

UTILITIES

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

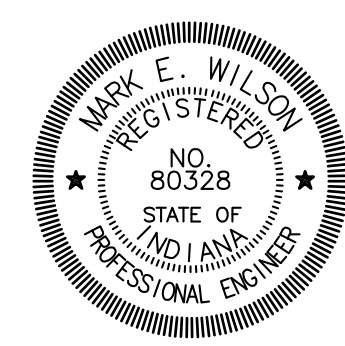
FIBER OPTIC
 METRONET
 121 S. MICHIGAN STREET
 SOUTH BEND, IN 46601
 (574) 360-7812

REVISIONS		
SHEET NO.	DATE	REVISED
19, 20	1/16/2016	WATER MAIN REVISIONS
20A, 20B, 20C	1/16/2016	MICHIGAN STREET ADDITIONAL MILL & RESURFACE PLANS
2	1/21/2016	ADDED REVISION TABLE
16	1/21/2016	ADD STORM WATER QUALITY TREATMENT UNIT
20A, 20B, 20C	1/21/2016	MILL AND RSURFACE PLAN REVISIONS
20D, 20E	1/21/2016	ADDED MILL AND RESURFACE INTERSECTION DETAILS SHEETS
21	1/21/2016	ADD STORM WATER QUALITY TREATMENT UNIT
32	1/21/2016	ADD EXPANSION JOINT
33	1/25/2016	ADD EARTHWORK CALCULATIONS
38 - 40	1/28/2016	CROSSWALK SYSTEM AS ALTERNATE WORK ITEM

INDEX	
SHEET NO.	DRAWING INDEX
	COVER SHEET
1	TABLE OF CONTENTS - INDEX SHEET
2-4	TOPOGRAPHIC SURVEY SHEET & DATA
5	PLAT No. 1
6	BARTLETT ROUNDABOUT PLAN
7-8	TYPICAL PAVEMENT SECTIONS
9-13	MAINTENANCE OF TRAFFIC
14	PLAN & PROFILE LINE 'B' - BARTLETT ST
15-17	PLAN & PROFILE LINE 'E' - BARTLETT ST
18-20	PLAN & PROFILE LINE 'CC' - MICH ST
21	STRUCTURE DATA TABLE
22	SHEET SIGN & POST TABLE
23	PAVEMENT QUANTITIES & APPROACH TABLE
24	SPOT ELEVATION DETAIL
25-26	GEOMETRIC PLAN
27-28	SITE DIMENSIONAL PLAN
29-30	SITE GRADING PLAN
31	SPLITTER ISLAND DETAILS
32	JOINT LAYOUT
33	ROUNDABOUT ISLAND LAYOUT
34	ROUNDABOUT CROSS SECTIONS
35-36	PAVEMENT MARKING & SIGNAGE PLAN
37	EROSION CONTROL PLAN
38-40	SITE LIGHTING PLAN
41-42	LANDSCAPE PLAN & DETAILS
43-44	IRRIGATION PLAN & DETAILS
45-46	DETAILS
47-55	CROSS SECTIONS



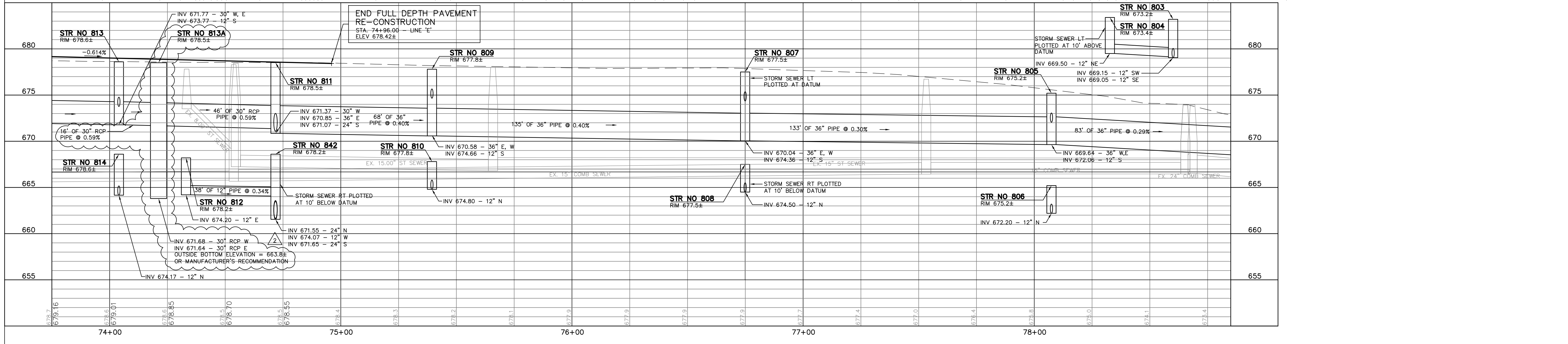
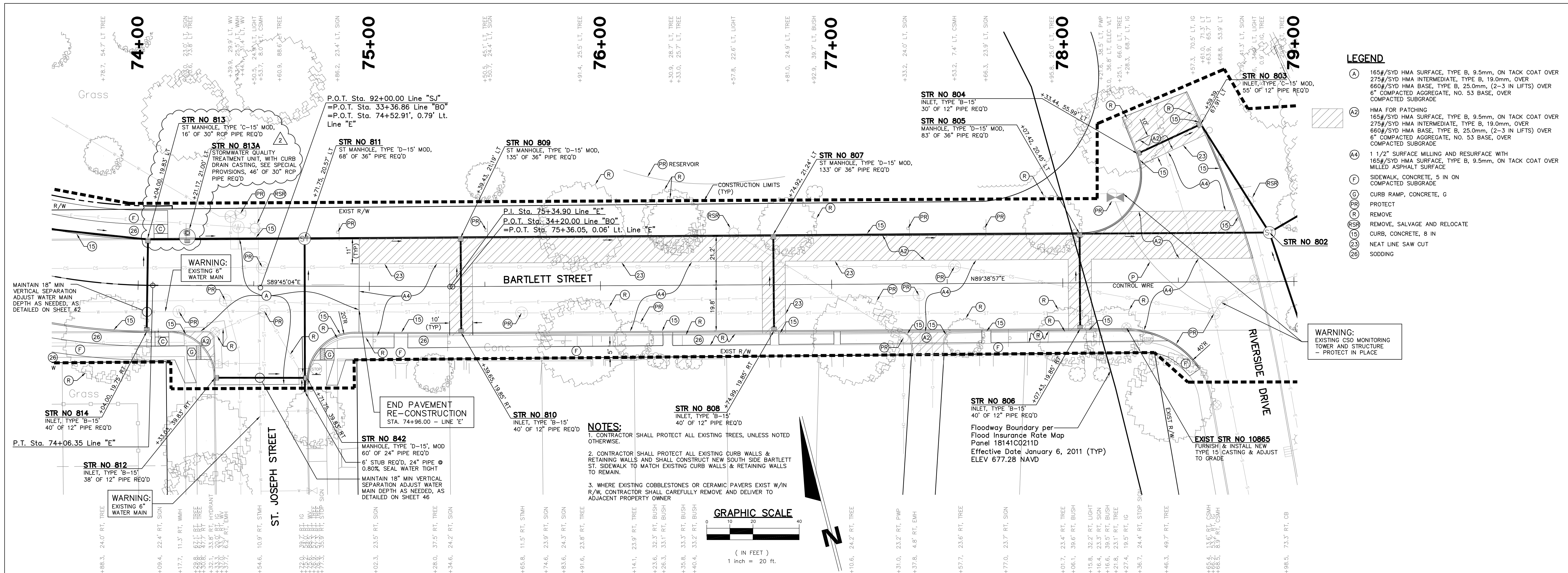
JONES PETRIE RAFINSKI
 your one single source
 Surveying • Engineering • Planning • Architecture • Utility Management
 GIS • Environmental • Renewable Energy • Landscape Architecture
 Elkhart, Indiana p: 574.293.7762 South Bend, Indiana p: 574.232.4388 Fort Wayne, Indiana p: 260.422.2522



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
 TABLE OF CONTENTS - INDEX SHEET

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

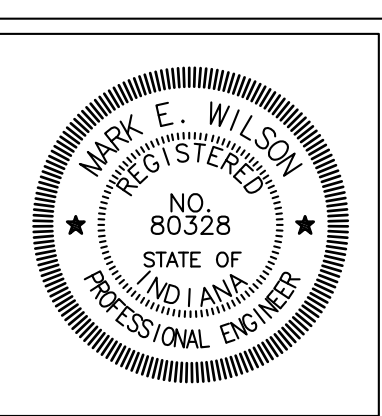


REV.	DESCRIPTION	BY	DATE
1	ADD STORM WATER QUALITY TREATMENT UNIT PER CITY OF SOUTH BEND	MEW	1/21/2016

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

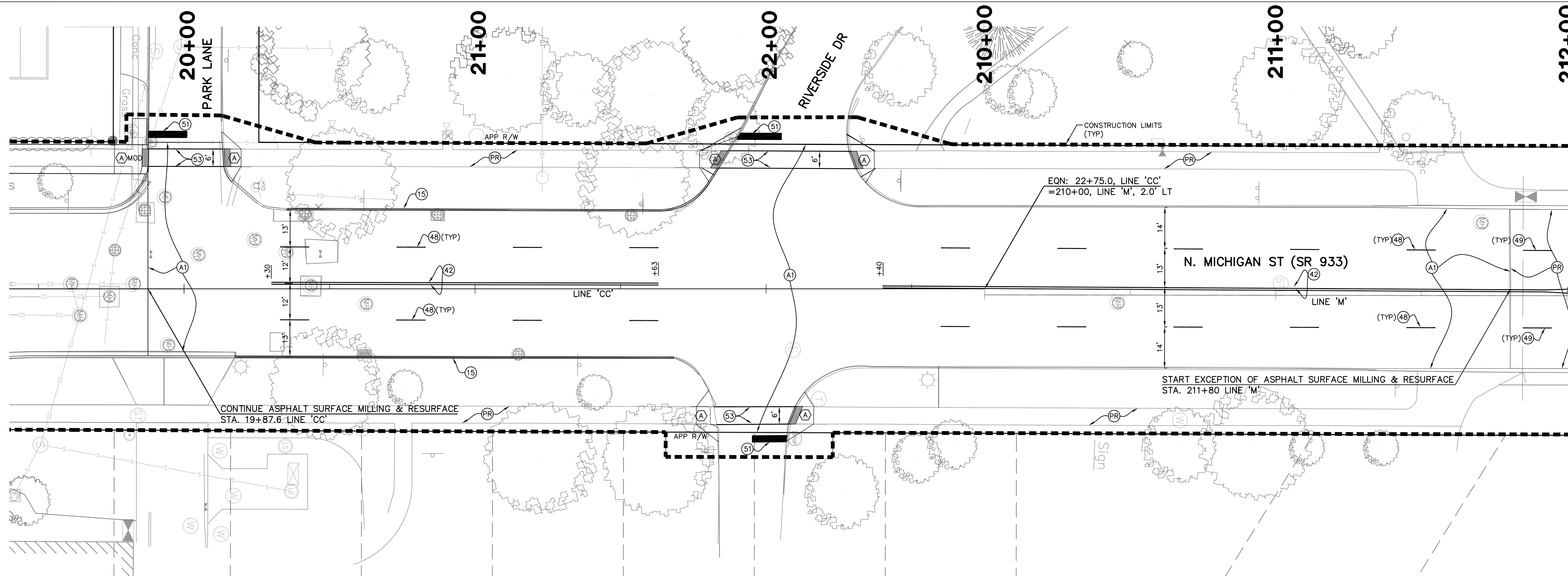


RECOMMENDED FOR APPROVAL	<i>Mark E. Wilson</i>	1/21/2016
DESIGNED:	C.R.C.	DATE
DRAWN:	R.J.H.	
CHECKED:	B.B.K.	
CHECKED:	M.E.W.	

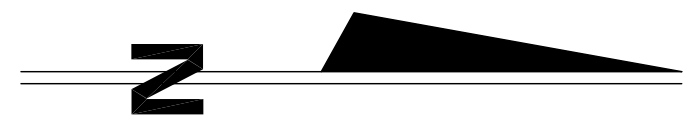
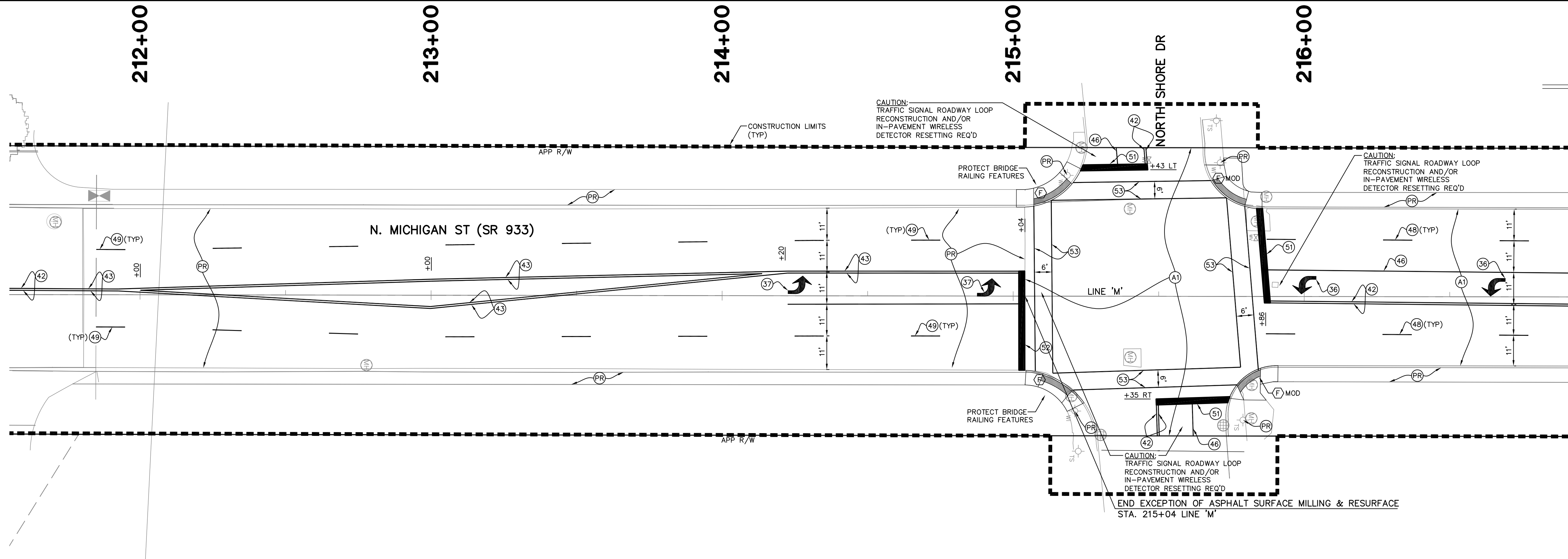
CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

PLAN & PROFILE
LINE 'E' - BARTLETT STREET

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	
SURVEY BOOK	SHEETS
	16 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
 - (F) SIDEWALK, CONCRETE, 5 IN ON COMPACTED SUBGRADE
 - (A) CURB RAMP, CONCRETE, A
 - (F) CURB RAMP, CONCRETE, F
 - (PR) PROTECT
 - (15) STANDARD CONCRETE CURB, BARRIER
 - (36) PAVEMENT MESSAGE MARKING, THERMOPLASTIC PAINT, LANE INDICATION ARROW
 - (37) PAVEMENT MESSAGE MARKING, EPOXY PAINT, LANE INDICATION ARROW
 - (42) LINE, THERMOPLASTIC PAINT, SOLID, YELLOW, 4 IN
 - (43) LINE, EPOXY PAINT, SOLID, YELLOW, 4 IN
 - (46) LINE, THERMOPLASTIC PAINT, SOLID, WHITE, 4 IN
 - (47) LINE, EPOXY PAINT, SOLID, WHITE, 4 IN
 - (48) LINE, THERMOPLASTIC PAINT, BROKEN, WHITE, 4 IN
 - (49) LINE, EPOXY PAINT, BROKEN, WHITE, 4 IN
 - (51) TRANSVERSE MARKING, THERMOPLASTIC PAINT, WHITE, STOP LINE, 24 IN
 - (52) TRANSVERSE MARKING, EPOXY PAINT, WHITE, STOP LINE, 24 IN
 - (53) TRANSVERSE MARKING, THERMOPLASTIC PAINT, WHITE, CROSS WALK, 6 IN



- NOTES:**
1. TRAFFIC SIGNAL ROADWAY LOOP RECONSTRUCTION AND IN-PAVEMENT WIRELESS DETECTOR RESETTING SHALL INCLUDE ALL INCIDENTAL COORDINATION AND CONNECTIONS TO COMPLETE THE WORK, SEE SPECIAL PROVISIONS.
 2. SEE SPECIAL PROVISIONS REGARDING CURB RAMP CONSTRUCTION.

2	MILL AND RESURFACE PLAN REVISIONS	MEW	1/21/2016
1	MICHIGAN ST ADDITIONAL MILL AND RESURFACING PLANS	MEW	1/13/2016
REV	DESCRIPTION	BY	DATE

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information herein shall be used or disseminated without the expressed written permission of JPR. © 2016 JPR - All Rights Reserved.

JONES PETRIE RAFINSKI
your one single source

Surveying • Engineering • Planning • Architecture • Utility Management
GIS • Environmental • Renewable Energy • Landscape Architecture

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

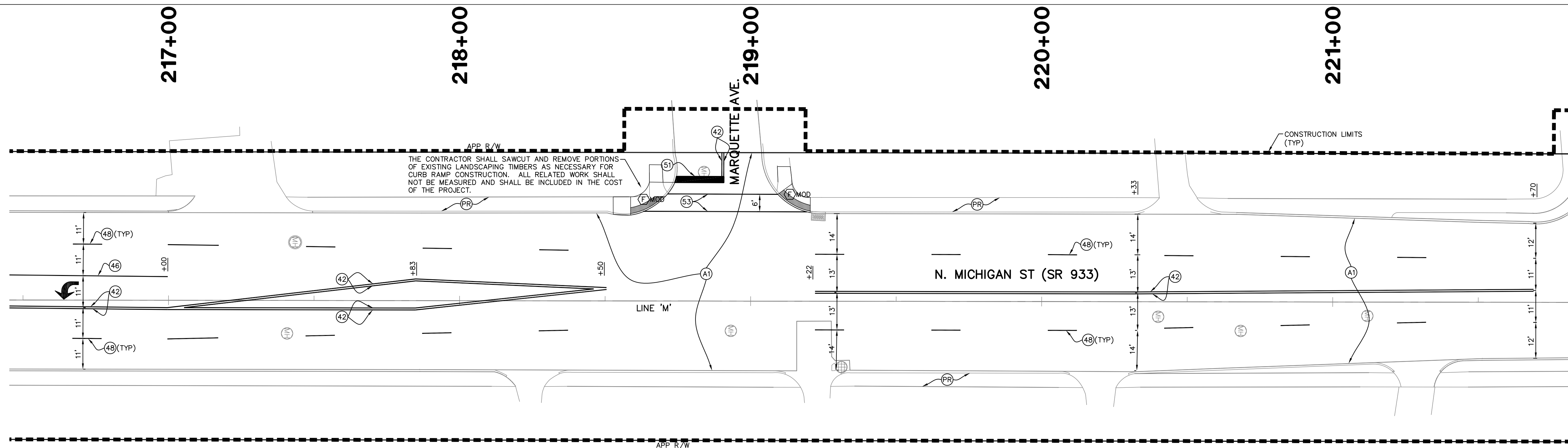


RECOMMENDED FOR APPROVAL	<i>Mark E. Wilson</i>	1/29/2016
DESIGN ENGINEER		DATE
DESIGNED: C.R.C.	DRAWN: R.J.H.	
CHECKED: B.B.K.	CHECKED: M.E.W.	

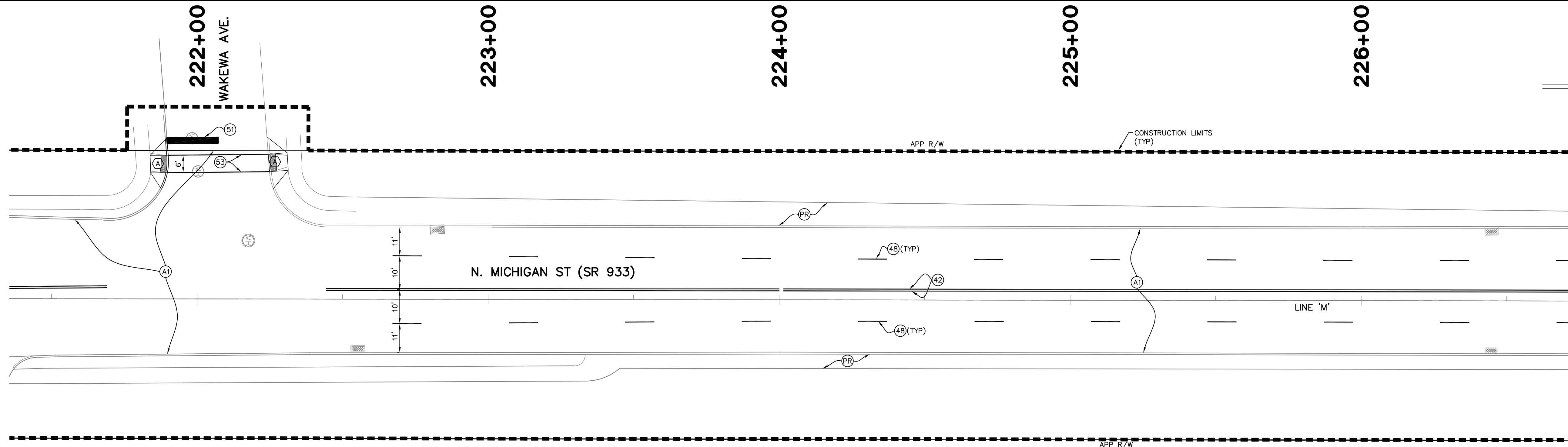
CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

LINE 'M' - MICHIGAN ST (SR 933)
SURFACE MILLING & RESURFACE PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEETS
	20A 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
 - (F) SIDEWALK, CONCRETE, 5 IN ON COMPACTED SUBGRADE
 - (A) CURB RAMP, CONCRETE, A
 - (F) CURB RAMP, CONCRETE, F
 - (PR) PROTECT
 - (36) PAVEMENT MESSAGE MARKING, THERMOPLASTIC PAINT, LANE INDICATION ARROW
 - (42) LINE, THERMOPLASTIC PAINT, SOLID, YELLOW, 4 IN
 - (46) LINE, THERMOPLASTIC PAINT, SOLID, WHITE, 4 IN
 - (48) LINE, THERMOPLASTIC PAINT, BROKEN, WHITE, 4 IN
 - (51) TRANSVERSE MARKING, THERMOPLASTIC PAINT, WHITE, STOP LINE, 24 IN
 - (53) TRANSVERSE MARKING, THERMOPLASTIC PAINT, WHITE, CROSS WALK, 6 IN



- NOTES:**
1. TRAFFIC SIGNAL ROADWAY LOOP RECONSTRUCTION AND IN-PAVEMENT WIRELESS DETECTOR RESETTING SHALL INCLUDE ALL INCIDENTAL COORDINATION AND CONNECTIONS TO COMPLETE THE WORK, SEE SPECIAL PROVISIONS.
 2. SEE SPECIAL PROVISIONS REGARDING CURB RAMP CONSTRUCTION.

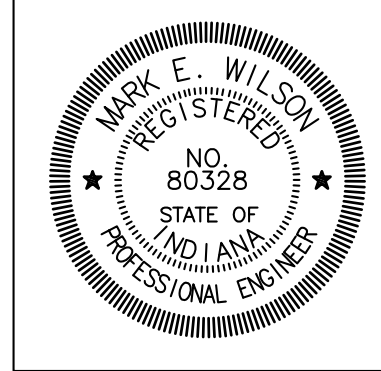
REV.	DESCRIPTION	BY	DATE
2	MILL AND RESURFACE PLAN REVISIONS	MEV	1/21/2016
1	MICHIGAN ST ADDITIONAL MILL AND RESURFACING PLANS	MEV	1/13/2016

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information herein shall be used or disseminated without the expressed written permission of JPR. © 2016 JPR - All Rights Reserved.

JONES PETRIE RAFINSKI
your one single source

Surveying • Engineering • Planning • Architecture • Utility Management
GIS • Environmental • Renewable Energy • Landscape Architecture

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



RECOMMENDED FOR APPROVAL	<i>Mark E. Wilson</i>	1/29/2016	
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

LINE 'M' - MICHIGAN ST (SR 933)
SURFACE MILLING & RESURFACE PLAN

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

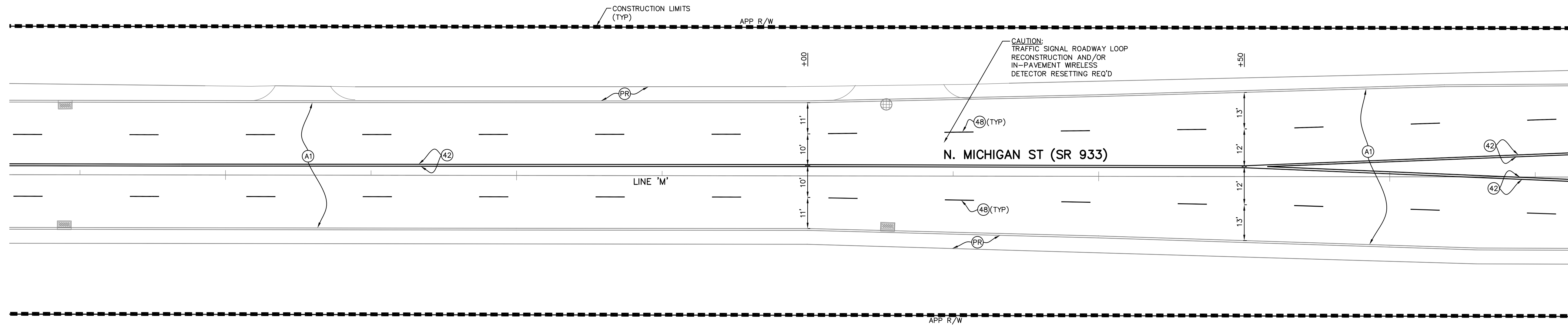
227+00

228+00

229+00

230+00

231+00



- 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
 - (F) CURB RAMP, CONCRETE, F
 - (PR) PROTECT
 - (36) PAVEMENT MESSAGE MARKING, THERMOPLASTIC PAINT, LANE INDICATION ARROW
 - (42) LINE, THERMOPLASTIC PAINT, SOLID, YELLOW, 4 IN
 - (46) LINE, THERMOPLASTIC PAINT, SOLID, WHITE, 4 IN
 - (48) LINE, THERMOPLASTIC PAINT, BROKEN, WHITE, 4 IN
 - (51) TRANSVERSE MARKING, THERMOPLASTIC PAINT, WHITE, STOP LINE, 24 IN
 - (53) TRANSVERSE MARKING, THERMOPLASTIC PAINT, WHITE, CROSS WALK, 6 IN
 - (60) LINE, THERMOPLASTIC PAINT, SOLID WHITE, 8 IN

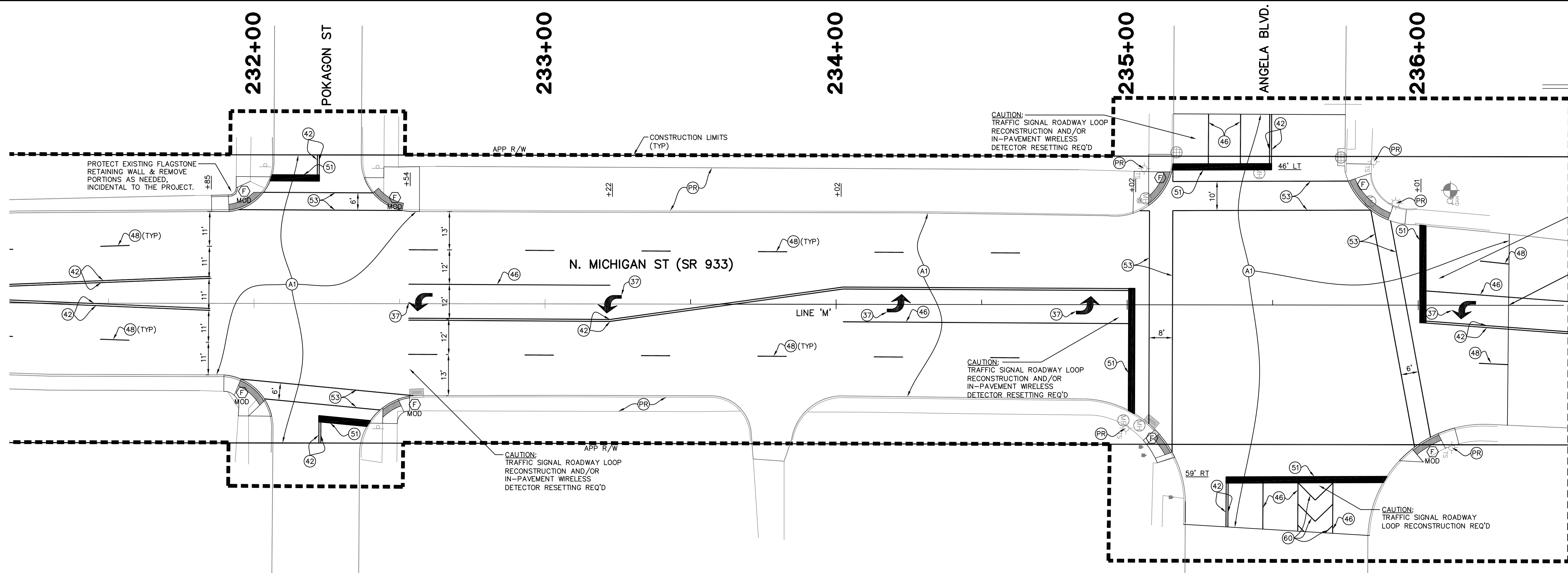
232+00

233+00

234+00

235+00

236+00



- NOTES:**
1. TRAFFIC SIGNAL ROADWAY LOOP RECONSTRUCTION AND IN-PAVEMENT WIRELESS DETECTOR RESETTING SHALL INCLUDE ALL INCIDENTAL COORDINATION AND CONNECTIONS TO COMPLETE THE WORK, SEE SPECIAL PROVISIONS.
 2. SEE SPECIAL PROVISIONS REGARDING CURB RAMP CONSTRUCTION.

2	MILL AND RESURFACE PLAN REVISIONS	MEW	1/21/2016
1	MICHIGAN ST ADDITIONAL MILL AND RESURFACING PLANS	MEW	1/13/2016
REV	DESCRIPTION	BY	DATE

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information herein shall be used or disseminated without the expressed written permission of JPR. © 2016 JPR - All Rights Reserved.

JONES PETRIE RAFINSKI
your one single source

Surveying • Engineering • Planning • Architecture • Utility Management
GIS • Environmental • Renewable Energy • Landscape Architecture

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

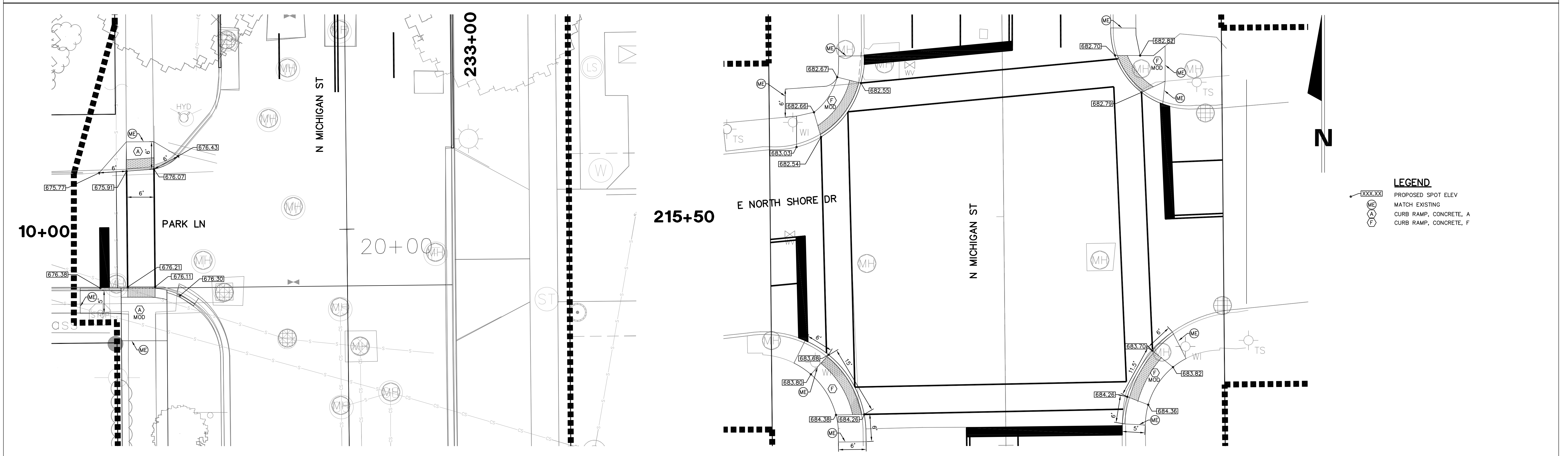
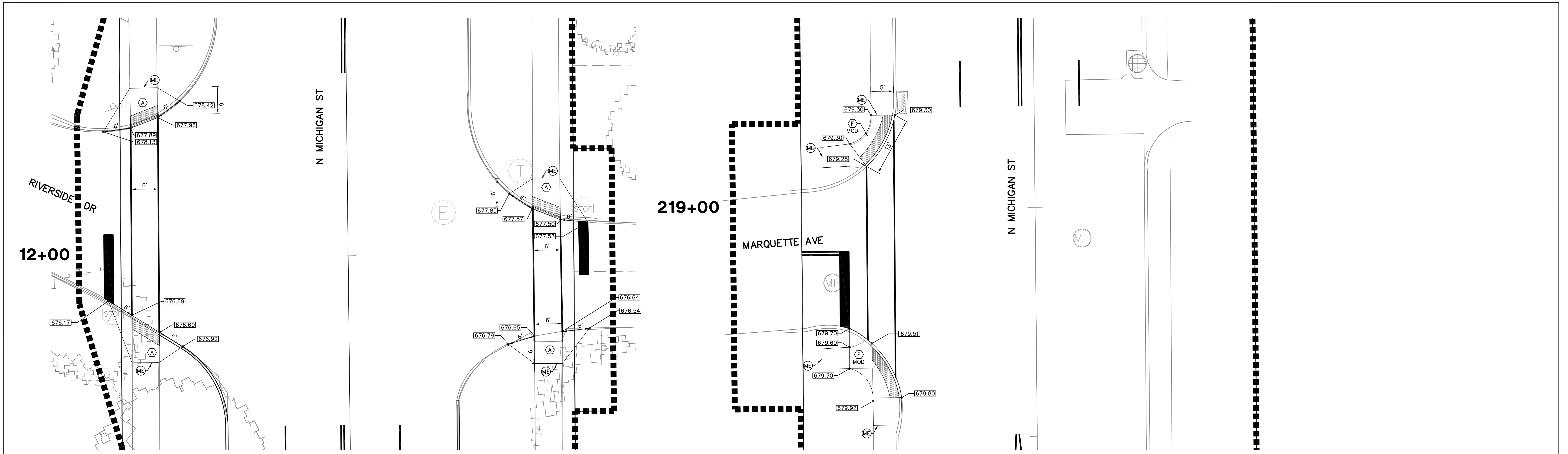


RECOMMENDED FOR APPROVAL	<i>Mark E. Wilson</i>	1/29/2016	
DESIGNED:	C.R.C.	DRAWN:	R.J.H.
CHECKED:	B.B.K.	CHECKED:	M.E.W.

CITY OF SOUTH BEND
BARTLETT ST IMPROVEMENTS PHASE II

LINE 'M' - MICHIGAN ST (SR 933)
SURFACE MILLING & RESURFACE PLAN

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



LEGEND

	PROPOSED SPOT ELEV
	MATCH EXISTING
	CURB RAMP, CONCRETE, A
	CURB RAMP, CONCRETE, F

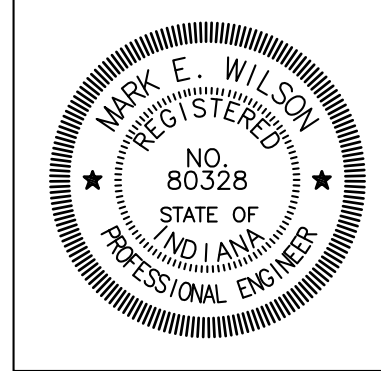
2	MILL AND RESURFACE PLAN REVISIONS	MEW	1/21/2016
1	MICHIGAN ST ADDITIONAL MILL AND RESURFACING PLANS	MEW	1/13/2016
REV	DESCRIPTION	BY	DATE

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information herein shall be used or disseminated without the expressed written permission of JPR. © 2016 JPR - All Rights Reserved.

JONES PETRIE RAFINSKI
 your one single source

Surveying • Engineering • Planning • Architecture • Utility Management
 GIS • Environmental • Renewable Energy • Landscape Architecture

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

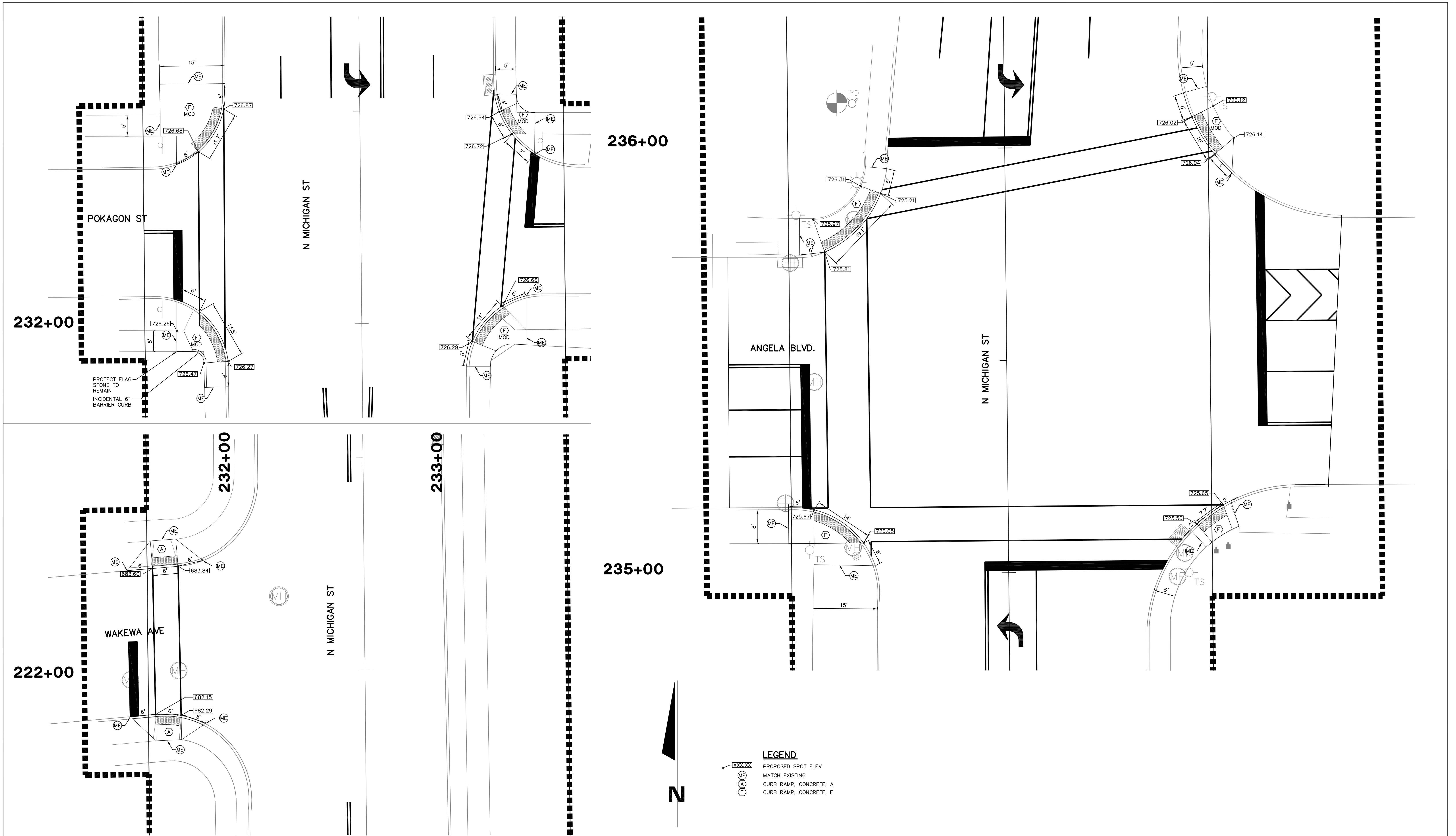


RECOMMENDED FOR APPROVAL	<i>Mark E. Wilson</i>	1/29/2016
DESIGNED: C.R.C.	DRAWN: R.J.H.	DATE
CHECKED: B.B.K.	CHECKED: M.E.W.	

CITY OF SOUTH BEND
 BARTLETT ST IMPROVEMENTS PHASE II

LINE 'M' - MICHIGAN ST (SR 933)
 SURFACE MILLING & RESURFACE PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEETS
	20D of 55
CONTRACT	PROJECT
	114-032B



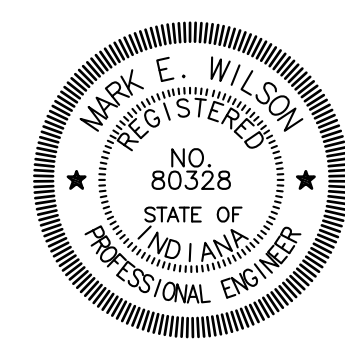
2	MILL AND RESURFACE PLAN REVISIONS	MEW	1/21/2016
1	MICHIGAN ST ADDITIONAL MILL AND RESURFACING PLANS	MEV	1/13/2016
REV	DESCRIPTION	BY	DATE

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information herein shall be used or disseminated without the expressed written permission of JPR. © 2016 JPR - All Rights Reserved.

JONES PETRIE RAFINSKI
 your one single source

Surveying • Engineering • Planning • Architecture • Utility Management
 GIS • Environmental • Renewable Energy • Landscape Architecture

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



RECOMMENDED FOR APPROVAL	<i>Mark E. Wilson</i>	1/29/2016	
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

LINE 'M' - MICHIGAN ST (SR 933)
 SURFACE MILLING & RESURFACE PLAN

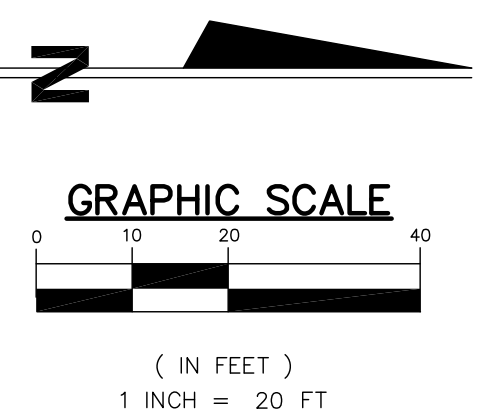
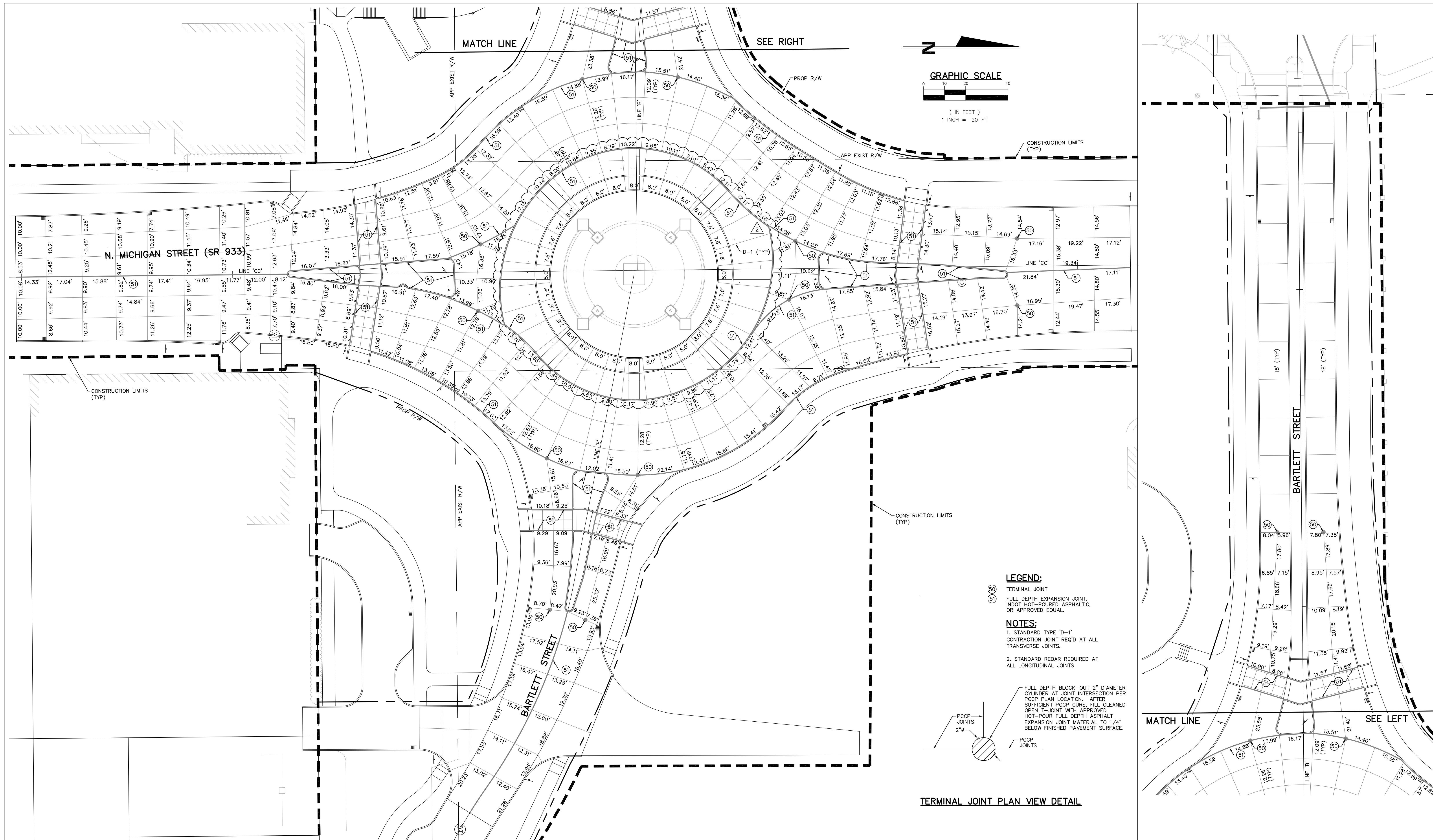
HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
SURVEY BOOK	SHEETS
	20E of 55
CONTRACT	PROJECT
	114-032B

STRUCTURE DATA TABLE

STRUCTURE TO	LOCATION			RIM ELEV	DESCRIPTION MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	PIPE SIZE IN	PIPE TYPE	LENGTH LFT	SKEW	COVER FT	FLOW LINE		SERVICE LIFE YRS	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURAL BACKFILL CYC	TYPE	GEOTEXTILES FOR RIPRAP SYS	RIPRAP SYS	RIPRAP TYPE	CONCRETE CLASS A, FOR STRUCTURES CYC	VIDEO INSPECTION LFT	PIPE END SECTION (SIZE) EACH	GRATED BOX END SECTION			SAFETY METAL END SECTION			CONNECT TO STR. NO.	REMARKS	
	STATION	LEFT/ RIGHT/ CENTER	OFFSET FT								UP- STREAM ELEV	DOWN- STREAM ELEV													SLOP E	EAC H	TYP E	SLOP E	EAC H				
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	RCP	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	RCP	88			675.11	674.92		N/A	7.0	1	49.8	1					88								824		
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	12	RCP	58			674.50	674.31		N/A	7.0	1	14.9						58								204	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	INTERCEPT WATER TIGHT EX. ST SEWER PIPES INV 673.70 15" SE, 673.70 12" S & 672.98 15" N	
204	17+87.14	RT	31.6	677.6±	DOGHOUSE MANHOLE TYPE 'D-15' MOD	12	RCP	58			674.50	674.31		N/A	7.0	1	14.9						58								204	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	RCP	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	RCP	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	RCP	60			673.40	673.30		N/A	7.0	1	50.2	1					60								818		
836	70+58.28	LT	74.6	680.0±	INLET TYPE 'B-15' MOD	12	RCP	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	RCP	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	RCP	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	RCP	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	RCP	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	RCP	16			671.77	671.68		N/A	7.0	1	19.9	1					16								813A		
2	813A	74+21.17	LT	21.0	678.5±	STORMWATER QUALITY TREATMENT UNIT	30	RCP	46			671.64	671.37		N/A	7.0	1	52.0	1					46								811	SEE SPECIAL PROVISIONS FOR STORMWATER QUALITY TREATMENT UNIT
812	74+33.03	RT	39.8	678.2±	INLET TYPE 'B-15'	12	RCP	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	RCP	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	RCP	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	RCP	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	RCP	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	RCP	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	RCP	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	RCP	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	RCP				667.82	667.81		N/A	7.0	1		1															

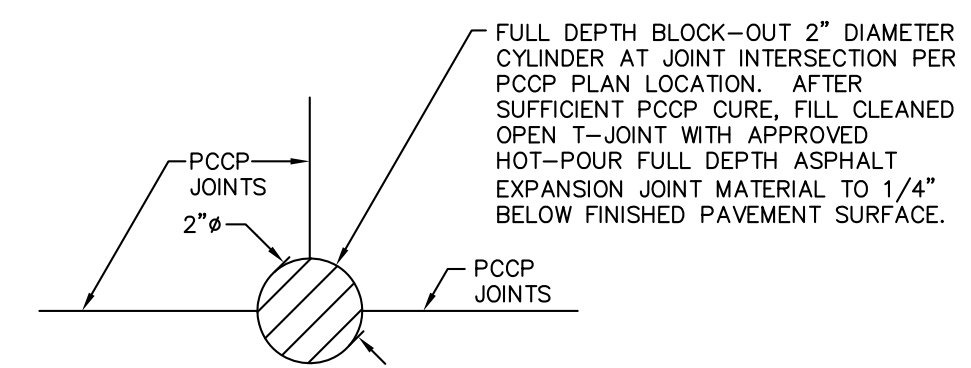
REV	DESCRIPTION	BY	DATE
1	ADD STORM WATER QUALITY TREATMENT UNIT PER CITY OF SOUTH BEND	MEW	1/21/2016

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information hereon shall be used or



LEGEND:
 (S0) TERMINAL JOINT
 (S1) 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



TERMINAL JOINT PLAN VIEW DETAIL

REV.	DESCRIPTION	MEW	1/21/2016
	ADD EXPANSION JOINT AT INNER CIRCLE	BY	DATE

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information herein shall be used or disseminated without the expressed written permission of JPR. © 2016 JPR. All Rights Reserved.

JONES PETRIE RAFINSKI
 your one single source

Surveying • Engineering • Planning • Architecture • Utility Management
 GIS • Environmental • Renewable Energy • Landscape Architecture

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

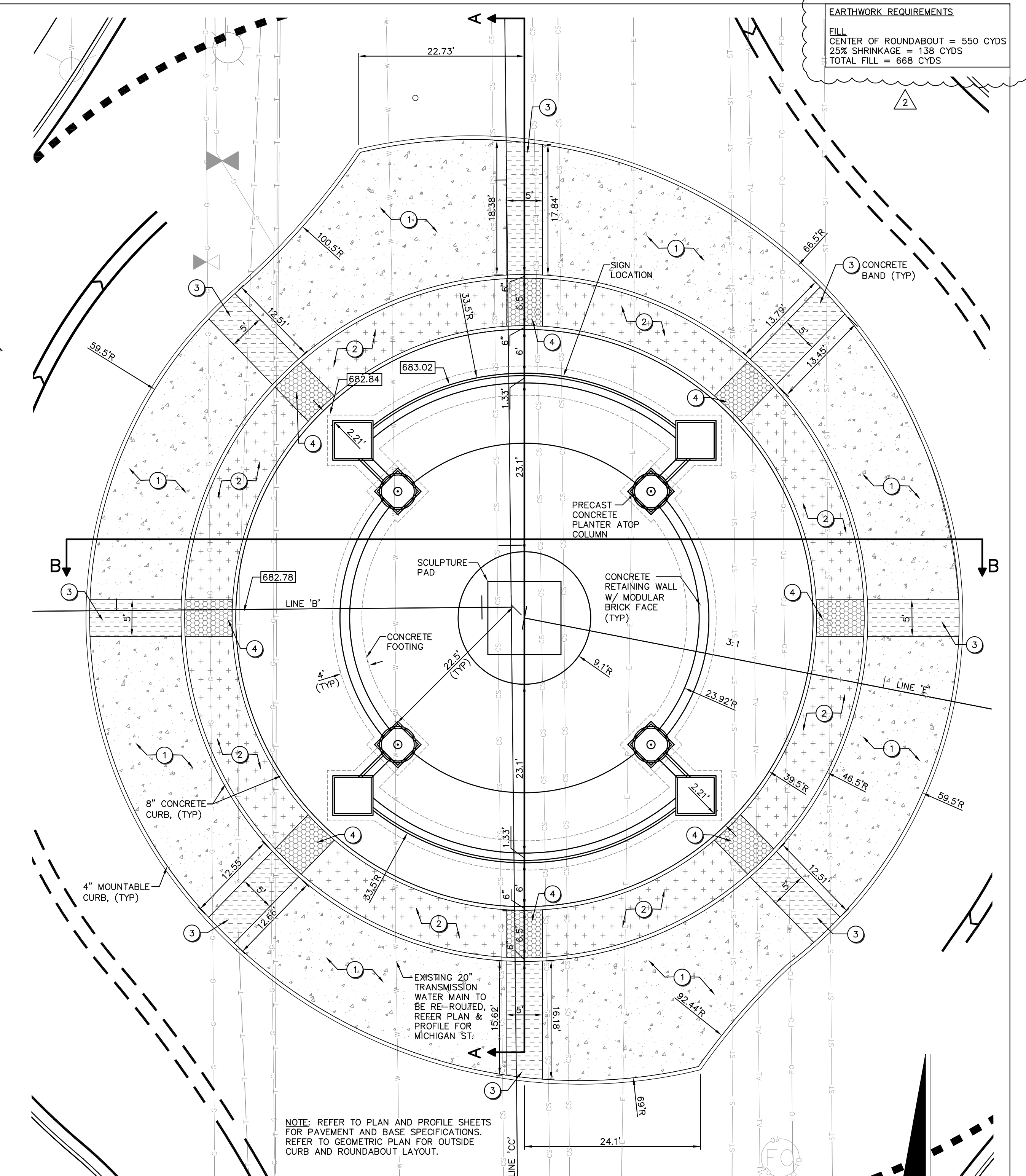
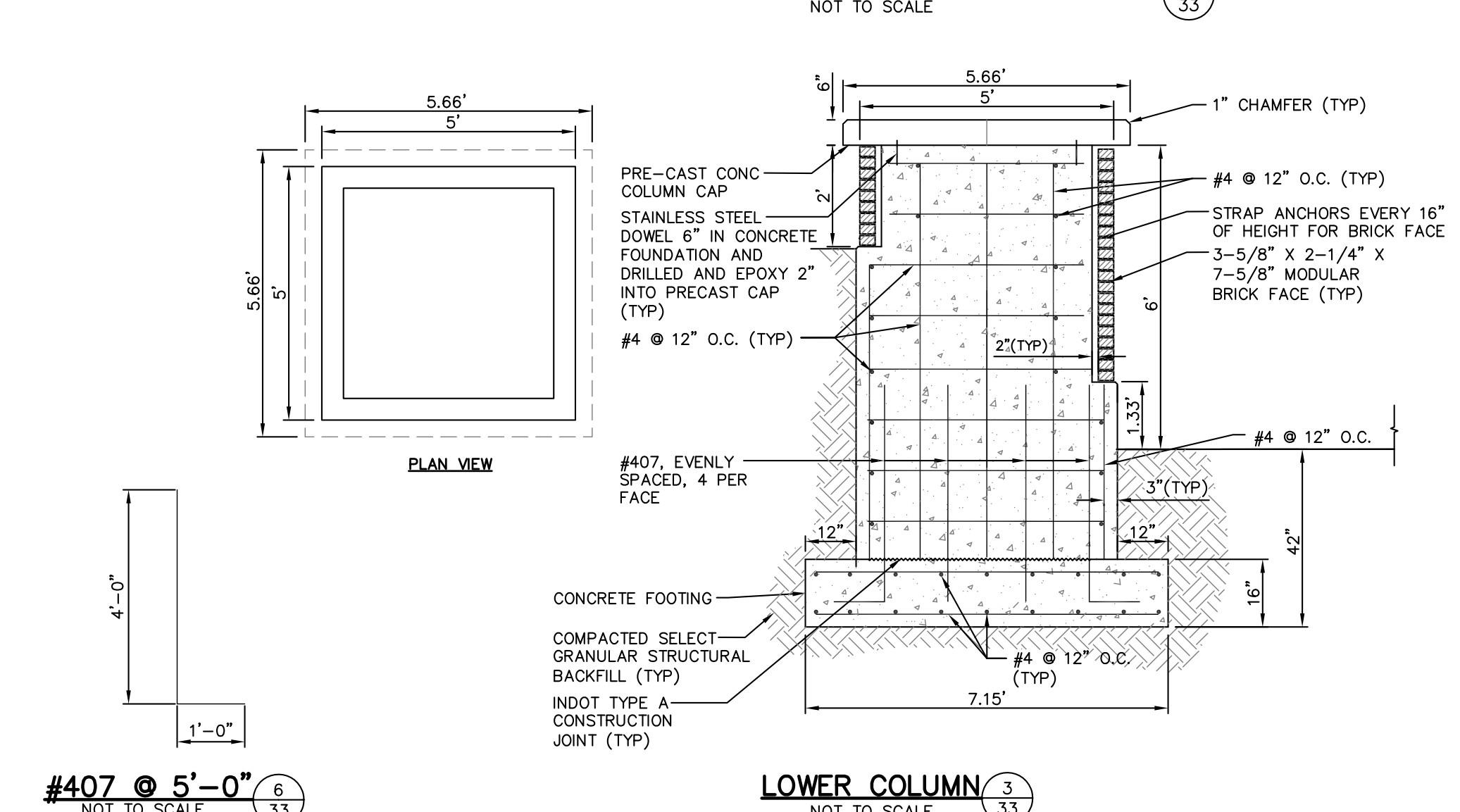
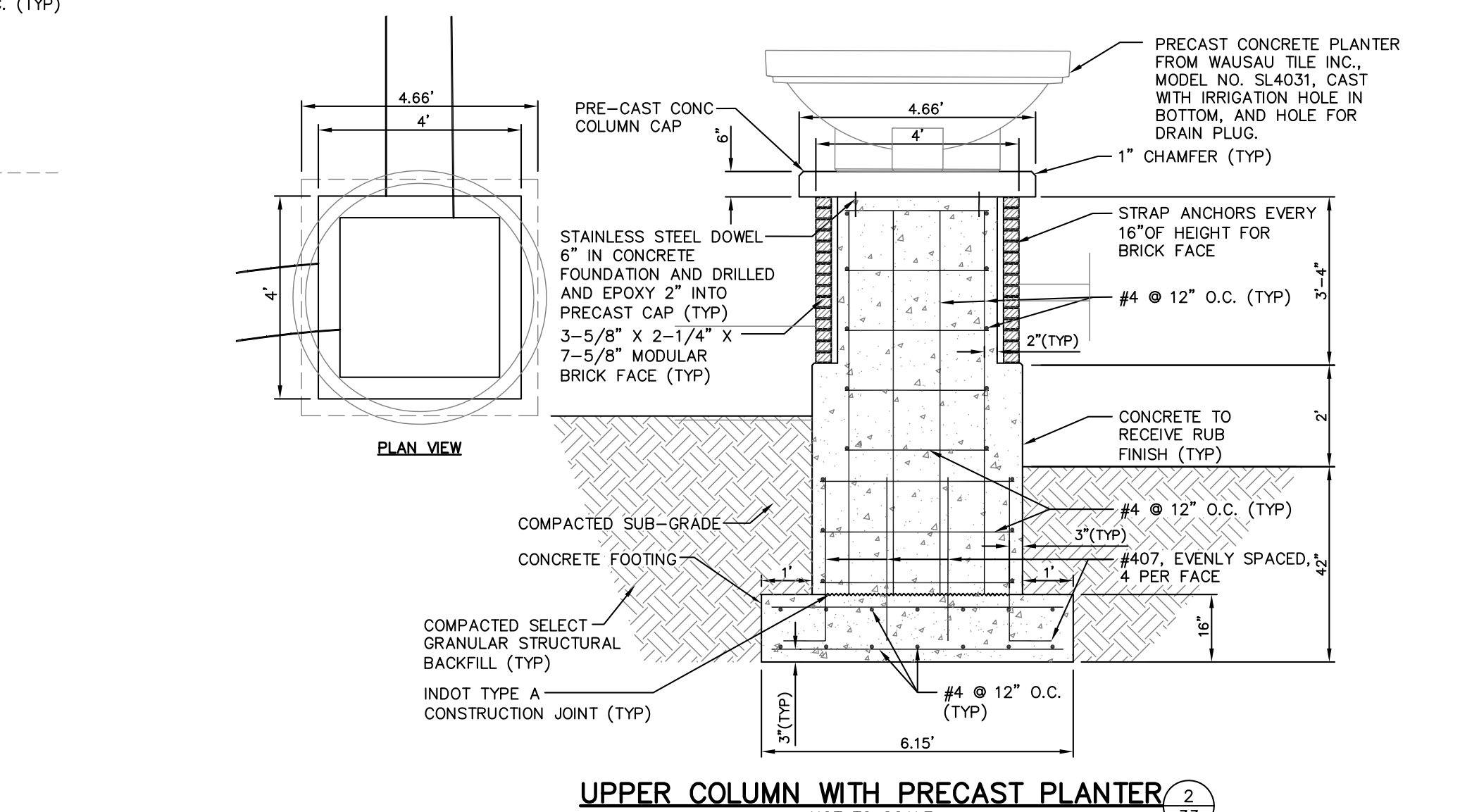
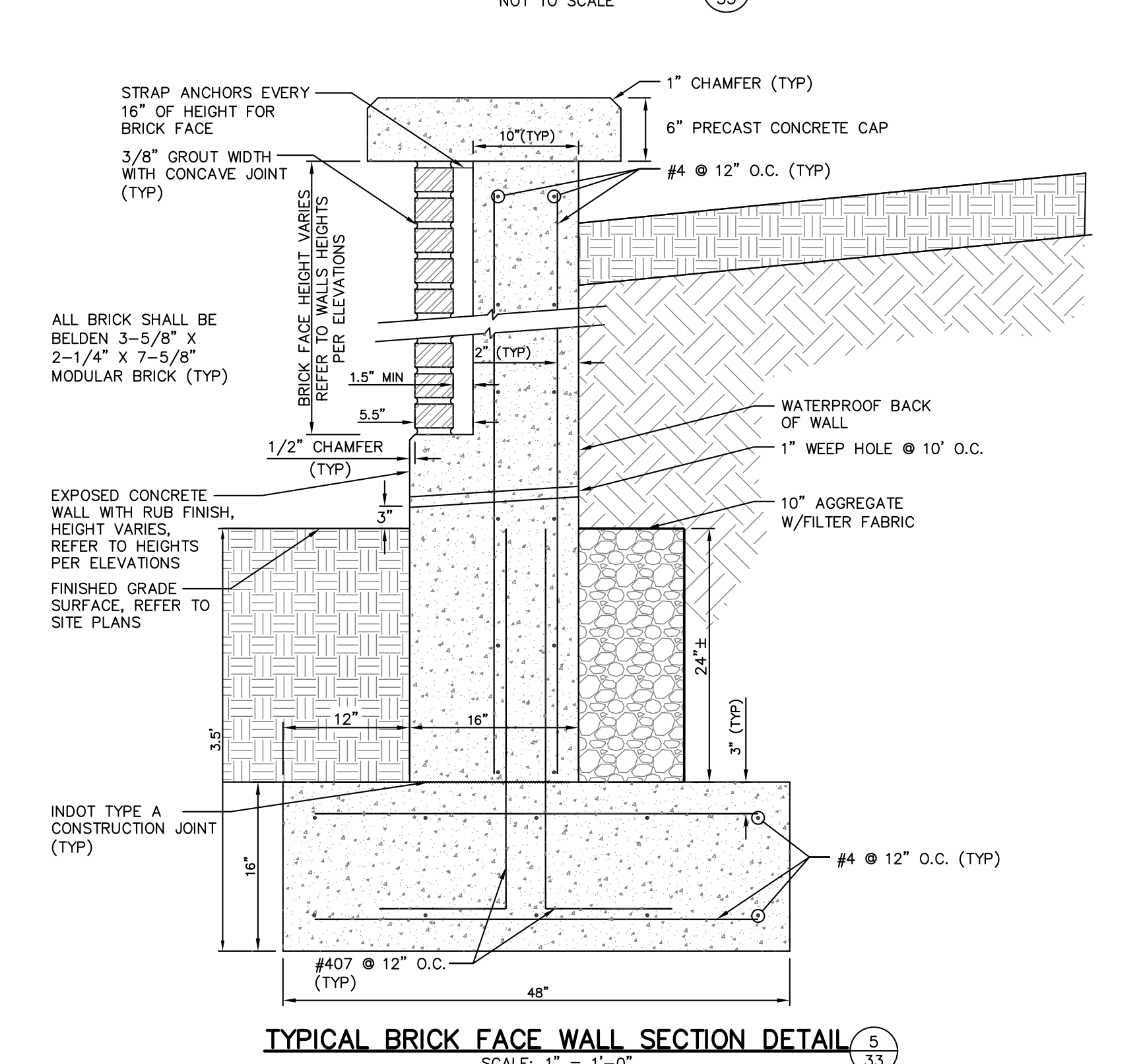
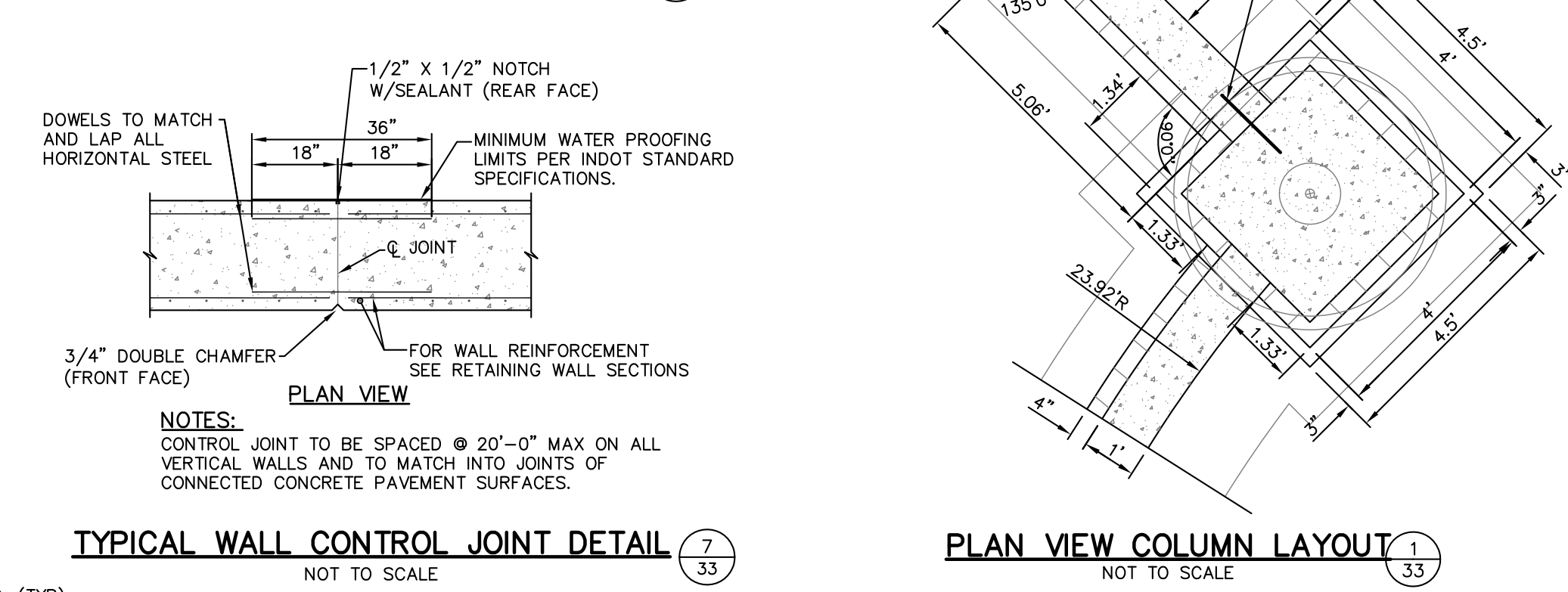
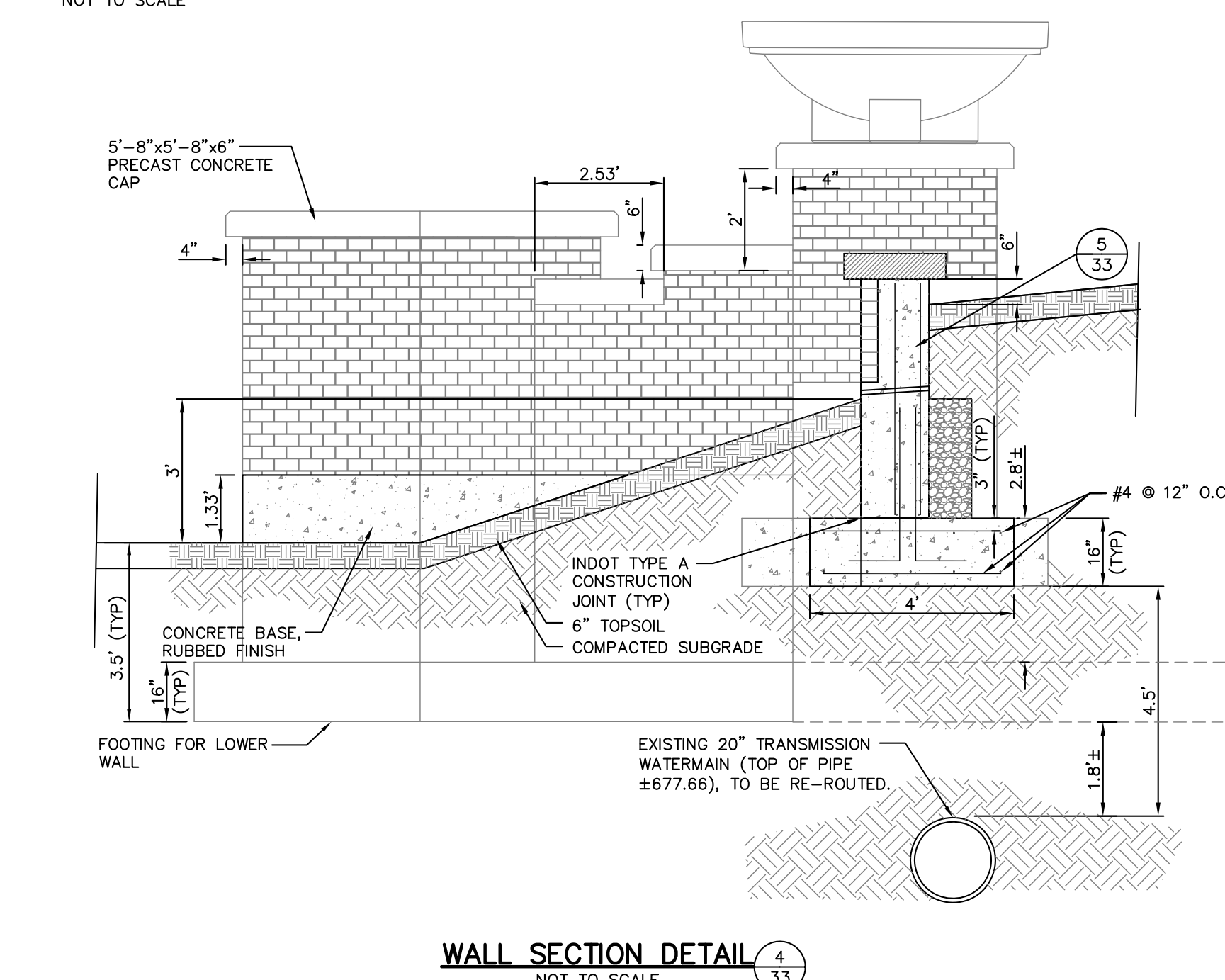
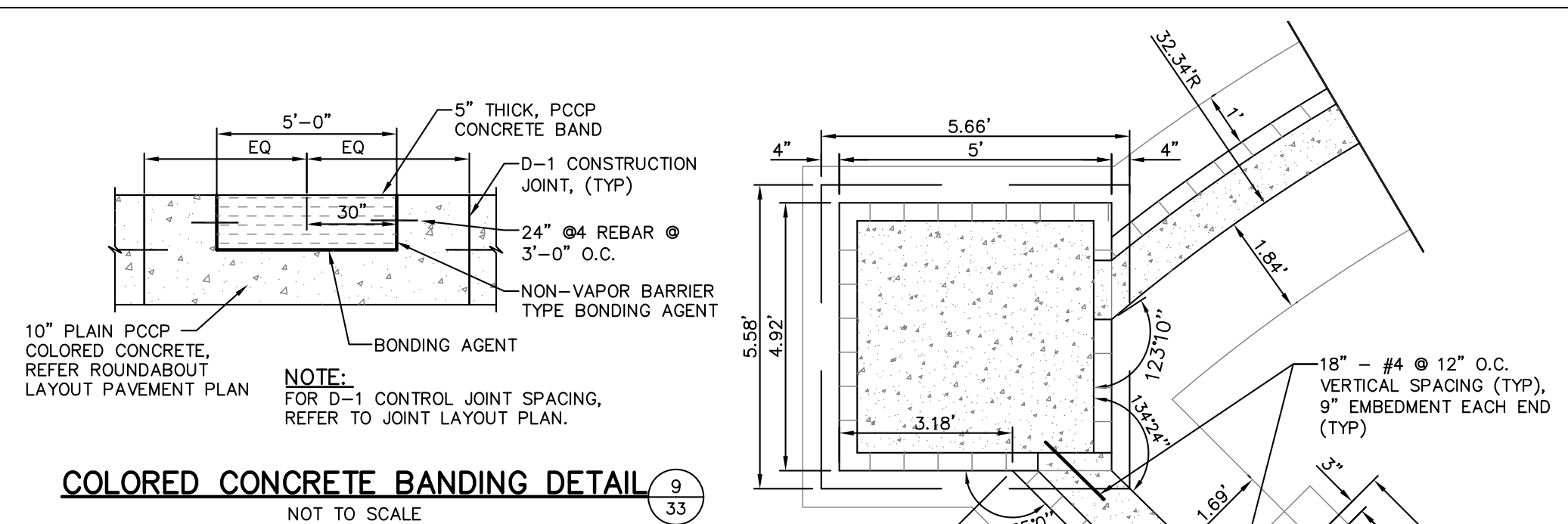
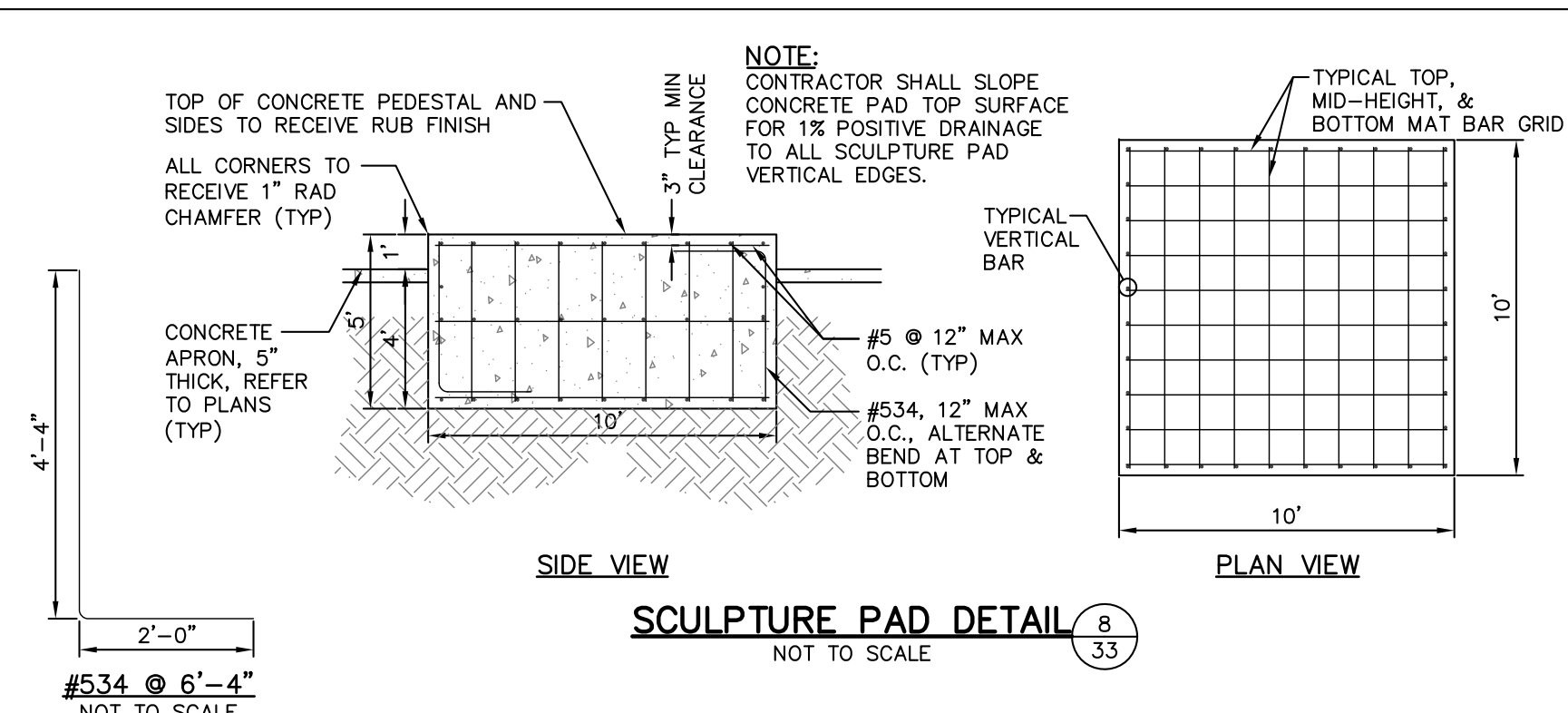


RECOMMENDED FOR APPROVAL	<i>Mark E. Wilson</i>	1/21/2016
DESIGNED:	C.R.C.	DATE
DRAWN:	R.J.H.	
CHECKED:	B.B.K.	
	CHECKED:	M.E.W.

CITY OF SOUTH BEND
 BARTLETT ST IMPROVEMENTS PHASE II

JOINT LAYOUT

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



- 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 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 SURFACES SHALL RECEIVE RUB FINISH.
 7. CONTRACTOR SHALL WEATHER SEAL BRICK WITH SLOXANE 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
(IN FEET)
1 INCH = 10 FT

EARTHWORK REQUIREMENTS
FILL
CENTER OF ROUNDABOUT = 550 CYDS
25% SHRINKAGE = 138 CYDS
TOTAL FILL = 668 CYDS

REV.	DESCRIPTION	BY	DATE

EARTHWORK CALCULATIONS
MEW 1/25/2016

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information herein shall be used or disseminated without the expressed written permission of JPR. © 2016 JPR - All Rights Reserved.

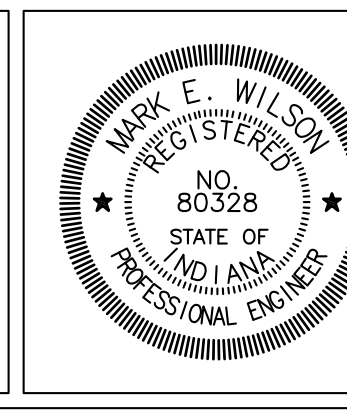
#534 @ 6'-4"
NOT TO SCALE

#407 @ 5'-0"
NOT TO SCALE

JONES PETRIE RAFINSKI
your one single source

Surveying • Engineering • Planning • Architecture • Utility Management
GIS • Environmental • Renewable Energy • Landscape Architecture

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



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 LAYOUT PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	
VERTICAL SCALE	DESIGNATION
AS NOTED	
SURVEY BOOK	SHEETS
	33 of 55
CONTRACT	PROJECT
	114-032B

PROVIDE SEPARATE (1) 20 AMP CIRCUIT FOR THE FOLLOWING IN THE TRAFFIC ISLAND:
SIGNAGE (VERIFY LOCATION WITH SIGN MFR. LIGHTS (ALL WALL WASH FIXTURE "F") MONUMENT LIGHTS (FIXTURE "G") IRRIGATION CONTROLLER CONTROLLER FOR CROSS WALK AND LIGHTS

FOR LIGHTED SIGNAGE, VERIFY LOCATION OF J-BOX SIGN SUPPLIER PROVIDE 1 20 AMP CIRCUIT IN ROUNDABOUT PANEL. SEE SHEET 40 FOR PANEL INFORMATION. PROVIDE 2 #10, #12 G. IN 3/4" CONDUIT.

TIME CLOCK FOR IRRIGATION CONTROLS - PROVIDE POWER FROM ROUNDABOUT PANEL. SEE SHEET 40 FOR PANEL INFORMATION.

ROUNDABOUT CROSS WALK AND IN-GRADE LED LIGHTING CONTROLLER.

72 LFT OF 2" PVC CONDUIT FOR FUTURE USAGE. MARK EACH END AND NOTE ON AS-BUILT DRAWINGS.

TO LIGHTING CONTACTOR IN ROUNDABOUT ON A SEPARATE CIRCUIT. SEE SHEET 40 FOR INFORMATION.

TO LIGHTING CONTACTOR IN ROUNDABOUT ON A SEPARATE CIRCUIT. SEE SHEET 40 FOR INFORMATION.

ALL ROUNDABOUT LIGHTING TO BE CONNECTED TO LIGHTING CONTACTOR IN ROUNDABOUT. (2) #10, #12 G. IN 1" CONDUIT.

TO LIGHTING CONTACTOR IN ROUNDABOUT ON A SEPARATE CIRCUIT. SEE SHEET 40 FOR INFORMATION.

ALL LIGHTING TO BE CONNECTED TO LIGHTING CONTACTOR IN ROUNDABOUT.

ROUNDABOUT ELECTRICAL PANEL AND LIGHTING CONTACTOR. SEE SHEET 40 FOR INFORMATION.

MARK	QTY	MANUFACTURER*	CATALOG NO.	LAMP	NOTES
A	5	KIM LIGHTING	1A-CCS21A3E35-120LSKXXX-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/BBT CENB/F/16/5M/TN/GFI-U/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-U/BBT	LED 3,000K TYPE IV DISTRIBUTION	WINDSOR SERIES TWIN HEAD 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 CENB/F/16/5M/TN/GFI-U/BBT	LED 3,000K TYPE III DISTRIBUTION	WINDSOR SERIES TWIN HEAD LED FIXTURE 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-U/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-BL3KUV-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)	C07/24NB/55/3K/5x3/UNV/BBT/HV	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	SM18/BL/P	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
- 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
- POST MOUNTED RECEPTACLE IN GROUND
 - 1 = # 8 CONDUCTORS, FOR VOLTAGE DROP
 - 2 = # 10 CONDUCTORS, FOR VOLTAGE DROP
 - 3 = # 12 CONDUCTORS
 - 4 = # 12 CONDUCTORS
 - 5 = CIRCUIT NUMBER
 - 6 = XXXX-XXX

ELECTRICAL KEYED NOTES DENOTED BY (D):

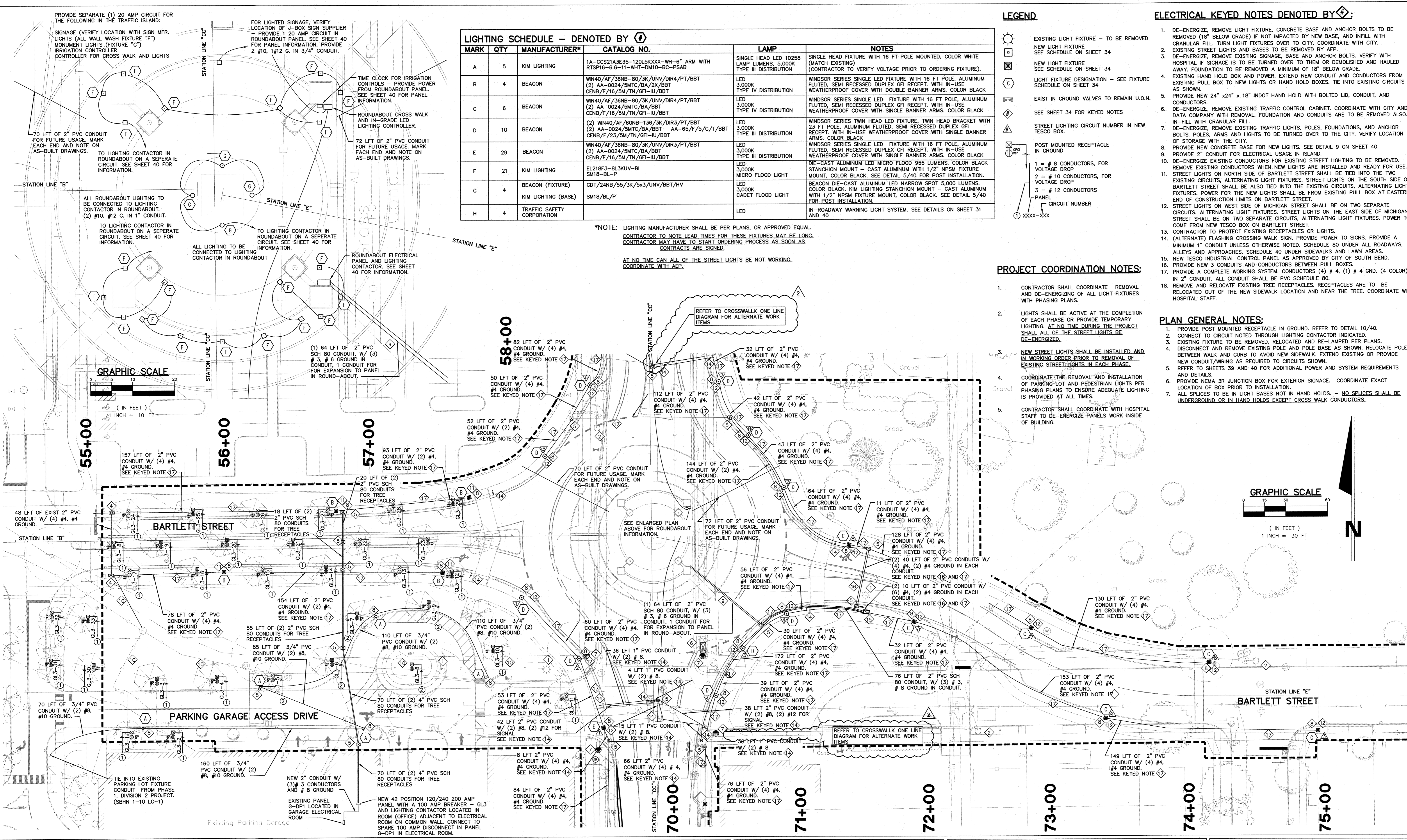
- DE-ENERGIZE, REMOVE LIGHT FIXTURE, CONCRETE BASE AND ANCHOR BOLTS TO BE REMOVED (18" BELOW GRADE) IF NOT IMPACTED BY NEW BASE, AND INFILL WITH GRANULAR FILL. TURN LIGHT FIXTURES OVER TO CITY. COORDINATE WITH CITY.
- EXISTING STREET LIGHTS AND BASES TO BE REMOVED BY AEP.
- DE-ENERGIZE, REMOVE EXISTING 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.
- 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.
- PROVIDE NEW 24" x 24" x 18" INDOT HAND HOLD WITH BOLTED LID, CONDUIT, AND CONDUCTORS.
- DE-ENERGIZE, REMOVE EXISTING TRAFFIC CONTROL CABINET. COORDINATE WITH CITY AND DATA COMPANY WITH REMOVAL FOUNDATION AND CONDUITS ARE TO BE REMOVED ALSO. INFILL WITH GRANULAR FILL.
- 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.
- PROVIDE NEW CONCRETE BASE FOR NEW LIGHTS. SEE DETAIL 9 ON SHEET 40.
- PROVIDE 2" CONDUIT FOR ELECTRICAL USAGE IN ISLAND.
- DE-ENERGIZE EXISTING CONDUCTORS FOR EXISTING STREET LIGHTING TO BE REMOVED. REMOVE EXISTING CONDUCTORS WHEN NEW LIGHTS ARE INSTALLED AND READY FOR USE.
- 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.
- 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.
- CONTRACTOR TO PROTECT EXISTING RECEPTABLES OR LIGHTS.
- (ALTERNATE) FLASHING CROSSWALK 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.
- NEW TESCO INDUSTRIAL CONTROL PANEL AS APPROVED BY CITY OF SOUTH BEND.
- PROVIDE NEW 3 CONDUITS AND CONDUCTORS BETWEEN PULL BOXES.
- PROVIDE A COMPLETE WORKING SYSTEM. CONDUCTORS (4) # 4, (1) # 4 GND. (4 COLOR) IN 2" CONDUIT. ALL CONDUIT SHALL BE PVC SCHEDULE 80.
- REMOVE AND RELOCATE EXISTING TREE RECEPTABLES. RECEPTABLES ARE TO BE RELOCATED OUT OF THE NEW SIDEWALK LOCATION AND NEAR THE TREE. COORDINATE WITH HOSPITAL STAFF.

PROJECT COORDINATION NOTES:

- CONTRACTOR SHALL COORDINATE REMOVAL AND DE-ENERGIZING OF ALL LIGHT FIXTURES WITH PHASING PLANS.
- 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.
- NEW STREET LIGHTS SHALL BE INSTALLED AND IN WORKING ORDER PRIOR TO REMOVAL OF EXISTING STREET LIGHTS IN EACH PHASE.
- COORDINATE THE REMOVAL AND INSTALLATION OF PARKING LOT AND PEDESTRIAN LIGHTS PER PHASING PLANS TO ENSURE ADEQUATE LIGHTING IS PROVIDED AT ALL TIMES.
- CONTRACTOR SHALL COORDINATE WITH HOSPITAL STAFF TO DE-ENERGIZE PANELS WORK INSIDE OF BUILDING.

PLAN GENERAL NOTES:

- PROVIDE POST MOUNTED RECEPTACLE IN GROUND. REFER TO DETAIL 10/40.
- CONNECT TO CIRCUIT NOTED THROUGH LIGHTING CONTACTOR INDICATED.
- EXISTING FIXTURE TO BE REMOVED, RELOCATED AND RE-LAMPED PER PLANS. 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.
- REFER TO SHEETS 39 AND 40 FOR ADDITIONAL POWER AND SYSTEM REQUIREMENTS AND DETAILS.
- PROVIDE NEMA 3R JUNCTION BOX FOR EXTERIOR SIGNAGE. COORDINATE EXACT LOCATION OF BOX PRIOR TO INSTALLATION.
- ALL SPLICES TO BE IN LIGHT BASES NOT IN HAND HOLDS. - NO SPLICES SHALL BE UNDERGROUND OR IN HAND HOLDS EXCEPT CROSS WALK CONDUCTORS.



REV.	DESCRIPTION	DATE
1	CROSSWALK SYSTEM AS ALTERNATE WORK ITEM	1/28/2016
2		

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information herein shall be used or disseminated without the expressed written permission of JPR. © 2016 JPR - All Rights Reserved.

JONES PETRIE RAFINSKI
your one single source

Surveying • Engineering • Planning • Architecture • Utility Management
GIS • Environmental • Renewable Energy • Landscape Architecture

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



RECOMMENDED FOR APPROVAL: *Stallweber* 1.28.16
DESIGN ENGINEER DATE

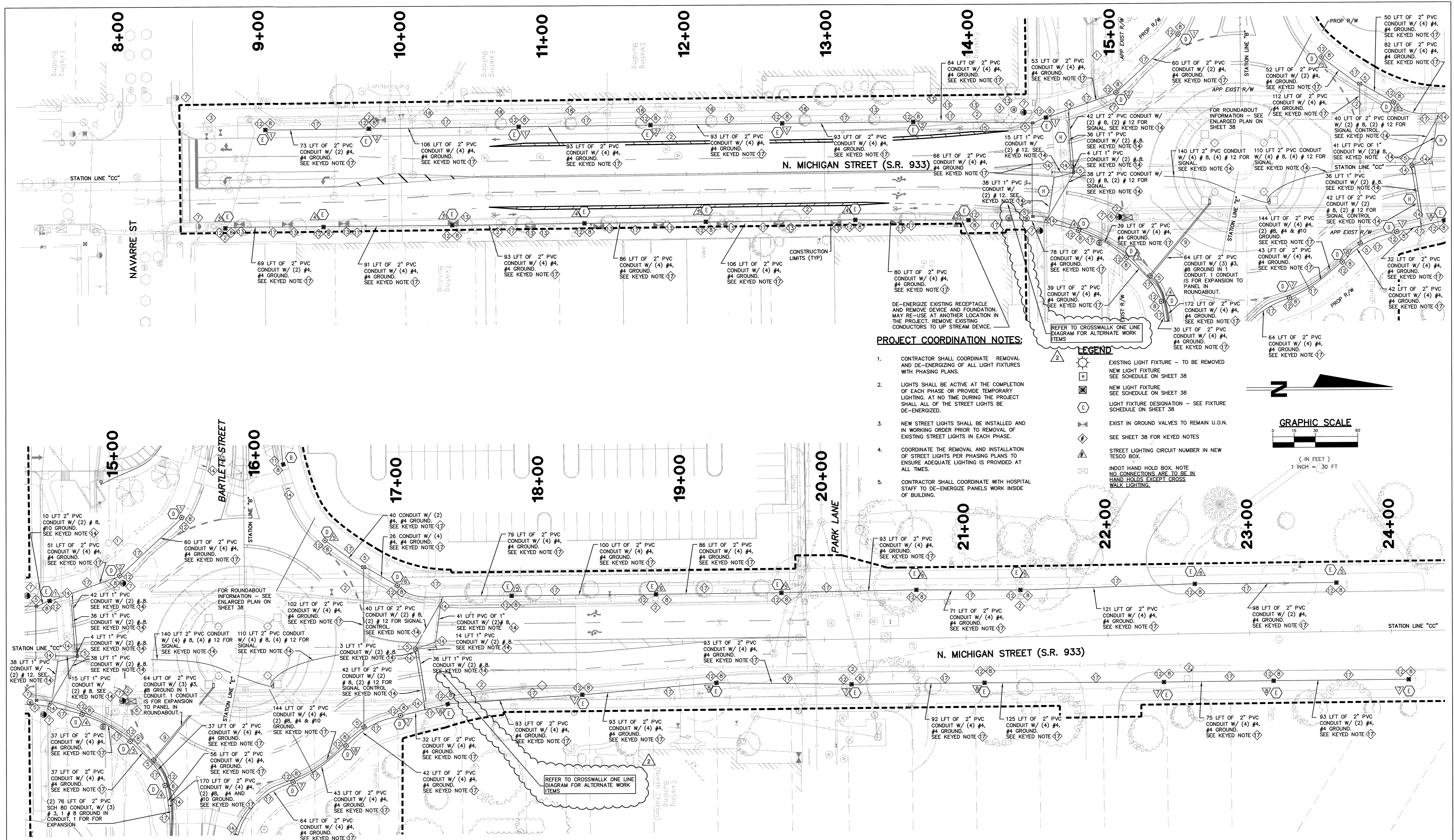
DESIGNED: C.R.C. DRAWN: R.J.H.

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



PROJECT COORDINATION NOTES:

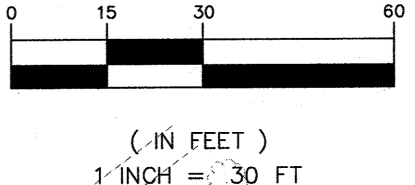
1. CONTRACTOR SHALL COORDINATE REMOVAL AND DE-ENERGIZING OF ALL LIGHT FIXTURES WITH PHASING PLANS.
2. LIGHTS SHALL BE ACTIVE AT THE COMPLETION OF EACH PHASE OR PROVIDE TEMPORARY LIGHTING. AT NO TIME DURING THE PROJECT SHALL ALL OF THE STREET LIGHTS BE DE-ENERGIZED.
3. NEW STREET LIGHTS SHALL BE INSTALLED 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. NO CONNECTIONS ARE TO BE IN HAND HOLDS EXCEPT CROSS WALK LIGHTING.



GRAPHIC SCALE



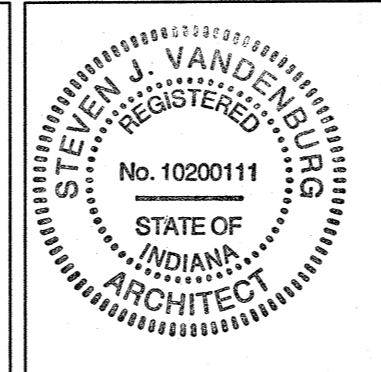
REV.	DESCRIPTION	SV	DATE
1	CROSSWALK SYSTEM AS ALTERNATE WORK ITEM	SV	1/28/2016
		BY	

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information herein shall be used or disseminated without the expressed written permission of JPR. © 2016 JPR - All Rights Reserved.

JONES PETRIE RAFINSKI
your one single source

Surveying • Engineering • Planning • Architecture • Utility Management
GIS • Environmental • Renewable Energy • Landscape Architecture

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



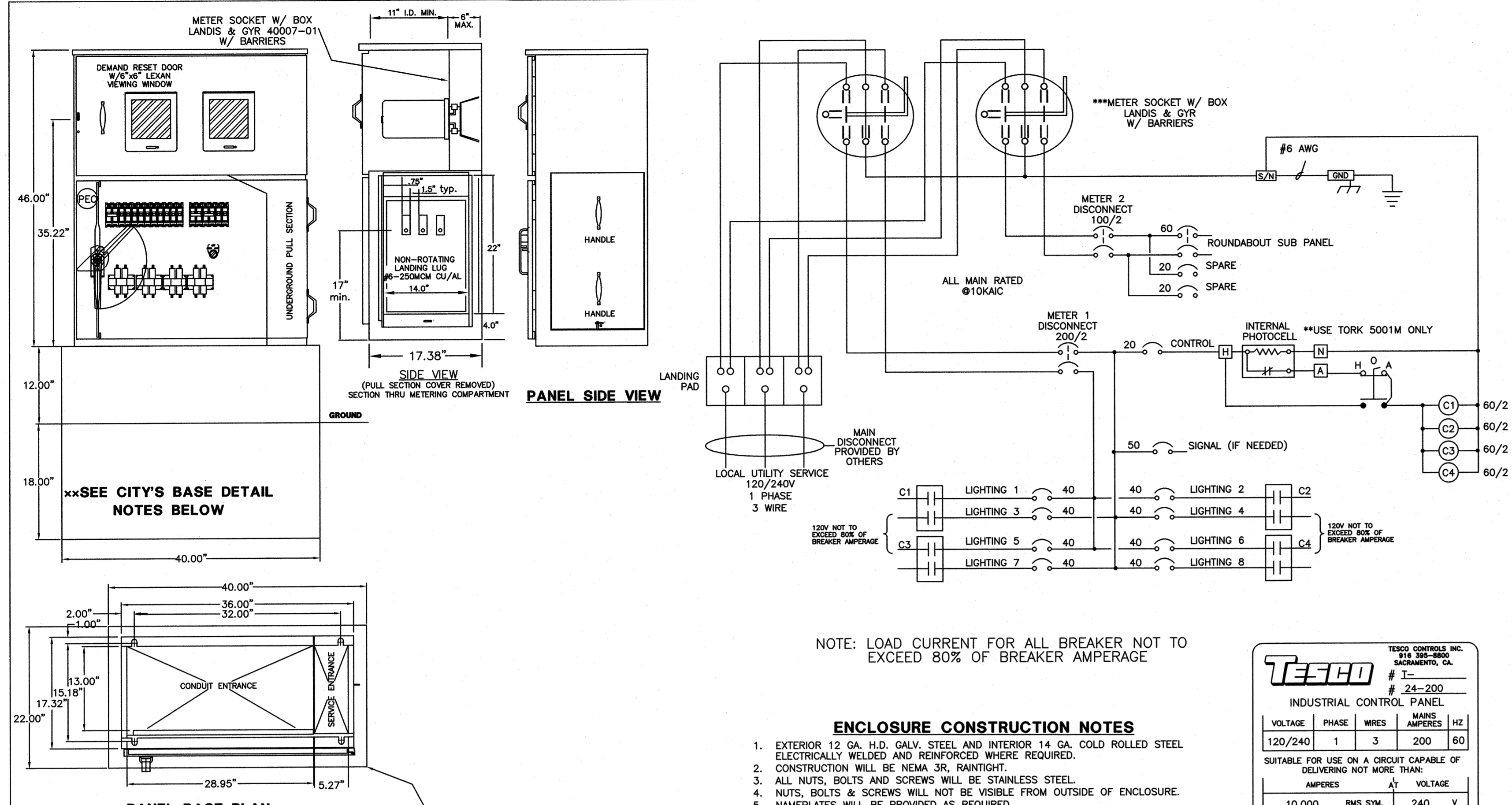
RECOMMENDED FOR APPROVAL: *Steven Wadley* 1/28/16
DESIGN ENGINEER DATE

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'	DESIGNATION
VERTICAL SCALE	-
SURVEY BOOK	SHEETS
-	39 of
CONTRACT	PROJECT
-	114-032B



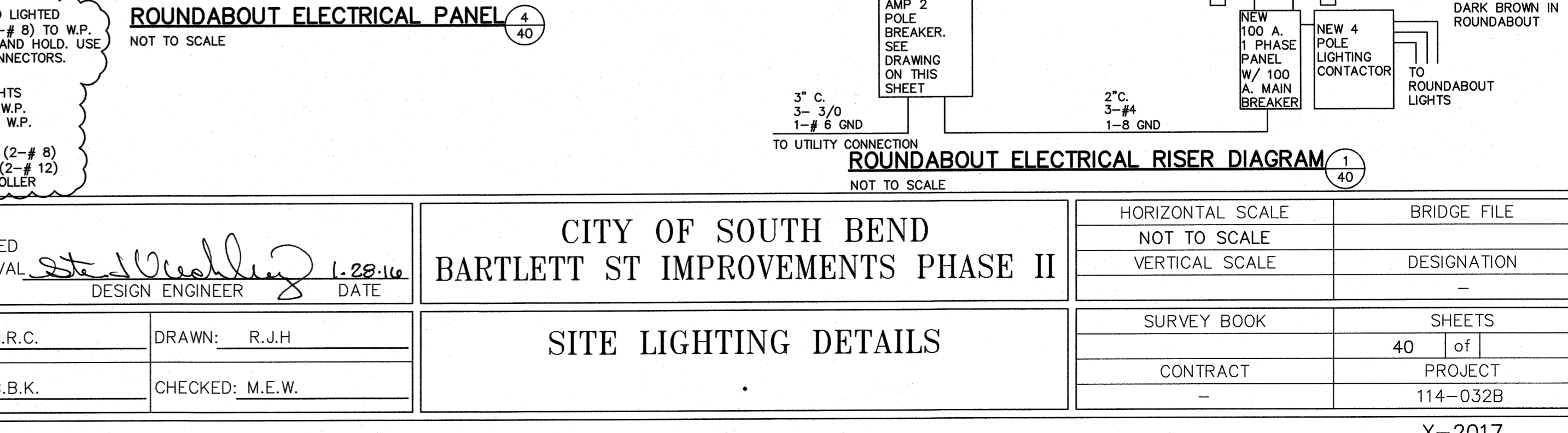
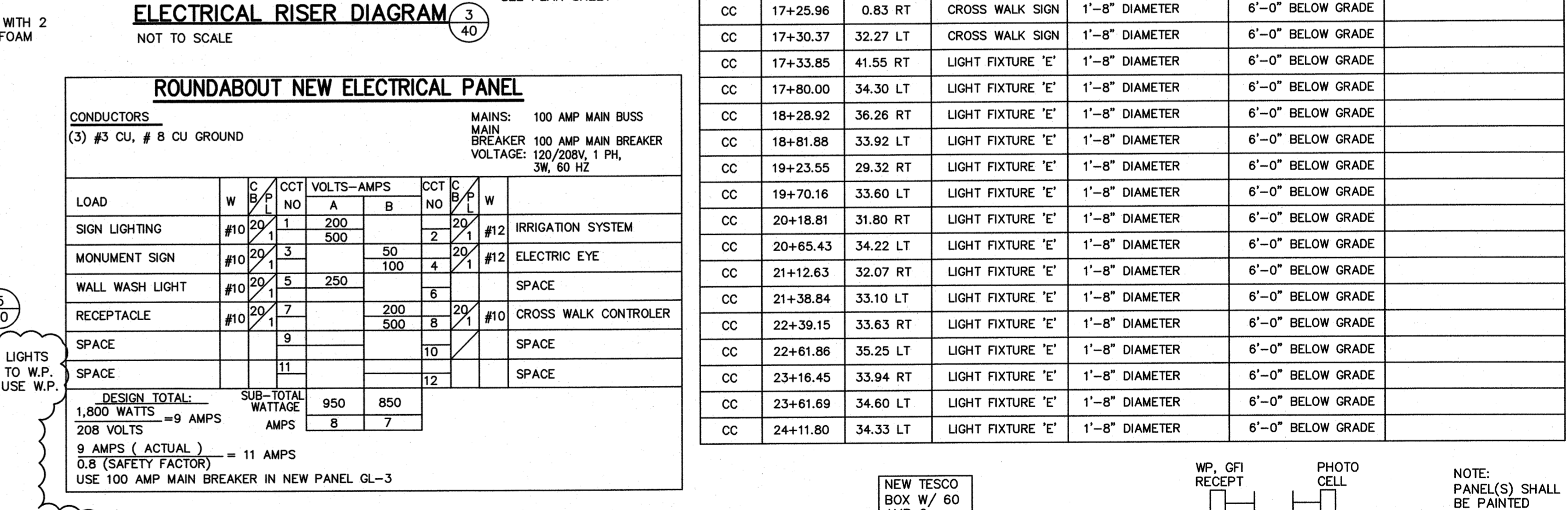
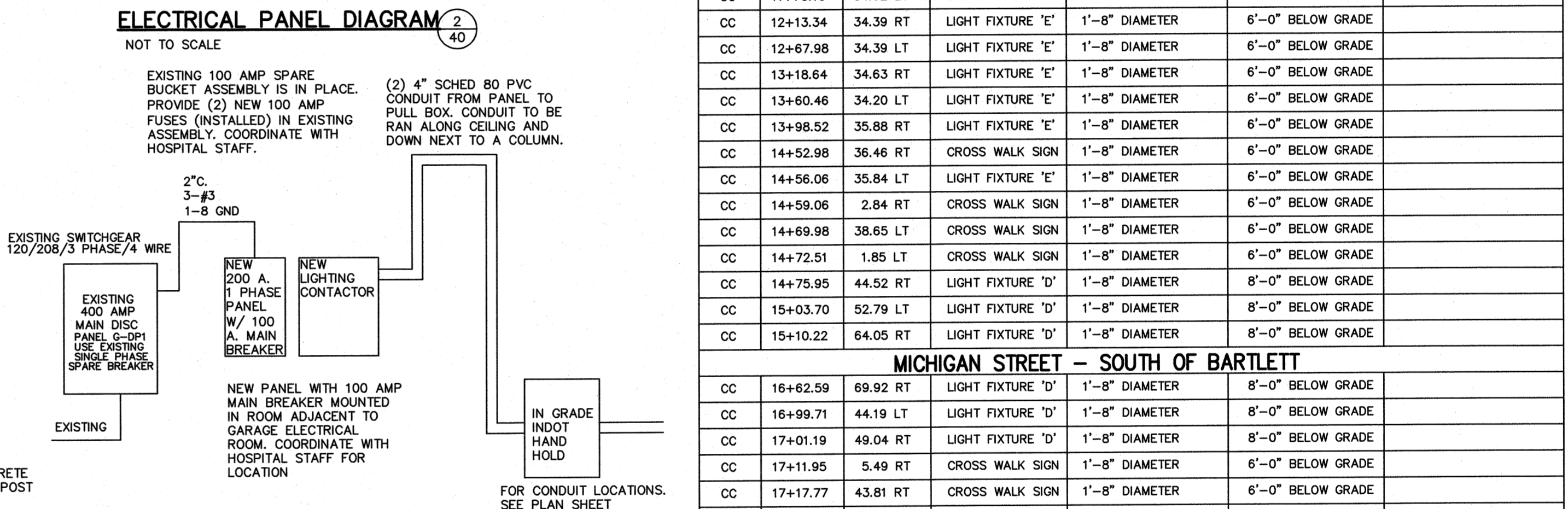
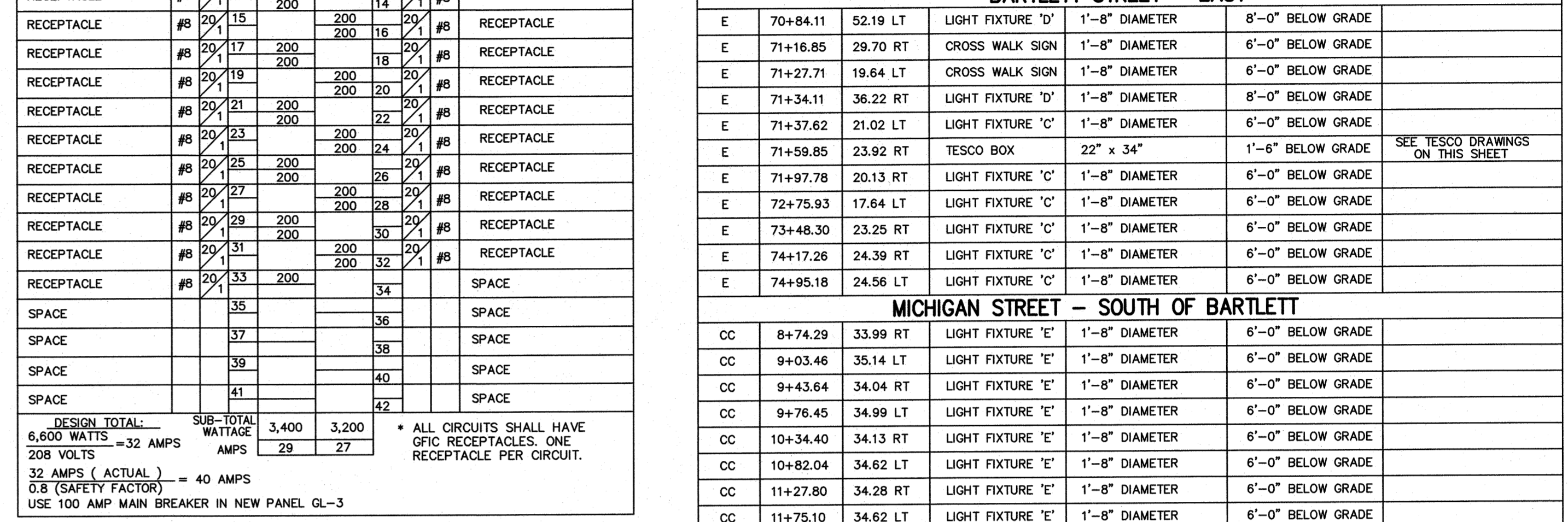
ELECTRICAL FOUNDATION LOCATION TABLE

BARTLETT STREET - WEST						
STATION LINE	STATION	OFF SET	TYPE	DIAMETER OR SIZE	DEPTH	REMARKS
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						
STATION LINE	STATION	OFF SET	TYPE	DIAMETER OR SIZE	DEPTH	REMARKS
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						
STATION LINE	STATION	OFF SET	TYPE	DIAMETER OR SIZE	DEPTH	REMARKS
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						
STATION LINE	STATION	OFF SET	TYPE	DIAMETER OR SIZE	DEPTH	REMARKS
CC	16+82.59	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	



REV	DATE	BY	DESCRIPTION	SV	DATE
2			CROSSWALK SYSTEM AS ALTERNATE WORK ITEM	SV	1/28/2016
				BY	DATE

The concepts, designs, plans, details and other information as shown on this document are the sole property of JPR and were created, developed, and presented for use on this specific project. None of the concepts, designs, plans, details or other information hereon shall be used or disseminated without the expressed written permission of JPR. © 2016 JPR - All Rights Reserved.

Jones Petrie Rafinski
your one single source

Surveying • Engineering • Planning • Architecture • Utility Management
GIS • Environmental • Renewable Energy • Landscape Architecture

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

RECOMMENDED FOR APPROVAL

Steve Weidner 1.28.16
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 DETAILS

HORIZONTAL SCALE		BRIDGE FILE	
NOT TO SCALE		DESIGNATION	
VERTICAL SCALE		-	
SURVEY BOOK		SHEETS	
CONTRACT		40 of	
-		PROJECT	
-		114-032B	