JEFFERSON COUNTY MISSOURI

JASON JONAS, P.E.
DIRECTOR OF PUBLIC WORKS

IMPERIAL MAIN STREET IMPROVEMENTS

FEDERAL PROJECT NUMBER: STP-5403(662)

CONSTRUCTION PLANS

UTILITY CONTACTS:

TELEPHONE - AT&T
GLENN HOGENMILLER
122 N. SECOND ST.
FESTUS, MO 63028
OFFICE: 636-931-7525

ELECTRIC - AMEREN
BILL ROSENER
6450 HWY. MM
HOUSE SPRINGS, MO 63051
OFFICE: 636-671-6162

FIBER OPTIC - CENTURYLINK
MARCIA GAY
1151 CENTURYTEL DR.
P.O. BOX 751
WENTZVILLE, MO 63385
OFFICE: 636-332-7261

GAS - SPIRE
BRIAN LANGENBACHER
4118 SHREWSBURY AVE
SHREWSBURY, MO 63119
OFFICE: 314-768-7767

WATER - JEFFERSON COUNTY PWSD 10
KEITH FLAM
P.O. BOX 910
IMPERIAL, MO 63052
OFFICE: 636-467-6868

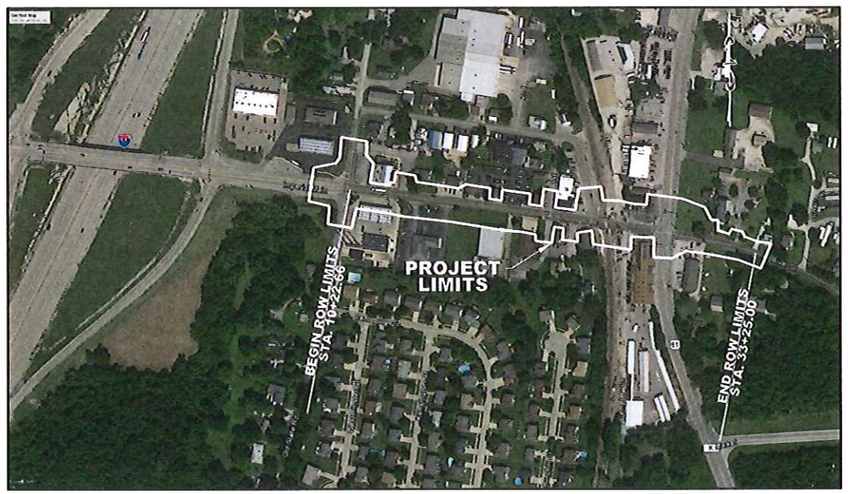
SEWER - ROCK CREEK
JASON SEGER
4133 WEST OUTER RD.
ARNOLD, MO 63010
OFFICE: 636-461-2578

TRAFFIC - MODOT TRAFFIC
YAN GLUZMAN
14301 SOUTH OUTER FORTY
CHESTERFIELD, MO 63017
OFFICE: 314-453-5045

ITS - MODOT ITS
14301 SOUTH OUTER FORTY
CHESTERFIELD, MO 63017
OFFICE: 314-275-1500

GRAPHIC / SYMBOL LEGEND (USED IN PLANS)

DESCRIPTION	EXISTING	NEW
RIGHT-OF-WAY		
PROPERTY LINE		
PERMANENT UTILITY EASEMENT		PUE
PERMANENT SIDEWALK EASEMENT		PSE
TEMPORARY CONSTRUCTION EASEMENT		TCE
UTILITY POLE (TYPE SPECIFIED)		
UNDERGROUND CONDUIT OR CABLE (TYPE SPECIFIED) T-TELEPHONE P-POWER TV-TELEVISION	T	
OVERHEAD UTILITY LINE (TYPE SPECIFIED) T-TELEPHONE OH-POWER W-WATER	OH	
LIGHT STANDARD		
TRAFFIC PULL BOX		
GAS LINE	G	
GAS VALVE	GV	
WATER LINE	W	
WATER SERVICE VALVE	WV	
WATER METER	WM	
FIRE HYDRANT	HYD	
SANITARY SEWER	S	
STORM SEWER		12" RCP
SEWER MANHOLE		
GRATED INLET		
CURB INLET/ AREA INLET		
CURB INLET (MULTIPLE UNIT)		
IDENT. OF NEW OR MOD. SANITARY STRUCTURE	B	12
IDENT. OF NEW OR MOD. STORM STRUCTURE		1 STR
PIPE WITH HEADWALLS		
DRAINAGE V-DITCH (SODDED)		
DRAINAGE FLAT BOTTOM DITCH (SODDED)		
DRAINAGE V-DITCH (PAVED)		
DRAINAGE FLAT BOTTOM DITCH (PAVED)		
CONSTRUCTION LIMITS		
CONCRETE PAVEMENT		
ASPHALTIC CONCRETE PAVEMENT		
PAVEMENT REMOVAL		
TREE OR SHRUB		
HEDGE		
FENCE	V	V
SIGN		
BUILDING		
MAILBOX (MB)	MB	
TO BE REMOVED	(TBR)	
TO BE ABANDONED	(TBA)	
USE IN PLACE	(UIP)	
TO BE REMOVED AND REPLACED	(TBR&R)	
TO BE REMOVED AND RELOCATED	(TBR&REL)	
ADJUST TO GRADE	(ATG)	
TO BE REMOVED AND REPLACED BY OTHERS	(TBR&RELBO)	
TO BE ABANDONED AND FILLED	(TBA&F)	
ADJUST TO GRADE BY OTHERS	(ATGBO)	
CUT CROSS	CROSS	
FOUND CROSS	OCR	
FOUND IRON PIPE	OIP	
FOUND IRON ROD	OIR	
FOUND STONE	OST	
SET P.K. NAIL	PK	
SET IRON PIPE	SIP	
DO NOT DISTURB	(DND)	
MAN-OLE	EN MH	
BENCHMARK		
REFERENCE POINT		



VICINITY MAP
NOT TO SCALE

SECTION 17, TOWNSHIP 42 NORTH, RANGE 6 EAST

PREPARED FEBRUARY 2, 2018

SPECIAL NOTE TO CONTRACTOR(S):

EXISTING UNDERGROUND AND ABOVE-GRADE FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED ON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATIONS OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST (OR THE EXISTENCE OF WHICH WAS NOT KNOWN) AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY; AND TO PROTECT ALL SUCH FEATURES (EXCEPT THOSE SPECIFICALLY NOTED FOR REMOVAL OR DEMOLITION) DURING CONSTRUCTION.

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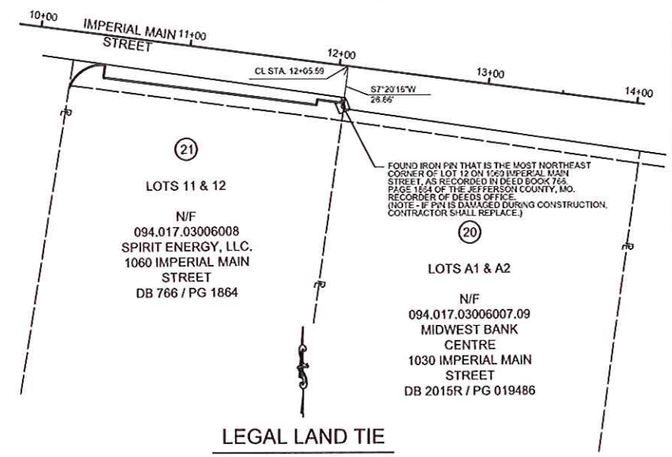


LEGAL LAND TIE

DESIGN DESIGNATION

FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL
CURRENT POSTED SPEED	25 MPH
DESIGN SPEED	25 MPH
CURRENT ADT	12,015
FUTURE ADT (2034)	19,688

LENGTH OF PROJECT

BEGINNING OF PROJECT (IMPERIAL MAIN)	STA. 9+93.10
END OF PROJECT (IMPERIAL MAIN)	STA. 21+01.39
BEGINNING OF PROJECT (RIVER ST.)	STA. 30+26.30
END OF PROJECT (RIVER ST.)	STA. 33+62.07
APPARENT LENGTH (IMPERIAL MAIN)	1108.29 FEET
APPARENT LENGTH (RIVER ST.)	335.77 FEET
TOTAL CORRECTIONS	0.0
NET LENGTH OF PROJECT	1444.06 FEET

DESIGN CRITERIA USED:
AASHTO, MODOT AND JEFFERSON COUNTY

APPROVED BY:
JEFFERSON COUNTY, MISSOURI

JASON JONAS, P.E.
DIRECTOR OF PUBLIC WORKS

4/17/18
DATE

ENGINEER'S SEAL
STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER
1/30/2018

DATE PREPARED	2/2/2018
ROUTE: MAIN	STATE: MO
DISTRICT	SHEET NO. 1
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION | DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 10TH ST., STE. 400 ST. LOUIS, MO 63103
314-531-4321 - FAX 314-531-6565
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

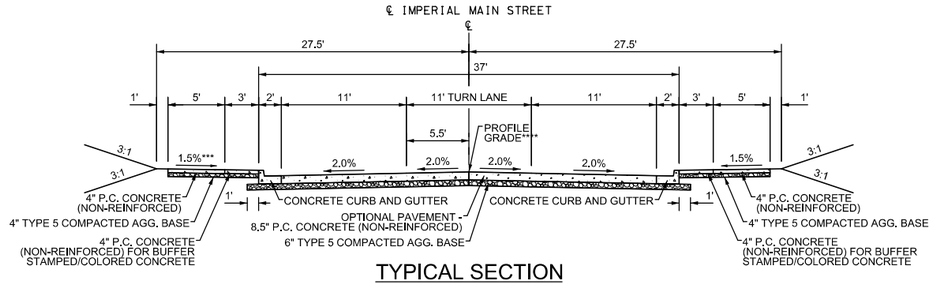
TITLE SHEET
IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

REV.

OPTION 1

OPTION 1 - RIGID PAVEMENT
8.5" PCCP

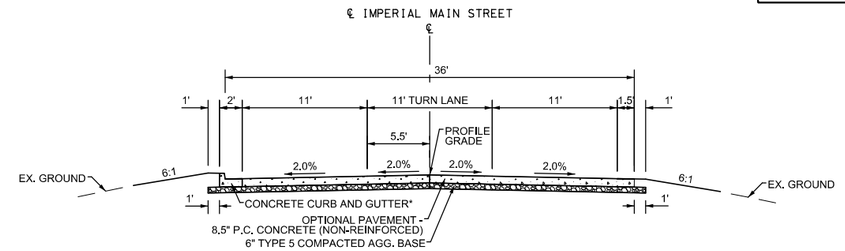
6" TYPE 5 COMPACTED AGG. BASE



TYPICAL SECTION
IMPERIAL MAIN STREET

STA. 10+22.20 - STA. 18+36.14

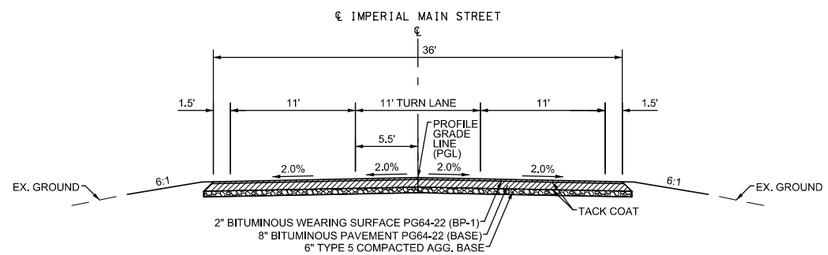
* 1.5' BUFFER FROM STA. 15+03.28 TO STA. 16+94.46
* 2' BUFFER FROM STA. 17+31.49 TO STA. 18+28.28
** NO BUFFER FROM STA. 11+87.47 TO STA. 12+25.96
***TRANSITION SIDEWALK SLOPE FROM +1.50% TO -1.50% FROM STA. 15+46.56 TO STA. 15+53.56
****PGL OFFSET 0' RT TO 5.5' RT FROM STA. 16+00.00 TO STA. 16+47.06
****PGL OFFSET 5.5' RT TO 0' RT FROM STA. 17+39.27 TO STA. 17+75.00
****SEE SHEET 12 FOR DETAILED GRADING/SLOPES



TYPICAL SECTION
IMPERIAL MAIN STREET

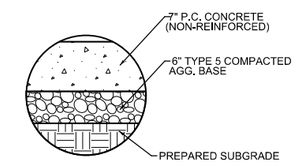
STA. 18+36.14 - STA. 19+03.41
STA. 19+24.31 - STA. 21+01.40

*NO CONCRETE CURB AND GUTTER FROM STA. 19+24.31 TO STA. 19+74.11 LT SIDE
CONCRETE CURB AND GUTTER FROM STA. 19+38.12 TO STA. 19+77.78 RT SIDE



TYPICAL SECTION
IMPERIAL MAIN STREET

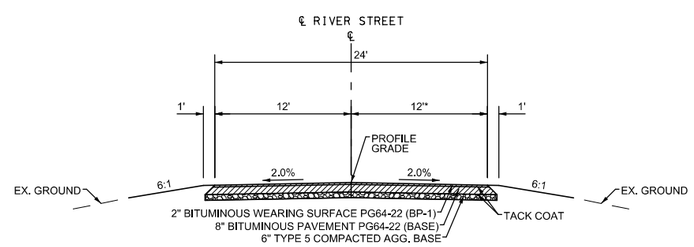
STA. 19+03.41 - STA. 19+08.58
STA 19+19.27 - STA. 19+24.31



COMMERCIAL
CONCRETE ENTRANCE

GENERAL NOTES:

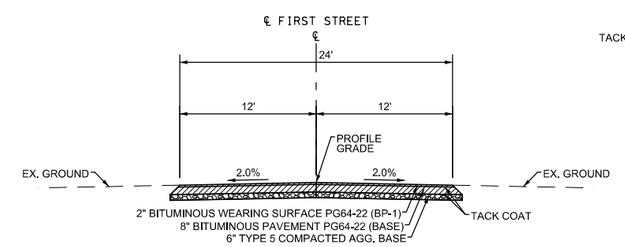
1. ALL REMOVALS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, EXCEPT AS NOTED IN THE PLANS AND SUPPLEMENTAL SPECIFICATIONS.
2. EARTH SLOPES SHALL NOT EXCEED 3:1 (HORIZONTAL:VERTICAL).
3. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO PROTECT ADJOINING PROPERTY FROM DAMAGE.
4. ALL MATERIAL REMOVED DURING GRADING OPERATIONS, INCLUDING RUBBISH, SHALL BE DISPOSED OFF THE SITE BY THE CONTRACTOR IN ACCORDANCE WITH STATE, COUNTY AND LOCAL ORDINANCES.
5. SUBGRADE COMPACTION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONCRETE PAVEMENT, ASPHALT PAVEMENT, AND ASPHALT OR CONCRETE SIDEWALK/PATH. DIRECT PAYMENT WILL NOT BE MADE FOR SUBGRADE COMPACTION.
6. EXISTING UNDERGROUND AND ABOVE-GRADE FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED ON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATIONS OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE, ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST (OR THE EXISTENCE OF WHICH WAS NOT KNOWN) AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY; AND TO PROTECT ALL SUCH EXISTING FEATURES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES SHALL BE CONTRACTOR'S RESPONSIBILITY.
7. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FEDERAL HIGHWAY'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
8. ALL PAVEMENT ADJACENT TO FEATURES TO REMAIN IN PLACE, SHALL BE SAWCUT PRIOR TO REMOVAL. ALL SAWCUTS SHALL BE INCIDENTAL TO CONSTRUCTION; DIRECT PAYMENT WILL NOT BE MADE FOR SAWCUTS.
9. UPON REQUEST, HORNER & SHIFRIN SHALL PROVIDE THE CONTRACTOR WITH A COPY OF THE ELECTRONIC DRAWINGS FOR CONSTRUCTION STAKING PURPOSES.
10. PAVEMENT STRIPING SHALL BE IN ACCORDANCE WITH FEDERAL HIGHWAY'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
11. SEDIMENT AND EROSION CONTROL SHALL BE IN ACCORDANCE WITH STATE, COUNTY AND LOCAL ORDINANCES.
12. CONTRACTOR SHALL REMOVE, STORE, & REINSTALL AT THE COMPLETION OF CONSTRUCTION ALL MAILBOXES, FENCES, AND SIGNS AFFECTED BY CONSTRUCTION. SUBSEQUENTLY IF DAMAGE OCCURS, IT SHALL BE REPLACED BY CONTRACTOR.
13. CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY BUSINESS SIGNAGE IF AFFECTED AND SHALL BE CONSIDERED INCIDENTAL.
14. THE CONTRACTOR SHALL NOTIFY EACH AFFECTED PROPERTY OWNER A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION AND/OR GRADING.
15. CONTRACTOR SHALL ADJUST TO GRADE ALL WATER METERS VAULTS, METER LIDS, AND WATER VALVE BOXES.
16. INTERIM STORM WATER DRAINAGE CONTROL CONTROL IN THE FORM OF SILTATION CONTROL MEASURES AND TEMPORARY DRAINAGE FOR LOW AREAS DURING CONSTRUCTION SHALL BE PROVIDED AND SHALL BE CONSIDERED INCIDENTAL.
17. TACK COAT SHALL BE PLACED BETWEEN ALL LIFTS OF ASPHALT. TWO COATS OF TACK COAT SHALL BE PLACED FOR ALL ROADS, EXCEPT ONLY ONE COAT SHALL BE PLACED FOR RESIDENTIAL DRIVEWAYS.



TYPICAL SECTION
RIVER STREET

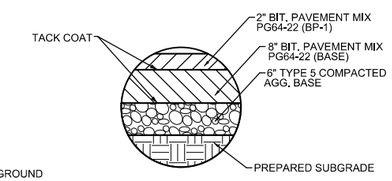
STA. 30+27.13 - STA. 33+62.07

*TRANSITION RT LANE FROM 15.74' TO 12' FROM STA. 30+88.46 TO STA. 31+37.08

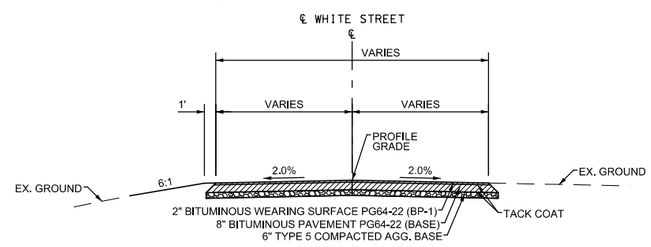


TYPICAL SECTION
FIRST STREET

STA. 70+55.00 - STA. 70+82.00

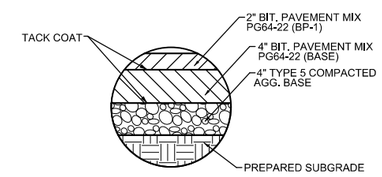


COMMERCIAL
ASPHALT ENTRANCE
AND PARKING LOTS



TYPICAL SECTION
WHITE STREET

STA. 90+35.00 - STA. 90+81.35



RESIDENTIAL
ASPHALT ENTRANCE

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	2
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

REV.	DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4224 FAX 314-231-6860
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

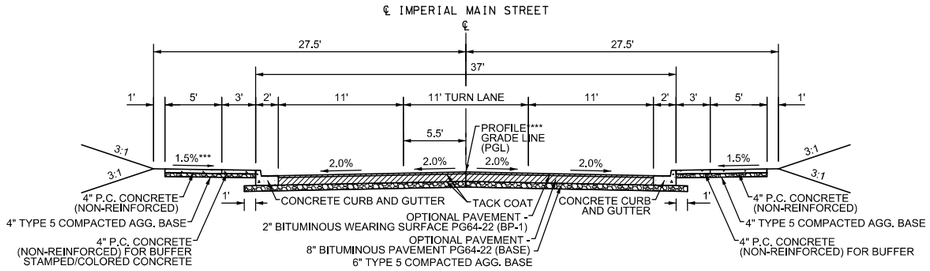
TYPICAL SECTIONS & DETAILS
SHEET 1 OF 4

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

OPTION 2

OPTION 2 - FLEXIBLE PAVEMENT
2" BIT. WEARING SURFACE PG64-22 (BP-1)
OVER 8" BIT. PAVEMENT PG64-22 (BASE)

6" TYPE 5 COMPACTED AGG. BASE



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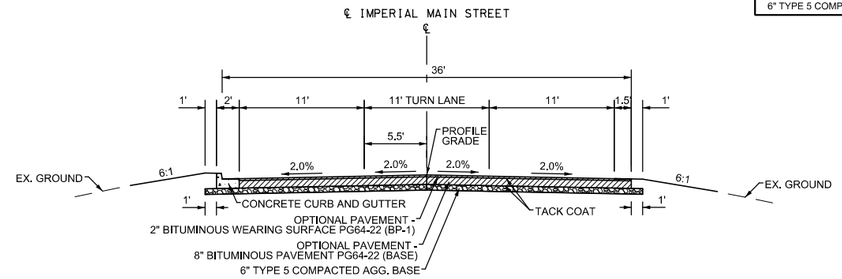

TYPICAL SECTION
IMPERIAL MAIN STREET

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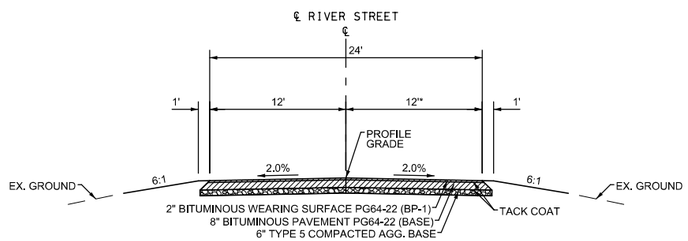

TYPICAL SECTION
RIVER STREET

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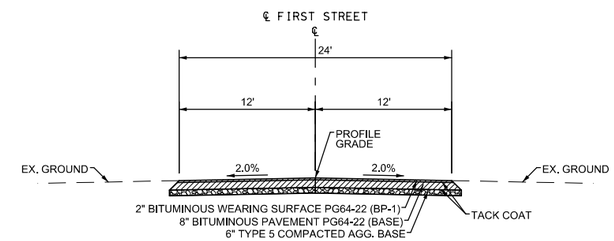
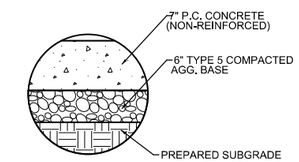
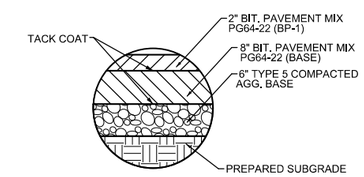


TYPICAL SECTION
FIRST STREET

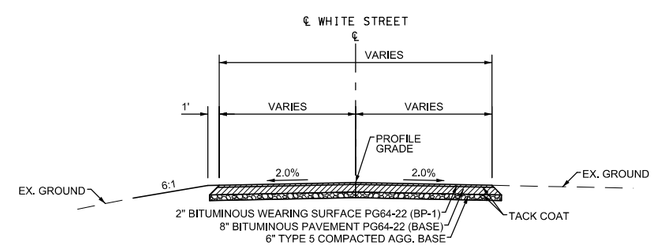
STA. 70+55.00 - STA. 70+82.00



COMMERCIAL
CONCRETE ENTRANCE

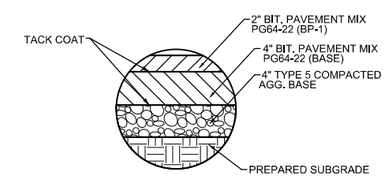


COMMERCIAL
ASPHALT ENTRANCE
AND PARKING LOTS



TYPICAL SECTION
WHITE STREET

STA. 90+35.00 - STA. 90+81.35



RESIDENTIAL
ASPHALT ENTRANCE

GENERAL NOTES:

1. ALL REMOVALS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, EXCEPT AS NOTED IN THE PLANS AND SUPPLEMENTAL SPECIFICATIONS.
2. EARTH SLOPES SHALL NOT EXCEED 3:1 (HORIZONTAL:VERTICAL).
3. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO PROTECT ADJOINING PROPERTY FROM DAMAGE.
4. ALL MATERIAL REMOVED DURING GRADING OPERATIONS, INCLUDING RUBBISH, SHALL BE DISPOSED OFF THE SITE BY THE CONTRACTOR IN ACCORDANCE WITH STATE, COUNTY AND LOCAL ORDINANCES.
5. SUBGRADE COMPACTION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONCRETE PAVEMENT, ASPHALT PAVEMENT, AND ASPHALT OR CONCRETE SIDEWALK/PATH. DIRECT PAYMENT WILL NOT BE MADE FOR SUBGRADE COMPACTION.
6. EXISTING UNDERGROUND AND ABOVE-GRADE FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED ON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATIONS OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE, ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST (OR THE EXISTENCE OF WHICH WAS NOT KNOWN) AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY; AND TO PROTECT ALL SUCH EXISTING FEATURES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES SHALL BE CONTRACTOR'S RESPONSIBILITY.
7. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FEDERAL HIGHWAY'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
8. ALL PAVEMENT ADJACENT TO FEATURES TO REMAIN IN PLACE, SHALL BE SAWCUT PRIOR TO REMOVAL. ALL SAWCUTS SHALL BE INCIDENTAL TO CONSTRUCTION; DIRECT PAYMENT WILL NOT BE MADE FOR SAWCUTS.
9. UPON REQUEST, HORNER & SHIFRIN SHALL PROVIDE THE CONTRACTOR WITH A COPY OF THE ELECTRONIC DRAWINGS FOR CONSTRUCTION STAKING PURPOSES.
10. PAVEMENT STRIPING SHALL BE IN ACCORDANCE WITH FEDERAL HIGHWAY'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
11. SEDIMENT AND EROSION CONTROL SHALL BE IN ACCORDANCE WITH STATE, COUNTY AND LOCAL ORDINANCES.
12. CONTRACTOR SHALL REMOVE, STORE, & REINSTALL AT THE COMPLETION OF CONSTRUCTION ALL MAILBOXES, FENCES, AND SIGNS AFFECTED BY CONSTRUCTION. SUBSEQUENTLY IF DAMAGE OCCURS, IT SHALL BE REPLACED BY CONTRACTOR.
13. CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY BUSINESS SIGNAGE IF AFFECTED AND SHALL BE CONSIDERED INCIDENTAL.
14. THE CONTRACTOR SHALL NOTIFY EACH AFFECTED PROPERTY OWNER A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION AND/OR GRADING.
15. CONTRACTOR SHALL ADJUST TO GRADE ALL WATER METERS VAULTS, METER LIDS, AND WATER VALVE BOXES.
16. INTERIM STORM WATER DRAINAGE CONTROL CONTROL IN THE FORM OF SILTATION CONTROL MEASURES AND TEMPORARY DRAINAGE FOR LOW AREAS DURING CONSTRUCTION SHALL BE PROVIDED AND SHALL BE CONSIDERED INCIDENTAL.
17. TACK COAT SHALL BE PLACED BETWEEN ALL LIFTS OF ASPHALT. TWO COATS OF TACK COAT SHALL BE PLACED FOR ALL ROADS, EXCEPT ONLY ONE COAT SHALL BE PLACED FOR RESIDENTIAL DRIVEWAYS.

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	
2/2/2018	
ROUTE: MAIN	STATE: MO
DISTRICT	SHEET NO.: 2
COUNTY: JEFFERSON	
JOB NO.: 1534600	
CONTRACT ID.	
PROJECT NO.: STP-5403(662)	
BRIDGE NO.	

DESCRIPTION	DATE

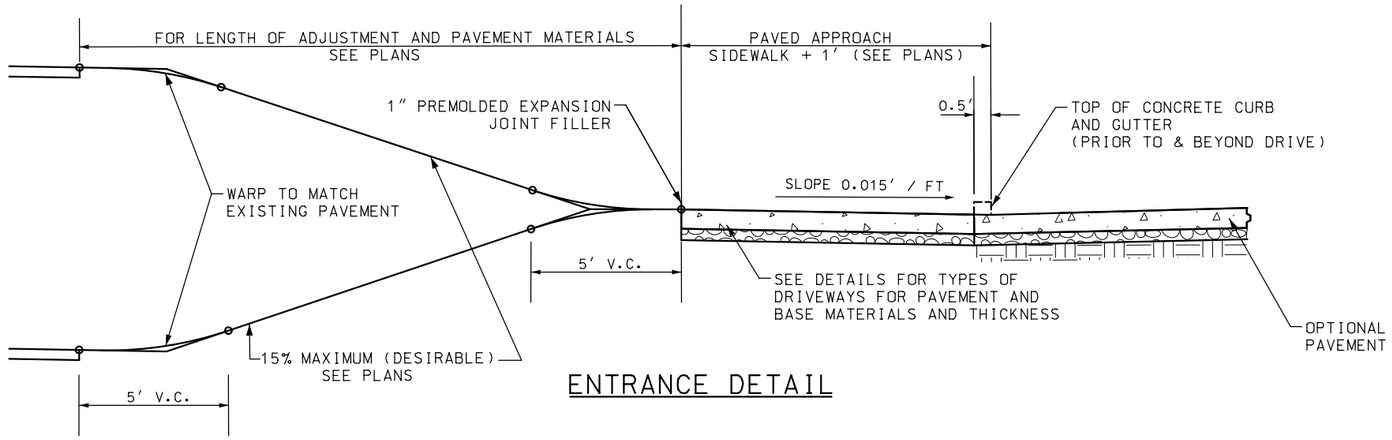
JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-531-4224 - FAX 314-531-0666
www.horner-shifrin.com
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

TYPICAL SECTIONS & DETAILS
SHEET 2 OF 4

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

REV.



ENTRANCE DETAIL

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER
2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
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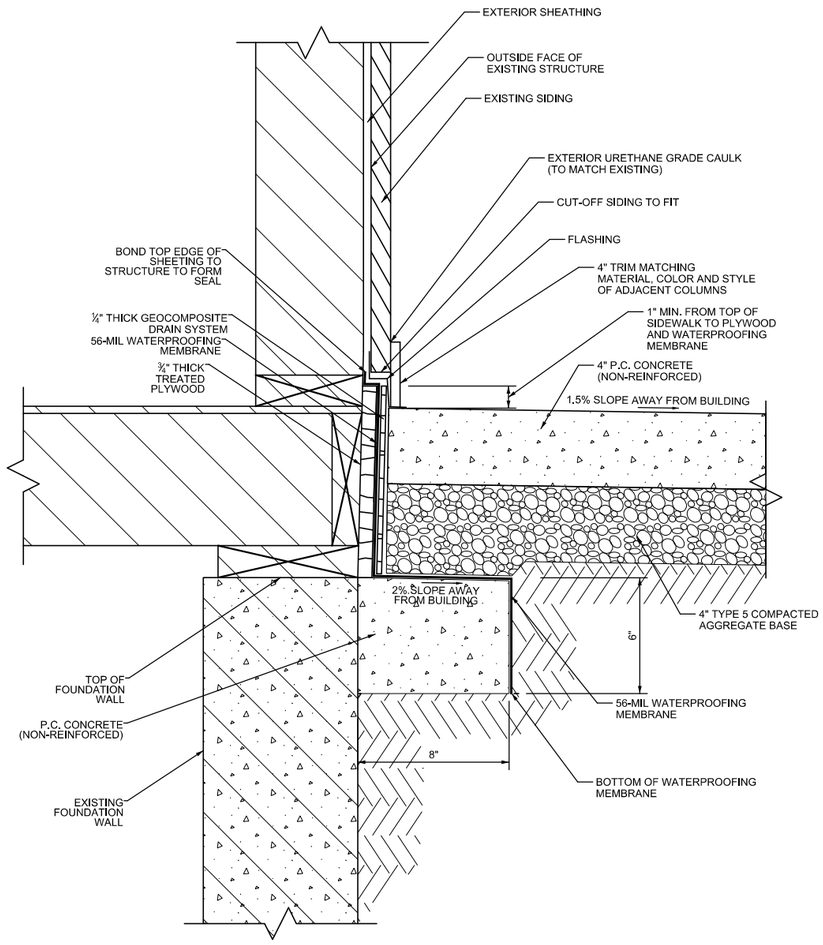
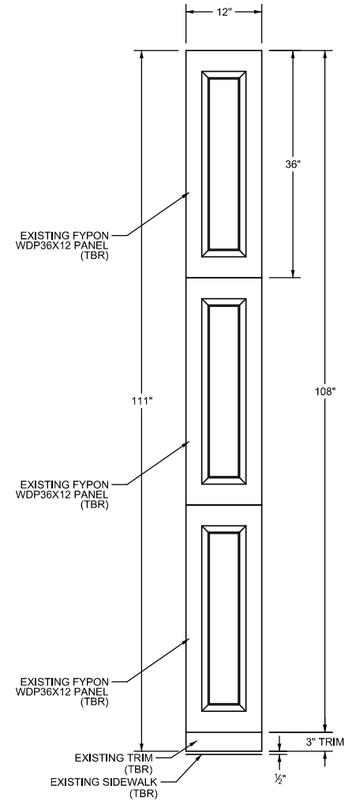
TYPICAL SECTIONS & DETAILS
SHEET 3 OF 4

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

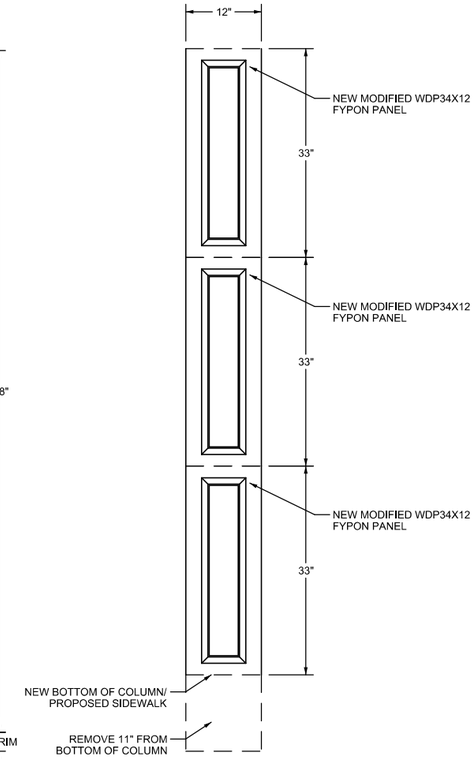
REV.



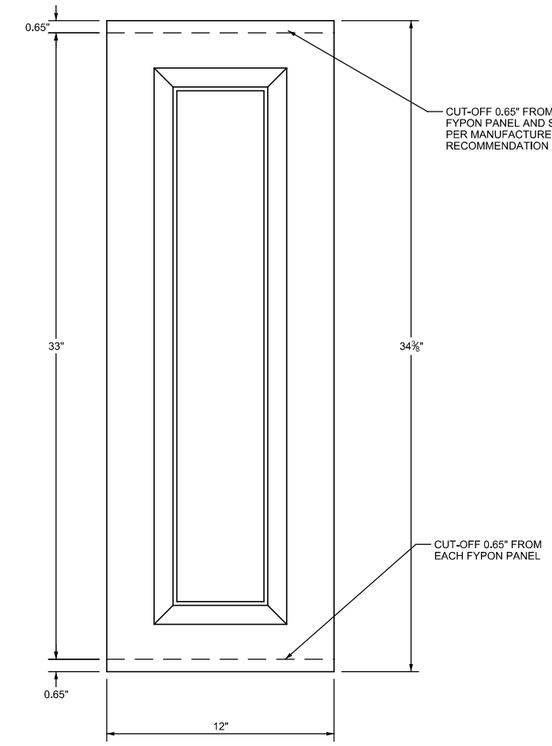
WATERPROOFING DETAIL
SECTION THROUGH KIMMSWICK CLUB BUILDING
AT 1027 IMPERIAL MAIN STREET



EXISTING COLUMNS



PROPOSED COLUMNS



MODIFIED WDP34X12 FYPON PANEL

ARCHITECTURAL COLUMNS AT KIMMSWICK CLUB
BUILDING AT 1027 IMPERIAL MAIN STREET

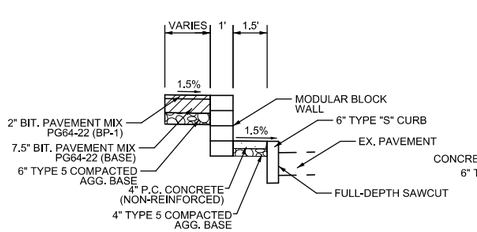
INSTALLATION:

1) REMOVE ALL EXISTING FYPON WDP36X12 PANELS FROM THREE COLUMNS ON SOUTH FACE OF KIMMSWICK CLUB BUILDING.

2) CUT THREE EXISTING COLUMNS 11".

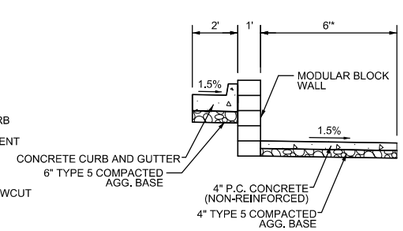
3) CUT (9) NEW FYPON WDP34X12 PANELS 0.65" ON TOP AND BOTTOM OF PANEL AND PLACE ON EXISTING COLUMNS. ATTACH NEW PANELS PER MANUFACTURER'S INSTRUCTIONS. SEE MODIFIED WDP34X12 FYPON PANEL DETAIL.

4) PAINT TO MATCH EXISTING.



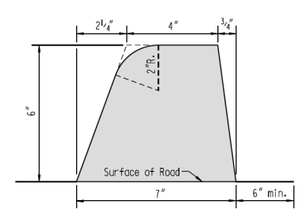
TYPICAL MODULAR BLOCK WALL-
SECTION 1

STA. 100+00.00 TO STA. 100+62.76 - WALL A



TYPICAL MODULAR BLOCK WALL-
SECTION 2

STA. 100+62.76 TO STA. 101+14.62 - WALL A
* TRANSITION FROM 1.5' TO 6' FROM STA. 100+62.76 TO STA. 100+67.76 - WALL A



ASPHALT CURB

GENERAL NOTES:

1) LOCATION, DIAMETER AND LENGTH OF SOCK IS DEPENDENT ON THE INLET/GUTTER BEING PROTECTED (I.E. DOUBLE, TRIPLE INLET, ETC.)

2) GRAVEL FILTER BAGS MAY BE SUBSTITUTED FOR FILTER SOCKS.

3) SOME LOCATIONS WILL NOT HAVE SIDEWALK (AS SHOWN IN THIS DETAIL)

4) IF THE AREA BEHIND THE INLET (AND SIDEWALK) IS NOT STABILIZED, A BMP SHALL BE USED TO PREVENT POLLUTANTS FROM ENTERING THE INLET FROM BEHIND.

5) WHEN A WATTLE IS USED TO PREVEN POLLUTANTS FROM ENTERING AN INLET FROM BEHIND, IT MUST BE PLACED ON A SIDEWALK TO MAINTAIN A MINIMUM 3 FOOT WALKING PATH. THE BMP SHALL BE MAINTAINED TO PREVENT SEDIMENT ACCUMULATION ON THE SIDEWALK.

6) SOCKS/BAGS (BMP) SHALL BE INSTALLED PRIOR TO ANY DISTURBANCE ACTIVITY ON EXISTING INLETS AND IMMEDIATELY AFTER INSTALLATION OF PROPOSED INLETS.

7) ACCUMULATED SEDIMENT SHALL BE REMOVED BEFORE IT REACHES ONE HALF THE DIAMETER OF THE SOCK OR BAG HEIGHT AT A MINIMUM OR ENCHROACHES ONTO A TRAVEL LANE.

8) LEAVE ONE GRAVEL BAG GAP IN THE TOP LAYER TO PROVIDE A SPILLWAY FOR OVERFLOW.

9) BMPS MUST BE INSTALLED TO ALLOW THE INLET/GUTTER TO FUNCTION WITHOUT COMPLETELY BLOCKING FLOWS TO ELIMINATE LOCALIZED FLOODING. CHOOSE THE DIAMETER OF SOCK AND LAYER(S) OF BAGS SUITABLE TO THE INDIVIDUAL APPLICATION.

10) INLET PROTECTION IS NOT A STAND ALONE BMP AND SHOULD BE USED IN CONJUNCTION WITH OTHER UP GRADIENT BMPS.

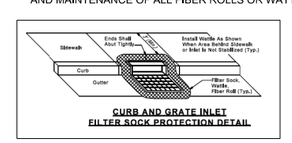
11) SOCKS NEED TO BE WEIGHTED FOR USE AROUND INLETS (INTERNAL ROLL WEIGHT OR BY PLACING A WEIGHT, SUCH AS A CONCRETE BLOCK, ON THE DOWN STREAM SIDE OF THE SOCK). WEIGHT MUST NOT BE PLACED ON TOP OF THE ROLL, SMASHING OR FLATTENING THE ROLL. USE ALTERNATE BMP IF LOCALIZED FLOODING IS POSSIBLE.

12) AT LOCATIONS WITHOUT CURBS, THE GUTTER PROTECTION MAY BE SHAPED INTO A HORSESHOE, WITH THE OPENING FACING OPPOSITE THE DIRECTION OF FLOW. GUTTER PROTECTION CAN HELP PRE-TREAT STORM WATER IF NEEDED.

13) AT LOCATIONS WITHOUT CURBS, PLACE BMPS OF CHOICE COMPLETELY AROUND THE INLET. OVERLAP ENDS IF NEEDED.

14) FIBER ROLLS SHALL CONTAIN STRAW, FLAX, COCONUT FIBER (COIR), RICE STRAW OR ASPEN EXCELSIOR IN A TIGHT TUBULAR ROLL. SPECIFICALLY DESIGNED FOR REMOVAL OF SOLIDS FROM STORM WATER RUNOFF. FILL MATERIAL MUST BE BIODEGRADABLE AND CONTAIN NO CHEMICAL ADDITIVES.

15) FOLLOW THE ROLL MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS FOR THE SIZING, INSTALLATION AND MAINTENANCE OF ALL FIBER ROLLS OR WATTLES.



GRATED INLET FILTER SOCK
PROTECTION DETAIL

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	2
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
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HILLSBORO, MO 63050
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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

TYPICAL SECTIONS & DETAILS
SHEET 4 OF 4

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

SUMMARY OF QUANTITIES

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
	ROADWAY ITEMS		
2013000	CLEARING AND GRUBBING	ACRES	0.3
2022010	REMOVAL OF IMPROVEMENTS	L.S.	1
2031000	CLASS A EXCAVATION	C.Y.	4917
2036000	COMPACTING EMBANKMENT	C.Y.	41
3040504	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	S.Y.	395
3040506	TYPE 5 AGGREGATE FOR BASE (6 IN. THICK)	S.Y.	8284
3101002	GRAVEL (A)	S.Y.	149
4011209	BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1)	TONS	263.0
4013000	BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)	TONS	1015.3
4019905	OPTIONAL PAVEMENT	S.Y.	4429.7
4071005	TACK COAT	GAL	230
5021107	CONCRETE PAVEMENT (7 IN. NON-REINF)	S.Y.	837.2
5021107A	CONCRETE PAVEMENT (7 IN. NON-REINF) - EXPOSED AGGREGATE	S.Y.	86.6
5029905	STAMPED CONCRETE	S.Y.	265.9
6039902	ADJUST WATER VALVE TO GRADE	EACH	5
6039903	ADJUST WATER METER TO GRADE	EACH	3
6042010	ADJUSTING MANHOLE	EACH	1
6042020	ADJUST INLET TO GRADE	EACH	2
6044011	PIPE COLLAR, TYPE "A" (CONCRETE)	EACH	1
6083006	6 IN. CONCRETE MEDIAN STRIP	S.Y.	15
6086005	CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S	L.F.	970
6089902	WHEEL STOP	EACH	6
6091041	CONCRETE GUTTER TYPE A	L.F.	13
6091051	CURB AND GUTTER TYPE A	L.F.	1807
6092011	INTEGRAL CURB (6 IN. HEIGHT AND UNDER) TYPE A	L.F.	247
6092011A	INTEGRAL CURB (6 IN. HEIGHT AND UNDER) TYPE A - EXPOSED AGGREGATE	L.F.	78
6092021	INTEGRAL CURB (OVER 6 IN. HEIGHT) TYPE A	L.F.	101
6093010	ASPHALT CURB	L.F.	67
6141120	CURVED VANE GRATE AND FRAME (2 FT. x 2 FT. OR 600 MM x 600 MM)	L.F.	4
6143010	MANHOLE FRAME AND COVER, TYPE 1-A	EACH	1
6143012	MANHOLE FRAME AND COVER, TYPE 2	EACH	1
6149902	STEEL GRATE	EACH	2
6149902A	STEEL GRATE WITH SIDE INTAKE	EACH	2
6161005	CONSTRUCTION SIGNS	S.F.	546
6161009	FLAG ASSEMBLY	EACH	5
6161025	CHANNELIZER (TRIM LINE)	L.F.	36
6161030	TYPE III MOVEABLE BARRICADE	EACH	8
6161096	CHANGEABLE MESSAGE SIGN WITHOUT COMMUNICATION INTERFACE, CONTRACTOR FURNISHED, CONTRACTOR RETAINED	EACH	2
6181000	MOBILIZATION	L.S.	1
6214600A	FLOWABLE BACKFILL	C.Y.	25
6274000	CONTRACTOR FURNISHED SURVEYING AND STAKING	L.S.	1
7119901	WATERPROOFING SYSTEMS AND ARCHITECTURAL PANELS	L.S.	1
7209903	MODULAR BLOCK RETAINING WALL	S.F.	276
7269903	12" CLASS V REINFORCED CONCRETE PIPE	L.F.	210
7269904	15" CLASS V REINFORCED CONCRETE PIPE	L.F.	95
7269905	14"x23" CLASS V REINFORCED HORIZONTAL ELLIPTICAL CONCRETE PIPE CULVERT	L.F.	4
7311022	PRECAST DROP INLET 2 FT X 2 FT	L.F.	9
7310048	PRECAST CONCRETE MANHOLE (48")	L.F.	5
8051000A	SEEDING - COOL SEASON MIXTURES	ACRES	0.2
8061016	SEDIMENT REMOVAL	C.Y.	3
8061017	TEMPORARY SEEDING AND MULCHING	ACRES	0.1
8061019	SILT FENCE	L.F.	286
8069903	INLET PROTECTION - FIBER ROLLS	L.F.	25

SUMMARY OF QUANTITIES (CONTINUED)

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
	SIGNALS/STRIPING:		
6200021	PREFORMED THERMOPLASTIC PAVEMENT MARKING, LEFT/RIGHT ARROW	EACH	9
6200026	PREFORMED THERMOPLASTIC PAVEMENT MARKING, COMBINATION STR/LT/RT	EACH	4
6200033	PREFORMED THERMOPLASTIC PAVEMENT MARKING, R/R CROSSING MARKER	EACH	2
6205906A	12 IN. WHITE HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS	L.F.	380
6206000C	4 IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS	L.F.	3210
6206001C	4 IN. YELLOW STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS	L.F.	2660
6206124A	24 IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS	L.F.	270
6206176A	6 IN., WHITE ACRYLIC COPOLYMER FAST DRY PAVEMENT MARKING PAINT	L.F.	20
6207001	PAVEMENT MARKING REMOVAL	L.F.	110
6208077	4 IN YELLOW TEMPORARY PAVEMENT MARKING	L.F.	221
9020513	SIGNAL HEAD, TYPE 3B	EACH	10
9020514	SIGNAL HEAD, TYPE 4B	EACH	2
9020833	SH-FLAT SHEET - SIGNAL SIGN	S.F.	89
9022650	150 WATT 120 VOLT HIGH PRESSURE SODIUM LUMINAIRE	EACH	2
9023130	POST, TYPE CL, 30 FT ARM	EACH	1
9023240	POST, TYPE C, 40 FT ARM	EACH	1
9023355	POST, TYPE B, LONGEST ARM 55 FT	EACH	1
9024283	CONTROLLER ASSEMBLY HOUSING, NEMA TS2 CONTROLLER	EACH	1
9024975	VIDEO DETECTION SYSTEM	EACH	1
9055300	CONDUIT, 3 IN., TRENCH WITH RACER WIRE	L.F.	205
9027200	CONDUIT, 2 IN., PUSHED WITH TRACER WIRE	L.F.	143
9027300	CONDUIT, 3 IN., PUSHED WITH TRACER WIRE	L.F.	89
9028100	CABLE, 10 AWG 1 CONDUCTOR, POLE, AND BRACKET	L.F.	270
9028208	CABLE, 8 AWG 1 CONDUCTOR, POWER	L.F.	50
9028302	CABLE, 12 AWG 2 CONDUCTOR	L.F.	470
9028311	CABLE, 16 AWG 7 CONDUCTOR	L.F.	2050
9028312	CABLE, 12 AWG 12 CONDUCTOR	L.F.	280
9028621	POWER SUPPLY ASSEMBLY, TYPE 2 WITH 120V LIGHTING	EACH	1
9028811	PULL BOX, PREFORMED CLASS 2	EACH	3
9028812	PULL BOX, PREFORMED CLASS 3	EACH	1
9029100	BASE, CONCRETE	C.Y.	12.15
9029901	MISC - REMOVE AND RELOCATE EXISTING PTZ CAMERA DN WIRELESS INTERFACE INTERCONNECT	L.S.	1
9029902	MISC - RELOCATE TRAFFIC SIGNAL SIGNS	EACH	4
	LIGHTING:		
9017002	CABLE, 2 AWG 1 CONDUCTOR	L.F	120
9017006	CABLE, 6 AWG 1 CONDUCTOR	L.F	2446
9017008	CABLE, 8 AWG 1 CONDUCTOR	L.F	2155
9017010	CABLE, 10 AWG 1 CONDUCTOR	L.F	5324
9019902	STERNBERG LIGHT FIXTURE WITH VALMONT POLE WITH BANNER ARMS AND BUILT IN REC.	EACH	18
9019903	CONDUIT, 3/4" IN. RIGID, IN TRENCH	L.F	946
9019904	CONDUIT, 1" IN. RIGID, IN TRENCH	L.F	645
9019905	CONDUIT, 1 1/4" RIGID, IN TRENCH	L.F	85
9019906	100A, 120/240V, METERED LIGHTING PEDESTAL	EACH	1
9029100	BASE, CONCRETE	C.Y.	10
	PEDESTRIAN FACILITIES:		
3040504	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	S.Y.	673
6081010	CONCRETE CURB RAMP	S.Y.	131
6081010A	CONCRETE CURB RAMP - EXPOSED AGGREGATE	S.Y.	5
6081012	TRUNCATED DOMES	S.F.	84
6086004	CONCRETE SIDEWALK (4 IN. THICK)	S.Y.	504
6086004A	CONCRETE SIDEWALK (4 IN. THICK) - EXPOSED AGGREGATE	S.Y.	32

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
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2009030035
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SUMMARY OF QUANTITIES
SHEET 1 OF 1

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

CLEARING AND GRUBBING
0.3 ACRES

REMOVAL OF IMPROVEMENTS

PLAN SHEET	LOCATION	STATION	STATION	SIDE	DESCRIPTION
3	IMPERIAL MAIN ST.	10+21.48	13+90.17	RT	214 LF OF CURB
3	IMPERIAL MAIN ST.	10+23.84	15+00.00	LT	421 LF OF CURB
3	IMPERIAL MAIN ST.	10+25.17		RT	SIGN
3	IMPERIAL MAIN ST.	10+93.84	11+82.75	LT	66 SY OF SIDEWALK
3	IMPERIAL MAIN ST.	10+94.38	11+42.41	RT	20 SY OF CONCRETE MEDIAN STRIP
3	IMPERIAL MAIN ST.	10+95.12		LT	LIGHT
3	IMPERIAL MAIN ST.	10+96.27	11+72.49	LT	72 LF OF RAILING
3	IMPERIAL MAIN ST.	11+27.62		LT	LIGHT
3	IMPERIAL MAIN ST.	11+52.03		LT	LIGHT
3	IMPERIAL MAIN ST.	11+73.34		LT	LIGHT
3	IMPERIAL MAIN ST.	12+27.87		LT	SIGN (TBR&R)
3	IMPERIAL MAIN ST.	12+32.26		LT	21 LF OF RETAINING WALL
3	IMPERIAL MAIN ST.	13+05.80	14+10.77	RT	105 LF OF 15" RCP
3	IMPERIAL MAIN ST.	14+06.10		LT	SIGN
3	IMPERIAL MAIN ST.	14+19.93		LT	SIGN
3	IMPERIAL MAIN ST.	14+20.37		LT	LIGHT POLE BASE
3	IMPERIAL MAIN ST.	14+61.10		LT	LIGHT POLE BASE
3	IMPERIAL MAIN ST.	14+93.59	15+00.00	LT	4 SY OF SIDEWALK
4	IMPERIAL MAIN ST.	15+00.00	15+02.88	LT	2 SY OF SIDEWALK
4	IMPERIAL MAIN ST.	15+00.00	18+42.80	LT	202 LF OF CURB
4	IMPERIAL MAIN ST.	15+18.05	16+98.32	LT	124 SY OF SIDEWALK
4	IMPERIAL MAIN ST.	15+47.13		LT	SIGN (TBR&R)
4	IMPERIAL MAIN ST.	15+72.56	15+96.04	RT	25 LF OF 12" RCP
4	IMPERIAL MAIN ST.	15+72.88	16+03.70	RT	31 LF OF 12" RCP
4	IMPERIAL MAIN ST.	15+74.24	16+03.00	RT	58 LF OF CURB
4	IMPERIAL MAIN ST.	15+96.09		RT	13 LF OF GUTTER
4	IMPERIAL MAIN ST.	16+48.56	16+87.45	LT	38 LF OF RAILING
4	IMPERIAL MAIN ST.	16+98.87		LT	SIGN (TBR&R)
4	IMPERIAL MAIN ST.	17+27.60	18+47.25	LT	85 SY OF SIDEWALK
4	IMPERIAL MAIN ST.	17+36.46	17+83.06	RT	15 SY OF SIDEWALK
4	IMPERIAL MAIN ST.	17+40.06	17+95.74	LT	56 LF OF RAILING
4	IMPERIAL MAIN ST.	17+95.85		LT	SIGN (TBR&R)
4	IMPERIAL MAIN ST.	18+86.83		LT	SIGN (TBR&R)
4	IMPERIAL MAIN ST.	19+40.34		LT	SIGN
4	IMPERIAL MAIN ST.	19+44.33		LT	TRAFFIC SIGNAL BOX (TBR&R)
5	IMPERIAL MAIN ST.	20+63.17	20+95.68	LT	24 SY OF CONCRETE MEDIAN STRIP
5	IMPERIAL MAIN ST.	20+63.78		LT	ROCK
5	IMPERIAL MAIN ST.	20+92.36			TRAFFIC SIGNAL POST AND MAST ARM
5	IMPERIAL MAIN ST.	20+96.15		RT	MAST ARM
5	IMPERIAL MAIN ST.	20+97.43		LT	PULL BOX
5	RIVER ST.	30+31.61		LT	PULL BOX
5	RIVER ST.	30+33.45		LT	TRAFFIC SIGNAL CONTROLLER
5	RIVER ST.	30+33.50		LT	MAST ARM, POLE AND FOUNDATION
5	RIVER ST.	30+34.10		LT	PULL BOX
5	RIVER ST.	30+34.92		LT	SIGN (TBR&R)
5	RIVER ST.	30+30.35		RT	MAST ARM, POLE AND FOUNDATION
5	RIVER ST.	30+35.49	31+53.28	LT	118 LF OF FENCE
5	RIVER ST.	32+31.98	32+60.80	RT	46 LF OF CURB
				1	LUMP SUM

EARTHWORK

LOCATION	CLASS A EXCAVATION	COMPACTING EMBANKMENT	REMARKS
	VOLUME (CY)	VOLUME (CY)	
IMPERIAL MAIN ST.	3528	34	
RIVER ST.	1043	5	
FIRST ST.	92	0	
WHITE ST.	251	0	
TOTALS	4914	40	
USE	4914	40	

REMOVAL OF EXISTING PAVEMENT IS NOT INCLUDED IN REMOVAL OF IMPROVEMENTS AND IS INCLUDED IN EARTHWORK PAY ITEM.

GRAVEL (A)

PLAN SHEET	LOCATION	STATION	STATION	SIDE	GRAVEL (A) 6 IN.	REMARKS
					AREA (S.Y.)	
4	IMPERIAL MAIN ST.	18+21.52	19+38.12	RT	47	
4	IMPERIAL MAIN ST.	18+79.91	19+50.00	LT	58	
4	WHITE ST.	90+35.00	90+75.72	LT	14	
5	IMPERIAL MAIN ST.	19+50.00	19+74.73	LT	30	
				TOTAL	149	
				USE	149	

OPTIONAL PAVEMENT

PLAN SHEET	LOCATION	STATION	STATION	OPTIONAL PAVEMENT	TYPE 5 AGGREGATE BASE (6")	REMARKS
				AREA (SY)	AREA (SY)	
3	IMPERIAL MAIN ST.	9+93.10	15+00.00	2187.6	2187.6	
4	IMPERIAL MAIN ST.	15+00.00	19+03.41	1476.9	1476.9	
4	IMPERIAL MAIN ST.	19+24.31	19+50.00	100.8	100.8	
5	IMPERIAL MAIN ST.	19+50.00	21+01.40	672.0	672.0	
			TOTAL	4437.3	4437.3	
			USE	4437.3	4437	

CONCRETE PAVEMENT

PLAN SHEET	LOCATION	STATION	STATION	SIDE	7" P.C. CONCRETE (NON-REINFORCED) PAVEMENT		7" P.C. CONCRETE (NON-REINFORCED) PAVEMENT - EXPOSED AGGREGATE		TYPE 5 AGGREGATE BASE (6")	REMARKS
					AREA (SF)	AREA (SY)	AREA (SF)	AREA (SY)	AREA (SY)	
3	IMPERIAL MAIN ST.	11+87.23	14+09.44	LT	2791.1	310.1			310.1	
3	IMPERIAL MAIN ST.	11+34.85	13+99.26	RT	1653.7	183.7			183.7	
3	IMPERIAL MAIN ST.	14+15.37	15+00.00	LT			777.0	86.3	777.0	
4	IMPERIAL MAIN ST.	15+00.00	160+50.00	LT			2.6	0.3	2.6	
4	IMPERIAL MAIN ST.	16+89.34	17+37.32	LT	243.3	27.0			27.0	
4	IMPERIAL MAIN ST.	15+72.19	18+30.70	RT	1635.4	181.7			181.7	
5	IMPERIAL MAIN ST.	19+78.23	20+22.23	LT	424.0	47.1			47.1	
5	IMPERIAL MAIN ST.	19+67.78	20+34.58	RT	788.5	87.6			87.6	
				TOTALS		837.2		86.6	1616.8	
				USE		837.2		86.6	1617	

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
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REGISTERED PROFESSIONAL ENGINEER

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ROUTE	STATE
MAIN	MO
DISTRICT	SHEET NO.
	2B

COUNTY
JEFFERSON

JOB NO.
1534600

CONTRACT ID.

PROJECT NO.
STP-5403(662)

BRIDGE NO.

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
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SCHEDULE OF QUANTITIES
SHEET 1 OF 4

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

BITUMINOUS PAVEMENT

PLAN SHEET	LOCATION	STATION	STATION	SIDE	2" BITUMINOUS WEARING SURFACE PG64-22 (BP-1)		4" BITUMINOUS PAVEMENT PG64-22 (BASE)		8" BITUMINOUS PAVEMENT PG64-22 (BASE)		TYPE 5 AGGREGATE BASE (6")	TYPE 5 AGGREGATE BASE (4")	TACK-EMULSIFIED ASPHALT (SS-1H)		REMARKS
					VOLUME (CY)	TONS	VOLUME (CY)	TONS	VOLUME (CY)	TONS	AREA (SY)	AREA (SY)	AREA (SY)	VOLUME (GAL)	
3	IMPERIAL MAIN ST.	10+26.43	10+72.93	LT	1.4	2.8			5.3	11.1	25.4		25.4	2.5	
3	IMPERIAL MAIN ST.	11+83.16	14+93.80	LT	3.4	6.8			12.8	26.9	61.4		61.4	6.1	
3	IMPERIAL MAIN ST.	12+30.45	13+80.48	RT	6.4	12.8			23.8	50.0	114.4		114.4	11.4	
4	IMPERIAL MAIN ST.	15+82.08	18+23.47	RT	11.8	23.6			44.2	88.4	212.2		212.2	21.2	
4	IMPERIAL MAIN ST.	19+03.41	19+24.31	BOTH	2.3	4.6			9.1	19.1	40.8		40.8	4.1	
4	FIRST ST.	70+55.00	70+74.81	BOTH	5.0	10.0			19.9	39.8	89.4		89.4	8.9	
4	WHITE ST.	90+35.00	90+81.86	BOTH	10.1	20.2			40.3	84.6	181.2		181.2	18.1	
5	RIVER ST.	30+26.30	33+62.07	BOTH	62.1	124.2			247.7	495.4	1114.8		1114.8	111.5	
5	RIVER ST.	30+34.13	31+57.68	RT	22.3	44.6			81.5	171.2	390.1		385.2	38.5	
5	RIVER ST.	31+50.11	33+39.67	LT	4.8	9.6	9.7	20.4				89.7	84.9	4.2	
5	RIVER ST.	32+78.75	33+28.43	RT	1.9	3.8	4.0	8.4				39.1	34.3	1.7	
			CONVERSION FACTOR			2.1 TONS/CY		2.1 TONS/CY		2.1 TONS/CY				0.05 GAL/SY	
				TOTALS		263.0		28.8		986.5	2229.7	128.8		228.2	
				USE		263.0		28.8		986.5	2230	129		230	

STAMPED CONCRETE

PLAN SHEET	LOCATION	STATION	STATION	STAMPED CONCRETE	TYPE 5 AGGREGATE BASE (6")	REMARKS
				AREA (SY)	AREA (SY)	
3	IMPERIAL MAIN ST.	10+45.16	15+00.00	143.0	143.0	
4	IMPERIAL MAIN ST.	15+00.00	18+35.30	115.2	115.2	
			TOTALS	258.2	258.2	
			USE	258.2	258	

UTILITY ADJUSTMENT

PLAN SHEET	LOCATION	STATION	SIDE	ADJUST MANHOLE TO GRADE	ADJUST WATER METER	ADJUST WATER VALVE TO GRADE	REMARKS
				(EACH)	(EACH)	(EACH)	
3	IMPERIAL MAIN ST.	11+85.78	LT		1		
3	IMPERIAL MAIN ST.	13+00.50	LT			1	
3	IMPERIAL MAIN ST.	13+50.20	LT		1		
4	IMPERIAL MAIN ST.	15+04.21	LT			1	
4	IMPERIAL MAIN ST.	15+96.04	RT				
4	IMPERIAL MAIN ST.	17+11.74	RT	1			
4	IMPERIAL MAIN ST.	17+29.32	RT			1	
4	IMPERIAL MAIN ST.	17+30.30	LT			1	
4	IMPERIAL MAIN ST.	18+50.71	RT				
5	RIVER ST.	30+40.62	RT			1	
5	RIVER ST.	30+94.70	RT		1		
			TOTALS	1	3	5	
			USE	1	3	5	

CONCRETE MEDIAN STRIP

SHEET	LOCATION	STATION	STATION	SIDE	6" CONCRETE MEDIAN STRIP	REMARKS
					AREA (SY)	
5	IMPERIAL MAIN ST.	20+76.07	20+91.24	LT	15	
				TOTAL	15	
				USE	15	

WHEEL STOP

PLAN SHEET	LOCATION	STATION	STATION	SIDE	WHEEL STOP	REMARKS
					EACH	
3	IMPERIAL MAIN ST.	10+28.93	10+29.66	LT	6	
				TOTAL	6	
				USE	6	

CONCRETE GUTTER

PLAN SHEET	LOCATION	STATION	SIDE	CONCRETE GUTTER TYPE A	REMARKS
				LENGTH (LF)	
4	IMPERIAL MAIN ST.	15+96.32	LT	12.7	
			TOTAL	12.7	
			USE	13	

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JEFFERSON

JOB NO.
1534600

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SCHEDULE OF QUANTITIES
SHEET 2 OF 4

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

CURB

PLAN SHEET	LOCATION	STATION	STATION	SIDE	CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S	INTEGRAL CURB (6 IN. HEIGHT AND UNDER)	INTEGRAL CURB (OVER 6 IN. HEIGHT)	INTEGRAL CURB (6 IN. HEIGHT AND UNDER) - EXPOSED AGGREGATE	ASPHALT CURB	REMARKS
					LENGTH (LF)	LENGTH (LF)	LENGTH (LF)	LENGTH (LF)	LENGTH (LF)	
3	IMPERIAL MAIN ST.	10+23.94	12+32.24	LT	225.9					
3	IMPERIAL MAIN ST.	10+20.98	15+00.00	RT	256.4					
3	IMPERIAL MAIN ST.	11+87.46	13+36.50	RT		78.6				
3	IMPERIAL MAIN ST.	12+26.24	13+80.81	RT					66.8	
3	IMPERIAL MAIN ST.	14+26.39	15+00.00	LT				74.1		
4	IMPERIAL MAIN ST.	15+00.00	15+03.28	LT				3.3		
4	IMPERIAL MAIN ST.	15+46.65	16+47.07	LT			100.4			
4	IMPERIAL MAIN ST.	18+05.84	18+46.92	LT	50.9					
4	IMPERIAL MAIN ST.	15+00.00	18+41.05	RT	186.8					
4	IMPERIAL MAIN ST.	16+22.48	18+30.75	RT		104.3				
5	IMPERIAL MAIN ST.	19+58.83	19+77.00	RT		22.2				
5	IMPERIAL MAIN ST.	19+78.23	20+22.23	LT		41.6				
5	RIVER ST.	32+23.31	32+65.91	LT	54.7					
5	RIVER ST.	30+26.69	31+12.18	RT	195.1					
				TOTALS	969.8	246.7	100.4	77.4	66.8	
				USE	970	247	101	78	67	

MOBILIZATION
LUMP SUM = 1

CONTRACTOR FURNISHED SURVEYING AND STAKING
LUMP SUM = 1

WATERPROOFING SYSTEMS AND ARCHITECTURAL PANELS
LUMP SUM = 1

SEEDING - COOL SEASON MIXTURES
0.2 ACRES

TEMPORARY SEEDING AND MULCHING
0.1 ACRES

CURB AND GUTTER

PLAN SHEET	LOCATION	STATION	STATION	SIDE	CURB AND GUTTER TYPE A	REMARKS
					LENGTH (LF)	
3	IMPERIAL MAIN ST.	10+27.22	15+00.00	LT	501.0	
3	IMPERIAL MAIN ST.	10+50.98	15+00.00	RT	449.0	
4	IMPERIAL MAIN ST.	15+00.00	18+27.93	LT	327.9	
4	IMPERIAL MAIN ST.	15+00.00	15+03.28	LT	3.3	
4	IMPERIAL MAIN ST.	15+03.28	15+51.90	LT	48.6	
4	IMPERIAL MAIN ST.	15+00.00	18+30.70	RT	330.7	
5	IMPERIAL MAIN ST.	19+74.11	20+91.64	LT	125.3	
5	IMPERIAL MAIN ST.	19+38.12	19+58.83	RT	20.7	
				TOTAL	1806.5	
				USE	1807	

CONCRETE SIDEWALK

PLAN SHEET	LOCATION	STATION	STATION	SIDE	CONCRETE SIDEWALK (4 IN. THICK)	CONCRETE SIDEWALK (4 IN. THICK) - EXPOSED AGGREGATE	TYPE 5 AGGREGATE BASE (4")	REMARKS
					AREA (SY)	AREA (SY)	AREA (SY)	
3	IMPERIAL MAIN ST.	10+24.34	13+14.17	LT	153.7		153.7	
3	IMPERIAL MAIN ST.	10+50.98	15+00.00	RT	126.7		126.7	
3	IMPERIAL MAIN ST.	14+09.21	14+26.75	LT		8.4	8.4	
4	IMPERIAL MAIN ST.	15+00.00	18+36.14	RT	76.6		76.6	
4	IMPERIAL MAIN ST.	15+18.04	15+51.92	LT		24.0	24.0	
4	IMPERIAL MAIN ST.	15+51.92	18+28.28	LT	147.3		147.3	
				TOTALS	504.3	32.4	536.7	
				USE	504	32	537	

CONCRETE SIDEWALK CURB RAMP

PLAN SHEET	LOCATION	STATION	STATION	SIDE	CONCRETE SIDEWALK CURB RAMP (7" THICK)	CONCRETE SIDEWALK CURB RAMP (7" THICK) - EXPOSED AGGREGATE	TRUNCATED DOMES	TYPE 5 AGGREGATE BASE (4")	REMARKS
					AREA (SY)	AREA (SY)	AREA (SF)	AREA (SY)	
3	IMPERIAL MAIN ST.	10+36.79	13+20.11	LT	27.7		33.9	27.7	
3	IMPERIAL MAIN ST.	10+45.98	13+94.01	RT	43.4		10.0	43.4	
3	IMPERIAL MAIN ST.	14+94.16	15+00.00	LT		3.1		3.1	
4	IMPERIAL MAIN ST.	15+00.00	15+02.99	LT		1.6		1.6	
4	IMPERIAL MAIN ST.	16+88.05	18+33.38	LT	16.2		29.8	16.2	
4	IMPERIAL MAIN ST.	16+88.05	18+33.38	LT	42.6		10.0	7.7	
				TOTALS	129.9	4.7	83.7	99.7	
				USE	130	5	84	100	

MODULAR BLOCK RETAINING WALL

WALL	LOCATION	STATION	STATION	SIDE	MODULAR BLOCK RETAINING WALL	REMARKS
					AREA (SF)	
A	IMPERIAL MAIN ST.	10+28.10	10+61.27	LT	276	
				TOTAL	276	
				USE	276	

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DISTRICT | SHEET NO. 2B

COUNTY JEFFERSON

JOB NO. 1534600

CONTRACT ID.

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BRIDGE NO.

DESCRIPTION

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SCHEDULE OF QUANTITIES
SHEET 3 OF 4

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

LIGHTING

LOCATION	CABLE 2 AWG 1 CONDUCTOR	CABLE 6 AWG 1 CONDUCTOR	CABLE 8 AWG 1 CONDUCTOR	CABLE 10 AWG 1 CONDUCTOR	CONDUIT 3/4" RIGID IN TRENCH	CONDUIT 1" RIGID IN TRENCH	CONDUIT 1-1/4" RIGID IN TRENCH	STERNBERG LIGHT FIXTURE WITH VALMONT POLE WITH BANNER ARMS AND BUILT IN REC.	100A, 120/240V, METERED LIGHTING PEDESTAL	BASE, CONCRETE	REMARKS
	LENGTH (FT)	LENGTH (FT)	LENGTH (FT)	LENGTH (FT)	LENGTH (FT)	LENGTH (FT)	LENGTH (FT)	EACH	EACH	VOLUME (CY)	
IMPERIAL MAIN ST.	120	2446	2155	5324	946	645	85	18	1	10	
TOTALS	120	2446	2155	5324	946	645	85	18	1	10	
USE	120	2446	2155	5324	946	645	85	18	1	10	

FLOWABLE BACKFILL

25 CY TO BE USED AT LOCATIONS AS DIRECTED BY COUNTY

STORM SEWERS

LOCATION	STATION	OFFSET	SIDE	STRUCTURE NUMBER	TO STRUCTURE	PIPE OPENINGS	ADJUST INLET TO GRADE	STEEL GRATE	STEEL GRATE WITH SIDE INTAKE	PRECAST DROP INLET 2'x2'	PRECAST MANHOLE (48")	TYPE 1-A FRAME & COVER	TYPE 2 FRAME & COVER	CURVED VANE GRATE AND FRAME (2'x2')	PIPE COLLAR	CLASS V REINFORCED CONCRETE PIPE 12"	CLASS V REINFORCED CONCRETE PIPE 15"	CLASS V REINFORCED CONCRETE PIPE 14"x23" HORIZONTAL ELLIPTICAL	REMARKS
							EACH	EACH	EACH	L.F.	L.F.	EACH	EACH	EACH	EACH		EACH	EACH	
IMPERIAL MAIN ST.	11+90.48	17.0	RT						2										
IMPERIAL MAIN ST.	13+05.80	16.2	RT	1.2				2											
IMPERIAL MAIN ST.	14+00.27	17.0	RT	1.3	1.2	1-15"				2.4				1			95		
IMPERIAL MAIN ST.	15+92.15	21.1	RT	2.6	2.6.1	3-12"					2.2	1				8			
IMPERIAL MAIN ST.	15+96.04	28.5	RT				1												
IMPERIAL MAIN ST.	16+97.48	20.9	RT	2.4	2.3	1-12",1-14"x23"					2.8		1		1			4	
IMPERIAL MAIN ST.	16+86.40	17.0	RT	2.5	2.4	2-12"				2.3				1		12			
IMPERIAL MAIN ST.	15+92.15	21.1	RT	2.6	2.5	3-12"										94			
IMPERIAL MAIN ST.	15+92.15	17.0	RT	2.7	2.6	1-12"				2.0				1		21			
IMPERIAL MAIN ST.	17+76.00	17.0	RT	3.3	3.2	1-12"				2.2				1		75			
IMPERIAL MAIN ST.	18+50.71	21.1	RT				1												
						TOTALS	2	2	2	8.9	5	1	1	4	1	210	95	4	
						USE	2	2	2	9	5	1	1	4	1	210	95	4	

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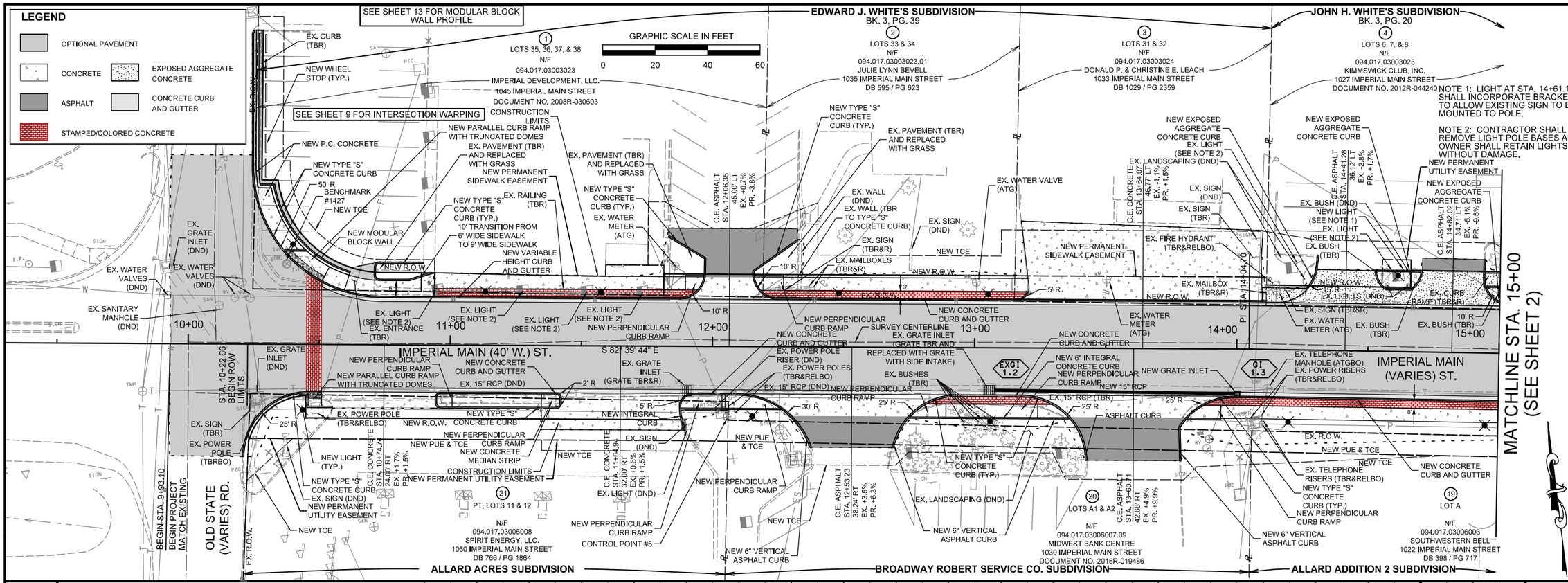
SHEET 4 OF 4

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.



SPECIAL NOTE TO CONTRACTOR(S):

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ENGINEER'S SEAL

STATE OF MISSOURI — JOHN E. KLEIN — NUMBER 2009030035 — REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	3
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4201 FAX 314-231-0666
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

PLAN/PROFILE SHEET

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

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2/2/2018

FOR WATERPROOFING DETAILS SEE SECTION THROUGH KIMMSWICK CLUB BUILDING DETAIL ON TYPICAL SECTIONS/DETAILS SHEETS

JOHN H. WHITE'S SUBDIVISION
BK. 3, PG. 20

TOWN OF ROCKPORT SUBDIVISION
BK. 3, PG. 20

(SEE PLAN SHEET 1)
MATCHLINE STA. 15+00

MATCHLINE STA. 19+50
(SEE PLAN SHEET 3)

IMPERIAL MAIN (VARIES) ST.

IMPERIAL MAIN (40' W.) ST.

FIRST (30' W.) ST.

HILL (30' W.) ST.

WHITE (15' W.) ST.

ALLARD ADDITION 2 SUBDIVISION

THEODORE KIMMS SUBDIVISION
BK. 1, PG. 48

SEE SHEET 3

SEE SHEET 9 FOR INTERSECTION WARPING

IMPERIAL MAIN ST. CURVE 1
PI 18+43.41
PC 18+18.00
PT 18+68.80
Δ 2° 54' 38" (LT)
D 5° 43' 46"
L 50.80'
T 25.41'
R 1000.00'
SE N.C.

LEGEND

- OPTIONAL PAVEMENT
- CONCRETE
- EXPOSED AGGREGATE CONCRETE
- ASPHALT
- CONCRETE CURB AND GUTTER
- STAMPED/COLORED CONCRETE
- GRAVEL (6")

GRAPHIC SCALE IN FEET
0 20 40 60

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MATCHLINE STA. 15+00.00
+0.62%
-0.51%
VPT 15+10.00
EL 447.40
SSD = 1014'
K = 106
120.00' V.C.
VPT 15+70.00
EX. WATER
STA. 16+00.00 PGL OFFSET 0.0' RT
STA. 16+47.06 PGL OFFSET 5.5' RT
EXISTING GRADE (TYP.)
EX. SANITARY
EX. WATER
STA. 17+39.27 PGL OFFSET 5.5' RT
STA. 17+75.00 PGL OFFSET 0.0' RT
VPC 17+90.00
-0.51%
VPI 18+00.00
EL 445.92
-1.36%
VPT 18+10.00
EX. AT&T TELEPHONE
PROPOSED GRADE (TYP.)
SSD = 1280'
K = 24
20.00' V.C.
VPC 18+15.00
-1.36%
+2.11%
VPI 18+60.00
EL 446.10
K = 26
90.00' V.C.
VPT 19+05.00
446.13
446.53
EDGE OF RAILROAD STA. 19+48.35
EDGE OF RAILROAD STA. 19+19.24
-0.50%
VPI 19+40.00
EL 446.42
+1.3%
VPC 19+25.00
SSD = 677'
K = 18
30.00' V.C.
MATCHLINE STA. 19+50.00
5'
20'

ENGINEER'S SEAL
STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER
1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	4
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
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WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

PLAN/PROFILE SHEET

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

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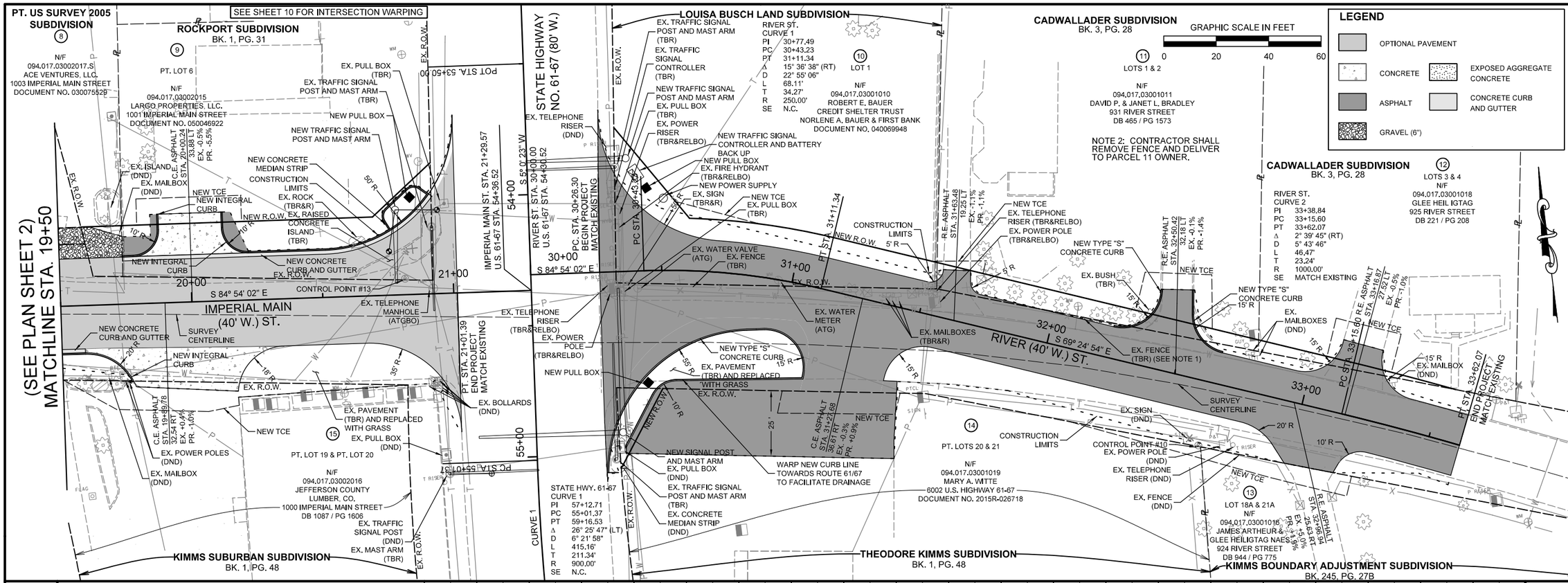
2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER
1/30/2018

DATE PREPARED	2/2/2018
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STATE	MO
DISTRICT	
SHEET NO.	5
COUNTY	JEFFERSON
JOB NO.	1534600
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PROJECT NO.	STP-5403(662)
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DESCRIPTION

DATE

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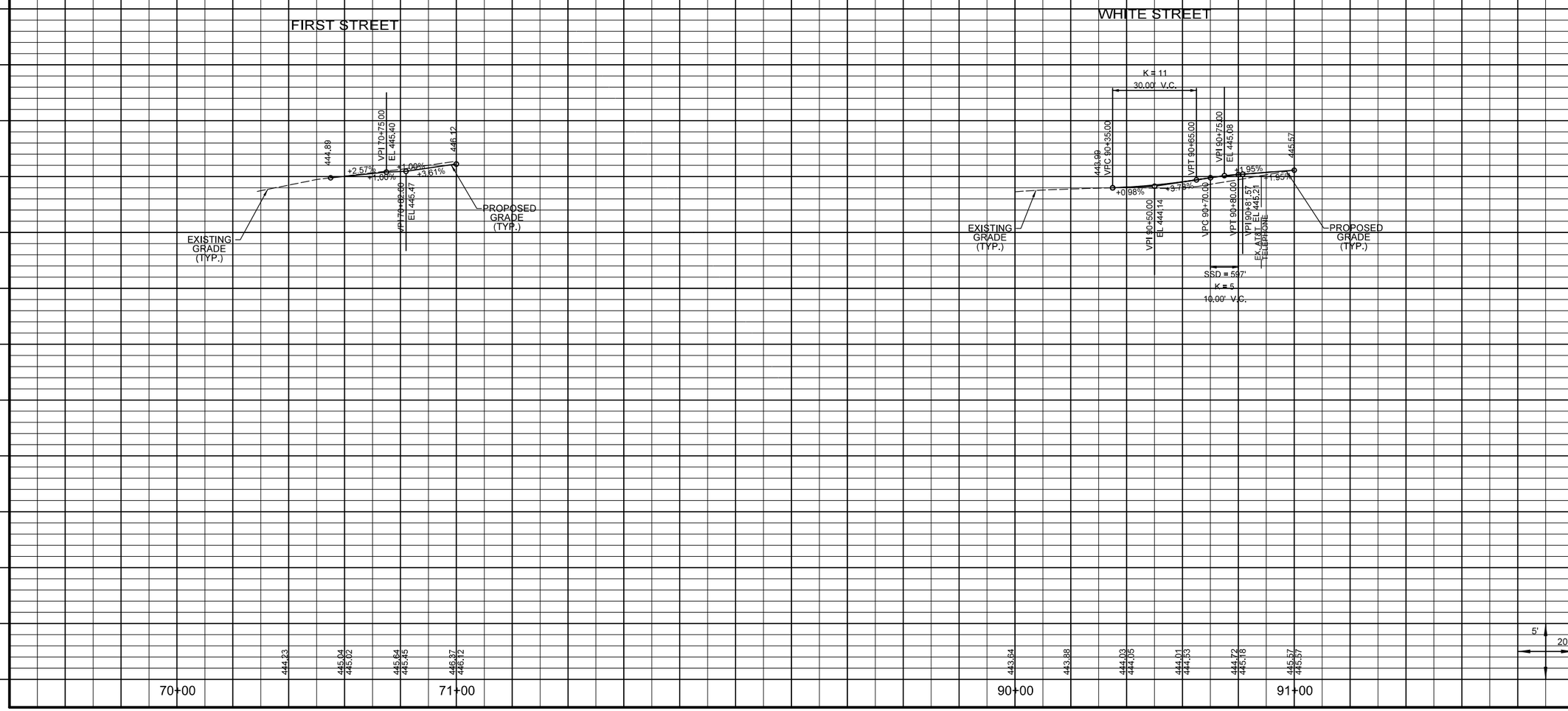

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STATE OF MISSOURI
JOHN E. KLEIN
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1/30/2018

DATE PREPARED
2/2/2018

ROUTE	STATE
MAIN	MO
DISTRICT	SHEET NO.
	6

COUNTY
JEFFERSON

JOB NO.
1534600

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BRIDGE NO.

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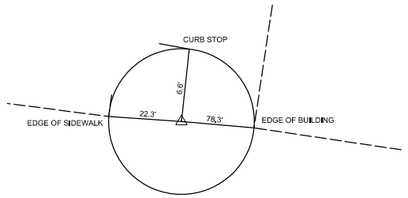
PROFILE / PROFILE SHEET

IMPERIAL MAIN STREET IMPROVEMENTS

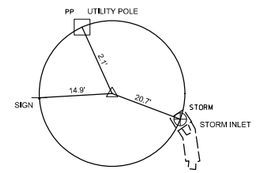
JEFFERSON COUNTY, MISSOURI

REV.



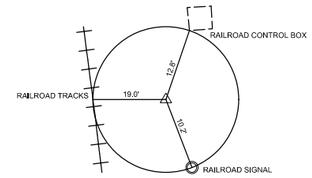
CONTROL POINT 3

MAG NAIL
NORTHING = 923265.03
EASTING = 855172.71
STATION = 15+68.84
OFFSET = 21.19 LT
ELEVATION = 446.18



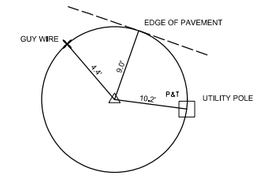
CONTROL POINT 5

⅝" REBAR W/ CAP
NORTHING = 854806.33
EASTING = 923265.70
STATION = 12+05.62
OFFSET = 26.87 RT
ELEVATION = 445.41



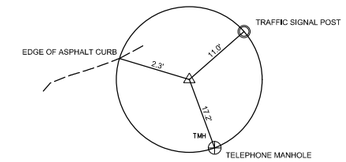
CONTROL POINT 8

80D NAIL
NORTHING = 923225.19
EASTING = 855530.29
STATION = 19+29.98
OFFSET = 27.20 LT
ELEVATION = 445.08



CONTROL POINT 10

½ IRON ROD ALONGSIDE I. PIPE
NORTHING = 923090.46
EASTING = 855971.93
STATION = 32+65.22
OFFSET = 24.47 RT
ELEVATION = 446.22



CONTROL POINT 13

⅝" REBAR W/ CAP
NORTHING = 923201.84
EASTING = 855683.63
STATION = 20+84.79
OFFSET = 17.58 LT
ELEVATION = 445.50

COORDINATE POINTS

PLAN SHEET	STATION	LOCATION	NORTHING (FEET)	EASTING (FEET)	DESCRIPTION
	9+00.00	IMPERIAL MAIN ST.	923331.38	854506.65	POT
1	9+93.10	IMPERIAL MAIN ST.	923319.49	854598.99	BEGIN PROJECT
1	14+04.70	IMPERIAL MAIN ST.	923266.92	855007.21	POT
2	17+13.29	IMPERIAL MAIN ST.	923223.92	855312.79	INTERSECTION OF IMPERIAL MAIN ST. AND FIRST ST.
2	17+19.72	IMPERIAL MAIN ST.	923223.02	855319.16	INTERSECTION OF IMPERIAL MAIN ST. AND HILL ST.
2	18+18.00	IMPERIAL MAIN ST.	923209.33	855416.49	PC STA. - CURVE 1
2	18+43.41	IMPERIAL MAIN ST.	923205.79	855441.64	PI STA. - CURVE 1
2	18+68.80	IMPERIAL MAIN ST.	923203.53	855466.95	PT STA. - CURVE 1
2	18+72.52	IMPERIAL MAIN ST.	923203.20	855470.65	INTERSECTION OF IMPERIAL MAIN ST. AND WHITE ST.
3	21+29.57	IMPERIAL MAIN ST.	923180.35	855726.68	INTERSECTION OF IMPERIAL MAIN ST. AND STATE HWY. 61-67
3	53+50.00	U.S. 61-67	923266.54	855734.23	POT
3	54+30.52	U.S. 61-67	923186.33	855727.20	INTERSECTION OF STATE HWY. 61-67 AND RIVER ST.
3	54+36.52	U.S. 61-67	923180.35	855726.68	INTERSECTION OF IMPERIAL MAIN ST. AND STATE HWY. 61-67
3	55+01.37	U.S. 61-67	923115.75	855721.02	PC STA. - CURVE 1
	57+12.71	U.S. 61-67	922905.22	855702.58	PI STA. - CURVE 1
	59+16.53	U.S. 61-67	922708.48	855779.77	PT STA. - CURVE 1
3	30+00.00	RIVER ST.	923186.33	855727.20	INTERSECTION OF STATE HWY. 61-67 AND RIVER ST.
3	30+43.23	RIVER ST.	923182.49	855770.26	PC STA. - CURVE 1
3	30+77.49	RIVER ST.	923179.52	855804.40	PI STA. - CURVE 1
3	31+11.34	RIVER ST.	923167.47	855836.48	PT STA. - CURVE 1
3	33+15.60	RIVER ST.	923095.65	856027.70	PC STA. - CURVE 2
3	33+38.84	RIVER ST.	923087.48	856049.45	PI STA. - CURVE 2
3	33+62.07	RIVER ST.	923078.31	856070.81	PT STA. - CURVE 2 / END PROJECT
2	70+00.00	FIRST ST.	923322.95	855326.73	POT
2	71+00.00	FIRST ST.	923223.92	855312.79	INTERSECTION OF IMPERIAL MAIN ST. AND FIRST ST.
2	80+00.00	HILL ST.	923223.02	855319.16	INTERSECTION OF IMPERIAL MAIN ST. AND HILL ST.
2	81+00.00	HILL ST.	923124.00	855305.23	POT
2	90+00.00	WHITE ST.	923302.38	855457.87	POT
2	91+00.00	WHITE ST.	923203.20	855470.65	INTERSECTION OF IMPERIAL MAIN ST. AND WHITE ST.

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED
2/2/2018

ROUTE	STATE
MAIN	MO
DISTRICT	SHEET NO. 7

COUNTY
JEFFERSON

JOB NO.
1534600

CONTRACT ID.

PROJECT NO.
STP-5403(662)

BRIDGE NO.

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
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REFERENCE & COORDINATE POINTS

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

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GENERAL NOTES:

1) T=TOP OF MANHOLE CASTING OR INLET STONE.

2) ALL STORM SEWER PIPE TO BE CLASS III, UNLESS OTHERWISE NOTED. GASKETED PIPE ('O'-RING) ASTM C-443.

3) CONTRACTOR TO PROVIDE COMPACTED GRANULAR BACKFILL TO THE SUBGRADE OF THE PAVEMENT FOR ALL TRENCHES UNDER PAVEMENT. ALL OTHER TRENCHES WITHIN THE RIGHT-OF-WAY SHALL BE BACKFILLED WITH COMPACTED GRANULAR BACKFILL TO WITHIN TWO (2') FEET OF FINISHED GRADE. TOP TWO (2') FEET OF THE TRENCH SHALL BE BACKFILLED WITH COMPACTED EARTHFILL. ALL OTHER TRENCHES OUTSIDE OF THE RIGHT-OF-WAY SHALL BE BACKFILLED WITH COMPACTED EARTHFILL.

4) PIPE CENTERLINE APPLIES TO CENTERLINE OF STRUCTURE.

5) LOCATION OF UTILITIES ON PIPE PROFILES ARE APPROXIMATE.

6) DISTANCES BETWEEN STRUCTURES ARE MEASURED TO THE CENTER OF STRUCTURES.

7) FILL MATERIAL UPON WHICH THE PROPOSED SEWERS ARE TO BE LAID SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-15571-180 AASHTO MODIFIED COMPACTION TEST AND BE VERIFIED BY THE ENGINEER.

8) EXCESS DIRT GENERATED FROM STORM SEWERS AND STRUCTURES EXCAVATION DUE TO GRANULAR BACKFILL IN TRENCHES SHALL BE REMOVED BY THE CONTRACTOR. NO DIRECT PAYMENT WILL BE MADE FOR REMOVING THE EXCESS DIRT FROM THE PROJECT, BUT COST WILL BE CONSIDERED COMPLETELY COVERED BY THE UNIT PRICES BID FOR THE RIGID PIPE AND STORM STRUCTURES.

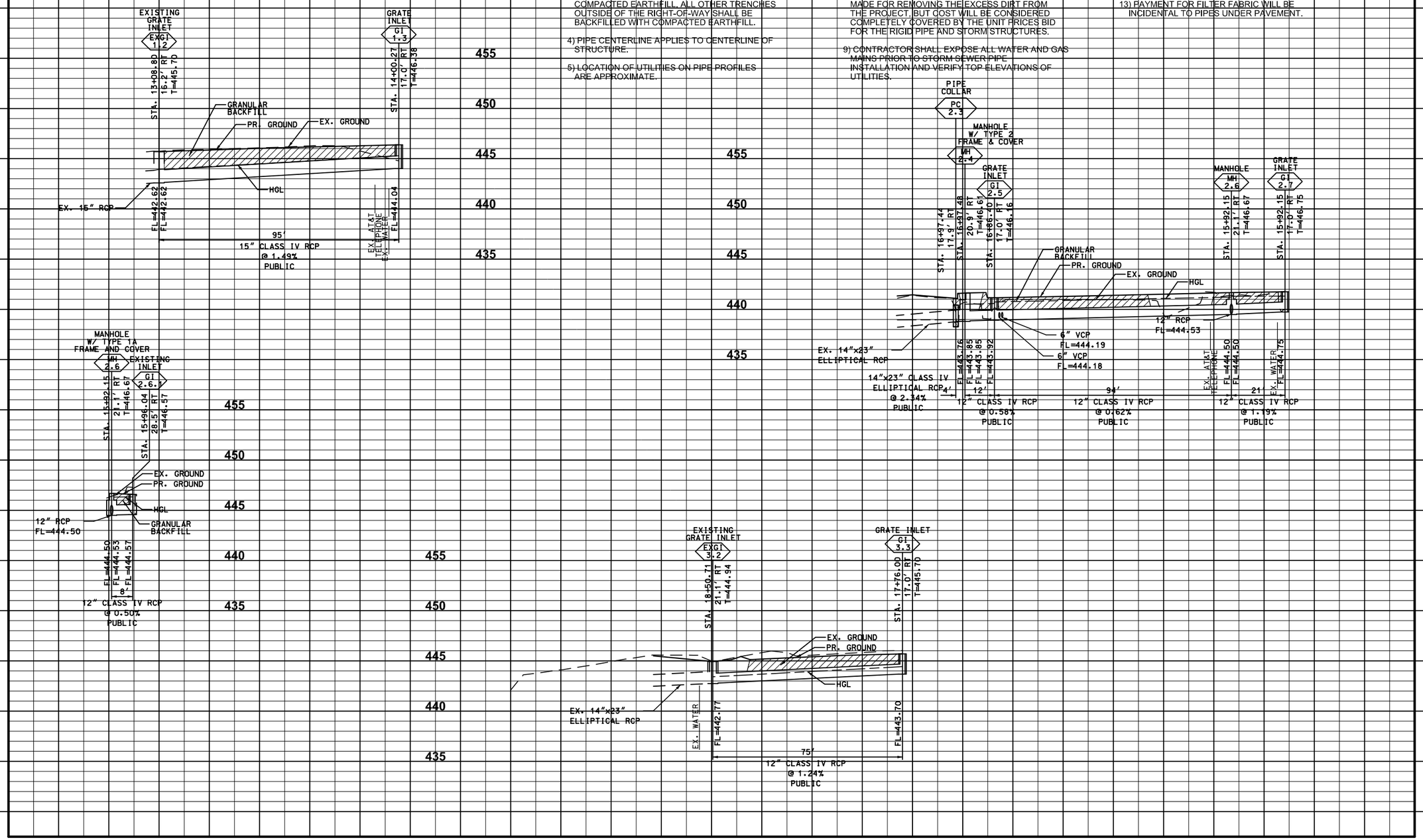
9) CONTRACTOR SHALL EXPOSE ALL WATER AND GAS MAINS PRIOR TO STORM SEWER PIPE INSTALLATION AND VERIFY TOP ELEVATIONS OF UTILITIES.

10) CLASS V REINFORCED CONCRETE PIPE AND PIPE COLLARS CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES, 2009.

11) PAYMENT FOR ALL GRANULAR BACKFILL WILL BE INCIDENTAL TO THE PIPE.

12) PAYMENT FOR CLASS 3 EXCAVATION WILL BE INCIDENTAL TO STORM SEWER PIPES AND STRUCTURES.

13) PAYMENT FOR FILTER FABRIC WILL BE INCIDENTAL TO PIPES UNDER PAVEMENT.



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
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DISTRICT	
SHEET NO.	8
COUNTY	JEFFERSON
JOB NO.	1534600
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BRIDGE NO.	

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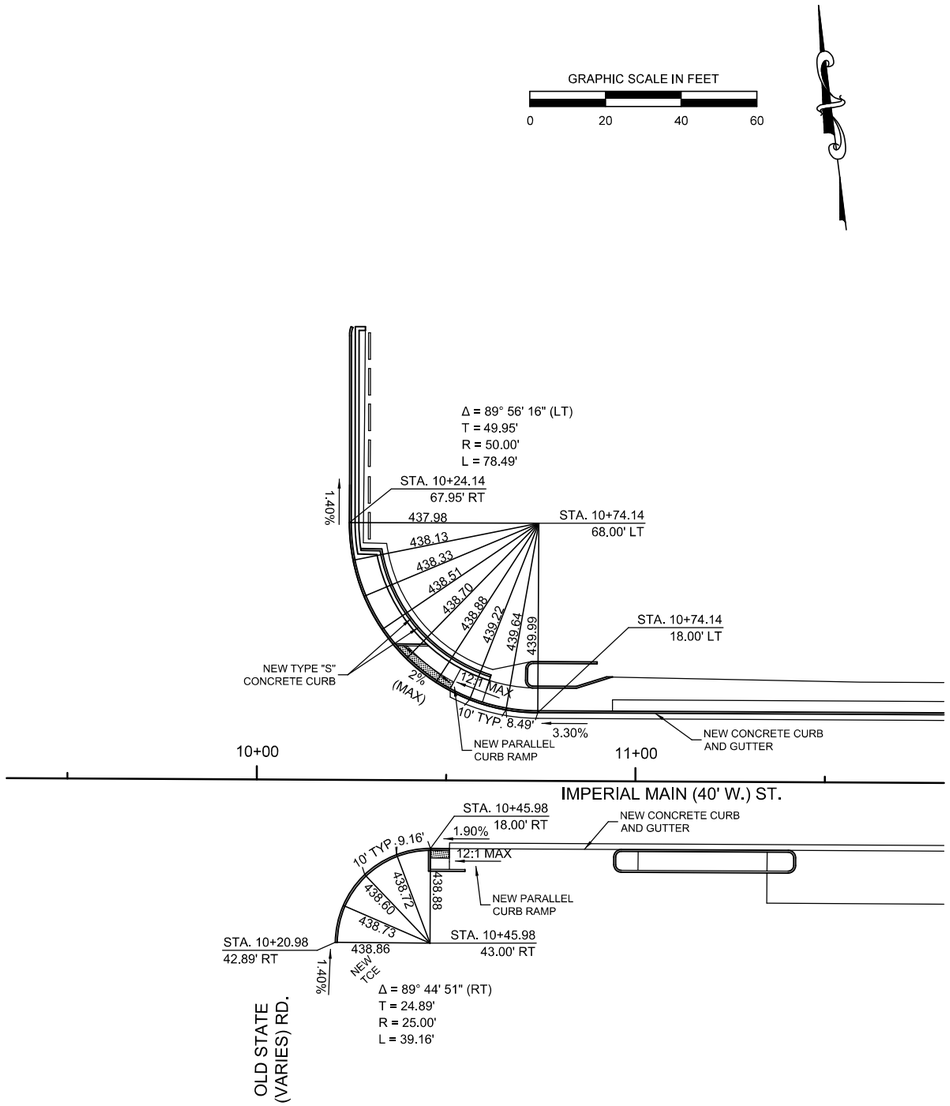
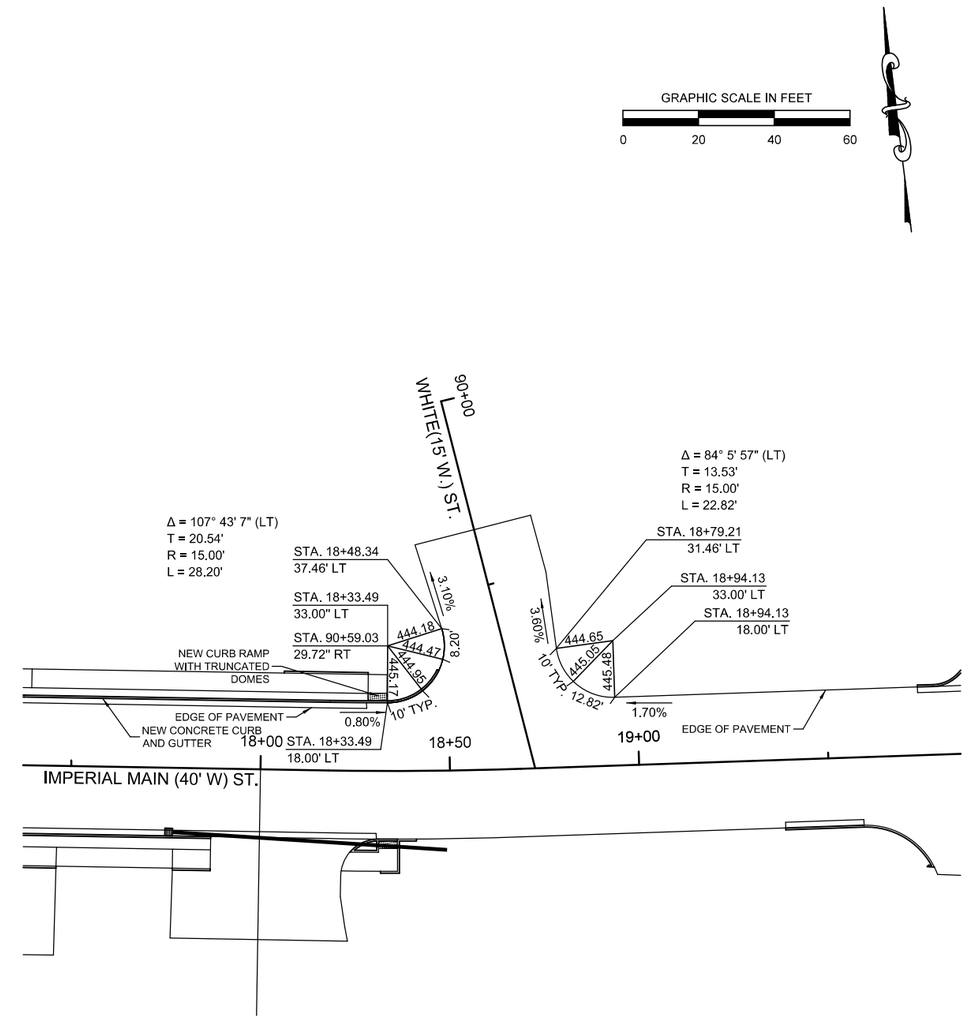
STORM SEWER PROFILES

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.





GENERAL NOTES:

1) ALL CURVE DATA SHOWN IS TO EDGE OF PAVEMENT OR GUTTER FLOWLINE.
2) CURB RAMP LANDINGS SHALL HAVE A MINIMUM SIZE OF 5 FT. BY 5 FT. WITH A CROSS SLOPE OF 1.5% (+ OR - 0.5%) IN ANY DIRECTION (SLOPE 1.0% TO 2.0% MAX.)
3) CURB RAMPS AND DETECTABLE WARNING PANELS SHALL BE CONSTRUCTED PER MODOT STANDARDS.
4) ALL UTILITY APPURTENANCES LOCATED WITHIN SIDEWALKS SHALL BE ADJUSTED TO MEET ADA ACCESSIBILITY GUIDELINES.

SPECIAL NOTE TO CONTRACTOR(S):

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ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	9
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

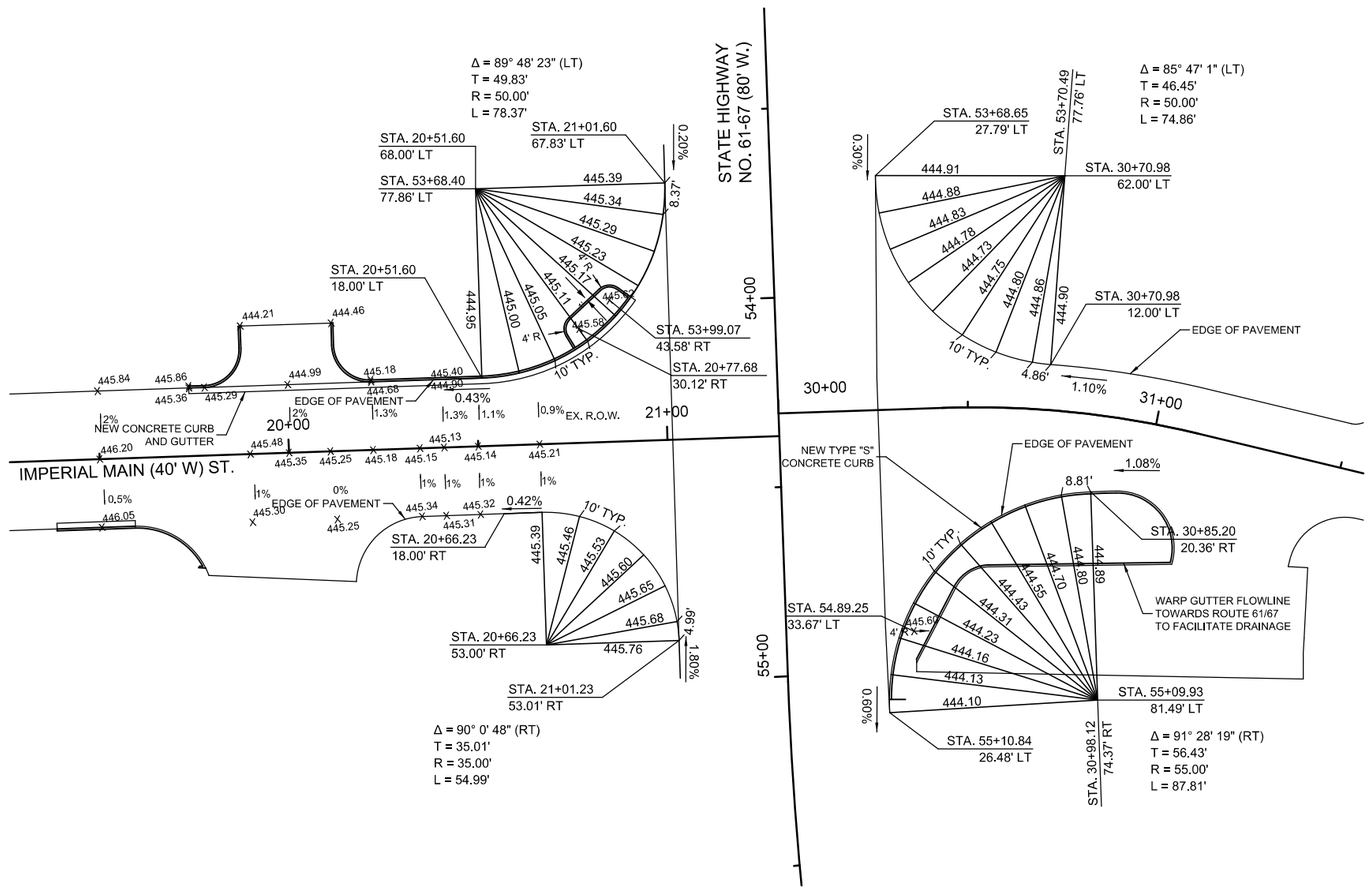
HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-531-4221 - FAX: 314-531-8866
SHIFRINWEBMASTER@HSPW.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

INTERSECTION DETAILS
SHEET 1 OF 2

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.



GENERAL NOTES:

1) ALL CURVE DATA SHOWN IS TO EDGE OF PAVEMENT OR GUTTER FLOWLINE.
2) CURB RAMP LANDINGS SHALL HAVE A MINIMUM SIZE OF 5 FT. BY 5 FT. WITH A CROSS SLOPE OF 1.5% (+ OR - 0.5%) IN ANY DIRECTION (SLOPE 1.0% TO 2.0% MAX.)
3) CURB RAMPS AND DETECTABLE WARNING PANELS SHALL BE CONSTRUCTED PER MODOT STANDARDS.
4) ALL UTILITY APPURTENANCES LOCATED WITHIN SIDEWALKS SHALL BE ADJUSTED TO MEET ADA ACCESSIBILITY GUIDELINES.
5) XXX.XX = PROPOSED SPOT ELEVATION

SPECIAL NOTE TO CONTRACTOR(S):

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ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER
1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	10
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
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HILLSBORO, MO 63050
636-797-5340
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401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
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WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

INTERSECTION DETAILS
SHEET 2 OF 2

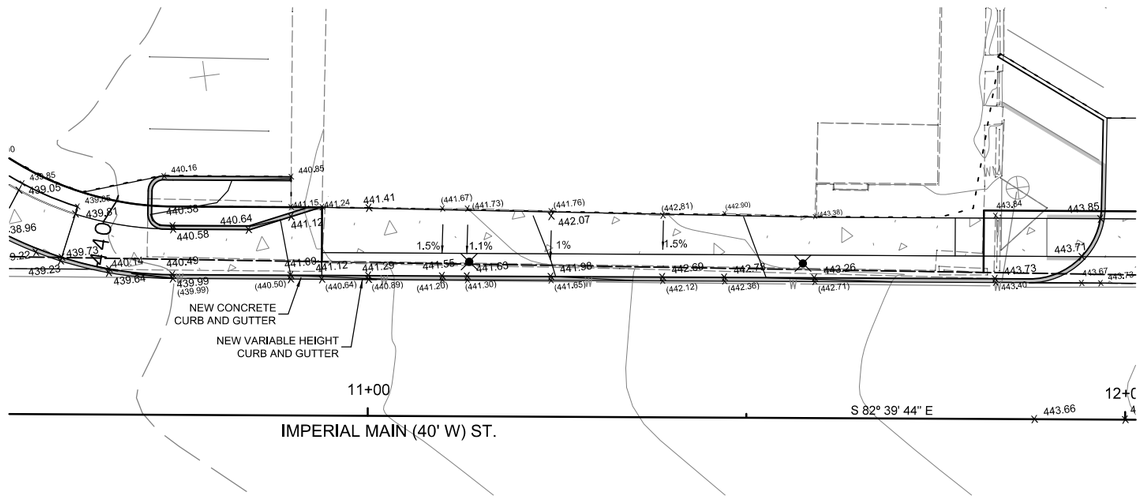
IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

GENERAL NOTES:

1. CURB RAMP SLOPE SHALL NOT EXCEED 8.33%.
2. XXX.XX = PROPOSED SPOT ELEVATION
3. (XXX.XX) = EXISTING SPOT ELEVATION
4. PG = PROFILE GRADE ELEVATION



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GRAPHIC SCALE IN FEET

0 10 20 30

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	11
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4201 - FAX 314-231-0956
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

GRADING PLAN
SHEET 1 OF 2

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

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1. CURB RAMP SLOPE SHALL NOT EXCEED 8.33%.
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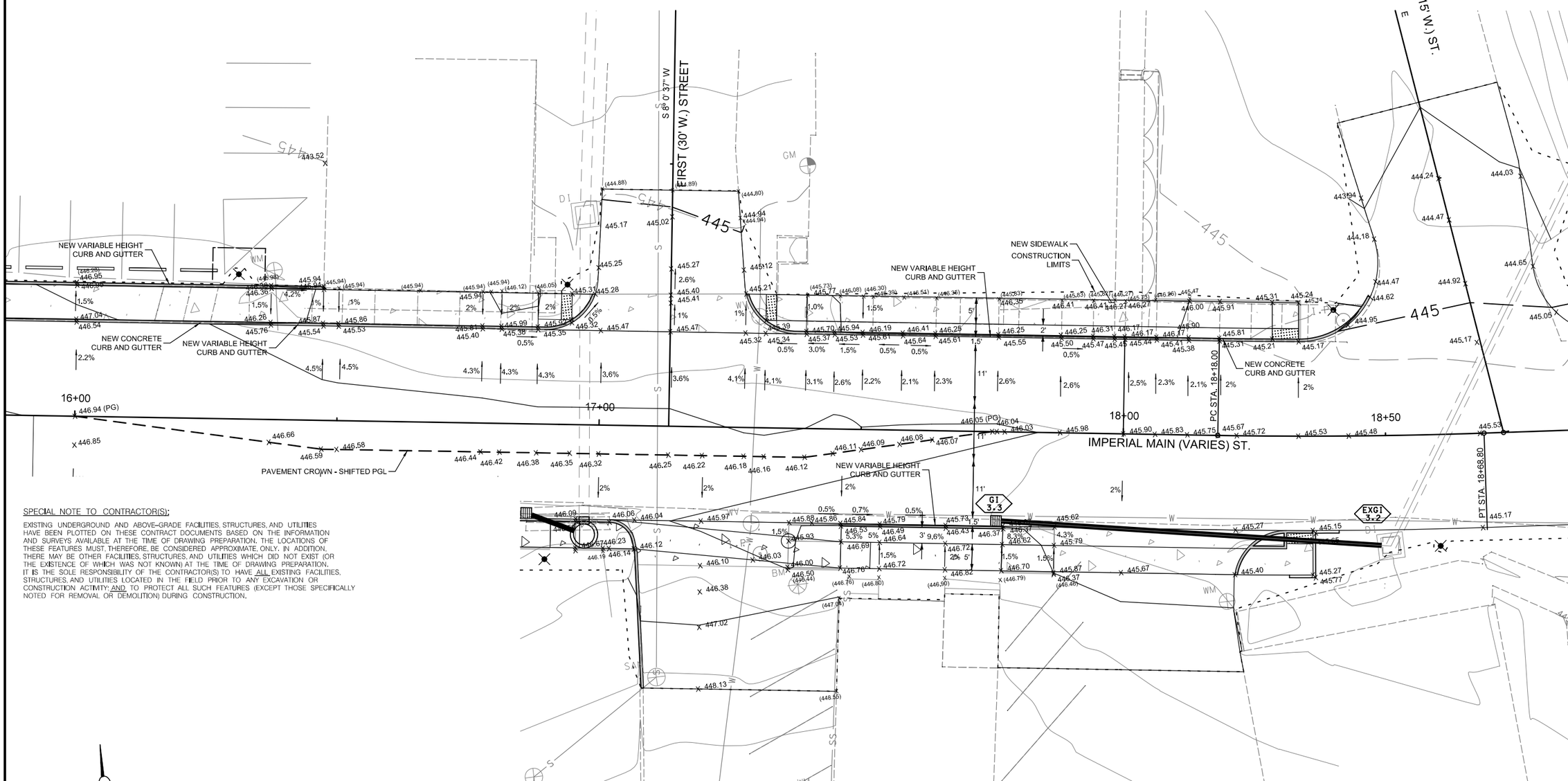

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GRAPHIC SCALE IN FEET

0 10 20 30

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	12
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
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CERTIFICATE OF AUTHORITY: 000159
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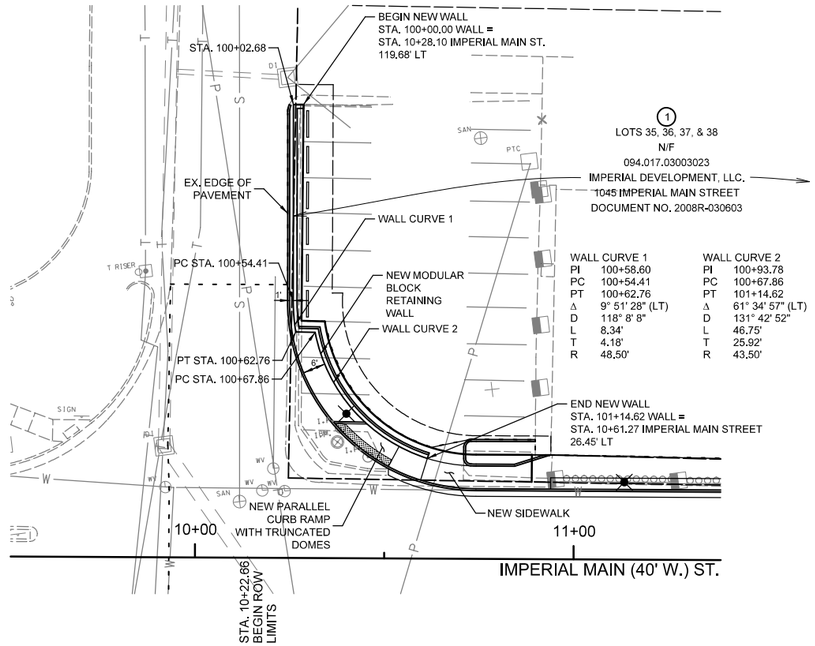
GRADING PLAN
SHEET 2 OF 2

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

GRAPHIC SCALE IN FEET

0 20 40 60



WALL CURVE 1		WALL CURVE 2	
PI	100+58.60	PI	100+93.78
PC	100+54.41	PC	100+67.86
PT	100+62.76	PT	101+14.62
Δ	9° 51' 28" (LT)	Δ	61° 34' 57" (LT)
D	118° 8' 8"	D	131° 42' 52"
L	8.34'	L	46.75'
T	4.18'	T	25.92'
R	48.50'	R	43.50'

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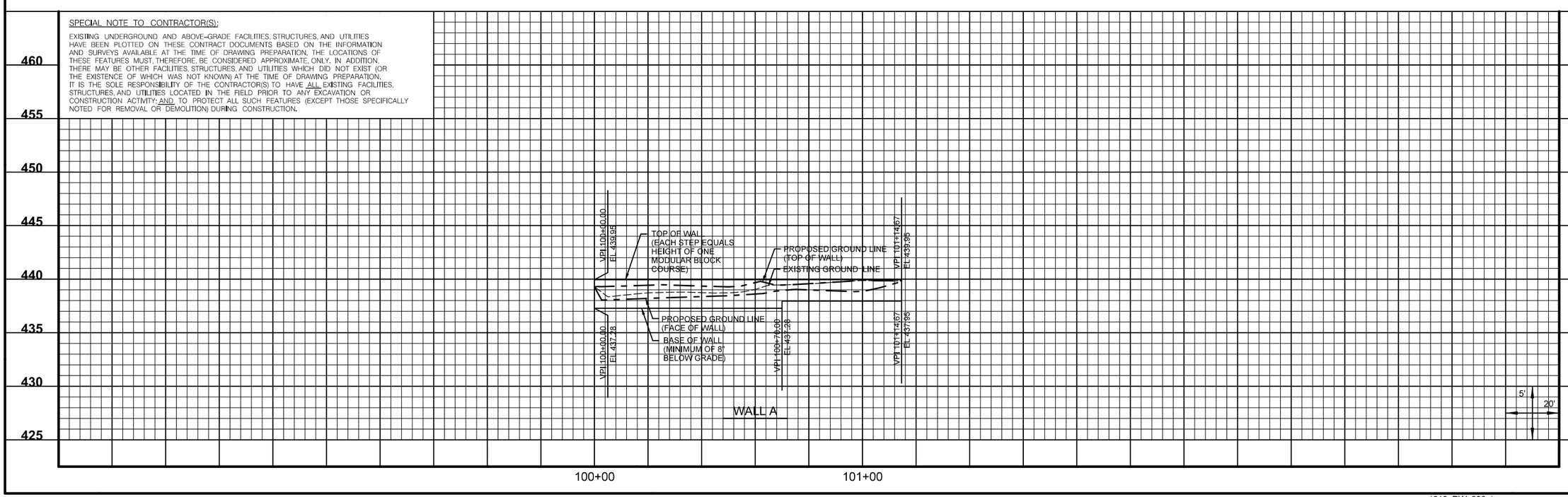

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	13
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
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636-797-5340
www.jeffcomo.org

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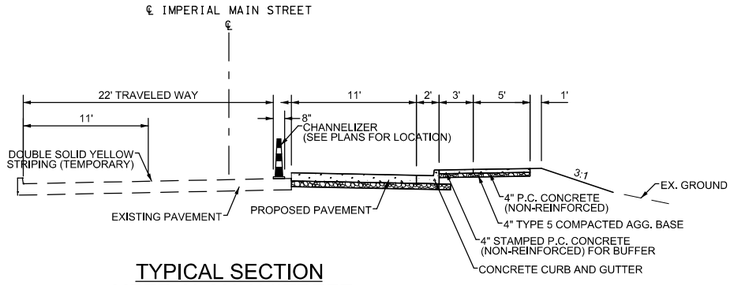
RETAINING WALL
PLAN/PROFILE SHEET

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

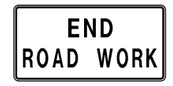


TYPICAL SECTION
IMPERIAL MAIN STREET
STAGE 1

STA. 10+22.20 - STA. 18+68.80

W020-1

(1)

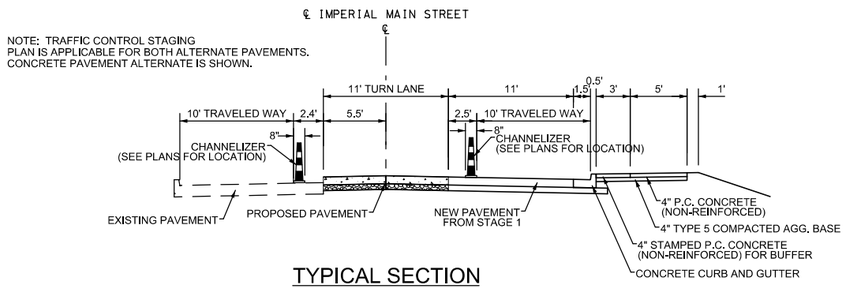


G020-2

(2)

W01-4L

(3)



TYPICAL SECTION
IMPERIAL MAIN STREET
STAGE 2

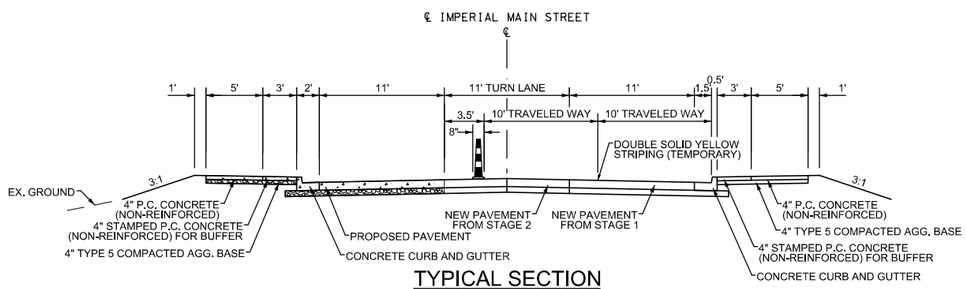
STA. 10+22.20 - STA. 18+68.80

G020-5dP

(4)

R2-1

(5)



TYPICAL SECTION
IMPERIAL MAIN STREET
STAGE 3

STA. 10+22.20 - STA. 18+68.80

GENERAL NOTES:

1) DO NOT SCALE DRAWING. FOLLOW DIMENSIONS.

2) ALL SIGNING SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

3) NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF TCP SIGNS AND DEVICES.

4) ANY EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COVERED OR REMOVED.

5) ALL TRAFFIC CONTROL ITEMS WHICH ARE NOT INCLUDED IN THE PAY ITEMS ARE TO BE CONSIDERED INCIDENTAL.

6) MAINTAIN ACCESS TO HILL STREET AND ENTRANCES AT ALL TIMES.

7) CONTRACTOR SHALL MAINTAIN TEMPORARY STRIPING DURING CONSTRUCTION. MAINTENANCE OF TEMPORARY STRIPING IS CONSIDERED INCIDENTAL.

	TRAFFIC CONTROL						
	CHANNELIZERS (TRIM-LINE)	TYPE III BARRICADES	TEMPORARY STRIPING 4" YELLOW	CHANGEABLE MESSAGE SIGN	CONSTRUCTION SIGNS	FLAG ASSEMBLY	REMARKS
	(EACH)	(EACH)	LENGTH (L.F.)	(EACH)	AREA (S.F.)	(EACH)	
TOTALS	36	8	221	2	546	5	
PAY TOTALS	36	8	221	2	546	5	

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER
2009030035
PROFESSIONAL ENGINEER
REGISTERED

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	14
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

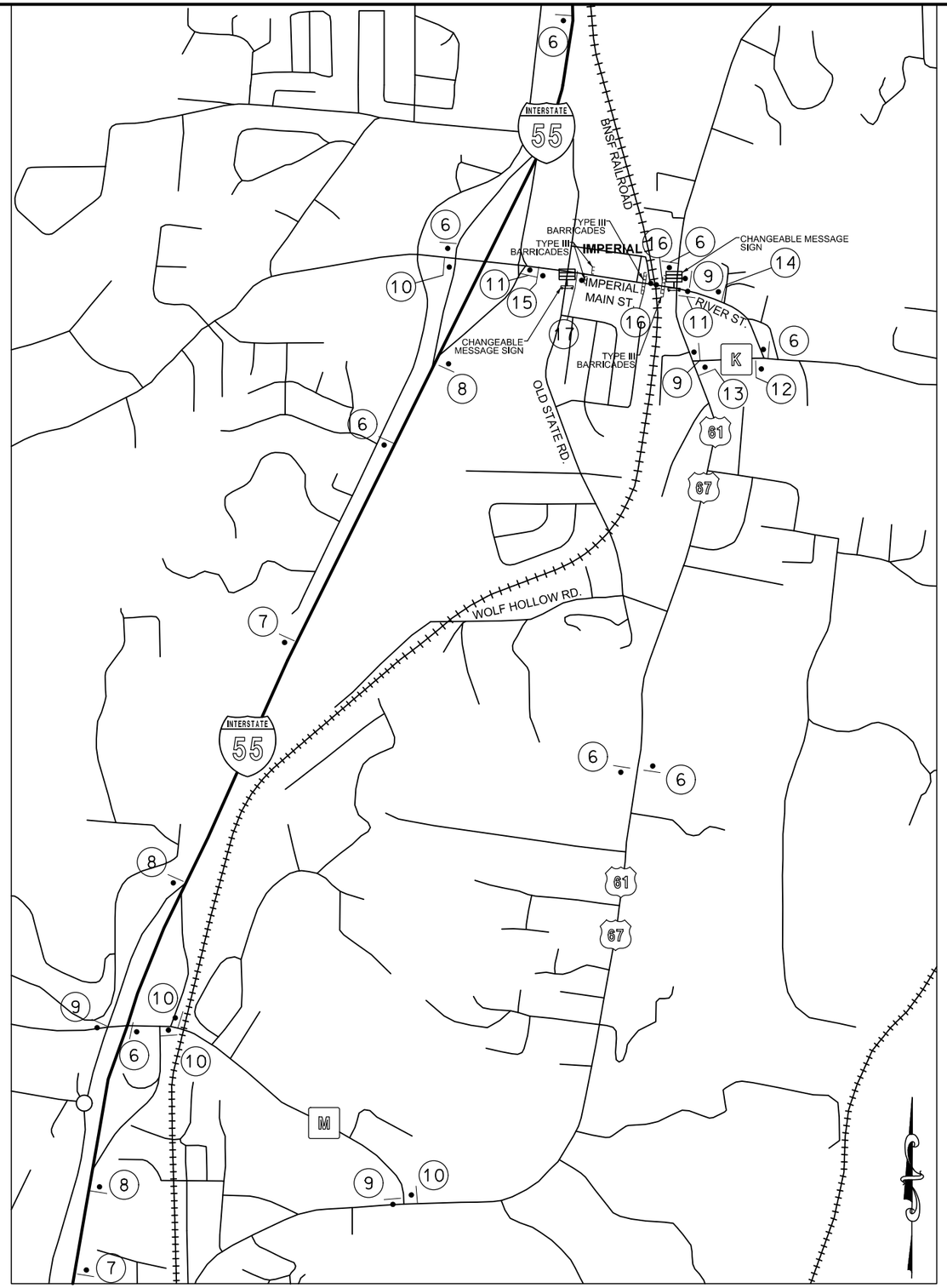
HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4224 FAX 314-231-6860
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

TRAFFIC CONTROL PLAN
SHEET 1 OF 9

IMPERIAL MAIN STREET IMPROVEMENTS

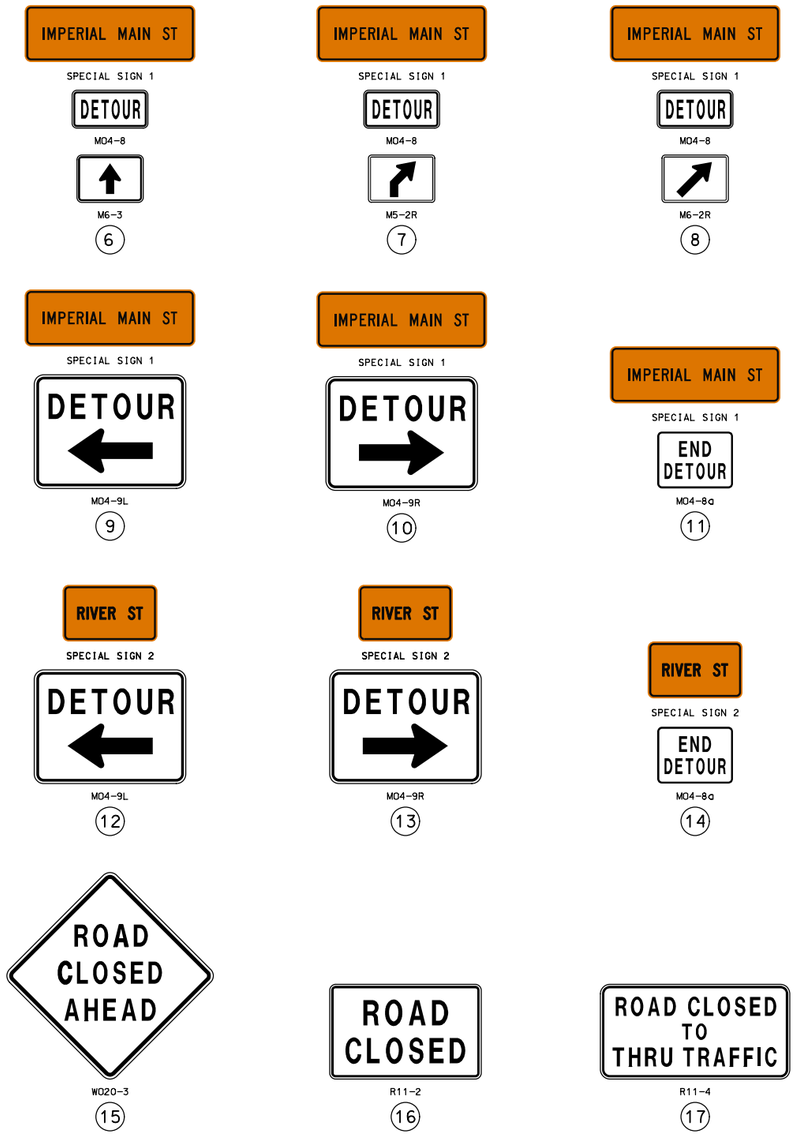
JEFFERSON COUNTY, MISSOURI

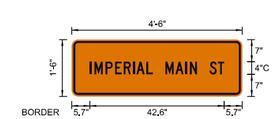
REV.



IMPERIAL MAIN STREET AND RIVER STREET
DETOUR ROUTE
FOR RAILROAD CONSTRUCTION

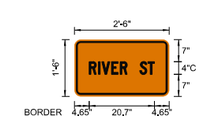
NOTE: DETOUR ROUTE SHALL ONLY BE USED FOR RAILROAD CLOSURE.





Panel Style: construction_guide.ssl
M,U,T,C,D: 2009 Edition

SPECIAL SIGN 1 DETAILS



Panel Style: construction_guide.ssl
M,U,T,C,D: 2009 Edition

SPECIAL SIGN 2 DETAILS

IMPERIAL MAIN ST CLOSED

AT RAILROAD

CHANGEABLE MESSAGE SIGN

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER
1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	15
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
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www.jeffcomo.org

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TRAFFIC CONTROL PLAN
SHEET 2 OF 9
IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

REV.

TRAFFIC CONTROL - STAGE 1

TRAFFIC CONTROL LEGEND

- WORK AREA
- SIGN (SINGLE SIDED)
- CHANNELIZER (TRIM-LINE)
- TYPE III MOVEABLE BARRICADE

GRAPHIC SCALE IN FEET

0 20 40 60

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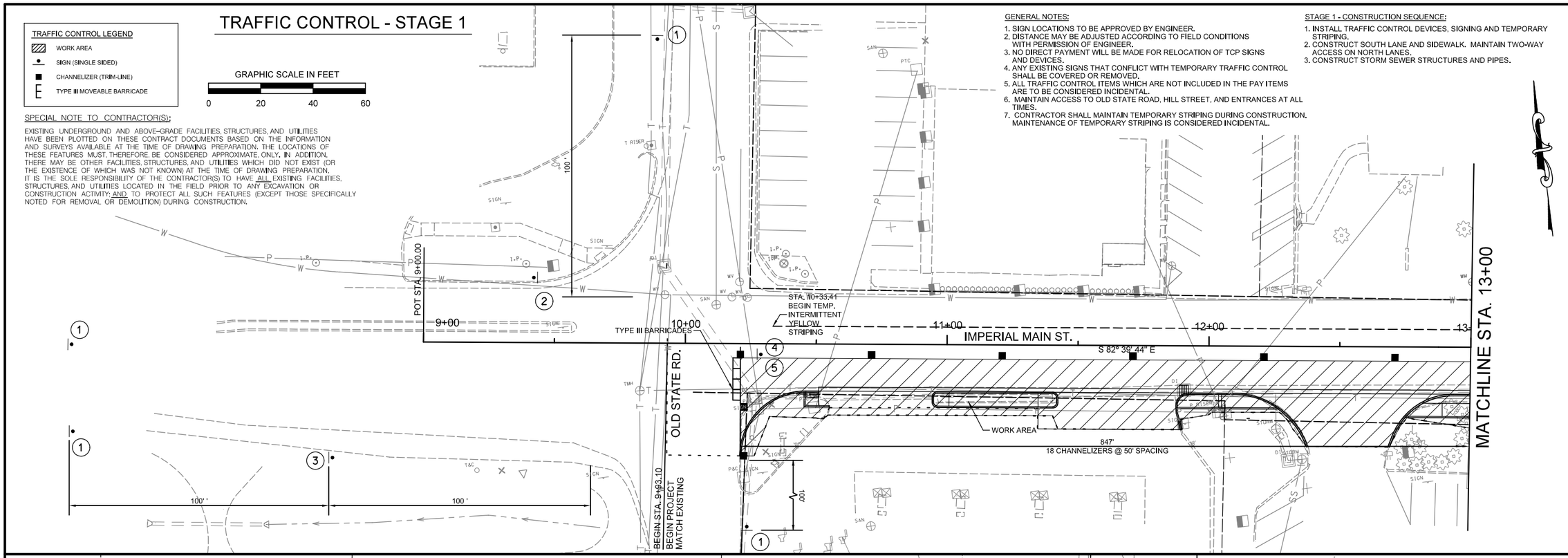
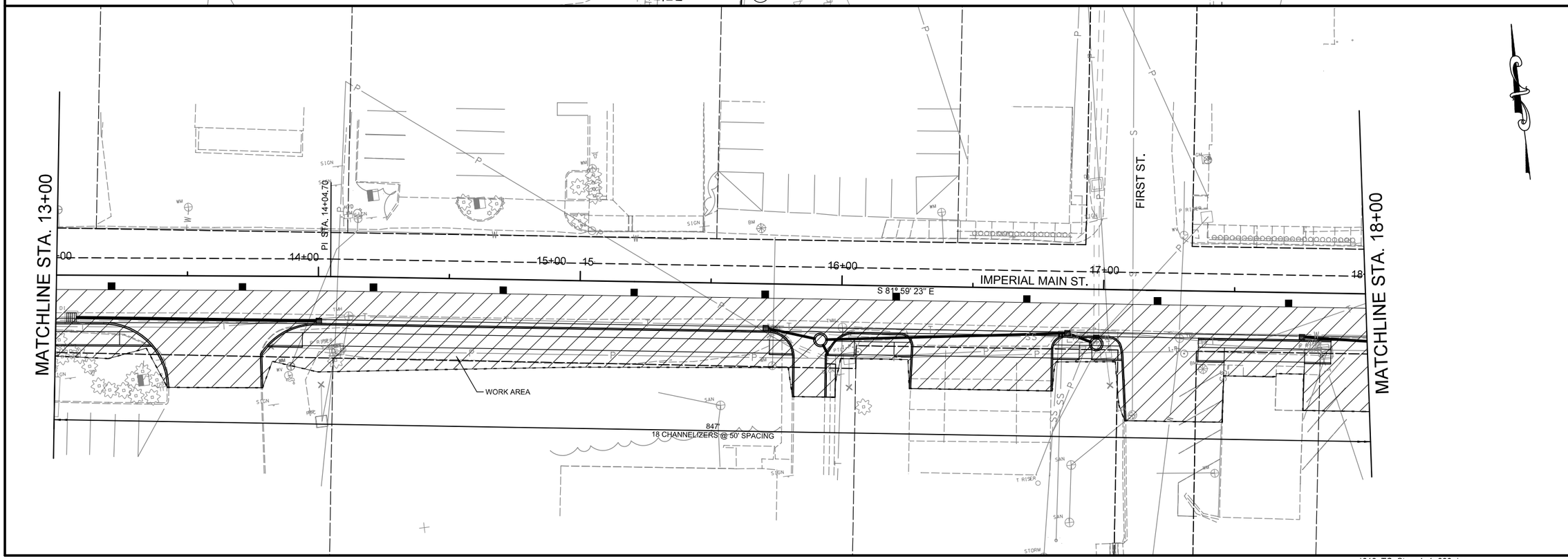
GENERAL NOTES:

1. SIGN LOCATIONS TO BE APPROVED BY ENGINEER.
2. DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS WITH PERMISSION OF ENGINEER.
3. NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF TCP SIGNS AND DEVICES.
4. ANY EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COVERED OR REMOVED.
5. ALL TRAFFIC CONTROL ITEMS WHICH ARE NOT INCLUDED IN THE PAY ITEMS ARE TO BE CONSIDERED INCIDENTAL.
6. MAINTAIN ACCESS TO OLD STATE ROAD, HILL STREET, AND ENTRANCES AT ALL TIMES.
7. CONTRACTOR SHALL MAINTAIN TEMPORARY STRIPING DURING CONSTRUCTION. MAINTENANCE OF TEMPORARY STRIPING IS CONSIDERED INCIDENTAL.

STAGE 1 - CONSTRUCTION SEQUENCE:

1. INSTALL TRAFFIC CONTROL DEVICES, SIGNING AND TEMPORARY STRIPING.
2. CONSTRUCT SOUTH LANE AND SIDEWALK. MAINTAIN TWO-WAY ACCESS ON NORTH LANES.
3. CONSTRUCT STORM SEWER STRUCTURES AND PIPES.





ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	16
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
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REV.

JEFFERSON COUNTY, MISSOURI
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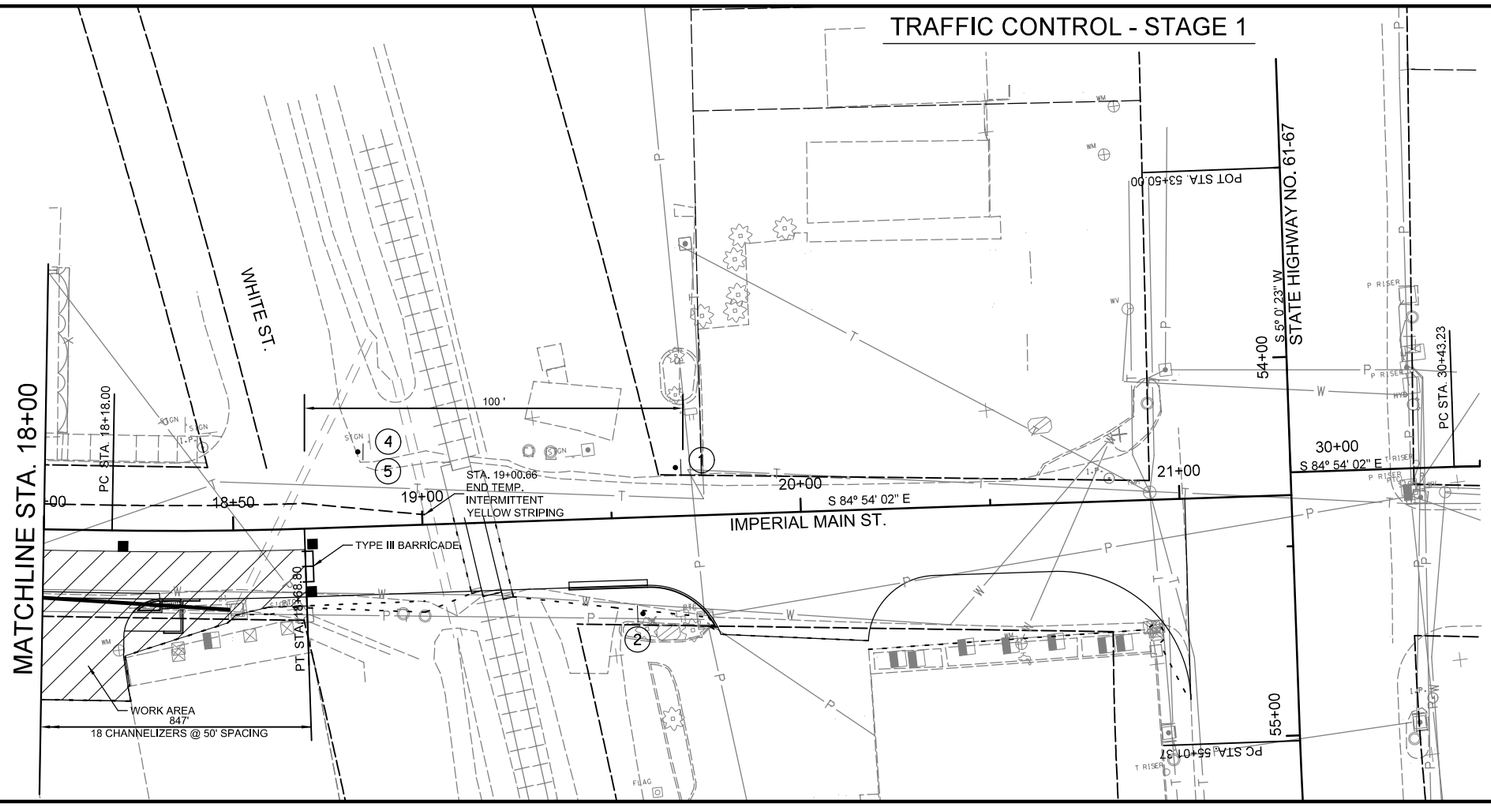
TEMPORARY TRAFFIC CONTROL
SHEET 3 OF 9

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

TRAFFIC CONTROL - STAGE 1



TRAFFIC CONTROL LEGEND

- WORK AREA
- SIGN (SINGLE SIDED)
- CHANNELIZER (TRIM-LINE)
- TYPE III MOVEABLE BARRICADE

GRAPHIC SCALE IN FEET

0 20 40 60

SPECIAL NOTE TO CONTRACTOR(S):

EXISTING UNDERGROUND AND ABOVE-GRADE FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED ON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATIONS OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE, ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST (OR THE EXISTENCE OF WHICH WAS NOT KNOWN) AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY; AND TO PROTECT ALL SUCH FEATURES (EXCEPT THOSE SPECIFICALLY NOTED FOR REMOVAL OR DEMOLITION) DURING CONSTRUCTION.

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER
1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	17
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4221 - FAX 314-231-5666
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

TEMPORARY TRAFFIC CONTROL
SHEET 4 OF 9

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

TRAFFIC CONTROL - STAGE 2

TRAFFIC CONTROL LEGEND

- WORK AREA
- SIGN (SINGLE SIDED)
- CHANNELIZER (TRIM-LINE)
- TYPE III MOVEABLE BARRICADE

GRAPHIC SCALE IN FEET

0 20 40 60

SPECIAL NOTE TO CONTRACTOR(S):

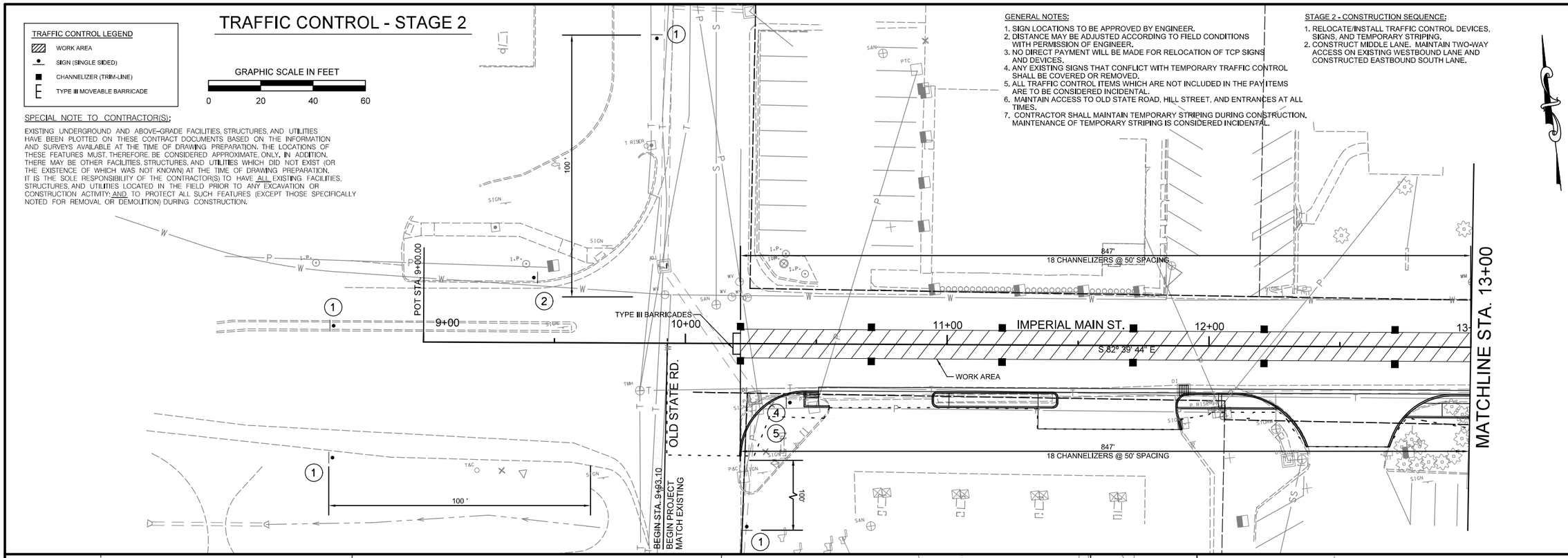
EXISTING UNDERGROUND AND ABOVE-GRADE FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED ON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATIONS OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE, ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST (OR THE EXISTENCE OF WHICH WAS NOT KNOWN) AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY; AND TO PROTECT ALL SUCH FEATURES (EXCEPT THOSE SPECIFICALLY NOTED FOR REMOVAL OR DEMOLITION) DURING CONSTRUCTION.

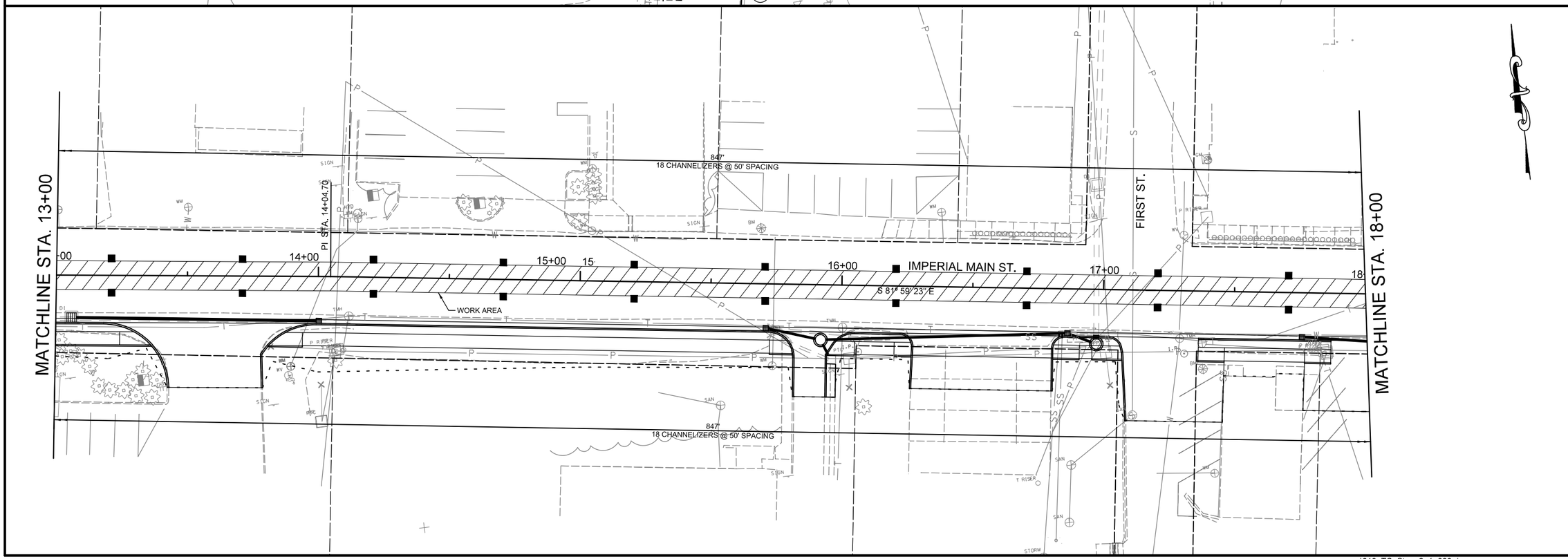
GENERAL NOTES:

1. SIGN LOCATIONS TO BE APPROVED BY ENGINEER.
2. DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS WITH PERMISSION OF ENGINEER.
3. NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF TCP SIGNS AND DEVICES.
4. ANY EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COVERED OR REMOVED.
5. ALL TRAFFIC CONTROL ITEMS WHICH ARE NOT INCLUDED IN THE PAY ITEMS ARE TO BE CONSIDERED INCIDENTAL.
6. MAINTAIN ACCESS TO OLD STATE ROAD, HILL STREET, AND ENTRANCES AT ALL TIMES.
7. CONTRACTOR SHALL MAINTAIN TEMPORARY STRIPING DURING CONSTRUCTION. MAINTENANCE OF TEMPORARY STRIPING IS CONSIDERED INCIDENTAL.

STAGE 2 - CONSTRUCTION SEQUENCE:

1. RELOCATE/INSTALL TRAFFIC CONTROL DEVICES, SIGNS, AND TEMPORARY STRIPING.
2. CONSTRUCT MIDDLE LANE. MAINTAIN TWO-WAY ACCESS ON EXISTING WESTBOUND LANE AND CONSTRUCTED EASTBOUND SOUTH LANE.





ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	18
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4221 - FAX 314-231-5666
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

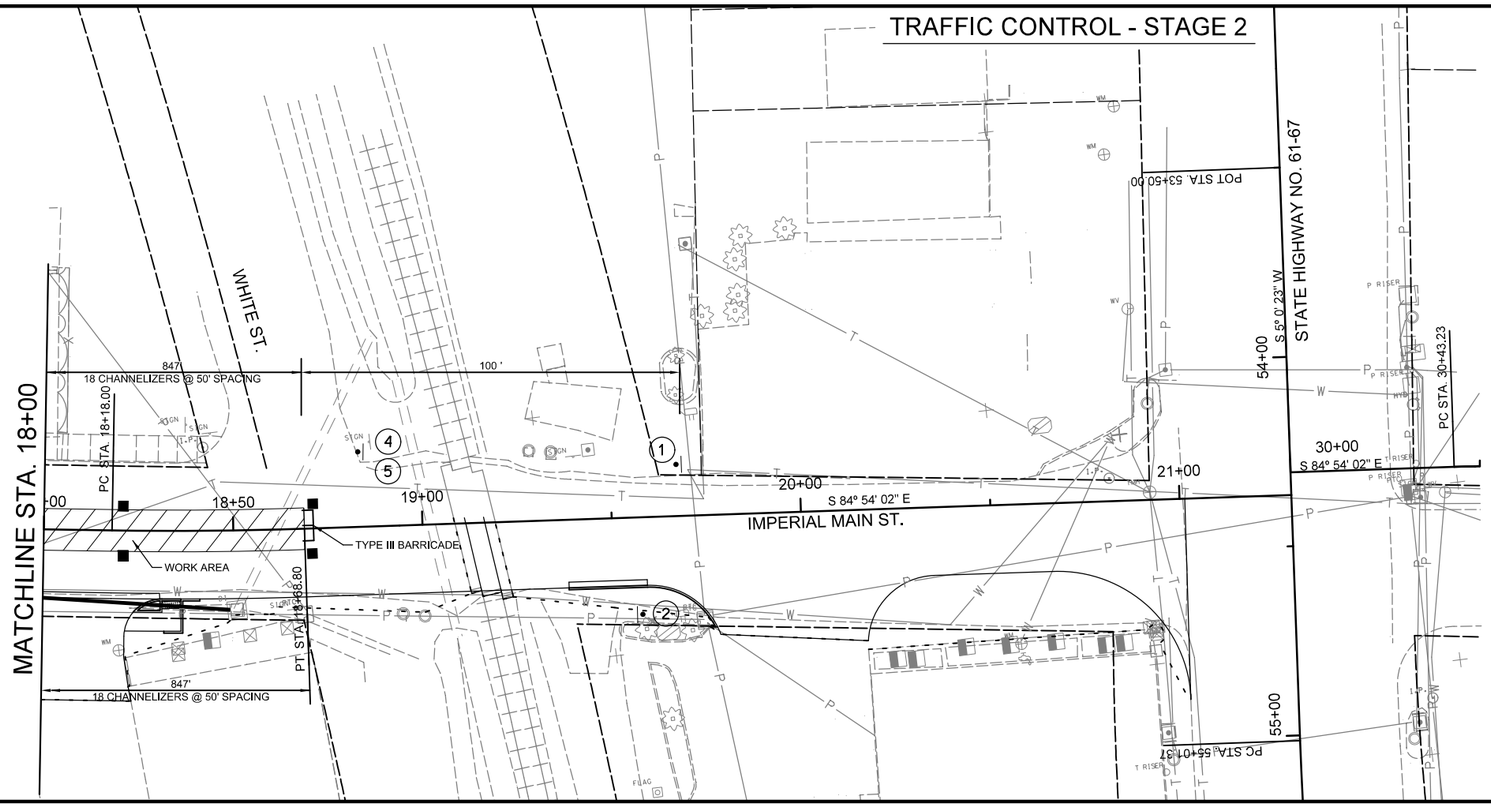
TEMPORARY TRAFFIC CONTROL
SHEET 5 OF 9

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

TRAFFIC CONTROL - STAGE 2



TRAFFIC CONTROL LEGEND

- WORK AREA
- SIGN (SINGLE SIDED)
- CHANNELIZER (TRIM-LINE)
- TYPE III MOVEABLE BARRICADE

GRAPHIC SCALE IN FEET

0 20 40 60

SPECIAL NOTE TO CONTRACTOR(S):

EXISTING UNDERGROUND AND ABOVE-GRADE FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED ON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATIONS OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE, ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST (OR THE EXISTENCE OF WHICH WAS NOT KNOWN) AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY; AND TO PROTECT ALL SUCH FEATURES (EXCEPT THOSE SPECIFICALLY NOTED FOR REMOVAL OR DEMOLITION) DURING CONSTRUCTION.

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER
1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	19
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4221 - FAX 314-231-5664
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

TEMPORARY TRAFFIC CONTROL
SHEET 6 OF 9

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

TRAFFIC CONTROL - STAGE 3

TRAFFIC CONTROL LEGEND

- WORK AREA
- SIGN (SINGLE SIDED)
- CHANNELIZER (TRIM-LINE)
- TYPE III MOVEABLE BARRICADE

GRAPHIC SCALE IN FEET

0 20 40 60

SPECIAL NOTE TO CONTRACTOR(S):

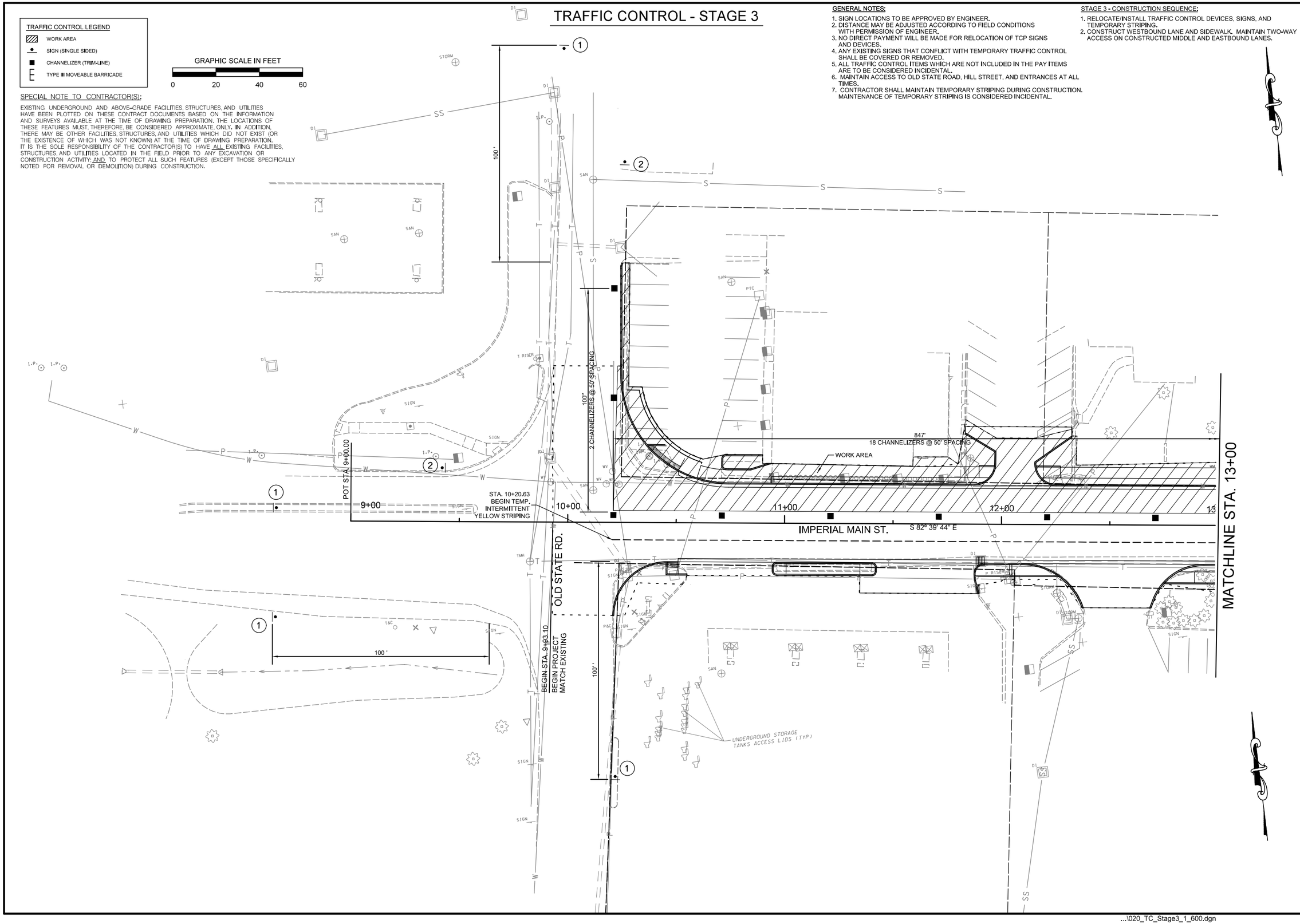
EXISTING UNDERGROUND AND ABOVE-GRADE FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED ON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATIONS OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE, ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST (OR THE EXISTENCE OF WHICH WAS NOT KNOWN) AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY; AND TO PROTECT ALL SUCH FEATURES (EXCEPT THOSE SPECIFICALLY NOTED FOR REMOVAL OR DEMOLITION) DURING CONSTRUCTION.

GENERAL NOTES:

1. SIGN LOCATIONS TO BE APPROVED BY ENGINEER.
2. DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS WITH PERMISSION OF ENGINEER.
3. NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF TCP SIGNS AND DEVICES.
4. ANY EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COVERED OR REMOVED.
5. ALL TRAFFIC CONTROL ITEMS WHICH ARE NOT INCLUDED IN THE PAY ITEMS ARE TO BE CONSIDERED INCIDENTAL.
6. MAINTAIN ACCESS TO OLD STATE ROAD, HILL STREET, AND ENTRANCES AT ALL TIMES.
7. CONTRACTOR SHALL MAINTAIN TEMPORARY STRIPING DURING CONSTRUCTION. MAINTENANCE OF TEMPORARY STRIPING IS CONSIDERED INCIDENTAL.

STAGE 3 - CONSTRUCTION SEQUENCE:

1. RELOCATE/INSTALL TRAFFIC CONTROL DEVICES, SIGNS, AND TEMPORARY STRIPING.
2. CONSTRUCT WESTBOUND LANE AND SIDEWALK. MAINTAIN TWO-WAY ACCESS ON CONSTRUCTED MIDDLE AND EASTBOUND LANES.



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER
2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	20
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4021 - FAX 314-231-0666
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

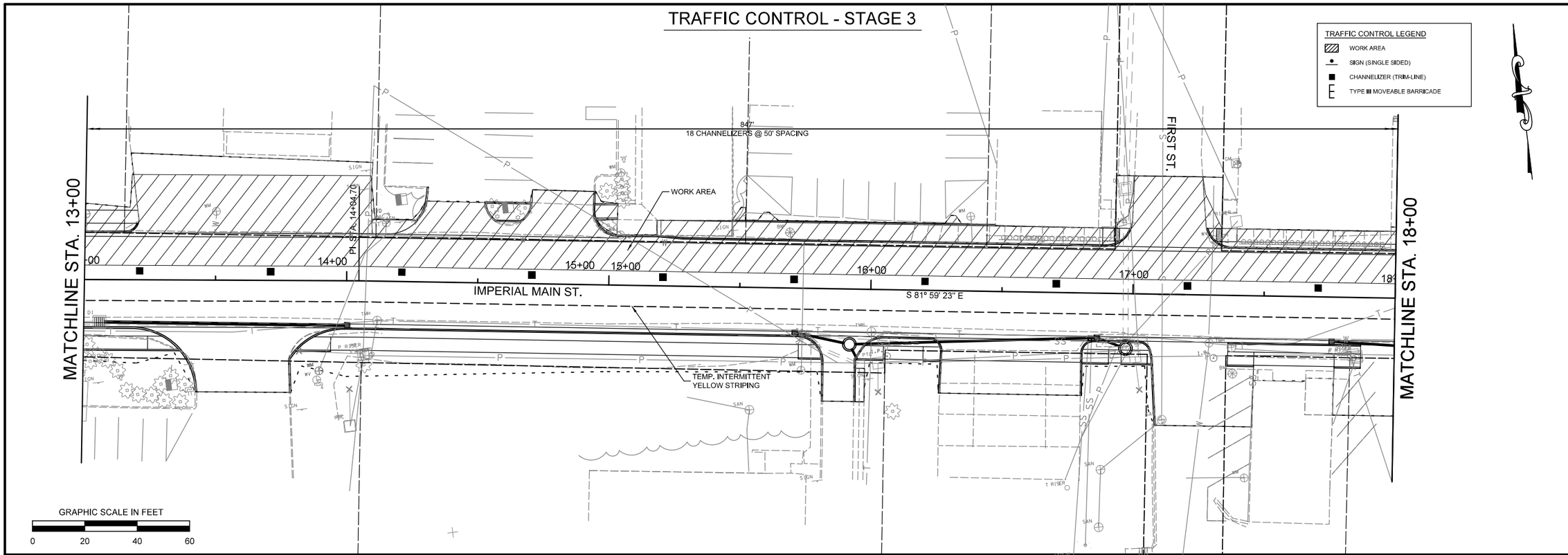
TEMPORARY TRAFFIC CONTROL
SHEET 7 OF 9

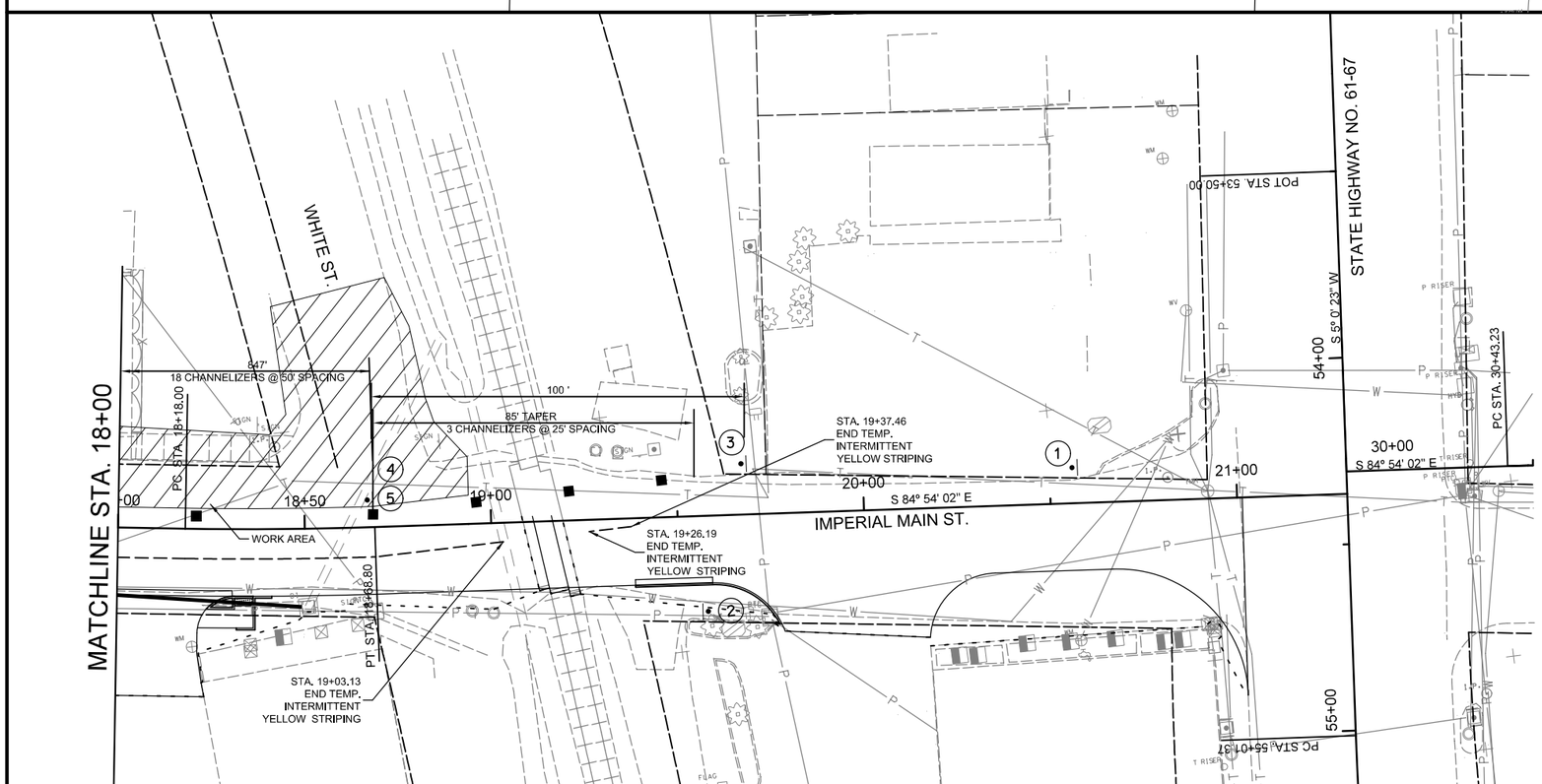
IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

TRAFFIC CONTROL - STAGE 3





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ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	21
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4224 - FAX 314-231-0666
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

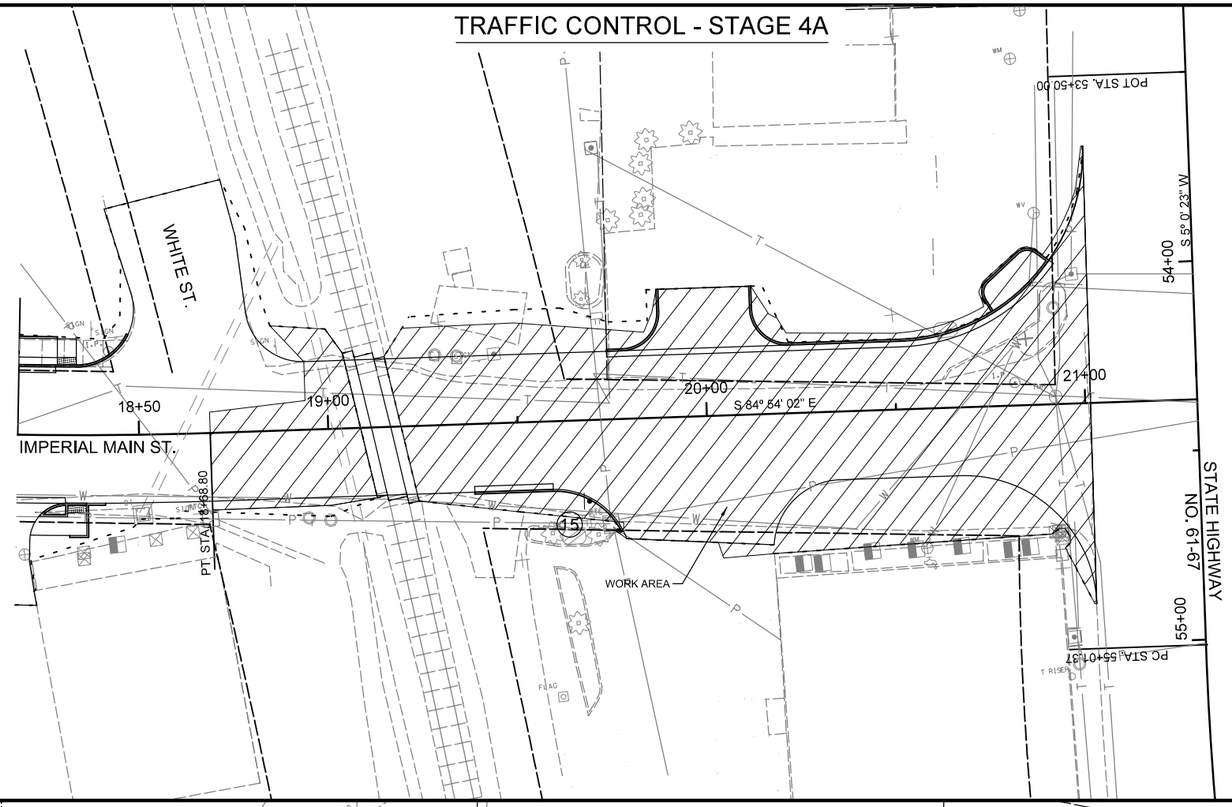
TEMPORARY TRAFFIC CONTROL
SHEET 8 OF 9

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

TRAFFIC CONTROL - STAGE 4A



TRAFFIC CONTROL LEGEND

- WORK AREA
- SIGN (SINGLE SIDED)
- CHANNELIZER (TRIM-LINE)
- TYPE III MOVEABLE BARRICADE

GRAPHIC SCALE IN FEET

0 20 40 60

GENERAL NOTES:

1. SIGN LOCATIONS TO BE APPROVED BY ENGINEER.
2. DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS WITH PERMISSION OF ENGINEER.
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5. ALL TRAFFIC CONTROL ITEMS WHICH ARE NOT INCLUDED IN THE PAY ITEMS ARE TO BE CONSIDERED INCIDENTAL.
6. MAINTAIN ACCESS TO OLD STATE ROAD, HILL STREET, AND ENTRANCES AT ALL TIMES.
7. CONTRACTOR SHALL MAINTAIN TEMPORARY STRIPING DURING CONSTRUCTION. MAINTENANCE OF TEMPORARY STRIPING IS CONSIDERED INCIDENTAL.

STAGE 4 - CONSTRUCTION SEQUENCE:

1. INSTALL DETOUR ROUTE SIGNING FOR IMPERIAL MAIN STREET CLOSURE FOR RAILROAD CONSTRUCTION AND RIVER STREET CLOSURE. SEE DETOUR ROUTE ON SHEET 15.
2. CLOSE IMPERIAL MAIN STREET FROM WHITE STREET TO STATE HIGHWAY NO. 61-67 FOR RAILROAD CONSTRUCTION AND COORDINATION.
3. CLOSE RIVER STREET.
4. CONSTRUCT ALL LANES OF IMPERIAL MAIN STREET, RIVER STREET, AND SIGNALS AT STATE HIGHWAY NO. 61-67 FOR THE LIMITS SHOWN.
5. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES FOR IMPERIAL MAIN STREET IN THIS STAGE WITH BNSF RAILROAD.
6. IMPERIAL MAIN STREET CLOSURE FOR RAILROAD CONSTRUCTION CAN OCCUR BEFORE, DURING, OR AFTER ANY OTHER TRAFFIC CONTROL STAGE.
7. SEE JOB SPECIAL PROVISIONS FOR DURATION OF IMPERIAL MAIN STREET CLOSURE FOR RAILROAD CONSTRUCTION AND FOR MORE INFORMATION REGARDING IMPERIAL MAIN STREET CLOSURE AND RIVER STREET CLOSURE.

SPECIAL NOTE TO CONTRACTOR(S):

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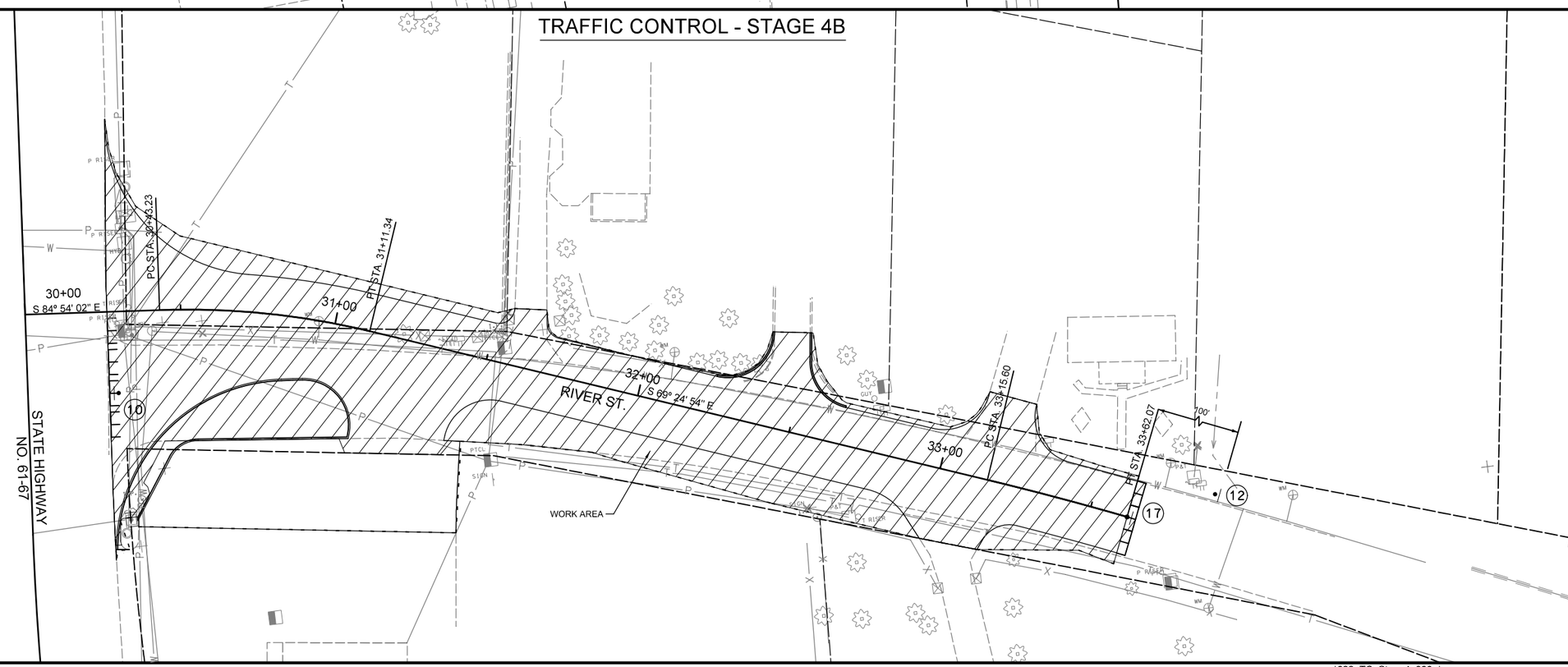
TRAFFIC CONTROL - STAGE 4B



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	22
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4221 • FAX 314-231-0856
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

TEMPORARY TRAFFIC CONTROL
SHEET 9 OF 9

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

SPECIAL NOTE TO CONTRACTOR(S):

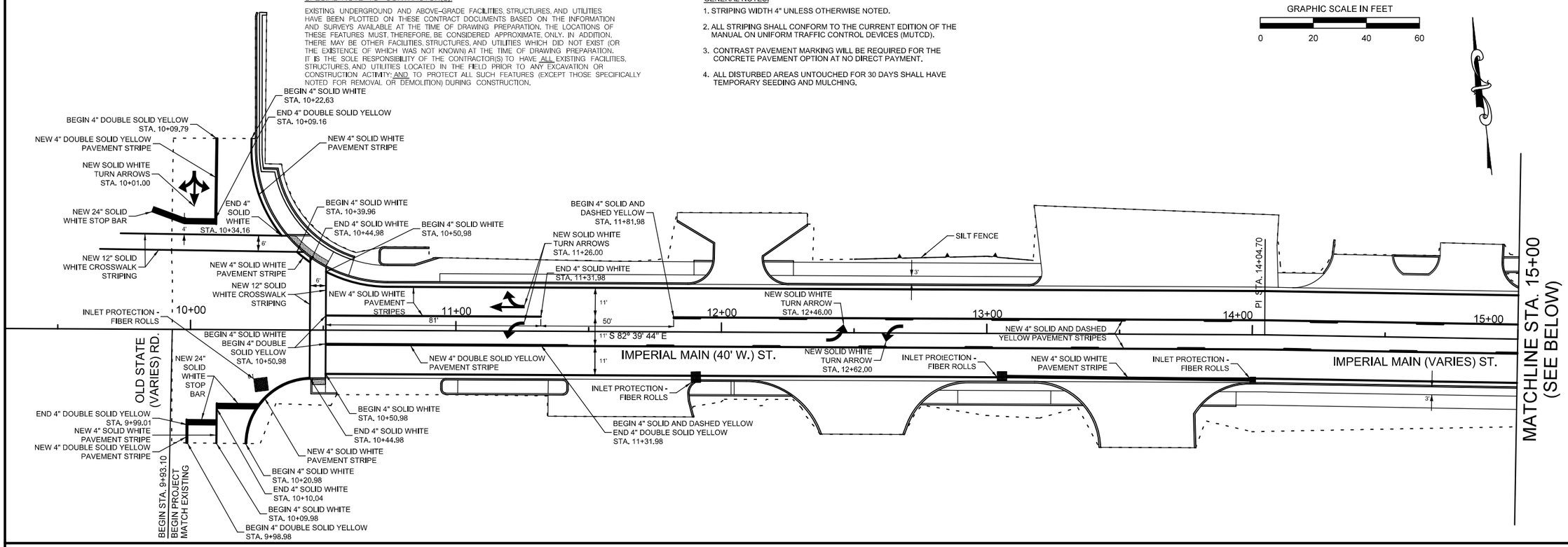
EXISTING UNDERGROUND AND ABOVE-GRADE FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED ON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATIONS OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE, ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST (OR THE EXISTENCE OF WHICH WAS NOT KNOWN) AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY; AND TO PROTECT ALL SUCH FEATURES (EXCEPT THOSE SPECIFICALLY NOTED FOR REMOVAL OR DEMOLITION) DURING CONSTRUCTION.

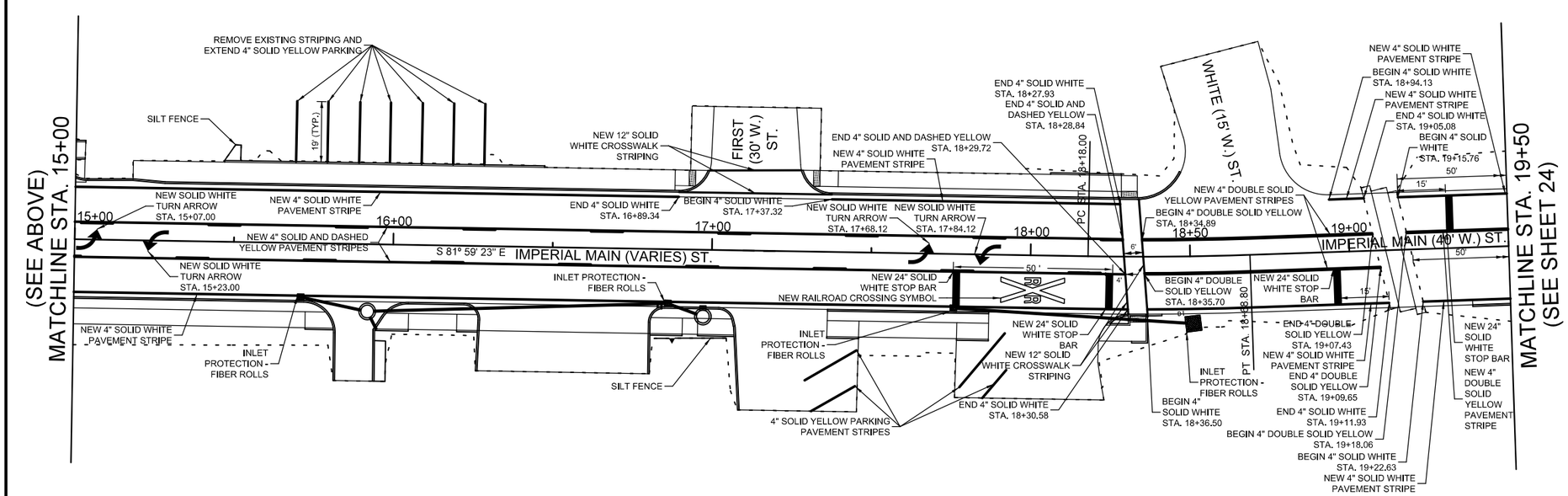
GENERAL NOTES:

1. STRIPING WIDTH 4" UNLESS OTHERWISE NOTED.
2. ALL STRIPING SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. CONTRAST PAVEMENT MARKING WILL BE REQUIRED FOR THE CONCRETE PAVEMENT OPTION AT NO DIRECT PAYMENT.
4. ALL DISTURBED AREAS UNTOUCHED FOR 30 DAYS SHALL HAVE TEMPORARY SEEDING AND MULCHING.

GRAPHIC SCALE IN FEET

0 20 40 60





ENGINEER'S SEAL

STATE OF MISSOURI — JOHN E. KLEIN — NUMBER 2009030035 — REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	23
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4221 - FAX 314-231-0956
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

PAVEMENT MARKING & EROSION CONTROL SHEET

IMPERIAL MAIN STREET IMPROVEMENTS

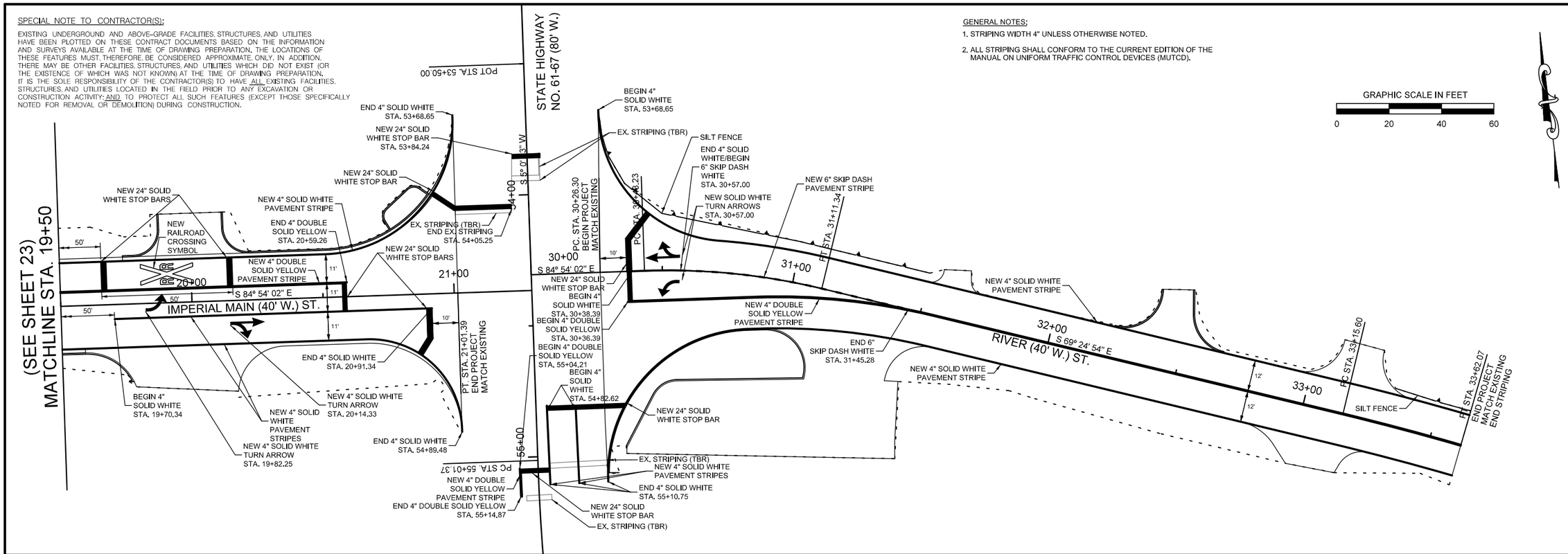
JEFFERSON COUNTY, MISSOURI

SPECIAL NOTE TO CONTRACTOR(S):

EXISTING UNDERGROUND AND ABOVE-GRADE FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED ON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATIONS OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE, ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST (OR THE EXISTENCE OF WHICH WAS NOT KNOWN) AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY; AND TO PROTECT ALL SUCH FEATURES (EXCEPT THOSE SPECIFICALLY NOTED FOR REMOVAL OR DEMOLITION) DURING CONSTRUCTION.

GENERAL NOTES:

1. STRIPING WIDTH 4" UNLESS OTHERWISE NOTED.
2. ALL STRIPING SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).



PAVEMENT MARKING

STATION	STATION	LOCATION	WATERBORNE PAINT					ACRYLIC COPOLYMER FAST DRY	PREFORMED THERMOPLASTIC		PAVEMENT STRIPING REMOVAL	REMARKS
			4" WHITE	4" YELLOW	12" WHITE	24" WHITE	LEFT/RIGHT ARROW	6" WHITE	COMBINATION STRAIGHT/RIGHT ARROW	RAILROAD CROSSING SYMBOL		
			LENGTH (L.F.)	LENGTH (L.F.)	LENGTH (L.F.)	LENGTH (L.F.)	(EACH)	LENGTH (L.F.)	(EACH)	(EACH)	LENGTH (L.F.)	
10+20.98	21+01.59	IMPERIAL MAIN ST.	2371	2017	375	233	8		3	2	107	
30+26.50	33+62.07	RIVER ST.	772	646		37	1	22	1			
		TOTALS	3143	2664	375	270	9	22	4	2	107	
		USE	3140	2660	380	270	9	20	4	2	110	

TEMPORARY EROSION CONTROL

STATION	STATION	LOCATION	SIDE	INLET PROTECTION - FIBER ROLLS	SILT FENCE	SEDIMENT REMOVAL	REMARKS
				LENGTH (L.F.)	LENGTH (L.F.)	AREA (C.Y.)	
10+20.98	21+01.59	IMPERIAL MAIN ST.	LT		80	0.8	
10+20.98	21+01.59	IMPERIAL MAIN ST.	RT	24.8	23	0.2	
30+26.50	33+62.07	RIVER ST.	LT		183	1.8	
			TOTALS	24.8	286	2.9	
			USE	25	286	3	

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	24
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

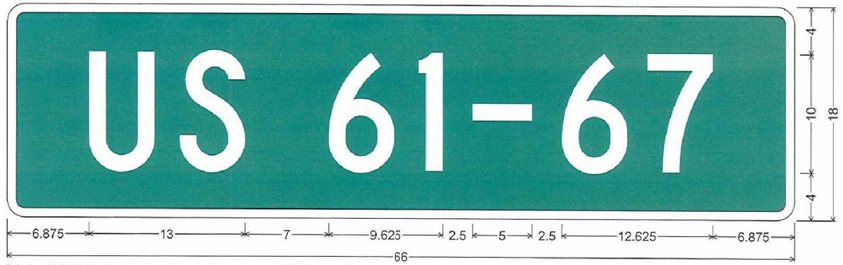
JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4221 - FAX 314-231-0856
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

PAVEMENT MARKING & EROSION CONTROL SHEET

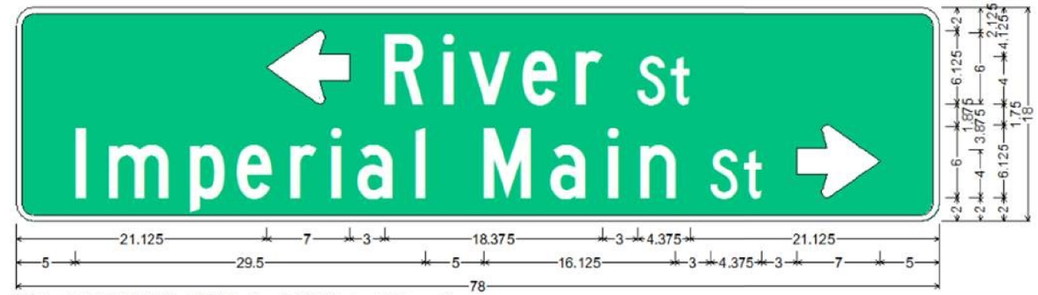
IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI



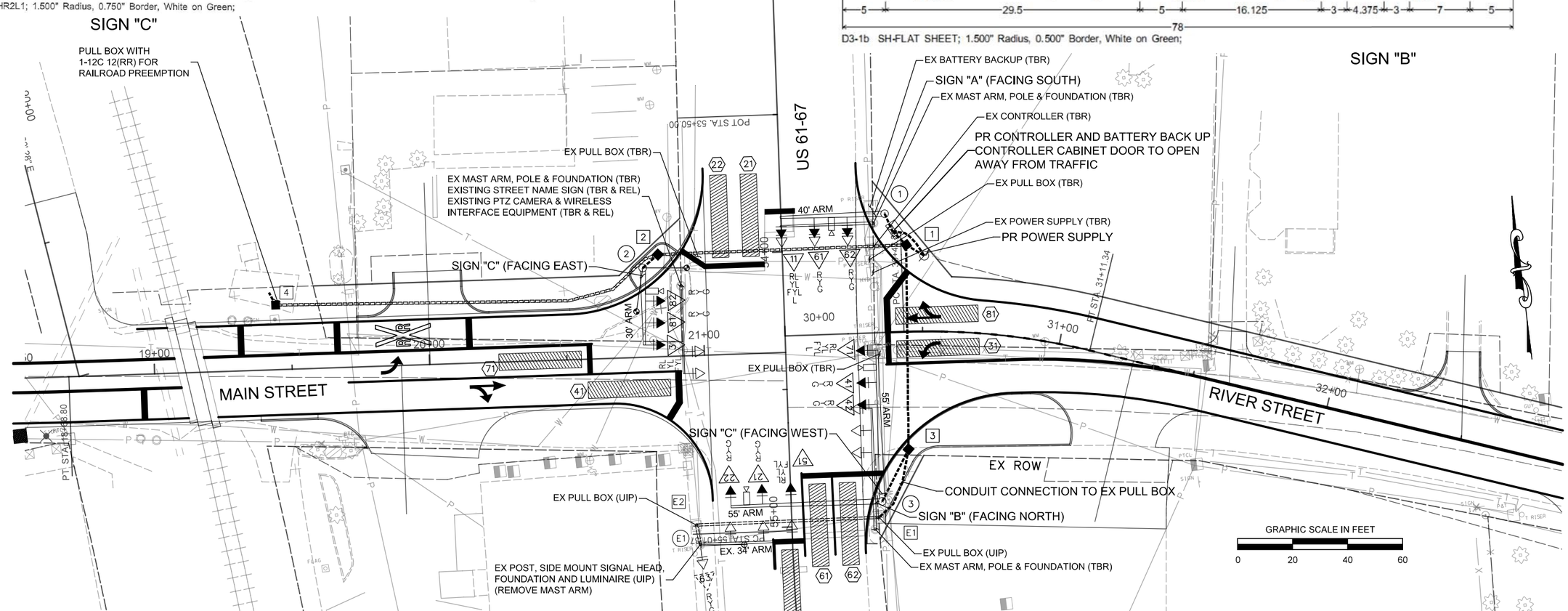
D3-1 SHR2L1; 1.500" Radius, 0.750" Border, White on Green;

SIGN "C"



D3-1b SH-FLAT SHEET; 1.500" Radius, 0.500" Border, White on Green;

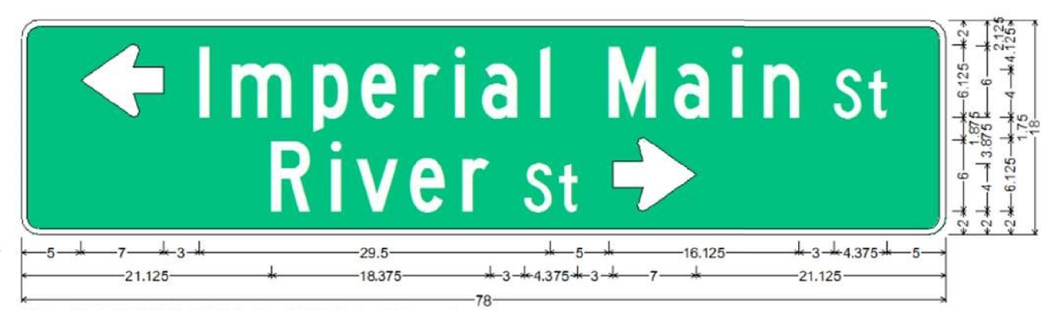
SIGN "B"



TRAFFIC SIGNALS LEGEND

CONTROLLER	VIDEO DETECTOR		CONDUIT MEDIAN
CONTROLLER (EXISTING)	PUSH BUTTON DETECTOR		CONDUIT PUSHED
JUNCTION BOX	PREFORMED PULL BOX TYPE 1		CONDUIT BRIDGE
POWER SOURCE	PREFORMED PULL BOX TYPE 2		CONDUIT EXISTING
POWER SUPPLY	PULL BOX TYPE 1		CONDUIT TRENCHED
WOOD POST	PULL BOX TYPE 2		SPAN WIRE
SIGNAL HEAD (OPT LIM CONV)	ITS PULL BOX TYPE 2		TYPE C MAST ARM A BASE
SIGNAL HEAD (OPT LIM)	ITS PULL BOX TYPE 5		TYPE C MAST ARM F BASE
SIGNAL HEAD (PEDESTRIAN)	6 X 6 LOOP DETECTOR		
SIGNAL HEAD (STANDARD)	6 X 15 LOOP DETECTOR		
	30 X 6 LOOP DETECTOR		

SIGN "A"



D3-1b SH-FLAT SHEET; 1.500" Radius, 0.500" Border, White on Green;

ENGINEER'S SEAL

STATE OF MISSOURI
BRIAN D. SCHMIDT
NUMBER PE-2014007272
PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	25
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
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HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4225 FAX 314-231-5860
SNELL ENVIRONMENTAL, INC.
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

TRAFFIC SIGNAL DETAILS
SHEET 1 OF 6

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

...\025-030_Signals_600.dgn

2/2/2018

LOCATION

POST NUMBER	PULL BOX NUMBER	APPROACH	STATION	OFFSET
			CONTROLLER	(AS REQ'D)
			POWER SUPPLY	
1		RIVER STREET	30+37.65	43.15' LT
2		MAIN STREET	20+78.65	32.46' LT
3		RIVER STREET	30+33.25	61.28' RT
E1		MAIN STREET	20+96.16	68.77' RT
	1	RIVER STREET	30+44.95	31.56' LT
	2	MAIN STREET	20+84.29	37.10' LT
	3	RIVER STREET	30+43.50	42.70' RT
	4	MAIN STREET	19+44.79	23.50' LT
	E1	RIVER STREET	30+31.90	67.08' RT
	E2	MAIN STREET	20+84.29	61.61' RT

* STATION AND LOCATION ARE APPROXIMATE TO BE DETERMINED BY ENGINEER IN FIELD

BASE

POST / PULL BOX	A 9	A 9.5	A 10	A 10.5	A 11	A 12	F 9	F 9.5	F 10	F 10.5	F 11	F 12	C	CONCRETE** (CU. YDS.)
CONTROLLER														1.93
POWER SUPPLY														0.92
Post 1										1				2.75
Post 2	1													2.88
Post 3						1								3.67
Post E1														EX
SUBTOTAL														12.15
TOTAL														12.15

PULL BOX

PULL BOX NUMBER	PREFORMED CLASS 1	PREFORMED CLASS 2	PREFORMED CLASS 3	PREFORMED CLASS 5	CONCRETE STANDARD	CONCRETE DOUBLE, TYPE A	CONCRETE DOUBLE, TYPE B	DRAIN TYPE* I	DRAIN TYPE* II A	II B	II C
1			1						X		
2		1							X		
3		1							X		
4		1							X		
SUBTOTAL		3	1								
TOTAL		3	1								

POST

POST NUMBER	TOP MOUNT POST 8 FT.	TOP MOUNT POST 15 FT.	TYPE C & CL ARM LENGTH A	A	A	A	SIGNAL SPACING B	C	D	D'	SIGN SPACING B	C	D	D'
1			40				14	26	38		3	36		
2				30			12	20	28		3	26		
SUBTOTAL			1	1										
TOTAL			1	1										

POST NUMBER	TYPE B & BL ARM LENGTH E	K	E	K	E	K	LEFT ARM E SIGNAL SPACING F	G	H	H'	LEFT ARM E SIGN SPACING F	G	H	H'	RIGHT ARM K SIGNAL SPACING L	M	N	N'	RIGHT ARM K SIGN SPACING L	M	N	N'	INCLUDED ANGLE
3	55	55					35	44	55		3	53			33	44	55		3	53			90
SUBTOTAL	1	1																					
TOTAL	1	1																					

POST NUMBER	LUMINAIRE BRACKET ARM* 4 FT.	6 FT.	8 FT.	10 FT.	12 FT.	15 FT.
2						2
E1						EX

SIGNAL HEADS

INDICATIONS * — 12" LENS CONVENTIONAL (the 12" LENS OPTICAL LIMITING columns R, Y, YL, YR†, YL, YR†, G, S, L, R† are empty)

SPAN NUMBER	POST NUMBER	FACE NUMBER	LUMINAIRE	R	RL	Y	YL	YR†	FYL	FYR	G	S	L	R†	PED. (hand/walk symbol)
	1	61		1		1					1				
	1	62		1		1					1				
	1	11			1		1		1				1		
	2	81	2	1		1					1				
	2	82	2	1		1					1				
	2	31	2		1		1		1						
	3	41		1		1					1				
	3	42		1		1					1				
	3	71			1		1		1				1		
	3	51			1		1		1						
	3	21		1		1					1				
	3	22		1		1					1				
SUBTOTAL			2												
TOTAL			2												

VISORS *, LOUVERS *, BACKPLATE*, BRACKET*, SECTIONS (LOUVERS A–F, BACKPLATE LENSES 1, 2, 5, BRACKET TYPE II, III, ONE-FACE SECTION columns 1-, 5- and other T/S/C columns, and TWO-FACE SECTIONS 11- T S B, 33- T S C B, 34- S B, 35- S B, 44- S B, 45- S B are empty)

FACE NUMBER	VISORS 12" LENS	VISORS PED.	BACKPLATE LENSES 3	BACKPLATE LENSES 4	BRACKET TYPE I	ONE-FACE SECTION 3- B	ONE-FACE SECTION 4- B
61	3		1		1	1	
62	3		1		1	1	
11	4			1	1		1
81	3		1		1	1	
82	3		1		1	1	
31	3		1		1	1	
41	3		1		1	1	
42	3		1		1	1	
71	4			1	1		1
51	3		1		1	1	
21	3		1		1	1	
22	3		1		1	1	

	ONE-FACE SECTION 3- B	ONE-FACE SECTION 4- B
SUBTOTAL OPTICALLY LIMITED		
SUBTOTAL CONVENTIONAL	10	2
SUBTOTAL COMBINATION OL & CONV	10	2
TOTAL OPTICALLY LIMITED		
TOTAL CONVENTIONAL	10	2
TOTAL COMBINATION OL & CONV	10	2

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE (INCHES)	AREA (SQ. FT.)	TOTAL AREA EACH SIGN (SQ. FT.)
	R10-10L	24 X 30	5.0	
	R10-10R	24 X 30	5.0	
3	R3-5L	30 X 36	7.5	22.5
	R3-5R	30 X 36	7.5	
	R3-5S	30 X 36	7.5	
	R3-6L	30 X 36	7.5	
	R3-6R	30 X 36	7.5	
	R3-2	24 X 24	4.0	
	R3-1	24 X 24	4.0	
	R3-3	24 X 24	4.0	
	R10-5	24 X 30	5.0	
	R10-12	24 X 30	5.0	
	D3-16***	VAR. X 16		
	D3-18***	VAR. X 18		36
	R10-3B	9 X 12	0.75	
	R10-11A	24 X 30	5.0	
	R10-13	60 X 30	12.5	
	R10-3E L	9 X 15	0.94	
	R10-3E R	9 X 15	0.94	
4	FYA YIELD	30 X 36	7.5	30
SUBTOTAL AREA ITEM NO. 903-50.04A				88.5
TOTAL AREA ITEM NO. 903-50.04A				89

US 61 / 67 WITH MAIN STREET

INTERSECTION

REMARKS

ALL LENGTHS AND SPACINGS ARE IN FEET UNLESS OTHERWISE INDICATED.

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

** SEE STANDARD PLANS 902.10 AND 902.30 FOR CONCRETE REQUIREMENTS ON BASES.

*** USE D3-16 FOR ONE LINE. USE D3-18 FOR TWO LINE.

SIGNAL STRUCTURES WHICH WILL EXCEED THE DIMENSION LIMITS SHOWN ON STANDARD PLAN SHEETS IN SECTION 902 AND ANY OTHER INSTALLATION WHERE THE DETAILS OF CONSTRUCTION ARE NOT FURNISHED IN THE CONTRACT PLANS, SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION, AND LATEST INTERIMS. THE STRUCTURE SHALL BE DESIGNED AS IMPORTANCE CATEGORY I FOR FATIGUE WITH A 50-YEAR DESIGN LIFE. THE CONTRACTOR SHALL SUBMIT A SET OF SHOP DETAIL DRAWINGS INCLUDING WELD PROCEDURE SPECIFICATIONS AND DESIGN COMPUTATIONS FOR MODOT RECORDS AND REFERENCE. THE SUBMITTED DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED IN ACCORDANCE WITH THE LAWS RELATING TO ARCHITECTS AND PROFESSIONAL ENGINEERS (CHAPTER 327, RSMO.), AND SHALL INCLUDE A TITLE BLOCK OR SUMMARY SHEET WHICH LISTS AND CERTIFIES THAT THE PRODUCT MEETS ALL OF THE SPECIFIED DESIGN CRITERIA.

LEGEND

T - TOP MOUNT
S - SIDE MOUNT
C - SPANWIRE MOUNT
B - MAST ARM MOUNT

D-37A

ENGINEER'S SEAL
STATE OF MISSOURI
BRIAN D. SCHMIDT
NUMBER PE-2014007272
PROFESSIONAL ENGINEER
1/30/2018
DATE PREPARED 2/2/2018
ROUTE MAIN | STATE MO
DISTRICT | SHEET NO. 26
COUNTY JEFFERSON
JOB NO. 1534600
CONTRACT ID.
PROJECT NO. STP-5403(662)
BRIDGE NO.
DESCRIPTION
DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-531-4321 - FAX 314-531-6966
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2016

TRAFFIC SIGNAL DETAILS
SHEET 2 OF 6

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

CONDUIT

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH 1"	TRENCH 2"	TRENCH 3"	TRENCH 4"		PUSHED 2"	PUSHED 3"	PUSHED 4"	MEDIAN 2"	MEDIAN 3"	MEDIAN 4"	ON STRUCTURE 3/4"	ON STRUCTURE 3"		REMARKS
P.S.	⊠	16			20													
⊠	①	7			13													
⊠	1	7			20													2 CONDUITS
1	2	91								89								
2	②	8			11													
2	4	145							143									
1	3	75			73													
3	③	24			27													
3	E1	32			30													
E1	E2	67																EXISTING
E2	E1	8																EXISTING
P.S.	1	8			11													
SUBTOTALS					205				143	89								
TOTALS					205				143	89								

CABLE

FROM	TO	CENTER TO CENTER DISTANCE	POWER 1C #8		CONTROL 2c #18	CONTROL 5c #16	CONTROL 7c #16	CONTROL 3c #16	RR INTERCONNECT 12c #12	LUMINAIRE - LED CONTROL 2c #12	LUMINAIRE - LED POLE & BRACKET 1c #10	SURFACE MOUNT FIXTURE - LED CONTROL 1c #10	GROUND 1c #6 GROUND	FIBER SINGLE-MODE	FIBER MULTI-MODE	REMARKS
P.S.	⊠	16	48													
⊠	62	7					50									
⊠	61	7					62									
⊠	11	7					74									
①	⊠	7														
⊠	81	105					166									
⊠	81	105					158									
⊠	31	105					174									
P.S.	② LUM	105								125	90					
P.S.	② LUM	105								125	90					
②	2	8														
⊠	4	250							276							RR INTERCONNECT
⊠	41	103					188									
⊠	41	103					180									
⊠	71	103					199									
⊠	51	103					177									
⊠	21	103					188									
⊠	22	103					199									
③	3	24														
⊠	63	184					229									
P.S.	E1 LUM	184								216	90					
SUBTOTALS			48				2044		276	466	270					
TOTALS			50				2050		280	470	270					

INTERSECTION US 61 / 67 WITH MAIN STREET

D-37B

ENGINEER'S SEAL

STATE OF MISSOURI
BRIAN D. SCHMIDT
NUMBER PE-2014007272
PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED 2/2/2018

ROUTE	STATE
MAIN	MO
DISTRICT	SHEET NO. 27

COUNTY: JEFFERSON

JOB NO. 1534600

CONTRACT ID.

PROJECT NO. STP-5403(662)

BRIDGE NO.

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

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401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4221 - FAX 314-231-0666
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2016

TRAFFIC SIGNAL DETAILS
SHEET 3 OF 6

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING✱				LIGHTING CONTROL ✱ (ON POWER SUPPLY)		SERVICE POLE		CONCRETE BASE TYPE
					CONTROLLER		POWER SUPPLY DISCONNECT						
							MAIN BREAKER						
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	SIGNALS	LIGHTING	120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY	
RIVER STREET	30+50.77	27.54' LT	Type		15 Amps	15 Amps	15 Amps	15 Amps	1	15 Amps	Ci. Ft.	NEW	TYPE EV
			Type		15 Amps	Amps	Amps	Amps		Amps	Ci. Ft.		

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF✱ SWITCH TYPE		COORDINATION INTERFACE ✱						TIME ✱ CLOCK	NEMA CABINET TYPE ✱			170 CABINET TYPE ✱		170 SOFTWARE ✱	
									12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP		FIBER								
APPROACH	STATION	OFFSET	NEMA	170	NEMA	170	I	II	MASTER	LOCAL		NEMA	170			E	EV	DOUBLE	332	336S	BITRAN	WAPITI
RIVER STREET	30+40.28	36.73' LT			1										1		1					

DETECTOR SCHEDULE

APPROACH	DETECTOR NUMBER	DETECTOR ZONE	TYPE: PUSH BUTTON	INDUCTION LOOP (2): STANDARD	INDUCTION LOOP (2): DELAY/ EXTEND ✱	INDUCTION LOOP (2): CALL UNIT ✱	VIDEO
NB HWY 61/67	61 / 62	NB THRU					1
NB HWY 61/67	11	NB LEFT					1
SB HWY 61/67	21 / 22	SB THRU					1
EB MAIN STREET	41	EB THRU					1
EB MAIN STREET	71	EB LEFT					1
WB RIVER STREET	81	WB THRU					1
WB RIVER STREET	31	WB LEFT					1
TOTAL							SEE BELOW

✱ ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

(1) MoDOT "D" PLUG SHALL BE WIRED INTO ALL NEMA CONTROLLERS WITH 7C HARDWIRE INTERCONNECT.

(2) PAYMENT IS MADE FOR THE NUMBER OF 2-CHANNEL DETECTOR CARDS AS SHOWN BELOW THE ASSIGNMENT CHART.

(3) VIDEO DETECTION SYSTEM SHALL BE OF MAKE AND TYPE APPROVED BY MODOT

VIDEO DETECTION ASSIGNMENT

	CAMERA NUMBER							
	1	1	2	2	3	3	4	4
DETECTION ZONE	61 62	11	81	31	41	71	21 22	-
VEHICLE PHASE ASSOCIATION	6	1	8	3	4	7	2	-

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
N.B. LT	S.B.		E.B.		N.B.	E.B. LT	W.B.					N.B. FYA	W.B. FYA	S.B. FYA	E.B. FYA
ϕ1	ϕ2		ϕ4		ϕ6	ϕ7	ϕ8					OLA	OLB	OLC	OLD

US 61 / 67 WITH MAIN STREET
INTERSECTION

D-37C

ENGINEER'S SEAL
STATE OF MISSOURI
BRIAN D. SCHMIDT
NUMBER PE-2014007272
PROFESSIONAL ENGINEER
1/30/2018

DATE PREPARED 2/2/2018

ROUTE	STATE
MAIN	MO
DISTRICT	SHEET NO. 28

COUNTY: JEFFERSON
JOB NO. 1534600
CONTRACT ID.
PROJECT NO. STP-5403(662)
BRIDGE NO.

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
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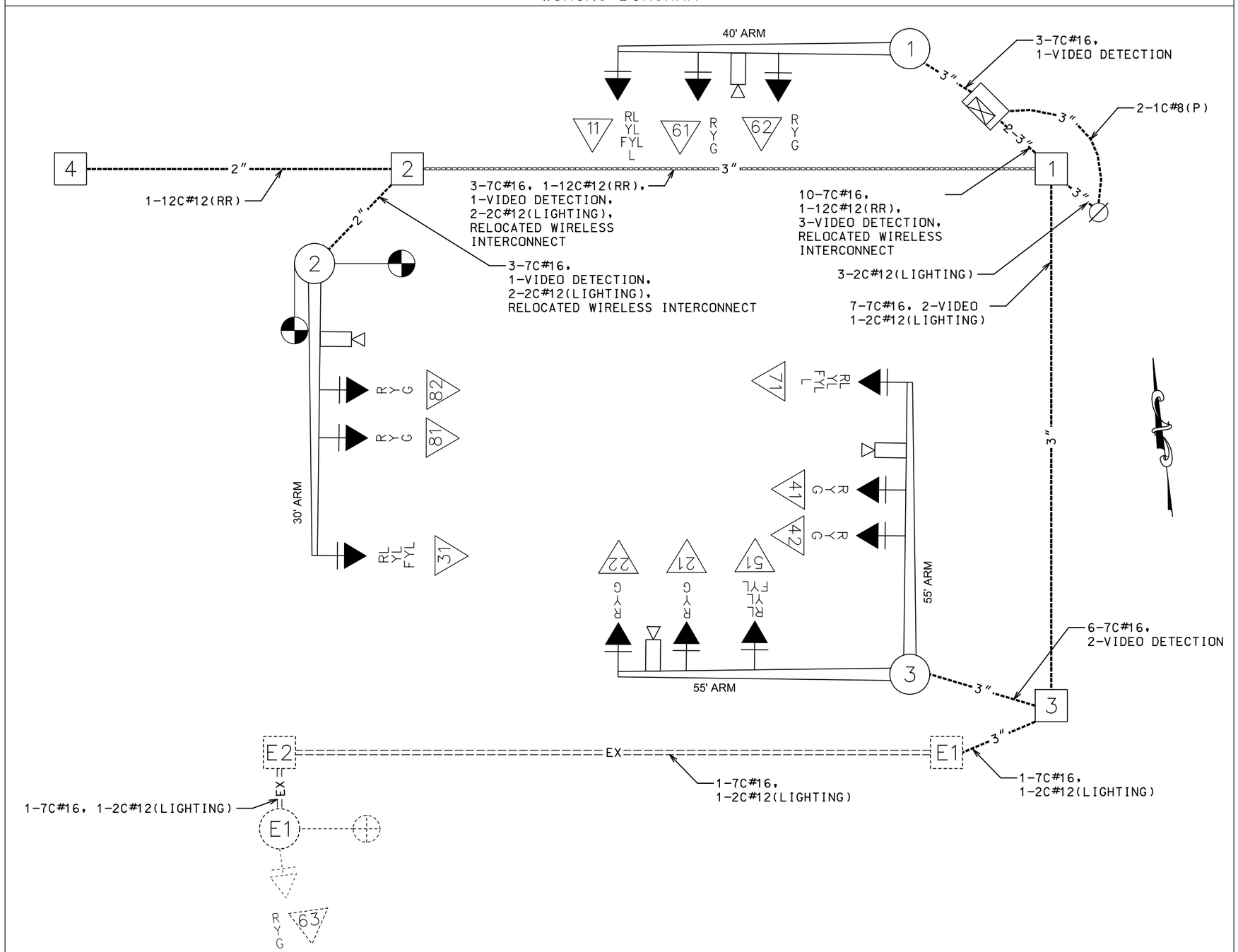
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2016

TRAFFIC SIGNAL DETAILS
SHEET 4 OF 6
IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

REV.

WIRING DIAGRAM



US 61 / 67 WITH MAIN STREET

INTERSECTION

D-37D

LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #12 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
X	POST WITH NUMBER
X	POST WITH MAST ARM
X	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

ENGINEER'S SEAL

STATE OF MISSOURI
BRIAN D. SCHMIDT
NUMBER PE-2014007272
PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	29
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

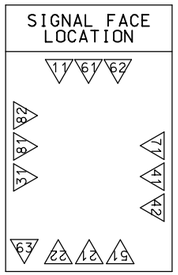
HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4221 • FAX 314-231-0660
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2016

TRAFFIC SIGNAL DETAILS
SHEET 5 OF 6

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.



TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS

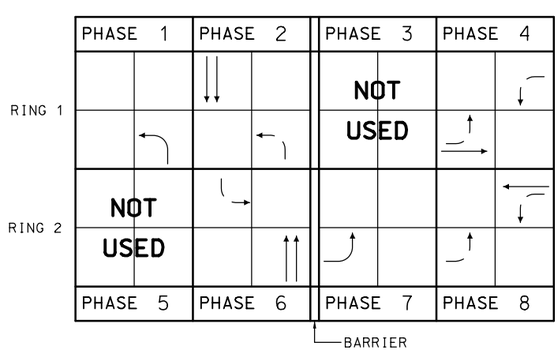
	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED Φ OVERLAP	PED Φ OVERLAP	PED Φ OVERLAP	PED Φ OVERLAP	OLA	OLB	OLC	OLD	
			NOT USED		NOT USED				NOT USED	NOT USED	NOT USED	NOT USED					
FACE NUMBERS	11	21		41		61	71	81					11	31	51	71	FACE NUMBERS
		22		42		62 63		82									
SIGNAL INDICATIONS R	RL	R		R		R R	RL	R						RL	RL		R
SIGNAL INDICATIONS Y	YL	Y		Y		Y Y	YL	Y						YL	YL		Y
SIGNAL INDICATIONS FYA													FYL	FYL	FYL	FYL	FYA
SIGNAL INDICATIONS G	L	G		G		G G	L	G									G
DETECTOR ASSIGNMENTS	11	21 22		41		61 62	71	81									DETECTOR ASSIGNMENTS
DETECTOR ASSIGNMENTS (PEDS. ONLY)																	
OVERLAP PARENT PHASES													2	4	6	8	

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW — FLASHING DON'T WALK
- R/W — RIGHT OF WAY INTERVAL
- DW — DON'T WALK
- YR — YELLOW RIGHT ARROW
- RT — GREEN RIGHT ARROW
- W — WALK
- LY-YL — YELLOW LEFT ARROW
- L — GREEN LEFT ARROW
- S — GREEN STRAIGHT AHEAD ARROW
- G — CIRCULAR GREEN
- Y — CIRCULAR YELLOW
- R — CIRCULAR RED
- RL — RED LEFT ARROW
- Ø — TRAFFIC PHASE
- AO — ALL OTHERS
- FR — FLASHING RED
- FY — FLASHING CIRCULAR YELLOW
- **FYA** — FLASHING YELLOW ARROW
- **FYL** — FLASHING YELLOW LEFT ARROW
- **FYR** — FLASHING YELLOW RIGHT ARROW

1) PROGRAMMING TO BE COMPLETED BY CONSULTANT/CONTRACTOR AND APPROVED BY ENGINEER PRIOR TO SIGNAL TURN ON.
2) TIME TO BE SET IN THE CONTROLLER BY THE CONTRACTOR.
3) CONTRACTOR RESPONSIBLE FOR PRE-EMPTION TESTING TO THE SATISFACTION OF RAILROAD AND ENGINEER.



RING STRUCTURE

FLASHING OPERATION	
HIGHWAY 61/67	FR
MAIN STREET / RIVER STREET	FR

CONTROLLER TYPE	8Φ NEMA

TRAFFIC SIGNAL CONTROL OPERATION

INTERSECTION OF

US 61 / 67 WITH MAIN STREET

D-38A

ENGINEER'S SEAL

STATE OF MISSOURI
BRIAN D. SCHMIDT
NUMBER PE-2014007272
PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED 2/2/2018

ROUTE	STATE
MAIN	MO
DISTRICT	SHEET NO. 30

COUNTY: JEFFERSON

JOB NO. 1534600

CONTRACT ID.

PROJECT NO. STP-5403(662)

BRIDGE NO.

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
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WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2016

TRAFFIC SIGNAL DETAILS
SHEET 6 OF 6

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

ELECTRICAL LEGEND

NOT ALL SYMBOLS AND ABBREVIATIONS ARE USED

CONDUIT

- CONDUIT EXPOSED
- CONDUIT CONCEALED IN FLOOR/BELOW SLAB/BELOW GRADE
- CONDUIT CONCEALED IN WALL OR CEILING
- T — TELEPHONE CONDUIT
- CATV — TELEVISION CONDUIT
- CONDUIT DOWN
- CONDUIT UP
- CONDUIT SLEEVE INSULATED BUSHING EACH END
- WIRE IN CONDUIT LEFT TO RIGHT 1 GROUND, 1 NEUTRAL, 3 HOTS
- A 1,3,5 — HOME RUN A = PANEL A 1,3,5 = CIRCUITS 1,3,5
- CABLE TRAY
- A — FEEDER A

SWITCHES & SENSORS

- AF — AIR FLOW SWITCH
- A — AQUASTAT
- CD — CARBON DIOXIDE/MONOXIDE DETECTOR
- CD — WALL MOUNTED CARBON DIOXIDE/MONOXIDE DETECTOR
- EP — ELECTRIC/PNEUMATIC SWITCH
- F — FIRESTAT
- HOA — HAND/OFF AUTOMATIC SELECTOR SWITCH

SWITCHES & SENSORS

- $OC — OCCUPANCY SENSOR, WALL MOUNTED WITH OFF-AUTO OVERRIDE SWITCH (48" A.F.F.)
- $m — MANUAL MOTOR STARTER
- DATA LINE SWITCH (48"A.F.F.)

COMMUNICATIONS & SECURITY

- AC — ACCESS CONTROL HEAD-END
- ARA — AREA OF RESCUE ANNUNCIATOR
- AR — AREA OF RESCUE ASSISTANCE PUSH BUTTON
- CAMERA
- CPS — CAMERA POWER SUPPLY
- C — CEILING MOUNTED CAMERA
- WALL MOUNTED CAMERA
- CCTV — CCTV HEAD-END
- MON — CCTV MONITOR
- MULT — CCTV MULTIPLEXER
- COMP — COMPUTER
- DC — DIGITAL COMMUNICATOR
- DVR — DIGITAL VIDEO RECORDER
- DAA — DOOR ALARM ANNUNCIATOR
- H — ALARM HORN
- B — BUZZER
- C — CHIME
- DC — DOOR CONTACT

COMMUNICATIONS & SECURITY

- SEC — SOUND EQUIPMENT CABINET
- S — SPEAKER – CEILING MOUNTED
- OS — SPEAKER – OBSERVATION ROOM
- S — SPEAKER – SURFACE MOUNTED
- S — SPEAKER – WALL MOUNTED
- DATA OUTLET (18" A.F.F.) W/ 1" CONDUIT TO ABOVE ACCESSIBLE CEILING
  c = 6" ABOVE COUNTER BACKSPLASH
- DATA OUTLET IN FLOOR
- SURFACE RACEWAY DATA OUTLET 3' ON CENTER
- TELEPHONE OUTLET (18" A.F.F.) W/ 1" CONDUIT TO ABOVE ACCESSIBLE CEILING
  c = 6" ABOVE COUNTER BACKSPLASH
  W = MOUNT 48" A.F.F.
- TELEPHONE OUTLET IN FLOOR
- TELEPHONE/DATA OUTLET (18" A.F.F.) W/ 1" CONDUIT TO ABOVE ACCESSIBLE CEILING
  c = 6" ABOVE COUNTER BACKSPLASH
- TELEPHONE/DATA OUTLET IN FLOOR
- TEL — TELEPHONE BOARD 3/4" FIRERATED PLYWOOD
- TV — TELEVISION OUTLET (88" A.F.F.)
- V — VOLUME CONTROL (48" A.F.F.)

EQUIPMENT & DEVICES

- ANTENNA
- T — ANTENNA – TELEMETRY
- L — BAY BOX LIGHTING

EQUIPMENT & DEVICES

- UPS — UNINTERRUPTIBLE POWER SOURCE
- VSD — VARIABLE SPEED DRIVE
- WH — WATER HEATER
- WEATHER HEAD
- UNIT HEATER – CEILING MOUNTED
- UNIT HEATER – WALL MOUNTED

OUTLETS & RECEPTACLES

- SIMPLEX RECEPTACLE (18" A.F.F.)
- SIMPLEX RECEPTACLE IN FLOOR
- SIMPLEX RECEPTACLE EMERGENCY (18" A.F.F.)
- SIMPLEX RECEPTACLE EMERGENCY IN FLOOR
- DUPLEX RECEPTACLE (18" A.F.F.)
  c = 6" ABOVE COUNTER BACKSPLACH
  GFI = GROUND FAULT INTERRUPTER
- SURFACE RACEWAY DUPLEX OUTLET 3' ON CENTER
- DUPLEX RECEPTACLE IN FLOOR
- DUPLEX RECEPTACLE EMERGENCY (18" A.F.F.)
- DUPLEX RECEPTACLE EMERGENCY IN FLOOR
- C — CLOCK RECEPTACLE (88" A.F.F.)
- IG — ISOLATED GROUND RECEPTACLE (18" A.F.F.)
- IG — ISOLATED GROUND RECEPTACLE IN FLOOR
- QUADRAPLEX RECEPTACLE (18" A.F.F.)
- QUADRAPLEX RECEPTACLE IN FLOOR

LIGHT FIXTURES

- A1b — 2x4 FLUORESCENT FIXTURE
  A = FIXTURE TYPE
  1 = CIRCUIT NUMBER
  b = SWITCH LEG
- LIGHT FIXTURE ON EMERGENCY
- LIGHT FIXTURE WITH NIGHTLIGHT
- 2x2 FLUORESCENT FIXTURE
- 1x4 FLUORESCENT FIXTURE
- 6"x4' FLUORESCENT FIXTURE
- WALL MOUNTED FLOURESCENT
- STRIP FLUORESCENT FIXTURE
- TRACK LIGHTING
- 1x1 FLUORESCENT FIXTURE
- DOWNLIGHT FIXTURE
- DOWNLIGHT FIXTURE ON EMERGENCY
- WALL WASH FIXTURE
- WALL MOUNTED FIXTURE
- GROUND MOUNTED FLOOD LIGHT
- POLE LIGHT FIXTURE
- BOLLARD
- BOLLARD ON EMERGENCY
- DECORATIVE STREET LIGHTING
- EXISTING STREET LIGHTING
- EXIT SIGN (ON EMERGENCY) WITH DIRECTIONAL ARROW

IMPERIAL MAIN STREET

STATE OF MISSOURI
MARK H. KUHLMAN
NUMBER PE-2017000321
PROFESSIONAL ENGINEER

DATE PREPARED	2/2/2018
ROUTE MAIN	STATE MO
DISTRICT	SHEET NO. 31
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
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314-231-4201 - FAX 314-231-0586
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DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

LIGHTING SYMBOLS
SHEET 1 OF 1

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

GRAPHIC SCALE IN FEET

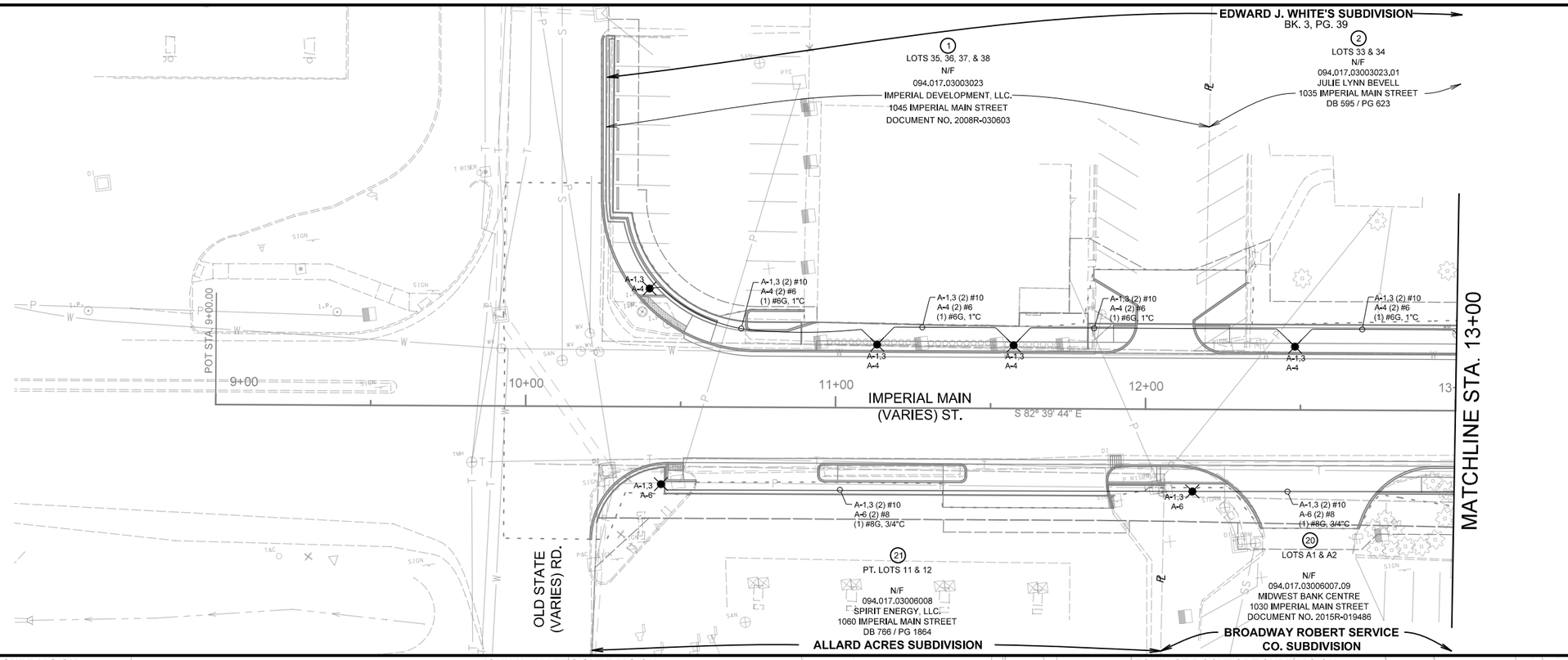
0 20 40 60

KEYED NOTES: (THIS SHEET ONLY)

1. STUB-UP 1-1/4" CONDUIT 6" OFF OF NEW UTILITY POLE LOCATION. COORDINATE NEW POLE LOCATION WITH AMEREN PRIOR TO ROUGH IN. COIL 35 FT. OF (3) #2 CONDUCTORS FOR CONNECTION TO AMEREN OVERHEAD CONDUCTORS. CONNECTION BY AMEREN.
2. PROVIDE METERED PEDESTAL "A" WITH INTEGRAL PHOTOCELL (MILBANK #CP3B51113A22SL1). LOCATE MINIMUM OF 5 FT. AWAY FROM UTILITY POLE. PEDESTAL LOCATION SHOWN ON DRAWING MAY BE ADAPTED DEPENDING ON FINAL LOCATION OF UTILITY POLE. PROVIDE MOUNTING BASE AND ANCHOR BOLTS ON CONCRETE PAD PER MANUFACTURER'S REQUIREMENTS. COORDINATE EXACT METERING REQUIREMENTS WITH AMEREN.
3. (3) #2 AWG, 1-1/4" C MINIMUM 24" BELOW GRADE.

GENERAL NOTES:

1. LIGHTING SUBSTATION IDENTIFIERS ARE AS FOLLOWS: A-1-1 = PANEL A, CIRCUIT 1, POLE #1
2. THE FOLLOWING ABBREVIATION APPLIES TO CABLE/CONDUIT CALLOUTS: CC = CABLE/CONDUIT IN ACCORDANCE WITH MODOT SPECIFICATIONS.
3. CC = CABLE/CONDUIT IN ACCORDANCE WITH MODOT SPECICFICATIONS.



STATE OF MISSOURI
MARK H. KUHLMAN
NUMBER PE-2017000321
PROFESSIONAL ENGINEER

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	32
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
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HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4221 - FAX 314-231-5666
MAN/WOMAN OWNED BUSINESS
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

LIGHTING PLAN
SHEET 1 OF 1

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

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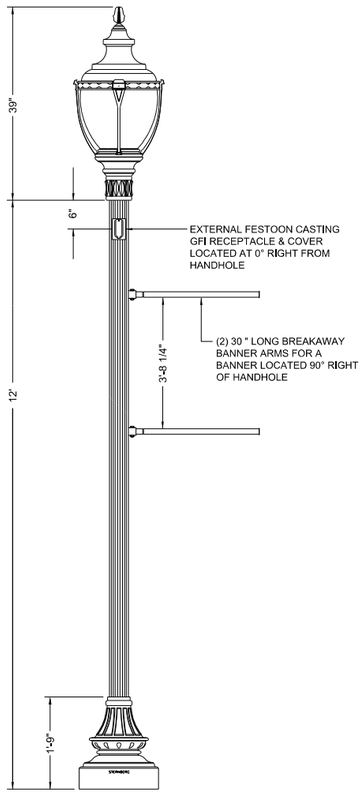
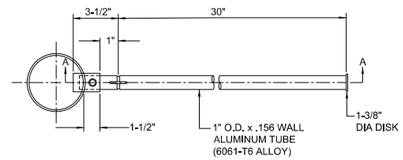
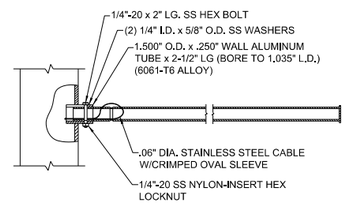
2/2/2018



POLE DETAIL

SCALE: N.T.S.





SECTION A-A

BANNER ARM DETAILS

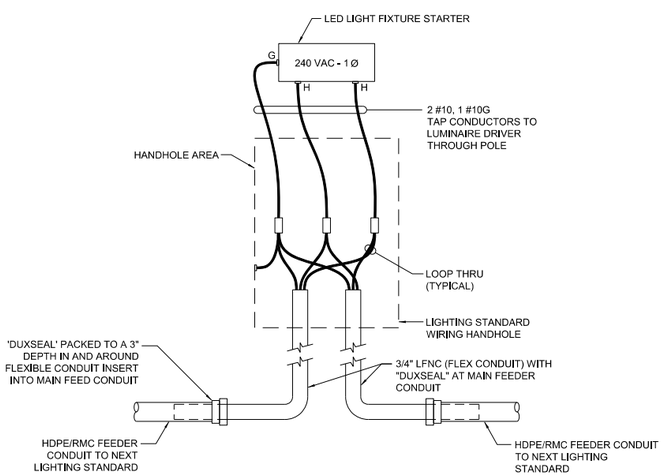
SCALE: N.T.S.

LIGHT FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG	LAMPS TYPE	INPUT WATTS	FINISH	MOUNTING	REMARKS
A	STERNBERG	LIGHT: PT-B750CF-5P-XX-240-XX-NONE-WP-BKT POLE: WA17AS-E-120040404UW-PD-DBL	LED COLOR 4500K	96	BLACK	POLE	PROVIDE POST-TOP LED CONVERSION KIT: XRLED-B750-12L-35K-T3-MDL21

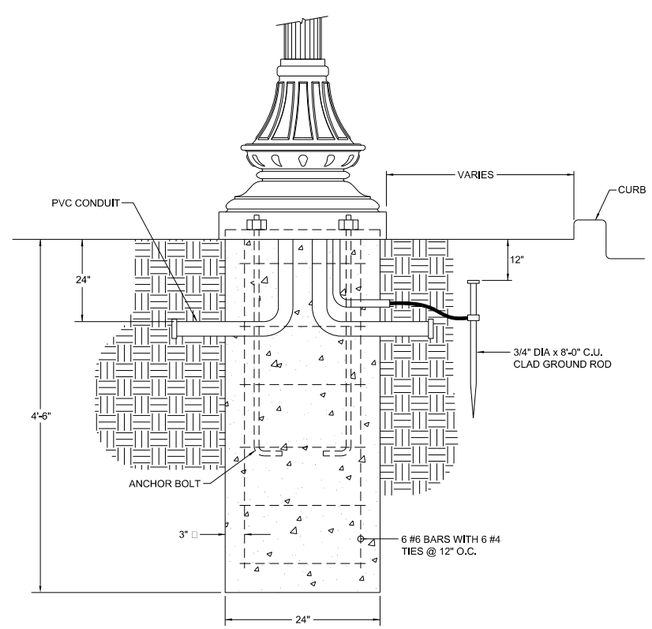
EQUIVALENT FIXTURES AS MANUFACTURERD BY LITHONIA, DAYBRITE, HUBBELL, COOPER & LSI PLUS WILL BE ACCEPTABLE UPON APPROVAL OF SPECIFIC MODEL NUMBERS BY ENGINEER.

BRANCH PANEL NAME	VOLTAGE			PHASE	WIRE	BUS SIZE				AIC RATING
	120/ 240			1	3	100A				10,000
100% NEUTRAL	CODE: L=LIGHTING, R=RECEPTACLE, M=MOTOR, E=EQUIPMENT									FLUSH MOUNTING TRIM
NEMA 3R	COPPER GROUND BAR									100A MAIN CB
LOAD	CODE	POLE	BKR	CKT #	A	B	CKT #	BKR	POLE	CODE	LOAD
LIGHTING CIRCUIT	L	2	20	1	864						RECEPTACLE CIRCUIT
					1,080		2	20	1	R	
				3		864					RECEPTACLE CIRCUIT
						1,080	4		1	R	
		1	20	5							RECEPTACLE CIRCUIT
					1,080		6	20	1	R	
		2	20	7							
							8	20	1		
		2	20	9							
							10	20	1		
		2	30	11							
							12	20	1		
2,160	PHASE A			RECEPT-W @	per NEC	-	TCL VA			4,104
1,944	PHASE B			LIGHTS-W @	100%	-	DEMAND VA			0
				MOTOR-W @	95%	-	HI-PH CONN. A			18
4,104	TCL			EQUIP-VA @	100%	-	DEMAND A			0



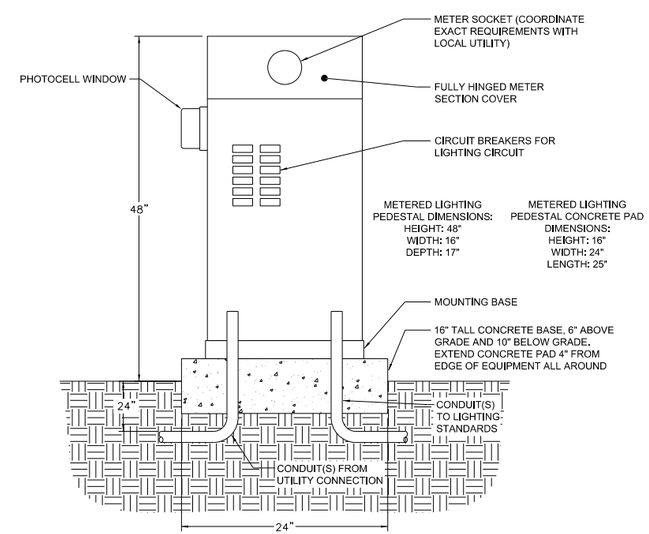
STREET LIGHTING WIRING DIAGRAM

SCALE: N.T.S.



POLE BASE MOUNTING DETAIL

SCALE: N.T.S.



METERED LIGHTING PEDESTAL DETAIL

SCALE: N.T.S.

(COLOR: BLACK)

IMPERIAL MAIN STREET

STATE OF MISSOURI
MARK H. KUHLMAN
NUMBER PE-2017000321
PROFESSIONAL ENGINEER

DATE PREPARED 2/2/2018

ROUTE MAIN | STATE MO

DISTRICT | SHEET NO. 33

COUNTY JEFFERSON

JOB NO. 1534600

CONTRACT ID.

PROJECT NO. STP-5403(662)

BRIDGE NO.

DESCRIPTION | DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
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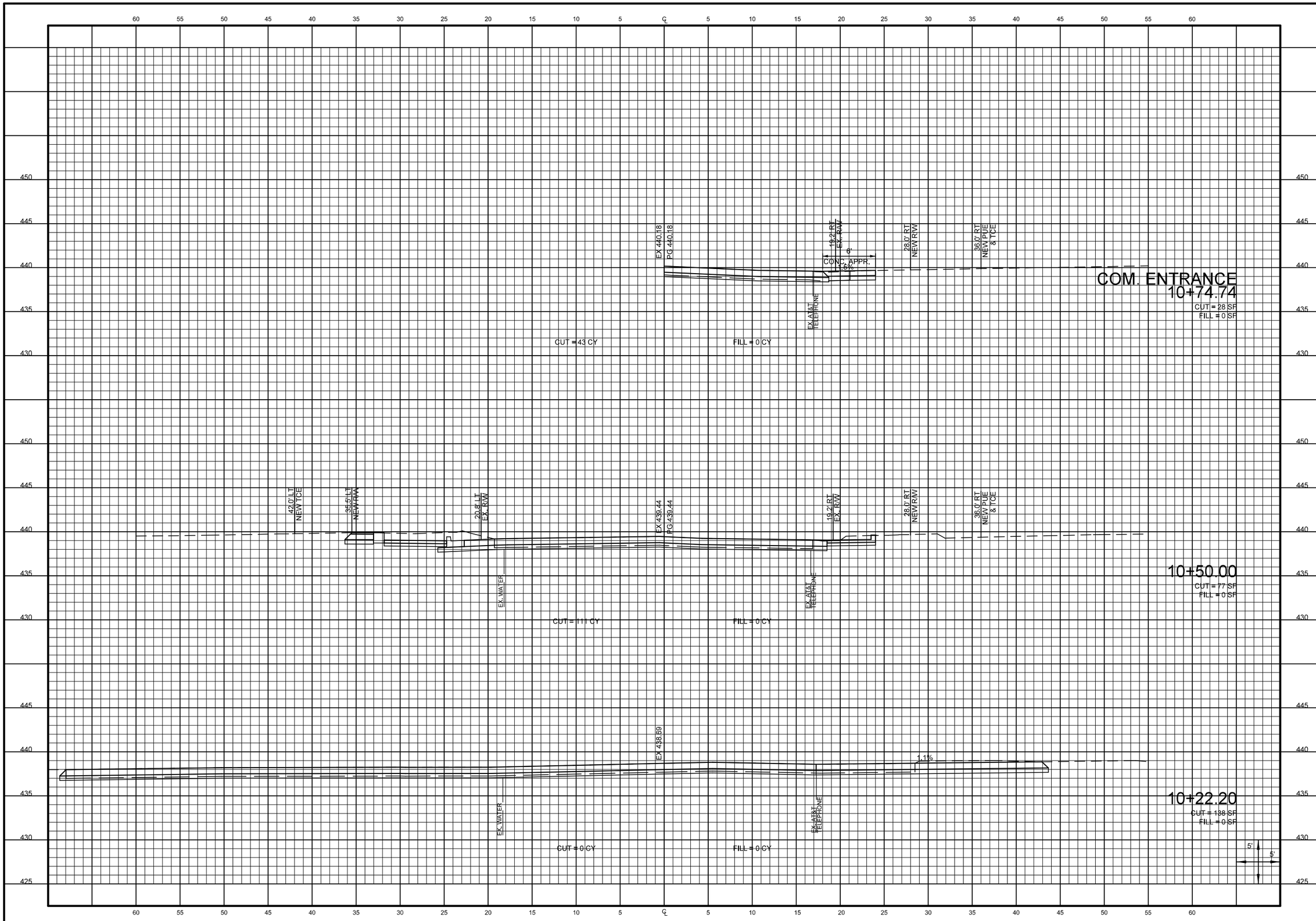
LIGHTING DETAILS
SHEET 1 OF 1

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

REV.



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	34
COUNTY	JEFFERSON
JOB NO.	1534600
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JEFFERSON COUNTY, MISSOURI
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IMPERIAL MAIN CROSS SECTIONS
SHEET 1 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

REV.

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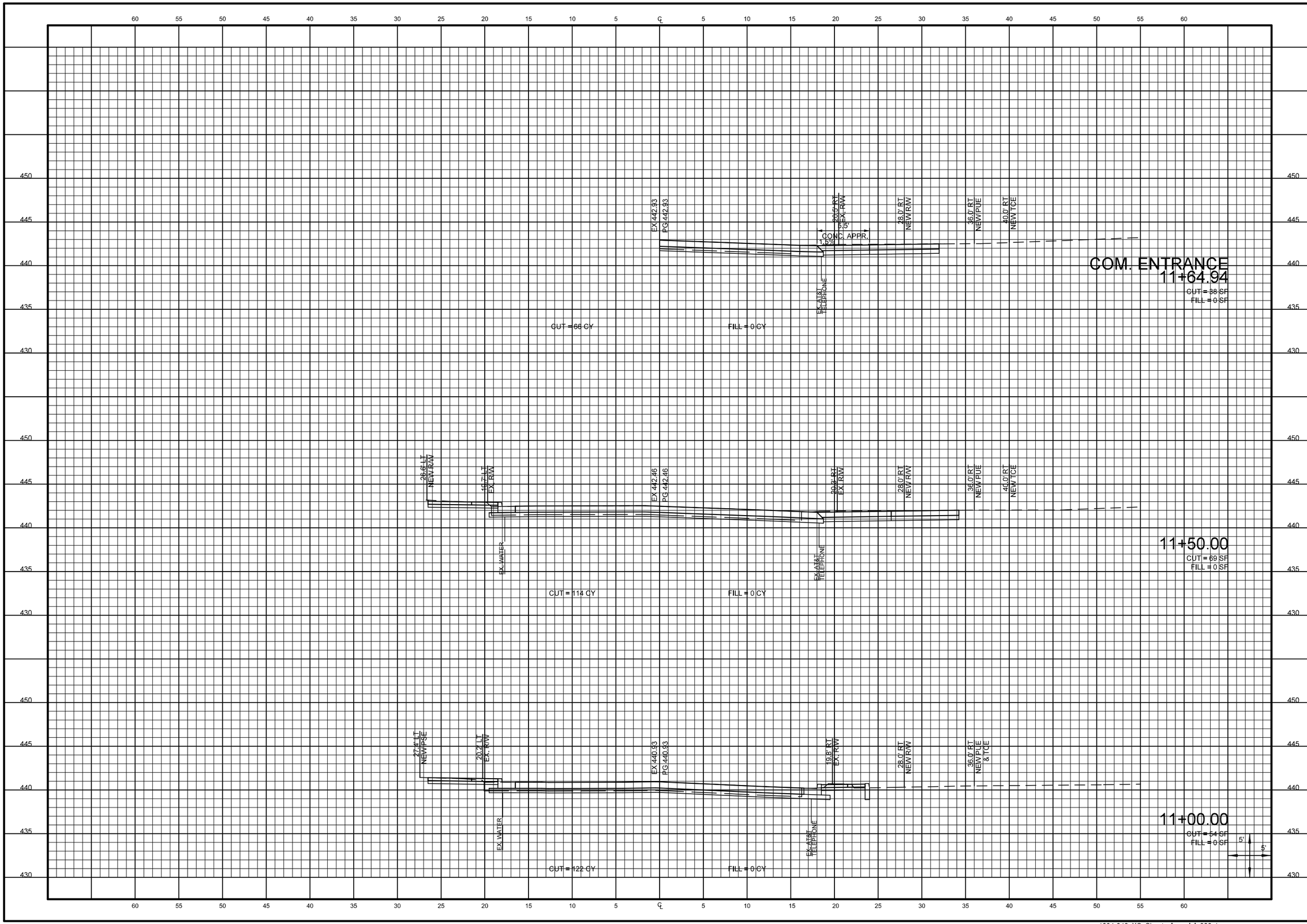
2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER
2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	35
COUNTY	JEFFERSON
JOB NO.	1534600
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IMPERIAL MAIN CROSS SECTIONS
SHEET 2 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

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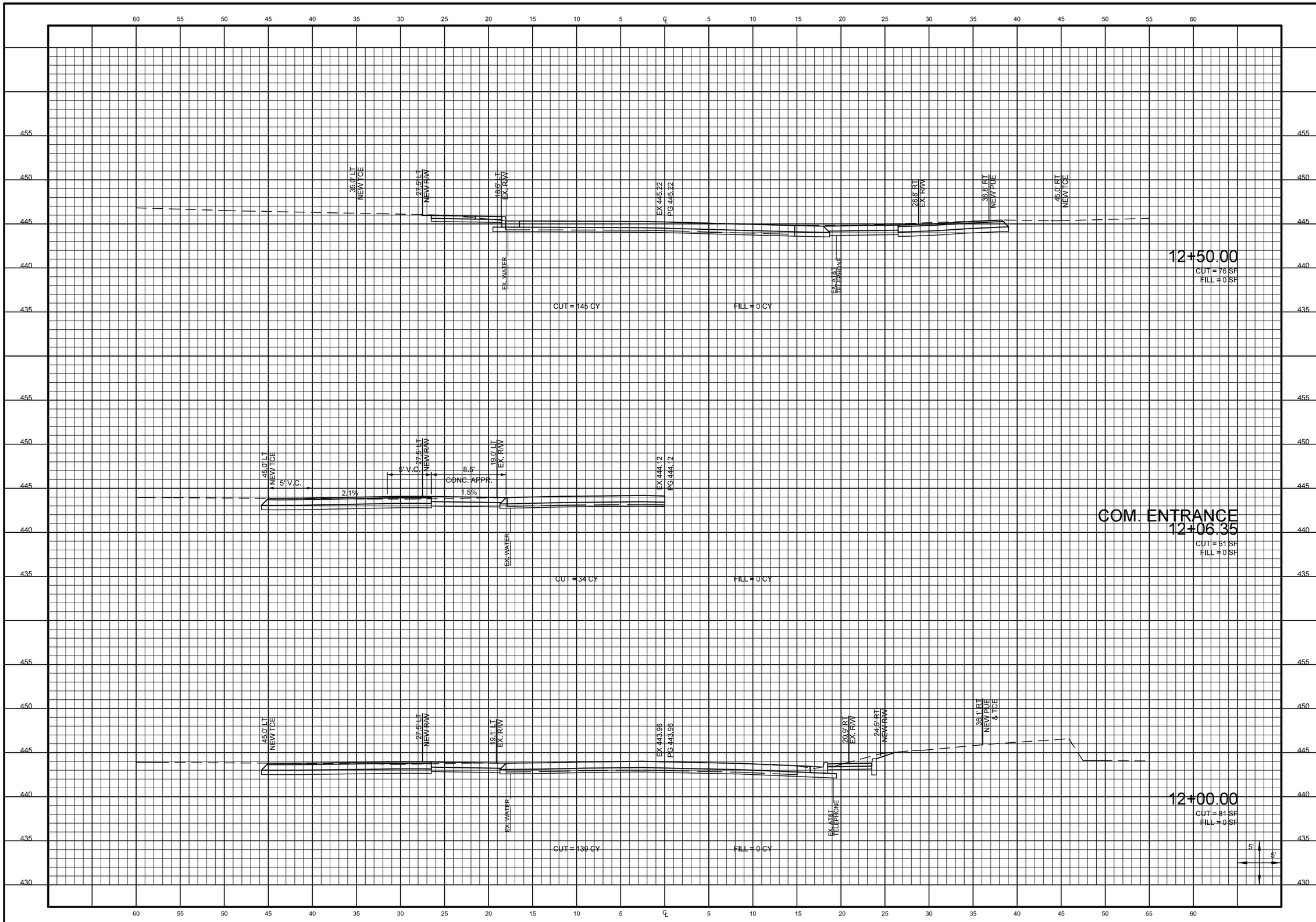
2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	36
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
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WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

IMPERIAL MAIN CROSS SECTIONS
SHEET 3 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

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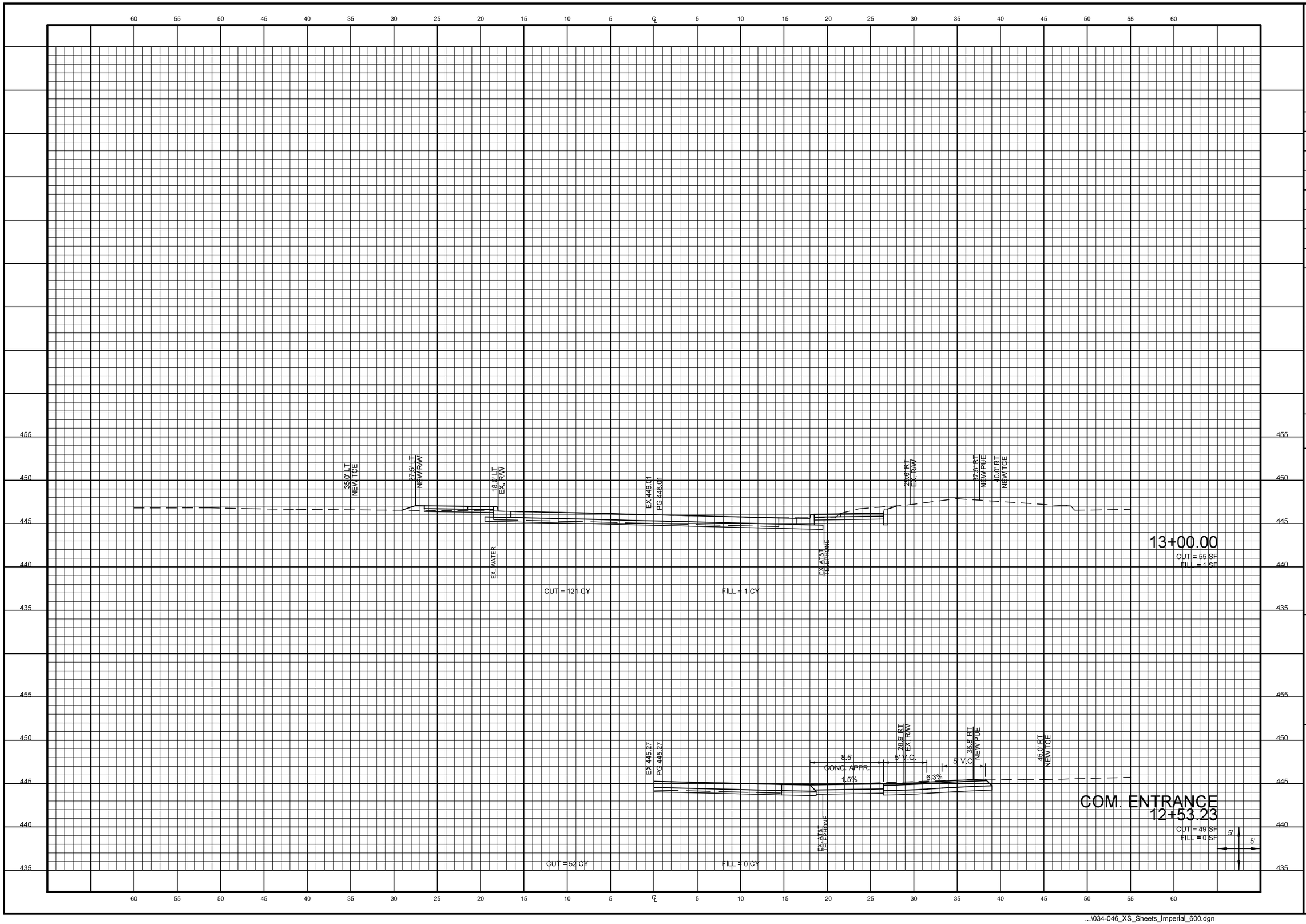
2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	37
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION	DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4324 - FAX 314-231-0666
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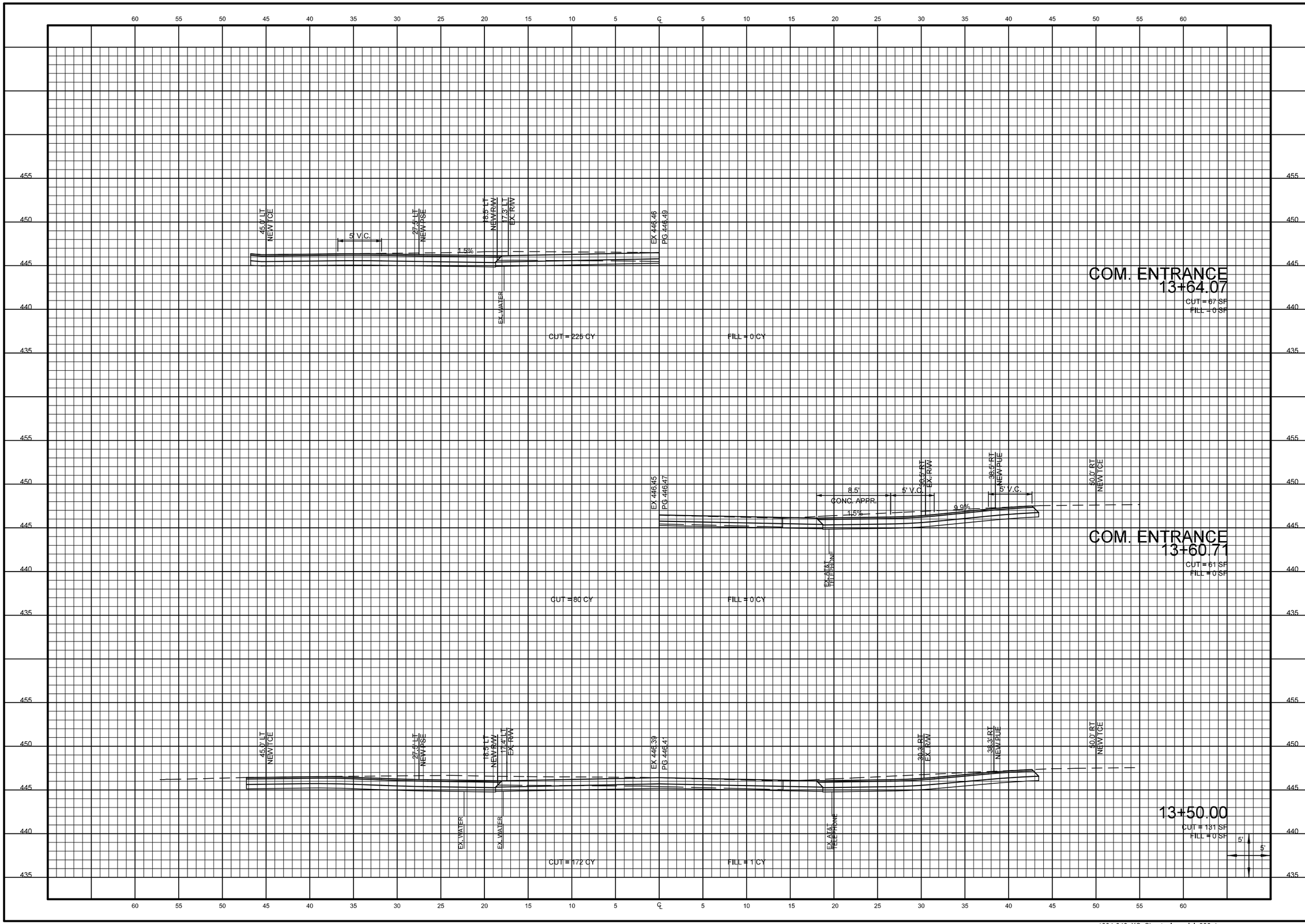
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

IMPERIAL MAIN CROSS SECTIONS
SHEET 4 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	38
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
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IMPERIAL MAIN CROSS SECTIONS
SHEET 5 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

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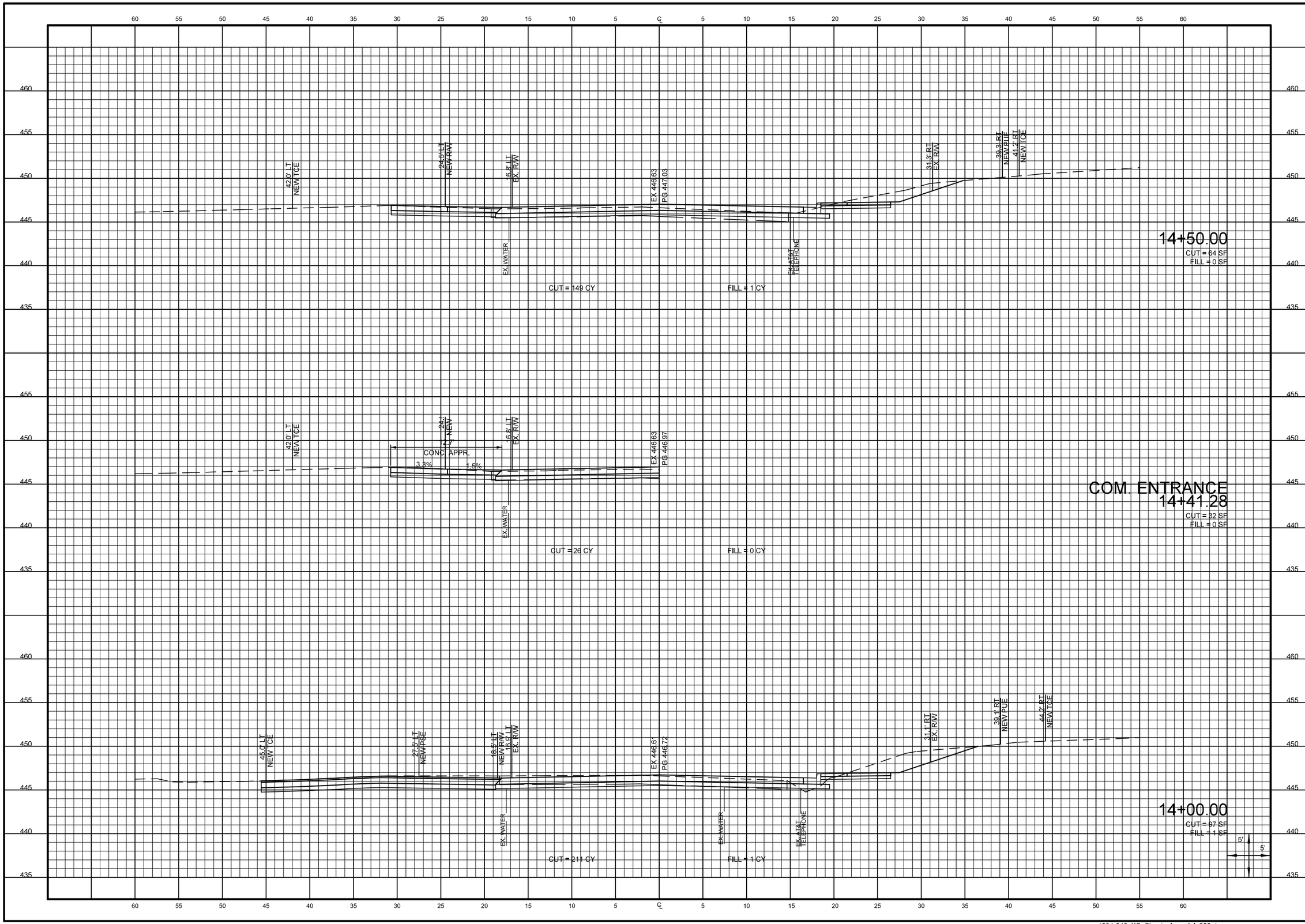
2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	39
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
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IMPERIAL MAIN CROSS SECTIONS
SHEET 6 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

REV.

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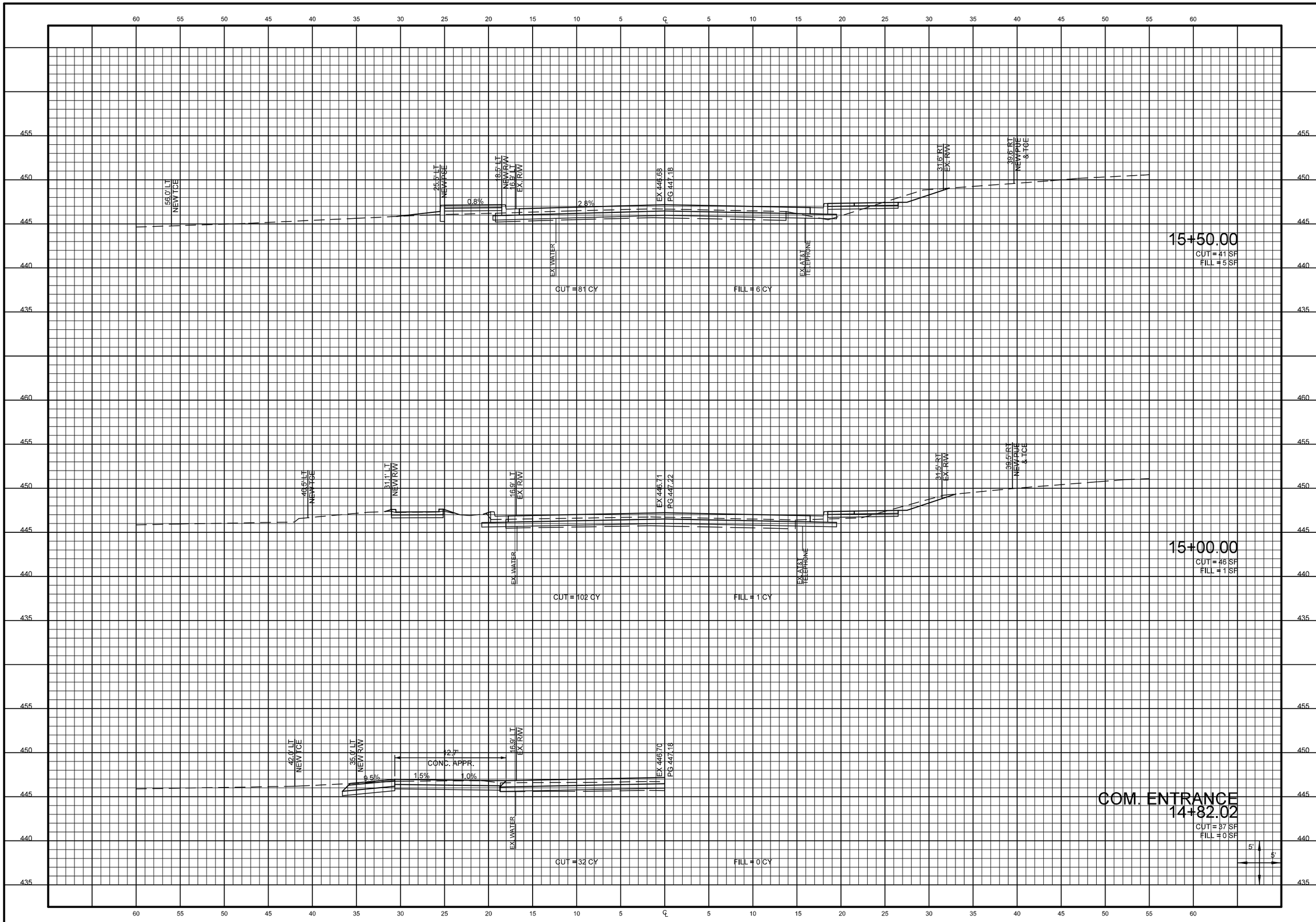
2/2/2018



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2/2/2018

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER
2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	40
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
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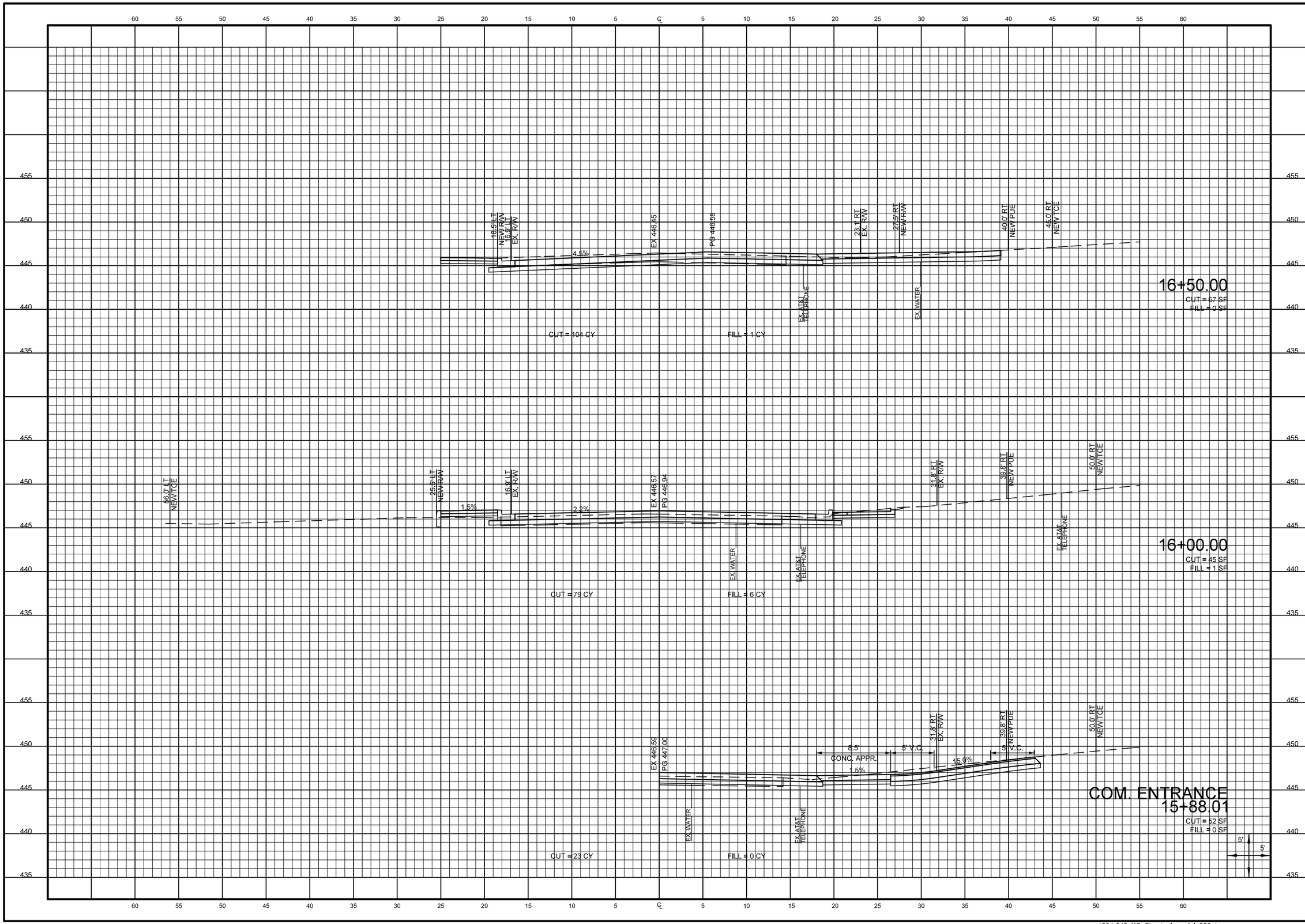
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

IMPERIAL MAIN CROSS SECTIONS
SHEET 7 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	41
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

REV.

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
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314-231-4231 - FAX 314-231-0956
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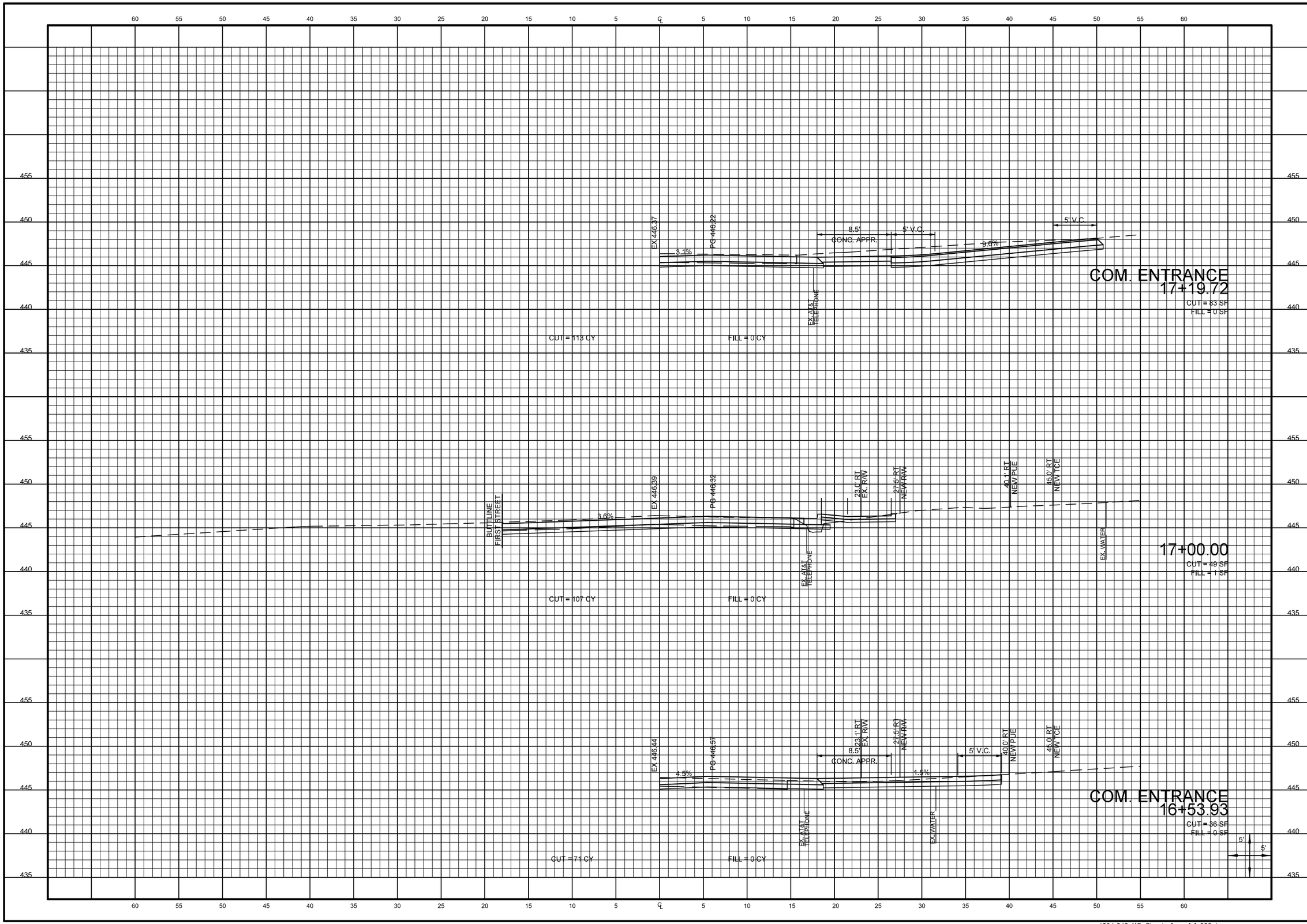
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

IMPERIAL MAIN CROSS SECTIONS
SHEET 8 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	42
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

IMPERIAL MAIN CROSS SECTIONS
SHEET 9 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

REV.

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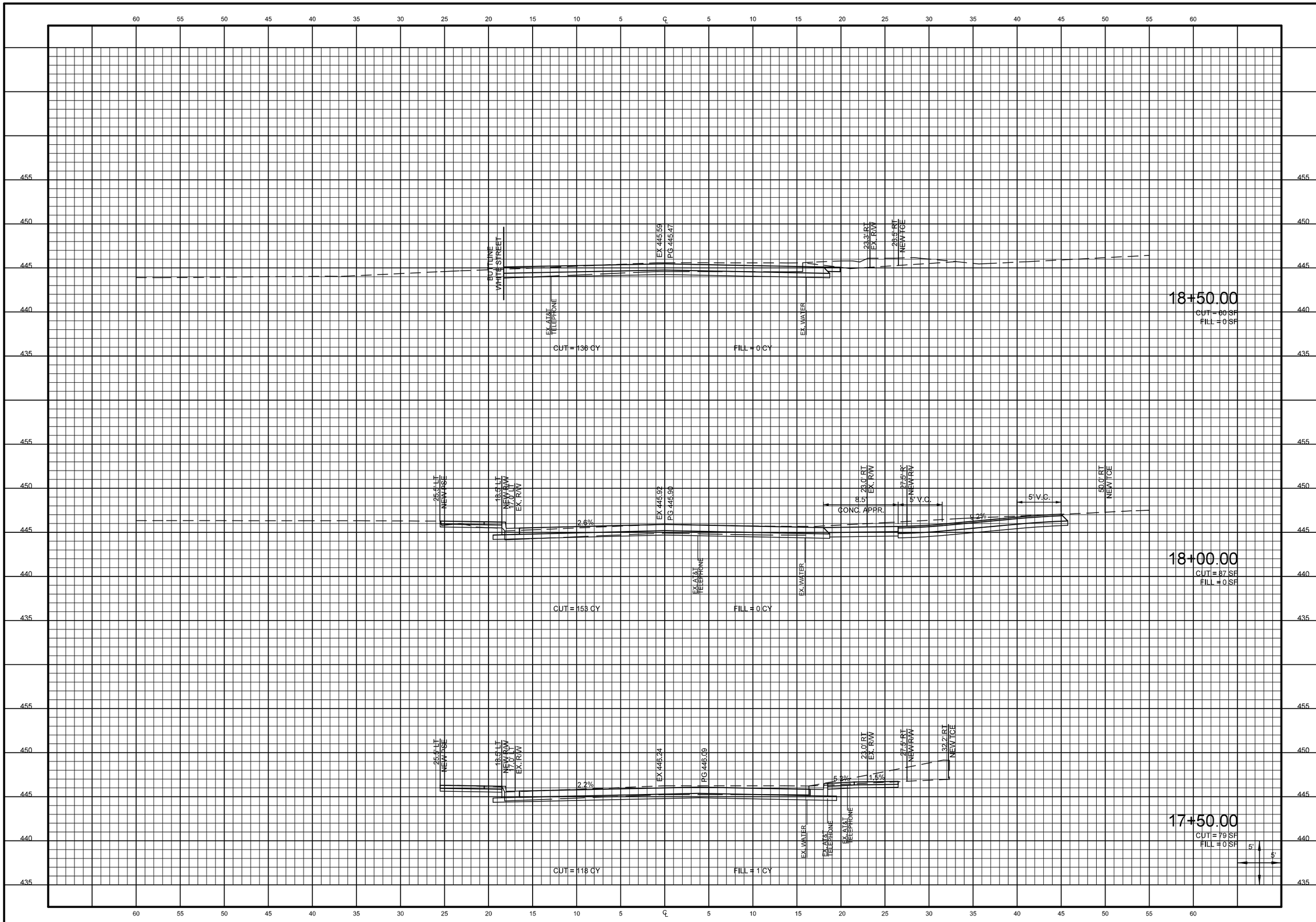
2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	43
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
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IMPERIAL MAIN CROSS SECTIONS
SHEET 10 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

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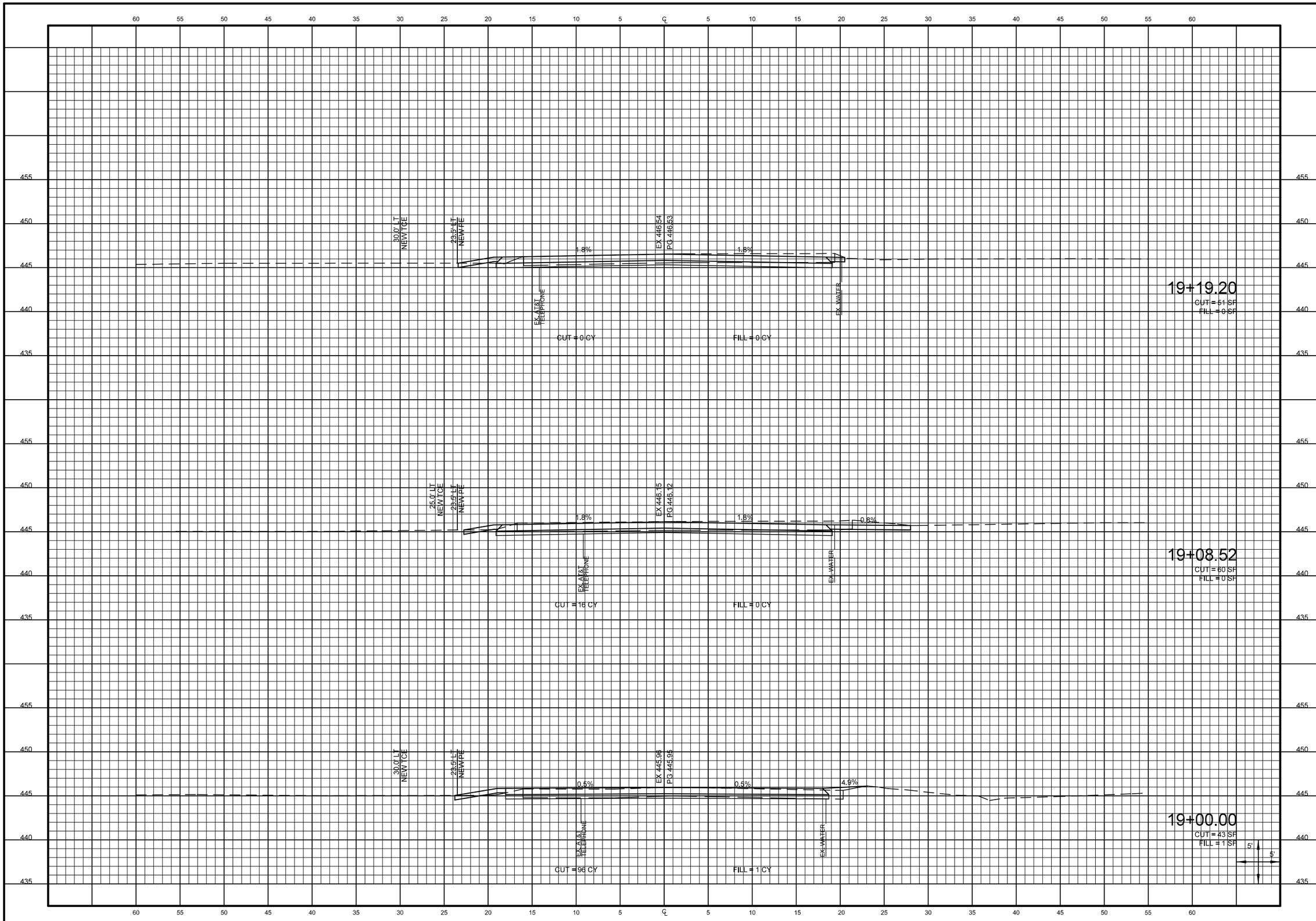
2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	44
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
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CERTIFICATE OF AUTHORITY: 000159
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IMPERIAL MAIN CROSS SECTIONS
SHEET 11 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

REV.

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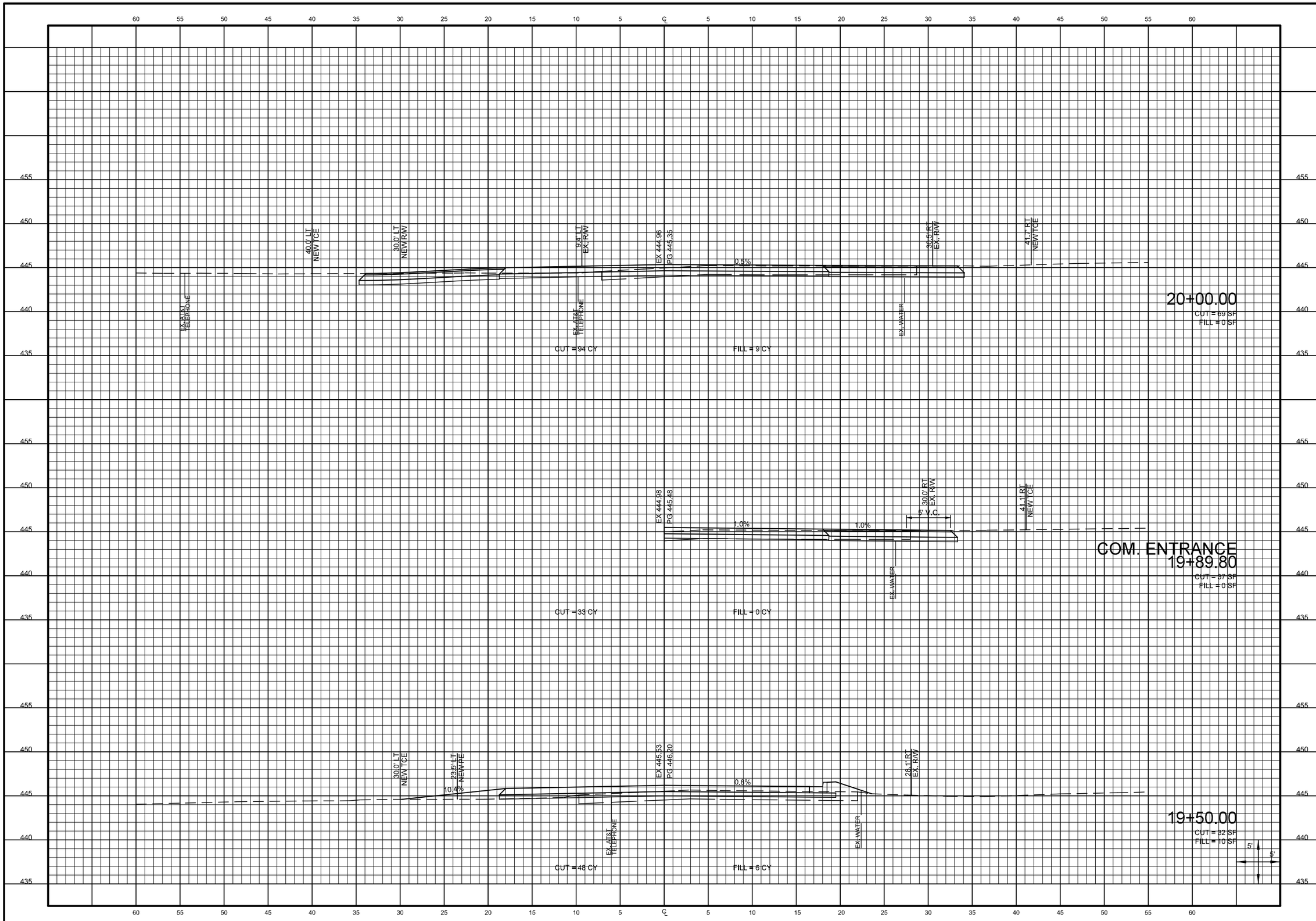
2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	45
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
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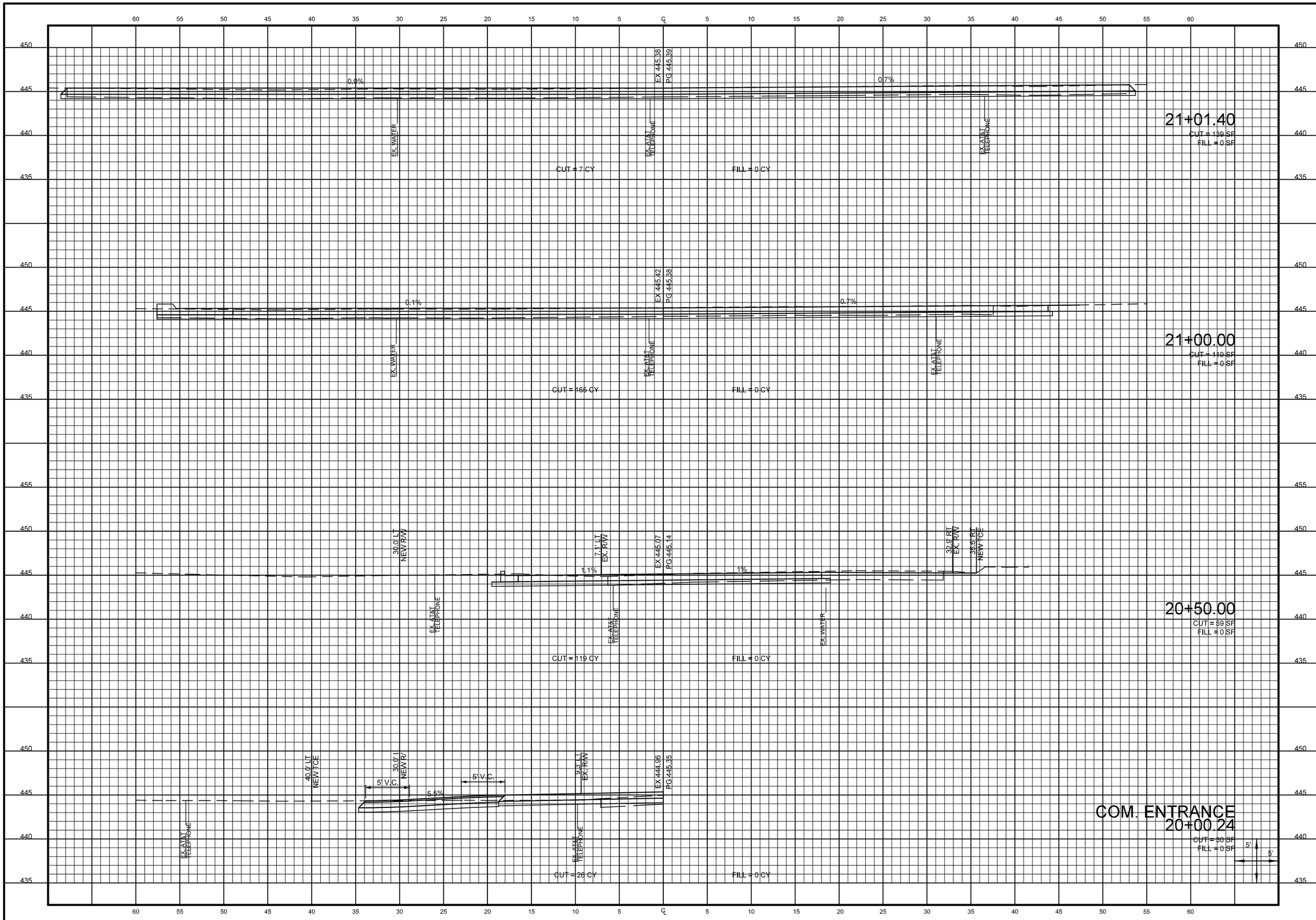
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

IMPERIAL MAIN CROSS SECTIONS
SHEET 12 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	46
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
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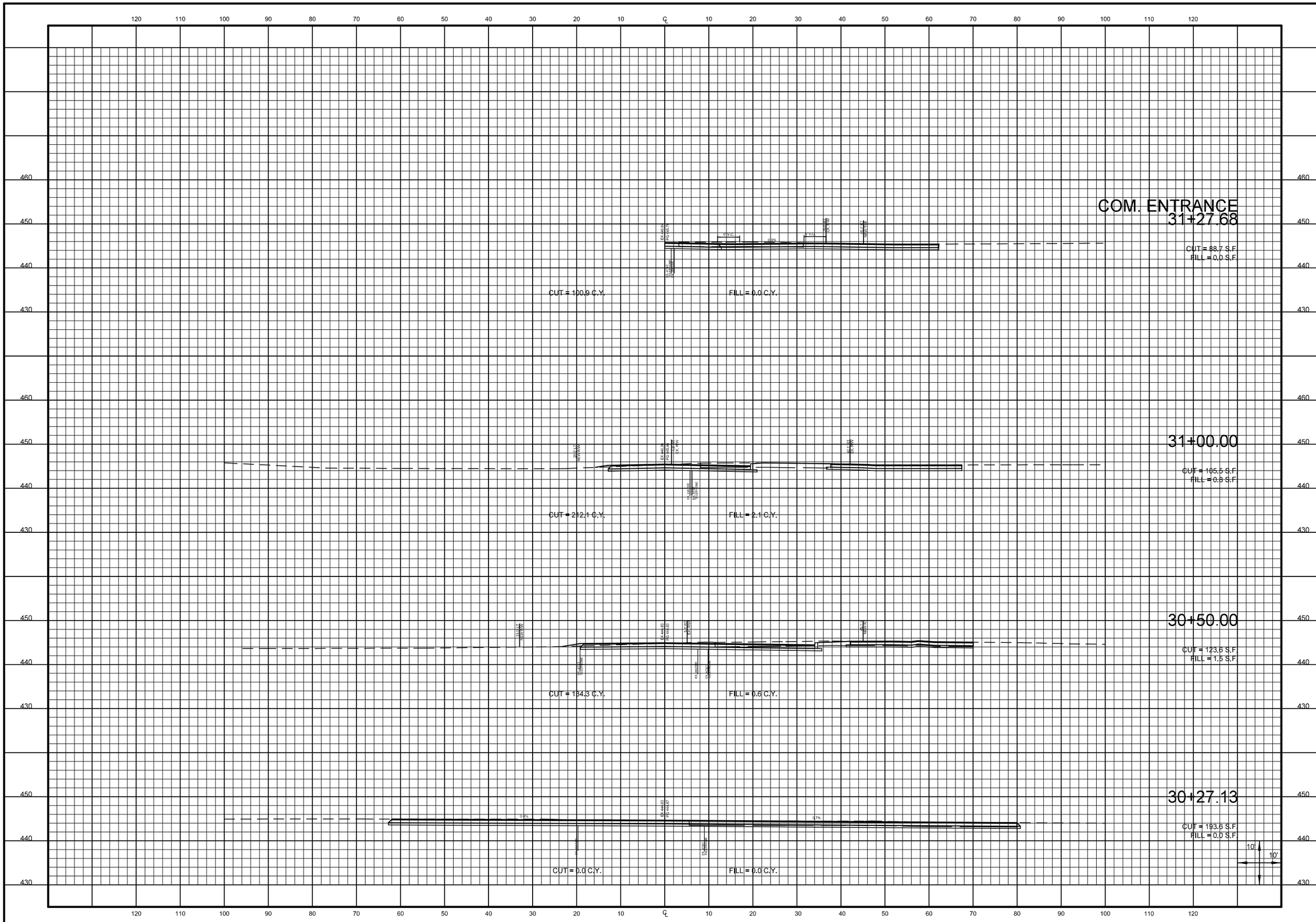
EXPIRATION DATE: DECEMBER 31, 2018

IMPERIAL MAIN CROSS SECTIONS
SHEET 13 OF 13

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	47
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

RIVER STREET CROSS SECTIONS
SHEET 1 OF 4

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

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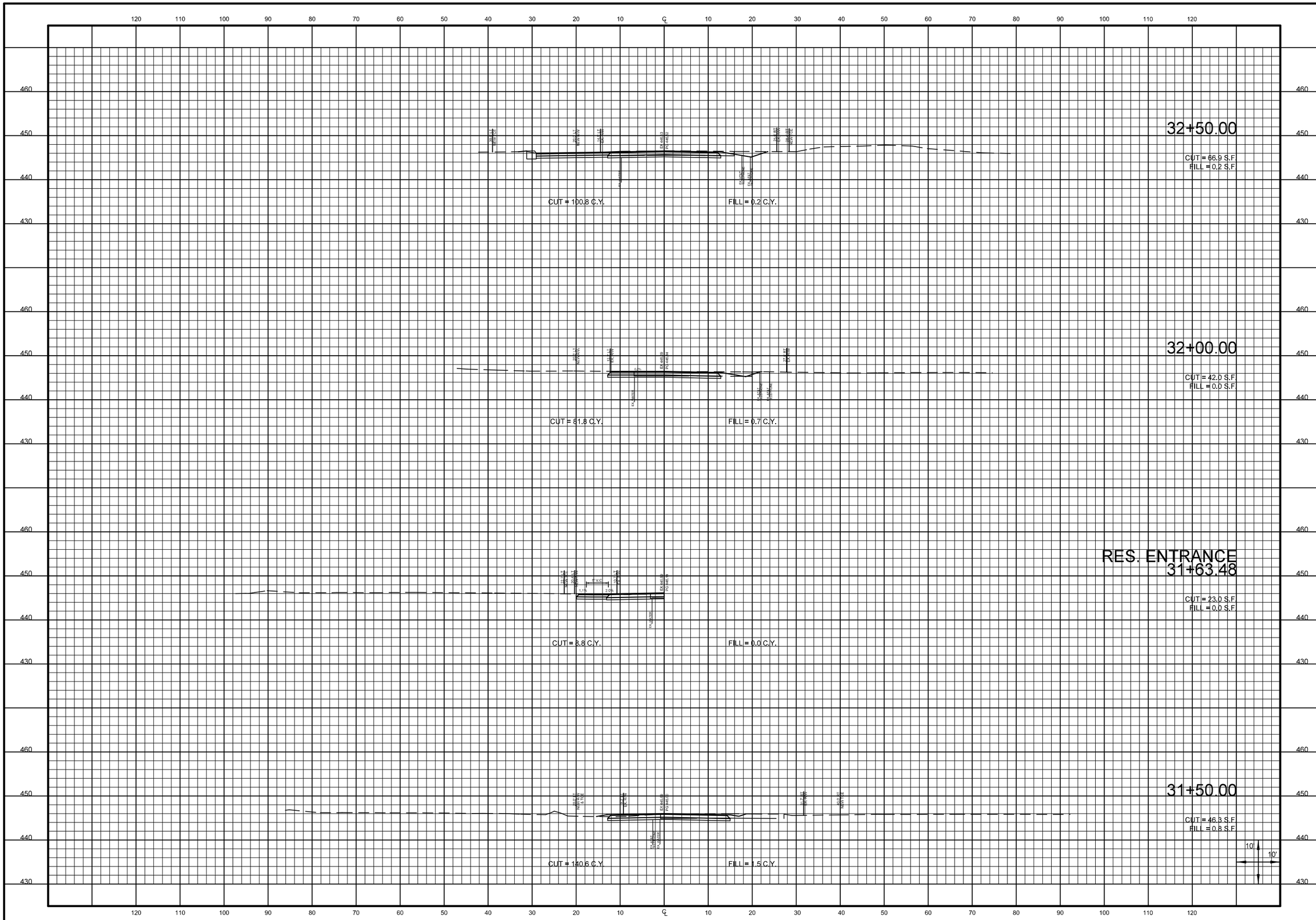
2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	48
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

RIVER STREET CROSS SECTIONS
SHEET 2 OF 4

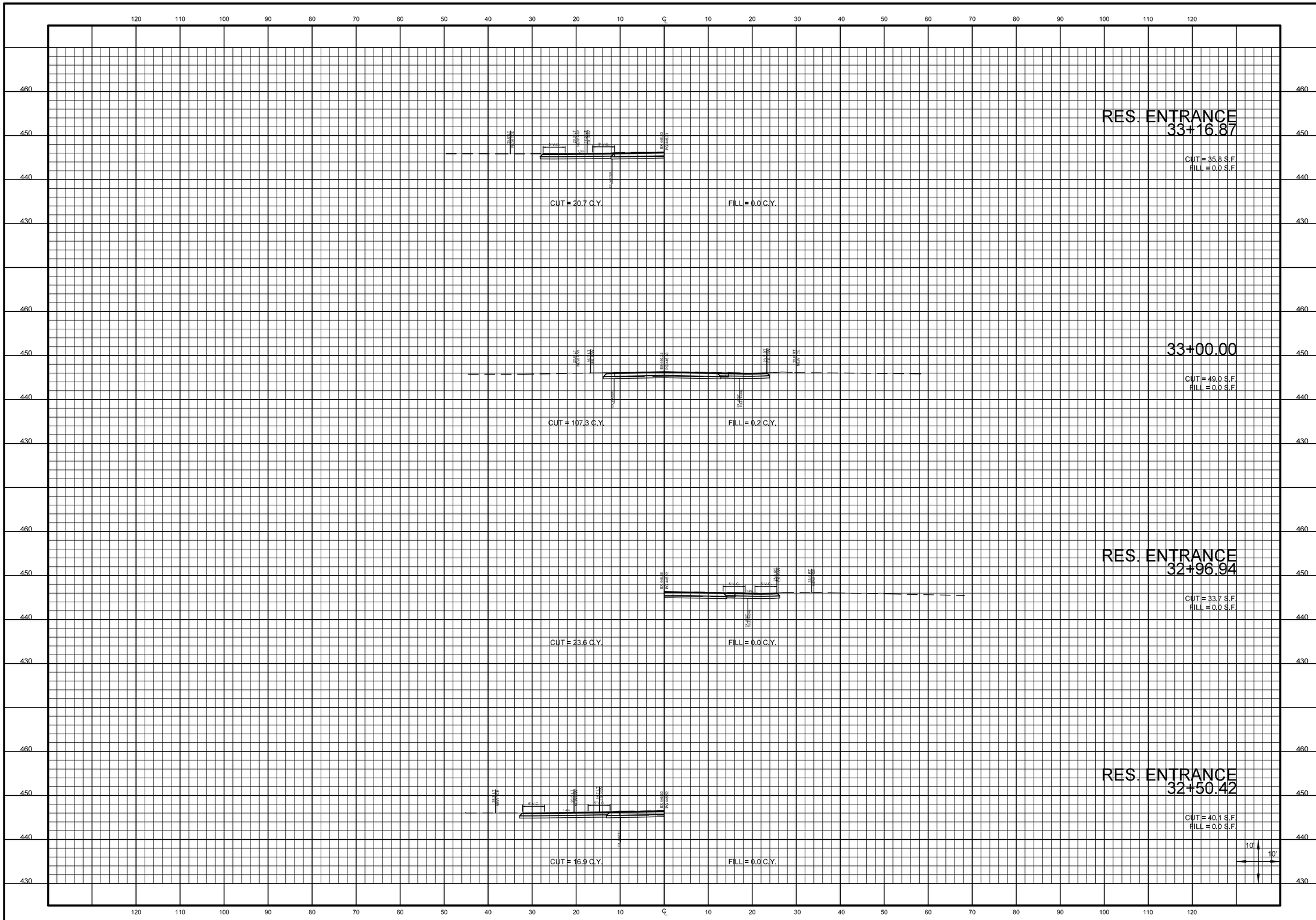
IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

...\047-050_XS_Sheets_River_600.dgn

2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	49
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DATE	DESCRIPTION

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
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401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
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CERTIFICATE OF AUTHORITY: 000159
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RIVER STREET CROSS SECTIONS
SHEET 3 OF 4

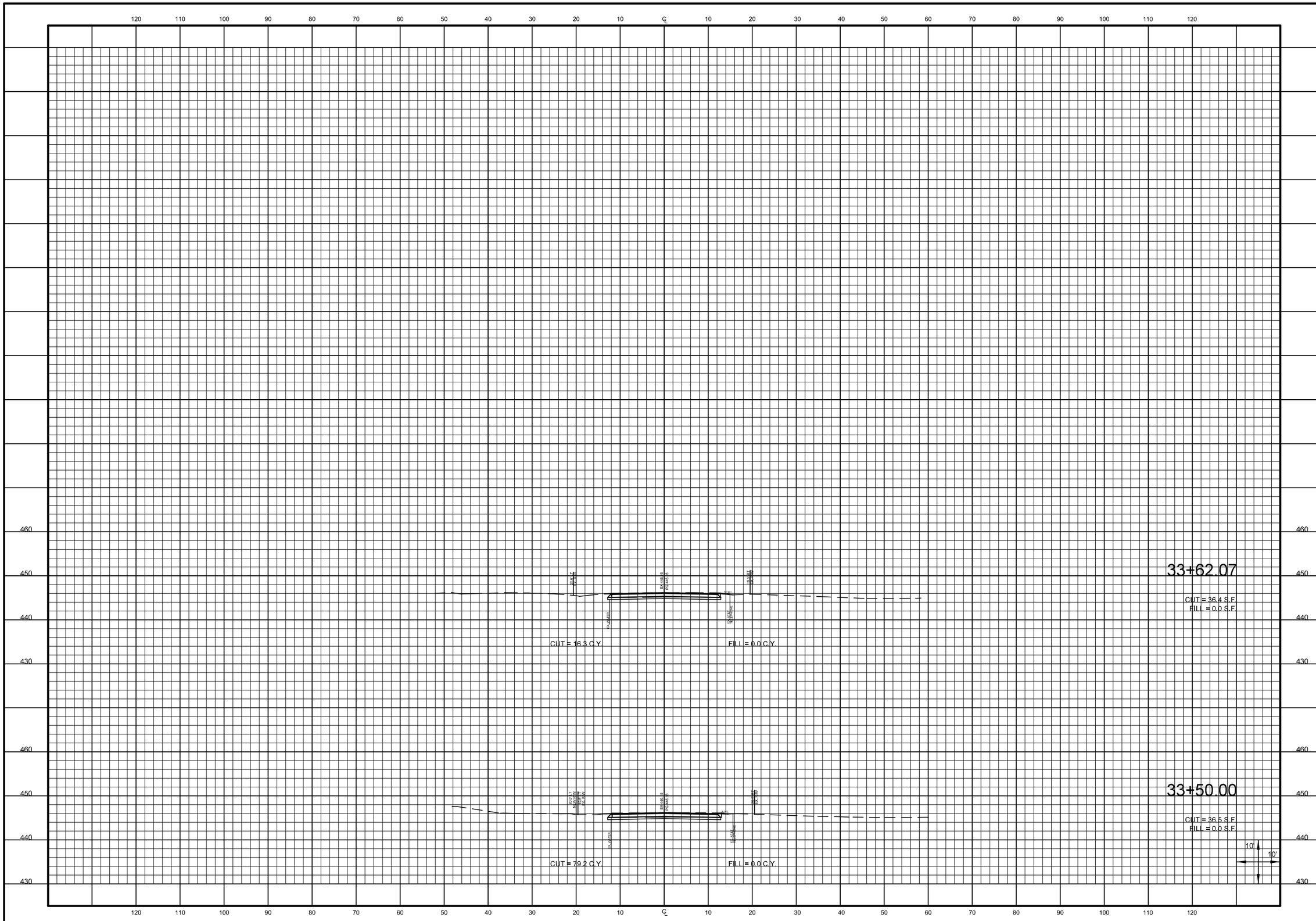
IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

...\047-050_XS_Sheets_River_600.dgn

2/2/2018



ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER 2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	50
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION	DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
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RIVER STREET CROSS SECTIONS
SHEET 4 OF 4

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.

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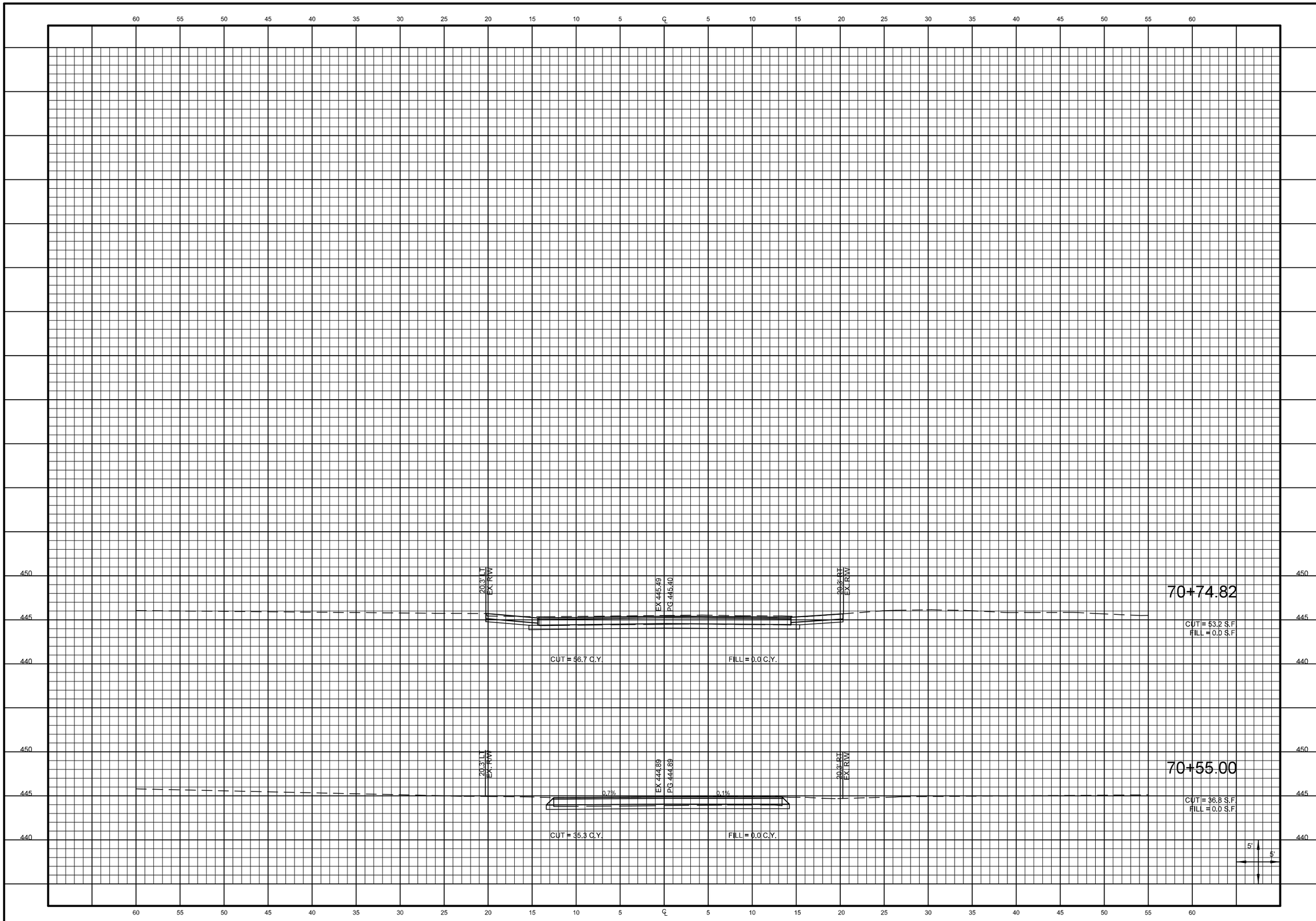

ENGINEER'S SEAL

STATE OF MISSOURI
JOHN E. KLEIN
NUMBER
2009030035
REGISTERED PROFESSIONAL ENGINEER

1/30/2018

DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	51
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION	DATE

JEFFERSON COUNTY, MISSOURI
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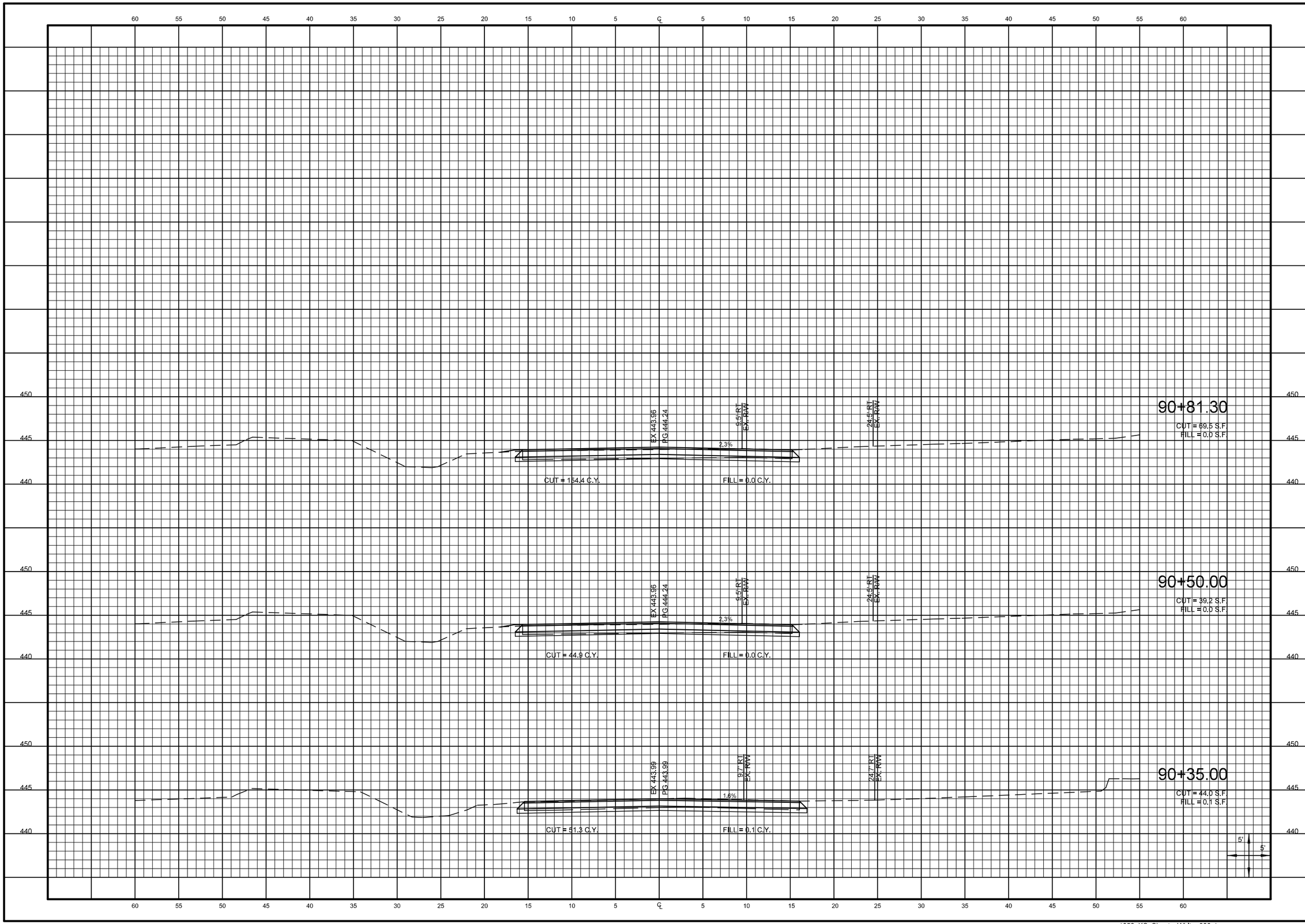
FIRST STREET CROSS SECTIONS
SHEET 1 OF 1

IMPERIAL MAIN STREET IMPROVEMENTS

JEFFERSON COUNTY, MISSOURI

REV.



ENGINEER'S SEAL

STATE OF MISSOURI
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DATE PREPARED	2/2/2018
ROUTE	MAIN
STATE	MO
DISTRICT	
SHEET NO.	52
COUNTY	JEFFERSON
JOB NO.	1534600
CONTRACT ID.	
PROJECT NO.	STP-5403(662)
BRIDGE NO.	

DESCRIPTION

DATE

JEFFERSON COUNTY, MISSOURI
MAPLE STREET ANNEX
725 MAPLE STREET
P.O. BOX 100
HILLSBORO, MO 63050
636-797-5340
www.jeffcomo.org

HORNER SHIFRIN
401 S. 18TH ST., STE. 400 ST. LOUIS, MO 63103
314-231-4324 - FAX 314-231-0586
WWW.HORNERSHIFRIN.COM
DISCIPLINE: PROFESSIONAL ENGINEERING
CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2018

WHITE STREET CROSS SECTIONS
SHEET 1 OF 1

IMPERIAL MAIN STREET IMPROVEMENTS
JEFFERSON COUNTY, MISSOURI

REV.

...\052_XS_Sheets_White_600.dgn

2/2/2018