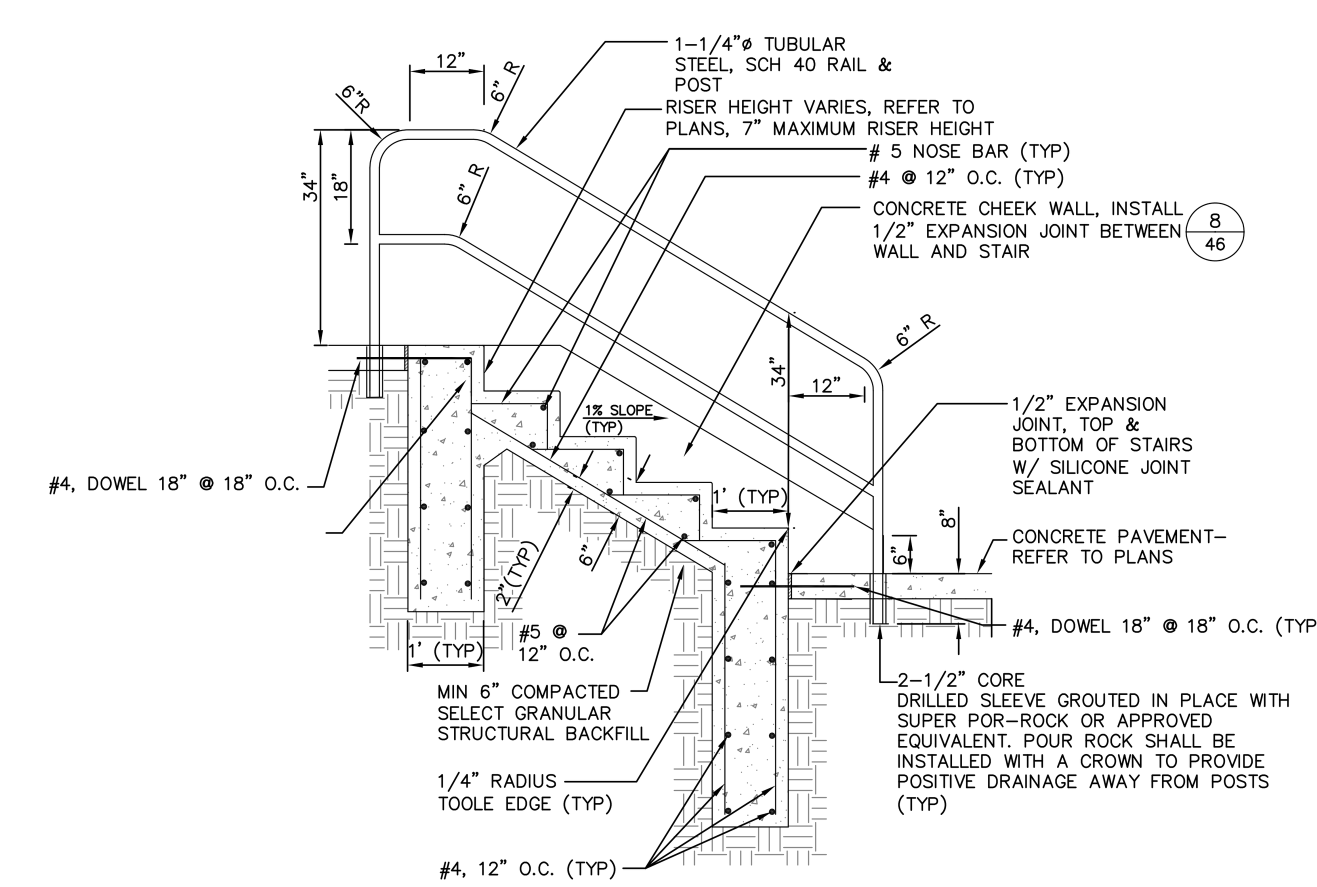
FLUSH BI-DIRECTIONAL LIGHT FIXTURE DETAIL 5/46
NOT TO SCALE



CHEEKWALL DETAIL 8/46
NOT TO SCALE



D-1 JOINT AND FLUSH BI-DIRECTIONAL FIXTURES 6/46
NOT TO SCALE



CONCRETE STAIR AND RAILING DETAIL WITH CHEEKWALL 7/46
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CHECKED: B.B.K.		CHECKED: M.E.W.	

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

WATER & MISC. DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	
VERTICAL SCALE	DESIGNATION
-	-
SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
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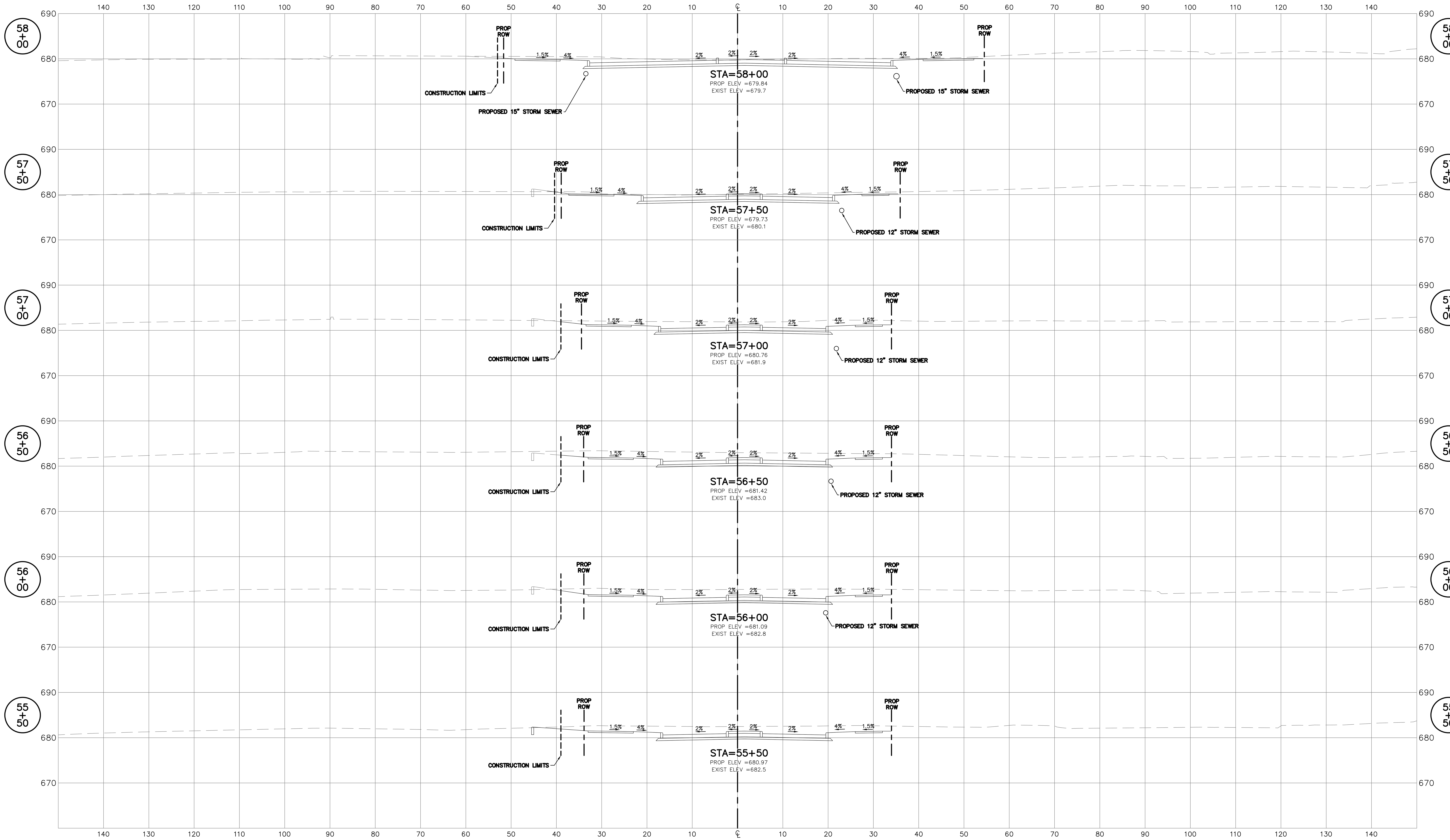

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CROSS SECTIONS
LINE 'B' - BARTLETT STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
1" = 10'	-
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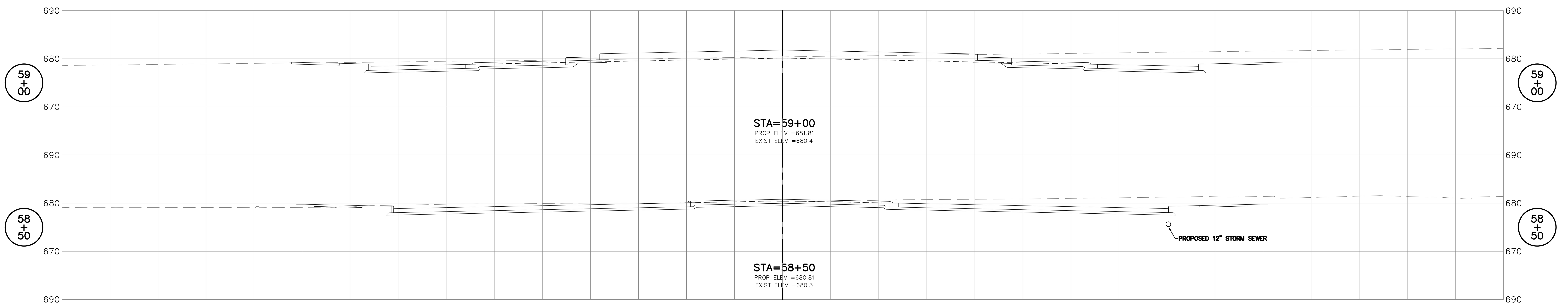

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LINE 'B' - BARTLETT STREET

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1" = 10'	
VERTICAL SCALE	DESIGNATION
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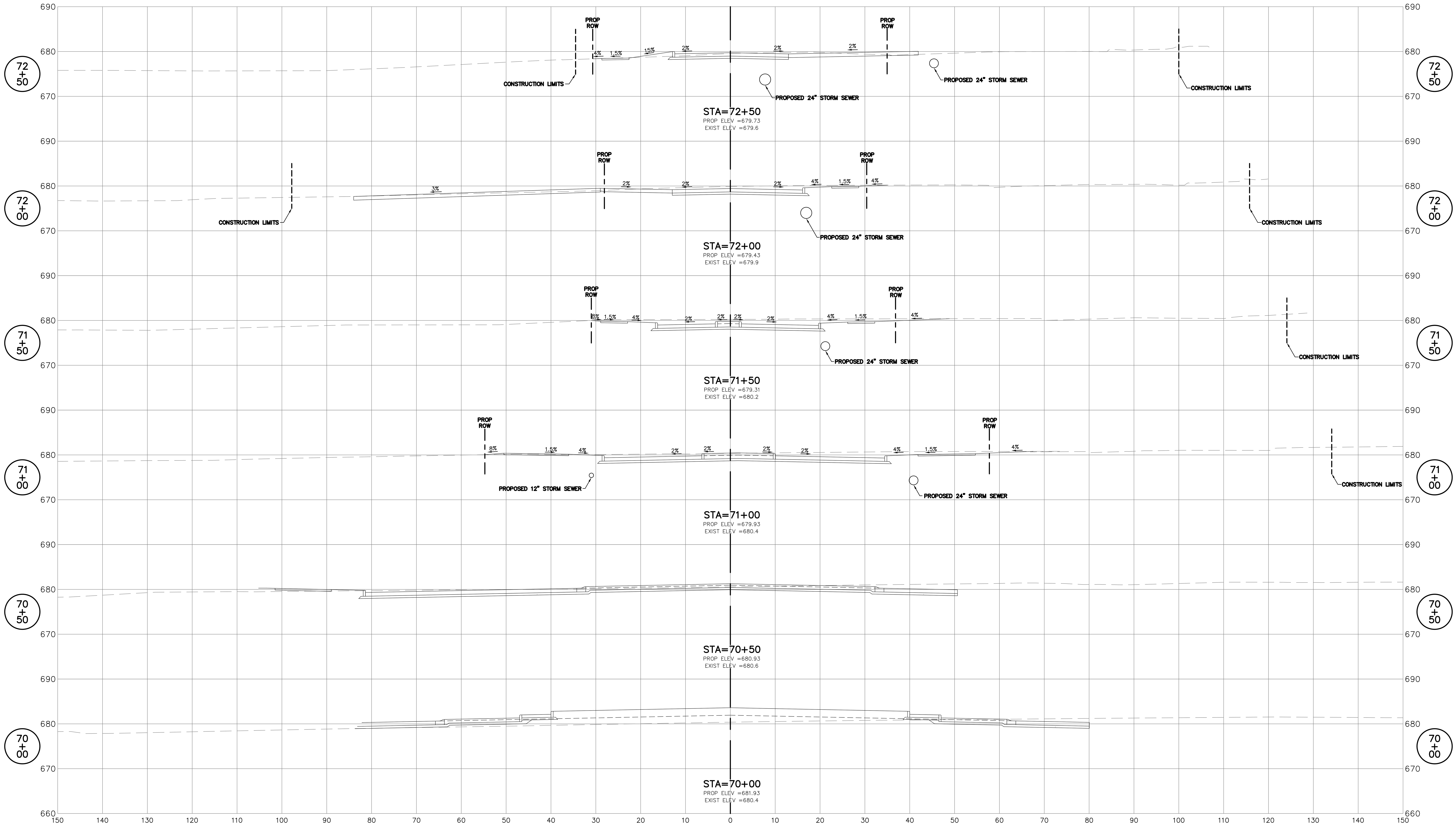

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HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
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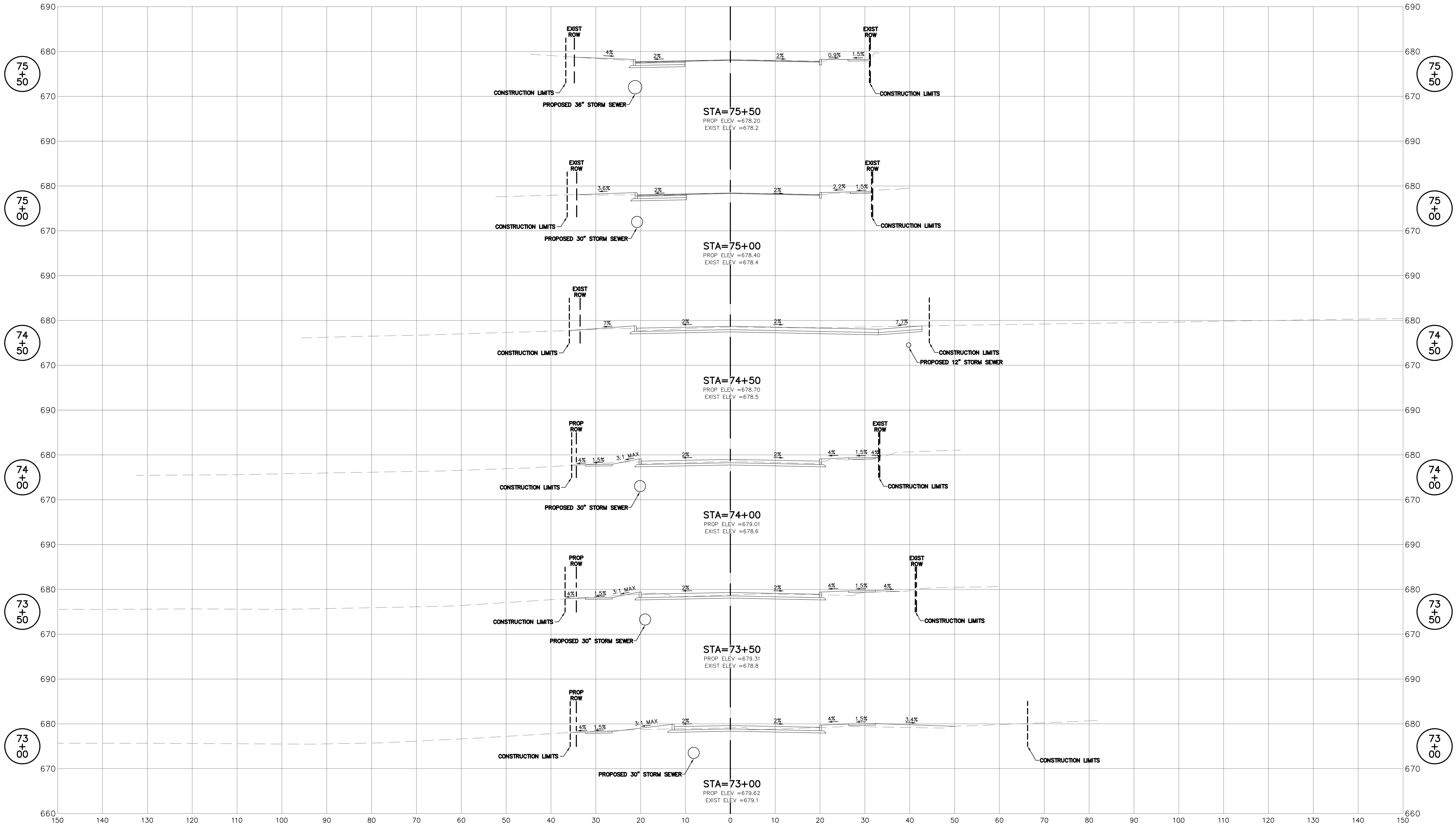

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CROSS SECTIONS
LINE 'E' - BARTLETT STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
1" = 10'	-
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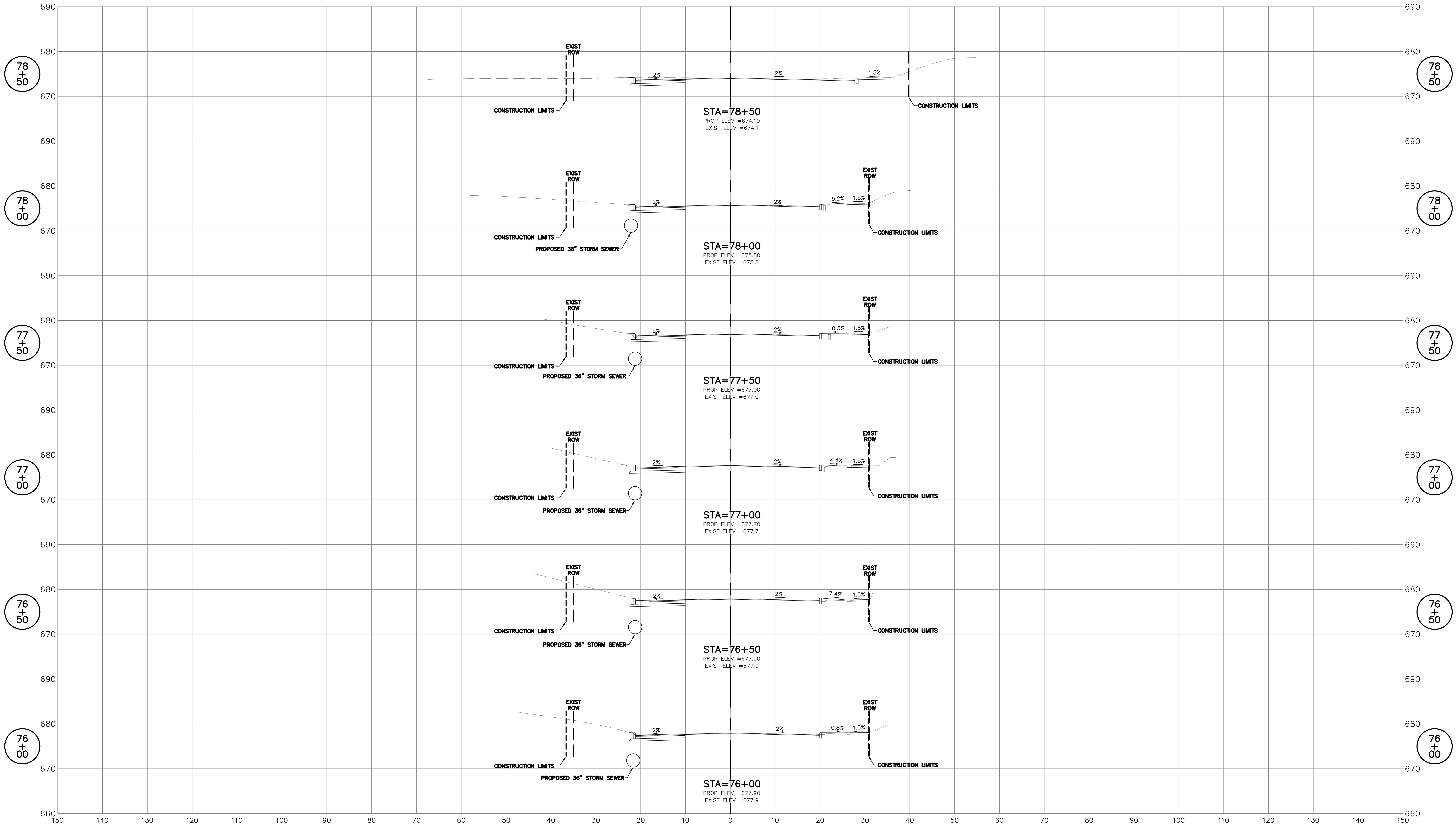

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CROSS SECTIONS
LINE 'E' – BARTLETT STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
1" = 10'	–
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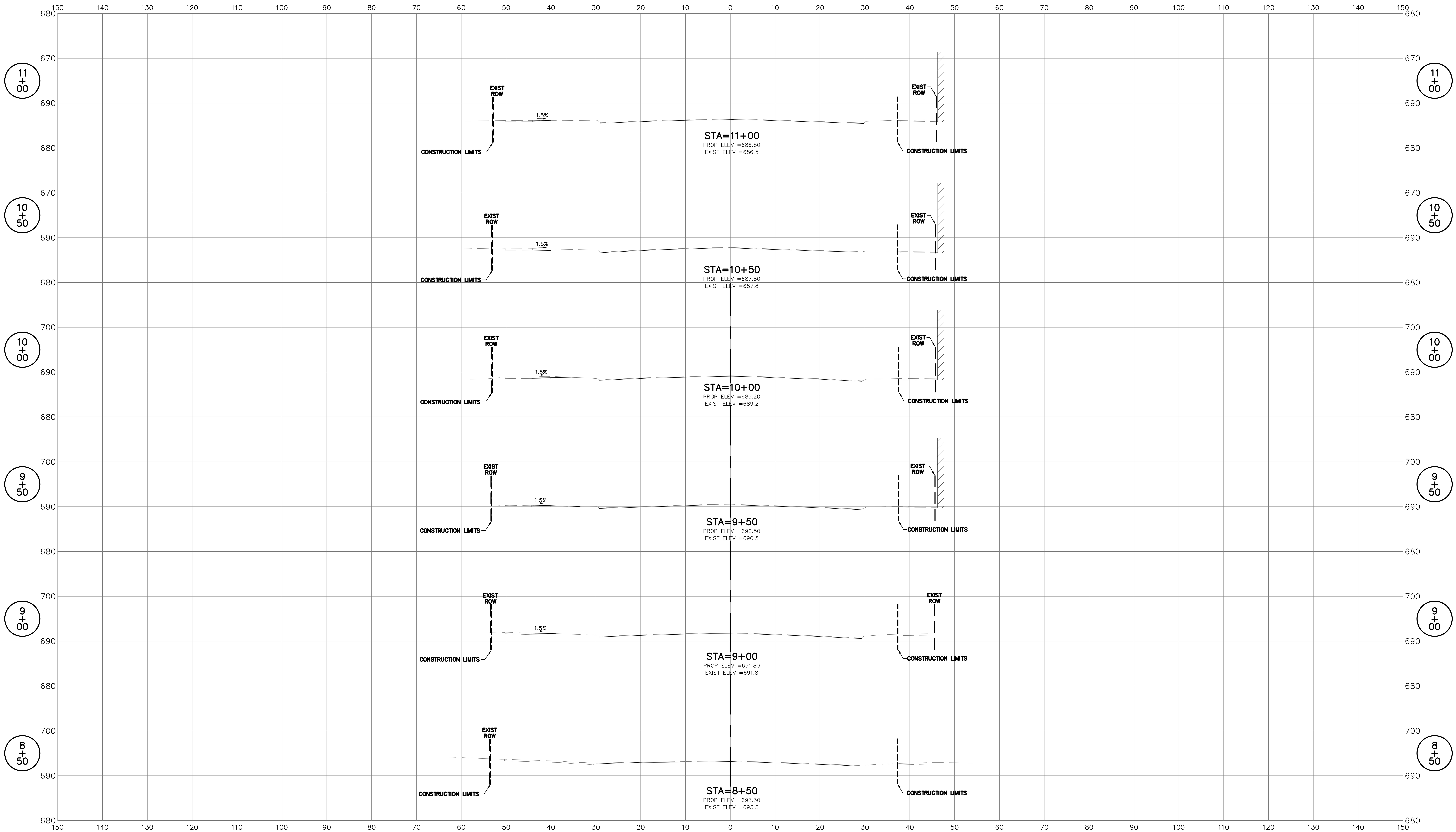

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CROSS SECTIONS
LINE 'CC' – MICHIGAN STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
1" = 10'	–
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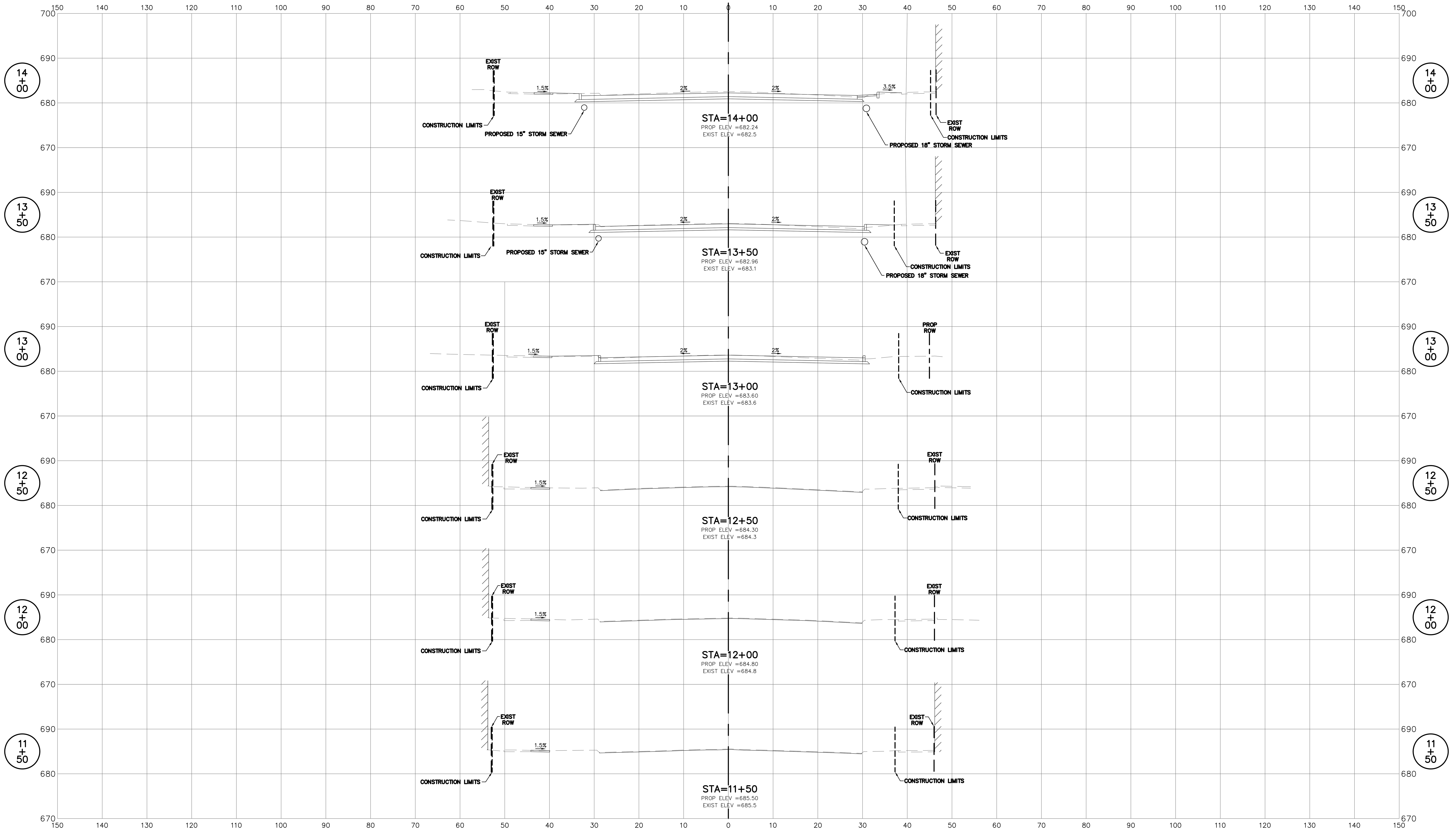

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BARTLETT ST IMPROVEMENTS PHASE II

CROSS SECTIONS
LINE 'CC' – MICHIGAN STREET

HORIZONTAL SCALE	BRIDGE FILE
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VERTICAL SCALE	DESIGNATION
1" = 10'	–
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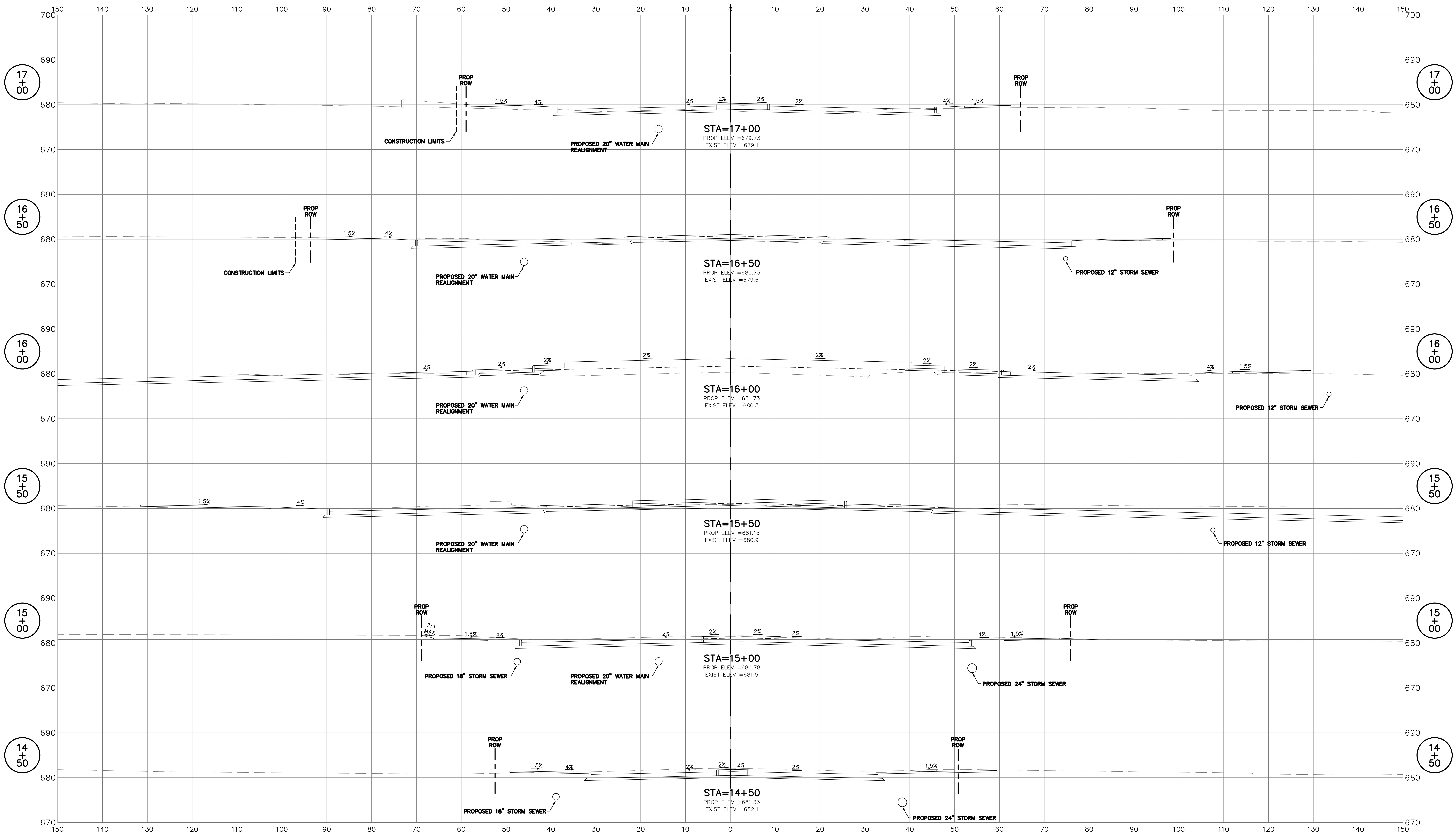

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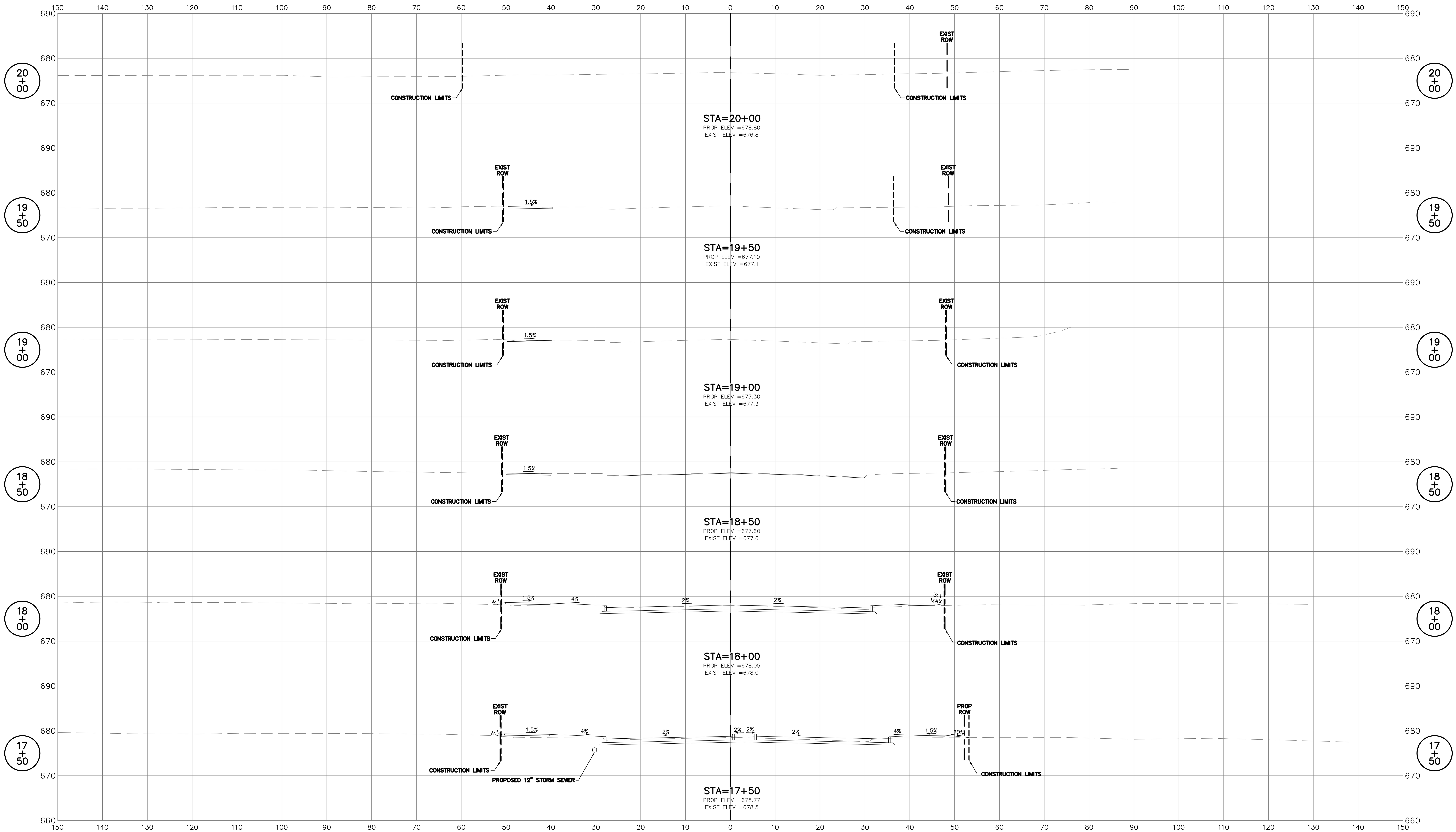
BARTLETT ST IMPROVEMENTS PHASE II

CROSS SECTIONS
LINE 'CC' – MICHIGAN STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
1" = 10'	–
SURVEY BOOK	SHEETS
	54 of 55
CONTRACT	PROJECT
–	114-032B

X-2017



RECOMMENDED FOR APPROVAL	1/6/2016
DESIGN ENGINEER	DATE
DESIGNED: C.R.C.	DRAWN: R.J.H
CHECKED: B.B.K.	CHECKED: M.E.W.

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CITY OF SOUTH BEND
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