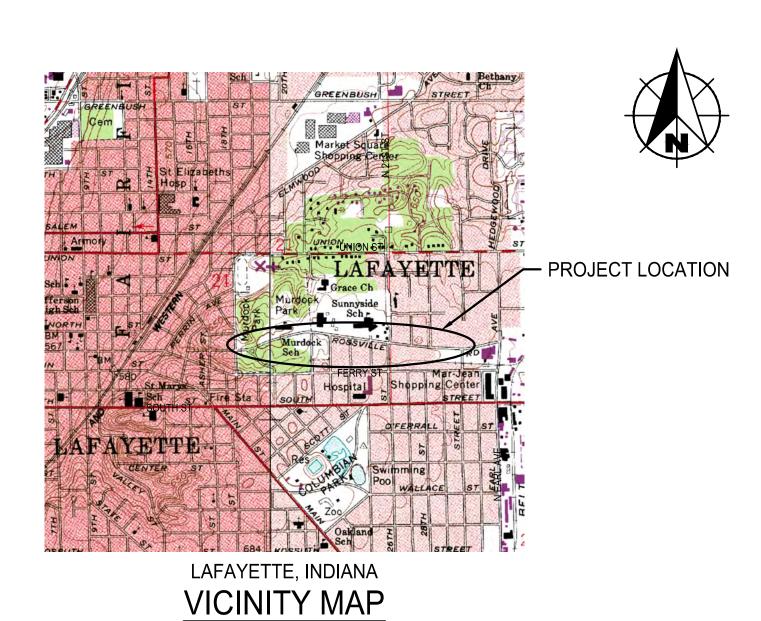
CASON STREET WATER MAIN EXTENSION FOR THE LAFAYETTE WATER WORKS





STATE LOCATION MAP

SCALE: NONE



More than a Project™

INDIANAPOLIS
6219 South East Street
Indianapolis, Indiana 46227
Phone: (317) 788-4551 - Fax: (317) 788-4553
www.wesslerengineering.com

PROJECT NO. 201918-04-002



DRAWINGS PREPARED FOR:

BOARD OF PUBLIC WORKS AND SAFETY

GARY HENRIOTT, PRESIDENT

CINDY MURRAY, MEMBER

NORM CHILDRESS, MEMBER

RON SHRINER, MEMBER

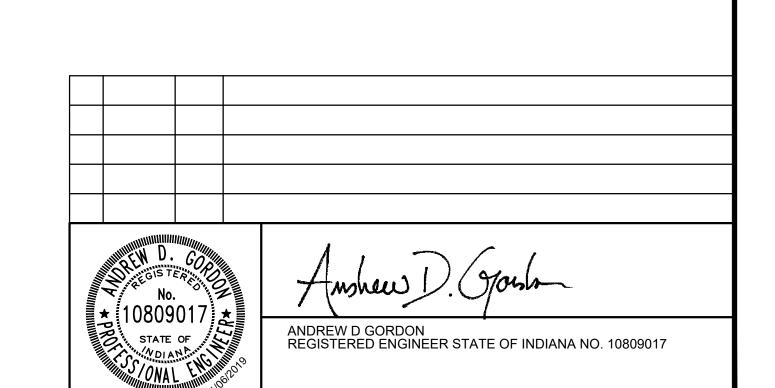
DAWN ROSS, MEMBER

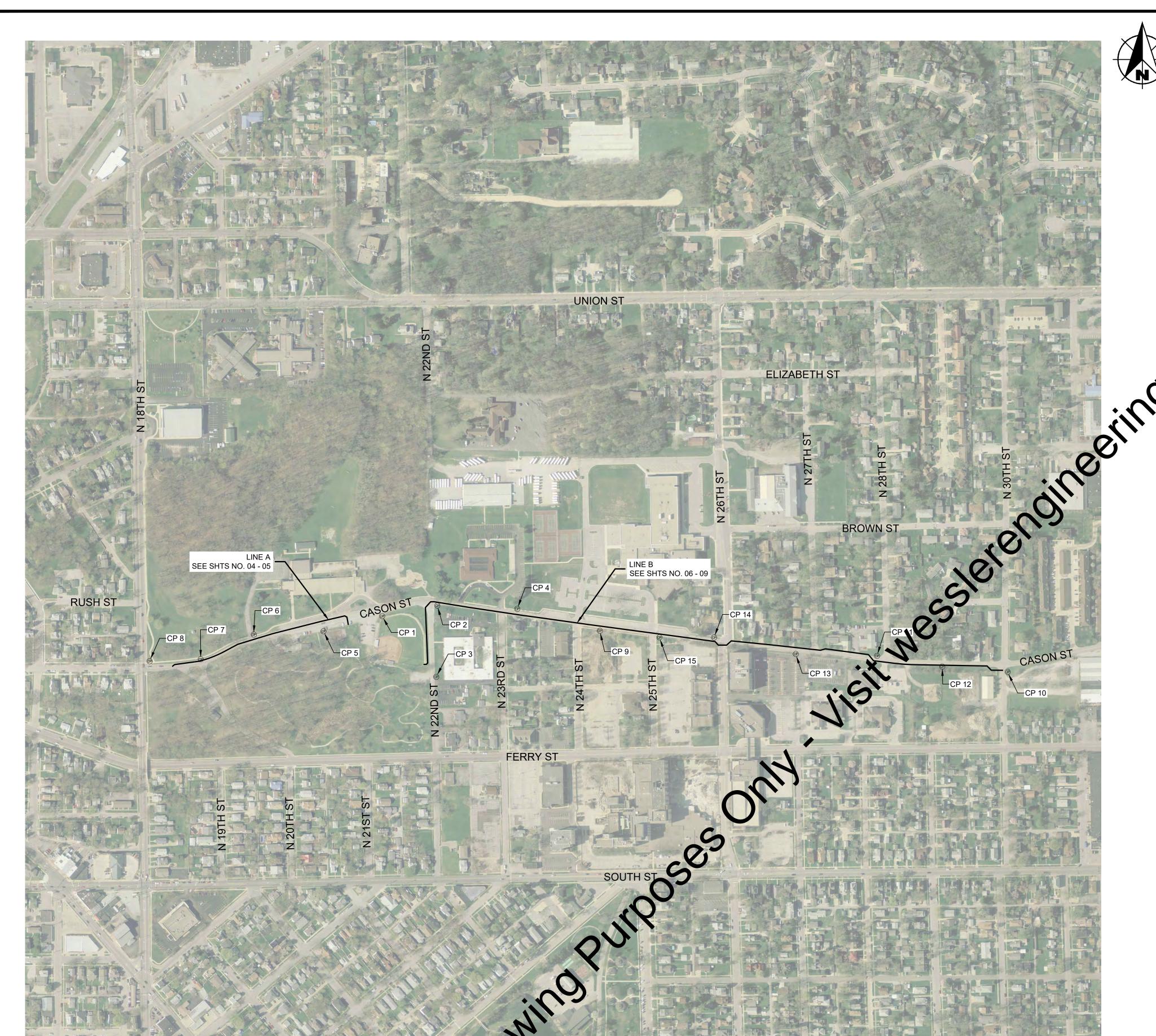
HONORABLE TONY ROSWARSKI, MAYOR

JEROMY GRENARD, CITY ENGINEER

KERRY SMITH, WATER WORKS SUPERINTENDENT

NOVEMBER 2019





LOCATION AND SCOPE OF WORK PLAN

2013 IMAGERY FROM INDIANA STATE MAP.



NOTES:
 A FIELD SURVEY WAS PERFORMED IN NOVEMBER 2018.
 COORDINATES (INDIANA STATE PLANE, WEST ZONE, NAD 83) AND ELEVATIONS (NAVD 88) ARE BASED ON INCORS.
 UNITS (REU.S. SURVEY FEET.
 CONTROL POINTS WERE SET USING GPS.

4.	CONTR	T PAIN 12	WEKE SEI	USING GPS	٥.
		·			
4		,			

CONTROL POINTS									
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION					
1	1884042.26	3011241.37	696.6	5/8" REBAR					
2	1884090.58	3011496.10	692.9	5/8" REBAR					
3	1883761.57	3011490.82	690.8	5/8" REBAR					
4	1884075.13	3011864.88	694.2	5/8" REBAR					
5	1883972.45	3010970.59	701.2	5/8" REBAR					
6	1883956.24	3010648.78	705.8	5/8" REBAR					
7	1883842.52	3010404.06	699.7	5/8" REBAR					
8	1883833.78	3010168.07	690.9	5/8" REBAR					
9	1883973.80	3012246.12	692.2	5/8" REBAR					
10	1883784.44	3014128.15	681.8	5/8" REBAR					
11	1883857.93	3013525.34	690.4	5/8" REBAR					
12	1883809.06	3013826.58	686.4	5/8" REBAR					
13	1883867.00	3013150.31	691.0	5/8" REBAR					
14	1883942.98	3012773.53	692.5	5/8" REBAR					
15	1883943.99	3012521.12	692.4	5/8" REBAR					

111							
LE VERIFICATION	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS	MANAGEW D.
	CHECKED BY	LHR					No.
IS ONE INCH LONG ON	APPROVED BY	ADG					No. 108090 STATE OF
RIGINAL DRAWING	ISSL	JE DATE	<u> </u>				STATE OF
	NOVEM	IBER 2019					MINIMUM ONAL
	PROJEC	CT NUMBER					
	201918	8-04-002					Amhew D.C



CASON STREET WATER MAIN EXTENSION

LAFAYETTE WATER WORKS LAFAYETTE, INDIANA

LOCATION PLAN AND INDEX

DRAWING INDEX

DESCRIPTION

SHEET

NO.

GENERAL

TITLE SHEET

GENERAL SHEET

PLAN AND PROFILE SHEETS

EROSION CONTROL DETAILS

MISCELLANEOUS DETAILS

LOCATION PLAN AND INDEX

04 - 05 PLAN AND PROFILE - LINE A - CASON ST

06 - 09 PLAN AND PROFILE - LINE B - CASON ST

12 - 13 ROAD REPAIR - LINE B - CASON ST

14 - 15 | EROSION CONTROL DETAILS

16 - 18 MISCELLANEOUS DETAILS

MAINTENANCE OF TRAFFIC - DETOUR PLANS

ROAD REPAIR - LINE A - CASON ST

ROAD REPAIR - LINE A AND LINE B - CASON ST

MAINTENANCE OF TRAFFIC - DETOUR PLAN PHASE I

MAINTENANCE OF TRAFFIC - DETOUR PLAN PHASE II

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
ВМ	BENCH MARK	(CIS)	CISTERN		EASEMENT - CONSTRUCTION/PERMANE
твм	TEMPORARY BENCH MARK	EM	ELECTRIC METER		LOT BOUNDARY
SB 01	SOIL BORING LOCATION	AC	AIR CONDITIONING UNIT	P	PROPERTY BOUNDARY
·	SECTION CORNER	XXX	UTILITY RISER (DEFINED BY UTILITY)		RIGHT-OF-WAY - TEMPORARY/PERMANE
•	DRILL HOLE IN CONCRETE/HARRISON MONUMENT	XXX	UTILITY PEDESTAL (DEFINED BY UTILITY)		SECTION BOUNDARY
(CP)	CONTROL POINT (SET/FOUND)	X	UTILITY MARKER (DEFINED BY UTILITY)		WETLANDS
MG	MAGNETIC NAIL (SET/FOUND)		JOINT POWER/TELEPHONE POLE	849	CONTOUR - INTERMEDIATE ELEVATION
(BS)	BOAT SPIKE (SET/FOUND)		LIGHT POLE	850	CONTOUR - INDEX ELEVATION
(PK)	PK NAIL (SET/FOUND)	· ·	LIGHT ON POWER POLE	OHE OHE	OVERHEAD ELECTRIC
RS	RAILROAD SPIKE (SET/FOUND)		LIGHT ON JOINT POLE	OHC	OVERHEAD CABLE TV
R/W	R/W MARKER - CONCRETE/GRANITE/STONE	P	POWER POLE	OHT OHT	OVERHEAD TELEPHONE
(a)	IRON PIPE/IRON PIN/REBAR (WITH DIAMETER)		TELEPHONE POLE	UGCUGC	UNDERGROUND CABLE TV
BP BP	BRASS PLUG	<u></u>	LAMP POST	UGE UGE	UNDERGROUND ELECTRIC
©	CABLE TV MANHOLE		GUY ANCHOR	UGF UGF	UNDERGROUND FIBER OPTIC
E	ELECTRIC MANHOLE	-	GUY POLE OR STUB		GAS MAIN
<u> </u>	GAS MANHOLE		CONTROLLER CABINET	DGDG	DIGESTER GAS
<u> </u>	OTHER MANHOLE		FLAG POLE	P — P — P —	PETROLEUM MAIN
	TELEPHONE MANHOLE		POST	UGTUGT	UNDERGROUND TELEPHONE
TEL	TELEPHONE VAULT		GROUND LIGHT	w w w	- WATER MAIN
①	TRAFFIC MANHOLE	M	MAILBOX	w w w	- WATER SERVICE
<u> </u>	TRAFFIC HANDHOLE	MM	DOUBLE/MULTIPLE MAILBOX	FM FM	- FORCEMAIN
	WATER MANHOLE		MAST ARM POLE		GRAVITY SEWER PIPE
<u> </u>	AIR RELEASE VALVE		TRAFFIC SIGNAL STRAIN POLE		PLANT CHLORINE PIPE
<u> </u>	SANITARY SEWER MANHOLE		SIGNAL LOOP DETECTOR BOX		TOP OF BANK/TOE OF SLOPE
	DRAINAGE/STORM SEWER MANHOLE		SIGNAL LOOP DETECTOR LOOP		- CENTERLINE OF DITCH/SWALE/STREAM
	SANITARY SEWER CLEANOUT	-	SIGN - SINGLE POST		
ST	SEPTIC TANK	00	SIGN - DOUBLE POST		
	VALVE VAULT		SIGN - RAILROAD SIGNAL		FENCE - WOOD
	BEEHIVE INLET	R/R O	SIGN - RAILROAD CROSSING		- GUARDRAIL
	CURB INLET		BUSH		- STREAM
	DROP INLET		STUMP		TREE/BRUSH LINE
					TREE/BRUSH LINE
	CATCH BASIN		TREE - CONIFEROUS		
GM O	DOWNSPOUT	<u> </u>	TREE - DECIDUOUS		
GV	GAS METER	<u>⊗</u>	ROCK OUTCROP		
\bowtie	GAS VALVE	5 ^A	SATELLITE		
G S O	GAS SERVICE VALVE				
\bowtie	PETROLEUM VALVE				
₹ \$0	PETROLEUM SHUTOFF VALVE				TO THE PROPERTY OF
GMW)	GAS STATION MONITORING WELL			Inflancy .	IUIC YIU U
GFC)	GAS STATION FILL CAP			الاستناسا	now what's below. Call before you d
SP4	NATURAL GAS WELL/STORAGE WELL			-	Call before you d
SPH	SPRINKLER HEAD				
	SPRINKLER CONTROL VALVE				
MA.	WATER METER				
\square	WATER VALVE				
nso	WATER SERVICE VALVE				
	WATER WELL			1 10.	
(W W)	WET WELL			3	
\$ \$	FIRE HYDRANT				
	PROCESS VALVE		4		
\nearrow	YARD HYDRANT				

	TABLE OF A	BBREVIATION	DOCUMENTS AS SOON AS POSSIBLE AND PRIOR TO THE COMMENCEMENT OF ANY WORK IN THE VICINITY OF OR RELATIVE TO THE APPARENT CONFLICT SO THAT CLARIFICATION MAY OCCUR PRIOR TO CONSTRUCTION.	
ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	2. ANY ALTERATIONS TO THESE DRAWINGS NOT AUTHORIZED BY WESSLER ENGINEERING AND NOT IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND RECORDS ON FILE AT WESSLER ENGINEERING
AFF	ABOVE FINISHED FLOOR	IPS	IRON PIPE SIZE	SHALL RELIEVE WESSLER ENGINEERING OF ANY RESPONSIBILITY FOR THE ACCURACY OF THE DRAWINGS. 3. USE CAUTION DURING THE EXECUTION OF WORK TO PREVENT DAMAGE TO STATE, COUNTY, MUNICIPAL, AND
ALUM	ALUMINUM	ISPC	INDIANA STATE PLANE COORDINATE	PRIVATE PROPERTY. REPAIR ALL DAMAGES AS A RESULT OF OPERATIONS, INCLUDING DAMAGE TO DRAINAGE
APP	APPARENT	LB	POUND(S)	STRUCTURES, FIELD TILES, PUBLIC/PRIVATE ROADS, AND LANDSCAPING (INCLUDING FENCING). REPAIR AND REPLACE DAMAGED ITEMS AT NO ADDITIONAL COST TO THE OWNER. PERFORM ALL REPAIR AND
APPROX	APPROXIMATE(LY)	LF	LINEAR FEET	REPLACEMENT WORK TO THE SATISFACTION OF THE PERMITTING AGENCY, THE OWNER AND THE ENGINEER.
ASPH	ASPHALT	LN	LANE	4. TAKE CARE TO AVOID DAMAGE TO PAVED AREAS WHICH ARE NOT SPECIFICALLY CALLED OUT FOR REPAIR OR REPLACEMENT. REPAIR. OR REPLACE ALL SUCH PAVEMENTS WHICH ARE DAMAGED BY CONSTRUCTION
ASSOC	ASSOCIATES	LS		ACTIVITIES AND CONSTRUCTION THAT I IC AT NO ADDITIONAL COST TO THE OWNER.
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	MA EX	MATCH EXISTING	OBTAIN ALL TEMPORARY EASEMENTS REQUIRED FOR THE CONSTRUCTION OF THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
AVE	AVENUE	MJ	MECHANICAL JOINT	6. COMPLY WITH ALL APPLICABLE PERMITS AND REGULATIONS. APPLICABLE PERMITS ISSUED TO THE OWNER
AVG	AVERAGE	MATL	MATERIAL	WILL BE MADE AVAILABLE TO THE CONTRACTOR. CONTACT ALL APPLICABLE PERMITTING AGENCIES WITHIN THE TIME PERIOD SPECIFIED BY THAT AGENCY PRIOR TO BEGINNING CONSTRUCTION.
BLDG	BUILDING	MAX	MAXIMUM	7. ALL EXISTING AND NEW UTILITY INFORMATION, INCLUDING BUT NOT LIMITED TO LOCATION, SIZE AND INVERT
BLVD	BOULEVARD	МН	MANHOLE	ELEVATION, IS SHOWN BASED UPON AVAILABLE INFORMATION. THE ENGINEER DOES NOT GUARANTEE OR ASSUME SUCH INFORMATION TO BE TRUE, ACCURATE, ALL INCLUSIVE OR EVEN APPROXIMATE. CONTACT THE
ВМ	BENCHMARK	MIN	MINIMUM	INDIANA UNDERGROUND PLANT PROTECTION SERVICE (IUPPS) AT LEAST FORTY-EIGHT (48) HOURS IN
СО	CLEANOUT	MISC	MISCELLANEOU	ADVANCE OF ANY CONSTRUCTION ACTIVITY. CONTACT NON-MEMBER UTILITIES DIRECTLY. 8. DETERMINE WHICH UTILITIES MAY CONFLICT WITH WORK AND VERIFY THEIR LOCATION, SIZE AND ELEVATION
CI	CAST IRON	N	NORTHING, NORTH	PRIOR TO CONSTRUCTION AND DETERMINE IF THERE ARE ANY DISCREPANCIES OR CONFLICTS. IF ANY
CL	CENTER LINE	NGS	NATIONAL CEODETIC SURVEY	DISCREPANCIES OR CONFLICTS ARE DISCOVERED, NOTIFY THE ENGINEER AS SOON AS POSSIBLE. 9. EXISTING UTILITY SERVICE LINES TO INDIVIDUAL CUSTOMERS MAY NOT BE SHOWN ON THE DRAWINGS.
CMA	COLD MIX ASPHALT	NO.	NUMBER	ASSUME THAT UNDERGROUND SERVICE LINES FOR ALL UTILITIES EXIST TO EACH PROPERTY ALONG THE
CMP	CORRUGATED METAL PIPE	ОС	ON CENTER	ROUTE OF THE PLANNED IMPROVEMENTS. 10. COORDINATE ALL WORK WITH THE RESPECTIVE UTILITIES. SCHEDULE WORK ACCORDINGLY, AND NOTIFY ALL
СМИ	CONCRETE MASONRY UNIT	OD	O JTS DE DIAMETER	UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY.
CONC	CONCRETE	PC	PONT OF CURVE (BEGIN CURVE)	11. COORDINATE PLANNED UTILITY SERVICE INTERRUPTIONS WITH THE RESPECTIVE UTILITIES AND THE UTILITIES' AFFECTED CUSTOMERS. SERVICE INTERRUPTIONS SHOULD NOT LAST MORE THAN FOUR (4)
CONT	CONTINUOUS	POLY	POLYETHYLENE	HOURS. GIVE WRITTEN NOTICE TO ALL AFFECTED UTILITY CUSTOMERS AND PROPERTY OWNERS AT LEAST
CNR	CORNER	PI C	POINT OF INTERSECTION	TWENTY-FOUR (24) HOURS BUT NOT MORE THAN SEVENTY-TWO (72) HOURS PRIOR TO ANY PLANNED INTERRUPTION OF UTILITY SERVICE.
СР	CONTROL POINT	POT	POINT ON TANGENT	12. USE CAUTION DURING THE EXECUTION OF WORK TO PREVENT DAMAGE TO EXISTING UTILITIES. REPAIR OR
CPP	CORRUGATED PLASTIC PIPE	PT •	POINT OF TANGENT (END CURVE)	REPLACE ALL PUBLIC AND PRIVATE FACILITIES DAMAGED AS A RESULT OF CONSTRUCTION OPERATIONS. 13. BRACE AND PROTECT ALL UTILITY POLES AND EXISTING STRUCTURES ADJACENT TO NEW EXCAVATIONS.
CR STN	CRUSHED STONE	PSI	POUNDS PER SQUARE INCH	UTILITY POLE BRACING SHALL BE AS DIRECTED BY THE GOVERNING UTILITY.
CYD	CUBIC YARD	N	POINT	14. MAINTAIN EXISTING STORMWATER DRAINAGE FOR THE ENTIRE DURATION OF THE PROJECT.15. DO NOT DISTURB EXISTING MANHOLES OR INLETS, UNLESS NOTED OTHERWISE.
D	DEPTH	PVC	POLYVINYL CHLORIDE	16. ALL EQUIPMENT, APPURTENANCES AND PIPING REMOVED AS PART OF THE DEMOLITION SHALL FIRST BE
DI	DUCTILE IRON	R	RADIUS	OFFERED TO THE OWNER FOR SALVAGE. DELIVER SALVAGED ITEMS SELECTED BY OWNER TO A LOCATION DESIGNATED BY THE OWNER OR ENGINEER. IN THE EVENT THE OWNER DOES NOT ELECT TO KEEP THE
DI MJ	DUCTILE IRON MECHANICAL JOINT	ROW	RIGHT-OF-WAY	REMOVED ITEMS, REMOVE SUCH ITEMS FROM THE SITE AND DISPOSE OF AT A LOCATION APPROVED FOR SUCH DISPOSAL AT THE CONTRACTOR'S EXPENSE.
DBL	DOUBLE	RCP	REINFORCED CONCRETE PIPE	17. COORDINATE STAGING AREA LOCATIONS WITH THE OWNER.
DIA	DIAMETER	RD	ROAD	18. ALL CONSTRUCTION TRAFFIC SHALL USE MAJOR ROADS. NO CONSTRUCTION TRAFFIC SHALL USE LOCAL
DIP	DUCTILE IRON PIPE	S	SOUTH	STREETS FOR INDIRECT ACCESS. 19. TO CONTROL DUST, REMOVE SOIL FROM STREETS USED BY CONSTRUCTION TRAFFIC DAILY, VACUUM AND
DIPS	DUCTILE IRON PIPE SIZE	SR	STATE ROUTE	WATER AS NECESSARY AND/OR AS DIRECTED BY THE OWNER. 20. PLACE NEW ASPHALT PAVEMENT FLUSH WITH ADA RAMPS.
DR	DRIVE	SST	STAINLESS STEEL	20. PLACE NEW ASPIALT PAVEMENT FLOSH WITH ADA KAMPS. 21. NORTHING AND EASTING INFORMATION IS GIVEN AT CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
Е	EASTING, EAST	SVA	SERVICE VALVE ASSEMBLY	22. PLACE NO. 8 CRUSHED AGGREGATE BETWEEN PIPES AT ALL PIPE CROSSINGS TO PREVENT PIPE SETTLEMENT UNLESS SHOWN OTHERWISE.
EF	EACH FACE	SB	SOIL BORING	23. VERIFY EXISTING SEWER INVERTS AND LOCATIONS PRIOR TO CONSTRUCTION AND DETERMINE IF THERE ARE
EW	EACH WAY	SCHED	SCHEDULE	ANY DISCREPANCIES OR CONFLICTS. 24. RESET ALL MAILBOXES AND SIGNS DISTURBED BY CONSTRUCTION ACTIVITIES.
EA	EACH	SDR	STANDARD DIMENSION RATIO	24. RESET ALL MAILBOXES AND SIGNS DISTURBED BY CONSTRUCTION ACTIVITIES. 25. IF REQUIRED, PLACE TEMPORARY OVERNIGHT AGGREGATE WEDGES AT DRIVEWAYS TO ALLOW PROPERTY
EJ	EAST JORD IN IRON WORKS	SECT	SECTION	OWNER ACCESS.
EL	ELE ATION	SF	SQUARE FEET	
EX		SHT	SHEET	
EXP	XP NSION	SPECS	SPECIFICATION(S)	
FFE	FINISH FLOOR ELEVATION	SQ	SQUARE	
FM	FORCE MAIN	SRF	STATE REVOLVING FUND	
FND	FOUND	ST	STREET	
FT • C	FEET	STA	STATION	
FT	FOOTING	SYD	SQUARE YARD	
CAL	GALVANIZED	ТВМ	TEMPORARY BENCHMARK	
GPS	GLOBAL POSITIONING SYSTEM	TC	TOP OF CASTING	
► HMA	HOT MIX ASPHALT	TYP	TYPICAL	
HDPE	HIGH DENSITY POLYETHYLENE	USGS	US GEOLOGICAL SURVEY	
HORIZ	HORIZONTAL	VERT	VERTICAL	
ID	INSIDE DIAMETER	VLV	VALVE	
IE	INVERT ELEVATION	W	WIDTH, WEST	
INC	INCORPORATED	WSE	WATER SURFACE ELEVATION	
INDOT	INDIANA DEPARTMENT OF TRANSPORTATION	YR	YEAR	
INSTR	INSTRUMENT			
INV	INVERT			

*NOTE: THIS TABLE IS A LISTING OF TYPICAL ABBREVIATIONS AND MAY NOT INCLUDE ALL ABBREVIATIONS FOUND WITHIN THIS PLAN SET. IF A QUESTION ARISES ON THE MEANING OF AN ABBREVIATION NOT LISTED IN THIS TABLE, PLEASE CONTACT THE ENGINEER FOR CLARIFICATION.

UTILITY CONTACTS

CABLE TV

1-317-774-3395

COMCAST ATTN: TIMOTHY GIPSON TIMOTHY_GIPSON@CABLE.COMAST.COM 9750 E 150TH ST NOBLESVILLE, IN 46060

FIBER

ZAYO GROUP ATTN: RYAN BURNS RYAN.BURNS@ZAYO.COM 9209 CASTLEGATE DR INDIANAPOLIS, IN 46256 1-317-296-6048

ELECTRIC

DUKE ENERGY ATTN: CINDY GIS ROWLAND CINDY.GIS ROWLAND@DUKE-ENERGY.COM 100 S MILL CREEK RD NOBLESVILLE, IN 46062 1-317-776-5341

TIPMONT REMC ATTN: JOE KLINE JKLINE@TIPMONT.ORG 403 S MAIN ST PO BOX 20 **LINDEN, IN 47955** 1-765-426-6170

NATURAL GAS

VECTREN CORPORATION ATTN: HOLLY COLUMBIA HCOLUMBIA@VECTREN.COM 2345 E MAIN ST DANVILLE, IN 46123 1-317-718-3639

TELEPHONE

FRONTIER COMMUNICATIONS ATTN: JOE SARLL 8001 W JEFFERSON BLVD FORT WAYNE, IN 46804 1-260-461-3324

SEWER

LAFAYETTE RENEW ATTN: BRAD TALLEY BTALLEY@LAFAYETTE.IN.GOV 1700 WABASH AVENUE LAFAYETTE, IN 47901 1-765-807-1800

LAFAYETTE RENEW ATTN: PETE CORBIN PCORBIN@LAFAYETTE.IN.GOV

1700 WABASH AVENUE

LAFAYETTE, IN 47901

1-765-807-1800

WATER

LAFAYETTE WATERWORKS DEPARTMENT ATTN: KERRY SMITH KSMITH@LAFAYETTE.IN.GOV 1020 CANAL ROAD LAFAYETTE, IN 47901 1-765-807-1700 LAFAYETTE WATERWORKS DEPARTMENT ATTN: RON HURST

1. NOTIFY THE ENGINEER IF ANY CONFLICTING INFORMATION BECOMES APPARENT IN THE CONTRACT

> RHURST@LAFAYETTE.IN.GOV 1020 CANAL ROAD LAFAYETTE, IN 47901 1-765-807-1700

DATE **REVISION DESCRIPTIONS** SCALE VERIFICATION DRAWN BY CHECKED BY BAR IS ONE INCH LONG ON APPROVED BY ORIGINAL DRAWING ISSUE DATE NOVEMBER 2019 PROJECT NUMBER 201918-04-002



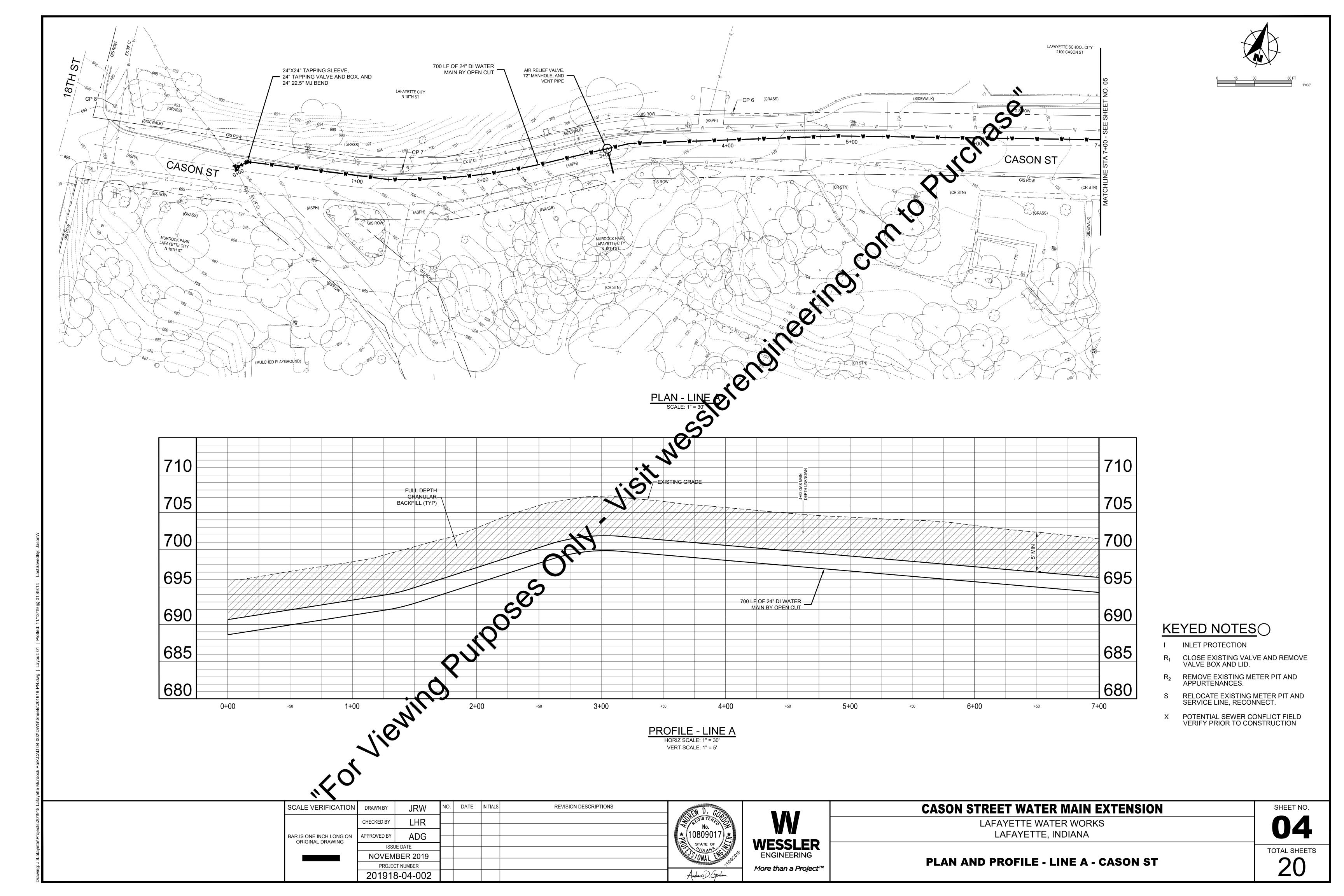
CASON STREET WATER MAIN EXTENSION

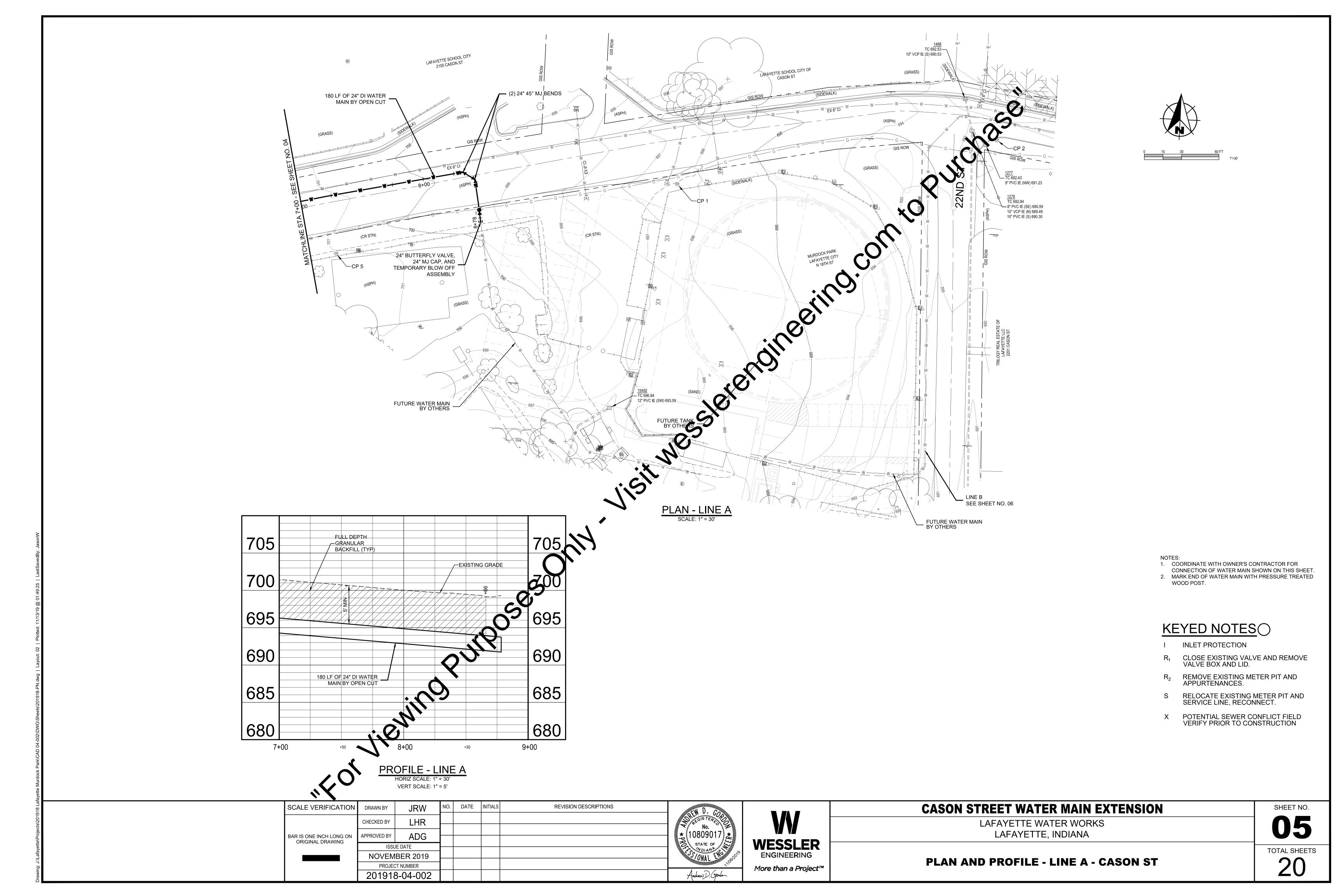
LAFAYETTE WATER WORKS

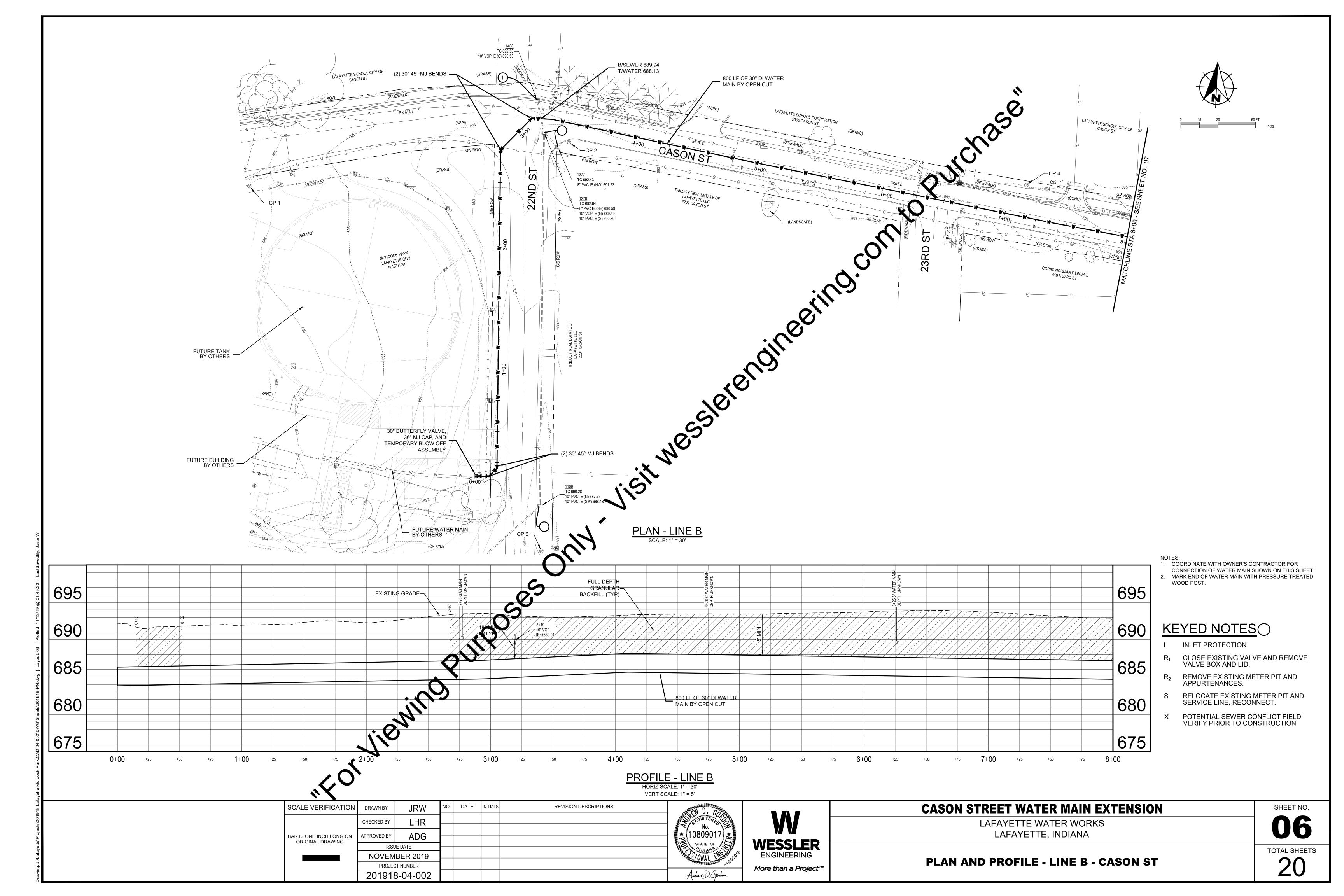
LAFAYETTE, INDIANA

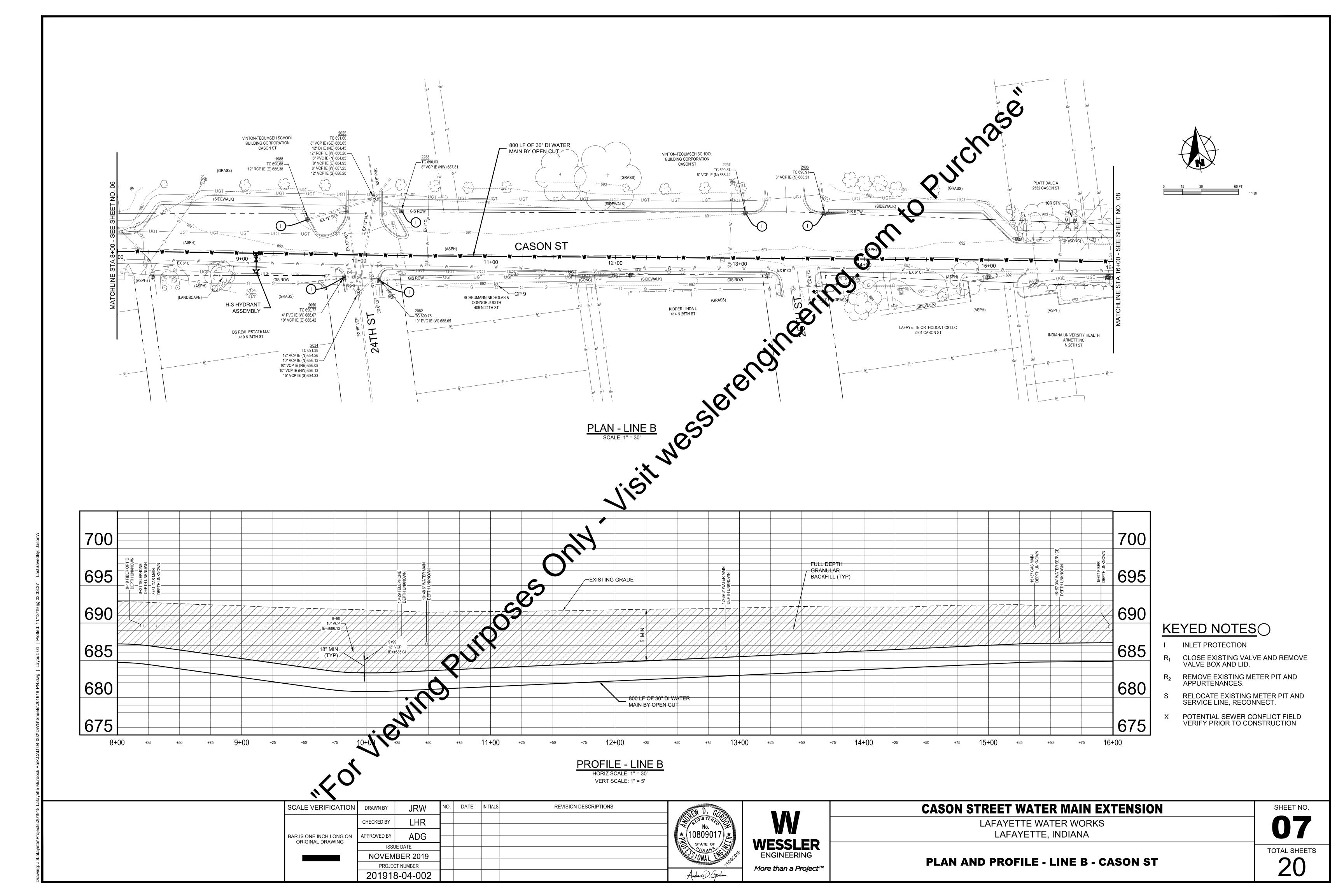
GENERAL SHEET

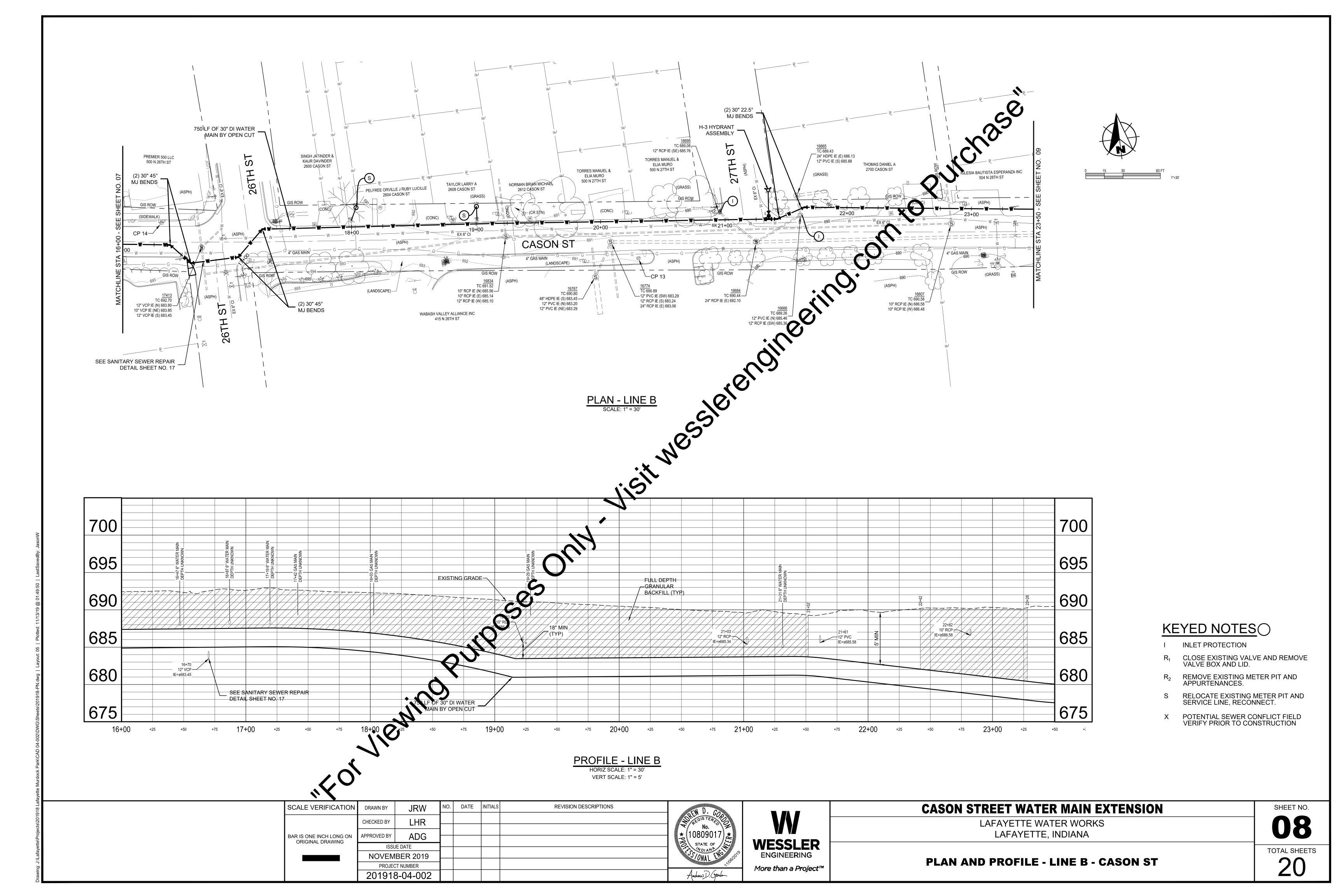
SHEET NO.

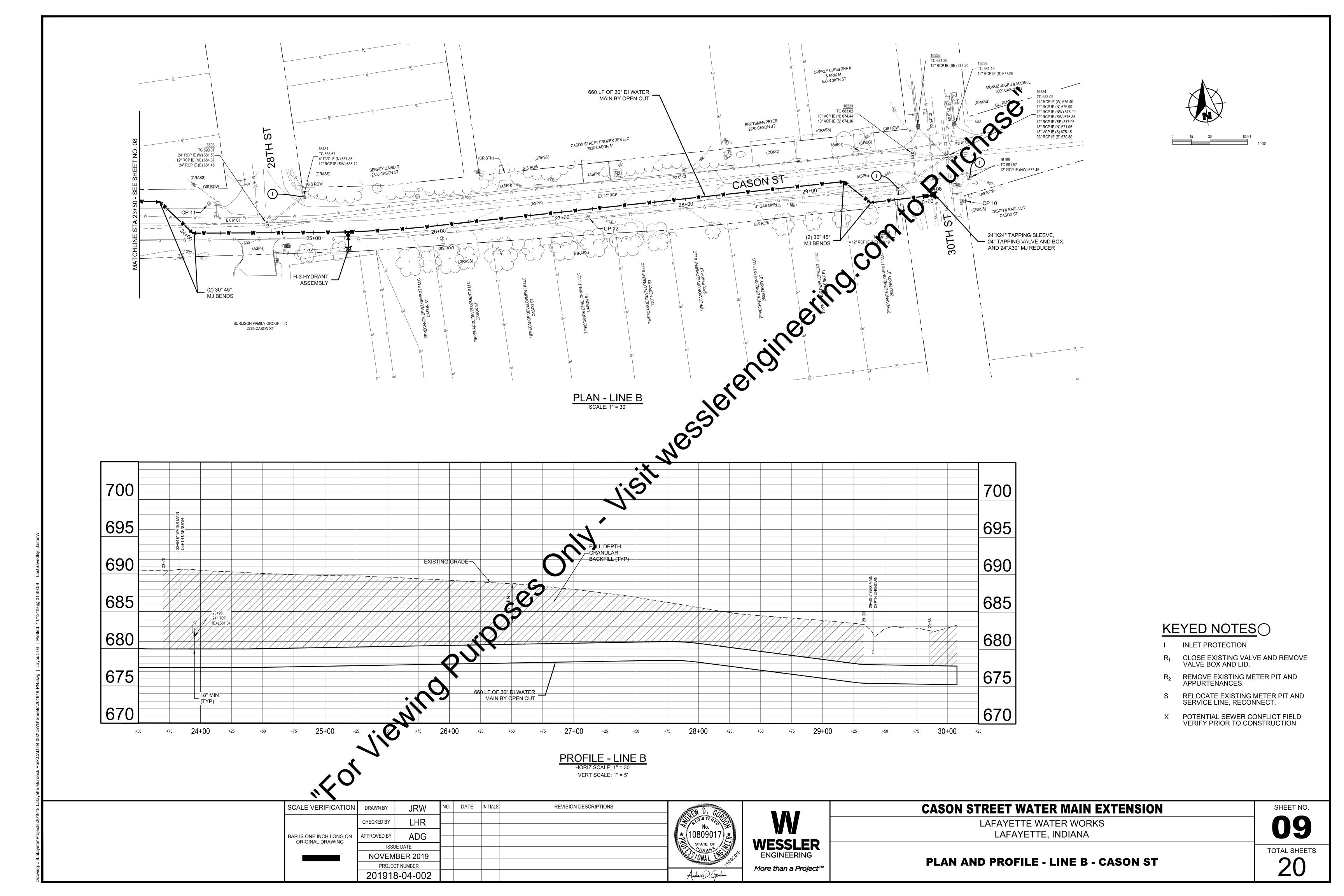


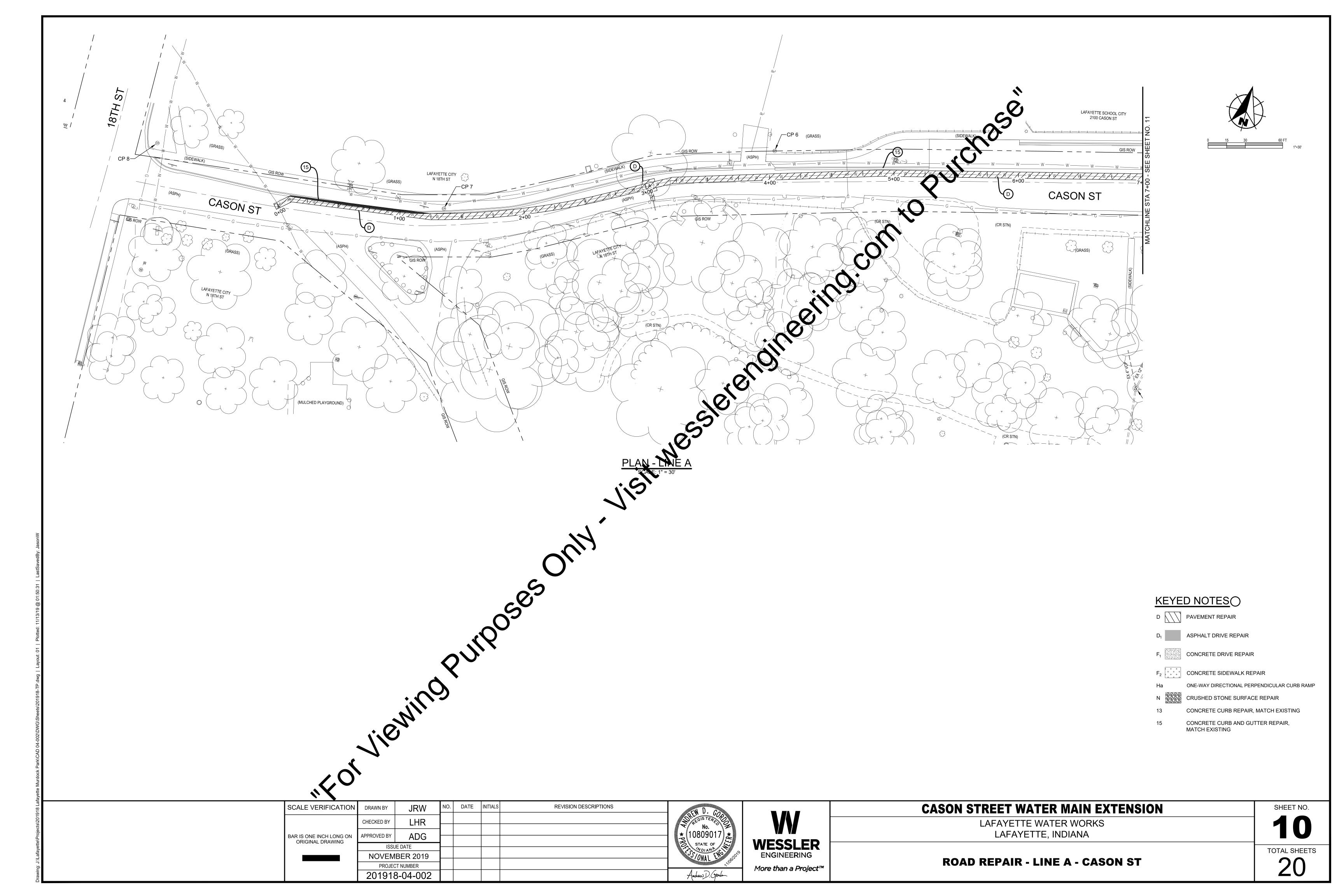


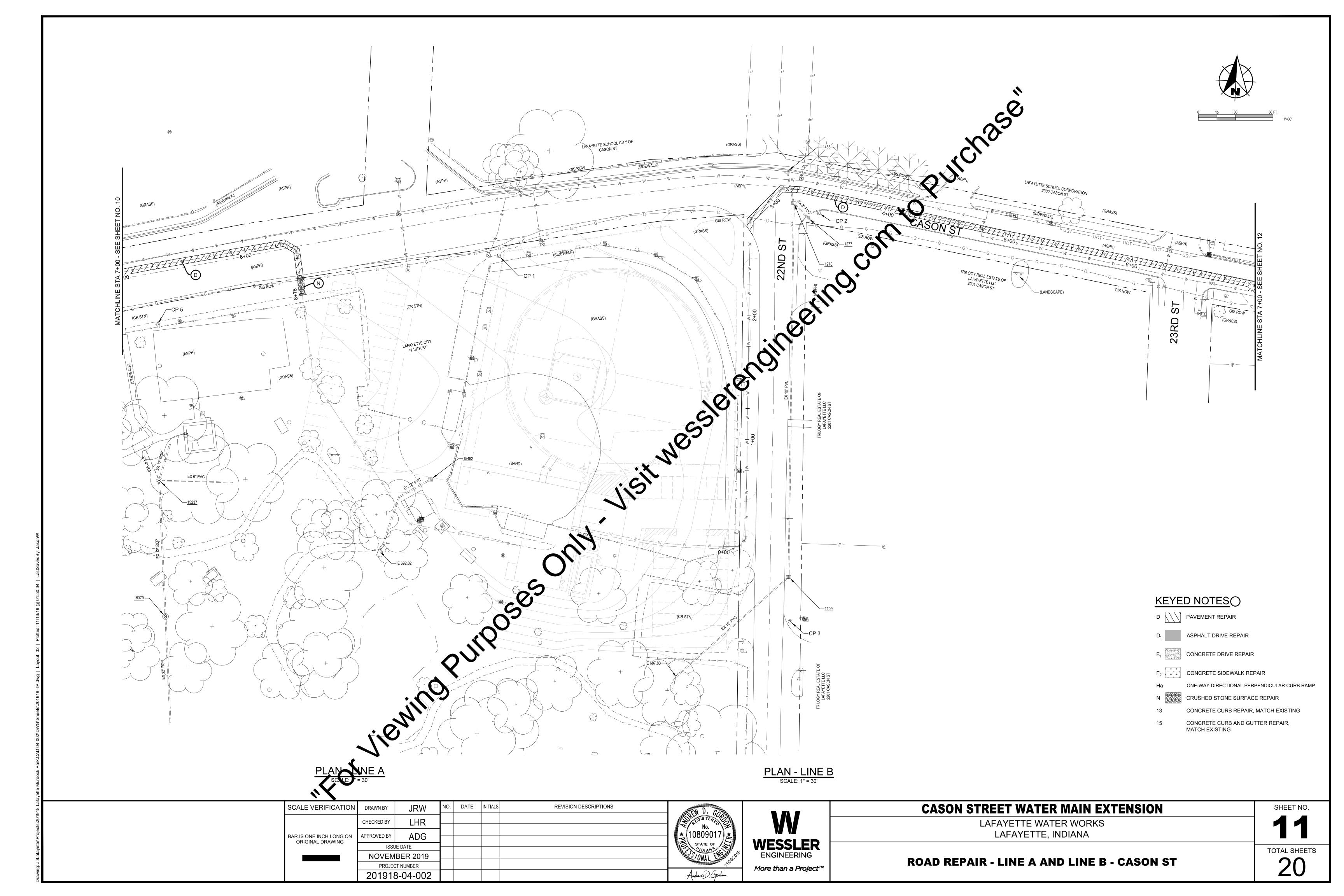


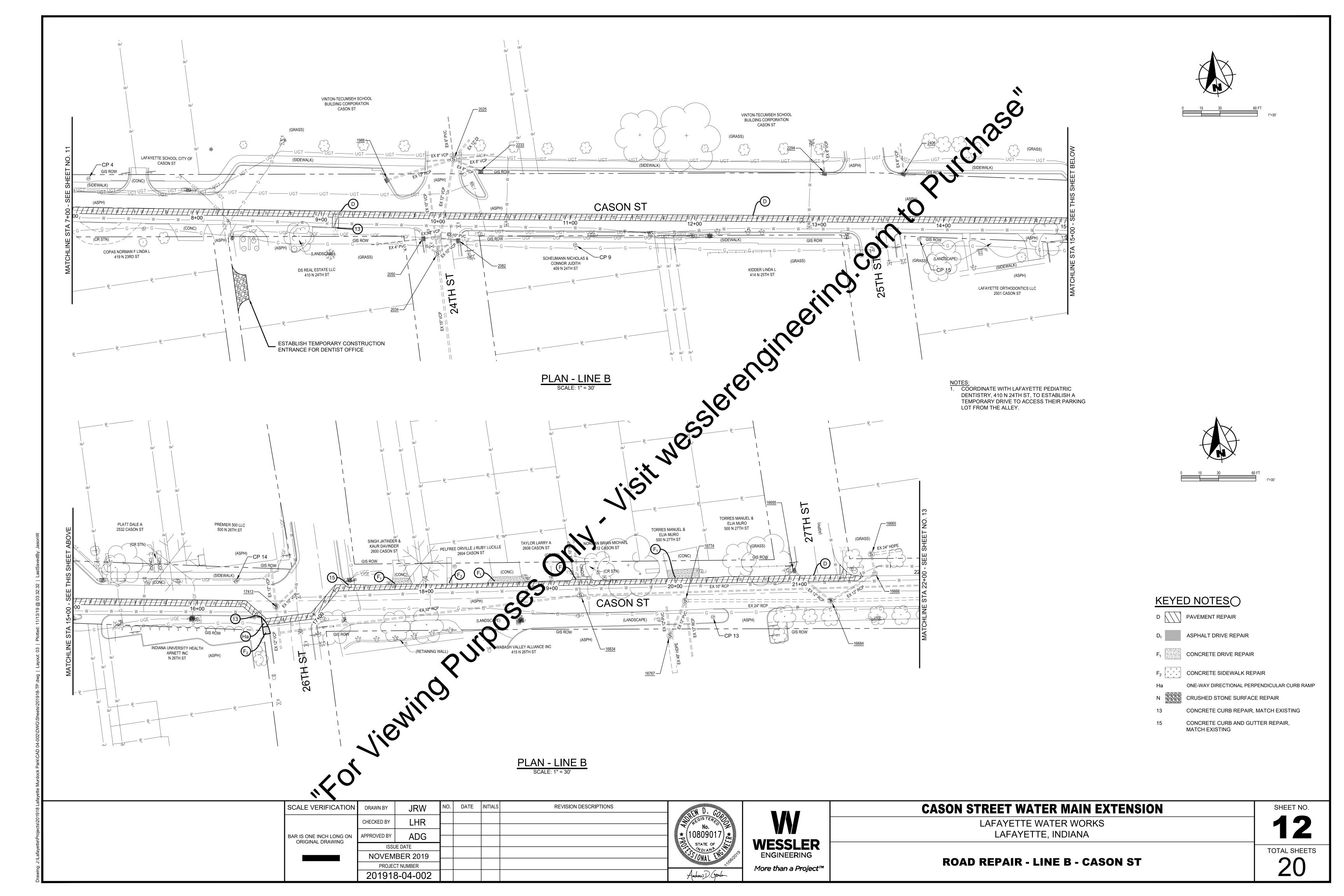


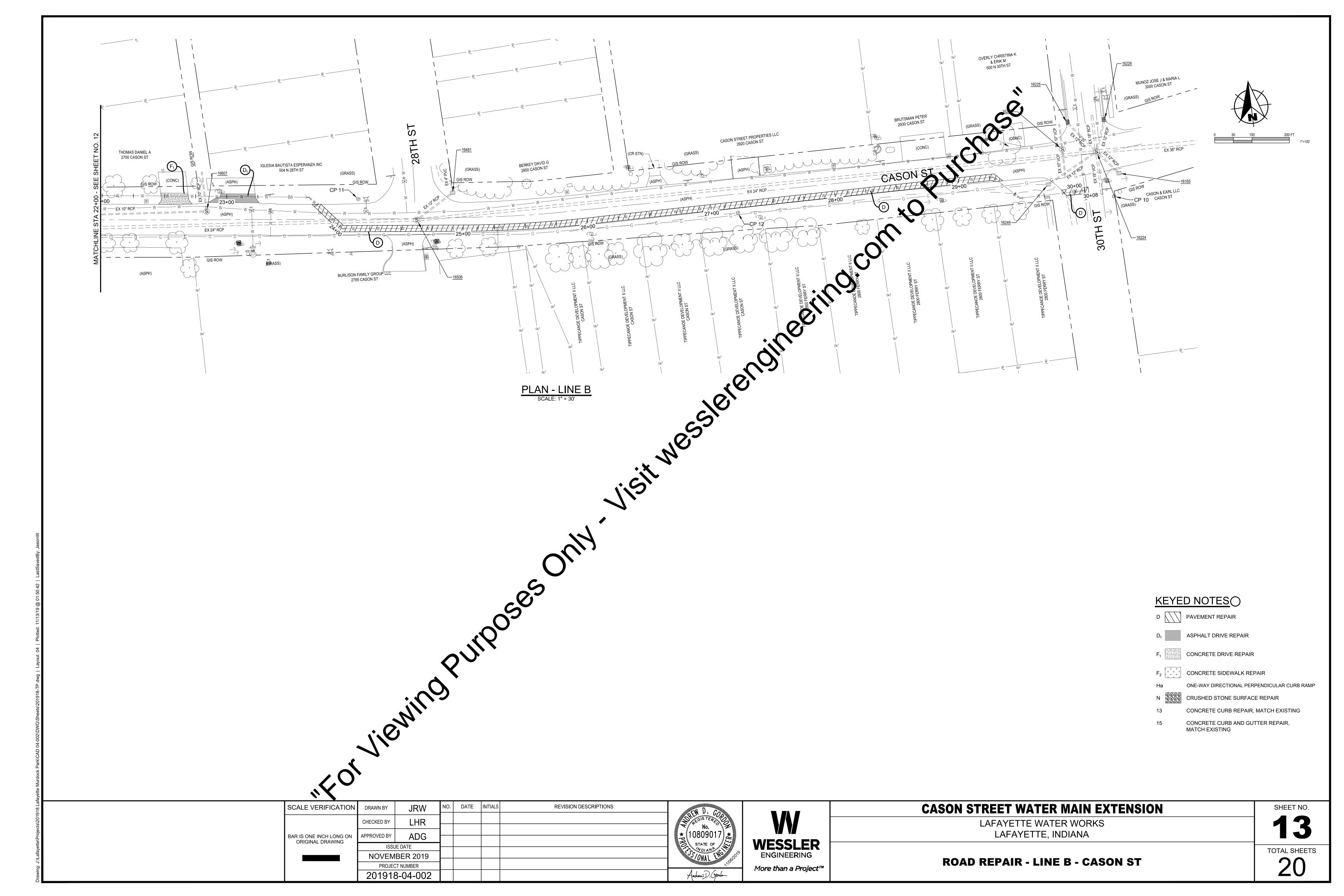








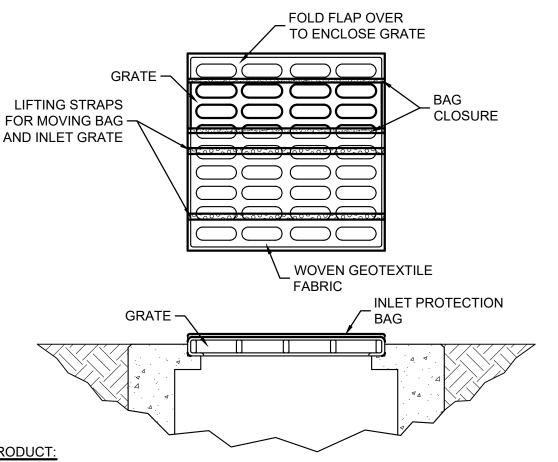




- 1. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF WOVEN OR NON-WOVEN GEOTEXTILE FABRIC AND SHALL BE CERTIFIED BY THE

- c. WOVEN STANDARD STRENGTH 30 LB/LINEAR INCH (MINIMUM), NON-WOVEN STANDARD STRENGTH 50 LB/INCH (MINIMUM).
- d. APPARENT OPENING SIZE (AOS) (U.S. SIEVE) NO. 30 PARTICLE SIZE OF 0.6 mm (MAXIMUM), ASTM D4751.
- e. PERMITTIVITY 0.05 S⁻¹ (MAXIMUM), ASTM D4491. 2. POSTS FOR SILT FENCES SHALL BE EITHER 2"X2" SQUARE WOOD OR EQUIVALENT METAL POSTS WITH A MINIMUM LENGTH OF 5'. METAL POSTS
- SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM.
- ANCHOR STAKES FOR SILT FENCES SHALL BE 1"x2" WOOD (PREFERRED) OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 18".
- 4. WIRE FENCE REINFORCEMENT FOR SILT FENCES USING STANDARD STRENGTH FILTER CLOTH SHALL BE A MINIMUM OF 42" IN HEIGHT, A MINIMUM OF 14 GAUGE, AND SHALL HAVE A MAXIMUM MESH SPACING OF 6".
- THE HEIGHT OF THE BARRIER SHALL BE A MINIMUM OF 18" AND A MAXIMUM OF 30".
- 6. THE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE
- NECESSARY, FILTER FABRIC SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6" OVERLAP, AND SECURELY SEALED. 7. POSTS SHALL BE SPACED A MAXIMUM OF 6' APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 18"). WHEN
- STANDARD STRENGTH FABRIC IS USED WITH THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 8'. 8. THE SPACING OF TIEBACKS SHALL EQUAL THE SPACING OF THE POSTS. ADDITIONAL POST DEPTH OR TIEBACKS MAY BE REQUIRED IN UNSTABLE
- 9. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4" WIDE AND A MINIMUM OF 8" DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE
- 10. WHEN STANDARD STRENGTH FILTER FABRIC IS USED WITH A WIRE MESH SUPPORT FENCE IT SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY 1" WIRE STAPLES, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2" AND
- SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE. 11. THE STANDARD STRENGTH FILTER FABRIC, WITHOUT A WIRE MESH SUPPORT FENCE, SHALL BE STAPLED OR WIRED TO THE FENCE, AND A MINIMUM 8" OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND
- SURFACE. DO NOT STAPLE FILTER FABRIC TO EXISTING TREES.
- 12. WHEN EXTRA STRENGTH FILTER FABRIC OR BURLAP AND POST SPACING IS LESS THAN THE MAXIMUM SPECIFIED SPACING OF 6', THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED.
- 13. BACKFILL THE TRENCH AND COMPACT THE SOIL OVER THE FILTER FABRIC.
- 14. REMOVE SILT FENCES WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- 15. SILT FENCE SHALL NOT BE USED AS A DIVERSION AND SHALL NOT BE INSTALLED ACROSS A STREAM, CHANNEL, DITCH, SWALE, ETC. MAINTENANCE:
- INSPECT AFTER EACH RAINFALL AND DAILY DURING PROLONGED RAINFALL. INSPECT AT LEAST ONCE EVERY 7 CALENDAR DAYS.
- REPLACE OR REPAIR FABRIC IMMEDIATELY IF IT DECOMPOSES OR IS INEFFECTIVE.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE BARRIER.
- 4. SPREAD ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED AND DRESS TO CONFORM WITH THE FINISHED GRADING

SILT FENCE



DANDY BAG, OR APPROVED EQUAL.

- INSTALLATION: 1. THE EMPTY INLET PROTECTION BAG SHOULD BE PLACED OVER THE GRATE AS THE
- GRATE STANDS ON END. 2. TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE.
- 3. HOLDING THE LIFTING DEVICES (DO NOT RELY ON LIFTING DEVICES TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE), PLACE THE GRATE INTO ITS FRAME.

REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY

- OF UNIT AFTER EACH STORM EVENT.
- 2. REMOVE SEDIMENT THAT HAS ACCUMULATED WITHIN THE CONTAINMENT AREA THE INLET PROTECTION BAG AS NEEDED.

3. INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND ONCE EVERY 7 CALENDAR DAYS.

INLET PROTECTION BAG

SCALE VERIFICATION

BAR IS ONE INCH LONG ON

ORIGINAL DRAWING

DRAWN BY

CHECKED BY

APPROVED BY

LHR

ADG

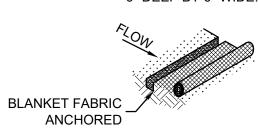
ISSUE DATE

NOVEMBER 2019

PROJECT NUMBER

201918-04-002

(1) BURY UPSLOPE END OF BLANKET IN A TRENCH 6" DEEP BY 6" WIDE.

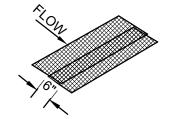


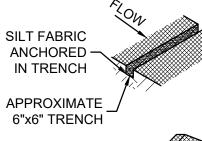
③ USE A 6" OVERLAP WHEREVER ONE ROLL OF BLANKET ENDS AND ANOTHER BEGINS.

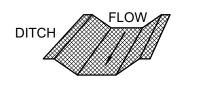
TWO WIDTHS OF BLANKET ARE APPLIED SIDE BY SIDE. STAPLE PATTERN: MINIMUM 3 PER SQUARE YARD.

(2) USE A 4" OVERLAP WHEREVER

(4) CHECK SLOTS SHOULD BE MADE EVERY 18'. INSERT A FOLD OF THE BLANKET INTO A TRENCH 6" WIDE BY 6" DEEP AND TAMP FIRMLY. LAY THE BLANKET SMOOTHLY ON THE SURFACE OF THE SOIL: DO NOT STRETCH THE BLANKET, AND DO NOT ALLOW WRINKLES. INSTALL STAPLE 20" ON CENTER IN TRENCH.







PLACE BLANKET PARALLEL TO THE DIRECTION OF FLOW DO NOT JOIN STRIPS IN THE CENTER OF THE DITCH. USE CHECK SLOTS AS REQUIRED.

PLACE BLANKET PARALLEL TO THE DIRECTION OF FLOW AND ANCHOR SECURELY. BRING BLANKET TO A LEVEL AREA BEFORE TERMINATING

THE INSTALLATION.

NORTH AMERICAN GREEN SC150, OR EQUAL.

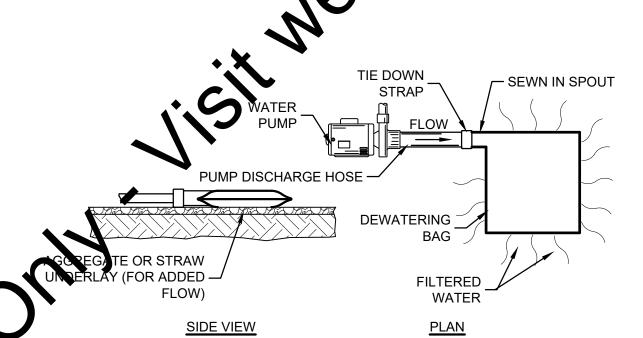
PROTECT THE SLOPES WITH AN EROSION CONTROL BLANKET WHERE DISTURBS SLOPES EQUAL OR STEEPER THAN 3:1.

INSPECT FOR EROSION AFTER EACH STORM EVENT DURING VEGE ESTABLISHMENT, AND AT LEAST ONCE EVERY 7 CALENDAR DAY BLANKET, ADD

2. IF ANY AREAS SHOW EROSION, PULL BACK THAT PORTION SOIL, RESEED, RELAY AND STAPLE THE BLANKET.

3. CHECK AREAS PERIODICALLY AFTER VEGETATION ES





<u></u>			
MECHANICAL PROPERTIES	TEST METHOD	UNITS	INDUSTRY STANDARD
GRAB TENSILE STRENGTH	ASTM D4632	kN (LB)	0.9 (205) X 0.9 (205)
GRAB TENSILE ELONGATION	ASTM D4632	%	50 X 50
PUNCTURE STRENGTH	ASTM D4833	kN (LB)	0.58 (130)
MULLEN BURST STRENGTH	ASTM D3786	kPa (PSI)	2618 (380)
TRAPEZOID TEAR STRENGTH	ASTM D4533	kN (LB)	0.36 (80) X 0.36 (80)
UV RESISTANCE	ASTM D4355	%	70
APPARENT OPENING SIZE	ASTM D4751	Mm (US STD SIEVE)	0.180 (80)
FLOW RATE	ASTM D4491	1/MIN/M² (GAL/MIN/FT²)	3866 (95)
PERMITTIVITY	ASTM D4491	S ⁻¹	1.2

MAINTENANCE:

- . DURING THE ACTIVE DEWATERING PROCESS, INSPECTION OF THE PUMPING BAG SHOULD BE REVIEWED FREQUENTLY. SPECIAL ATTENTION SHOULD BE PAID TO THE BUFFER AREA FOR ANY SIGN OF EROSION AND CONCENTRATION OF FLOW. OBSERVE WHERE POSSIBLE THE VISUAL QUALITY OF THE EFFLUENT AND DETERMINE IF ADDITIONAL TREATMENT CAN BE PROVIDED.
- 2. DISPOSE OF ACCUMULATED SEDIMENT REMOVED DURING PUMPING OPERATIONS IN CONFORMANCE WITH THE SPECIFICATIONS.
- 3. REPLACE THE BAG OR DISPOSE OF SILT WHEN HALF FULL OF SEDIMENT OR WHEN SEDIMENT HAS REDUCED THE FLOW RATE TO AN IMPRACTICAL RATE.

SOURCE: KRISTAR DANDY DEWATERING BAG SEDCATCH

DATE

INITIALS

REVISION DESCRIPTIONS

PUMPING BAG

No. 10809017 ★ | |



CASON STREET WATER MAIN EXTENSION

LAFAYETTE WATER WORKS

TOPSOILING, TREES AND SHRUBS, PERMANENT

SEEDING, MULCHING, SODDING, RIPRAP

LAFAYETTE. INDIANA

EROSION CONTROL DETAILS

SEASONAL SOIL PROTECTION CHAR

	STABILIZATION PRACTICE	JAN FEB MAR APR	MAY JUN JUL	AUG SEP OCT	NOV DEC
	PERMANENT SEEDING	ĸ	-A-	————>	
	DORMANT & K-	B⊅			N B →
	TEMPOR RY SEEDING	И С В В	K-	—Е—Ы И——D—	-DI
Š	PODING	И	-F-	₩	
	MULHING K		G		D

- = KENTUCKY BLUEGRASS 40 LB/ACRE
- . = KENTUCKY BLUEGRASS 210 LB/ACRE
- C. = SPRING OATS 100 LB/ACRE (1" PLANTING DEPTH) D. = WHEAT OR RYE 150 LB/ACRE (1" - 1.5" PLANTING DEPTH)
- E. = ANNUAL RYEGRASS 40 LB/ACRE (1/4" PLANTING DEPTH)
- G. = ANCHORED STRAW/HAY (2 TONS/ACRE) OR WOOD FIBER/CELLULOSE (1 TON/ACRE)

1. IRRIGATION NEEDED DURING MAY THROUGH SEPTEMBER

- IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD
- ANCHORED MULCH IS REQUIRED FOR PERMANENT, DORMANT AND TEMPORARY SEEDING. OPTIMUM SEEDING DATES PROVIDED. DATES MAY BE EXTENDED OR SHORTENED BASED ON PROJECT
- SEED MIXTURES PROVIDED FOR LAWNS AND HIGH MAINTENANCE AREAS

- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY 7 CALENDAR DAYS. CHECK FOR EROSION AND MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
- MONITOR FOR EROSION DAMAGE AND ADEQUATE COVER (70% DENSITY).
- 4. RESEED, FERTILIZE OR APPLY MULCH WHERE NECESSARY

EROSION CONTROL SCHEDULE

CONSTRUCTION ACTIVITY SCHEDULE CONSIDERATION NOTIFY IDEM RULE 5 COORDINATOR (317-233-1864) AND THE WITHIN 48 HOURS PRIOR TO STARTING CONSTRUCTION. STORMWATER AUTHORITY WITHIN 48 HOURS PRIOR TO

STARTING CONSTRUCTION. POST THE CONTACT INFORMATION AT THE CONSTRUCTION ENTRANCE. INCLUDE A COPY OF THE NOTICE OF INTENT (NOI) AND THE ONSITE PERSON WHO IS RESPONSIBLE FOR IMPLEMENTING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHOULD BE ONSITE AND WEEKLY SITE INSPECTION REPORTS MUST BE AVAILABLE WITHIN 48 HOURS OF

REQUEST.

CONSTRUCTION ACCESS - ENTRANCE TO SITE, THIS IS THE FIRST LAND-DISTURBING ACTIVITY. AS CONSTRUCTION ROUTES, AREAS DESIGNATED FOR SOON AS CONSTRUCTION BEGINS, STABILIZE ANY EQUIPMENT PARKING OR MATERIAL STAGING. BARE AREAS WITH AGGREGATE AND TEMPORARY

VEGETATION. AFTER CONSTRUCTION IS ACCESSED, BASINS SHALL SEDIMENT TRAPS AND BARRIERS - BASIN TRAPS, SILT FENCE. BE INSTALLED, WITH THE ADDITION OF MORE TRAPS AND BARRIERS AS NEEDED DURING GRADING.

RUNOFF CONTROL - DIVERSIONS, PERIMETER RUNOFF CONTROL PRACTICES SHALL BE INSTALLED PROTECTION, CHECK DAMS, OUTLET PROTECTION. AFTER THE INSTALLATION OF SEDIMENT TRAPS AND BEFORE LAND GRADING. ADDITIONAL RUNOFF CONTROL MEASURES MAY BE INSTALLED DURING

RUNOFF CONVEYANCE SYSTEM - STABILIZE STREAM AS NECESSARY, STABILIZE STREAM BANKS AND SIDE BANKS, STORM DRAINS, CHANNELS, INLET AND SLOPES OF RUNOFF SYSTEMS AS SOON AS POSSIBLE OUTLET PROTECTION, SLOPE DRAINS. USE EROSION CONTROL BLANKETS OR SLOPE DRAINS TO PREVENT EROSION. INSTALL INLET PROTECTION TO PREVENT SEDIMENTS FROM ENTERING STORM

GRADING.

PREVENT EROSION. LAND CLEARING AND GRADING - SITE PREPARATION IMPLEMENT CLEARING AND GRADING AFTER (CUTTING, FILLING, AND GRADING, SEDIMENT TRAPS, INSTALLATION OF SEDIMENT TRAPS AND RUNOFF BARRIERS, DIVERSIONS, DRAINS, SURFACE CONTROL MEASURES, AND INSTALL ADDITIONAL ROUGHENING). CONTROL MEASURES AS GRADING CONTINUES. CLEAR BORROW AND DISPOSAL AREAS AS NEEDED, AND

MARK TREES AND BUFFER AREAS FOR PRESERVATION. SURFACE STABILIZATION - TEMPORARY AND APPLY TEMPORARY OR PERMANENT STABILIZING PERMANENT SEEDING, MULCHING, SODDING, RIPRAP MEASURES IMMEDIATELY TO ANY DISTURBED AREAS EROSION CONTROL BLANKET. WHERE WORK HAS BEEN EITHER COMPLETED OR DELAYED.

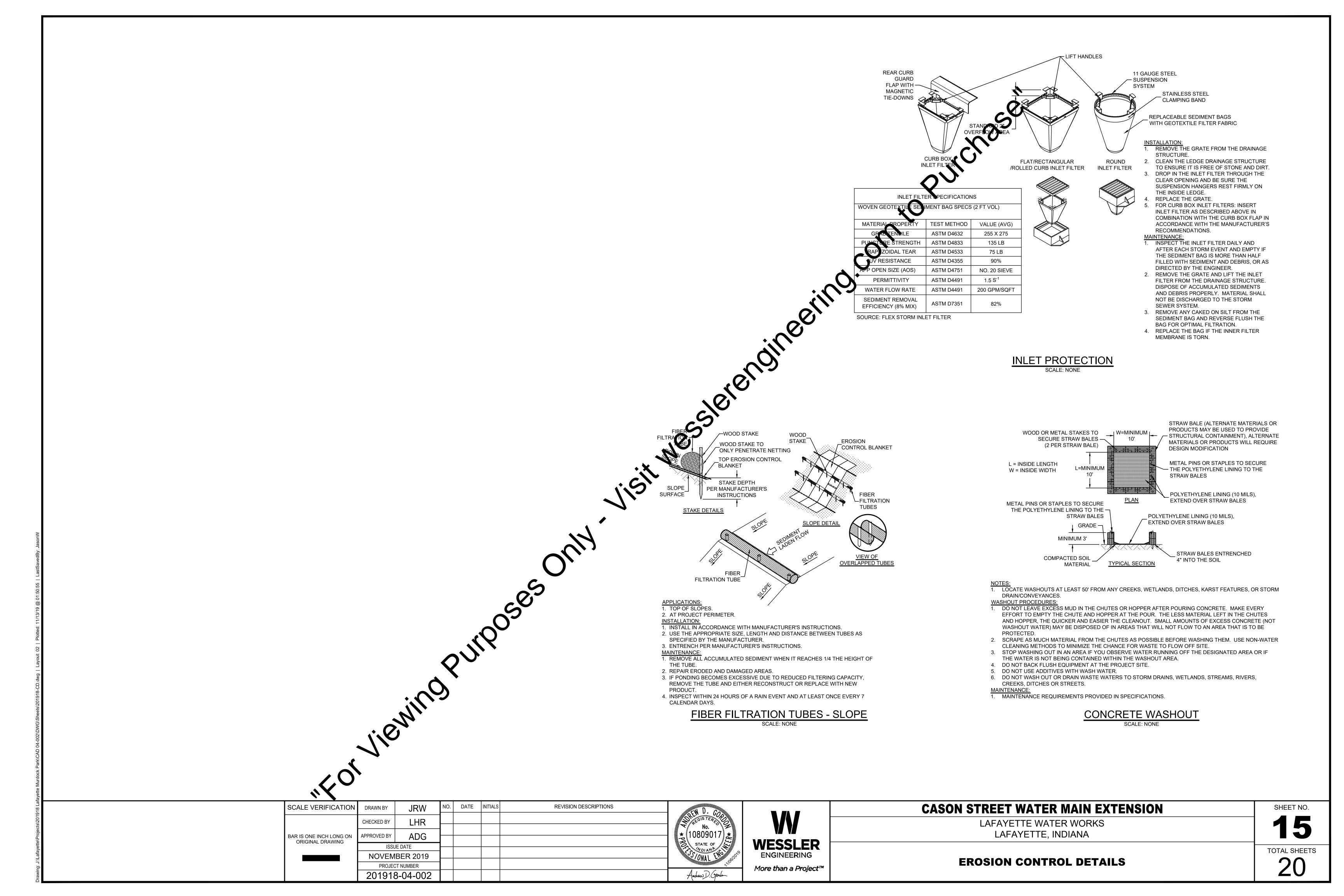
CONSTRUCTION - STRUCTURES, UTILITIES, PAVING. DURING CONSTRUCTION, INSTALL ANY EROSION AND SEDIMENTATION CONTROL MEASURES THAT ARE LANDSCAPING AND FINAL STABILIZATION -

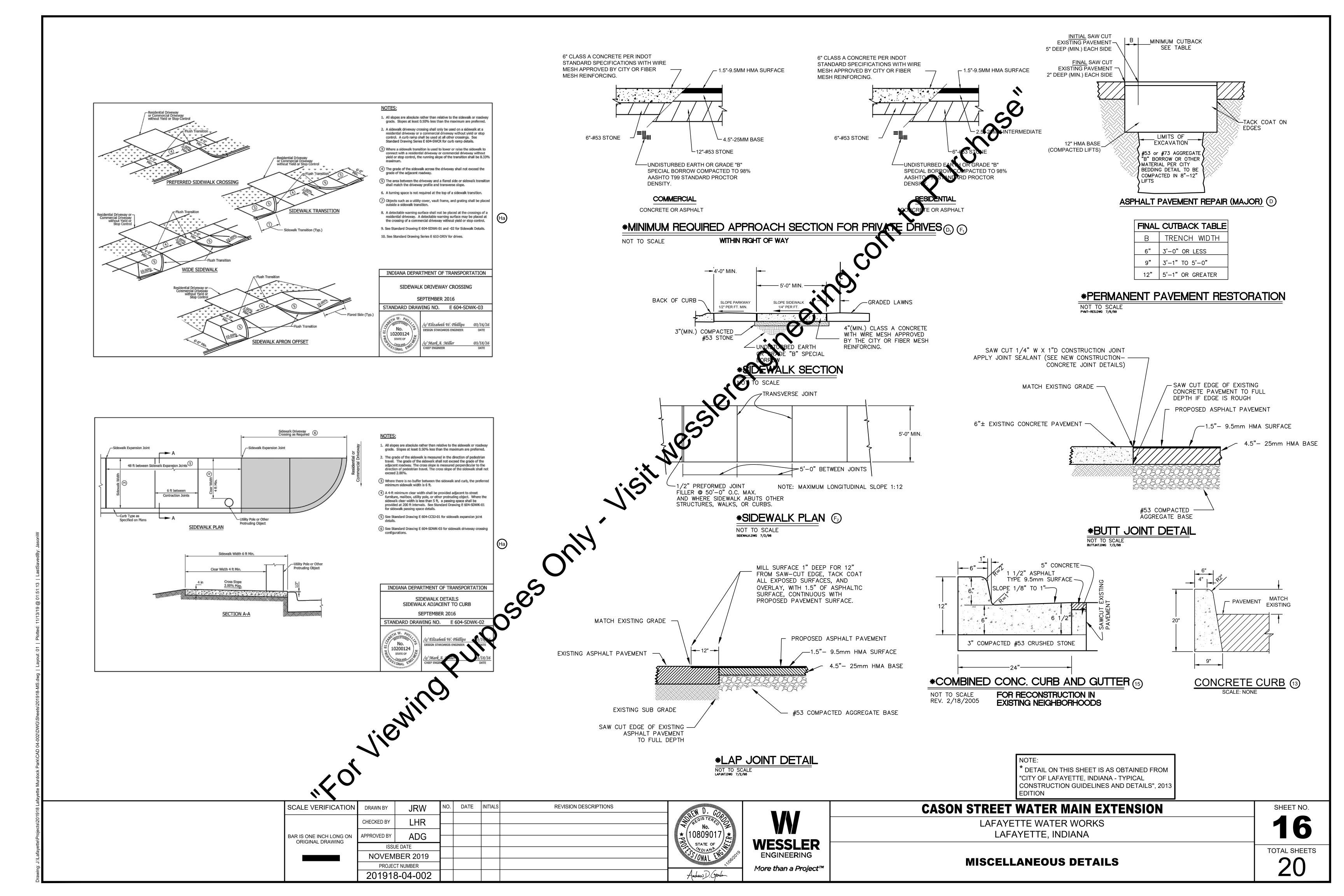
THIS IS THE LAST CONSTRUCTION PHASE. STABILIZE ALL DISTURBED AREAS, INCLUDING BORROW AND SPOIL AREAS, AND REMOVE ALL TEMPORARY CONTROL MEASURES. A UNIFORM DENSITY OF 70% VEGETATED COVER IS REQUIRED.

DRAINAGE SYSTEMS. PROTECT STORM OUTLETS TO

EROSION CONTROL SCHEDULE

SHEET NO.





***WATER MAIN NOTES**

FIRE / DOMESTIC SERVICE.

- 1. ALL WATER MAINS SHALL BE CEMENT LINED DUCTILE IRON (D.I.) (PRESSURE CLASS 250 MIN., SLIP JOINT PIPE CONFORMING TO AWWA C-110, C-111, C-150 AND C-151 AS APPLICABLE AND NSF-61.
- 2. ALL WATER MAINS TO HAVE POLY-WRAP.
- 3. ALL FITTINGS TO BE DUCTILE IRON (D.I.) WITH MECHANICAL JOINTS (M.J.) CONFORMING TO AWWA C-110, C-111, C-153 AND NSF-61.
- 4. ALL WATER SERVICE LINES SHALL BE 1" DIAMETER (MINIMUM) TYPE K COPPER TUBING TERMINATING WITH A CURB STOP. SERVICE LINE LOCATIONS SHALL BE MARKED BY STAMPING OR SAW CUTTING A "W" IN THE CURB. THE CURB STOP/WATER SERVICE SHOULD BE LOCATED ON
- 5. THE MANUFACTURER'S ALLOWABLE PIPE DEFLECTION SHALL BE USED TO MAINTAIN THE VERTICAL AND HORIZONTAL ROUTE UNLESS OTHER FITTINGS (i.e. TEES AND ELBOWS) OR METHODS ARE SPECIFICALLY CALLED OUT, OR ARE DIRECTED BY THE CITY.
- MEG-A-LUG RETAINER GLANDS BY EBBA IRON, INC., EASTLAND, TEXAS SHALL BE USED ON EACH SIDE OF FITTINGS WHERE THE WATER MAIN CHANGES DIRECTION. ADDITIONAL SETS OF RETAINER GLANDS ARE TO BE PLACED AT PIPE LENGTHS ABOVE AND BELOW THE FITTINGS AS REQUIRED (SEE DETAIL O8 ON THIS SHEET). FIELD-LOK GASKETS OR ONE BOLT RESTRAINED FITTINGS CAN BE USED IN LIEU OF RETAINER GLANDS.
- THE MINIMUM SIZE REQUIREMENT FOR ALL COMMERCIAL WATER SERVICE LATERALS IS ONE (1) INCH (1" SERVICE LINE AND 1" METER). 8. ALL INDUSTRIAL/COMMERCIAL DEVELOPMENTS SHALL HAVE A MINIMUM 6" X "MAIN SIZE" TEE INSTALLED TO EACH PROPOSED LOT FOR FUTURE
- WATER MAINS SHALL HAVE A MINIMUM OF 5'-0" COVER. WATER MAIN COVER SHALL NOT EXCEED 11' WITHOUT CITY APPROVAL. ANY DEVIATIONS FROM PLAN GRADE MUST BE SHOWN ON THE "AS-BUILT" DRAWINGS.
- 10. DEVELOPMENT OF PROPERTY MAY REQUIRE CONSTRUCTION OF ADDITIONAL FIRE HYDRANTS, GENERALLY AT 500' MINIMUM INTERVAL, AND AS REQUIRED BY THE LAFAYETTE FIRE DEPARTMENT.
- 11. THE COMPLETED WATER MAIN SHALL BE SUBJECTED TO A 150 PSI HYDROSTATIC TEST AND SHALL BE DISINFECTED. ALL VALVES AND HYDRANTS MUST BE COMPLETELY OPENED AND CLOSED AND ALL CORPORATION STOPS AND SERVICE LINES IN PLACE PRIOR TO PERFORMING THE HYDROSTATIC TEST. THE HYDROSTATIC TEST SHALL BE OF AT LEAST 2-HR DURATION. TEST PRESSURE SHALL NOT VARY MORE THAN +/- 5 PSI FOR THE DURATION OF THE TEST. GAUGES FOR TESTING SHALL BE RATED FOR 200 PSI OR GREATER AND SHALL INDICATE PRESSURE IN 5 PSI (MAX) INCREMENTS. THE TEST WILL BE PERFORMED IN ACCORDANCE WITH CITY TESTING PROCEDURES, AND IN CONFORMANCE WITH AWWA C-600. ALL VALVES INCLUDING THE WATCH VALVES AT THE HYDRANTS SHALL BE OPEN DURING THE PRESSURE AND BACTERIA TESTS. HYDROSTATIC AND BACTERIAL TESTING SHALL BE COMPLETED WITHIN 30 DAYS AFTER THE COMPLETED WATER MAIN HAS BEEN CHARGED (FILLED). AFTER FINAL FLUSHING AND AGAIN AFTER 24 HOURS, SAMPLES SHALL BE COLLECTED FROM THE WATER MAIN, AND SHALL BE TESTED FOR BACTERIOLOGICAL QUALITY IN ACCORDANCE WITH THE STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER (AT AN APPROVED

- LABORATORY), AND SHALL SHOW THE ABSENCE OF COLIFORM ORGANISMS. THE CONTRACTOR MUST CONTACT THE WATER WORKS PUBLIC WORKS INSPECTOR TO DETERMINE THE LOCATION AND NUMBER OF BACTERIA SAMPLES TO BE TAKEN, AND TO SET A SAMPLING DATE AND TIME. THE ORIGINALS OF ALL TEST RESULTS AND CHAIN OF CUSTODY FORMS ARE TO BE SENT TO THE WATER WORKS WITHIN 5 DAYS OF TESTING WITH A COPY TO THE CITY ENGINEER'S OFFICE.
- 12. VALVE OPENING DIRECTION SHALL BE CONSISTENT WITH THE EXISTING UTILITY SYSTEM. (LEFT HAND OPEN/COUNTER CLOCKWISE) VALVE LOCATIONS SHALL BE MARKED BY STAMPING OR CUTTING A "V" IN THE CURB, AND PLACING A PARTIALLY BURIED 2x4 AT THE LOCATION.
- 13. TRENCHES UNDER PAVED AREAS (EXCLUDING SIDEWALKS) SHALL BE BACKFILLED WITH GRANULAR MATERIAL PER INDIANA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", LATEST EDITION, SECTION 211, AND COMPACTED IN LIFTS. GRANULAR MATERIAL TO EXTEND FIVE FEET BEYOND THE LIMITS OF THE PAVED AREA WITH A 1:1 SLOPE TO THE BOTTOM OF THE TRENCH. GRANULAR BEDDING IS REQUIRED UNDER ALL PAVED AREAS (EXCLUDING SIDEWALKS).
- 14. 18" VERTICAL SEPARATION AND 10'-0" HORIZONTAL SEPARATION TO BE MAINTAINED BETWEEN WATER MAINS, HYDRANTS AND SEWERS (SANITARY AND STORM).
- 15. TAPS AND FITTINGS ARE NOT TO BE INSTALLED UNDER PAVEMENTS OR IN EASEMENTS WITHOUT PRIOR APPROVAL OF THE CITY.
- 16. WATER WORKS ONLY SHALL OPEN VALVES TO CHARGE NEW LINES. 17. TAPPING OF A CITY MAIN CAN ONLY BE DONE UNDER SUPERVISION OF THE CITY. TAPPING SLEEVES AND VALVES FOR PRESSURE TAPS ON MAINS UP TO 24" SHALL BE MUELLER 304 SS. TAPPING VALVES SHALL BE 2360 SERIES BY MUELLER OR THE AFC 2500. TEES FOR MAINS WILL BE CUT-IN ONLY WHEN THE NEW MAIN IS TO BE LARGER THAN OR OF EQUAL SIZE TO THE EXISTING MAIN OR WHEN A NEW_ VALVE IS TO BE INSTALLED ON THE EXISTING MAIN NEAR THE LOCAL OF THE NEW TEE. SIZE-ON-SIZE IS PERMISSIBLE FOR MAINS 12 UNDER. STAINLESS STEEL SLEEVES SHALL MEET THE FOLLOWING
- A. DUCTILE IRON OR STAINLESS STEEL FLANGE. B. 304 STAINLESS STEEL FULL BODY WITH STAINLESS AND NUTS.
- 18. WATER TAP SERVICE TO BE PROVIDED FOR BOTH AND LONG SIDES.
- 19. ALL FIRE PLANS, SPRINKLER PLANS SHALL BE SUBMITTED TO THE LAFAYETTE FIRE DEPARTMENT (LFD) FOR REVIEW AND APPROVAL.
- 20. FLOW TEST DATA SHALL BE OBTAINED BY THE DEVELOPER/OWNER AT NO COST TO THE CITY AND UNDER THE SUPERVISION OF THE LFD AND WATER WORKS DEPT. TEST RESULTS AND LFD CERTIFICATION TO BE SUBMITTED TO THE CITY ENGINEER'S OFFICE.
- 21. ALL DOMESTIC (LAWN) SPRINKLER SYSTEMS SHALL BE 1-INCH SERVICE.
- 22. WHENEVER PROPRIETARY EQUIPMENT IS SPECIFIED, OR APPROVED EQUAL IMPLIED, ALL PROPOSALS FOR SUBSTITUTION SHALL BE SUBMITTED TO THE CITY IN WRITING FOR THEIR APPROVAL.
- 23. CITY APPRO BACKFLOW PREVENTER REQUIRED ON ALL IRRIGATION

NOTE: FIRE HYDRANTS USED AS AIR RELEASE 1) PROVIDE POSITIVE SLOPE UPWARD FROM HYDRANT TEE TO FIRE HYDRANT BASE. 2) M.J. DUCTILE IRON PIPE AND FITTINGS WITH RETAINER GLANDS AT EACH FITTING REQUIRED. 3) TEE INTO MAIN AT TOP OF PIPE.

BY TYLER PIPE.

24. TRACER WIRE: REQUIRED FOR 12" OR GREATER TRANSMIS (NOT REQUIRED FOR SUBDIVISIONS): A. TRACER WIRE SHALL BE PLACED ON TOP OF THE

TOP OF VALVE BOX TO BE 3" ABOVE SURROUNDING -

FINISH GRADE

18" MIN.

−6" M.J. x M.J. AWWA C−509 RESILIENT

SEAT GATE VALVE BY MUELLER CO.,

DECATUR, ILLINOIS, OR APPROVED EQ

*FIRE HYDRANT DETAIL (PROFILE)

NOT TO SCALE

GRADE EXCEPT IN TRAVELED WAYS. SLOPE GRADE

AWAY FROM THE BOX FOR A DISTANCE OF 3'-0"

RISERS IN EXCESS OF 4 FT. SHALL BE ONE -

CAST IRON VALVE BOX BASE SERIES 7000 BY

FINAL GRADE, AND FITTED WITH VALVE BOX SLIP

TYPE ADJUSTABLE RISER AND LID SERIES 6855

TYLER PIPE. RISER TO BE WITHIN 4 FT. OF

PIECE 6" D.I. PIPE WITH BELL TO REST ON

IN ALL DIRECTIONS.

THE MAIN IS INSTALLED. B. THE TRACER WIRE SHALL BE #10 - 600V SOLID COPPER WITH BLUE COLORED INSULATION BY SOUTHWIRE, OF A PROVED EQUAL
C. ANY SPLICES THAT NEED TO BE MADE SHALL BE MADE USING

-VARIABLE[.]

—M.J. DUCTILE IRON TEE,

FITTINGS WITH RETAINER

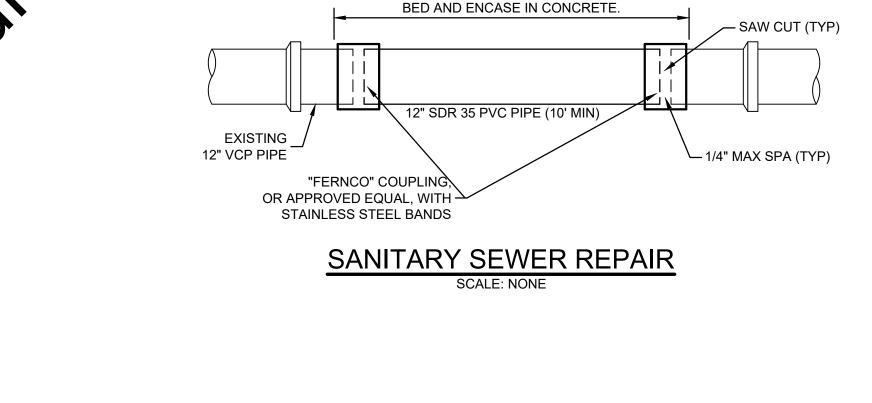
GLANDS AS REQUIRED.

WATER TIGHT WIRE NUTS AND TAPED TO INSURE A DRY AND TIGHT CONNECTION IS MAINTAINED. D. THE LOCATED LOOP SHALL BE BROUGH TO THE SURFACE BY MEANS OF A CURB BOX PLACED AT ACT VALVE AND FIRE

HYDRANT, OR PER THE DIRECTION OF THE CITY WATER WORKS THE CURB BOX SHALL BE PLACED ON A 4"X8"X16" SOLID BLOCK TO ALLOW THE TRACER WAS TO BE TURNED UP WITHOUT THE CHANCE OF DAMAGE TO WRE THERE SHALL BE A SIGNIFICANT AMOUNT OF WIRE LEFT AT EACH LOCATION SO THAT THE UTILITY LOCATER CAN, WITH EAST ATTACH LOCATE EQUIPMENT.

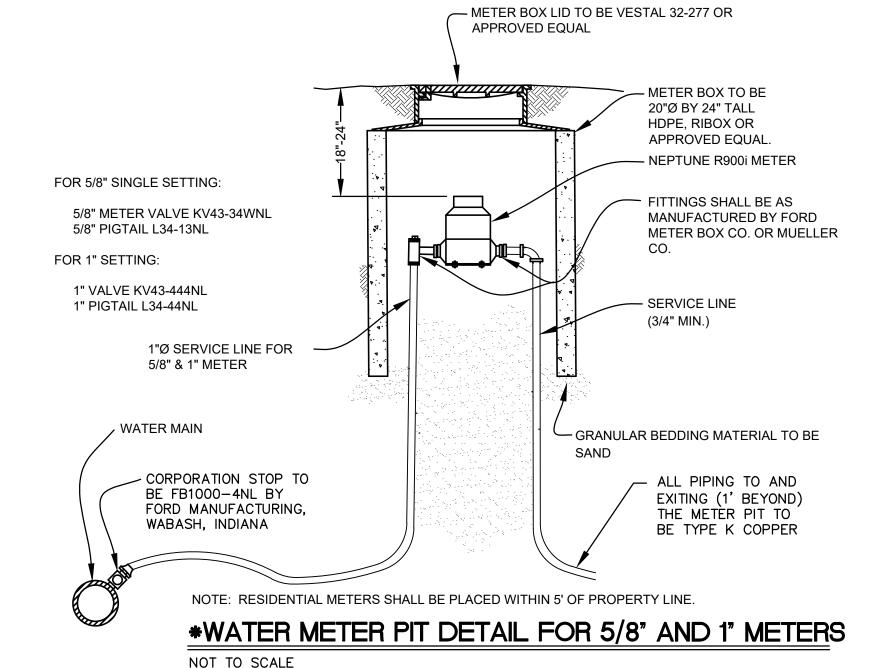
25. METER TO BE SURPLIED BY OWNER EXCEPT FOR SINGLE-FAMILY DOMESTIC USES.

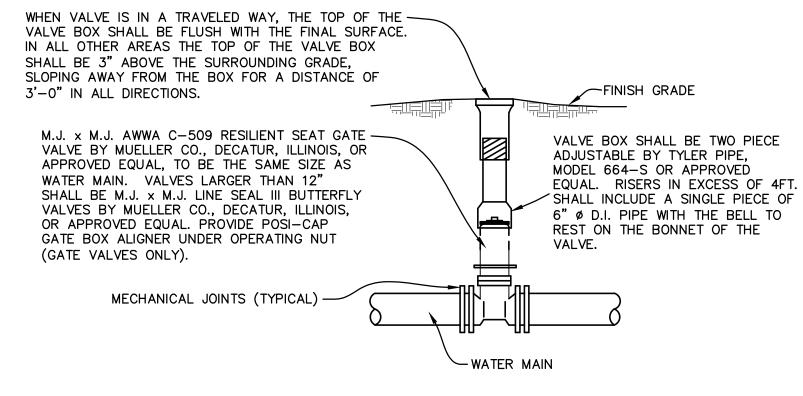
26. IN SUBDIVISION WITH PHASED CONSTRUCTION, WATER MAINS ARE TO BE TERMINATED WITH A FIRE HYDRANT AND A LINE VALVE THE SAME SIZE AS THE MAIN WHEN THE MAIN IS TO BE EXTENDED TO THE FUTURE IT OT REQUIRED AT THE TERMINATION POINT DURING THE TUTURE EXTENSION, THE FIRE HYDRANT MAY BE MOVED TO AN PUROUS LOCATION.



EXISTING VCP PIPE TO BE

REMOVED AND REPLACED.





***VALVE DETAIL**

SUPER CENTURION 200 HYDRANT BY MUELLER CO., KENNEDY GUARDIAN K-81 D. OR APPROVED EQUAL, WITH 5'-6" MINIMUM

BURY. ORIENTATION AND LOCATION PER THE CITY. ALL HYDRANTS ARE TO BE GREASED AFTER INSTALLATION. ALL

COMPLETED. ALL HYDRANTS SHALL HAVE A 3 FT. CLEAR

FOR RISERS LESS THAN 4 FT. -

BOX BY TYLER PIPE, TYLER, TEXAS

MODEL 664-S OR APPROVED EQUAL.

TWO PIECE ADJUSTABLE VALVE

MEGALUG RETAINER GLANDS

GRIP RESTRAINTS SHALL [

BETWEEN HY RANT AND FIRM

ALL FITTINGS AND JOINT

HYDRANTS SHALL REMAIN COVERED UNTIL TESTING IS

ZONE, I.E. NO OBSTRUCTIONS WITHIN 3 FT.

-TRAFFIC BREAKAWAY FLANGE.

-#8 GRAVEL DRAIN

PROVIDE 4"X8"X16"

BLOCK BASE AND W

FACE OF TIME

CAST CONCRETE BLO

DETAIL ON THIS SHEET IS AS OBTAINED FROM "CITY OF LAFAYETTE. INDIANA - TYPICAL CONSTRUCTION GUIDELINES AND DETAILS", 2019 EDITION

DATE INITIALS **REVISION DESCRIPTIONS** SCALE VERIFICATION DRAWN BY LHR CHECKED BY No. <u>★</u> 10809017 ★ BAR IS ONE INCH LONG ON APPROVED BY STATE OF STA ORIGINAL DRAWING ISSUE DATE NOVEMBER 2019 WONAL Y PROJECT NUMBER 201918-04-002

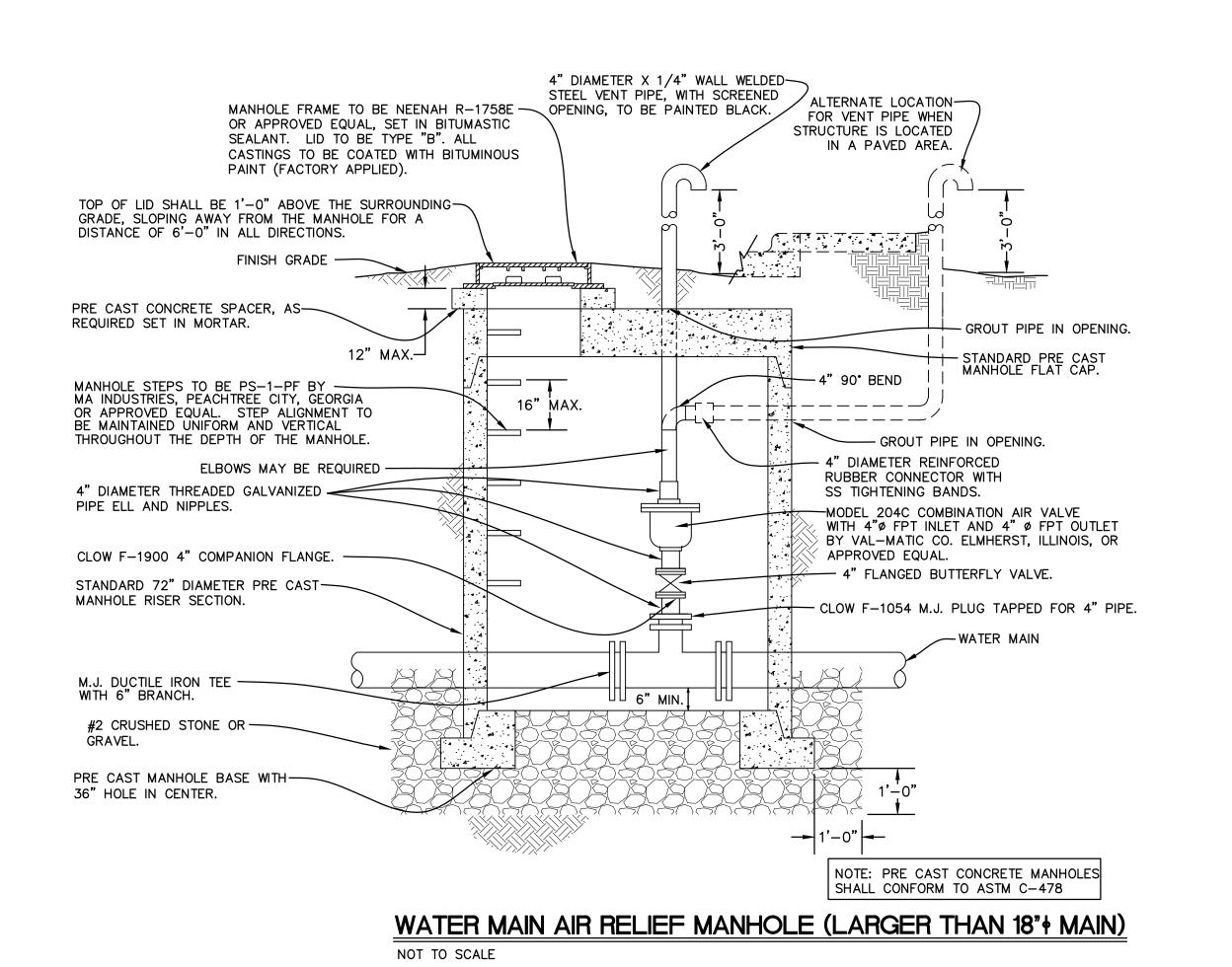
WESSLER ENGINEERING More than a Project™

CASON STREET WATER MAIN EXTENSION

LAFAYETTE WATER WORKS LAFAYETTE, INDIANA

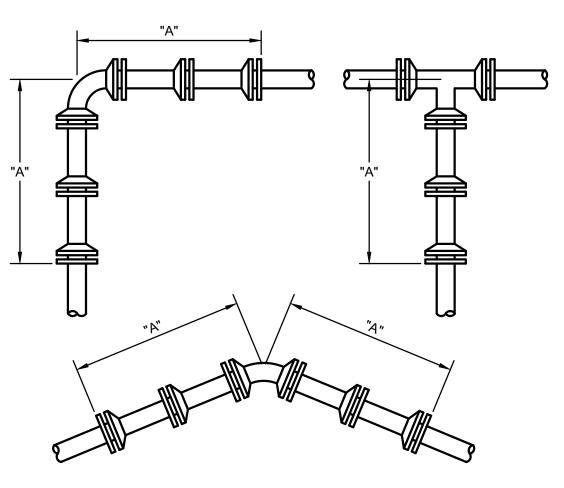
MISCELLANEOUS DETAILS

SHEET NO.



- REPLACE SURFACE IN KIND, FINISH GRADE. -STANDARD NATIVE EXCAVATED MATERIAL, FREE OF AGREC GREATER THAN 3" DIAMETER USED FOR BACKFILL EXCEPT THROUGH TRAVELED WAYS WHICH SHALL TO SURFACE. GRANULAR BACKFILL MATERY FOR INDIANA DEPARTMENT OF TRANSPORTATION STANDAR SPECIFICATIONS, LATEST EDITION. SEE PAVEMENT RESTOR TON DETAILS ON NATIVE MATERIALS MAY BE USED FOR JEDDING ON ALL MAINS UP THRU 12" DIAMETER UN ESS THE MAINS ARE UNDER PAVED AREAS WHERE THE BEDDING MATERIALS
SHALL BE GRANULAR MA ERIX. MAINS GREATER THAN 12"
DIAMETER REQUIRE CLASS & BEDDING. CLASS 1 BEDDING
SHALL BE #8 GRAVEL AGGREGATE PER THE INDIANA
DEPARTMENT OF TRANSPORTATION STANDARD
SPECIFICATIONS. LETES EDITION. PRISE SHEETS FOR PIPE DIAMETER. SANDARD NATIVE EXCAVATED MATERIAL, FREE OF AGGREGATE GREATER THÂN 2" DIAMETER. HAND PLACE TO A POINT 6" ABOVE PIPE. , SEE PLAN, PROFILE SHEETS FOR PIPE DIAMETER. SHAPE TRENCH BOTTOM TO FIT CONDUIT. BELL HOLES REQUIRED. CLASS 1 BEDDING TO SPRING LINE OF CONDUIT /MAY BE USED AS AN ALTERNATIVE TO SHAPING THE TRENCH BOTTOM ON CONDUIT 6" THRU 12" (CONTRACTOR'S OPTION) VUNDISTURBED OR STABILIZED MATERIAL. MINIMUM TRENCH WIDTH FOR FLEXIBLE CONDUIT. *STANDARD BEDDING DETAIL

FEET OF RESTRAINED PIPE @ 155 PSI ON EACH SIDE OF FITTING (SEE NOTE 1) WATER MAIN SIZE 24 INCH 30 INCH FITTING TYPE 22 1/2° 13 26 53 63 **VERTICAL BEND** 22 1/2° 33 28 57 69 137 165 REDUCERS MAIN SIZE x 24" 58 VALVE OR PLUG 137 165 137 165

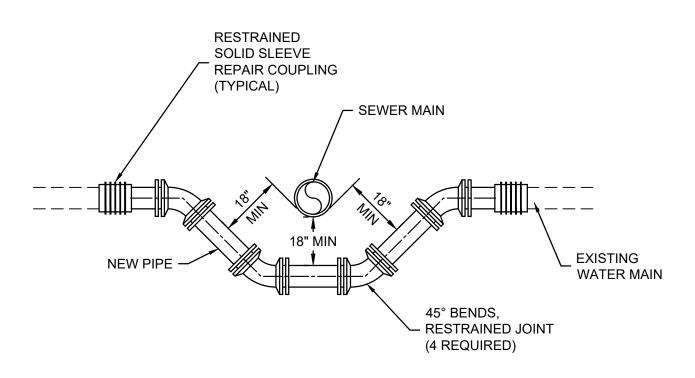


NOTES:

1. MAXIMUM OF TABLE OR 1 LENGTH OF PIPE

WATER MAIN RESTRAINED PIPING

NOT TO SCALE



WATER MAIN LOWERING
NOT TO SCALE

NOTE: THIS DETAIL TO BE USED WHEN A
MAIN, SEWER OR WATER, CROSSES WITHIN 18" OF
OF ANOTHER PIPE OR CONDUIT.

*PIPE CROSSING DETAIL

NOT TO SCALE
PIPE-X.DWG 7/2/98

WATER MAIN -

OR LESS

UNDISTURBED SOIL

SEWER PIPE SHALL BE CONCRETE ENCASED

EXTENDING 10' IN ALL DIRECTIONS FROM CROSSING.

OTE:

* DETAIL ON THIS SHEET IS AS OBTAINED FROM "CITY OF LAFAYETTE, INDIANA - TYPICAL CONSTRUCTION GUIDELINES AND DETAILS", 2017 EDITION

SCALE VERIFICATION DRAWN BY JRW NO. DATE INITIALS REVISION DESCRIPTIONS

CHECKED BY LHR

APPROVED BY ADG

ISSUE DATE

NOVEMBER 2019

PROJECT NUMBER

201918-04-002

WESSLER
ENGINEERING

More than a Project™

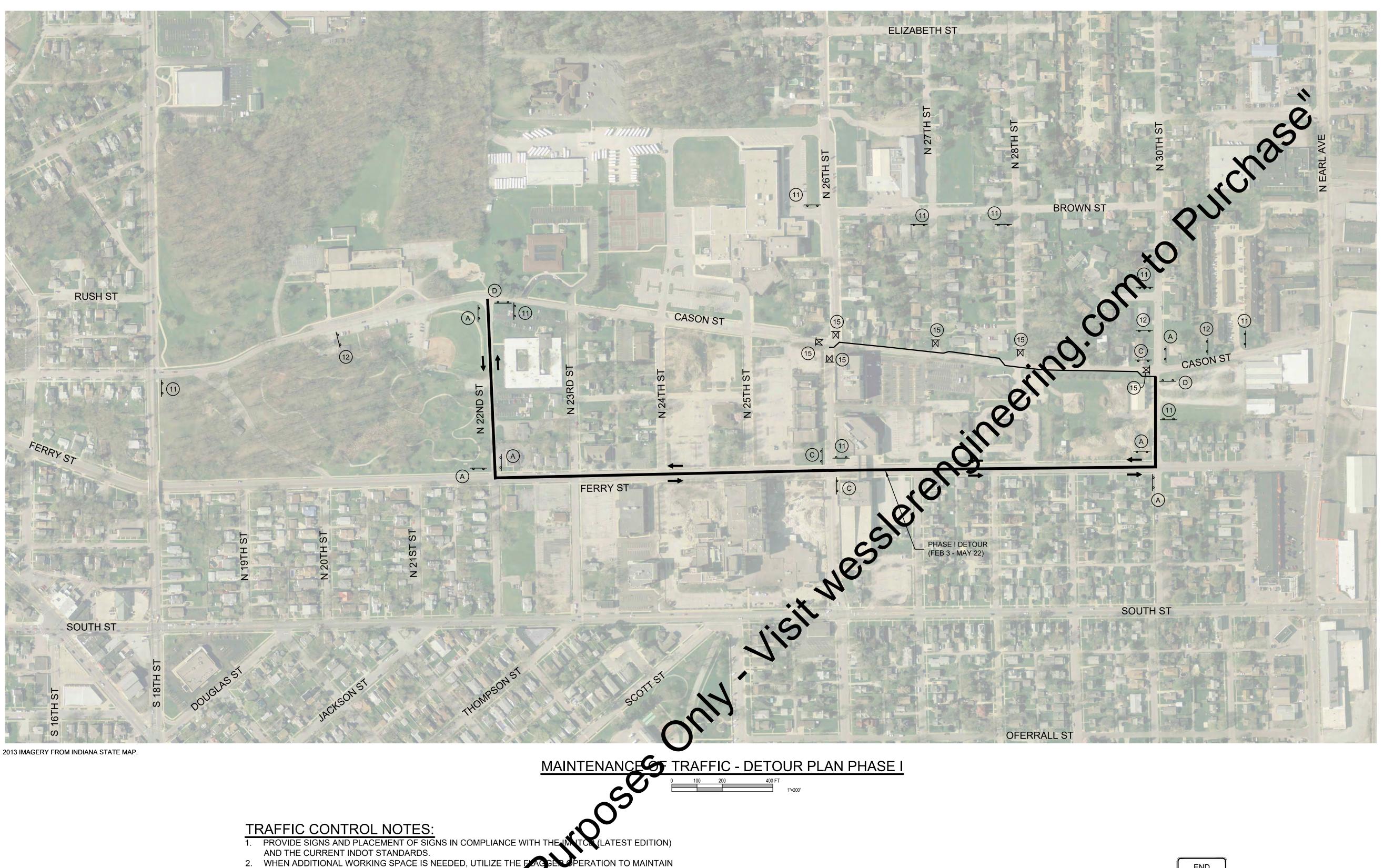
CASON STREET WATER MAIN EXTENSION

LAFAYETTE WATER WORKS LAFAYETTE, INDIANA

MISCELLANEOUS DETAILS

SHEET NO.

18





——— CONSTRUCTION AREA - ROAD CLOSURE

DETOUR PHASE I

(11) "ROAD CLOSED AHEAD" (W20-3)

(12) "DETOUR(WITH DISTANCE)" (W20-2)

ROAD CLOSURE SIGN ASSEMBLY, INCLUDES R11-2, BARRICADE TYPE III B, AND TYPE B CONSTRUCTION WARNING LIGHT

WORK AREA(S)

* TYPE A CONSTRUCTION WARNING LIGHT

"ROAD WORK AHEAD" (W20-1) OR "UTILITY WORK AHEAD" (W21-7)

"ONE LANE ROAD AHEAD" (W20-4)

3 FLAGGER SIGN (W20-7)

"END ROAD WORK" (G20-2)

• TRAFFIC CONTROL DRUM

→ TRAFFIC FLOW DIRECTION

FLAGGER

SIGN, FACING LEFT

SIGN, FACING RIGHT

TRAFFIC CONTROL LEGEND

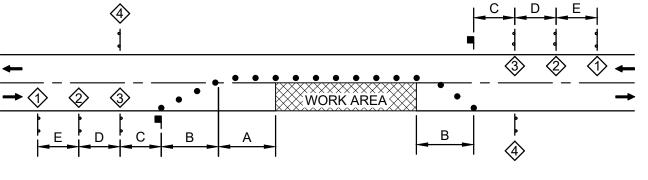
SPEED	DISTANCE (FEET)						
(MPH)	А	В	С	D	E		
20 OR LESS	120	100	100	100	100		
25	160	100	100	100	100		
30	200	100	100	100	100		
35	280	100	350	350	350		
40	320	100	350	350	350		
45	360	100	500	500	500		
50	440	100	500	500	500		
55	520	100	500	500	500		
60	600	100	1,000	1,600	2,640		
65	680	100	1,000	1,600	2,640		
70	760	100	1,000	1,600	2,640		

NOTES:

1. DISTANCES SHOWN ARE APPROXIMATE. ADJUST SIGN FOR CURVES HILLS, INTERSECTIONS, DRIVEWAYS, ETC TO IMPROVE SIGN VISIBILITY

2. THE SPACING OF CHANNELIZING DEVICES SHOULD BE A DISTANCE IN CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH USED FOR TANGENT CHANNELIZATION.

ADVANCE WARNING SIGN AND FLAGGER OPERATION SPACING



TEMPORARY FLAGGER OPERATION

3. COVER SIGNS, AS APPROPRIATE, WHEN WORK IS NOT IN PROGRI PAVĚMENT, DRIVES, CURBS AND

- 5. BACKFILL EXCAVATIONS IN THE PAVEMENT AREAS DALY), ND TEMPORARILY COVER ANY
- OPENINGS WITH STEEL PLATES UNTIL PAVEMENT IS REPLACED.

 6. DO NOT CLOSE TWO ADJACENT CROSS STREETS OR INTERSECTIONS AT THE SAME TIME.

 7. RECOMMENDED DETOUR ROUTE FOR CASON STREET IS; 22ND STREET, FERRY STREET, 30TH

- 10. COORDINATE CLOSURES WITH ALL EMERGENCY AGENCIES AND SCHOOL DISTRICTS. EL CONSTRUCTION SIGNS (TYPE B) FOR SIDEWALK CLOSURES AND PEDESTRIAN ROUTING.

11							
SCALE VERIFICATION	DRAWN BY	JRW	NO.	DATE	INITIALS	REVISION DESCRIPTIONS	D. GO
	CHECKED BY	LHR					No.
BAR IS ONE INCH LONG ON ORIGINAL DRAWING	APPROVED BY	ADG					10809017
ONGINAL DIVAVING	ISSU	JE DATE]—				STATE OF
	NOVEM	BER 2019					SONAL ENGINE
	PROJEC	CT NUMBER	1				
	201918	3-04-002					Anshew D. Godon



DETOUR

CASON STREET

DETOUR

CASON STREET

B RMA-3R (L) OR (R)

CASON STREET WATER MAIN EXTENSION

LAFAYETTE WATER WORKS LAFAYETTE, INDIANA

DETOUR

CASON STREET

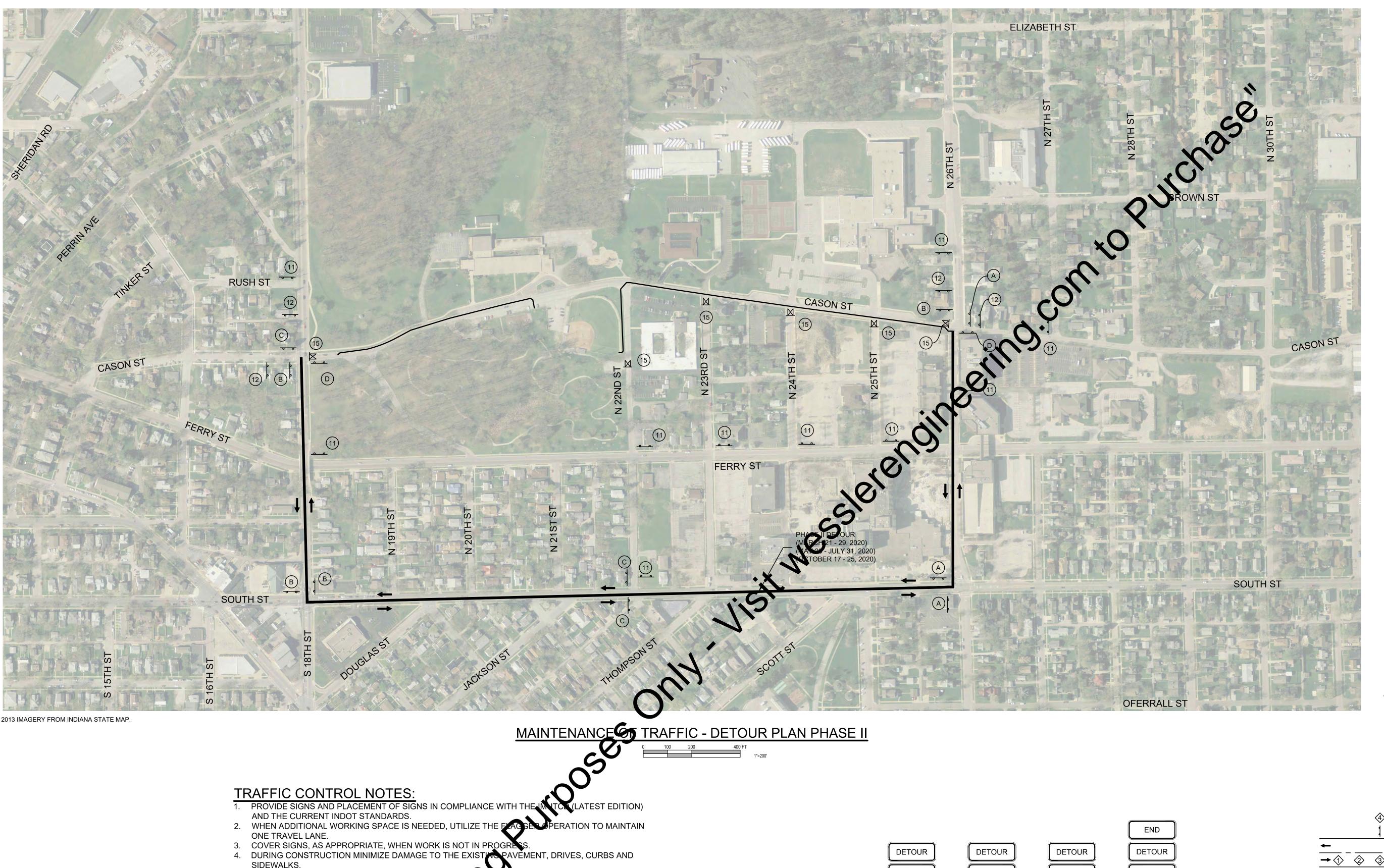
DETOUR

CASON STREET

TOTAL SHEETS

MAINTENANCE OF TRAFFIC - DETOUR PLAN PHASE I

SHEET NO.





——— CONSTRUCTION AREA - ROAD CLOSURE

DETOUR PHASE II

- (11) "ROAD CLOSED AHEAD" (W20-3)
- (12) "DETOUR(WITH DISTANCE)" (W20-2)
- ROAD CLOSURE SIGN ASSEMBLY, INCLUDES R11-2, BARRICADE TYPE III B, AND TYPE B CONSTRUCTION WARNING LIGHT

"ROAD WORK AHEAD" (W20-1) OR "UTILITY WORK AHEAD" (W21-7)

- WORK AREA(S)
- * TYPE A CONSTRUCTION WARNING LIGHT
- ONE LANE ROAD AHEAD" (W20-4)
- 3 FLAGGER SIGN (W20-7)
- "END ROAD WORK" (G20-2)
- TRAFFIC CONTROL DRUM
- → TRAFFIC FLOW DIRECTION
- **FLAGGER**
- SIGN, FACING LEFT
- SIGN, FACING RIGHT

TRAFFIC CONTROL LEGEND

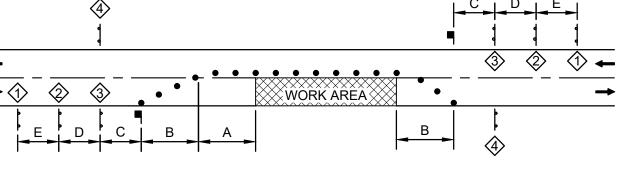
SPEED	DISTANCE (FEET)						
(MPH)	А	В	С	D	E		
20 OR LESS	120	100	100	100	100		
25	160	100	100	100	100		
30	200	100	100	100	100		
35	280	100	350	350	350		
40	320	100	350	350	350		
45	360	100	500	500	500		
50	440	100	500	500	500		
55	520	100	500	500	500		
60	600	100	1,000	1,600	2,640		
65	680	100	1,000	1,600	2,640		
70	760	100	1,000	1,600	2,640		

NOTES:

1. DISTANCES SHOWN ARE APPROXIMATE. ADJUST SIGN FOR CURVES, HILLS, INTERSECTIONS, DRIVEWAYS, ETC TO IMPROVE SIGN VISIBILITY

2. THE SPACING OF CHANNELIZING DEVICES SHOULD BE A DISTANCE IN FEET EQUAL TO THE SPEED LIMIT IN MPH WHEN USED FOR TAPER CHANNELIZATION, AND A DISTANCE IN FEET EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH USED FOR TANGENT CHANNELIZATION.

ADVANCE WARNING SIGN AND FLAGGER OPERATION SPACING



TEMPORARY FLAGGER OPERATION

5. BACKFILL EXCAVATIONS IN THE PAVEMENT AREAS DALY) ND TEMPORARILY COVER ANY

OPENINGS WITH STEEL PLATES UNTIL PAVEMENT IS REPLACED.

6. DO NOT CLOSE TWO ADJACENT CROSS STREETS OR INTERSECTIONS AT THE SAME TIME.

7. RECOMMENDED DETOUR ROUTE FOR CASON STREET IS; 22ND STREET, FERRY STREET, 30TH

STREET.

8. SUBMIT A DETAILED DETOUR ROUTE PLAN AND IMELINE FOR APPROVAL 2 WEEKS PRIOR TO ANY

10. COORDINATE CLOSURES WITH ALL EMERGENCY AGENCIES AND SCHOOL DISTRICTS. 11. PROVIDE UP TO 50 UNDISTRIPONED CONSTRUCTION SIGNS (TYPE B) FOR SIDEWALK CLOSURES AND PEDESTRIAN ROUTING.

LHR

ISSUE DATE

NOVEMBER 2019

PROJECT NUMBER

201918-04-002

DRAWN BY

CHECKED BY

APPROVED BY

DATE

REVISION DESCRIPTIONS



CASON STREET

(A) RMA-2R

CASON STREET

CASON STREET

D RMA-5 (L) OR (R)

CASON STREET

(B) RMA-3R

CASON STREET WATER MAIN EXTENSION

LAFAYETTE WATER WORKS LAFAYETTE, INDIANA

TOTAL SHEETS

SHEET NO.

MAINTENANCE OF TRAFFIC - DETOUR PLAN PHASE II

BAR IS ONE INCH LONG ON ORIGINAL DRAWING

SCALE VERIFICATION